ABOUT THIS ISSUE

This first 1978 issue of COMPUTER REVIEW introduces 75 central processors not previously listed, 63 domestic and 12 foreign. Nine new companies manufacturing computers have been added, and machines which are no longer manufactured and marketed have been deleted.

The new companies appearing in this Edition which manufacture computers are Basic Timesharing, Business Systems Products, Foxboro, General Computer, Itel, Scan-Data, Sfena, Spectrum 8 and Sycor. Philips Electric will henceforth be listed as Philips Data Systems and Entrex which has been acquired by Nixdorf Computer had its equipment relisted under the new name.

This is the second year the COMPUTER REVIEW, which lists central processors and systems generally costing over $50,000., has been generated from GML's exclusive computerized EDP equipment data base. Our subscribers will be pleased to note that as a result of computerization material presented in these pages reflects the booming worldwide computer industry in its most current state.

Supplements during the year will extend coverage in the COMPUTER REVIEW to include detailed specifications and prices of peripherals, manufacturers company financial profiles, and a review of about 150 of the worlds most popular operating systems.
COMPUTER REVIEW

1978

COMPUTER REVIEW, compiled and published by GML Corporation, lists the salient features of virtually all digital computers and related peripheral devices commercially available. New equipment updates and price changes are issued three times a year and inserted alphabetically by manufacturer.

Volume 18, No. 1

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CONTENTS

Using the COMPUTER REVIEW .............................................. 5

COMPUTERS ................................................................. 7
   Explanation of Categories ............................................. 9
   Index .......................................................................... 17
   Model Summaries ......................................................... 27

Appendix A — PERIPHERALS ............................................. A1
   Disk & Drum Storage ................................................... A3
   Magnetic Tape ........................................................... A43
   Line Printers ............................................................... A77
   Card Equipment ......................................................... A105

Appendix B — SOFTWARE OPERATING SYSTEMS ............... B1
   Explanation of Categories ............................................. B3
   Operating Systems Summaries ....................................... B5

Appendix C — DIRECTORY OF MANUFACTURERS ............... C1
USING THE COMPUTER REVIEW

The COMPUTER REVIEW is divided into three self-contained sections which are cross-referenced alphabetically by company for in-depth analysis requirements and for quick reference to specific data.

SECTION I: COMPUTERS includes
— an INDEX of the computers appearing in the COMPUTER REVIEW
— an EXPLANATION OF CATEGORIES listing definitions of the terms used to describe each computer in each model summary
— and the MODEL SUMMARIES, each summary being devoted to a full page of equipment coverage, prices and marketing information.

SECTION II: PERIPHERALS, which are organized into four device types.
DISK & DRUM STORAGE
MAGNETIC TAPE EQUIPMENT
LINE PRINTERS
and CARD EQUIPMENT
— Each division is preceded by an EXPLANATION OF COLUMN HEADINGS.

SECTION III: SOFTWARE OPERATING SYSTEMS, which are preceded by an EXPLANATION OF CATEGORIES.

A DIRECTORY OF MANUFACTURERS lists the addresses and telephone numbers of the headquarters of all computer manufacturers included in the COMPUTER REVIEW.
COMPUTERS

Explanation of Categories

GLOSSARY OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Central Processing Unit</td>
</tr>
<tr>
<td>CRT</td>
<td>Cathode Ray Tube</td>
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<tr>
<td>DMA</td>
<td>Direct Memory Access</td>
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<tr>
<td>I/O</td>
<td>Input/Output</td>
</tr>
<tr>
<td>LSI</td>
<td>Large Scale Integration</td>
</tr>
<tr>
<td>MOS</td>
<td>Metal Oxide Semiconductor</td>
</tr>
<tr>
<td>MOSFET</td>
<td>Metal Oxide Semiconductor</td>
</tr>
<tr>
<td>OS</td>
<td>Operating System</td>
</tr>
<tr>
<td>PROM</td>
<td>Programmable Read Only Memory</td>
</tr>
<tr>
<td>RAM</td>
<td>Random Access Memory</td>
</tr>
<tr>
<td>RJE</td>
<td>Remote Job Entry</td>
</tr>
<tr>
<td>ROM</td>
<td>Read Only Memory</td>
</tr>
<tr>
<td>VDT</td>
<td>Video Display Terminal</td>
</tr>
</tbody>
</table>

APPLICATIONS

Computers are used in the following market:

**Business/Commercial**
Applications such as file processing, inventory, control, orders and sales, customer-credit reports, and accounting.

**Communications Processor**
On-line, real time applications. Standard hardware includes a 16-line (or more) communications multiplexor with interfaces from the manufacturer.

**Industrial Process Control**
Typical areas include environmental control, pilot plants, chemical processes, and petroleum refining. Analog-to-digital, or digital-to-analog converter line interfaces are standard.

**Laboratory/Scientific**
Non-business applications related to scientific or research problem solving.

**Engineering/Computation**
Design and simulation applications such as highway or structural/mechanical design, or circuit analysis. The configuration will typified by a high computation speed, floating point arithmetic, and extensive mathematical/computational subroutine packages.
Education  
Includes Computer Aided Instruction or small special purpose time-sharing systems with BASIC or APL. General equipment configuration will include a central processor, disk storage, and four to eight typewriter or CRT terminals.

Banking  
Applications range from bank accounting functions in local branches to the more sophisticated electronic funds transfer, credit verification, and message switching. In this application the equipment is used either in a stand alone or pre-processing configuration.

Data Entry  
The transcription of data from manual business (or scientific) forms for input to a large processor system. Typical configurations will consist of 4 to 16 alphanumeric CRTs locally connected to a minicomputer that edits, formats, and batches data, and stores it on tape or disk for subsequent processing.

FEATURES

The terms used to describe outstanding features of each minicomputer are:

Upward Compatible  
The availability of program-compatible computers from the same manufacturer, larger or more powerful than the model described.

Field Service  
The availability of field maintenance.

Applications Software  
The availability of standard software packages for specific applications.

Conversational Languages  
The availability of languages which allow conversational interaction between the user and computer.

User Micro-programmable  
Standard hardware which allows the user to alter the instruction set by programming the elementary (micro) machine commands.

Factory Micro-programmable  
The option for the vendor to alter the instruction set by programming the elementary (micro) machine commands.

Virtual Memory  
Hardware and software which allows automatic control of address specifications beyond the physical main memory capacity.

Multiprocessor  
The availability of hardware which allows two or more processors to share common memory modules.
COMPUTER

The terms used to describe hardware features of each computer are:

**Word Size**
The number of binary digits (bits) which comprise the basic memory unit.

**Memory**
The minimum and maximum memory capacity in words.

**Cycle Time**
The time to read (and restore) a single word in memory.

**Add Time**
The minimum execution time for a binary add instruction excluding register-to-register operations. Add time given is for the number of bits per word unless otherwise specified.

**Cache Memory**
A staged memory that can be cycled at a significantly higher rate than the primary computer memory. By transferring blocks of data from main memory to cache memory, processor throughput can be optimized.

**Instructions**
The availability as standard or options of the following hardware instructions:

- **Byte Manipulation**
  The ability to process and list characters as one unit.

- **Decimal Arithmetic**

- **Extended Precision**
  Arithmetic operations on operands two or more word sizes in length.

- **Floating point**
  Arithmetic operation on operands with variable (floating) binary point.

- **Indirect Addressing**
  Specifies a memory location which contains the address of the operand location.

- **Multiply & Divide**
  Hardware instruction for multiplication and division operands.

- **Stack Processing**
  Ability through machine instructions to access sequentially nested data.

**Accumulators**
The number of hardware registers available for arithmetic operations.

**Index Registers**
The number of registers available for address modification.

**I/O Communications**
The availability as standard or optional of:

- **Asynchronous**
  Interfaces for asynchronous (character by character) line transmission.
| **Bisynchronous** | Interfaces for data transmission by block message using IBM binary synchronous communications discipline. |
| **Direct Memory Access** | The transfer into and out of the computer memory, by-passing the processor. |
| **Multiport Memory** | Memory modules with multiple access paths, the first of which is to the central processor. |
| **Selectable Line Speeds** | Interfaces for asynchronous or synchronous transmission of rates which are jumper, switch, or program-selectable. |
| **Autodial** | Interfaces which allow automatic operation of terminals under computer activated control. |
| **I/O Transfer Rate** | The maximum transfer rate of data to the computer, in characters per second. |
| **Processor Features** | The availability as standard or optional of the following processor features: |
| **Base Address Relocation** | The ability to relocate programs in memory through use of a base address register. |
| **Real-Time Clock** | A hardware register which increments at a fixed rate. |
| **Dynamic Page Relocation** | The automatic control of address specifications for mapping of program segments into variable areas of memory. |
| **Memory Parity Detect** | A method of adding parity check bits to every word written in memory, which detect single bit errors but cannot correct them. |
| **Power Fail Safe** | Hardware or software which provides automatic restart of programs following a power failure. |
| **Memory Parity Correct** | A method of adding check bits to each word (e.g. 5 check bits to each 16-bit word) which locate inaccurate words, correct them, and write them back into memory while sending the corrected versions to the CPU. |
| **Memory Protection** | The ability to restrict, under program control, use of portions of memory by programs or data transfers. |
| **Interrupt** | Internal or external signal causing the temporary suspension of normal program execution in order that the cause of the interrupt by handled. |
| **Priority Interrupt** | Includes ordering facilities which ensure that the CPU is always attending to the most important task. |
| **Vectored Interrupt** | A vectored interrupt structure allows the CPU to react with a specific interrupt routine to incoming requests. |
| **Interface Slots** | The number of physical I/O slots enabling transfer of data between the processor and a peripheral subsystem. |
PERIPHERALS

The availability from the computer manufacturer as standard product offerings of the peripheral equipment listed below is indicated by model numbers (#), technical specifications, or yes/no.

Removable Disk
Capacity noted in megabytes (MB).

Fixed Head Disk
Capacity noted in megabytes (MB).

Flexible Diskette
Capacity noted in kilobytes (KB).

Magnetic Tape
Transfer rate noted in milliseconds (ms) or microseconds (usec); Speed in inches-per-second (ips).

Tape Cassette
Transfer rate noted in milliseconds (ms) or microseconds (usec); Speed in inches-per-second (ips).

Line Printer
Speed noted in lines-per-minute (lpm).

Serial Printer
Speed noted in characters-per-second (cps).

Card Reader or Punch
Speed noted in cards-per-minute (cpm).

Paper Tape Reader or Punch
Speed noted in characters-per-second (cpm).

Display Terminal
Characters-per-screen (cps) noted.

Multiplexor
Type noted — Asynchronous, Synchronous, Analog to Digital (A-D), or Digital to Analog (D-A) converter lines.

Terminals per System
The number of interactive I/O devices which may be interfaced to the system.

SYSTEMS SOFTWARE

Availability of the following assemblers and operating systems is indicated by an asterisk (*). Core memory requirements are noted.

Assembler
Allows programming of the machine instruction set using mnemonic symbols (2K to 4K memory and teletypewriter are required).

Macro Assembler
Generates user-defined mnemonic codes for operations on multiple operands. Provides a medium between assembly language programming and higher level language programming (4K to 8K memory and teletypewriter are required).
Disk Monitor
An operating system that has an interrupt capacity to schedule and execute program files, and to reference and use data from either main memory or disk (8K to 32K memory required).

Real Time Monitor
An operating system driven by or scheduled to non-sequential external events. (8K to 24K memory, teletypewriter, and mass storage are required).

Time Sharing Monitor
An executive which provides control for the concurrent use of the CPU by a number of users from remote terminals on a time-slicing basis. (12K to 24K memory, mass storage, remote terminals, and output devices, such as a printer, are required).

Batch Monitor
An executive for sequential job operations, or "job streams", (8K to 16K memory, teletypewriter, and I/O devices such as card readers and printers are required).

Data Base System
An interface programming system between applications programs and an operating system, to allow the user to reference and manipulate structured data files. (Generally 16K or more memory and disk storage of millions to hundreds of millions characters are required. Amount of disk storage depends on size of data base files).

SOFTWARE LANGUAGES

Availability of the following compilers and interpreters is indicated by an asterisk (*). Core memory requirements are noted.

APL
A programming Language; A less extensive version of PL/I (16K memory is required).

ALGOL
ALGOrithmic Language; A powerful scientific application language widely used in Europe (8K memory and teletypewriter are required).

BASIC
Beginners All-purpose Symbolic Instruction Code; A simple English-like programming language that is well suited for time sharing (4K memory and teletypewriter are required).

COBOL
Common Business Oriented Language; A specific language by which commercial data processing may be described in a standard form. Not widely supported on small computers (8K memory and teletypewriter are usually required).

FORTRAN
FORmula TRANslator; The most widely known and used programming language for small computers. Scientifically-oriented but useful for business programming as well (4K to 12K memory and typewriter are usually required).
<table>
<thead>
<tr>
<th>PL/1</th>
<th>Programming Language-1; A powerful scientific and business applications language which combines each of higher-level language programming with the control of computer operations generally associated with assembly languages (8K to 16K memory and teletypewriter are required).</th>
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<tbody>
<tr>
<td>RPG</td>
<td>Programming system for generating reports in pre-specified formats. (4K to 8K memory and teletypewriter are usually required).</td>
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**PRICES**

Prices are given for the following:

- **Basic Computer**
  - Central processor with minimum memory.

- **Add-On Memory**
  - The smallest-standard increment of additional memory.

- **Basic System**
  - A minimum configuration, including the basic CPU, power supply, and appropriate peripherals with controllers and interfaces.

**MARKETING**

- **Main Market**
  - Original equipment manufacturers (OEM) who incorporate computers into their own equipment, or end users who either use available peripherals, software, and manufacturer support for specific applications or purchase turnkey systems.

- **Units Sold**
  - Number of units sold as of a certain date.

- **Maintenance**
  - **Customer**
    - Unit covered by warranty only.
  - **Depot**
    - Unit returned to a manufacturer-specified service facility.
  - **Factory**
    - Unit returned to the factory for maintenance.
  - **On Call**
    - Maintenance will be performed at the user's site.
INDEX
<table>
<thead>
<tr>
<th>Company</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMDahl</td>
<td>28</td>
</tr>
<tr>
<td>470V/6</td>
<td></td>
</tr>
<tr>
<td>470V/6-2</td>
<td></td>
</tr>
<tr>
<td>Artronix</td>
<td>30</td>
</tr>
<tr>
<td>PC-12/770</td>
<td></td>
</tr>
<tr>
<td>PC-12/790</td>
<td></td>
</tr>
<tr>
<td>Basic/Four</td>
<td>32</td>
</tr>
<tr>
<td>600</td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Basic Timesharing</td>
<td>34</td>
</tr>
<tr>
<td>4900/25</td>
<td></td>
</tr>
<tr>
<td>Burroughs</td>
<td>35</td>
</tr>
<tr>
<td>B711</td>
<td></td>
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<tr>
<td>B721</td>
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<td>B730</td>
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<td>B1720-1</td>
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<td>B6817</td>
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<td>B6821</td>
<td></td>
</tr>
<tr>
<td>B7755</td>
<td></td>
</tr>
</tbody>
</table>
BURROUGHS (continued)
B7765
B7775
B7785
B7811
B7821
BUSINESS SYSTEMS PRODUCTS ........................................ 85
ADVISER III
COLLINS RADIO ......................................................... 86
C8562
COMPUTER COMMUNICATIONS ......................................... 87
CC-80
COMTEK ................................................................. 88
476
3670-II
CONTROL DATA .......................................................... 90
CYBER 18-30
CYBER 71
CYBER 76
CYBER 171
CYBER 172
CYBER 173
CYBER 174
CYBER 175
OMEGA 480-I
OMEGA 480-II
2552-1
3174-1
3174-2
3174-3
3174-4
3300
3514-1
3514-2
3514-3
3514-4
DATA GENERAL .......................................................... 110
CS/40, C-5
DATAPoint ............................................................... 111
4543
DATASAAB ............................................................... 112
SAAB-SCANIA, DATASAAB DIVISION
D23
D223
DIGITAL ................................................................. 114
DATASYSTEM 535
DATASYSTEM 540
DATASYSTEM 550
DATASYSTEM 560
DATASYSTEM 570
DECSYSTEM 20
DECSYSTEM 1040
DECSYSTEM 1060
DECSYSTEM 1080
DECSYSTEM 1088
DECSYSTEM 2040
DIGITAL (continued)
ES570/W
PDP-11/55
PDP-11/70
VAX-11/780

ENTREX ............................................................ 281
(See NIXDORF COMPUTER)

FOUR-PHASE SYSTEMS ............................................ 129
IV/70
IV/90

FOXBORO ............................................................ 131
FOX 1

FUJITSU ............................................................ 132
FACOM M-130
FACOM M-140
FACOM M-160
FACOM M-160S
FACOM M-180 II
FACOM M-190
FACOM 230/25
FACOM 230/28
FACOM 230/28S
FACOM 230/35
FACOM 230/38
FACOM 230/38S
FACOM 230/4SS
FACOM 230/48
FACOM 230/55
FACOM 230/58
FACOM 230/60
FACOM 230/75
PANAFACOM U-400

GEC COMPUTERS .................................................. 151
GEC 4070
GEC 4080
GEC 4082

GENERAL COMPUTER ............................................. 154
GSC 2100

HARRIS ............................................................. 155
SLASH 7
110
115
120
125
130
135
140
150
210
220
230
240

HEWLETT-PACKARD ............................................... 168
2000/30
2000/40
3000 II-5
3000 II-6
HEWLETT-PACKARD (continued)
  3000 II-7
  3000 II-8
  3000 II-9

HITACHI ........................................... 175
  HITAC M150
  HITAC M160-II
  HITAC M170
  HITAC M180
  HITAC 8150
  HITAC 8250
  HITAC 8350
  HITAC 8450
  HITAC 8700
  HITAC 8800

HONEYWELL INFORMATION SYSTEMS ................. 185
  DATANET 305
  DATANET 355
  DATANET 6600
  SERIES 200/1200
  615
  62/40
  62/60
  64/20
  64/30
  64/40
  64/60
  66/05
  66/10
  66/20
  66/40
  66/60
  66/80
  66/85
  68/60
  68/80
  2020
  2030
  2040
  2050
  2060
  2070
  6025
  6030
  6040
  6050
  6060
  6070
  6080
  6180

IBM ..................................................... 219
  INTERNATIONAL BUSINESS MACHINES
  3/12
  3/15
  360/22
  360/25
  360/30
  360/40
  360/50
  360/65
  360/67
IBM (continued)
360/75
360/195
370/115
370/125
370/135
370/138
370/145
370/148
370/155
370/158
370/165
370/168
370/195
3031
3032
3033

ICL ................................................................................. 244
INTERNATIONAL COMPUTERS LIMITED
4/72
1904S
1906S

INFOREX ................................................................. 247
7110

INTERDATA ................................................................. 248
8/32 MEGAMINI

ITEL ................................................................. 249
AS/4
AS/5-1
AS/5-3

NANODATA ................................................................. 252
QN-1

NCR ................................................................. 253
NATIONAL CASH REGISTER
CENTURY 50
CENTURY 75
CENTURY 100
CENTURY 101
CENTURY 151
CENTURY 200
CENTURY 201
CENTURY 251
CENTURY 300
CRITERION 8450
CRITERION 8550
CRITERION 8560
CRITERION 8570
M-8350
V-8580
V-8590

NIPPON ELECTRIC ................................................................. 269
NEC SYSTEM 100F
NEC SYSTEM 100G
NEC SYSTEM 100H
NEC SYSTEM 100J
NEC SYSTEM 200
NEC SYSTEM 300
NEC SYSTEM 400
NEC SYSTEM 500
NEC SYSTEM 600
NEC SYSTEM 700
NEC SYSTEM 800
NEC SYSTEM 900
<table>
<thead>
<tr>
<th>Company</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIXDORF COMPUTER</td>
<td>281</td>
</tr>
<tr>
<td>600/50</td>
<td></td>
</tr>
<tr>
<td>NORSK DATA-ELFC</td>
<td>282</td>
</tr>
<tr>
<td>NORD-10/S</td>
<td></td>
</tr>
<tr>
<td>PHILIPS DATA SYSTEMS</td>
<td>283</td>
</tr>
<tr>
<td>P1175</td>
<td></td>
</tr>
<tr>
<td>PRIME COMPUTER</td>
<td>284</td>
</tr>
<tr>
<td>P400</td>
<td></td>
</tr>
<tr>
<td>P500</td>
<td></td>
</tr>
<tr>
<td>T/3</td>
<td></td>
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<tr>
<td>T/4</td>
<td></td>
</tr>
<tr>
<td>T/5</td>
<td></td>
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<tr>
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</tr>
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<tr>
<td>STC SYSTEMS</td>
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<td>SYCOR</td>
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<td>SYSTEMS ENG LABS</td>
<td>311</td>
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<tr>
<td>AEG-TELEFUNKEN</td>
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UNIVAC (continued)

90/25
90/30
90/30B
90/60
90/70
90/80
90/80-2
90/80-3
1100/10
1100/20
1100/40
1100/80
1100/81
1100/82
1100/83
1100/84
1106
1108
1110
9480

XEROX .................................................. 337

550
560
SIGMA 8
SIGMA 9
MODEL SUMMARIES
INTRODUCED IN 1975, THE AMDAL 470V/6 IS A LARGE-SCALE CENTRAL PROCESSOR WITH DIAGNOSTIC CONSOLE DESIGNED TO BE COMPATIBLE WITH IBM SYSTEM/370 SOFTWARE AND IBM PERIPHERALS. IT IS USED FOR BUSINESS AND SCIENTIFIC APPLICATIONS AND FEATURES VIRTUAL STORAGE, A CYCLE TIME OF 32 NANoseconds, PRIORITY INTERRUPTS, MEMORY PROTECTION AND FLOATING POINT HARDWARE. BISYNCHRONOUS I/O COMMUNICATIONS REQUIRE ATTACHMENT OF A COMMUNICATIONS CONTROLLER AND MODEMS. THIS SYSTEM WAS DESIGNED TO COMPETE FAVORABLY WITH MEDIUM TO LARGE IBM 370 SYSTEMS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td><strong>UPWARD COMPATIBLE</strong></td>
</tr>
<tr>
<td>COMMUNICATIONS/PROCESSOR</td>
<td><strong>FIELD SERVICE</strong></td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td><strong>APPLICATION SOFTWARE</strong></td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td><strong>CONVERSATIONAL LANGUAGES</strong></td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
</tr>
<tr>
<td>MEMORY: 256 TO 2048K</td>
</tr>
<tr>
<td>CYCLE TIME: .0325 USEC</td>
</tr>
<tr>
<td>ADD TIME: .06 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB, 33NS</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 179</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): B,DEFM,ACCU</td>
</tr>
<tr>
<td>ACU: 20</td>
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<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): B/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 14MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDEMEK/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
<td>ALGOL</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>REAL TIME MONITOR</td>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>I/O MONITOR</td>
<td>COBOL</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>FORTRAN</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
<td>PL1</td>
</tr>
<tr>
<td>OTHER: IBM SYSTEMS SOFTWARE</td>
<td>RPG</td>
</tr>
<tr>
<td>OTHER: IBM SOFTWARE LANGS.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $N/A</td>
</tr>
<tr>
<td>MEMORY: $300000, 1000K</td>
</tr>
<tr>
<td>SYSTEM: $3850000, 1000K</td>
</tr>
<tr>
<td>INCLUDES 1MB CPU; 16K HIGH SPEED BUFFER; 16 CHANNELS; CONSOLE AND POWER DISTRIBUTION UNIT.</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE ANDAHL 470V/6-2 IS A LARGE-SCALE CENTRAL PROCESSOR WITH A DIAGNOSTIC CONSOLE DESIGNED TO BE COMPATIBLE WITH IBM SYSTEM/370 SOFTWARE AND IBM PERIPHERALS. THE 470V/6-2 OFFERS A 32K-BYTE HIGH SPEED BUFFER AND A 5-15% IMPROVEMENT IN MAINFRAME THROUGHPUT OVER THE 470V/6 CPU. IT FEATURES VIRTUAL STORAGE, PRIORITY INTERRUPTS, MEMORY PROTECTION, AND A CYCLE TIME OF 32.5 NANO-SECONDS. THIS SYSTEM WAS DESIGNED TO COMPETE FAVORABLY WITH MEDIUM TO LARGE IBM 370 SYSTEMS.

**APPLICATION (*)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt, N/A)**
- Word Size: 32 Bits
- Memory: 256 to 8000K
- Cycle Time: .0325 USEC
- Add Time: .06 USEC
- Cache Memory: 32KB, 16K
- # of Instructions: 179
- Instruction Types (1): BDEFN/
- Accumulators: 20
- Index Registers: 16
- I/O Communications (2): B/
- I/O Transfer Rate: 14MB
- Processor Features (3): BCDRENK/
- Interface Slots:

**SYSTEMS SOFTWARE (*)**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time BMTR
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**PRICES**
- Computer: $350 MFR
- Memory: $120,000, 1000K
- System: $320,000, 6000K

**FEATURES (*)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**
- Removable Disk: Yes
- Fixed Head Disk: Yes
- Flexible Disk: Yes
- Magnetic Tape: Yes
- Tape Cassette: Yes
- Line Printer: Yes
- Serial Printer: Yes
- Card Reader: Yes
- Paper Tape Reader: Yes
- Display Terminal: Yes
- Multiplexer: Yes
- Terminals/System:
- Other:

**SOFTWARE LANGUAGES (*)**
- APL
- Algol
- Single Basic
- Multi Basic
- Cobol
- Fortran
- Pl/1
- Rpg
- Other:

**MARKETING**
- Main Market: End User
- Units Sold:
- Maintenance: On Call

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION(*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- **WORD SIZE:** 12 BITS
- **MEMORY:** 48 TO 64K CORE
- **CYCLE TIME:** 1.2 USEC
- **ADD TIME:** 1.2 USEC
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 37
- **INSTRUCTION TYPES (1):** EFIM/
- **ACUMULATORS:** 1
- **INDEX REGISTERS:** 64
- **I/O COMMUNICATIONS (2):** AD/B
- **I/O TRANSFER RATE:** 1.2MB
- **PROCESSOR FEATURES (3):** BCVE/
- **INTERFACE SLOTS:** 28

**SYSTEMS SOFTWARE(*)**

- **ASSEMBLER 8K**
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR 24K
- BATCH MONITOR 24K
- DATA BASE SYS 24K
- OTHER:

**FEATURES(*)**

- **UPWARD COMPATIBLE**
- **FIELD SERVICE**
- **APPLICATION SOFTWARE**
- **CONVERSATIONAL LANGUAGES**
- **USER MICROPROGRAMMABLE**
- **FACTORY MICROPROGRAMMABLE**
- **VIRTUAL MEMORY MACHINE**
- **MULTIPROCESSOR**

**PERIPHERALS (Model #: Spec, N/A)**

- **REMOVABLE DISK:** 1234
- **FIXED HEAD DISK:** 1230
- **FLEXIBLE DISK:** 1232
- **MAGNETIC TAPE:** 1220
- **TAPE CASSETTE:**
- **LINE PRINTER:** 1631
- **SERIAL PRINTER:** 1636
- **CARD RD, PD:**
- **PAPER TAPE RD, PD:**
- **DISPLAY TERMINAL:** 1660
- **MULTIPLEXOR:**
- **TERMINALS/SYSTEM:**
- **OTHER:**

**SOFTWARE LANGUAGES(*)**

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FOREIGN 8K**
- **PL1**
- **RPG**
- **OTHER:** NURPS, 24K

**PRICES**

- **COMPUTER:** $59800, 48K
- **MEMORY:** $2700, 4K
- **SYSTEM:** $72600, 48K

**MARKETING**

- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

INCLUDES 48K CPU; TWO #1660 DISPLAY TERMINALS; #1631 LINE PRINTER.

---

(1) INSTRUCTIONS:

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:

- **A** = Asynchronous
- **B** = Asynchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES:

- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
**THE PC-12/790 IS A MEMBER OF THE ARTRONIX PC-12 SERIES OF MINICOMPUTERS DESIGNED FOR BUSINESS, SCIENTIFIC, AND COMMUNICATIONS APPLICATIONS. THE PC-12/790 FEATURES 64K OF CORE MEMORY, PRIORITY INTERRUPTS, EXTENDED PRECISION, AND DIRECT MEMORY ACCESS. SOFTWARE SUPPORT INCLUDES BATCH AND TIME SHARING MONITORS AND A DATA BASE MANAGEMENT SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.**

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 12 BITS</td>
<td>REMOVABLE DISK: 1234</td>
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<tr>
<td>MEMORY: 64K CORE</td>
<td>FIXED HEAD DISK: 1230</td>
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<tr>
<td>CYCLE TIME: 1.2 USEC</td>
<td>FLEXIBLE DISK: 1232</td>
</tr>
<tr>
<td>ADD TIME: 1.2 USEC</td>
<td>MAGNETIC TAPE: 1220</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 37</td>
<td>LINE PRINTER: 1631</td>
</tr>
<tr>
<td>ACCUMULATORS: 1</td>
<td>SERIAL PRINTER: 1636</td>
</tr>
<tr>
<td>INDEX REGISTERS: 64</td>
<td>CARD RD, PD:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS: (2): AD/B</td>
<td>PAPER TAPE RD, PD:</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1.2MB</td>
<td>DISPLAY TERMINAL: 1660</td>
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<tr>
<td>PROCESSOR FEATURES: (3): BCVR/INTERFACE SLOTS: 28</td>
<td>MULTIPLEXOR:</td>
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<td>TERMINALS/SYSTEM:</td>
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<tr>
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<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE(*)</th>
<th>SOFTWARE LANGUAGES(*)</th>
</tr>
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<tbody>
<tr>
<td>* ASSEMBLER 8K</td>
<td>APL</td>
</tr>
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<td>MACRO ASSEM</td>
<td>ALGOL</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>REAL TIME MNTR</td>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* TVS MONITOR 24K</td>
<td>COBOL</td>
</tr>
<tr>
<td>* BATCH MONITOR 24K</td>
<td>* FORTRAN 8K</td>
</tr>
<tr>
<td>* DATA BASE SYS 24K</td>
<td>PL/I</td>
</tr>
<tr>
<td></td>
<td>RPG</td>
</tr>
<tr>
<td></td>
<td>OTHER: NUPAS, 24K</td>
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<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $66400, 64K</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $97800, 64K</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>INCLUDES 64K CPU; FOUR #1660 DISPLAY TERMINALS; TWO #1636 TERMINALS; TWO #1631 LINE PRINTERS.</td>
<td></td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiple & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
BASIC/FOUR: 600

Introduced in 1975, the Model 600 is an 8-bit, disk-oriented minicomputer designed for business applications. It has all of the features of smaller BASIC/FOUR models plus greater disk storage, on-line synchronous communications, and expanded user memory. The BASIC/FOUR 600 is marketed as a multi-terminal, interactive, front-end processor for a large computer facility, as well as a stand-alone business computer system.

APPLICATION (*)

* Business/Commercial
  Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

FEATURES (*)

* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

COMPUTER (Std/Opt. N/A)

Word Size: 8 bits
Memory: 32 to 64k
Cycle Time: .6 usec
Add Time: 7.4 usec
Cache Memory: 2.6kb, 200ns
# of instructions: 134
Instruction Types (1): BDEPINS/
Accumulators: 2
Index Registers: 6
I/O Communications (2): ADM/
I/O Transfer Rate: 311KB
Processor Features (3): CFFFFE/
Interface Slots: 19

SYSTEMS SOFTWARE (*)

Assembler
Macro Assem
Disk Monitor
Real Time Monitor
T/S Monitor
Batch Monitor
Data Base System
Other: BOSS II

SOFTWARE LANGUAGES (*)

APL
ALGOL
* Single basic
* Multi basic
COBOL
FORTRAN
PL1
BPI
Other:

PERIPHERALS (Model #. Spec. N/A)

Removable Disk: 2324, 10 MB
Fixed Head Disk: N/A
Flexible Disk: N/A
Magnetic Tape: 6100, 6200, 6210
Tape Cassette: N/A
Line Printer: 913, 3500, 3600
Serial Printer: 3101, 3102
Card Reader: 4100, 4200; N/A
Paper Tape Reader: 5100, 5200
Display Terminal: 7230, 1920 Char.
Multiplexor: Asyn, Syn
Terminals/System: 8
Other:

PRICES

Computer: $50,000
Memory: $3000, 68K
System: $51,400, 32K

Includes 32k CPU; 10MB Disk (#2324), VDT (#7230), 165 CPS Printer (#3100).

(1) Instructions:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O Communications:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiplex Memory
S = Selectable Line Speeds
T = Autodial

(3) Processor Features:
B = Base Address Relocation
O = On-Line Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
BASIC/FOUR: 700

INTRODUCED IN 1976, THE SYSTEM 700 IS A 8-BIT MINICOMPUTER FOR BUSINESS/COMMER-
CIAL APPLICATIONS. MEMORY IS EXPANDABLE FROM A MINIMUM OF 64K TO A MAXIMUM OF
128K WORDS IN 16K INCREMENTS. UP TO 300 MB OF ON-LINE DISK STORAGE IS AVAILABLE
TO SUPPORT UP TO 16 SIMULTANEOUS USER PROGRAMS. SOFTWARE LANGUAGES WHICH ARE
SUPPORTED INCLUDE SINGLE-USER BASIC AND MULTI USER BASIC. APPLICATIONS SOFTWARE
IS AVAILABLE FROM BOTH THE MANUFACTURER AND BASIC/FOUR DEALERS.

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 8 BITS
MEMORY: 64 TO 128K MOS
CYCLE TIME: .60 USEC
ADD TIME: 7.4 USEC
CACHE MEMORY: 2.6KE, 200 WS
# OF INSTRUCTIONS: 134
INSTRUCTION TYPES (1): BDEFINS/
ACCUMULATORS: 0
INDEX REGISTERS: 0
I/O COMMUNICATIONS (2): ADM/B
I/O TRANSFER RATE: .61 MB
PROCESSOR FEATURES (3): CFVRME/
INTERFACE SLOTS: 19

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEMB
DISK MONITOR
REAL TIME MON
T/S MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER: BOSS 700

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 75MB (2500)
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 10KB/SEC, 12 1/2 IPS
TAPE CASSETTE: N/A
LINE PRINTER: 300, 600 LPM
SERIAL PRINTER: 165 CPS, (3100)
CARD READER, PUNCH: 1400, N/A
PAPER TAPE RD., PUNCH: N/A
DISPLAY TERMINAL: 1920 CHAR.
MULTIPLEX: ASYN, SYN
TERMINALS/SYSTEM: 16
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC 24K
* MULTI BASIC 24K
COBOL
FORTRAN
PL1
 RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

PRICES

COMPUTER: $350, 64K
MEMORY: $2500, 16K
SYSTEM: $115000, 64K
INCLUDES 64K CPU; 150MB DISK ($2500); 4 VDT’S (#7230); 4 VDT’S (#7230); 300 LPM
PRINTERS.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1  COMPUTER REVIEW

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<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
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<td>* DATA ENTRY SYSTEM</td>
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<tr>
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<td>PAPER TAPE RD, PW:</td>
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<td><strong>M</strong> = Multiply &amp; Divide</td>
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**BUROUGHS: B711**

Introduced in 1973, the B711 is a small-scale business minicomputer. It is similar to the Burroughs Model 705 but has a cycle time offering twice the speed and is sold mainly in packaged data systems, but its expansion capability leads to its use in many other non-packaged systems.

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<td>* Field Service</td>
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<tr>
<td>Industrial Control</td>
<td>* Application Software</td>
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<td>* Conversational Languages</td>
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<td>User Microprogrammable</td>
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<td>* Educational System</td>
<td>Factory Microprogrammable</td>
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<tr>
<td>* Banking System</td>
<td>Virtual Memory Machine</td>
</tr>
<tr>
<td>* Data Entry System</td>
<td>* Multiprocessor</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt, N/A)**

- **Word Size:** 64 bits
- **Memory:** 32 to 96K MOS
- **Cycle Time:** 1.2 (1.8) usec
- **Add Time:** Variable usec
- **Cache Memory:** N/A
- **Quantum Instructions:** Variable
- **Instruction Types (1):** BDM/
- **Accumulators:** N/A
- **Index Registers:** 4
- **I/O Communications (2):** DS/A
- **I/O Transfer Rate:** .0016 MB
- **Processor Features (3):** EE/
- **Interface Slots:** 6/11

**SYSTEMS SOFTWARE (*)**

- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mtr
- T/S Monitor
- * Batch Monitor
- Data Base Sys
- Other:

**PRICES**

- **Computer:** $26,500, 16K
- **Memory:** $990, 8K
- **System:** $34,900, 49K

Packaged systems range in price from approximately $26,500 to $69,500.

---

**PERIPHERALS (Model #: Spec, N/A)**

- **Renovable Disk:** B9480-X, B9481-X
- **Fixed Head Disk:** N/A
- **Flexible Disk:** A9409-15
- **Magnetic Tape:** B9491-2
- **Cassette:** A/B9490-25
- **Line Printer:** A9249, B9249, B9247
- **Serial Printer:** N/A
- **Card Reader:** 911X/941X
- **Paper Tape Reader:** A9122-1, A9222-1
- **Display Terminal:** TD802, TD700, TD830
- **Multiplexor:** N/A
- **Terminals/Systems:** Other:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG 16K
- Other: APL-Audit Entry Lang

**MARKETING**

- **Main Market:** End User
- **Units Sold:**
- **Maintenance:** On Call

---

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THE BURROUGHS B721 IS A POWERFUL, GENERAL PURPOSE DATA-PROCESSING SYSTEM. A CHOICE OF PERIPHERALS IS AVAILABLE.

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<td>WORD SIZE: 16 BITS</td>
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<td>FLEXIBLE DISK:</td>
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<tr>
<td>ADD TIME:</td>
<td>MAGNETIC TAPE:</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
<td>TAPE CASSETTE:</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
<td>LINE PRINTER:</td>
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<td>INSTRUCTION TYPES (1):</td>
<td>SERIAL PRINTER: 20 CPS</td>
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<td>CARD RD, PN:</td>
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<td>INDEX REGISTERS:</td>
<td>PAPER TAPE ED, PN: 100 CPS</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
<td>DISPLAY TERMINAL:</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
<td>MULTIPLEXOR:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>OTHER: MICRO SORTER</td>
</tr>
</tbody>
</table>

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</tr>
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</tr>
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<tr>
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<td>MAIN MARKET:</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD:</td>
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<tr>
<td>SYSTEM: $SEE MFR</td>
<td>MAINTENANCE: ON CALL</td>
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**THE B730 IS A GENERAL PURPOSE DATA PROCESSING SYSTEM. THE B730 PROCESSOR COMBINES MICROPROGRAMMING WITH HIGH-SPEED MAIN MEMORY TO IMPROVE USE OF MEMORY FOR STORAGE OF APPLICATION PROGRAMS.**

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>UPWARD COMPATIBLE</td>
</tr>
<tr>
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THE B741 IS A POWERFUL 16-BIT GENERAL PURPOSE DATA PROCESSING MINICOMPUTER. IT FEATURES MULTIPORT MEMORY COMMUNICATIONS - 8 PORTS IN THE BASIC SYSTEM. A CHOICE OF BURROUGHS PERIPHERALS IS AVAILABLE.

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<td>PROCESSOR FEATURES (3): /</td>
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<tr>
<td>INTERFACE SLOTS:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>DISK MONITOR</td>
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<tr>
<td>REAL TIME MNTR</td>
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<td>T/S MONITOR</td>
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<tr>
<td>BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
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<td>OTHER:</td>
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<table>
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<th>PRICES</th>
</tr>
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<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
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<tr>
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<table>
<thead>
<tr>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>UPWARD COMPATIBLE</td>
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<td>FIELD SERVICE</td>
</tr>
<tr>
<td>APPLICATION SOFTWARE</td>
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<tr>
<td>CONVERSATIONAL LANGUAGES</td>
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<tr>
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<tr>
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<tr>
<td>MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK:</td>
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<tr>
<td>FIXED HEAD DISK:</td>
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<td>FLEXIBLE DISK:</td>
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<td>MAGNETIC TAPE:</td>
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<td>LINE PRINTER:</td>
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<tr>
<td>SERIAL PRINTER:</td>
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<tr>
<td>CARD RD, PW:</td>
</tr>
<tr>
<td>PAPER TAPE RD, PW:</td>
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<td>DISPLAY TERMINAL:</td>
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<td>MULTIPLEXOR:</td>
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<table>
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<tr>
<td>PL1</td>
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<td>RPG</td>
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<table>
<thead>
<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>MAIN MARKET:</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
IN 1975, THE B1707 IS A MEMBER OF THE BURROUGHS 1700 SERIES OF 24-BIT GENERAL PURPOSE COMPUTERS FOR MANUFACTURING, WHOLESALE, DISTRIBUTION, BANKING, HOSPITAL DATA PROCESSING AND OTHER BUSINESS APPLICATIONS. THE B1707 IS A SPECIALIZED DATA ENTRY SYSTEM INCLUDING AN AE501 AUDIT ENTRY STATION. IT FEATURES VARIABLE MICROPROGRAMMABLE LOGIC, AUTOMATIC MULTIPROGRAMMING, VIRTUAL STORAGE AND BIT-ADDRESSABLE MEMORIES. EXTENSIVE SOFTWARE SUPPORT IS AVAILABLE WITH A LIBRARY OF BUSINESS MANAGEMENT SYSTEMS.

APPLICATION (*)

* BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 24 BITS
MEMORY: 24 TO 64K IC
CYCLE TIME: .25 USEC
ADD TIME: 5 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): /
ACCUMULATORS: N/A
INDEX REGISTERS: N/A
I/O COMMUNICATIONS (2): /ABS
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): BDME/
INTERFACE SLOTS: 14

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEMBLER
* DISK MONITOR 16K,24K
REAL TIME MTR
T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS 16K,24K
OTHER: 32K,MDL,49K CANDE; 49K TABS

PRICES

COMPUTER: $72900, 24K
MEMORY: $3000, 16K
SYSTEM: $350 MF
INCLUDES B9480 CONSOLE PRINTER; B9480-12 4.6 MB DISK CARTRIDGE DRIVE; B9249-3
160 CPM PRINTER; B9490-25 MAG TAPE CASSETTE; AE501 AUDIT ENTRY STATION.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiprotocol Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Error Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)

REMOVABLE DISK: B948X-XX, B9484-XX
FIXED HEAD DISK:
FLEXIBLE DISK: B9489-16, B9489-17
MAGNETIC TAPE: B9491-2, B9496-XX
TAPE CASSETTE: B9490-25
LINE PRINTER: B9249-XX, B9247-XX
SERIAL PRINTER: N/A
CARD ED, LN: B911X-XX, B9212
PAPER TAPE RD, LN: N/A; N/A
DISPLAY TERMINAL: B9348-31
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC 16K
MULTI BASIC
* COBOL 16K
* FORTRAN 16K
PLI
* RPG 16K
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

1978/No. 1

COMPUTER REVIEW

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<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
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<table>
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<th>FEATURES (*)</th>
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<tr>
<td>* UPGRADE COMPATIBLE</td>
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<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
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<tr>
<td>WORD SIZE: 24 BITS</td>
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<td>MEMORY: 49 TO 64K IC</td>
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<tr>
<td>CYCLE TIME: .25 USEC</td>
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<td>ADD TIME: 5 USEC</td>
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<td>CACHE MEMORY: N/A</td>
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<td>ACCUMULATORS: N/A</td>
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<td>I/O COMMUNICATIONS (2):</td>
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<tr>
<td>I/O TRANSFER RATE:</td>
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<tr>
<td>PROCESSOR FEATURES (3): BDME/INTERFACE SLOTS: 14</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR 16K,24K</td>
</tr>
<tr>
<td>* REAL TIME MONITOR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE S16K,24K</td>
</tr>
<tr>
<td>OTHER: 32K, MDL, 49K CANDE, 49 TABS</td>
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<table>
<thead>
<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $77900, 49K</td>
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<tr>
<td>MEMORY: $3000, 16K</td>
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<td>TAPE CASSETTE:</td>
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<td>LINE PRINTER: B9-24X,B9247-XX</td>
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<td>SERIAL PRINTER: N/A</td>
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<tr>
<td>CARD READER, PN: 911X-XX, 9212</td>
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<td>PAPER TAPE READER, PN: N/A; N/A</td>
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<td>DISPLAY TERMINAL: B9438-31</td>
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<table>
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<tr>
<td>APL</td>
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<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>* SINGLE BASIC 16K</td>
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<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL 16K</td>
</tr>
<tr>
<td>* FORTRAN 16K</td>
</tr>
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<td>* PL/I</td>
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<td>* RPG 16K</td>
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<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
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<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>INCLUDES B9480 CONSOLE PRINTER; B9480-12 4.6 MB DISK CARTRIDGE DRIVE; B9249-2</td>
</tr>
<tr>
<td>160 LPM LINE PRINTER; (2) TD833 OR (2) TD733 TERMINAL DISPLAYS.</td>
</tr>
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(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
M = Indirect Addressing  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Synchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1972, THE B1712 IS A MEMBER OF THE BURROUGHS 1700 SERIES OF GENERAL PURPOSE MINICOMPUTERS FOR MANUFACTURING, WHOLESALE, DISTRIBUTION, BANKING, HOSPITAL DATA PROCESSING AND OTHER BUSINESS APPLICATIONS. THE B1712 FEATURES VARIABLE MICROPROGRAMMABLE LOGIC, AUTOMATIC MICROPROGRAMMING, VIRTUAL STORAGE AND BIT-ADDRESSABLE MEMORIES. EXTENSIVE SOFTWARE SUPPORT IS AVAILABLE WITH A LIBRARY OF BUSINESS MANAGEMENT SYSTEMS. THE ADD TIME, INSTRUCTION SET, ACCUMULATORS, INDEX REGISTER AND PROCESSOR FEATURES ARE DETERMINED BY MICROPROGRAM.

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)
- WORD SIZE: VAR BITS
- MEMORY: 16 TO 64K
- CYCLE TIME: ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1):
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): /ABS
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3):
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEM
- * DISK MONITOR 16K, 24K
- REAL TIME MNTR
- T/S MONITOR
- * BATCH MONITOR
- * DATA BASE SYS 16K, 24K
- OTHER: 32K, NDL

**PRICES**
- COMPUTER: $533 MF, 16K
- MEMORY: $17000, 16K
- SYSTEM: $70800, 16K

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPLIER

**PERIPHERALS** (Model #, Specs, N/A)
- REMOVABLE DISK: A/B948X-2
- FIXED HEAD DISK:
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: A/B9381-XX, A/B9491-2
- TAPE CASSETTE: A/B9490-25
- SERIAL PRINTER: N/A
- CARD RD, PN: A/B911X; A9210-1
- PAPER TAPE RD, PN: N/A
- DISPLAY TERMINAL: N/A
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- * SINGLE BASIC 16K
- MULTI BASIC
- COBOL 16K
- FORTRAN 16K
- PL1
- RPG 16K
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
BURROUGHS: B1713


APPLICATION (*)
* BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B948X-XX, B9484-XX
FIXED HEAD DISK:
FLEXIBLE DISK: B9489-16, B9489-17
MAGNETIC TAPE: B9491-2, B9495-XX
TAPE CASSETE: B/9490-25
LINE PRINTER: B9247-XX, B9249-XX
SERIAL PRINTER: N/A
CARD RD, RD: B911X-XX, B9121
PAPER TAPE RD, RD: N/A; N/A
DISPLAY TERMINAL: B9348-31
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC 16K
MULTI BASIC
* COBOL 16K
* FORTRAN 16K
PL1
* BPF 16K
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES B9340 CONSOLE PRINTER; B9115 300 CPM 60-COLUMN CARD READER; 250 LPM LINE PRINTER; B9480-12 4.6 MB DISK CARTRIDGE DRIVE; B9135-2 READER SORTER; B1351 SINGLE LINE CONTROL.

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEM
* DISK MONITOR 16K, 24K
REAL TIME MTR
T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS 16K, 24K
OTHER: 32K, MDL; 49K CANDE; 49K TABS

PRICES
COMPUTER: $102320, 49K
MEMORY: $3000, 16K
SYSTEM: SEE NFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**INTRODUCED IN 1972, THE B1714 IS A MEMBER OF THE BURROUGHS 1700 SERIES OF GENERAL PURPOSE MINICOMPUTERS FOR MANUFACTURING, WHOLESALE, DISTRIBUTION, BANKING, HOSPITAL DATA PROCESSING AND OTHER BUSINESS APPLICATIONS. ADD TIME, INSTRUCTION SET, ACCUMULATORS, INDEX REGISTER AND PROCESSOR FEATURES ARE DETERMINED BY MICROPROGRAM.**

---

**APPLICATION**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: A/B948-2
- FIXED HEAD DISK:
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: A/B9381-X, A/B9491-2
- TAPE CASSETTE: A/B9490-25
- SERIAL PRINTER: N/A
- CARD READER: A/B911X; A9210-1
- PAPER TAPE READER: N/A; N/A
- DISPLAY TERMINAL: N/A
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM: N/A

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- SINGLE BASIC 16K
- MULTI BASIC
- COBOL 16K
- FORTRAN 16K
- PL/I
- RPG 16K

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD: N/A
- MAINTENANCE: ON CALL

---

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: VAR BITS
- MEMORY: 16 TO 64K
- CYCLE TIME: 1/2 USEC
- ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1):
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2):
  - /ABS
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3):
  - INTERFACE SLOTS:

**SYSTEMS SOFTWARE**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR 16K, 24K
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS 16K, 24K
- OTHER: 40K, NDL

**PRICES**
- COMPUTER: $50,000, 16K
- MEMORY:
- SYSTEM: $70,800, 16K

---

**NOTES**

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER (Std/Opt. N/A)**

| WORD SIZE: | VAR BITS |
| MEMORY: | 16 TO 64K |
| CYCLE TIME: | N/A |
| ADD TIME: | N/A |
| CACHE MEMORY: | N/A |
| # OF INSTRUCTIONS: | N/A |
| INSTRUCTION TYPES (1): | N/A |
| INDEX REGISTERS: | N/A |
| I/O COMMUNICATIONS (2): | /ABS |
| I/O TRANSFER RATE: | N/A |
| PROCESSOR FEATURES (3): | N/A |
| INTERFACE SLOTS: | 8/10 |

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR 16K, 24K
- REAL TIME MHTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS 16K, 24K
- OTHER: 32K, NDL

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC 16K
- MULTI BASIC
- COBOL 16K
- FORTRAN 16K
- PL1
- RPG 16K
- OTHER:

**PERIPHERALS (Model #, Specs. N/A)**

- REMOVABLE DISK: A/B948X-2
- FIXED HEAD DISK: 9370-3
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: A/B9381-XX,A/B9491-2
- TAPE CASSETTE: A/B9490-25
- SERIAL PRINTER: N/A
- CARD RD, PN: A/B9117X,A9210-1
- PAPER TAPE RD, PN: N/A; N/A
- DISPLAY TERMINAL: N/A
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM: N/A
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: N/A
- MAINTENANCE: ON CALL

---

**PRICES**

- COMPUTER: $SEE MFR, 16K
- MEMORY:
- SYSTEM: $70800, 16K

---

(1) INSTRUCTIONS:

B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
The B1720-1 is one of the top members of the Burroughs B1700 series of 24-bit general purpose business computers. Like other members of the B1700 series, the B1720-1 offers automatic multiprogramming, virtual memory and executive software support. It also features high speed control memory used solely for storing microprograms, faster main memory cycle times, twice the main memory capacity, and faster I/O speeds. The B1720-1 is packaged specifically as a data communications processor.

**Application (J)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**Computer (Std/Opt, N/A)**
- Word Size: 24 Bits
- Memory: 48 to 256K MOS
- Cycle Time: 1.167 usec
- Add Time: 3.333 usec
- Cache Memory: N/A
- # of Instructions: 3,333
- Instruction types (1): /Accumulators: N/A
- Index Registers: N/A
- I/O Communications (2): /ABST
- I/O Transfer Rate: /Processor Features (3): /Interface Slots: 14

**Systems Software (J)**
- Assembler
- Macro Assembler
- Disk Monitor 16K, 24K
- Real Time Monitor
- T/S Monitor
- Batch Monitor 16K, 24K
- Data Base System
- Other: 32K MDL; 32K UPL; 49K CANDE

**Prices**
- Computer: $141176, 98K
- Memory: $5000, 32K
- System: Size/MEM

**Peripheral**
- Removable Disk: B9481-XX, B9484-XX
- Fixed Head Disk: B9371-7, B9371-14
- Flexible Disk: B9495-16, B9495-17
- Magnetic Tape: B9491-2, B9495-XX
- Tape Cassette: B9490-25
- Line Printer: B9249-3, B9247-X
- Serial Printer: N/A
- Card Reader/PM: B911X; B921X
- Paper Tape Reader: B9120; B9220
- Display Terminal: B9348-32
- Multiples/Op: ASYN, SYM
- Terminals/System: Other

**Software Languages (J)**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**Marketing**
- Main Market: End User
- Units Sold: Maintenance: On Call
- Basic System includes B9340 Console Printer; B9247-12 400 LPM Line Printer, B9499-8 7.2 MB Disk Pack with Controller; B1351 Single Line Control.

---

1978/No. 1

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features
- B = Base Address Relocation
- C = Real Time Clock
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**APPLICATION (*)**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**FEATURES (*)**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**COMPUTER (Std/Opt. N/A)**

| WORD SIZE: | 24 BITS |
| MEMORY:    | 48 TO 256K MOS |
| CYCLE TIME:| .167 USEC |
| ADD TIME:  | 3.333 USEC |
| CACHE MEMORY: | |

# OF INSTRUCTIONS:

INSTRUCTION TYPES (1):

ACCUMLATORS: N/A
INDEX REGISTERS: N/A
I/O COMMUNICATIONS (2): /ABS
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): /
INTERFACE SLOTS: 14

**SYSTEMS SOFTWARE (*)**

ASSEMBLER
MACRO ASSEM

* DISK MONITOR 16K, 24K
* REAL TIME MNTR
T/S MONITOR
* BATCH MONITOR 16K, 24K
* DATA BASE SYS
OTHER: 32K NDL; 32K UPL; 49K CANDE

**PERIPHERALS (Model #, Specs, N/A)**

REMOVABLE DISK: B9484-I.X, B9484-XX
FIXED HEAD DISK: B9371-7, B9371-14
FLEXIBLE DISK: B9489-16, B9489-17
MAGNETIC TAPE: B9491-2, B9496-XX
TAPE CASSETTE: B9490-25
LINE PRINTER: B9249-3, B9247-X
SERIAL PRINTER: N/A
CARD RD, PN: B9111X, B921X
PAPER TAPE BD, PN: B9120, B9220
DISPLAY TERMINAL: B9346-32
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM:
OTHER:

**SOFTWARE LANGUAGES (*)**

APL
ALGOL
* SINGLE BASIC 16K
MULTI BASIC
* COBOL 16K
* FORTRAN 16K
PL/I
* RPG 16K
OTHER:

**PRICES**

COMPUTER: $64800, 49K
MEMORY: $5000, 32K
SYSTEM: $5000. MFR

**MARKETING**

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Biynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
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- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

**COMPUTER REVIEW**

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1978/No. 1

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: VAR BITS
MEMORY: 48 TO 256K MOS
CYCLE TIME: .667 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1):
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): /ABS
I/O TRANSFER RATE:
PROCESSOR FEATURES (3):
INTERFACE SLOTS: 14

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEM
* DISK MONITOR 16K, 24K
REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR 16K, 24K
* DATA BASE SYS
OTHER: NDL (40K), UPL (32K)

PRICES

COMPUTER: $90000, 48K
MEMORY: $6000, 16K
SYSTEM: $SEE RBF, 48K

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: A/B948X-2
FIXED HEAD DISK: B9371-7, B9371-14
FLEXIBLE DISK: B9489-15, 16, 17, 18
MAGNETIC TAPE: A/B9381-XX, 9X, 49X
TAPE CASSETTE: A/B9490-25
LINE PRINTER: B9249-3, A/B9247-X
SERIAL PRINTER: N/A
CARD READER: B911X, B921X
PAPER TAPE RD, PW: B9120, B9220
DISPLAY TERMINAL: B9348-32
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC 16K
MULTI BASIC
* COBOL 16K
* FORTRAN 16K
PLI
* RPG 16K
OTHER: UPL, NDL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
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S = Stack Processing

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M = Multiprot Memory
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T = Autodial

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B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1976, THE B1830 IS A GENERAL PURPOSE MINICOMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE B1830 FEATURES AUTOMATIC MULTIPROGRAMMING, A CACHE MEMORY, VIRTUAL MEMORY, AND EXTENSIVE SOFTWARE SUPPORT INCLUDING MANY BUSINESS MANAGEMENT SYSTEMS. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td></td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td></td>
<td>MULTIPROCESSOR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 24 BITS</td>
</tr>
<tr>
<td>MEMORY: 48 TO 256K IN MOS</td>
</tr>
<tr>
<td>CYCLE TIME: 200 USEC</td>
</tr>
<tr>
<td>ADD TIME: 4 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
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<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR 16K</td>
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<tr>
<td>REAL TIME MON</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR 16K</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: ND4(40K), UPL(32K), CANOE(49K)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $57750, 48K #B1830</td>
</tr>
<tr>
<td>MEMORY: $1500, 16K</td>
</tr>
<tr>
<td>SYSTEM: $76000, 48K</td>
</tr>
<tr>
<td>INCLUDES 48KB CPU; B9348-32 CRT W/KEYBOARD</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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INTRODUCED IN 1976, THE B1860 IS A GENERAL PURPOSE MINICOMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE B1860 FEATURES AUTOMATIC MULTIPROGRAMMING, A CACHE MEMORY, VIRTUAL MEMORY, AND EXTENSIVE SOFTWARE SUPPORT INCLUDING MANY BUSINESS MANAGEMENT SYSTEMS. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
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<tr>
<td>ENGINEERING/COMPUTATION</td>
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<tr>
<td>* EDUCATIONAL SYSTEM</td>
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<td>* BANKING SYSTEM</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
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<th>FEATURES (*)</th>
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<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 24 BITS</td>
</tr>
<tr>
<td>MEMORY: 64 TO 384K NMOS</td>
</tr>
<tr>
<td>CYCLE TIME: .167 USEC</td>
</tr>
<tr>
<td>ADD TIME: 3.333 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 4KB, 167NS</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
</tr>
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<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS: N/A</td>
</tr>
<tr>
<td>INDEX REGISTERS: N/A</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABDMST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
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<tr>
<td>PROCESSOR FEATURES (3):</td>
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<td>INTERFACE SLOTS: 14</td>
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<td>* DISK MONITOR 16K</td>
</tr>
<tr>
<td>REAL TIME RTN</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR 16K</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: MDL (32K), CANDE (48K), TABS (49K)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $100000, 65K</td>
</tr>
<tr>
<td>MEMORY: $3000, 32K</td>
</tr>
<tr>
<td>SYSTEM: $125000, 64K</td>
</tr>
<tr>
<td>INCLUDES 64KB CPU; B9348-32 CEB W/KEYBOARD</td>
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</tbody>
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<tr>
<th>SOFTWARE LANGUAGES (*)</th>
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<tr>
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<tr>
<td>PL/I</td>
</tr>
<tr>
<td>* RPG 16K</td>
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<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiprotocol Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE B1870 IS A GENERAL PURPOSE MINICOMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE B1870 FEATURES AUTOMATIC MULTIPROGRAMMING, A CACHE MEMORY, VIRTUAL MEMORY, AND EXTENSIVE SOFTWARE SUPPORT INCLUDING MANY BUSINESS MANAGEMENT SYSTEMS. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

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<tr>
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<td>LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPLIER</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt, N/A)**
- WORD SIZE: 24 BITS
- MEMORY: 96 TO 512K NMOS
- CYCLE TIME: .167 US
- ADD TIME: 1.333 USEC
- CACHE MEMORY: 4KB, 167NS
- # OF INSTRUCTIONS: 1
- INSTRUCTION TYPES (1): /
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): ABDMST
- I/O TRANSMIT RATE: 14K
- PROCESSOR FEATURES (3): EK/
- INTERFACE SLOTS: 14

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACHO ASSEM
- * DISK MONITOR 16K
- REAL TIME MNTR
- T/S MONITOR
- * BATCH MONITOR 16K
- * DATA BASE SYS
- OTHER: NDL(32K), CANOE(49K), TABS(49K)

**PRICES**
- COMPUTER: $144000, 98K
- MEMORY: $3000, 32K
- SYSTEM: $180000, 96K
- INCLUDES 96KB CPU; 9348-32 CRT W/KEYBOARD (5.9KB).

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: B9484-XX, B9481-XX
- FIXED HEAD DISK: B9470-2
- FLEXIBLE DISK: B9489-16, B9489-17
- MAGNETIC TAPE: B9491-2, B9495-XX
- TAPE CASSETTE: B9490-25
- LINE PRINTER: B9249-3, B9247-X
- SERIAL PRINTER: N/A
- CARD RD, PN: B9111, B921X
- PAPER TAPE RD, PN: N/A
- DISPLAY TERMINAL: B9348-32
- MULTIPLEXOR: ASYN, SYN
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- * SINGLE BASIC 16K
- MULTI BASIC
- * COBOL 16K
- * FORTRAN 16K
- PL/I
- * RPG 16K
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply \& Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1972, THE B2771-1 IS A GENERAL PURPOSE COMPUTER USED FOR BUSINESS APPLICATIONS. IT IS THE ONLY MODEL OF THE 2700 SERIES STILL ACTIVELY MARKETED. FEATURES INCLUDE FILE PROTECT MEMORY WHICH IS ALSO AVAILABLE WITH THE 3700 AND 4700 SERIES, A COMMUNICATIONS PROCESSOR AND MULTIPROGRAMMING. SOFTWARE SUPPORT INCLUDES COBOL AND RPG COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE INCLUDING REMOTE TERMINALS.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 60 TO 300K CORE
- CYCLE TIME: 35 USEC
- ADD TIME: 37.5 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 52
- INSTRUCTION TYPES (1): BDIM/F
- ACCUMULATORS: 0
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): /ABST
- I/O TRANSFER RATE: 2MB
- PROCESSOR FEATURES (3): BCDRME/INTERFACE SLOTS: 20

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR MCP
- REAL TIME MTR
- T/S MONITOR MCP
- BATCH MONITOR MCP
- DATA BASE SYS
- OTHER: TABS, MCS GENERATOR

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Spec. N/A)**

- REMOVABLE DISK: B938X, B948X-3/4
- FIXED HEAD DISK: B9371-1X, B9373-3
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: B939X, B949X-1, B938X
- TAPE CASSETTE: N/A
- LINE PRINTER: B924X-X
- SERIAL PRINTER: B9340
- CARD RD/RW: B911X, B921X
- PAPER TAPE RD/RW: B9120, B9220
- DISPLAY TERMINAL: B9348-2
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM
- OTHER: MICR, OCR

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLI
- RPG
- OTHER: NDL

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

**PRICES**

- COMPUTER: $177,745, 60K
- MEMORY: $14,100, 30K
- SYSTEM: $259,795, 60K
- INCLUDES 60K CPU W/DISK (8MB); 2-40KB MAGNETIC TAPE; LINE PRINTER (400 LPM); CARD READER (300 CPM).

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bixynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1

© Copyright GMI Corporation 51
INTRODUCED IN 1975, THE B3721 IS A GENERAL PURPOSE COMPUTER USED FOR BANKING AND BUSINESS APPLICATIONS. THE BASIC SYSTEM INCLUDES A CPU AND AN I/O CHANNEL. STANDARD FEATURES INCLUDE MEMORY PARITY, VIRTUAL MEMORY, A .5 USEC CYCLE TIME, AND A VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES THE MASTER CONTROL PROGRAM (MCP) AVAILABLE WITH ALL BURROUGHS MAINFRAMES.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
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</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
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<tr>
<td>MEMORY: 100 TO 500K HOS</td>
</tr>
<tr>
<td>CYCLE TIME: .5 USEC</td>
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<tr>
<td>ADD TIME:</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 80</td>
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<tr>
<td>INSTRUCTION TYPES (1): BDIM/F</td>
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<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1.5/3.0 MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDRMK/INTERFACE SLOTS: 20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR MCP</td>
</tr>
<tr>
<td>* REAL TIME BMTR</td>
</tr>
<tr>
<td>* T/S MONITOR MCP</td>
</tr>
<tr>
<td>* BATCH MONITOR MCP</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: TABS, MCS GENERATOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: B938X, B948X-3/4</td>
</tr>
<tr>
<td>FIXED HEAD DISK: B9371-1X, B9373-3</td>
</tr>
<tr>
<td>FLEXIBLE DISK: B9468</td>
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<tr>
<td>MAGNETIC TAPE: B939X, B949X-X, B938X</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: B924X-I</td>
</tr>
<tr>
<td>SERIAL PRINTER: B9346-2</td>
</tr>
<tr>
<td>CARD RD, PN: B911X, B921X</td>
</tr>
<tr>
<td>PAPER TAPE RD, PN: B9120, B9220</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: B9348</td>
</tr>
<tr>
<td>MULTIPLEXOR: N/A</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: MICR, OCR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
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<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
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<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER: BPL, WDL</td>
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<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $92440, 100K</td>
</tr>
<tr>
<td>MEMORY: $15000, 50K</td>
</tr>
<tr>
<td>SYSTEM: $233340, 100K</td>
</tr>
<tr>
<td>INCLUDES 100K CPU; DISK (8MB); 2-80K MAGNETIC TAPE DRIVES; LINE PRINTER (400 LPM); CARD READER (300 CPM); CRT.</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multiplex Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
Introduced in 1977, the B2803 is a general purpose computer used for banking and business applications. The basic system includes a CPU with 8 I/O channels. Standard features include memory parity, virtual memory, a .33 usec cycle time, and a variety of peripherals. Software support includes the master control program (MCP) available with all Burroughs mainframes.

**APPLICATION**

* Business/Commercial
* Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

**COMPUTER** (Std/Opt. N/A)

- **Word Size:** 16 Bits
- **Memory:** 100 to 500K MOS
- **Cycle Time:** .33 usec
- **Add Time:** 34/23 usec
- **Cache Memory:** N/A

**# of Instructions:** 80
**Instruction Types (1):** BDM/F
**Accumulators:**
**Index Registers:** 3
**I/O Communications (2):** /ABST
**I/O Transfer Rate:** 1.5/3.0MB
**Processor Features (3):** BCDEMEK/
**Interface Slots:** 20

**SYSTEMS SOFTWARE**

* Assembler
* Macro Assem
* Disk Monitor MCP
* Real Time MMTR
* T/S Monitor MCP
* Batch Monitor MCP
* Data Base SYS
* Other: TABS, MCS Generator

**PRICES**

- **Computer:** $139,220, 100K
- **Memory:** $15,000, 50K
- **System:** $260,120, 100K

Includes 100K CPU; Disk (8MB); 2-80KB Mag Tape; Line Printer (400 LPM); Card reader (300 CPM); CRT.

**FEATURES**

* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

- **Removable Disk:** B9381, B9464-3/4
- **Fixed Head Disk:** B9317-1X, B9373-3
- **Flexible Disk:** B9489
- **Magnetic Tape:** B939X, B949X-1X, B938X
- **Tape Cassette:** N/A
- **Line Printer:** B924X-X
- **Serial Printer:** B9346-2
- **Card RD, PW:** B911X/B921X
- **Paper Tape RD, PW:** B9120/B9220
- **Display Terminal:** B9348-2
- **Multiplexer:**
- **Terminals/System:**
- **Other:** MIC, OCR

**SOFTWARE LANGUAGES**

* APL
* ALGOL
* Single Basic
* Multi Basic
* COBOL
* FORTRAN
* PII
* RPG
* Other: NDL

**MARKETING**

**Main Market:** End User
**Units Sold:**
**Maintenance:** On Call

(1) INSTRUCTIONS:

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:

- **A** = Asynchronous
- **B** = Bistable
- **D** = Direct Memory Access
- **M** = Multipoint Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES

- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
INTRODUCED IN 1972, THE B2803-2 IS A GENERAL PURPOSE COMPUTER USED FOR BANKING AND BUSINESS APPLICATIONS. THE BASIC SYSTEM INCLUDES TWO CPUS WITH 18 I/O CHANNELS. STANDARD FEATURES INCLUDE MEMORY PARITY, VIRTUAL MEMORY, A .33 USEC CYCLE TIME, AND A VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES THE MASTER CONTROL PROGRAM (MCP) AVAILABLE WITH ALL BURROUGHS MAINFRAMES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 100 TO 500K MOS
CYCLE TIME: .33 USEC
ADD TIME:
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 80
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS:
INDEX REGISTERS: 6
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 3-6 MB
PROCESSOR FEATURES (3): BCRM/EK/
INTERFACE SLOTS: 40

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR MCP
* REAL TIME MT
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS
OTHER: TABS, MICS GENERATOR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B938X,948X-3/4
FIXED HEAD DISK: B9371-1X,B9373-3
FLEXIBLE DISK: B9489
MAGNETIC TAPE: B939X,B9491-1,B939X
TAPE CASSETTE: N/A
LINE PRINTER: B9246-X
SERIAL PRINTER: B9346-2
CARD READER/PN: B911X,B921X
PAPER TAPE READER/PN: B9120,B9220
DISPLAY TERMINAL: B9348-2
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: MICS,OCR

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/1
* RPG
OTHER: NDL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 100K CPU; DISK (88B); 2-80KB MAG TAPE; LINE PRINTER (400 LPM); CARD READER (300 CPM); 2 CRT'S.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

54
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INTRODUCED IN 1977, THE BURROUGHS B2810 IS A 16-BIT MEDIUM-SCALE COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. EACH CHANNEL IN THE I/O SUBSYSTEM HAS A DATA LINK PROCESSOR WHICH MINIMIZES BURDEN ON THE CENTRAL SYSTEM. LARGE DATA BASES AND MULTIPLE TERMINAL DEVICES CAN BE HANDLED SIMULTANEOUSLY. A CHOICE OF BURROUGHS PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA EVERY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 62.5 BITS
MEMORY: 250K
CYCLE TIME: .50 USEC
ADD TIME: 10 USEC
CACH Memory:
# OF INSTRUCTIONS: 83
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS:
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 3.0MB/SEC
PROCESSOR FEATURES (3): BCRMEK/INTERFACE SLOTS: 24

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MNTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE STS
OTHER: TABS, MCS GENERATOR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B938X,B948X
FIXED HEAD DISK: B9470,B9371,B9373
FLEXIBLE DISK: B9489
MAGNETIC TAPE: B949X
TAPE CASSETTE: N/A
LINE PRINTER: B924X
SERIAL PRINTER: B9346-2
CARD RD,PN: B911X,B921X
PAPER TAPE RD,PN: B9120,B9220
DISPLAY TERMINAL: B9348
MULTIPLEXOR: N/A
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 125K MEMORY; 130MB DISK DRIVE; 2 MAGNETIC TAPE UNITS (80 KB); CARD READER; LINE PRINTER; CRT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multipath Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE B2185 IS A LARGE-SCALE, HIGH-SPEED, 16-BIT COMPUTER SYSTEM. IT HAS MULTIPROGRAMMING CAPABILITIES AND IS UPWARD COMPATIBLE. EACH CHANNEL IN THE I/O SUBSYSTEM HAS A DATA LINK PROCESSOR TO ENABLE I/O INSTRUCTION EXECUTION INDEPENDENT OF THE CPU. THE SYSTEM SOFTWARE HAS TABS AND MCS GENERATOR OPERATING SYSTEMS. A CHOICE OF BURROUGHS'S PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
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<tr>
<td>* LABORATORY/SCIENTIFIC</td>
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<tr>
<td>* BANKING SYSTEM</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
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</table>

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<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
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<tr>
<td>MEMORY: 125 TO 500K</td>
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<tr>
<td>CYCLE TIME: .33 USEC</td>
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<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
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<tr>
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<td>ACCUMULATORS:</td>
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<tr>
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<td>I/O COMMUNICATIONS (2): /ABST</td>
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<tr>
<td>I/O TRANSFER RATE: 3.0MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCORMEK/</td>
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<tr>
<td>INTERFACE SLOTS: 24</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME MNTR</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: TABS, MCS GENERATOR</td>
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<table>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $172200, 125K</td>
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<tr>
<td>MEMORY: $13700, 125K</td>
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<td>SYSTEM: $535 MFR</td>
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<table>
<thead>
<tr>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: B938X, B948X</td>
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<tr>
<td>FIXED HEAD DISK: B9470, B9371, B9373</td>
</tr>
<tr>
<td>FLEXIBLE DISK: B9489</td>
</tr>
<tr>
<td>MAGNETIC TAPE: B949X</td>
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<tr>
<td>TAPE CASSETTE: M/A</td>
</tr>
<tr>
<td>LINE PRINTER: B924X</td>
</tr>
<tr>
<td>SERIAL PRINTER: B9346-2</td>
</tr>
<tr>
<td>CARD RD, RD, PRN: B911X, B921X</td>
</tr>
<tr>
<td>PAPER TAPE RD, PRN: B9120, B9220</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: B9348</td>
</tr>
<tr>
<td>MULTIPLEXOR: M/A</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM: OTHER:</td>
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<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
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<tbody>
<tr>
<td>APL</td>
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<td>ALGOL</td>
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<tr>
<td>* SINGLE BASIC</td>
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<tr>
<td>* MULTI BASIC</td>
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<tr>
<td>* COBOL</td>
</tr>
<tr>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER:</td>
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</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisychronous
- D = Direct Memory Access
- M = Multipart Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

COMPUTER REVIEW
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1978/No. 1
INTRODUCED IN 1977, THE BURROUGHS 3834 IS A MEDIUM-SCALE COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. THE 3834 BASIC SYSTEM HAS A CENTRAL PROCESSOR WITH A CYCLE TIME OF 253 MILLIONDAYS. THE I/O SUBSYSTEM UTILIZES DATA LINK PROCESSORS WHICH HANDLE I/O FUNCTIONS FOR THE CPU AND CAN ACCESS MEMORY DIRECTLY. THE B3834 PROCESSOR USES A BURROUGHS-DEVELOPED LSI CIRCUITRY CALLED BURROUGHS CURRENT MODEL LOGIC (BCML) AND IS SOFTWARE COMPATIBLE WITH THE COMPARABLE BURROUGHS 700 SYSTEMS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 100 TO 500K MG
CYCLE TIME: .25 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 83
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS: N/A
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 4.0MB
PROCESSOR FEATURES (3): BCD/BMEK/
  INTERFACE SLOTS: 32

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BACH MONITOR
* DATA BASE STS DBS-II
OTHER: TADS, HCS GENERATOR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B938X, B948X
FIXED HEAD DISK: B9470, B9371, B9373
FLEXIBLE DISK: B9489
MAGNETIC TAPE: B949X, B939X
TAPE CASSETTE: N/A
LINE PRINTER: B924X
SERIAL PRINTER: B9346-2
CARD RD, PW: B911X, B921X
PAPER TAPE RD, PW: B9120, B9220
DISPLAY TERMINAL: B9346
MULTIPLEXOR: N/A
TERMINALS/SYSTEM: N/A
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

INCLUDES 100K CPU: DISK (130NB); TWO MAGNETIC TAPE DRIVES (80KB); CARD READER (600 CPN); LINE PRINTER (750 LPN); CBT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
BURROUGHS: B3834-2

INTRODUCED IN 1977, THE BURROUGHS B3834-2 IS A MEDIUM-SCALE COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. THE B3834-2 BASIC SYSTEM HAS 2 CENTRAL PROCESSORS AND 2 I/O SUBSYSTEMS, AND FEATURES FILE PROTECT MEMORY AND A CPU CYCLE TIME OF 250 NANOSECONDS. THE I/O SUBSYSTEM UTILIZES DATA LINK PROCESSORS WHICH HANDLE I/O FUNCTIONS FOR THE CPUS AND CAN ACCESS MEMORY DIRECTLY. THE B3834-2 PROCESSOR USES A BURROUGHS DEVELOPED LSI CIRCUITRY CALLED BURROUGHS CURRENT MODE LOGIC (BCML) AND IS SOFTWARE COMPATIBLE WITH THE COMPARABLE BURROUGHS 700 SYSTEMS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/CONPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Op, N/A)
WORD SIZE: 16 BITS
MEMORY: 200 TO 1000K MOS
CYCLE TIME: .25 USEC
ADU TIME: N/A
CACHE MEMORY: N/A
NO. OF INSTRUCTIONS: 83
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS: N/A
INDEX REGISTERS: 3/6
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 4/9MB
PROCESSOR FEATURES (3): BCDRMV/
INTERFACE SLOTS: 32/64

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS DMII
OTHER: TABS, MCS GENERATOR

FEATURES (*)
- 15556/58 COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B9381, B948X
FIXED HEAD DISK: B9470, B9371, B9373
FLEXIBLE DISK: B9468
MAGNETIC TAPE: B9490, B939X
TAPE CASSETTE: N/A
LINE PRINTER: B924X
SERIAL PRINTER: B9346-2
CARD RD, PN: B911X, B912X
PAPER TAPE RD, PN: B9120, B9220
DISPLAY TERMINAL: B9346
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: MAINTENANCE: ON CALL
INCLUDES 100K CPU; DISK (180MB); TWO MAGNETIC TAPE DRIVES (80KB); CARD READER (600 CPH); LINE PRINTER (750 LPM); CRT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

58

COMPUTER REVIEW
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1978/No. 1
**APPLICATION (*)**

* Business/Commercial
* Communications Processor
  * Industrial Control
  * Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

**FEATURES (*)**

* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
  * User Microprogrammable
  * Factory Microprogrammable
* Virtual Memory Machine
* Multiproessor

**PERIPHERALS** (Model #, Specs. N/A)

- Removable Disk: B9387, B9384
- Fixed Head Disk: B9470
- Flexible Disk: N/A
- Magnetic Tape: B9495-X, B9496-X
- Tape Cassette: N/A
- Line Printer: B924X
- Serial Printer: B9346
- Card Ed, Pn: B9111, B9211
- Paper Tape Ed, Pn: B9120, B9220
- Display Terminal: B9348
- Multiplexer: N/A
- Terminals/System: N/A
- Other: OCR, MICR

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- * Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL 1
- RPG
- Other: NDL

**MARKETING**

- Main Market: End User
- Units Sold: N/A
- Maintenance: On Call

Includes 500K CPU; Disk Subsystem, (130MB); 2 Magnetic Tape Drives (80KB); Card Reader (600 CPM); Line Printer (750 LPM); CRT.

---

**PRICES**

- Computer: $305600, 500K
- Memory: $28000, 250K
- System: $453575, 500K

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**COMPUTER REVIEW**

(1) INSTRUCTIONS:

<table>
<thead>
<tr>
<th>B</th>
<th>Byte Manipulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Decimal Arithmetic</td>
</tr>
<tr>
<td>E</td>
<td>Extended Precision</td>
</tr>
<tr>
<td>F</td>
<td>Floating Point</td>
</tr>
<tr>
<td>I</td>
<td>Indirect Addressing</td>
</tr>
<tr>
<td>M</td>
<td>Multiply &amp; Divide</td>
</tr>
<tr>
<td>S</td>
<td>Stack Processing</td>
</tr>
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(2) I/O COMMUNICATIONS:

<table>
<thead>
<tr>
<th>A</th>
<th>Asynchronous</th>
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<tbody>
<tr>
<td>B</td>
<td>Biphasic</td>
</tr>
<tr>
<td>D</td>
<td>Direct Memory Access</td>
</tr>
<tr>
<td>M</td>
<td>Multipoint Memory</td>
</tr>
<tr>
<td>S</td>
<td>Selectable Line Speeds</td>
</tr>
<tr>
<td>T</td>
<td>Teletypewriter</td>
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(3) PROCESSOR FEATURES

<table>
<thead>
<tr>
<th>B</th>
<th>Base Address Relocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Real Time Clock</td>
</tr>
<tr>
<td>D</td>
<td>Dynamic Page Relocation</td>
</tr>
<tr>
<td>E</td>
<td>Memory Parity Detect</td>
</tr>
<tr>
<td>F</td>
<td>Power Fail Safe</td>
</tr>
<tr>
<td>K</td>
<td>Memory Parity Correct</td>
</tr>
<tr>
<td>M</td>
<td>Memory Protection</td>
</tr>
<tr>
<td>R</td>
<td>Priority Interrupt</td>
</tr>
<tr>
<td>V</td>
<td>Vectored Interrupt</td>
</tr>
</tbody>
</table>

1978/No. 1
BULROUGHS: B4771

INTRODUCED IN 1973, THE B4771 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE BASIC B4771 SYSTEM INCLUDES A CPU WITH 8 I/O CHANNELS. FEATURES INCLUDE MULTIPROGRAMMING, A COMMUNICATIONS PROCESSOR AND DECIMAL ARITHMETIC HARDWARE. SOFTWARE SUPPORT INCLUDES BUSINESS APPLICATIONS PACKAGES AND AN RPG COMPILER. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 16 BITS
MEMORY: 150 TO 500K BOS
CYCLE TIME: .25 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 80
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS: N/A
INDEX REGISTERS: 3/6/9/12
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 4-16MB
PROCESSOR FEATURES (3): BCDRMEK/
INTERFACE SLOTS: 20/60

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR MCP
* REAL TIME MTR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS
OTHER: TABS, MCS GENERATOR

PRICES

COMPUTER: $333310, 150K
MEMORY: $29105, 50K
SYSTEM: $466530, 150K
INCLUDES 150K CPU; DISK (8MB); 2-80KB MAGNETIC TAPE; LINE PRINTER (400 LPM);
CARD READER (300 CPM); CRT.

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: B9381, B948X
FIXED HEAD DISK: B9371, B9373
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B939X, B949X
TAPE CASSETTE: N/A
LINE PRINTER: B9242-X
SERIAL PRINTER: B9340
CARD RD, PW: B911X, B921X
PAPER TAPE RD, PW: B9120, B9220
DISPLAY TERMINAL: B9348-2
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER: BPL, NDL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B synchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1973, THE B4781 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE BASIC B4781 SYSTEM INCLUDES A CPU WITH 10 I/O CHANNELS. FEATURES INCLUDE FILE PROTECT MEMORY, MULTIPROGRAMMING, A COMMUNICATIONS PROCESSOR AND DECIMAL ARITHMETIC HARDWARE. SOFTWARE SUPPORT INCLUDES BUSINESS APPLICATIONS PACKAGES AND AN RPG COMPILER. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATIONS
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 150 TO 500K MOS
CYCLE TIME: .25 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 80
INSTRUCTION TYPES (1): BDIP/F
ACCUMULATORS: N/A
INDEX REGISTERS: 3/6/9/12
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 4-16KB
PROCESSOR FEATURES (3): BCD/RMEK/
INTERFACE SLOTS: 20/80

SYSTEMS SOFTWARE
* ASSEMBLER
* MACRO ASSEMBLY
* DISK MONITOR MCP
* REAL TIME MTR
* T/V MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE STS
OTHER: TABS, HCS GENERATOR

FEATURES
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B938X, B948X
FIXED HEAD DISK: B9371, B9373
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B939X, B949X
TAPE CASSETTE: N/A
LINE PRINTER: B924X-1
SERIAL PRINTER: B9340
CARD READER, PR: B911X, B921X
PAPER TAPE RD, PR: B9120, B9220
DISPLAY TERMINAL: B9348-2
MULTIPLEXOR: N/A
TERMINALS/SYSTEM: OTHER

SOFTWARE LANGUAGES
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/1
* RPG
OTHER: BPL, WDL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCREASES 150K CPU; DISK (8MB): 2-80KB MAGNETIC TAPE DRIVES; LINE PRINTER (400 LPM); CARD READER (300 CPM): CRT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
Introduced in 1973, the B4782 is a medium-scale, general purpose computer designed for business applications. The basic B4782 system includes two CPUs with 16 I/O channels. Features include file protect memory, multiprogramming, a communications processor and decimal arithmetic hardware. Software support includes business applications packages and an RPG compiler. A variety of peripherals is available.

**Application (*)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**Computer (Std/Opt. N/A)**
- Word Size: 16 Bits
- Memory: 150 to 1000K MOS
- Cycle Time: 25 USEC
- Add Time: N/A
- Cache Memory: N/A
- # of Instructions: 80
- Instruction Types (1): BDIM/F
- Accumulators: N/A
- Index Registers: 3/6/9/12
- I/O Communications (2): /ABST
- I/O Transfer Rate: 4-16MB
- Processor Features (3): BCDEMEK/
- Interface Slots: 20/80

**Systems Software (*)**
- Assembler
- Macro Assem
- Disk Monitor MCP
- Real Time MTR
- T/S Monitor MCP
- Batch Monitor MCP
- Data Base SYS
- Other: TABS, NCS Generator

**Prices**
- Computer: $625360, 300K
- Memory: $29105, 50K
- System: $774745, 300K
- Includes 300K CPU; disk (88B); 2-60K Magnetic tape drives; line printer (400 LPM); card reader (300 CPM); 2-CETS.

**Features (*)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**Peripherals (Model #, Specs, N/A)**
- Removable Disk: B938X, B948X
- Fixed Head Disk: B9371, B9373
- Flexible Disk: N/A
- Magnetic Tape: B939X, B949X
- Tape Cassette: N/A
- Line Printer: B924X-X
- Serial Printer: B9340
- Card RD, PW: B911X, B921X
- Paper Tape RD, PW: B9120, B9220
- Display Terminal: B9348-2
- Multiplexer: N/A
- Terminals/System:
- Other:

**Software Languages (*)**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other: BPL, NDLS

**Marketing**
- Main Market: End User
- Units Sold:
- Maintenance: On Call

(1) Instructions:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O Communications:
A = Asynchronous
B = Biphasic
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) Processor Features:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1973, THE B4783 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE BASIC B4783 SYSTEM INCLUDES THREE CPUs WITH 26 I/O CHANNELS. FEATURES INCLUDE FILE PROTECT MEMORY, MULTIPROGRAMMING, A COMMUNICATIONS PROCESSOR AND DECIMAL ARITHMETIC HARDWARE. SOFTWARE SUPPORT INCLUDES BUSINESS APPLICATIONS PACKAGES AND AN RPG COMPILER. A VARIETY OF PERIPHERALS IS AVAILABLE.

**APPLICATION**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)

<table>
<thead>
<tr>
<th>WORD SIZE: 16 BITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMORY: 150 TO 1500K NBOS</td>
</tr>
<tr>
<td>CYCLE TIME: .25 USEC</td>
</tr>
<tr>
<td>ADD TIME: N/A</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 80</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDM/P</td>
</tr>
<tr>
<td>ACCUMULATORS: N/A</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3/6/9</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 4-16MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDBMEK/INTERFACE SLOTS: 20/40</td>
</tr>
</tbody>
</table>

**SYSTEMS SOFTWARE**

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR MCP
* REAL TIME MONITOR
* TVS MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS
* OTHER: TABS, NCS GENERATOR

**PERIPHERALS** (Model #, Specs, N/A)

| REMOVABLE DISK: B938X, B948X |
| FIXED HEAD DISK: B9371, B9373 |
| FLEXIBLE DISK: N/A |
| MAGNETIC TAPE: B939X, B949X |
| TAPE CASSETTE: N/A |
| LINE PRINTER: B924X, B9340 |
| SERIAL PRINTER: B9240 |
| CARD ED, RN: B911X, B921X |
| PAPER TAPE ED, RN: B9120, B9220 |
| DISPLAY TERMINAL: B9348-2 |
| MULTIPLEXOR: N/A |
| TERMINALS/SYSTEM: N/A |
| OTHER: N/A |

**SOFTWARE LANGUAGES**

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PLS
* RPG
* OTHER: BPL, NDL

**MARKETING**

| MAIN MARKET: END USER |
| UNITS SOLD: |
| MAINTENANCE: ON CALL |

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multisport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1973, THE 4784 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. THE BASIC 4784 SYSTEM INCLUDES FOUR CPUS WITH 34 I/O CHANNELS. FEATURES INCLUDE FILE PROTECT MEMORY, MULTIPROGRAMMING, A COMMUNICATIONS PROCESSOR AND DECIMAL ARITHMETIC HARDWARE. SOFTWARE SUPPORT INCLUDES BUSINESS APPLICATIONS PACKAGES AND AN RPG COMPILER. A VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
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<tr>
<td>MEMORY: 150 TO 2000K MOS</td>
</tr>
<tr>
<td>CYCLE TIME: .25 USEC</td>
</tr>
<tr>
<td>ADD TIME: N/A</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 80</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDIM/P</td>
</tr>
<tr>
<td>ACCUMULATORS: N/A</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3/6/9/12</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 4-16MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDM/EK/</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 20/60</td>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR MCP</td>
</tr>
<tr>
<td>* REAL TIME MMU</td>
</tr>
<tr>
<td>* T/S MONITOR MCP</td>
</tr>
<tr>
<td>* BATCH MONITOR MCP</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: TABS, MCSI GENERATOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
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</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>* FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
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<td>OTHER: BPL, NDL</td>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
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<tbody>
<tr>
<td>COMPUTER: $1330705, 300K</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR, 300K</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: B938X, B948X</td>
</tr>
<tr>
<td>FIXED HEAD DISK: B937X, B9373</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: B939X, B949X</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: B924X-X</td>
</tr>
<tr>
<td>SERIAL PRINTER: B9340</td>
</tr>
<tr>
<td>CARD RD, PN: B911X, B921X</td>
</tr>
<tr>
<td>PAPER TAPE RD, PN: B9120, B9220</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: B9348-2</td>
</tr>
<tr>
<td>MULTIPLEXOR: N/A</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Relocation
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS/NETWORK
- INDOOR CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 200 TO 1000K BIPOLAR
- CYCLE TIME: .125 USEC
- ADD TIME: N/A
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 83
- INSTRUCTION TYPES (1): BDIM/F
- ACCUMULATORS:
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): /ABST
- I/O TRANSFER RATE: 8MB
- PROCESSOR FEATURES (3): BCD/FM/FK
- INTERFACE SLOTS: 64

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: TABS, HCS GENERATOR

**PRICES**

- COMPUTER: $371600, 200K
- MEMORY: $40000, 100K
- SYSTEM: $519375, 200K

INCLUDES 200K CPU; DISK PACK (130MB); TWO M. TAPE DRIVES (80KB EACH); CARD READER (800 CPH); PRINTER (750 LPM); CRT.

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Spec, N/A)**

- REMOVABLE DISK: B9387, B9384
- FIXED HEAD DISK: B9470
- FLEXIBLE DISK: B9649
- MAGNETIC TAPE: B9495-X, B9496-X
- TAPE CASSETTE: N/A
- LINE PRINTER: B926X
- SERIAL PRINTER: B9346
- CARD REG: PW: B911X, B921X
- PAPER TAPE RD, PW: B9120, B9220
- DISPLAY TERMINAL: B9348
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM: OTHER

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PSL
- HPG
- OTHER: NDL

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: N/A
- MAINTENANCE: ON CALL

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES:**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE BURROUGHS B4841 IS A MEDIUM-SCALE COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. THE B4841 BASIC SYSTEM HAS A CENTRAL PROCESSOR AND AN I/O SUBSYSTEM, INCLUDES FILE PROTECT MEMORY AND A CPU CYCLE TIME OF 125 NANOSECONDS. THE I/O SUBSYSTEM UTILIZES DATA LINK ProcessORS WHICH HANDLE I/O FUNCTIONS FOR THE CPU AND CAN ACCESS MEMORY DIRECTLY. THE B4841 PROCESSOR USES A BURROUGHS-DEVELOPED LS1 CIRCUITRY CALLED BURROUGHS CURRENT MODE LOGIC (BCML) AND IS SOFTWARE COMPATIBLE WITH THE COMPAREABLE BURROUGHS 700 SYSTEMS.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 16 BITS
MEMORY: 200 TO 1000K BIPOLAR
CYCLE TIME: .125 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 83
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS:
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 8MB
PROCESSOR FEATURES (3): BCDFEMEK/
INTERFACE SLOTS: 64

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MNT
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: TABS, MCS GENERATOR

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: B9387,B9384
FIXED HEAD DISK: B9470
FLEXIBLE DISK: B9489
MAGNETIC TAPE: B9495-L,B9496-X
TAPE CASSETTE: N/A
LINE PRINTER: B924X
SERIAL PRINTER: B9346
CARD RD,PN: B911X;B921X
PAPER TAPE RD,PN: B9120;B9220
DISPLAY TERMINAL: B9348
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER: NDL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES

COMPUTER: $410600, 200K
MEMORY: $40000, 100K
SYSTEM: $55875, 200K
INCLUDES 200K CPU; DISK PACK (130MB); TWO 8K TAPE DEIVES (80KB EACH); CARD READER (600 CPM); PRINTER (750 LPM); CRT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

66
COMPUTER REVIEW
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1978/No. 1
INTRODUCED IN 1975, THE BURROUGHS B4842 MODEL IS A MEDIUM-SCALE COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. THE B4842 BASIC SYSTEM HAS TWO CENTRAL PROCESSORS, TWO I/O SUBSYSTEMS, AND FEATURES FILE PROTECT MEMORY PLUS A CPU CYCLE TIME OF 125 NANOSECONDS. THE I/O SUBSYSTEMS UTILIZE DATA LINK PROCESSORS WHICH HANDLE I/O FUNCTIONS FOR THE CPU'S AND CAN ACCESS MEMORY DIRECTLY. THE B4842 PROCESSORS USE A BURROUGHS-DEVELOPED LSI CIRCUITRY CALLED BURROUGHS CURRENT MODE LOGIC (BCL) AND ABLE SOFTWARE COMPATIBLE WITH THE COMPATIBLE BURROUGHS 700 SYSTEMS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 16 BITS
MEMORY: 200 TO 2000K BIPOLAR
CYCLE TIME: .125 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 83
INSTRUCTION TYPES (1): BDIM/P
ACCUMULATORS:
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: 8MB
PROCESSOR FEATURES (3): BCDFRM/ER INTERFACE SLOTS: 128

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* I/O MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: TABS, MCS GENERATOR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #. Specs. N/A)
REMOVABLE DISK: B9387, B9384
FIXED HEAD DISK: B9470
FLEXIBLE DISK: B9489
MAGNETIC TAPE: B9495-X, B9496-X
TAPE CASSETTE: N/A
LINE PRINTER: B924X
SERIAL PRINTER: B9346
CARD RDR, PR: B911X, B921X
PAPER TAPE RDR, PR: B9120, B9220
DISPLAY TERMINAL: B9348
MULTIPLEXOR: N/A
TERMINALS/SYSTEM: N/A
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER: NDL

MARKETING
MAIN MARKET: END USER
UNITS SOLD: ON CALL
MAINTENANCE: ON CALL

PRICES
COMPUTER: $689400, 400K
MEMORY: $4000, 100K
SYSTEM: $847435, 400K
INCLUDES TWO 200K CPU'S; DISK PACK (130MB); TWO MAGNETIC TAPE DRIVES (80KB EACH); CARD READER (600 LPM); PRINTER (750 LPM); 2-CRTS.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW
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67
THE BURROUGHS B6738 IS A LARGE-SCALE, MULTIPROGRAMMING COMPUTER USED FOR BUSINESS, SCIENTIFIC, EDUCATIONAL AND COMMUNICATIONS APPLICATIONS. SOFTWARE SUPPORT INCLUDES COMMUNICATION SOFTWARE AND THE DMS-II DATA BASE SYSTEM. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 48 BITS
MEMORY: 64 TO 1024K CORE
CYCLE TIME: .2 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): B/EIMS/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): ABMST/T
I/O TRANSFER RATE: 68B
PROCESSOR FEATURES (3): BCORNEK/
INTERFACE SLOTS: 20

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR MCP
* REAL TIME MNTR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS DMS-II
OTHER: NDL

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: B9383-4, B9488-1
FIXED HEAD DISK: B9372-20, B9373-XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B939X, B949X-1, B938X
TAPE CASSETTE: N/A
LINE PRINTER: B9243-11, B9246-2
SERIAL PRINTER: B9350
CARD RD, PN: B911X; B9213
PAPER TAPE RD, PN: B9120; B9220
DISPLAY TERMINAL: B9342-1
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: DATA COMM PROC B6358

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: ESPOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Slack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PRICES
COMPUTER: $SEE MFR., 64K
MEMORY:
SYSTEM: $SEE MFR., 64K

68 COMPUTER REVIEW
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**APPLICATION**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt. N/A)

- Word size: 48 bits
- Memory: 64 to 1024K core
- Cycle time: .2 usec
- Add time:
- Cache memory:
- # of instructions:
- Instruction types (1): BEFINS/
  accumulators:
- Index registers:
- I/O communications (2): ABDMS/T
- I/O transfer rate: 6MB
- Processor features (3): BCDMEK/
  interface slots: 20

**SYSTEMS SOFTWARE**

- Assembler
- Macro Assembler
- Disk Monitor MCP
- Real Time Monitor
- D/S Monitor MCP
- Batch Monitor MCP
- Data Base Sys DMS-II
- Other: NDL

**FEATURES**

- Upward compatible
- Field Service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

- Removable disk: B9383-X, B9484-X
- Fixed head disk: B9372-20, B9373-XX
- Flexible disk: N/A
- Magnetic tape: B939X, B949X-1, B938X
- Tape cassette: N/A
- Line printer: B9243-11, B9246-2
- Serial printer: B9350
- Card reader: B911X, B9213
- Paper tape reader: B9120, B9220
- Display terminal: B9342-1
- Multiplexer:
- Terminals/system:
- Other: Data comm proc B6358

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other: ESPOL

**MARKETING**

- Main market: End user
- Units sold: maintenance: On Call

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1970, THE B6748 IS A LARGE-SCALE, MULTIPROGRAMMING COMPUTER USED FOR BUSINESS, SCIENTIFIC, EDUCATIONAL AND COMMUNICATIONS APPLICATIONS. THE BASIC B6748 SYSTEM INCLUDES A CPU AND AN I/O PROCESSOR WITH TWELVE DATA SWITCHING CHANNELS. SOFTWARE SUPPORT INCLUDES COMMUNICATIONS SOFTWARE AND THE DMS-II DATA BASE SYSTEM. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*):
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A):
- WORD SIZE: 48 BITS
- MEMORY: 64 TO 1024K CORE
- CYCLE TIME: .2 USEC
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): BFIN/S
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): ABDMS/T
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): BCDMEM/
- INTERFACE SLOTS: 20

SYSTEMS SOFTWARE (*):
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR MCP
- REAL TIME MONITOR
- T/S MONITOR MCP
- BATCH MONITOR MCP
- DATA BASE SYS DMS-II
- OTHER: NDL

PRICES:
- COMPUTER: $SEE MFR, 64K
- MEMORY: $SEE MFR, 64K

FEATURES (*):
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A):
- REMOVABLE DISK: B9383-1, B9484-X
- FIXED HEAD DISK: B9372-20, B9373-XX
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: B939X, B949X-1, B9381X
- TAPE CASSETTE: N/A
- LINE PRINTER: B9243-11, B9246-2
- SERIAL PRINTER: B9350
- CARD BD, PN: B9111X-B9213
- PAPER TAPE BD, PN: B9120-B9220
- DISPLAY TERMINAL: B9342-1
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER: DATA COMM PROC 66358

SOFTWARE LANGUAGES (*):
- APL
- ALGOL
- SINGLE BASIC
- HULLI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: ESPOL

MARKETING:
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

70
INTRODUCED IN 1970, THE B6750 IS A LARGE-SCALE, MULTIPROGRAMMING COMPUTER USED FOR BUSINESS, SCIENTIFIC, EDUCATIONAL AND COMMUNICATIONS APPLICATIONS. THE BASIC B6750 SYSTEM INCLUDES TWO CPUS AND AN I/O PROCESSOR WITH TWELVE DATA SWITCHING CHANNELS. SOFTWARE SUPPORT INCLUDES COMMUNICATIONS SOFTWARE AND THE DMS-II DATA BASE SYSTEM. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 48 BITS
MEMORY: 64 TO 1024K CORE
CYCLE TIME: .2 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BEFINS/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): ABDMS/T
I/O TRANSFER RATE: 6MB
PROCESSOR FEATURES (3): BCDBMEXK/
INTERFACE SLOTS: 20

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBLE
* DISK MONITOR MCP
* REAL TIME MTR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS DMS-II
OTHER: NDL

PRICES
COMPUTER: $SEE MFR, 64K
MEMORY:
SYSTEM: $SEE MFR, 64K

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: B9383-X, B9484-X
FIXED HEAD DISK: B9372-20, B9373-XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B9391, B9491-X, B9381
TAPE CASSETTE: N/A
LINE PRINTER: B9243-11, B9246-2
SERIAL PRINTER: B93350
CARD RD, PN: B911X; B9213
PAPER TAPE RD, PN: B9120; B9220
DISPLAY TERMINAL: B9342-1
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: DATA COMM PROC 86358

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PI
* RPG
OTHER: ESPOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipart Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1970, THE B6760 IS A LARGE-SCALE, MULTIPROGRAMMING COMPUTER USED FOR BUSINESS, SCIENTIFIC, EDUCATIONAL AND COMMUNICATIONS APPLICATIONS. THE BASIC B6760 SYSTEM INCLUDES THREE CPUS AND TWO I/O PROCESSORS WITH TWELVE DATA SWITCHING CHANNELS. SOFTWARE SUPPORT INCLUDES COMMUNICATIONS PROGRAMMING AND THE DMS-II DATA BASE SYSTEM. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 48 BITS
MEMORY: 64 TO 1024K CORE
CYCLE TIME: .2 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BEFINS/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): ABDMS/T
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): BCD/MEK/
INTERFACE SLOTS: 20

SYSTEMS SOFTWARE (*)
* ASSEMBLER
  MACRO ASSEM
* DISK MONITOR MCP
* REAL TIME MONITOR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYM DMS-II
OTHER: NDL

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: B9363-X,B9484-X
FIXED HEAD DISK: B9372-20,B9373-XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B9391,B9491-X,B9381
TAPE CASSETTE: N/A
LINE PRINTER: B9243-11,B9246-2
SERIAL PRINTER: B9350
CARD RD/PN: B911X,B9213
PAPER TAPE RD/PN: B9120,B9220
DISPLAY TERMINAL: B9342-1
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: DATA COMM PROC B6358

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: ESPOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bismynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vented Interrupt

---

72
INTRODUCED IN 1977, THE BURROUGHS B6803 IS A MEDIUM-SCALE COMPUTER SYSTEM DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. FEATURES INCLUDE ERROR CORRECTING CORE MEMORY.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
</table>
| * BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: BITS</td>
</tr>
<tr>
<td>MEMORY: 786 TO 3000K</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
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<tr>
<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEMBLER</td>
</tr>
<tr>
<td>DISK MONITOR</td>
</tr>
<tr>
<td>REAL TIME MONITOR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYSTEM</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $299,000</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
</tr>
</tbody>
</table>

| REMOVABLE DISK: |
| FIXED HEAD DISK: |
| FLEXIBLE DISK: |
| MAGNETIC TAPE: |
| TAPE CASSETTE: |
| LINE PRINTER: |
| SERIAL PRINTER: |
| CARD RD/PW: |
| PAPER TAPE RD/PW: |
| DISPLAY TERMINAL: |
| MULTIPLEXOR: |
| TERMINALS/SYSTEM: |
| OTHER: |

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
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<tr>
<td>MULTI BASIC</td>
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<tr>
<td>COBOL</td>
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<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL 1</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Blysynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
INTRODUCED IN 1977, THE BURROUGHS B6805 IS A MEDIUM-SCALE COMPUTER SYSTEM. THE BASIC SYSTEM OFFERS AN OPERATOR CONSOLE WITH TWO DISPLAYS. FEATURES INCLUDE ERROR CORRECTING CORE MEMORY.

### Application (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Computer (Std/Opt, N/A)
- Word Size: Bits
- Memory: 766 to 3000K
- Cycle Time:
- Add Time:
- Cache Memory:
- # of Instructions:
- Instruction Types (1):
- Accumulators:
- Index Registers:
- I/O Communications (2):
- I/O Transfer Rate:
- Processor Features (3):
- Interface Slots:

### Systems Software (*)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mntr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

### Prices
- Computer: $360000
- Memory:
- System: $500000

### Features (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### Peripherals (Model #, Specs, N/A)
- Removable Disk:
- Fixed Head Disk:
- Flexible Disk:
- Magnetic Tape:
- Tape Cassette:
- Line Printer:
- Serial Printer:
- Card RD, PN:
- Paper Tape RD, PN:
- Display Terminal:
- Multiplexor:
- Terminals/System:
- Other:

### Software Languages (*)
- APL
- ALGOL
- Single Basic
- Multi Basic
- CGBOL
- FORTRAN
- PL1
- RPG
- Other:

### Marketing
- Main Market: End User
- Units Sold:
- Maintenance: On Call

---
(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION (*)**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM

**DATA ENTRY SYSTEM**

**COMPUTER (Std/Opt, N/A)**

* WORD SIZE: 48 BITS
* MEMORY: 64 TO 512K CORE
* CYCLE TIME: .150 USEC
* ADD TIME:
* CACHE MEMORY: N/A

**# OF INSTRUCTIONS:**

* INSTRUCTION TYPES (1): BDEFINS/
* ACCUMULATORS:

**INDEX REGISTERS:**

* I/O COMMUNICATIONS (2): AD/BST
* I/O TRANSFER RATE: 2.2MB

**PROCESSOR FEATURES (3): BCDPRMEK/
* INTERFACE SLOTS: 20**

**SYSTEMS SOFTWARE (*)**

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME NMTB
* T/S MONITOR
* BATH MONITOR
* DATA BASE SYS DMS-II

**OTHER: OCR, MICR**

**FEATURES (*)**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

* REMOVABLE DISK: B963-I, B9481-I
* FIXED READ: B9372-20, B9470
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: B9495
* TAPE CASSETTE: N/A
* LINE PRINTER: B9247
* SERIAL PRINTER: N/A
* CARD RD/PN: B9116
* PAPER TAPE RD/PN: N/A
* DISPLAY TERMINAL: B9340
* MULTIPLEXOR: N/A
* TERMINALS/SYSTEM:

**OTHER:**

**SOFTWARE LANGUAGES (*)**

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* FPG
* OTHER: NDL

**MARKETING**

MAIN MARKET: END USER

UNITS SOLD: MAINTENANCE: ON CALL

INCLUDES 128K CPU; CARD READER (300 CPM); LINE PRINTER (1100 LPM); 3 MAGNETIC TAPE UNITS (120KB); DISK PACK (348MB).

---

**PRICES**

**COMPUTER**: $589000, 128K
**MEMORY**: $84000, 64K
**SYSTEM**: $721400, 128K

---

**INSTRUCTIONS:**

<table>
<thead>
<tr>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>I</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Byte Manipulation</td>
<td>Decimal Arithmetic</td>
<td>Extended Precision</td>
<td>Floating Point</td>
<td>Indirect Addressing</td>
<td>Multiply &amp; Divide</td>
<td>Stack Processing</td>
</tr>
</tbody>
</table>

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**I/O COMMUNICATIONS:**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
<th>M</th>
<th>S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asynchronous</td>
<td>Bisynchronous</td>
<td>Direct Memory Access</td>
<td>Multiport Memory</td>
<td>Selectable Line Speeds</td>
<td>Autodial</td>
</tr>
</tbody>
</table>

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**PROCESSOR FEATURES**

<table>
<thead>
<tr>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>K</th>
<th>M</th>
<th>R</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Address Relocation</td>
<td>Real Time Clock</td>
<td>Dynamic Page Relocation</td>
<td>Memory Parity Detect</td>
<td>Power Fail Safe</td>
<td>Memory Parity Correct</td>
<td>Memory Protection</td>
<td>Priority Interrupt</td>
<td>Vectored Interrupt</td>
</tr>
</tbody>
</table>
INTRODUCED IN 1976, THE B6811 IS A LARGE-SCALE, GENERAL PURPOSE, MULTIPROGRAMMING COMPUTER DESIGNED FOR DATA BASE OR DATA COMMUNICATIONS APPLICATIONS. THE BASIC SYSTEM INCLUDES A CPU AND AN I/O PROCESSOR WITH TWENTY DATA SWITCHING CHANNELS. SOFTWARE SUPPORT INCLUDES THE DMS-II DATA BASE SYSTEM AND COMMUNICATIONS SOFTWARE. A VARIETY OF PERIPHERALS IS AVAILABLE.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 48 BITS
- MEMORY: 64 TO 512K CORE
- CYCLE TIME: .150 USEC
- ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): BDEFMS/
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): AD/BST
- I/O TRANSFER RATE: 2.2 MB
- PROCESSOR FEATURES (3): BCDPRMEK/
- INTERFACE SLOTS: 20

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MICRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MTR
- BACH MONITOR
- DATA BASE SYS DMS-II
- OTHER: OGE, MIRC

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs. N/A)**

- REMOVABLE DISK: B983-X, B948X-X
- FIXED HEAD DISK: B9372-20, B9470
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: B9495
- TAPE CASSETTE: N/A
- LINE PRINTER: B9247
- SERIAL PRINTER: N/A
- CARD RD, FN: B9116
- PAPER TAPE RD, FN: N/A
- DISPLAY TERMINAL: B9340
- MULTIPLEXOR: N/A
- TERMINAL/SYSTEM:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER: NDL

**PRICES**

- COMPUTER: $69700, 128K
- MEMORY: $84000, 64K
- SYSTEM: $974400, 128K

- INCLUDES 128K CPU; CARD READER (300 CPM); LINE PRINTER (1100 LPM); 3 M. TAPE
- UNITS (120KB); DISK PACK (340MB).

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipart Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES:**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1977, THE BURROUGHS B6817 IS A LARGE, MULTIPROCESSOR-BASED COMPUTER SYSTEM. THE B6817 ACCOMODATES INTERACTIVE APL, COBOL, ALGOL, FORTRAN, PL/I, AND BASIC. USERS CAN EXPAND THE SYSTEM TO ACCOMODATE ADDITIONAL CPUs AND I/O PROCESSORS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>UPHWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
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</tbody>
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<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<td>CYCLE TIME:</td>
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<td>ADD TIME:</td>
<td>MAGNETIC TAPE:</td>
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<td>CACHE MEMORY:</td>
<td>TAPE CASSETTE:</td>
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<td># OF INSTRUCTIONS:</td>
<td>LINE PRINTER:</td>
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<td>INSTRUCTION TYPES (1): /</td>
<td>SERIAL PRINTER:</td>
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<td>ACCUMULATORS:</td>
<td>CARD RD, PN:</td>
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<td>INDEX REGISTERS:</td>
<td>PAPER TAPE RD, PN:</td>
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<td>I/O COMMUNICATIONS (2): /</td>
<td>DISPLAY TERMINAL:</td>
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<td>I/O TRANSFER RATE:</td>
<td>MULTIPLEXOR:</td>
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<tr>
<td>PROCESSOR FEATURES (3): /</td>
<td>TERMINALS/SYSTEM:</td>
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<tr>
<td>INTERFACE SLOTS:</td>
<td>OTHER:</td>
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<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
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<tr>
<td>ASSEMBLER</td>
<td>APL</td>
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<td>MACRO ASSEM</td>
<td>ALGOL</td>
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<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
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<tr>
<td>REAL TIME MNTR</td>
<td>* MULTI BASIC</td>
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<tr>
<td>T/S MONITOR</td>
<td>COBOL</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>* FORTRAN</td>
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<td>DATA BASE SYS</td>
<td>* PL/I</td>
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<td>OTHER:</td>
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<th>MARKETING</th>
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<td>MEMORY:</td>
<td>UNITS SOLD:</td>
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<tr>
<td>SYSTEM: $SEE MFR</td>
<td>MAINTENANCE: ON CALL</td>
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</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipart Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**BUERROUGHS: B6821**

Introduced in 1976, the B6821 is a large-scale, general purpose, multiprogramming computer designed for data base or data communications applications. The basic system includes two CPUs and two I/O processors with twenty data switching channels each. Software support includes the DMS-II data base system and communications software. A variety of peripherals is available.

### Application (*)

- Business/Commercial
- Communications processor
- Industrial control
- Laboratory/scientific
- Engineering/computation
- Educational system
- Banking system
- Data entry system

### Computer (Std/Opt. N/A)

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<th>Description</th>
<th>Value</th>
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<td>Word size</td>
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<td>Memory</td>
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<tr>
<td>Cycle time</td>
<td>.150 usec</td>
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<tr>
<td>Add time</td>
<td></td>
</tr>
<tr>
<td>Cache memory</td>
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<tr>
<td># of instructions</td>
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<tr>
<td>Instruction types (1): BDEFSMS</td>
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<tr>
<td>Accumulators</td>
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<tr>
<td>Index registers</td>
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<tr>
<td>I/O communications (2): AD/BST</td>
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<td>I/O transfer rate</td>
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<td>Processor features (3): BCDRMAK</td>
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<tr>
<td>Interface slots</td>
<td>40</td>
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</tbody>
</table>

### Systems Software (*)

- Assembler
- Macro Assem
- Disk monitor
- Real time monitor
- T/S monitor
- Batch monitor
- Data base sys DMS-II
- Other: OCE, nice

### Prices

- Computer: $1538000, 384K
- Memory: $840000, 64K
- System: $2236800, 384K

Includes 384K CPU; 2 card readers (300 CPM); 2 line printers (1100 LPM); 6 mag tape units (120KB); disk pack (796MB).

### Features (*)

- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

### Peripherals (Model #, Specs, N/A)

- Removable disk: B983-I
- Fixed head disk: B9372-20
- Flexible disk: N/A
- Magnetic tape: B9495
- Tape cassette: N/A
- Line printer: B9247
- Serial printer: N/A
- Card BD, PN: B9116
- Paper tape RD, PN: N/A
- Display terminal: B9340
- Multiplexer: N/A
- Terminals/system: Other:

### Software Languages (*)

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other: NDL

### Marketing

- Main market: End user
- Units sold: Maintenance on call

---

(1) Instructions:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiprotocol Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

78

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1978/No. 1

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 48 BITS
MEMORY: 256 TO 1024K MOS
CYCLE TIME: .063 USSEC
ADD TIME:
CACHE MEMORY: 6KB
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): B, D, E, F, I, M, S
INDEX REGISTERS:
I/O COMMUNICATIONS (2): ABDMS/T
I/O TRANSFER RATE: 6MB
PROCESSOR FEATURES (3): BCDFVFRMEK/
INTERFACE SLOTS: 26

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEMBLER
* DISK MONITOR MCP
* REAL TIME MTR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYS DMS-II

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
  MULTI BASIC
* COBOL
* FORTRAN
* PL/1
  RPG
  OTHER: NDL

PRICES
COMPUTER: $204,3100, 256K
MEMORY:
SYSTEM: $219,7100, 256K
INCLUDES 256K CPU; DISK (10MB) $40,800; 8 MB TAPE @ $33,400; LINE PRINTER (1100 LPM); $56,000; CARD READER (800 CPM) $21,800.

MARKETING
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
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S = Stack Processing

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<td>* FIELD SERVICE</td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
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<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<tr>
<th>COMPUTERS (Std/Opt. N/A)</th>
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<tr>
<td>WORD SIZE: 48 BITS</td>
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<tr>
<td>MEMORY: 256 TO 1024K MOS</td>
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<td>CYCLE TIME: 1.063 USEC</td>
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<tr>
<td>ADD TIME:</td>
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<td>CACHE MEMORY: 6KB</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
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<td>INSTRUCTION TYPES (1): BDEIFS/ACCUMULATORS:</td>
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<td>INDEX REGISTERS:</td>
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<td>I/O COMMUNICATIONS (2): ABDMTS</td>
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<td>I/O TRANSFER RATE: 6MB</td>
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<td>PROCESSOR FEATURES (3): BCDPVMEK/INTERFACE SLOTS: 28</td>
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<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEMBLER</td>
</tr>
<tr>
<td>* DISK MONITOR MCP</td>
</tr>
<tr>
<td>* REAL TIME MTR</td>
</tr>
<tr>
<td>* T/S MONITOR MCP</td>
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<tr>
<td>* BATCH MONITOR MCP</td>
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<tr>
<td>* DATA BASE SYS DMS-II</td>
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<td>OTHER:</td>
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<th>PRICES</th>
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<td>COMPUTER: $SEE MFR, 256K</td>
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<td>MEMORY:</td>
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<td>SYSTEM: $1953600, 256K</td>
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<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tr>
<td>REMOVABLE DISK: B9383-X, B9481-X</td>
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<td>FIXED HEAD DISK: B9372-20, B9373-10</td>
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<td>FLEXIBLE DISK: N/A</td>
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<td>MAGNETIC TAPE: B939X, B949X-X, B938X</td>
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<td>TAPE CASSETTE: N/A</td>
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<td>LINE PRINTER: B9243-1T, B9246-2</td>
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<td>SERIAL PRINTER: B9350</td>
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<td>CARD RD., PN: B911X, B9213</td>
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<td>PAPER TAPE RD., PN: B9120, B9220</td>
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<tbody>
<tr>
<td>* APL</td>
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<td>* PL1</td>
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<tr>
<td>* RPG</td>
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<td>OTHER: NDL</td>
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<tr>
<th>MARKETING</th>
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<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
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<tr>
<td>MAINTENANCE: ON CALL</td>
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(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 48 BITS
MEMORY: 256 TO 1024K BOS
CYCLE TIME: .063 USEC
ADD TIME: CAN'T MEMORY: 6KB
# OF INSTRUCTIONS: 1:
INSTRUCTION TYPES (1): BDEPINS/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): ABDMS/T
I/O TRANSFER RATE: 655
PROCESSOR FEATURES (3): BCDPVRMEK/
INTERFACE SLOTS: 28

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEMBLY
* DISK MONITOR MCP
* REAL TIME MTR
* T/S MONITOR MCP
* BATCH MONITOR MCP
* DATA BASE SYM DBS-II
OTHER:

PRICES

COMPUTER: $SEE MFR, 256K
MEMORY:
SYSTEM: $SEE MFR, 256K

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiplex Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

FEATURES (*)

UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: B9383-I,B946X-I
FIXED HEAD DISK: B9372-20,B9373-XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: B939X,B9451X-I,B935X
TAPE CASSETTE: N/A
LINE PRINTER: B9243-11,B9246-2
SERIAL PRINTER: B9350
CARD READ, P/N: B911X; B9213
PAPER TAPE READER, P/N: B9120; B9220
DISPLAY TERMINAL: B9342-1
MULTIPLEXER:
TERMINALS/SYSTEM:
OTHER: DATA COMM PROC B7350

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER: WDL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

### APPLICATION (*)

- **BUSINESS/COMMERCIAL**
- **COMMUNICATIONS PROCESSOR**
- **INDUSTRIAL CONTROL**
- **LABORATORY/SCIENTIFIC**
- **ENGINEERING/COMPUTATION**
- **EDUCATIONAL SYSTEM**
- **BANKING SYSTEM**
- **DATA ENTRY SYSTEM**

### COMPUTER (Std/Opt, N/A)

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<td>ADD TIME</td>
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<td>CACHE MEMORY</td>
<td>6KB</td>
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<td>BDEPIMS/ACCUMULATORS</td>
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<tr>
<td>I/O COMMUNICATIONS (2)</td>
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<td>I/O TRANSFER RATE</td>
<td>6MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3)</td>
<td>BCD/FYRMK/INTERFACE SLOTS</td>
</tr>
</tbody>
</table>

### SYSTEMS SOFTWARE (*)

- **ASSEMBLER**
- **MACRO ASSEMBLY**
- **DISK MONITOR MCP**
- **REAL TIME MNTR**
- **T/S MONITOR MCP**
- **BATCH MONITOR MCP**
- **DATA BASE SYS DMS-II**
- **OTHER:**

### PRICES

- **COMPUTER:** $SEE MFR, 256K
- **MEMORY:** $SEE MFR, 256K

### FEATURES (*)

- **UPWARD COMPATIBLE**
- **FIELD SERVICE**
- **APPLICATION SOFTWARE**
- **CONVERSATIONAL LANGUAGES**
- **USER MICROPROGRAMMABLE**
- **FACTORY MICROPROGRAMMABLE**
- **VIRTUAL MEMORY MACHINE**
- **MULTIPROCESSOR**

### PERIPHERALS (Model #, Specs, N/A)

- **REMOVABLE DISK:** B9383-X, B9481-X
- **FIXED HEAD DISK:** B9372-20, B9373-XX
- **FLEXIBLE DISK:** N/A
- **MAGNETIC TAPE:** B939X, B949X-X, B938X
- **TAPE CASSETTE:** N/A
- **LINE PRINTER:** B9243-11, B9246-2
- **SERIAL PRINTER:** B9350
- **CARD RD/PW:** B9111X, B9213
- **PAPER TAPE RD/PW:** B9120, B9220
- **DISPLAY TERMINAL:** B9342-1
- **MULTIPLEXOR:**
- **TERMINALS/SYSTEM:**
- **OTHER:** DATA COMM PROC B7350

### SOFTWARE LANGUAGES (*)

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL/I**
- **EPL**
- **OTHER:** NDL

### MARKETING

- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

---

(1) INSTRUCTIONS:
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:
- **A** = Asynchronous
- **B** = Synchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES:
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt

---

COMPUTER REVIEW
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### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: #B9883-X, B9848-X-X
- FIXED HEAD DISK: #B9372-20, B9373-XX
- FLEXIBLE DISK: NO
- MAGNETIC TAPE: #B939X, B949X-X, B938X
- TAPE CASSETTE: NO
- LINE PRINTER: #B9243-11, B9246-6
- SERIAL PRINTER: #B9350
- CARD RD, FN: #B911X, B9213
- PAPER TAPE RD, FN: #B9120, B9220
- DISPLAY TERMINAL: #B9342-1
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER: DATA COMM PROC

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

### MARKETING
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE:

### PRICES
- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $2391940, 3000K

---

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Byte Manipulation</td>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>D = Decimal Arithmetic</td>
<td>B = B-synchronous</td>
</tr>
<tr>
<td>E = Extended Precision</td>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>F = Floating Point</td>
<td>M = Multiprocess Memory</td>
</tr>
<tr>
<td>I = Indirect Addressing</td>
<td>S = Selectable Line Speeds</td>
</tr>
<tr>
<td>M = Multiply &amp; Divide</td>
<td>T = Autodial</td>
</tr>
<tr>
<td>S = Stack Processing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) PROCESSOR FEATURES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Base Address Relocation</td>
</tr>
<tr>
<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
</tr>
<tr>
<td>K = Memory Parity Correct</td>
</tr>
<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>
INTRODUCED IN 1977, THE B7821 IS THE LARGER OF THE TWO 7800 COMPUTER SYSTEMS WHICH NOW TOP THE BURROUGHS LINE. IT IS A LARGE-SCALE SYSTEM DESIGNED FOR LARGE ON-LINE NETWORKS AND DATA BASE MANAGEMENT APPLICATIONS, AND OFFERS 2.5 TIMES THE PERFORMANCE OF THE BURROUGHS 7700 SYSTEM. THE B7821 IS CODE COMPATIBLE WITH OTHER LARGE BURROUGHS SYSTEMS AND FEATURES THE SAME CPU LOGIC. THE KEY TO THE 7800'S IMPROVED PERFORMANCE LIES IN THE NEW CPU AND LARGER PROGRAM BUFFER. THE B7821 DIFFERS FROM THE B7811 IN THAT IT FEATURES TWO CPUS AND TWO I/O PROCESSORS. THE BURROUGHS SCIENTIFIC PROCESSOR (BSP) IS AVAILABLE TO THE SYSTEM.

**APPLICATION (1)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (2)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER (Std/Opt, N/A)**
- WORD SIZE: 48 BITS
- MEMORY: TO 6000K MGS
- CYCLE TIME: 1.5 WORDS USEC
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1):
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): AB/
- I/O TRANSFER RATE: 1.3MB
- PROCESSOR FEATURES (3):
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (4)**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR MCP
- REAL TIME MTR
- T/S MONITOR MCP
- BATCH MONITOR MCP
- DATA BASE SYS DBS-II
- OTHER: NDL, MCS

**PRICES**
- COMPUTER: $SEE MFR, 6000K
- MEMORY:
- SYSTEM: $3522820, 6000K
- INCLUDES 6MB CPU.

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: B9383X, B946X-1
- FIXED HEAD DISK: B9372-2, B9373-XX
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: B939X, B949X-1, B938X
- TAPE CASSETTE: N/A
- LINE PRINTER: B9243-11, B246-6
- SERIAL PRINTER: B9350
- CARD RD, PN: B911x; B9213
- PAPER TAPE RD, PN: B9120; B9220
- DISPLAY TERMINAL: B9342-1
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER: DATA COMM. PROCESSOR

**SOFTWARE LANGUAGES (4)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLI
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
BUSINESS SYSTEMS: ADVISER III

INTRODUCED IN 1976, THE ADVISER III IS A 16-BIT DISK ORIENTED COMPUTER SYSTEM DESIGNED TO MEET THE INDIVIDUAL REQUIREMENTS OF SMALL AND MEDIUM-SIZED COMPANIES. FEATURES INCLUDE VIRTUAL MEMORY, MODULAR EXPANSION, AND MEMORY EXPANDABLE TO 512K. UP TO 24 TERMINALS MAY BE USED.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
</tr>
<tr>
<td>MEMORY: 32 TO 512K</td>
</tr>
<tr>
<td>CYCLE TIME: 1.2 USEC</td>
</tr>
<tr>
<td>ADD TIME: 2.04 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 230</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): B, D, I, S, M</td>
</tr>
<tr>
<td>ACCUMULATORS: 1</td>
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<tr>
<td>INDEX REGISTERS: 1</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ADS/B</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 3.3MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CD, CF, E</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 10</td>
</tr>
<tr>
<td>PERIPHERALS (Model #, Specs, N/A)</td>
</tr>
<tr>
<td>REMOVABLE DISK: 80-640 MB</td>
</tr>
<tr>
<td>FIXED HEAD DISK:</td>
</tr>
<tr>
<td>FLEXIBLE DISK:</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 30KB/SEC, 37.5 IPS</td>
</tr>
<tr>
<td>TAPE CASSETTE:</td>
</tr>
<tr>
<td>LINE PRINTER: 300/600 LPM</td>
</tr>
<tr>
<td>SERIAL PRINTER: 120/160</td>
</tr>
<tr>
<td>CARD READER/PUNCH:</td>
</tr>
<tr>
<td>PAPER TAPE READER:</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 512/1920 CHAR.</td>
</tr>
<tr>
<td>MULTIPLEXOR: ASYN, 8-24 CHANNEL</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM: 24</td>
</tr>
<tr>
<td>SOFTWARE LANGUAGES (*)</td>
</tr>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN 32K</td>
</tr>
<tr>
<td>PL/1</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER: ABOL 32K</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM 32K</td>
</tr>
<tr>
<td>* DISK MONITOR 32K</td>
</tr>
<tr>
<td>* REAL TIME MONITOR 32K</td>
</tr>
<tr>
<td>* T/S MONITOR 32K</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS 32K</td>
</tr>
<tr>
<td>OTHER: ABOL 32K</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $N/A</td>
</tr>
<tr>
<td>MEMORY: $2500, 16K</td>
</tr>
<tr>
<td>SYSTEM: $59600, 64K</td>
</tr>
<tr>
<td>INCLUDES 64K CPU, 80MB DISK, CRT; 160 CPS PRINTER.</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprotocol Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1971, THE C8562 IS A GENERAL PURPOSE COMPUTER SYSTEM USED FOR COMMUNICATIONS APPLICATIONS. FEATURES INCLUDE INTERLEAVED, MULTIPORT MEMORY AND DIAL-UP I/O COMMUNICATIONS. A VARIETY OF PERIPHERALS IS AVAILABLE INCLUDING A REMOTE MULTIPLEXOR.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- * COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- * BANKING SYSTEM
- * DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
- WORD SIZE: 32 BITS
- MEMORY: 16 TO 65K
- CYCLE TIME: .9 USEC
- ADD TIME: 1.2 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 169
- INSTRUCTION TYPES (1): B/M/
- ACCUMULATORS: 4
- INDEX Registers: 3
- I/O COMMUNICATIONS (2): ADMST/
- I/O TRANSFER RATE: 32KB
- PROCESSOR FEATURES (3): CFRE/
- INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- * ASSEMBLER 32K
- * MACRO ASSEM 32K
- * DISK MONITOR 1K
- * REAL TIME MNTR 12K
- T/S MONITOR
- * BATCH MONITOR 24K
- DATA BASE SYS
- OTHER:

PRICES
- COMPUTER: $N/A, 65K
- MEMORY: $N/A
- SYSTEM: $506000, 65K
- INCLUDES 65K CPU; 5 I/O CHANNELS; CONSOLE.

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 8876A
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPe: 8842C
- TAPE CASSETTE: N/A
- LINE PRINTER: 7943B
- SERIAL PRINTER: 8853A
- CARD ED, PN: N/A, N/A
- PAPER TAPE ED, PN: N/A, N/A
- DISPLAY TERMINAL: 8837C
- MULTIPLEXOR: 8701A/D, SYN, ASYN
- TERMINALS/SYSTEM:
- OTHER: DIAL-UP, SYN, ASYN

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Slack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
© Copyright GML Corporation 1978/No. 1
INTRODUCED IN 1974, THE CC-80 IS A COMMUNICATIONS PROCESSOR DESIGNED FOR THE OEM AND END USER MARKETS. THE 16-BIT CC-80 IS FACTORY MICROPROGRAMMABLE AND FEATURES SINGLE AND MULTIPROCESSOR CONFIGURATIONS. COMMUNICATIONS APPLICATION SOFTWARE IS PROVIDED TO PERFORM MESSAGE SWITCHING, NETWORKING, FRONT ENDING, AND 270X/370X EMULATION.

APPLICATION (*):

* BUSINESS/COMMERCIAL
  * COMMUNICATIONS PROCESSOR
  * INDUSTRIAL CONTROL
  * LABORATORY/SCIENTIFIC
  * ENGINEERING/COMPUTATION
  * EDUCATIONAL SYSTEM
  * BANKING SYSTEM
  * DATA ENTRY SYSTEM

FEATURES (*):

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)

WORD SIZE: 16 BITS
MEMORY: 8 TO 512K MOS
CYCLE TIME: .360 USEC
ADD TIME: .720 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 576
INSTRUCTION TYPES (1): BI/
ACCUMULATORS: 64
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): ABDMAST/
I/O TRANSFER RATE: 1 MBS
PROCESSOR FEATURES (3): BCD/W MORE/F
INTERFACE SLOTS: 240

SYSTEMS SOFTWARE (*):

* ASSEMBLER
* MACRO ASSEMBLY 50K
* DISK MONITOR 20K
* REAL TIME MNTR 16K
  * T/S MONITOR
  * BATCH MONITOR
  * DATA BASE SYS
  * OTHER:

SOFTWARE LANGUAGES (*):

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
RPG
OTHER: ASSEMBLY

MARKETING

MAIN MARKET: END USER, OEM
UNITS SOLD: 208 (11/77)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiprocessor Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
The 476 is a communications system for message switching and front-end communications applications. Features include automatic message level recovery, message queueing on disk or core storage, priority message selection, and statistical analysis of on-line traffic. Control functions and numerous interfaces are provided by the Content Telecommunications Access Methods (CTAM). All Content software is communications systems oriented and bundled.

**APPLICATIONS**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)
- Word Size: 32 bits
- Memory: 32 to 512K
- Cycle Time: .75 usec
- Add Time: .75 usec
- Cache Memory: N/A
- # of Instructions: 60
- Instruction Types (1): BDEFIN/
- Accumulators: 16
- Index Registers: 16
- I/O Communications (2): ABDMST/
- I/O Transfer Rate: 1.0MB
- Processor Features (3): BCFRM/
- Interface Slots:

**SYSTEMS SOFTWARE**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mtr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: Message Switch IBM SEP

**PRICES**
- Computer: $76000, 32K
- Memory: $10700, 32K
- System: $320 MFR, 64K
- Includes 64K Stand-Alone Message Switch
- Card Reader (300 CPM); Console (30 CPS).

**FEATURES**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable Disk: 6214
- Fixed Head Disk: 7109
- Flexible Disk: N/A
- Magnetic Tape: 7322
- Tape Cassette: YES
- Line Printer: 740X
- Serial Printer: 4008
- Card RD, PN: 7305
- Paper Tape RD, PN: N/A, N/A
- Display Terminal: N/A
- Multiplexor: Asyn, Syn
- Terminals/System:
- Other: Sys Activity Mnt 4002

**SOFTWARE LANGUAGES**
- APL
- Algol
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**
- Main Market:
- Units Sold:
- Maintenance:
- Base; Disk (29MB); Line Printer (300LPM);

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE CONTENT 3670-II IS AN ENHANCED VERSION OF THE CONTENT 3670 FRONT END PROCESSOR. THE 3670-II IS A COMMUNICATIONS SYSTEM THAT PERMITS IBM SYSTEM/360 OR SYSTEM/370 COMPUTERS TO COMMUNICATE WITH REMOTE TERMINALS, CONCENTRATORS, AND OTHER COMPUTER SYSTEMS OVER A VARIETY OF COMMUNICATIONS FACILITIES. THE 3670-II SYSTEM IS SKILL COMPATIBLE WITH IBM 270X AND 370X AND CAN ACCESS SIMULTANEOUSLY TWO IBM 360 OR 370 SYSTEMS. THE 3670-III, AN INTERMEDIATE MODEL BETWEEN THE 3650-II AND THE 3670-II IS ALSO AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
</tr>
<tr>
<td>MEMORY: 64 TO 512K</td>
</tr>
<tr>
<td>CYCLE TIME: .65 USEC</td>
</tr>
<tr>
<td>ADD TIME: 1.3 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 62</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): B/DEFH/</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABDMST/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 3MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCFRM/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME MTR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: IBM FRONT-END PROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK:</td>
</tr>
<tr>
<td>FIXED HEAD DISK:</td>
</tr>
<tr>
<td>FLEXIBLE DISK:</td>
</tr>
<tr>
<td>MAGNETIC TAPE:</td>
</tr>
<tr>
<td>TAPE CASSETTE: YES</td>
</tr>
<tr>
<td>LINE PRINTER:</td>
</tr>
<tr>
<td>SERIAL PRINTER: 4008</td>
</tr>
<tr>
<td>CARD RD,PN:</td>
</tr>
<tr>
<td>PAPER TAPE RD,PN:</td>
</tr>
<tr>
<td>DISPLAY TERMINAL:</td>
</tr>
<tr>
<td>MULTIPLEXOR: SYM,SYM,SDLC</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL/1</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $102000, 64K</td>
</tr>
<tr>
<td>MEMORY: $5600, 32K</td>
</tr>
<tr>
<td>SYSTEM: $526 KPR</td>
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<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER, OEM</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: DEPOT</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing  
(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bysynchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial  
(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
**CONTROL DATA: CYBER 18-30**

**INTRODUCED IN 1976, THE CDC CYBER 18-30 IS DESIGNED FOR SMALL-TO-MEDIUM SCALE EDUCATIONAL TIME SHARING APPLICATIONS. THE DUAL PROCESSORS, MORE THAN 500,000 BYTES OF SHARED MAIN MEMORY, AND THE CONTROL DATA TIMESHARE SOFTWARE ALLOW THE CYBER 28-30 TO SERVE UP 64 TERMINAL USERS.**

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR</td>
<td>UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td></td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt, N/A)**

<table>
<thead>
<tr>
<th>WORD SIZE: 16 BITS</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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</thead>
<tbody>
<tr>
<td>MEMORY: 96 TO 256K</td>
<td>REMOVABLE DISK: CDC 1867</td>
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<tr>
<td>CYCLE TIME: .75 USEC</td>
<td>FIXED HEAD DISK:</td>
</tr>
<tr>
<td>ADD TIME: 1.76 USEC</td>
<td>FLEXIBLE DISK:</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>MAGNETIC TAPE: CDC 1860</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 195</td>
<td>TAPE CASSETTE: 754-10/754-20</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): B/M</td>
<td>LINE PRINTER: CDC 1827</td>
</tr>
<tr>
<td>ACCUMULATORS: 7</td>
<td>SERIAL PRINTER: 755-10,753-10</td>
</tr>
<tr>
<td>INDEX REGISTERS: 7</td>
<td>CARD RD,PN: CDC 1829</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ADM/</td>
<td>PAPER TAPE RD,PN:</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 2.64MB</td>
<td>DISPLAY TERMINAL: CDC 1811,751-10</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDPRM/</td>
<td>MULTIPLEXOR: CDC 1843</td>
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<tr>
<td>INTERFACE SLCTS: 24</td>
<td>TERMINALS/SYSTEM: 64</td>
</tr>
<tr>
<td></td>
<td>OTHER:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
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<tbody>
<tr>
<td>ASSEMBLER</td>
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<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME HTR</td>
</tr>
<tr>
<td>* E/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
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</thead>
<tbody>
<tr>
<td>APL</td>
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<td>ALGOL</td>
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<td>SINGLE BASIC</td>
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<tr>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>INCLUDES 39K CPU; 4K MICRO-PROGRAM MEMORY AND COMMUNICATIONS LINKS MAGNETIC TAPE AND MASS STORAGE CAPABILITY; 300 CPM CARD READER; 300 CPM PRINTER; VISUAL DISPLAY UNIT.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $110000, 0K</td>
</tr>
<tr>
<td>MEMORY: $9920, 32K</td>
</tr>
<tr>
<td>SYSTEM: $160108, 39K</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistronchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE MODEL 71 IS A MEDIUM-TO-LARGE SCALE, GENERAL PURPOSE COMPUTER SYSTEM DESIGNED FOR A VARIETY OF BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE INDIRECT ADDRESSING, EXTENDED ARITHMETIC PRECISION, BIPOLAR SEMICONDUCTOR MEMORY, AND COMPASS, NOS AND NOSBE OPERATING SYSTEMS.

### APPLICATION (*
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### FEATURES (*
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### COMPUTER (Std/Opt, N/A)
- WORD SIZE: 60 BITS
- MEMORY: 49 TO 131K
- CYCLE TIME: .1 USEC
- ADD TIME: .4 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 64
- INSTRUCTION TYPES (1): EFINS/
- ACCUMULATORS: 6
- INDEX REGISTERS: 6
- I/O COMMUNICATIONS (2): ABDMST/
- I/O TRANSFER RATE: 24MB
- PROCESSOR FEATURES (3): BCM/
- INTERFACE SLOTS: 12,24

### SYSTEMS SOFTWARE (*
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $305000 65K
- MEMORY: $650000, 65K
- INCLUDES 65K CPU; 4 DISKS; 4 MAGNETIC TAPE DRIVES; CARD READER; AND LINE PRINTER.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1971, THE CYBER 76 IS A 60-BIT COMPUTER FOR BUSINESS, SCIENTIFIC, AND ENGINEERING APPLICATIONS. FEATURES INCLUDE BIPOLAR SEMICONDUCTOR MEMORY, USER MULTIPROGRAMMING, DISTRIBUTED PROCESSING, COMPATIBILITY WITH CYBER 170 COMPUTERS AND MEMORY PARITY. SOFTWARE SUPPORT INCLUDES THE SCOPES OPERATING SYSTEM AND A VARIETY OF APPLICATIONS PACKAGES FOR SOPHISTICATED SCIENTIFIC AND BUSINESS PROCESSING.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 60 BITS</td>
</tr>
<tr>
<td>MEMORY: 65 TO 131K MOS</td>
</tr>
<tr>
<td>CYCLE TIME: .27 USEC</td>
</tr>
<tr>
<td>ADD TIME: .05 USEC</td>
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<td>CACHE MEMORY: N/A</td>
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<tr>
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<td>ACCUMULATORS: 8</td>
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<tr>
<td>INDEX REGISTERS: 8</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
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<tr>
<td>I/O TRANSFER RATE: 36MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCRMEK/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER COMPASS</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR SCOPE 2</td>
</tr>
<tr>
<td>* REAL TIME CRT SCOPE 2</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR SCOPE 2</td>
</tr>
<tr>
<td>* DATA BASE SYS DMS-170</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $4510000, 65K</td>
</tr>
<tr>
<td>MEMORY: $897000, 64K</td>
</tr>
<tr>
<td>SYSTEM: $5471300, 65K</td>
</tr>
</tbody>
</table>

INCREASES 65K SMALL CORE AND 256 LARGE CORE MEMORY WITH CARD READER AND CRT; DISK (118MB); MAGNETIC TAPE PRINTER (1200 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bissychronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Synchronous

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 844-21/41
FIXED HEAD DISK: 819,821-1X,865
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 60X,65X-1X,667
TAPE CASSETTE: 754-10/754-20
LINE PRINTER: 512-1,580-IX
SERIAL PRINTER: 755-10,753-10
CARD RD,PW: 405,415
PAPER TAPE RD,PW: N/A
DISPLAY TERMINAL: 711,751-10
MULTIPLEXER: SYN,ASYN
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER: MANY

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

92  COMPUTER REVIEW 1978/No. 1
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INTRODUCED IN 1977, THE CONTROL DATA MODEL 171 IS ONE OF A FAMILY OF COMPATIBLE, MEDIUM-TO-LARGE SCALE DIGITAL COMPUTERS WHICH CAN BE USED IN NETWORK DATA PROCESSING, AND SCIENTIFIC COMPUTING APPLICATIONS WITH LARGE DATA BASES. IT HAS HARDWARE AND SOFTWARE COMPATIBILITY WITH CONTROL DATA CYBER 70 AND CYBER 170 SYSTEMS, AND CAN SERVE AS AN EXPANDABLE BASE FOR LONG-RANGE GROWTH PLANS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
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<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER** (Std/Opt, N/A)
- WORD SIZE: 60 BITS
- MEMORY: 65 TO 262K MOS
- CYCLE TIME: 
- ADD TIME: 
- CACHE MEMORY: 
- # OF INSTRUCTIONS: INSTRUCTION TYPES (1): DFM/
- ACCUMULATORS: INDEX REGISTERS: 
- I/O COMMUNICATIONS (2): B/ 
- I/O TRANSFER RATE: 2MB 
- PROCESSOR FEATURES (3): INTERFACE SLOTS: OTHER: 

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**
- COMPUTER: $SEE MFR
- MEMORY: 
- SYSTEM: $SEE MFR

**PERIPHERALS** (Model #, Specs, N/A)
- REMOVABLE DISK: YES
- FIXED HEAD DISK: 
- FLEXIBLE DISK: 
- MAGNETIC TAPE: YES
- TAPE CASSETTE: YES
- LINE PRINTER: YES
- SERIAL PRINTER: YES
- CARD RD, PN: YES
- PAPER TAPE RD, PN: 
- DISPLAY TERMINAL: YES
- MULTIPLEXOR: TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**
- * API
- * ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD: 
- MAINTENANCE: ON CALL

---

**INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Audodial

**PROCESSOR FEATURES:**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE CYBER 170 SERIES IS A FAMILY OF COMPATIBLE, MEDIUM-TO-LARGE SCALE SYSTEMS WHICH CAN BE USED AS CENTRAL COMPUTERS FOR BATCH OPERATIONS OR AS NUCLEI FOR DISTRIBUTED PROCESSING NETWORKS. THE CYBER 172 FEATURES MOS MAIN MEMORY, AND EXTENDED CORE STORAGE UP TO 205K WORDS. SOFTWARE SUPPORT INCLUDES SCIENTIFIC COMPUTING IN BATCH, REAL TIME, AND TIME-SHARING MODES AND DATA MANAGEMENT APPLICATIONS PACKAGE. A VARIETY OF PERIPHERALS COMPATIBLE WITH ALL MODELS OF THE CYBER 170 SERIES IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 844–21/41
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
TAPE CASSETTE: 754–10/754–20
LINE PRINTER: 580–XX, 512–1
SERIAL PRINTER: 755–10, 753–10
CARD RD/PN: 405–415
PAPER TAPE RD/PN: N/A; N/A
DISPLAY TERMINAL: 71X, 751–10
MULTIPLEXORS: N/A
TERMINALS/SYSTEM:
OTHER: GRAPH TERM 777–2

SOFTWARE LANGUAGES (*)

* APLNOS
* ALGOL SCOPE 3.4, NOS
* SINGLE BASIC
* MULTI BASIC SCOPE 3.4, NOS
* COBOL SCOPE 3.4, NOS
* FORTRAN SCOPE 3.4, NOS
* PL/I
* RPG
OTHER: JOVIAL (SCOPE 3.4)

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCES: ON CALL

PRICES

COMPUTER: $580600, 32K
MEMORY: $61900, 16K
SYSTEM: $1089800, 157K
INCLUDES 32K CPU; 125K EXTENDED CORE STORAGE; DISK (118 MB); MAGNETIC TAPE;
PRINTER (1200 LPM); CARD READER (1200 CPM); CRT.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

94

COMPUTER REVIEW
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1978/No. 1
INTRODUCED IN 1975, THE CYBER 173 IS A MEMBER OF THE CYBER 170 FAMILY OF COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE UP TO 20156 WORDS OF EXTENDED CORE STORAGE, SINGLE-ERROR CORRECTION AND DOUBLE-ERROR DETECTION, MEMORY PARITY AND A VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES THE NOS OPERATING SYSTEM AVAILABLE WITH ALL CYBER 170 PROCESSORS, THE DMS-170 DATA BASE SYSTEM, AND A VARIETY OF SOFTWARE LANGUAGES SUPPORTED BY NOS.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 60 BITS
MEMORY: 65 TO 20156K NOS
CYCLE TIME: .4 USEC
ADD TIME: .25 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 79
INSTRUCTION TYPES (1): BPM/
ACCUARATORs: 8
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): M/
I/O TRANSFER RATE: 4MB
PROCESSOR FEATURES (3): RMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER COMPASS
  MACRO ASSEM
* DISK MONITOR NOS
* REAL TIME MTR SCOPE 3.4
* T/S MONITOR NOS
* BATCH MONITOR SCOPE 3.4
* DATA BASE SYS TOTAL,DMS-170
OTHER: REMOTE BATCH

PRICES

COMPUTER: $980700, 65K
MEMORY: $123900, 32K
SYSTEM: $1489400, 100K
INCLUDES 65K CPU; 125K EXTENDED CORE STORAGE; DISK (118MB); MAG TAPE; PRINTER (1200 LPI); CARD READER (1200 CPM); CRT.

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 844-21/41
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 65X-X, 66X-X
TAPE CASSETTE: 75N-10/754-20
LINE PRINTER: 560-XX, 512-1
SERIAL PRINTER: 755-10, 753-10
CARD RD, PW: 405,415
PAPER TAPE RD, PW: N/A, N/A
DISPLAY TERMINAL: 71X, 751-10
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER: GRAPH TERM 777-2

SOFTWARE LANGUAGES (*)

* APL/NOS
* ALGOL SCOPE 3.4, NOS
* SINGLE BASIC
* MULTI BASIC SCOPE 3.4, NOS
* COBOL SCOPE 3.4, NOS
* FORTRAN SCOPE 3.4, NOS
* PL/1
* RPG
OTHER: JOVIAL (SCOPE 3.4)

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW

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95
INTRODUCED IN 1975, THE CYBER 174 IS A LARGE-SCALE MEMBER OF THE CYBER 170 FAMILY OF LARGE COMPUTERS. STANDARD FEATURES INCLUDE MEMORY PROTECTION, EXTENDED CORE STORAGE OF UP TO 2015K WORDS, AND A DUAL PROCESSOR CONFIGURATION. SOFTWARE SUPPORT INCLUDES THE TOTAL DATA BASE MANAGEMENT SYSTEM AND LOCAL AND REMOTE BATCH CAPABILITY. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (‘)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 60 BITS
MEMORY: 65 TO 2015K MOS
CYCLE TIME: .4 USEC
ADD TIME: .25 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 79
INSTRUCTION TYPES (1): BFH/
ACCUMULATORS: 8
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): N/
I/O TRANSFER RATE: 4MB
PROCESSOR FEATURES (3): RMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (‘)
* ASSEMBLER COMPASS
* MACRO ASSEM
* DISK MONITOR NOS
* REAL TIME MTR SCOPE 3.4
* T/S MONITOR NOS
* BATCH MONITOR SCOPE 3.4
* DATA BASE SYS TOTAL, DMS-170
OTHER: REMOTE BATCH

PRICES
COMPUTER: $1627670, 65K
MEMORY: $124000, 32K
SYSTEM: $88 FF, 190K
INCLUDES 65K CPU; 125K EXTENDED CORE STORAGE.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

FEATURES (‘)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 844-21/41
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 65X-X, 66X-X
TAPE CASSETTE: 754-10/754-20
LINE PRINTER: 580-XX, 512-1
SERIAL PRINTER: 755-10, 753-10
CARD RD, PN: 405,415
PAPER TAPE RD, PN: N/A, N/A
DISPLAY TERMINAL: 71X, 751-10
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER: GRAPH TERM 777-2

SOFTWARE LANGUAGES (‘)
* APLNOS
* ALGOL SCOPE 3.4,NOS
* BASIC
* MULTI BASIC SCOPE 3.4,NOS
* COBOL SCOPE 3.4,NOS
* FORTRAN SCOPE 3.4,NOS
* PL1
RPG
OTHER: JOVIAL (SCOPE 3.4)

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

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INTRODUCED IN 1975, THE CYBER 175 IS THE LARGEST SYSTEM OF THE CYBER 170 SERIES OF COMPUTERS. IT IS ORIENTED PRIMARILY TOWARD SCIENTIFIC APPLICATIONS. FEATURES INCLUDE STACK PROCESSING HARDWARE, MULTIPORT MEMORY AND A LARGE VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES SCOPE 3, 4 AND NOS OPERATING SYSTEMS PLUS MANY SCIENTIFIC APPLICATIONS PACKAGES.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 844-21/41
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 65X, 66X, 6X
TAPE CASSETTE: 754-10, 754-20
LINE PRINTER: 560-XX, 512-1
SERIAL PRINTER: 755-10, 753-10
CARD RD, PN: 405, 415
PAPER TAPE RD, PN: N/A
DISPLAY TERMINAL: 71X, 751-10
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER: GRAPH TERM 777-2

SOFTWARE LANGUAGES (*)

* APLNOS
* ALGOL SCOPE 3.4, NOS
* SINGLE BASIC
* MULTI BASIC SCOPE 3.4, NOS
* COBOL SCOPE 3.4, NOS
* FORTRAN SCOPE 3.4, NOS
* PL/I
* RPG
OTHER: JOVIAL (SCOPE 3.4)

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES CPU, 125K EXTENDED CORE STORAGE $236,000; DISK (110MB) $123,900; MAG TAPE $53,300; PRINTER (1200 LPM) $60,100; CARD READER (1200 CPM) $41,700; CRT $3,700.

APPLICATION (*)

BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: BITS
MEMORY: 500 TO 2000K MOS
CYCLE TIME: .050 USEC
ADD TIME: CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BF/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): /
I/O TRANSFER RATE: .05/.180MB
PROCESSOR FEATURES (3): /
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEMBER
DISK MONITOR
* REAL TIME MNTR
T/S MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER: DOS, DOS/VS, OS/VS 1,-2, VM 370

FEATURES (*)

* FORWARD COMPATIBLE
* FIELD SERVICE
APPLICATION SOFTWARE
CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK:
FIXED HEAD DISK:
FLEXIBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE:
LINE PRINTER:
SERIAL PRINTER:
CARD RD, PD:
PAPER TAPE RD, PD:
DISPLAY TERMINAL:
MULTIPLEXOR:
TERMINAL/TERMINAL:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
BFG
OTHER:

MARKETING

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PRICES

COMPUTER: $SEE MFR
MEMORY: $50000, 500K
SYSTEM: $355000, 512K

98

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CONTROL DATA: OMEGA 480-II


APPLICATION (*)

<table>
<thead>
<tr>
<th>BUSINESS/COMMERCIAL</th>
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<tbody>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>INDUSTRIAL CONTROL</td>
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<tr>
<td>LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
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<tr>
<td>EDUCATIONAL SYSTEM</td>
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<td>BANKING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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</tbody>
</table>

FEATURES (*)

<table>
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<tr>
<th>UPWARD COMPATIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

COMPUTER (Std/Opt. N/A)

<table>
<thead>
<tr>
<th>WORD SIZE: BITS</th>
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</thead>
<tbody>
<tr>
<td>MEMORY: 1000 TO 2000K MOS</td>
</tr>
<tr>
<td>CYCLE TIME: .050 USEC</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
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<td>INSTRUCTION TYPES (1): BF/</td>
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<td>ACCUMULATORS:</td>
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<td>INDEX REGISTERS:</td>
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<tr>
<td>I/O COMMUNICATIONS (2): /</td>
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<tr>
<td>I/O TRANSFER RATE: .05/-.180MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): /</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

PERIPHERALS (Model #, Specs. N/A)

| REMOVABLE DISK: |
| FIXED HEAD DISK: |
| FLEXIBLE DISK: |
| MAGNETIC TAPE: |
| TAPE CASSETTE: |
| LINE PRINTER: |
| SERIAL PRINTER: |
| CARD RD, PN: |
| PAPER TAPE RD, PN: |
| DISPLAY TERMINAL: |
| MULTIPLEXOR: BLOCK |
| TERMINALS/SYSTEM: |
| OTHER: |

SOFTWARE LANGUAGES (*)

| APL |
| ALGOL |
| SINGLE BASIC |
| MULTI BASIC |
| COBOL |
| FORTRAN |
| PL: |
| RPG |
| OTHER: |

SYSTEMS SOFTWARE (*)

| ASSEMBLER |
| MACRO ASSEMBLE |
| DISK MONITOR |
| REAL TIME HNT |
| T/S MONITOR |
| BATCH MONITOR |
| DATA BASE SYS |
| OTHER: DOS, DGS/VS, OS/VS 1,-2, VM 370 |

MARKETING

| MAIN MARKET: |
| UNITS SOLD: |
| MAINTENANCE: |

(1) INSTRUCTIONS:

| B = Byte Manipulation |
| D = Decimal Arithmetic |
| E = Extended Precision |
| F = Floating Point |
| I = Indirect Addressing |
| M = Multiply & Divide |
| S = Stack Processing |

(2) I/O COMMUNICATIONS:

| A = Asynchronous |
| B = Bysynchronous |
| D = Direct Memory Access |
| M = Multport Memory |
| S = Selectable Line Speeds |
| T = Autodial |

(3) PROCESSOR FEATURES:

| B = Base Address Relocation |
| C = Real Time Clock |
| D = Dynamic Page Relocation |
| E = Memory Parity Detect |
| F = Power Fail Safe |
| K = Memory Parity Correct |
| M = Memory Protection |
| R = Priority Interrupt |
| V = Vectored Interrupt |

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THE 2552-1 IS A HOST COMMUNICATIONS PROCESSOR COMPATIBLE WITH THE CONTROL DATA CYBER 70 AND 170 SERIES COMPUTERS. IT FEATURES "DEMAND SERVICE" COMMUNICATION WHICH ELIMINATES CIRCUIT SCANNING, AND THE ABILITY TO HANDLE UP TO 128 COMMUNICATIONS LINES. THE 2552-1 FEATURES A 128K MAXIMUM MEMORY. THREE TIMES THE THROUGHPUT RATES OF THE 2550, AND THE ABILITY TO HANDLE A NUMBER OF ADDITIONAL PERIPHERALS. SOFTWARE SUPPORT INCLUDES THE PASCAL COMMUNICATIONS LANGUAGE.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 24 TO 128K
- CYCLE TIME: .6 USEC
- ADD TIME: 1.66 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS:
  - INSTRUCTION TYPES (1): BM/
  - ACCUMULATORS: 1
  - INDEX REGISTERS: 1
- I/O COMMUNICATIONS (2): D/
- I/O TRANSFER RATE: .03MB
- PROCESSOR FEATURES (3): FVME/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- * BATCH MONITOR
- DATA BASE SYS
- OTHER: COMM. CONTROL PROGRAM

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: N/A
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: N/A
- TAPE CASSETTE: N/A
- LINE PRINTER: 2570-1/2
- SERIAL PRINTER: 1711
- CARD READER: 2572-1/2; N/A
- PAPER TAPE READER: N/A; N/A
- DISPLAY TERMINAL: 713
- MULTIPLEXOR: SYN, ASYN, 256 MAX.
- TERMINALS/SYSTEM:
- OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLI
- RPG
- OTHER: PASCAL

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

---

**PRICES**

- COMPUTER: $SER MFR, 24K
- MEMORY: $3400, 8K
- SYSTEM: $57259, 24K

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1970, THE 3174-1 IS A MEMBER OF THE 3000 SERIES OF MEDIUM-SCALE, GENERAL PURPOSE COMPUTERS. MODEL 3174-1 FEATURES UP TO 6 DATA CHANNELS AND A CONSOLE WITH TYPEWRITER AND KEYBOARD ENTRY. SOFTWARE SUPPORT INCLUDES THE MASTER OPERATING SYSTEM AND THE MESSAGE CONTROL SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES(*)
* UPWARD COMPTATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)
WORD SIZE: 24 BITS
MEMORY: 48 TO 128K
CYCLE TIME: 1.75 USEC
ADD TIME: 3.25 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 201
INSTRUCTION TYPES (1): BDIM/F
ACCUMULATORS: 1
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): I/O TRANSFER RATE: 1.8MB
PROCESSOR FEATURES (3): BCORE/INTERFCE SLOTS:

SYSTEMS SOFTWARE(*)
* ASSEMBLER COMPASS
* MACRO ASSEM
* DISK MONITOR MASTRE, MSGS
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR MASTRE
* DATA BASE SYS MARS III
* OTHER: MESSAGE CONTROL SYSTEM

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 844-21
FIXED HEAD DISK: 821-112,865
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 60X,66X-X
TAPE CASSETTE: 754-101,754-20
LINE PRINTER: 512-1,580-XX
SERIAL PRINTER: 755-10,753-10
CARD RD, PW: 405-415
PAPER TAE RD, PW: N/A; N/A
DISPLAY TERMINAL: 211,751-10
MULTIPLEXER: ASYN, SYN
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PLI
* RPG
* OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing
(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multipport Memory
S = Selectable Line Speeds
T = Autodial
(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
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<tr>
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<tr>
<td>* ENGINEERING/COMPUTATION</td>
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<tr>
<td>* EDUCATIONAL SYSTEM</td>
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<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
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<table>
<thead>
<tr>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
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<td>* FIELD SERVICE</td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
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<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<th>COMPUTERS (Std/Opt, N/A)</th>
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<tr>
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<tr>
<td>MEMORY: 48 TO 128K</td>
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<td>CYCLE TIME: 1.75 USEC</td>
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<td>I/O TRANSFER RATE: 1.8MB</td>
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<td>PROCESSOR FEATURES (3): BCDEN/</td>
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<td>INTERFACE SLOTS:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>* ASSEMBLER COMPASS</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR MASTER, MSOS</td>
</tr>
<tr>
<td>* REAL TIME NMR</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR HER</td>
</tr>
<tr>
<td>* DATA BASE SYS MARS III</td>
</tr>
<tr>
<td>OTHER: MESSAGE CONTROL SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $147,840</td>
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<tr>
<td>MEMORY: $124,320, 48K</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
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<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tr>
<td>REMOVABLE DISK: 844-21</td>
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<td>FIXED HEAD DISK: 821-112,865</td>
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<tr>
<td>FLEXIBLE DISK: N/A</td>
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<tr>
<td>MAGNETIC TAPE: 60X, 661-X</td>
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<tr>
<td>TAPE CASSETTE: 754-10,754-20</td>
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<td>LINE PRINTER: 512-1,580XX</td>
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<tr>
<td>SERIAL PRINTER: 755-10,753-10</td>
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<tr>
<td>CARD RD/PN: 405/415</td>
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<tr>
<td>PAPER TAPE RD/PN: N/A; N/A</td>
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<tr>
<td>DISPLAY TERMINAL: 211, 751-10</td>
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<tr>
<td>MULTIPLEXOR: ASYN, SYN</td>
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<td>TERMINALS/SYSTEM:</td>
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<td>OTHER:</td>
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<tr>
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<tr>
<td>MULTI BASIC</td>
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<tr>
<td>COBOL</td>
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<tr>
<td>FORTRAN</td>
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<tr>
<td>PL1</td>
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<tr>
<td>RPG</td>
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<table>
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<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
Introduced in 1970, the 3174-3 is a member of the 3000 Series of medium-scale, general purpose computers. Model 3174-3 features a business data processor giving the capability to execute variable field business data processing. Software support includes the master operating system and the message control system. A variety of peripherals is available.

<table>
<thead>
<tr>
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<tbody>
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<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<td>* INDUSTRIAL CONTROL</td>
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<td>BANCING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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<tr>
<th>FEATURES (*)</th>
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<tr>
<td>WORD SIZE: 24 BITS</td>
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<tr>
<td>MEMORY: 48 to 128K</td>
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<tr>
<td>CYCLE TIME: 1.75 usec</td>
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<tr>
<td>ADD TIME: 3.25 usec</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
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<tr>
<td>INSTRUCTION TYPES (1): BDIM/F</td>
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<td>ACCUMULATORS: 1</td>
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<td>INDEX REGISTERS: 3</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
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<td>I/O TRANSFER RATE: 1.8MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCD/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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<tr>
<td>* MACRO ASSEMBLE</td>
</tr>
<tr>
<td>* DISK MONITOR MASTER, MSOS</td>
</tr>
<tr>
<td>* REAL TIME MIRROR</td>
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<tr>
<td>* T/S MONITOR</td>
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<tr>
<td>* BATH MONITOR MASTER</td>
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<td>MEMORY: $124,320, 48K</td>
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<tr>
<td>FIXED HEAD DISK: 621-1/2, 665</td>
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<td>FLEXIBLE DISK: N/A</td>
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<tr>
<td>MAGNETIC TAPE: 60x, 66x-X</td>
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<tr>
<td>TAPE CASSETTE: 754-10/754-20</td>
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<tr>
<td>LINE PRINTER: 512-1, 580-XX</td>
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<tr>
<td>SERIAL PRINTER: 755-10, 763-10</td>
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<tr>
<td>CARD READER: 405; 415</td>
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<td>PAPER TAPE READER: N/A; N/A</td>
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<td>DISPLAY TERMINAL: 211; 751-10</td>
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<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
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<tr>
<td>* PLI</td>
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<td>* RPG</td>
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<td>MAIN MARKET: END USER</td>
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<td>UNITS SOLD:</td>
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<td>MAINTENANCE: ON CALL</td>
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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multislot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

* WORD SIZE: 24 BITS
* MEMORY: 48 TO 128K
* CYCLE TIME: 1.75 USEC
* ADD TIME: 3.25 USEC
* CACHE MEMORY: N/A

* # OF INSTRUCTIONS: 201
* INSTRUCTION TYPES (1): BDIN/F
* ACCUMULATORS: 1
* INDEX REGISTERS: 3
* I/O COMMUNICATIONS (2):
* I/O TRANSFER RATE: 1.8 MB
* PROCESSOR FEATURES (3): BCDRM/
* INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER COMPASS
* MACRO ASSEM
* DISK MONITOR MASTER, MSOS
* REAL TIME MNTR
* T/S MONITOR
* BATCH MONITOR MASTER
* DATA BASE SYS MARS III
* OTHER: MESSAGE CONTROL SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

* REMOVABLE DISK: 844-21
* FIXED HEAD DISK: 821-1/2, 065
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: 60x, 66x-X
* TAPE CASSETTE: 754-10, 754-20
* LINE PRINTER: 512-1, 580-XX
* SERIAL PRINTER: 755-10, 753-10
* CARD RD/PN: 405, 415
* PAPER TAPE RD/PN: N/A
* DISPLAY TERMINAL: 211, 751-10
* MULTIPLEXOR: ASYN, SYN
* TERMINALS/SYSTEM:
* OTHER:

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
* OTHER:

MARKETING

* MAIN MARKET: END USER
* UNITS SOLD:
* MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
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E = Extended Precision
F = Floating Point
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(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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CONTROL DATA: 3300

INTRODUCED IN 1965, THE 3300 IS A MEMBER OF THE CONTROL DATA 3000 SERIES OF COMPUTERS USED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. TWO 3300 MODELS ARE AVAILABLE: THE 3304 BASIC PROCESSOR AND THE 3304-3 BUSINESS DATA PROCESSOR. SOFTWARE SUPPORT INCLUDES THE MASTER OPERATING SYSTEM WHICH SUPPORTS ALGOL AND FORTRAN LANGUAGES. A VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<td>* FIELD SERVICE</td>
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<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
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<td>* EDUCATIONAL SYSTEM BANKING SYSTEM DATA ENTRY SYSTEM</td>
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<tr>
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<td>MEMORY: 16 TO 128K</td>
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<td>CYCLE TIME: 1.25 USEC</td>
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<td>ADD TIME: 2.75 USEC</td>
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<td>CACHE MEMORY: N/A</td>
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| # OF INSTRUCTIONS: 201 |
| INSTRUCTION TYPES (1): BDIM/F |
| ACCUMULATORS: 2 |
| INDEX REGISTERS: 3 |

| I/O COMMUNICATIONS (2): |
| I/O TRANSFER RATE: 1.8MB |
| PROCESSOR FEATURES (3): BCDEMK/M |
| INTERFACE SLOTS: |

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<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>* ASSEMBLER COMPASS</td>
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<td>* MACRO ASSEM</td>
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<td>* DISK MONITOR MASTER, MSOS</td>
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<tr>
<td>* REAL TIME MTR SCOPE</td>
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<td>* T/S MONITOR</td>
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<tr>
<td>* BATCH MONITOR MASTER</td>
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<td>DATA BASE SYS</td>
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| OTHER: MESSAGE CONTROL SYSTEM |

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<td>COMPUTER: $181419 #3304</td>
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<td>MEMORY: $80000, 16K</td>
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<td>SYSTEM: $SEE FDR</td>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

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- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1967, THE 3514-1 IS A MEMBER OF THE 3000 SERIES OF MEDIUM-SCALE 24-BIT COMPUTERS DESIGNED FOR SCIENTIFIC AND BUSINESS APPLICATIONS. MODEL 3514-1 FEATURES FLOATING POINT HARDWARE, UP TO 8 DATA CHANNELS AND A CONSOLE WITH TYPEWRITER. SOFTWARE SUPPORT INCLUDES THE MARS III DATA BASE SYSTEM AND COBOL AND FORTRAN COMPILERS, ALL HANDLED UNDER THE MASTER OPERATING SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* FORWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)
WORD SIZE: 24 BITS
MEMORY: 32 TO 256K
CYCLE TIME: .9 USEC
ADD TIME: 1.4 USEC
CACHE MEMORY: N/A
* IF INSTRUCTION CODE: 201
INSTRUCTION TYPES (1): BDFIM/
ACCUMULATORS: 1
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE: 4,488B
PROCESSOR FEATURES (3): BCDRM/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER COMPASS
* MACRO ASSEM
* DISK MONITOR MASTER, MSGS
* REAL TIME MNTB
* T/S MONITOR
* BATCH MONITOR MASTER
* DATA BASE SYS MARS III
OTHER: MESSAGE CONTROL SYSTEM

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 844-21,841-41,85X
FIXED HEAD DISK: 821-112,865
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 601,651-1,661-1
TAPE CASSETTE: 754-10,754-20
LINE PRINTER: 580-IX,512-1
SERIAL PRINTER: 755-10,753-10
CARD RD,FD: 405;415
PAPER TAPE RD,FD: N/A; N/A
DISPLAY TERMINAL: 211,751-10
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $352548
MEMORY:
SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistranchynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 24 BITS</td>
</tr>
<tr>
<td>MEMORY: 32 TO 256K</td>
</tr>
<tr>
<td>CYCLE TIME: .9 USEC</td>
</tr>
<tr>
<td>ADD TIME: 1.4 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 201</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDFIM/</td>
</tr>
<tr>
<td>ACCUMULATORS: 1</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 4.4KB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDRE/M</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER COMPASS</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR MASTER, MSOS</td>
</tr>
<tr>
<td>* REAL TIME MTR</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR MASTER</td>
</tr>
<tr>
<td>* DATA BASE SYS MARS III</td>
</tr>
<tr>
<td>OTHER: MESSAGE CONTROL SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $427392</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
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</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: 844-21, 644-41, 85x</td>
</tr>
<tr>
<td>FIXED HEAD DISK: 821-112, 865</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 60K, 65X-X, 66X-X</td>
</tr>
<tr>
<td>TAPE CASSETTE: 754-10, 754-20</td>
</tr>
<tr>
<td>LINE PRINTER: 580-98, 512-1</td>
</tr>
<tr>
<td>SERIAL PRINTER: 755-10, 735-10</td>
</tr>
<tr>
<td>CARD READER/PN: 405-415</td>
</tr>
<tr>
<td>PAPER TAPE READER/PN: N/A; N/A</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 211, 751-10</td>
</tr>
<tr>
<td>MULTIPLEXOR: N/A</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS: 
- B = Byte Manipulation 
- D = Decimal Arithmetic 
- E = Extended Precision 
- F = Floating Point 
- I = Indirect Addressing 
- M = Multiply & Divide 
- S = Stack Processing

(2) I/O COMMUNICATIONS: 
- A = Asynchronous 
- B = Bisynchronous 
- D = Direct Memory Access 
- M = Multiport Memory 
- S = Selectable Line Speeds 
- T = Autodial

(3) PROCESSOR FEATURES 
- B = Base Address Relocation 
- C = Real Time Clock 
- D = Dynamic Page Relocation 
- E = Memory Parity Detect 
- F = Power Fail Safe 
- K = Memory Parity Correct 
- M = Memory Protection 
- P = Priority Interrupt 
- V = Vectored Interrupt
INTRODUCED IN 1967, THE 3514-3 IS A MEMBER OF THE 3000 SERIES MEDIUM-SCALE 24-BIT COMPUTERS DESIGNED FOR SCIENTIFIC AND BUSINESS APPLICATIONS. MODEL 3514-3 FEATURES FACING AND PROGRAM RELOCATION HARDWARE. SOFTWARE SUPPORT INCLUDES THE MARS III DATA BASE SYSTEM AND COBOL AND FORTRAN COMPILERS, ALL HANDLED UNDER THE MASTER OPERATING SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 24 BITS
MEMORY: 32 TO 256K
CYCLE TIME: .9 USEC
ADD TIME: 1.4 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 201
INSTRUCTION TYPES (1): BDFIH/
ACCUMULATORS: 1
INDEX REGISTERS: 3
I/O TRANSFER RATE: 4.4MB
PROCESSOR FEATURES (3): BCD/E/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER COMPASS
* MACRO ASSEM
* DISK MONITOR MASTER, MSOS
* REAL TIME MON
* T/S MONITOR
* BATCH MONITOR MASTER
* DATA BASE SYS MARS III
OTHER: MESSAGE CONTROL SYSTEM

PRICES
COMPUTER: $459446
MEMORY:
SYSTEM: $SEE MFR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
user microprogrammable
factory microprogrammable
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 844-21, 844-41, 85X
FIXED HEAD DISK: 821-112, 865
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 60X, 65X-X, 66X-X
TAPE CASSETTE: 754-10, 754-20
LINE PRINTER: 580-XX, 512-1
SERIAL PRINTER: 755-10, 753-10
CARD READER, PN: 403; 415
PAPER TAPE READER: N/A; N/A
DISPLAY TERMINAL: 111, 751-10
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
* ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PL1
RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
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E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

| WORD SIZE | 24 BITS |
| MEMOY | 32 TO 256K |
| CYCLE TIME | .9 USEC |
| ADD TIME | 1.4 USEC |
| CACHE MEMORY | N/A |
| # OF INSTRUCTIONS | 201 |
| INSTRUCTION TYPES (1): BDFRM/ |
| ACCUMULATORS | 1 |
| INDEX REGISTERS | 3 |
| I/O COMMUNICATIONS (2): |
| I/O TRANSFER RATE | 4.4 MB |
| PROCESSOR FEATURES (3): BCDEME/ |
| INTERFACE SLOTS |

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER COMPASS
- MACRO ASSEM
- DISK MONITOR MASTER, MSOS
- REAL TIME MNT
- T/S MONITOR
- BATCH MONITOR MASTER
- DATA BASE SYS MARS III
- OTHER: MESSAGE CONTROL SYSTEM

**PRICES**

- COMPUTER: $534240
- MEMORY:
- SYSTEM: $SEE MFR

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Spec, N/A)**

- REMOVABLE DISK: 844-21, 844-41, 85X
- FIXED HEAD: 821-112, 865
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 60X, 65X, X, 66X, X
- TAPE CASSETTE: 754-10, 754-20
- LINE PRINTER: 560-XX, 512-1
- SERIAL PRINTER: 755-10, 753-10
- CARD RD, PN: 405, 415
- PAPER TAPE RD, PN: N/A, N/A
- DISPLAY TERMINAL: 211, 751-10
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM:
- OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Protection
- V = Vectored Interrupt
INTRODUCED IN 1977, THE DATA GENERAL CS/40, C-5 IS A BUSINESS-ORIENTED COMPUTER SYSTEM. THE CS/40, C-5 FEATURES INTERACTIVE COBOL WITH EXTENSIVE FILE MANAGEMENT UTILITIES. THE 80 REMOTE JOB ENTRY CONTROL ALLOWS COMMUNICATION WITH OTHER DATA GENERAL AND IBM COMPATIBLE SYSTEMS. A NUMBER OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td></td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td></td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: BITS</td>
</tr>
<tr>
<td>MEMORY: 128K REGS</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCELERATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
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<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
<td>ALGOL</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>REAL TIME MNT</td>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>FORTRAN</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
<td>PL</td>
</tr>
<tr>
<td>OTHER: CS/40</td>
<td>RPG</td>
</tr>
<tr>
<td></td>
<td>OTHER:</td>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $82100</td>
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</tbody>
</table>

| INCLUDES 128K MEMORY; 10MB DISK CARTRIDGE; (1920 CPS) DASHER DISPLAY; 165 CPS SERIAL PRINTER OR 300 LPM LINE PRINTER. |

(1) INSTRUCTIONS:  

<table>
<thead>
<tr>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>I</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Byte Manipulation</td>
<td>Decimal Arithmetic</td>
<td>Extended Precision</td>
<td>Floating Point</td>
<td>Indirect Addressing</td>
<td>Multiply &amp; Divide</td>
<td>Stack Processing</td>
</tr>
</tbody>
</table>

(2) I/O COMMUNICATIONS:  

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asynchronous</td>
<td>Bisynchronous</td>
<td>Direct Memory Access</td>
</tr>
<tr>
<td>M</td>
<td>S</td>
<td>T</td>
</tr>
<tr>
<td>Multiport Memory</td>
<td>Selectable Line Speeds</td>
<td>Autodial</td>
</tr>
</tbody>
</table>

(3) PROCESSOR FEATURES  

<table>
<thead>
<tr>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>K</th>
<th>M</th>
<th>R</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Address Relocation</td>
<td>Real Time Clock</td>
<td>Dynamic Page Relocation</td>
<td>Memory Parity Detect</td>
<td>Power Fail Safe</td>
<td>Memory Parity Correct</td>
<td>Memory Protection</td>
<td>Priority Interrupt</td>
<td>Vectored Interrupt</td>
</tr>
</tbody>
</table>
INTRODUCED IN 1977, THE MODEL 4543 IS A PACKAGED BATCH BUSINESS DATA PROCESSING SYSTEM BASED ON DATAPoint's 5500 ADVANCED BUSINESS PROCESSOR. THE 4543 SYSTEM IS DESIGNED FOR STAND-ALONE BUSINESS DATA PROCESSING UTILIZING ADVANCED HIGH LEVEL LANGUAGES, SUCH AS THE DATAPoint ANS COBOL. MODEL 4543 UTILIZES TWO MASS STORAGE DISK DRIVES, FOR A TOTAL DISK STORAGE CAPACITY OF 50 MEGABYTES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
  EDUCATIONAL SYSTEM
  BANKING SYSTEM
  DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 48 TO 48K MOS
CYCLE TIME: .8 USEC
ADD TIME: 1.4 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 95
INSTRUCTION TYPES (1): BDEIS/
  ACCUMULATORS: 16
INDEX REGISTERS: 0
I/O COMMUNICATIONS (2): ABST/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): BCDPVM/E/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBL
* DISK MONITOR
  REAL TIME MNTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTOR MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 9370, 25MB
FIXED HEAD DISK:
  FLEXIBLE DISK: 9551; 9554, 9T/800BPI
MAGNETIC TAPE: STD
  TAPE CASSETTE: DUAL
  LINE PRINTER: 120-600 LPM
  SERIAL PRINTER: 30, 80 CPS
  CARD RD, PN: 9504, 300 CPM
  PAPER TAPE RD, PN:
  DISPLAY TERMINAL: 3601
  MULTIPLEXOR:
  TERMINALS/SYSTEM: 16
OTHER:

SOFTWARE LANGUAGES (*)
  APL
  ALGOL
  SINGLE BASIC
  MULTI BASIC
  COBOL
  FORTRAN
  PL1
  RPG
OTHER: DATABUS, FORM, SCRIBE

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $N/A, 48K
MEMORY:
SYSTEM: $52107, 48K
INCLUDES 48K CPU; INTEGRAL DISPLAY SCREEN AND KEYBOARD; TWO MASS STORAGE DISK DRIVES (50MB TOTAL), DOS SOFTWARE AND DOCUMENTATION.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Dynamic
M = Multipart
S = Selectable Line Speeds
T = Tautodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1974, THE DATASAAB D23 IS A LARGE-SCALE, 24-BIT COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC DATA PROCESSING APPLICATIONS. IT FEATURES A MICROPROGRAMMABLE PROCESSOR AND CAN HANDLE UP TO 64 DISK UNITS AND A VARIETY OF OTHER PERIPHERALS. SOFTWARE SUPPORT INCLUDES ALGOL AND RPG COMPILERS. PRICES ARE AVAILABLE ON APPLICATION.

**APPLICATION (*)**

- Business/Commercial
- Communications processor
- Industrial control
- Laboratory/Scientific
- Engineering/Computation
- Educational system
- Banking system
- Data entry system

**COMPUTER (Std/Opt, N/A)**

- Word size: 24 bits
- Memory: 40 to 262K
- Cycle time: .4 usec
- Add time:
  - Cache memory: N/A
  - # of Instructions: 109
  - Instruction types (1): BEFM/
  - Accumulators: 1
  - Index registers: 3
- I/O communications (2):
- I/O transfer rate: 2MB
- Processor features (3): BCDM/
  - Interface slots:

**SYSTEMS SOFTWARE (*)**

- Assembler
- Macro Assem
- Disk monitor
- Real time monitor
- T/S monitor
- Batch monitor
- Data base sys
- Other:

**PERIPHERALS (Model #, Specs, N/A)**

- Removable disk: 2178, 218X
- Fixed head disk: N/A
- Flexible disk: N/A
- Magnetic tape: 2131
- Tape cassette: N/A
- Line printer: 2192, 2182
- Serial printer: N/A
- Card ed, pn: 2119, 213X; 2132
- Paper tape ed, pn:
- Display terminal:
- Multiplexor:
- Terminals/system:
- Other:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- Single basic
- Multi basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**

- Main market:
- Units sold:
- Maintenance:

---

**FEATURES (*)**

- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

---

**PRICES**

- Computer: $SEE HPR, 40K
- Memory:
- System: $SEE HPR, 40K

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O communicating:

- A = Asynchronous
- B = Biscynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1974, THE DATASAAB D223 IS A MEDIUM-SCALE, 24-BIT COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC DATA PROCESSING APPLICATIONS. IT CAN ACCESS FIVE BILLION CHARACTERS OF DISK STORAGE DIRECTLY AND CAN HANDLE UP TO 64 DISK UNITS PLUS A VARIETY OF OTHER PERIPHERALS. SOFTWARE SUPPORT INCLUDES ALGOL AND RPG COMPILERS. PRICES ARE AVAILABLE ON APPLICATION.

### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- WORD SIZE: 24 BITS
- MEMORY: 40 TO 262K
- CYCLE TIME: 1.6 USEC
- ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 105
- INSTRUCTION TYPES (1): BFIN/
- ACCUMULATORS: 1
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2):
- I/O TRANSFER RATE: .75MB
- PROCESSOR FEATURES (3): BCM/
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- * REAL TIME MNTR
- * T/S MONITOR
- * BATCH MONITOR
- DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $SEE MFR, 40K
- MEMORY: 
- SYSTEM: $SEE MFR, 40K

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 2176, 218X
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 2131
- TAPE CASSETTE: N/A
- LINE PRINTER: 2129, 2182
- SERIAL PRINTER: N/A
- CARD RD, PW: 2119, 213X; 2132
- PAPER TAPE RD, PW: 
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (*)
- APL
- * ALGOL
- SINGLE BASIC
- MULTI BASIC
- * COBOL
- * FORTRAN
- PL1
- * RPG
- OTHER:

### MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 16 BITS
- MEMORY: 16 TO 128K CORE/MOS
- CYCLE TIME: 1.0 USEC
- ADD TIME: .9 USEC
- CACHE MEMORY: .2KB
- # OF INSTRUCTIONS: 89
- INSTRUCTION TYPES (1): BIS/EF
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: 5.6MB
- PROCESSOR FEATURES (3): CRME/
- INTERFACE SLOTS: 0

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- * MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- * T/S MONITOR
- * BATCH MONITOR
- * DATA BASE SYS
- OTHER:

**PRICES**

- COMPUTER: $SEE MB, 16K
- MEMORY:
- SYSTEM: $54000, 16K

INCLUDES CPU AND #LA36 CONSOLE; 40MB DISK DRIVE; 45 IPS MAG TAPE; 300 LPM
- PRINTER; 300 CPM CARD READER; CRT.

---

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: RK05, RP03
- FIXED HEAD DISK: RS11
- FLEXIBLE DISK: RX11
- MAGNETIC TAPE: T010D
- TAPE CASSETTE: TA11
- LINE PRINTER: LS11, LP11
- SERIAL PRINTER: LA30
- CARD RD, PN: CR11, N/A
- PAPER TAPE RD, PN: PC05, N/A
- DISPLAY TERMINAL: VT05
- MULTIPLEXOR: ASYN
- TERMINALS/SYSTEM: 4
- OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- * MULTI BASIC
- COBOL
- FORTRAN IV
- PL1
- * RPG II
- OTHER: HUMPS II

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 16 TO 128K CORE/MOS
- CYCLE TIME: 1.0 USEC
- ADD TIME: 9 USEC
- CACHE MEMORY: 2KB
- # OF INSTRUCTIONS: 89
- INSTRUCTION TYPES (1): BIS/EF
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: 5.8MB
- PROCESSOR FEATURES (3): CRNE/
- INTERFACE SLOTS: 0

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs. N/A)**

- REMOVABLE DISK: RK05, RP03
- FIXED HEAD DISK: RS11
- FLEXIBLE DISK: RX11
- MAGNETIC TAPE: TD10D
- TAPE CASSETTE: TA11
- LINE PRINTER: LS11, LP11
- SERIAL PRINTER: LA30
- CARD RD, PN: CR11, N/A
- PAPER TAPE RD, PN: PC05, N/A
- DISPLAY TERMINAL: VT50
- MULTIPLEXOR: ASYN
- TERMINALS/SYSTEM: 16
- OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC COBOL
- FORTRAN IV
- PL1
- RPG II
- OTHER: MUMPS II

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

**PRICES**

- COMPUTER: $30000, 32K
- MEMORY: $54000, 32K
- INCLUDES CPU AND VLA36 CONSOLE; 40MB DISK DRIVE; 45 IPS MAG TAPE; 300 LPM PRINTER; 300 CPM CARD READER; CRT.

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multisport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

### APPLICATION (*)

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)

- WORD SIZE: 16 BITS
- MEMORY: 16 TO 128K CORE/MOS
- CYCLE TIME: 1.0 USEC
- ADD TIME: .9 USEC
- CACHE MEMORY: 12KB
- # OF INSTRUCTIONS: 89
- INSTRUCTION TYPES (1): BIS/EFF
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: 5.0MB
- PROCESSOR FEATURES (3): CMEE/
- INTERFACE SLOTS: 0

### SYSTEMS SOFTWARE (*)

- ASSEMBLER
- MACRO ASSEMBLER
- REAL TIME MTR
- T/S MTR
- BATCH MTR
- DATA BASE SYS
- OTHER:

### FEATURES (*)

- UPWARD COMPATIBLE
- FIELD SERVICE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)

- REMOVABLE DISK: RK05,RP03
- FIXED HEAD DISK: RS11
- FLEXIBLE DISK: BX11
- MAGNETIC TAPE: TU10D
- TAPE CASSETTE: TA11
- LINE PRINTER: LS11,LP11
- SERIAL PRINTER: LA30
- CARD RD,PN: CR11,NA
- PAPER TAPE RD,PN: PC05,WA
- DISPLAY TERMINAL: VT50
- MULTIPLEXOR: ASYN
- TERMINALS/SYSTEM: 32
- OTHER:

### SOFTWARE LANGUAGES (*)

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN IV
- PLI
- RPG II
- OTHER: MUMPS II

### PRICES

- COMPUTER: $522 MFR, 32K
- MEMORY: $54000, 32K
- INCLUDES CPU AND #434 CONSOLE; #434 DISKS DRIVE; 45 IPS MAG TAPE; 300 LPM PRINTER; 300 CPM CARD READER; CRT.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

116

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# DIGITAL: DATA SYSTEM 560

Introduced in 1973, the Digital Data System 560 is a member of the Data System 500 family of packaged business computers designed for OEM's in batch, time-sharing, and data base applications. The Data System 560 is based on the PDP-11/45 and can be used for heavier batch operations than the Data Systems 535, 540 and 555 can handle. The Data System 560 can support up to 32 consecutive users. Three different operating systems are available.

## APPLICATION
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

## COMPUTER
(Std/Opt, N/A)
- Word Size: 16 Bits
- Memory: 16 to 126K Core/Kos
- Cycle Time: 1.0 usec
- Add Time: .9 usec
- Cache Memory: .2K
- # of Instructions: 89
- Instruction Types (1): BIS/EF
- Accumulators: 16
- Index Registers: 16
- I/O Communications (2): AD/
- I/O Transfer Rate: 5.0MB
- Processor Features (3): CMRE/
- Interface Slots: 0

## SYSTEMS SOFTWARE
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Montr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

## PRICES
- Computer: $8595, 32K
- Memory: $54000, 32K
- Includes CPU and #1A36 Console; 40MB Disk Drive; 45 IPS Mag Tape; 300 LPM Printer; 300 CPM Card Reader; CRT.

## FEATURES
- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

## PERIPHERALS
- (Model #, Specs, N/A)
  - Removable Disk: BK05, RP03
  - Fixed Head Disk: BS11
  - Flexible Disk: EX11
  - Magnetic Tape: T010D
  - Tape Cassette: TA11
  - Line Printer: LS11, LP11
  - Serial Printer: LA30
  - Card Reader, PW: CR11, N/A
  - Paper Tape Reader, PW: PC05, N/A
  - Display Terminal: VT50
  - Multiplexer: Asyn
  - Terminals/System: 32
  - Other:

## SOFTWARE LANGUAGES
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran IV
- PL
- RPG II
- Other: Mumps II

## MARKETING
- Main Market:
- Units Sold:
- Maintenance:

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION (**)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)

- WORD SIZE: 16 BITS
- MEMORY: 16 TO 128K CORE/MOS
- CYCLE TIME: 1.0 USEC
- ADD TIME: .9 USEC
- CACHE MEMORY: .256, 240NS
- # OF INSTRUCTIONS: 69
- INSTRUCTION TYPES (1): BIS/EP
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: 5.0MB
- PROCESSOR FEATURES (3): CRME/
- INTERFACE SL/WTS: 0

**SYSTEMS SOFTWARE (**)**

- ASSEMBLER
- * MACRO ASSEM
- DISK MONITOR
- REAL TIME HWTR
- * T/S MONITOR
- * BATCH MONITOR
- * DATA BASE SYS
- OTHER:

**FEATURES (**)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #: Specs, N/A)

- REMOVABLE DISK: RK05, RC03
- FIXED HEAD DISK: R511
- FLEXIBLE DISK: RX11
- MAGNETIC TAPE: TU10D
- TAPE CASSETTE: TA11
- LINE PRINTER: L511, LP11
- SERIAL PRINTER: LA30
- CARD RD, PN: CR11, N/A
- PAPER TAPE RD, PN: PC05, N/A
- DISPLAY TERMINAL: VT50
- MULTIPLEXOR: ASYN
- TERMINALS/SYSTEM: 63
- OTHER:

**SOFTWARE LANGUAGES (**)**

- APL
- ALGOL
- SINGLE BASIC
- * MULTI BASIC
- COBOL
- FORTRAN IV
- PL1
- RPG II
- OTHER: RUMP'S II

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

**PRICES**

- COMPUTER: $55300, 32K
- MEMORY:
- SYSTEM:

   INCLUDES CPU AND # LA36 CONSOLE; 40MB DISK DRIVE; 45 IPS MAG TAPE; 300 LPM
   PRINTER; 300 CPM CARD READER; CRT.

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vected Interrupt
INTRODUCED IN 1977, THE DECSYSTEM 20 IS A 36-BIT GENERAL PURPOSE LARGE-SCALE TIMESHARING COMPUTER SYSTEM. IT HANDLES INTERACTIVE TIMESHARING, MULTI-PROGRAMMING BATCH, AND TRANSACTION PROCESSING SIMULTANEOUSLY. THE OPERATING SYSTEM, TOPS-20, INCLUDES VIRTUAL MEMORY. A CHOICE OF PERIPHERAL AND PROGRAMMING LANGUAGES IS AVAILABLE.

APPLICATION (*):
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
- WORD SIZE: 36 BITS
- MEMORY: 64 TO 256K
- CYCLE TIME:
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS: 363
- INSTRUCTION TYPES (1): BFS/A
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): /
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): P/
- INTERFACE SLOTS:

SYSTEMS SOFTWARE (*):
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: TOPS-20

PRICES
- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

FEATURES (*):
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK:
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE: Y
- TAPE CASSETTE:
- LINE PRINTER:
- SERIAL PRINTER:
- CARD RD, PN:
- PAPER TAPE RD, PN:
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM: 64
- OTHER:

SOFTWARE LANGUAGES (*):
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/1
- RPG
- OTHER: CPL

MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B synchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 36 BITS
MEMORY: 64 TO 256K
CYCLE TIME: .95 USEC
ADD TIME: 2.65 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 366
INSTRUCTION TYPES: (1) BEFINS/A
ACCUmULATORS: 16
INDEX REGISTERS: 15
I/O COMMUNICATIONS: (2) ABEMS/
I/O TRANSFER RATE: 7MB
PROCESSOR FEATURES: (3) CFVRME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER 64K
* MACRO ASSEM 64K
* DISK MONITOR 64K
* REAL TIME MTR 64K
* I/S MONITOR 64K
* BATCH MONITOR 64K
* DATA BASE SYS 128K
* OTHER:

PRICES
COMPUTER: $140,000, 128K
MEMORY: $70,000, 128K
SYSTEM: $347,000, 128K
Includes 128K CPU; DISK (50-1960MB); MAG TAPE; ASYN CONTROLLER; SYSTEM SOFTWARE.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: RP0X
FIXED HEAD DISK: REHS04
FLEXIBLE DISK: N/A
MAGNETIC TAPE: TU10, TU70
TAPE CASSETTE: N/A
LINE PRINTER: LSP-10V, LP11FL
SERIAL PRINTER: N/A
CARD READER: N/A, N/A
PAPER TAPE: ED, PW: CR10-R; CP10-D
DISPLAY TERMINAL: VT51
MULTIPLEXOR: SW, ASYN
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*)
* APL96K
* ALGOL 96K
* SINGLE BASIC 64K
* MULTI BASIC 96K
* COBOL 96K
* FORTRAN 96K
* PL1
* RPG
* OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 245 (10/75)
MAINTENANCE: ALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1971, THE 1060 IS A LARGE SCALE CONFIGURATION IN THE DECQUA SYSTEM-10 FAMILY OF GENERAL PURPOSE COMPUTERS. FEATURES INCLUDE VIRTUAL MEMORY, MEMORY PROTECTION, AND VECTORED AND PRIORITY INTERRUPTS. SOFTWARE SUPPORT INCLUDES A MESSAGE CONTROL SYSTEM AND THE MULTI-PURPOSE TOPS-10 OPERATING SYSTEM.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE MICROPROCESSOR

PERIPHERALS (Model #, Spec, N/A)
REMOVABLE DISK: RP04, RP06
FIXED HEAD DISK: RH504
FLEXIBLE DISK: N/A
MAGNETIC TAPE: TU10, T010, TO72
TAPE CASSETTE: N/A
LINE PRINTER: LSP-10V, LP10P, LP07
SERIAL PRINTER: N/A
CARD RD/PM: N/A/N/A
PAPER TAPE RD/PM: CR10-E, CP10-D
DISPLAY TERMINAL: VT5X
MULTIPLEXOR: SYN/ASYN
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*)
* APL128K
* ALGOL 128K
* SINGLE BASIC 128K
* MULTI BASIC 128K
* COBOL 128K
* FORTRAN 128K
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: MAINTENANCE: ALL

SYSTEMS SOFTWARE (*)
* ASSEMBLER 128K
* MACRO ASSEMBLER 128K
* DISK MONITOR 128K
* REAL TIME MTR 128K
* T/Y MONITOR 128K
* BATCH MONITOR 128K
* DATA BASE SYS 128K
OTHER: MESSAGE CONTROL SYSTEM 128K

PRICES
COMPUTER: $250000, 128K
MEMORY: $81500
SYSTEM: $457000, 128K
INCLUDES CPU; DISK (50–1960 MB); MAG TAPE; ASYNCHRONOUS CONTROLLER; TOPS 10 SYSTEM SOFTWARE.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
COMPUTER REVIEW
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**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**
- UNFORWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #: Spec. N/A)
- REMOVABLE DISK: BP04, BP06
- FIXED HEAD DISK: HRS04
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: TU10, TU70, TU72
- TAPE CASSETTE: N/A
- LINE PRINTER: LSP-10Y, LP10Y, LP07
- SERIAL PRINTER: N/A
- CARD READER: N/A
- FAX TAP M2, PN: CR10-E; CP10-D
- DISPLAY TERMINAL: VT5
- MULTIPLEXOR: SYN, ASYN
- TERMINALS/SYSTEM: N/A
- OTHER:

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER 128K
- MACHO ASSEM 128K
- DISK MONITOR 128K
- REAL TIME MANTR 128K
- I/S MONITOR 128K
- BATCH MONITOR 128K
- DATA BASE SYS 128K
- OTHER: MESSAGE CONTROL SYSTEM 128K

**SOFTWARE LANGUAGES (*)**
- APL128K
- ALGOL 128K
- SINGLE BASIC 128K
- MULTI BASIC
- COBOL 128K
- FORTRAN 128K
- PL1
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD: 210 (10/75)
- MAINTENANCE: ALL

**PRICES**
- COMPUTER: $375,000, 256K
- MEMORY: $8,1500
- SYSTEM: $60,000, 256K
- INCLUDES CPU, DISK (50-1960MB); MAG TAPE; ASYNCHRONOUS CONTROLLER; TOPS 10 SYSTEM SOFTWARE.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Memory Port Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
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<tbody>
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<td>BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
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<td>COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
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<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
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<td>LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
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</tbody>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 36 BITS</td>
</tr>
<tr>
<td>MEMORY: 256 TO 4096K</td>
</tr>
<tr>
<td>CYCLE TIME: -96 USEC</td>
</tr>
<tr>
<td>ADD TIME: -52 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 386</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDFINS/ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ADDMSST/I/O TRANSFER RATE: 9.5MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCD/FME/INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>ASSEMBLER 128K</td>
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<tr>
<td>MACRO ASSEM 128K</td>
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<tr>
<td>DISK MONITOR 128K</td>
</tr>
<tr>
<td>REAL TIME MONTR 128K</td>
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<tr>
<td>T/S MONITOR 128K</td>
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<tr>
<td>BATCH MONITOR 128K</td>
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<tr>
<td>DATA BASE SYS 128K</td>
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<tr>
<td>OTHER: MESSAGE CONTROL SYSTEM 128K</td>
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<tr>
<td>SINGLE BASIC 128K</td>
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<tr>
<td>MULTI BASIC 128K</td>
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<tr>
<td>COBOL 128K</td>
</tr>
<tr>
<td>FORTRAN 128K</td>
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<tr>
<td>FL1</td>
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<tr>
<td>RPG</td>
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<tr>
<td>OTHER:</td>
</tr>
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<table>
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<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $750000, 128K</td>
</tr>
<tr>
<td>MEMORY: $81500, 128K</td>
</tr>
<tr>
<td>SYSTEM: $1055000, 256K</td>
</tr>
<tr>
<td>INCLUDES TWO 128K CPUS; DISK (50-1960MB); MAGNETIC TAPE; ASYNCHRONOUS CONTROLLER; TOPS 10 SYSTEM SOFTWARE.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD: 10 (08/76)</td>
</tr>
<tr>
<td>MAINTENANCE: ALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing  

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bistynchronous  
D = Direct Memory Access  
M = Multimrox Memory  
S = Selectable Line Speeds  
T = Autodial  

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

- Word Size: 36 Bits
- Memory: 128 to 256K
- Cycle Time: .95 usec
- Add Time: 1.4 usec
- Cache Memory: N/A
- # of Instructions: 378
- Instruction Types (1): Befins/Accumulators:
- Index Registers:
- I/O Communications (2): ABDMS/
- I/O Transfer Rate: 7MB
- Processor Features (3): CDPRME/
- Interface Slots:

**SYSTEMS SOFTWARE (*)**

- Assembler T0PS 20
- Macro Assembler T0PS 20
- Disk Monitor
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base Sys  
- Other:

**PRICES**

- Computer: $500 MFB, 64K
- Memory: $10000, 64K
- System: $250000, 64K

Includes 64K CPU; Disk (100MB); Mag Tape (TU45); 8 Asynchronous Lines; Console Terminal; T0PS 20 Software

---

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Micro Programmable
- Factory Micro Programmable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Spec, N/A)**

- Removable Disk: RP04, RP06
- Fixed Head Disk: RH504
- Flexible Disk: N/A
- Magnetic Tape: TU45
- Tape Cassette: N/A
- Line Printer: LSP-10V, LP10F, LP07
- Serial Printer: N/A
- Card Rd, Pn: N/A; N/A
- Paper Tape Rd, Pn: CR10-E; CP10-D
- Display Terminal: VP56
- Multiplexer: Syn, Asyn
- Terminals/System:
- Other:

**SOFTWARE LANGUAGES (*)**

- APL128K
- ALGOL 128K
- Single Basic 128K
- Multi Basic
- COBOL 128K
- Fortran 128K
- PL1
- RPG
- Other:

**MARKETING**

- Main Market: End User
- Units Sold: 40 (08/76)
- Maintenance:

---

**(1) INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**(2) I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multisport Memory
- S = Selectable Line Speeds
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**(3) PROCESSOR FEATURES:**

- B = Base Address Relocation
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<tbody>
<tr>
<td>WORD SIZE: BITS</td>
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<tr>
<td>MEMORY: TO 256K</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
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<tr>
<td>ADD TIME:</td>
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<tr>
<td>CACHE MEMORY:</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
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<tr>
<td>INSTRUCTION TYPES (1): /</td>
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<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
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<tr>
<td>I/O COMMUNICATIONS (2): /</td>
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<tr>
<td>I/O TRANSFER RATE:</td>
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<tr>
<td>PROCESSOR FEATURES (3): /</td>
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<tr>
<td>INTERFACE SLOTS:</td>
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<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>DISK MONITOR</td>
</tr>
<tr>
<td>REAL TIME RTMA</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: RSTS/E</td>
</tr>
</tbody>
</table>

| REMOVABLE DISK: 176MB |
| FIXED HEAD DISK: |
| FLEXIBLE DISK: |
| MAGNETIC TAPE: 9T |
| TAPE CASSETTE: |
| LINE PRINTER: 300 LPM |
| SERIAL PRINTER: DECWRITER II |
| CARD RD, PN: |
| PAPER TAPE RD, PN: |
| DISPLAY TERMINAL: |
| MULTIPLEXOR: |
| TERMINALS/SYSTEM: |
| OTHER: |

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<tr>
<td>* APL</td>
</tr>
<tr>
<td>ALGOL</td>
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<tr>
<td>SINGLE BASIC</td>
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<tr>
<td>* NULII BASIC</td>
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<tr>
<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>* RPG</td>
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<tr>
<td>OTHER: DECAL</td>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: SEE MFR</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $165,060, 256K</td>
</tr>
<tr>
<td>INCLUDES 256K CPU; 176MB DISK DRIVE; 9-TRACK MAGNETIC TAPE SYSTEM; 300 LPM</td>
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<tr>
<td>PRINTER: DECWRITER II CONSOLE</td>
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<td>I = Indirect Addressing</td>
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<td>M = Multiply &amp; Divide</td>
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<td>S = Stack Processing</td>
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<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = Bisynchronous</td>
</tr>
<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multiport Memory</td>
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<tr>
<td>S = Selectable Line Speeds</td>
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<td>T = Autodial</td>
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<th>(3) PROCESSOR FEATURES</th>
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<td>B = Base Address Relocation</td>
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<tr>
<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
</tr>
<tr>
<td>K = Memory Parity Correct</td>
</tr>
<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
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<tr>
<td>V = Vectored Interrupt</td>
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**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 32 TO 128K
- CYCLE TIME: .9/.49/.3 USEC
- ADD TIME: .9/.3 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 400+
- INSTRUCTION TYPES (1): BDEIMFS/F
- ACCUMULATORS: 0
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): /ABDST
- I/O TRANSFER RATE: 3.0MB
- PROCESSOR FEATURES (3): CFVRE/BDM
- INTERFACE SLOTS: 3

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- TVS MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: RK05, RP04, RP06
- FIXED HEAD DISK: BS03, BS04
- FLEXIBLE DISK: RX11
- MAGNETIC TAPE: TU16, TU56, TU10, TS03
- TAPE CASSETTE: TA11
- LINE PRINTER: LP11, LV11
- SERIAL PRINTER: LA36, LA180, LA37
- CARD RD, PN: CR11, CD11, CH11; N/A
- PAPER TAPE RD, PN: PC11
- DISPLAY TERMINAL: VT50, VT55, VT11, VS60
- MULTIPLEXOR: ASYN, SYN
- TERMINALS/SYSTEM:
- OTHER: COMM INTERFACE

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: FORTRAN IV+

**MARKETING**

- MAIN MARKET: END USER, OEM
- UNITS SOLD: ON CALL
- MAINTENANCE: ON CALL
- PRICES:
  - COMPUTER: $50400, 32K
  - MEMORY: $5390, 16K
  - SYSTEM: $70405, 32K
  - INCLUDES 32K CPU; #1A36 DECWRITER TERMINAL; TWO CARTRIDGE DISKS (5MB TOTAL).

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Central Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
Introduced in 1975, the PDP-11/70 is a general purpose computer capable of concurrent batch, real time, and time sharing processing. Hardware features include an integral cache memory, a vectored interrupt system, a 32-bit internal data path, and uniibus architecture. Available software includes a multi-programming multi-packing operating system.

**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**

- Removable Disk: RK611, RK11, BWPOX
- Fixed Head Disk: RW503, RW504
- Flexible Disk: RX11
- Magnetic Tape: TC11, TM811, TWU16
- Tape Cassette: TA11
- Line Printer: LP11, LA11
- Serial Printer: LA36
- Card Reader, PACE: CR11, CD11, CM11; N/A
- Paper Tape Reader, PACE: PC11
- Display Terminal: VT52, VT61D
- Multiplexor: AS15, AS5
- Terminals/Systems: Other

**SYSTEMS SOFTWARE (*)**

- Assembler 64K
- Macro Assem 64K
- Disk Monitor 64K
- Real Time Monitor 64K
- T/S Monitor 64K
- Batch Monitor 64K
- Data Base Sys
- Other: Multi-Programming, Tasking Sys

**PRICES**

- Computer: $63000, 64K
- Memory: $18590, 64K
- System: $146980, 64K
- Includes 128K CPU; 1LA36 DECwriter Terminal; MAG Tape Unit (1600/800 BPI); DISK Pack 1888MB

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- Single Basic 64K
- Multi Basic 64K
- COBOL 64K
- FORTRAN 64K
- FPI
- EPF
- Other: FORTRAN 4+

**MARKETING**

- Main Market: End User, OEM
- Units Sold: Maintenance:

1978/No. 1

APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*):
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A):
WORD SIZE: 32 BITS
MEMORY: 128 TO 2000K MOS
CYCLE TIME:
ADD TIME:
CACHE MEMORY: 8KB
# OF INSTRUCTIONS: 243
INSTRUCTION TYPES (1): BDFIS/M
ACCUMULATORS:
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ADS/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): CFVMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*):
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER:

SOFTWARE LANGUAGES (*):
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER:

PERIPHERALS (Model #, Specs, N/A):
REMOVABLE DISK: RP06, RN03
FIXED HEAD DISK: YES
FLEXIBLE DISK: YES
MAGNETIC TAPE: TE16; TE15
TAPE CASSETTE: YES
LINE PRINTER: YES
SERIAL PRINTER: LA36
CARD ED, PN:
FAXER TAPE ED, PN:
DISPLAY TERMINAL: YES
MULTIPLEXOR: STD
TERMINALS/SYSTEM:
OTHER: 1 UNI, 4 BASS ADAPTER

PRICES:
COMPUTER: $SEE MF
MEMORY:
SYSTEM: $128000

MARKETING:
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 128K CPU; 30 CPS LA36 DECWRITER II; 2 RK06 1486 DISK DRIVES; VAX/VMS OPERATING SYSTEM; MULTIPLEXOR WITH 8 EIA CONNECTIONS.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
FOUR-PHASE SYSTEMS: IV/70

Introduced in 1971, the System IV/70 is a display-oriented, 24-bit minicomputer designed for a range of business and industrial applications for OEM and end-users. Features include a MOS/LSI CPU and memory, turnkey software which includes data entry, word processing, and simulation programs for the IBM 3270 and 2260/2848 display systems, supports up to 32 CRTs, and can interface directly to an IBM System/360 or 370.

### Application

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Features

- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### Peripherals

(Model #, Specs. N/A)

- Removable disk: 8200
- Fixed head disk: N/A
- Flexible disk: 290KB
- Magnetic tape: 850X
- Tape cassette: N/A
- Line printer: 6146, 6148, 6151
- Serial printer: 6121, 6131X, 6135
- Card reader, printer: 800X, 6003, N/A
- Paper tape reader, printer: N/A; N/A
- Display terminal: YES
- Multiplexer: AYR, AYN
- Terminals/System: 32
- Other:

### Systems Software

- Assembler 8K
- Macro Assem
- Disk Monitor 8K
- Real Time Mount
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

### Software Languages

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL 16K
- FORTRAN
- PL1
- RPG
- Other: Data IV

### Prices

- Computer: $SEE MFR, 72K
- Memory:
  - System: $SEE MFR, 72K
  - Includes 48K CPU; Disk Storage (2.5 MB); 12 CRT's; 9 Track Mag Tape

### Marketing

- Main Market: End User, OEM
- Units Sold:
- Maintenance: On Call

---

(1) Instructions:
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O Communications:
- **A** = Asynchronous
- **B** = B asynchronous
- **D** = Direct Memory Access
- **M** = Multisport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) Processor Features:
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = V vectored Interrupt
FOUR-PHASE SYSTEMS: IV/90

INTRODUCED IN 1977, THE FOUR-PHASE IV/90 IS DISTRIBUTED PROCESSING SYSTEM DESIGNED FOR HIGH VOLUME TRANSACTION PROCESSING IN THE OUTLYING LOCATIONS OF LARGE DECENTRALIZED ORGANIZATIONS. THE IV/90 SUPPORTS UP TO 32 VIDEO DISPLAYS AND IS SOFTWARE COMPATIBLE WITH EARLIER FOUR-PHASE COMPUTERS. THE SYSTEM IV/90 CAN ALSO COMMUNICATE WITH A HOST CPU ON OTHER REMOTE SYSTEMS AT SPEEDS OF UP TO 9600 BPS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
- WORD SIZE: 24 BITS
- MEMORY: 96 TO 192K LSI
- CYCLE TIME: 2 USEC
- ADD TIME: 4 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 126
- INSTRUCTION TYPES (1): BPFM/D
- ACCUMULATORS: 5
- INDEX REGISTERS: 5
- I/O COMMUNICATIONS (2): /ABMT
- I/O TRANSFER RATE: .375MB
- PROCESSOR FEATURES (3): BICLL/E
- INTERFACE SLOTS: 6

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BASH MONITOR
- DATA BASE SYS
- OTHER: VISION

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 2.5-270MB
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 290KB
- MAGNETIC TAPE: 12.5-37.5IPS 7/9 TRK
- TAPE CASSETTE: N/A
- LINE PRINTER: 300-1800 LPM
- SERIAL PRINTER: 30-165 CPS
- CARD RD/PN: 300-600 CPM
- PAPER TAPE RD/PN: N/A
- DISPLAY TERMINAL: 1920 CHAR.
- MULTIPLEXOR: ASYN/SYN
- TERMINALS/SYSTEM: 32
- OTHER:

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- C OBOL
- FORTRAN
- PL1
- RPG
- OTHER: DATA IV

MARKETING
- MAIN MARKET: END USER, OEM
- UNITS SOLD: MAINTENANCE: ON CALL
- INCLUDES 192K CPU; 67.5MB DISK DRIVE; 24 1152 CHARACTER DISPLAYS; 300 LPM
- PRINTER: #8437 INTELLIGENT COMMUNICATIONS CONTROLLER, 9-TRACK MAGNETIC TAPE.

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Memory Protection
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Reolocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Protection
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1971, THE FOX 1 IS A PROCESS CONTROL SYSTEM DESIGNED TO COORDINATE CENTRAL PLANT SENSOR-BASED ACTIVITIES. FEATURES INCLUDE A VERSATILE INSTRUCTION SET, FLEXIBLE ADDRESSING TECHNIQUES, AND THE INTERSPEC COMMUNICATIONS UNIT WHICH INTERFACES UP TO 64 REMOTE INTERSPEC MODULES. IMPAC, AN INDUSTRIAL MULTILEVEL PROCESS ANALYSIS AND CONTROL PACKAGE, IS ALSO AVAILABLE.

**APPLICATION (*)**

BUSINESS/COMMERCIAL
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

WORD SIZE: 24 BITS
MEMORY: 32 TO 65K CORE
CYCLE TIME: .32 USEC
ADD TIME: 1.92 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 217
INSTRUCTION TYPES (1): BFIN/ACCUMULATORS: 2
INDEX REGISTERS: 6
I/O COMMUNICATIONS (2): ABDS/T
I/O TRANSFER RATE: 32.16 MB
PROCESSOR FEATURES (3): BCDFVRM/INSEMPREL:
INTERFACE SLOTS: VARY

**SYSTEMS SOFTWARE (*)**

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MONTE
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: IMPAC, INREP, GNLP1, GOLP1

**FEATURES (*)**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

REMOVABLE DISK: 2116
FIXED HEAD DISK: 1111, 1110
FLEXIBLE DISK: N/A
MAGNETIC TAPE: OPTIONAL
TAPE CASSETTE: N/A
LINE PRINTER: 2711
SERIAL PRINTER: 7510
CARD RD, PN: 2523-B
PAPER TAPE RD, PN: N/A
DISPLAY TERMINAL: 4110
MULTIPLEXOR: A-D, D-A
TERMINALS/SYSTEM:
OTHER: INTERSPEC, AS BEQD

**SOFTWARE LANGUAGES (*)**

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
* FORTRAN
PL/I
BPG
OTHER: MAX

**MARKETING**

MAIN MARKET: END USER
UNIT SOLD: 44 (06/77)
MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Re-location
C = Real Time Clock
D = Dynamic Page Re-location
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE FACOM M-130 IS A 32-BIT COMPUTER SYSTEM DESIGNED FOR APPLICATIONS IN BUSINESS, COMMUNICATIONS, LABORATORY, ENGINEERING, AND EDUCATION. STANDARD FEATURES INCLUDE BYTE MANIPULATION, FLOATING POINT, AND POWER FAIL SAFE. SOFTWARE SUPPORT INCLUDES BASIC FOR SINGLE AND MULTI-USERS, ALGOL, COBOL, FORTRAN, PL1, AND RPG. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>* BANKING SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
<td>REMOVABLE DISK: F467, F47X, F49X</td>
</tr>
<tr>
<td>MEMORY: 128 TO 512K</td>
<td>FIXED HEAD DISK: N/A</td>
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<tr>
<td>CYCLE TIME: 0.18 USEC</td>
<td>FLEXIBLE DISK: F442, F443</td>
</tr>
<tr>
<td>ADD TIME: 3.6 USEC</td>
<td>MAGNETIC TAPE: F603, F61X</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE: F403, F404</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 189</td>
<td>LINE PRINTER: F647, F65X</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFMS/</td>
<td>SERIAL PRINTER: F798</td>
</tr>
<tr>
<td>ACCUMULATORS: 189</td>
<td>CARD READER, PN: F6X1/F6XX</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
<td>PAPER TAPE RD, PN: F749/F76X</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
<td>DISPLAY TERMINAL: F9525</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 3MB</td>
<td>MULTIPLEXOR: F280X</td>
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<tr>
<td>PROCESSOR FEATURES (3): BD/DMX</td>
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<tr>
<td>INTERFACE SLOTS:</td>
<td>TERMINALS/SYSTEM:</td>
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<tr>
<td>OTHER:</td>
<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
<td>* ALGOL</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
<td>* SINGLE BASIC</td>
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<tr>
<td>* REAL TIME MTR</td>
<td>MULTI BASIC</td>
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<tr>
<td>* T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>* PL1</td>
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<tr>
<td>OTHER:</td>
<td>* EPG</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
<td>MAIN MARKET:</td>
</tr>
<tr>
<td>MEMORY: $SEE MFR</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
<td>MAINTENANCE:</td>
</tr>
<tr>
<td>INCLUDES 128K CPU; 35MB DISK; 2 MAG TAPES</td>
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<tr>
<td>1260 LPM LINE PRINTER; 600 CPM CARD</td>
<td></td>
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<tr>
<td>READER; 100 CPM CARD PUNCH.</td>
<td></td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bissychronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE FACOM M-140 IS A 32-BIT COMPUTER DESIGNED FOR COMMERCIAL, SCIENTIFIC, ENGINEERING, COMMUNICATIONS, AND EDUCATIONAL APPLICATIONS. THE MODEL FEATURES STANDARD BYTE MANIPULATION, FLOATING POINT, AND VECTORED IN-E INTURPT. SOFTWARE SUPPORT INCLUDES ALGOL, BASIC FOR SINGLE USERS, COBOL, FORTRAN, PDL, AND RPG. A WIDE VARIETY OF SYSTEM SOFTWARE AND PERIPHERALS IS ALSO AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)
WORD SIZE: 32 BITS
MEMORY: 128 TO 1024K
CYCLE TIME: 0.63 USEC
ADD TIME: 2.31 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 189
INSTRUCTION TYPES (1): B / DEFSW / ACCUMULATORS: 189
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE: 3MB
PROCESSOR FEATURES (3): BDFRMEK / INTERFACE SLOTS

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PDL
* RPG
OTHER:

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: F467, F47X, F49X
FIXED HEAD DISK: N/A
FLEXIBLE DISK: F442, F443
MAGNETIC TAPE: F603, F61X
TAPE CASSETTE: F403, F404
LINE PRINTER: F647, F65X
SERIAL PRINTER: F798
CARD ED, PV: F6XX / F6XX
PAPER TAPE ED, PV: F749 / F76X
DISPLAY TERMINAL: F9525
MULTIPLEXOR: F280X
TERMINALS/SYSTEM:
OTHER:

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

PRICES
COMPUTER: $SEE MFR
MEMORY: $SEE MFR
SYSTEM: $SEE MFR
INCLUDES 256K CPU; DISK (400 MB); 2 MAG Tapes; 2 LINE PRINTERS (1260 LPM); CARD READER (1250 CPM); CARD PUNCH (100 CPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW

© Copyright GMI Corporation
INTRODUCED IN 1975, THE FACOM M-160 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE FACTORY MICROPROGRAMMING, VIRTUAL MEMORY, MEMORY PARITY AND STACK PROCESSING HARDWARE. SOFTWARE SUPPORT INCLUDES BASIC AND RPG COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 32 BITS
MEMORY: 256 TO 2000K
CYCLE TIME: .47 USEC
ADD TIME: 1.36 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 189
INSTRUCTION TYPES (1): BDFMS/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE: 4MB
PROCESSOR FEATURES (3): CDFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*):
* ASSEMBLER FASP
* MACRO ASSEMBLER
* DISK MONITOR OS IV/F4,F2,X8
* REAL TIME MONITOR OS IV/F4,F2,X8
* TVS MONITOR OS IV/F4,F2,X8
* BATCH MONITOR OS IV/F4,F2,X8
* DATA AND BASE SYS A-Z
OTHER:

SOFTWARE LANGUAGES (*):
APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL JIS
* FORTRAN
* PLI
* RPG
OTHER: SL

PRICES
COMPUTER: $SEE MFR, 1000K
MEMORY: $SEE MFR, 1000K
INCLUDED 1MB CPU; DISK (800MB); SIX MAG TAPE; TWO LINE PRINTERS (1600 LPM); CARD READER (1250 CPM); CARD PUNCH (250 CPM); CONSOLE DISPLAY; HARD COPY UNIT.

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: F47X62
FIXED HEAD DISK: DRUM F6625A
FLEXIBLE DISK: F461A
MAGNETIC TAPE: F611A/E,F610A1
TAPE CASSETTE: N/A
LINE PRINTER: F65X0
SERIAL PRINTER: F79X8
CARD READER: F660D,F671D,F690D
PAPER TAPE READER: F749F,F766A
DISPLAY TERMINAL: F9525E
MULTIPLEXOR: F280X
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*):
APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL JIS
* FORTRAN
* PLI
* RPG
OTHER: SL

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multiprotocol Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Check
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
Introduced in 1977, the FACOM M-160S is a 32-bit computer designed for business, communications, education, engineering, and laboratory applications. Standard features include floating point, vector-interrupt, and dynamic page relocation. Software support includes Algol, Basic for single users, COBOL, FORTRAN, PL/I, and RPG. A variety of system software and peripherals is also available.

**Application (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**Computer (Std/Opt. N/A)**

- Word Size: 32 bits
- Memory: 256 to 2048K
- Cycle Time: 0.13 usec
- ADD Time: 1.7 usec
- Cache Memory: N/A
- # of Instructions: 189
- Instruction Types (1): BDEFS/
- Accumulators: 189
- Index Registers: 16
- I/O Communications (2):
- I/O Transfer Rate: 3MB
- Processor Features (3): BDFM/NEK INTERFACE SLOTS

**Systems Software (*)**

- Assembler
- Macro Assem
- Disk Monitor
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base SYS
- OTHER:

**Prices**

- Computer: $See Mfr
- Memory: $See Mfr
- System: $See Mfr

Includes 512K CPU; DISK (600 MB); 4 MAG Tapes; 2 LINE PRINTERS (1600 LPM); CARD READER (1250 CPM); CARD PUNCH (250 CPM).

<table>
<thead>
<tr>
<th>(1) Instructions:</th>
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<tbody>
<tr>
<td>B = Byte Manipulation</td>
</tr>
<tr>
<td>D = Decimal Arithmetic</td>
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<td>E = Extended Precision</td>
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<td>S = Stack Processing</td>
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</tbody>
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<table>
<thead>
<tr>
<th>(2) I/O Communications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = Bisynchronous</td>
</tr>
<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multiport Memory</td>
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<tr>
<td>S = Selectable Line Speeds</td>
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<td>T = Autodial</td>
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</tbody>
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<tr>
<th>(3) Processor Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Base Address Relocation</td>
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<tr>
<td>C = Real-Time Clock</td>
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<tr>
<td>K = Memory Parity Correct</td>
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<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

**Marketing**

- Main Market:
- Units Sold:
- Maintenance:

1978/No. 1

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Fujitsu: FACOM M-180 II

Introduced in 1975, the FACOM M-180 II is a member of the FACOM family of general purpose computers used in business and scientific applications. It is similar to the FACOM M-160 but has a larger memory capacity and a faster data transfer rate. Features include multiprocessor capability, 8 or 16K of cache memory, memory protection and a variety of available peripherals. Software support includes a data base system, AIM.

### Application (*)
- Business/Commercial
- Communications Processor
  - Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Features (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
  - User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### Computer (Std/Opt. N/A)
- Word Size: 32 Bits
- Memory: 500 to 4000K
- Cycle Time: .47 usec
- Add Time: .46 usec
- Cache Memory: 16Kb, 70ns
- # of Instructions: 193
- Instruction Types (1): BDFMR, FD
- Index Registers: 16
- I/O Communications (2):
  - I/O Transfer Rate: 10MB
- Processor Features (3):
  - Code Memory/Interface Slots:

### Systems Software (*)
- Assembler FASP
- Macro Assembler FASP
- Disk Monitor OS IV/F4,F2,X8
- Real Time Monitor OS IV/F4,F2,X8
- T/S Monitor OS IV/F4,F2,X8
- Batch Monitor OS IV/F4,F2,X8
- Data Base System

### Prices
- Computer: $See Mfr., 2000K
- Memory: $See Mfr., 2000K

Includes 2MB CPU; 1200 MB Disk; 6 MAG Tapes; 2 2000LPM Line Printers; 2000 CPM Card Reader; 250 CPM Card Reader; Console Display; Hard Copy Unit.

### Marketing
- Main Market:
- Units Sold:
- Maintenance:

### Peripherals (Model #: Spec., N/A)
- Removable Disk: FD71K2
- Fixed Head Disk: DRUM F6625A
- Flexible Disk: F441A
- Magnetic Tape: F611A/E,F610A1
- Tape Cassette: N/A
- Line Printer: F65X
- Serial Printer: F798A
- Card Reader, PAN: F660B,F671D,F690D
- Paper Tape Reader, PAN: F749P,F766A
- Display Terminal: F9525R
- Multiplexer: F280X
- Terminals/System:
  - Other:

### Software Languages (*)
- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL JIS
- FORTRAN
- PL1
- RPG
- Other: LISP, SL

### Instructions:
- 1) Instructions:
  - B = Byte Manipulation
  - D = Decimal Arithmetic
  - E = Extended Precision
  - F = Floating Point
  - I = Indirect Addressing
  - M = Multiply & Divide
  - S = Stack Processing

- 2) I/O Communications:
  - A = Asynchronous
  - B = Bimodal
  - H = Direct Memory Access
  - M = Multiplex Memory
  - S = Selectable Line Speeds
  - T = Tachial

- 3) Processor Features:
  - B = Base Address Relocation
  - C = Real Time Clock
  - D = Dynamic Page Relocation
  - E = Memory Parity Detect
  - F = Power Fail Safe
  - K = Memory Parity Correct
  - M = Memory Protection
  - R = Priority Interrupt
  - V = Vectored Interrupt
INTRODUCED IN 1974, THE FACOM M-190 IS A MEMBER OF THE FACOM SERIES OF COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. STANDARD FEATURES INCLUDE UP TO 16 MEGABYTES OF MEMORY, A DATA TRANSFER RATE OF 20MB, PRIORITY INTERRUPTS AND FLOATING POINT HARDWARE. SOFTWARE SUPPORT INCLUDES A DATA BASE SYSTEM, AIM, AND TWO FORTRAN COMPILERS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
</tr>
<tr>
<td>MEMORY: 1024 TO 16K</td>
</tr>
<tr>
<td>CYCLE TIME: .48 (322BT) USEC</td>
</tr>
<tr>
<td>ADD TIME: .06 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB, 30NS</td>
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<tr>
<td># OF INSTRUCTIONS: 193</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFS/M/ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 20MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CDFRMK/INTERFACE SLOTS:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>* ASSEMBLER FASP</td>
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<td>* MACRO ASSEM FASP</td>
</tr>
<tr>
<td>* DISK MONITOR OS IV/F4,F2,X8</td>
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<tr>
<td>* REAL TIME MTR OS IV/F4,F2,X8</td>
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<tr>
<td>* T/S MONITOR OS IV/F4,F2,X8</td>
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<tr>
<td>* BATCH MONITOR OS IV/F4,F2,X8</td>
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<tr>
<td>* DATA BASE SYS AIM</td>
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<td>OTHER:</td>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $SEE MFR, 4000K</td>
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<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR, 4000K</td>
</tr>
<tr>
<td>INCLUDES 4MB CPU; DEUM (30MB); DISK (1600MB); 8 MAG TAPES; 2 LINE PRINTERS (2000 LPM); 2 CARD READER (2000 CPM); CARD PUNCH (250 CPM); CONSOLE DISPLAY; HARD COPY UNIT.</td>
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<td>V = Vectored Interrupt</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: F47X62</td>
</tr>
<tr>
<td>FIXED HEAD DISK: DRUM F6625A</td>
</tr>
<tr>
<td>FLEXIBLE DISK: F441A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: F611A/B,F610A1</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: F65D</td>
</tr>
<tr>
<td>SERIAL PRINTER: F798</td>
</tr>
<tr>
<td>CARD RD,RW: F668D,F671D,F690D</td>
</tr>
<tr>
<td>PAPER TAPE RD,RW: F749P,F766A</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: F9525R</td>
</tr>
<tr>
<td>MULTIPLEXOR: F280X</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
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<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
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<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
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<tr>
<td>MULTI BASIC</td>
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<tr>
<td>COBOL JIS</td>
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<tr>
<td>FORTRAN HE,GE</td>
</tr>
<tr>
<td>FPL</td>
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<tr>
<td>RPG</td>
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<tr>
<td>OTHER: SL</td>
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<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET:</td>
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<tr>
<td>UNITS SOLD:</td>
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<tr>
<td>MAINTENANCE:</td>
</tr>
</tbody>
</table>

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APPLICATION (\textsuperscript{*})

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 16 BITS
MEMORY: 16 TO 128K
CYCLE TIME: 1.5 USEC
ADD TIME: 3 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 84
INSTRUCTION TYPES (1): I/B/DEPM
ACCUMULATORS: 6
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): ABST
I/O TRANSFER RATE: 1.3 MB
PROCESSOR FEATURES (3): PME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (\textsuperscript{*})

* ASSEMBLER FASP,8K
* MACRO ASSEMBLER FASP,8K
* DISK MONITOR BOS,6K
* REAL TIME UNIX BOS,12K
* T/S MONITOR
* BATCH MONITOR BOS,6K
* DATA BASE SYS EPOCS,6K
OTHER:

FEATURES (\textsuperscript{*})

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPLIER

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: F472S, F62S
FIXED HEAD DISK: DRUM F628K
FLEXIBLE DISK: F441
MAGNETIC TAPE: P608K, P6035/N
TAPE CASSETTE: P403A2
LINE PRINTER: F644, F642
SERIAL PRINTER: F792
CARD READER, P/N: F664, F666
PAPER TAPE READER: F749S, F766A
DISPLAY TERMINAL: F6221D
MULTIPLEXOR: F1802LM
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (\textsuperscript{*})

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL BOS
* FORTRAN BOS
* PL1
* RPG
OTHER: FOCUS

MARKETING

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

PRICES

COMPUTER: $SEE MFR, 64K
MEMORY: $SEE MFR, 64K
INCLUDES 64K CPU; DRUM (1 MB); DISK (34 MB); 3 MAGNETIC TAPE DRIVES; LINE PRINTER (1890 LPM); CARD READER (600 CPR); KEYBOARD PRINTER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
C = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

138

**APPLICATION**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)

WORD SIZE: 16 BITS
MEMORY: 32 TO 128K
CYCLE TIME: 1.4 USEC
ADD TIME: 2.8 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 101
INSTRUCTION TYPES (1): BDIM/EF
ACCUMULATORS: 8
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABDST
I/O TRANSFER RATE: 1.9MB
PROCESSOR FEATURES (3): DFMEK/
INTERFACE SLOTS:

**SYSTEMS SOFTWARE**

* ASSEMBLER FASP
* MACRO ASSEM FASP
* DISK MONITOR BOS/VS
* REAL TIME MVTR BOS/VS
* T/S MONITOR
* BATCH MONITOR BOS/VS
* DATA BASE SYS EPICS
OTHER:

**PRICES**

COMPUTER: $SEE MPR, 64K
MEMORY:
SYSTEM: $SEE MPR, 64K
INCLUDES 64K CPU; PAGE FILE UNIT (1MB); DISK (94MB); 2 MAGNETIC TAPE DRIVES;
LINE PRINTER (900 LPM); CARD READER (600 CPM); CONSOLE DISPLAY.

**FEATURES**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

REMOVABLE DISK: F472S-2, F472R-2
FIXED HEAD DISK: PAGE FILE F421A
FLEXIBLE DISK: F441A
MAGNETIC TAPE: F612A, F603S, F603N
TAPE CASSETTE: F403A2
LINE PRINTER: F649A/B, F647G/B
SERIAL PRINTER: F881A, F794A, F795B
CARD RD, PN: F670B, F668G
PAPER TAPE RD, PN: F7492; F766A
DISPLAY TERMINAL: F6228
MULTIPLEXOR: F1602M, F1801G
TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES**

* APL
* ALGOL BOS
* SINGLE BASIC
* MULTI BASIC
* COBOL BOS, JIS
* FORTRAN -S, BOS
* PL1
* RPG
OTHER: TASK FORCE

**MARKETING**

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
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(2) I/O COMMUNICATIONS:
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(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1973, THE FACOM 230/28S IS A GENERAL PURPOSE COMPUTER USED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE VIRTUAL MEMORY, MEMORY PARITY, AND OPTIONAL FLOATING POINT INSTRUCTIONS. SOFTWARE SUPPORT INCLUDES ALGOL AND RPG COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A):
WORD SIZE: 16 BITS
MEMORY: 16 TO 64K
CYCLE TIME: 1.5 USEC
ADD TIME: 3 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 101
INSTRUCTION TYPES (1): BDIM/EF
ACCUmULATORS: 8
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /ABDST
I/O TRANSFER RATE: 1.3MB
PROCESSOR FEATURES (3): DPMEM/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*):
* ASSEMBLER FASP
* MACRO ASSEMBLER
* DISK MONITOR BOS/VS
* REAL TIME CRT BOS/VS
* T/S MONITOR
* BATCH MONITOR BOS/VS
* DATA BASE SYM EPOCS
OTHER:

SOFTWARE LANGUAGES (*):
* APL
* ALGOL BOS
* SINGLE BASIC
* MULTI BASIC
* COBOL BOS/JIS
* FORTRAN -S, BOS
* PL1
* RPG
OTHER: TASK FORCE

PRICES:
COMPUTER: $522 EFP, 48K
MEMORY:
SYSTEM: $522 EFP, 48K
INCLUDES 48K CPU; PAGE FILE UNIT (1MB); DISK (35.4MB); 2 MAGNETIC TAPE DRIVES;
LINE PRINTER (900 LPM); CARD READER (600 CPM); CONSOLE DISPLAY.

PERIPHERALS (Model #, Specs, N/A):
REMOVABLE DISK: F4725-S, F4726-S
FIXED HEAD DISK: PAGE FILE F422
FLEXIBLE DISK: F441A
MAGNETIC TAPE: F612A, F603S, F603N
TAPE CASSETTE: F403A2
LINE PRINTER: F649A/B, F647G/H
SERIAL PRINTER: F681A, F794A, F795B
CARD RD, RD: F670B, F668G
PAPER TAPE RD, RD: F749E; F766A
DISPLAY TERMINAL: F6228
MULTIPLEXOR: F1802N, F1801G
TERMINALS/SYSTEM:
OTHER:

MARKETING:
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
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S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
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D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

140
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### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt. N/A)
- WORD SIZE: 16 BITS
- MEMORY: 32 TO 128K
- CYCLE TIME: .5 USEC
- ADD TIME: 1.3 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 84
- INSTRUCTION TYPES (1):
  - ACCUMULATORS: 8
  - INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2):
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3):
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)
- ASSEMBLER FASP
- MACRO ASSEM FASP
- DISK MONITOR BOS II
- REAL TIME MONITOR BOS II
- T/S MONITOR
- BATH MONITOR BOS V
- DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $SEE MFR, 96K
- MEMORY: $SEE MFR, 96K
- INCLUDES 96K CPU; DRUM (1MB); DISK (34MB); 4 MAGNETIC TAPE DEVICES; LINE PRINTER 1890 LPM; CARD READER (800 CPM); KEYBOARD PRINTER (20 CPS).

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: F4725, F4625
- FIXED HEAD DISK: DRUM F626R
- FLEXIBLE DISK: F441A
- MAGNETIC TAPE: F6035/W
- TAPE CASSETTE: F403A/2
- LINE PRINTER: F642, F647
- SERIAL PRINTER: F795A
- CARD RD, FD: F66X, N/A
- PAPER TAPE RD, FD: F7492, F766A
- DISPLAY TERMINAL: F6228A
- MULTIPLEXOR: F1802L/R
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL BOS II
- SINGLE BASIC
- MULTI BASIC
- COBOL BOS II
- FORTRAN BOS II
- PL1
- RPG
- OTHER: PUB

### MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiprocess Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1973, THE FACOM 230/38 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE A MEMORY EXPANDABLE TO 512K, VIRTUAL MEMORY, PRIORITY INTERRUPTS AND FLOATING POINT HARDWARE. SOFTWARE SUPPORT INCLUDES ALGOL AND RPG COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE, WHICH ARE COMPATIBLE WITH BOTH THE 38 AND 38S.

<table>
<thead>
<tr>
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<td>* DATA ENTRY SYSTEM</td>
<td>MACHINE</td>
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<tr>
<td></td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt. N/A)**

- **WORD SIZE**: 16 BITS
- **MEMORY**: 96 TO 512K
- **CYCLE TIME**: .96 USEC
- **ADD TIME**: 2.4 USEC
- **CACHE MEMORY**: N/A
- **# OF INSTRUCTIONS**: 123
- **INSTRUCTION TYPES (1)**: BDEFIM,
  ACCUMULATORS: 8
- **INDEX REGISTERS**: 3
- **I/O COMMUNICATIONS (2)**: /ABST
- **I/O TRANSFER RATE**: 3MB
- **PROCESSOR FEATURES (3)**: CDFRAEK,
  INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**

- **ASSEMBLER FASP**
- **MACEO ASSEM FASP**
- **DISK MONITOR OS II/V$**
- **REAL TIME MTR OS II/V$;SON**
- **T/S monitor OS II/V$;CPM**
- **BATCH MONITOR**
- **DATA BASE SYS INIS**

**PRICES**

- **COMPUTER**: $SEE MFR, 256K
- **MEMORY**:
- **SYSTEM**: $SEE MFR, 256K
- **INCLUDES 256K CPU; DISK (200MB); FOUR READER (600 CPM); KEYBOARD PRINTER (30**

**PERIPHERALS** (Model #, Specs, N/A)

- **REMOVABLE DISK**: F472L-2,F478A2/B2
- **FIXED HEAD DISK**: N/A
- **FLEXIBLE DISK**: F441A
- **MAGNETIC TAPE**: F612A,F603S,F610A
- **TAPE CASSETTE**: F403A2
- **LINE PRINTER**: F649A/B,F647G/H
- **SERIAL PRINTER**: F681A,F794A,F795B
- **CRT ED, PW**: F670L,F6680,F683G
- **PAPER TAPE ED, PW**: F749E,F766A
- **DISPLAY TERMINAL**: F6228
- **MULTIPLEXOR**: F1802L,F1802M,F1801G
- **TERMINALS/SYSTEM**:
- **OTHER**:

**SOFTWARE LANGUAGES (*)**

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL OS II/V$;JIS**
- **FORTRAN IV$**
- **PLI**
- **RPG**
- **OTHER**: FAST

**MARKETING**

- **MAIN MARKET**:
- **UNITS SOLD**:
- **MAINTENANCE**:
- **MAG TAPE; LINE PRINTER (630 LPM); CARD CPS; CONSOLE DISPLAY**.

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
Fujitsu: FACOM 230/38S

Introduced in 1973, the FACOM 230/38S is a general purpose computer designed for business and scientific applications. Features include a memory expandable to 256K, memory parity and many available peripherals. Software support includes a data base system, INIS, and PL/1 and RPG compilers.

**APPLICATION**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt, N/A)**

- Word Size: 16 BITS
- Memory: 96 to 256K
- Cycle Time: .96 USEC
- Add Time: 2.4 USEC
- Cache Memory: N/A
- # of Instructions: 123
- Instruction Types (1): BDEFIN/
- Accumulators: 8
- Index Registers: 3
- I/O Communications (2): /ABDST
- I/O Transfer Rate: 3MB
- Processor Features (3): DPMEK/
- Interface Slots:

**SYSTEMS SOFTWARE**

- Assembler FASP
- Macro Assem FASP
- Disk Monitor OS II/VS
- Real Time WWTR OS II/VS:SOM
- T/S Monitor OS II/VS:CPM
- Batch Monitor
- Data Base Sys INIS
- Other:

**PRICES**

- Computer: $SEE MFR, 160K
- Memory:
- System: $SEE MFR, 160K
- Includes 160K CPU; disk (200MB); 2 Mag tape drives; line printer (630 LPM); card reader (600 CPM); console display.

**APPLICATION (1)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**FEATURES (1)**

- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**

- Removable Disk: 472L-2,F478A2/B2
- Fixed Head Disk: N/A
- Flexible Disk: F447A
- Magnetic Tape: F612A,F603S/N
- Tape Cassette: F403A2
- Line Printer: F649A/B,F647G/#
- Serial Printer: F881A,F794A,F795B
- Card Reader, PN: F670B,F668G
- Paper Tape RD, PN: F749E,F766A
- Display Terminal: F6228
- Multiplexor: F1802M,F1801G
- Terminals/SYSTEM:
- Other:

**SOFTWARE LANGUAGES (1)**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL OS II/VS,JIS
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**

- Main Market:
- Units Sold:
- Maintenance:

---

1978/No. 1

**COMPUTER REVIEW**

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INTRODUCED IN 1971, THE FACOM 230/45S IS A GENERAL PURPOSE COMPUTER FEATURING A MEMORY EXPANDABLE TO 512K AND A VARIETY OF AVAILABLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES A DATA BASE SYSTEM, RAPID, AND ALGOL AND FL/1 COMPILERS.

<table>
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<tr>
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<td>* BUSINESS/COMMERCIAL</td>
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<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
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<tr>
<td>CONVERSATIONAL LANGUAGES</td>
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<td>USER MICROPROGRAMMABLE</td>
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<td>MULTIPROCESSOR</td>
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<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
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<tr>
<td>MEMORY: 128 TO 512K</td>
</tr>
<tr>
<td>CYCLE TIME: .7 USEC</td>
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<tr>
<td>ADD TIME: 1.4 USEC</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<td># OF INSTRUCTIONS: 118</td>
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<tr>
<td>INSTRUCTION TYPES (1):</td>
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<tr>
<td>ACCUMULATORS: 8</td>
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<tr>
<td>INDEX REGISTERS: 3</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
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<td>I/O TRANSFER RATE:</td>
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<td>PROCESSOR FEATURES (3):</td>
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<td>INTERFACE SLOTS:</td>
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<td>* MACRO ASSEMB FASP</td>
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<td>* DISK MONITOR OS II</td>
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<td>* REAL TIME MTR OS II</td>
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<td>* T/S MONITOR</td>
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<td>* BATCH MONITOR OS II</td>
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<td>* DATA BASE SYS RAPID</td>
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<td>OTHER:</td>
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<tr>
<td>COMPUTER: $SEE MFR, 321K</td>
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<tr>
<td>MEMORY:</td>
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<td>SYSTEM: $SEE MFR, 321K</td>
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<tr>
<td>INCLUDES 321K CPU; 300 MB DISK; 8 MAG TAPE DRIVES; 2 1890 LPM LINE PRINTERS; 2000 CPM CARD READERS; 20 CPS KEYBOARD PRINTER.</td>
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<td>M = Multiply &amp; Divide</td>
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<td>S = Stack Processing</td>
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<th>(2) I/O COMMUNICATIONS:</th>
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<tr>
<td>A = Asynchronous</td>
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<td>B = Bysynchronous</td>
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APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 16 BITS
MEMORY: 128 TO 1024K
CYCLE TIME: 7 USEC
ADD TIME: 1.4 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 123
INSTRUCTION TYPES (1): B, DECIMAL, ADD, SUB, MUL, DIV, TEST, JUMP, CALL
ACCUMULATORS: 8
INDX REGISTERS: 3
I/O COMMUNICATIONS (2): ABST
I/O TRANSFER RATE: 4 MB
PROCESSOR FEATURES (3): CDFRM/EK, INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER FASP
* MACRO ASSEMBLER
* DISK MONITOR OS II/VS
* REAL TIME MTR OS II/VS:SGM
* T/S MONITOR OS II/VS:CPM
* BACH MONITOR
* DATA BASE SYS INIS
OTHER:

PRICES
COMPUTER: $SEE MFR, 384K
MEMORY:
STORAGE: $SEE MFR, 384K
INCLUDES 384K CPU; 200 MB DISK; 4 MAG TAPE DRIVES; 2 630 LPM LINE PRINTERS; 600 LPM CARD READER; 30 CPS PRINTER; CRT.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: F4721-2, F4782A/B2
FIXED HEAD DISK: N/A
FLEXIBLE DISK: F441A
MAGNETIC TAPE: F603S, F61X
TAPE CASSETTE: F403A2
LINE PRINTER: F649A/B, F647G/H
SERIAL PRINTER: F881A,F794A,F795B
CARD RDR, F: F670B, F668G; F683G
PAPER TAPE RDR, F: F749B, F766A
DISPLAY TERMINAL: F6228A
MULTIPLEXOR: F1802L/R, F1801G
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL OS II/VS:JIS
* FORTRAN -IV S
* PL/I
* RPG
OTHER: FASY

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
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**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

| Word Size: 16 Bits | Memory: 128 To 2000K
|---|---|
| Cycle Time: .6 Usec | Add Time: .3 (32Bits) Usec
| Cache Memory: N/A | GF Instructions: 145
| Instruction Types (1): | Accumulators: 8
| Index Registers: 3 | Processor Features (2):
| I/O Communications (2): | Processor Transfer Rate: 8MB
| Processor Transfer Rate (3): | Interface Slots:

**SYSTEMS SOFTWARE (*)**

- * ASSEMBLER FASP
- * MACRO ASSEM FASP
- * DISK MONITOR OS II
- * REAL TIME MONITOR OS II
- * T/S MONITOR
- * BATCH MONITOR OS II
- * DATA BASE SYS RAPID

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs. N/A)**

- REMOVABLE DISK: P477A, P477A2
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: P414A
- MAGNETIC TAPE: F603S/N
- TAPE CASSETTE: P403A2
- LINE PRINTER: F642, F647
- SERIAL PRINTER: F795A
- CARD READER/PRINTER: F670A, F668B; F663G
- PAPER TAPE READER/PRINTER: F749E, F766A
- DISPLAY TERMINAL: F6228A
- MULTIPLEXOR: F1802L/M
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL OS II
- FORTRAN -IV S, IV SE
- PL1
- RPG
- OTHER:

**PRICES**

- COMPUTER: $SEE MFR, 640K
- MEMORY: $SEE MFR, 640K

INCLUDES 640K CPU; 400 MB DISK; 8 MAGNETIC TAPE DRIVES; 2 1890 LPM LINE PRINTERS; 2000 CPM CARD READER; 250 CPM CARD FUNCH; CRT.

**MARKETING**

- MAINTENANCE:

**MAIN MARKET: UNITS SOLD:**

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
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- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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INTRODUCED IN 1973, THE FACOM 230/58 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR
BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE UP TO 2 MEGABYTES OF MEMORY,
MULTIPROCESSOR CAPABILITY, PRIORITY INTERRUPTS AND STACK PROCESSING HARDWARE.
SOFTWARE SUPPORT INCLUDES TWO FORTRAN COMPILERS. A VARIETY OF PERIPHERALS IS
AVAILABLE.

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<td>WORD SIZE: 16 BITS</td>
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<tr>
<td>MEMORY: 128 TO 2000K</td>
</tr>
<tr>
<td>CYCLE TIME: .6 (4BYTES) USEC</td>
</tr>
<tr>
<td>ADD TIME: .3 (32BITS) USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 158</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFINS/ACCUMULATORS: 8</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 8MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CDFRMK/INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER FASP</td>
</tr>
<tr>
<td>* MACRO ASSEM FASP</td>
</tr>
<tr>
<td>* DISK MONITOR OS II/VS</td>
</tr>
<tr>
<td>* REAL TIME MNTR OS/VS:SO</td>
</tr>
<tr>
<td>* T/S MONITOR OS II/VS:CPM</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS INIS</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>* ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL OS II/VS,JIS</td>
</tr>
<tr>
<td>* FORTRAN -IV S, IV SE</td>
</tr>
<tr>
<td>* PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER: PASC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR, 640K</td>
</tr>
<tr>
<td>MEMORY: $SEE MFR, 640K</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR, 640K</td>
</tr>
<tr>
<td>INCLUDES 640K CPU; 400 MB DISK; 4 MAGNETIC TAPE DRIVES; LINE PRINTER (630 LPM); CARD READER (2000 CPM); CARD PUNCH; KEYBOARD PRINTER (30 CPS); CONSOLE DISPLAY.</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

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147
Introduced in 1965, the FACOM 230/60 is one of the original members of the FACOM 230 series of computers used for business and scientific applications. Features include multiprocessor capability, a memory expandable to 1024K, and a variety of available peripherals. Software support includes ALGOL and FORTRAN compilers.

**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

<table>
<thead>
<tr>
<th>Word Size: 36 Bits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory: 32 to 1024K</td>
</tr>
<tr>
<td>Cycle Time: .92 usec</td>
</tr>
<tr>
<td>Add Time: 1.26 usec</td>
</tr>
<tr>
<td>Cache Memory: N/A</td>
</tr>
<tr>
<td>Of Instructions:</td>
</tr>
<tr>
<td>Instruction Types (1): BFINM/</td>
</tr>
<tr>
<td>Accumulators:</td>
</tr>
<tr>
<td>Index Registers: 7</td>
</tr>
<tr>
<td>I/O Communications (2):</td>
</tr>
<tr>
<td>I/O Transfer Rate:</td>
</tr>
<tr>
<td>Processor Features (3): BCFRM/</td>
</tr>
<tr>
<td>Interface Slots: 18</td>
</tr>
</tbody>
</table>

**SYSTEMS SOFTWARE (*)**

- Assembler FASP
- MACRO ASSEMBLER FASP
- Disk Monitor M VI OS
- Real Time MTR
- T/S Monitor
- Batch Monitor M VI OS
- Data Base SYS
- OTHER:

**PRICES**

- COMPUTER: $SEE MFR, 128K
- MEMORY: $SEE MFR, 128K
- Includes 128K CPU, DRUM (2.56M); DISK (232M); 6 MAG TAPE DRIVES; TWO LINE PRINTERS (500-1500 LPM); CARD READER (800 CPM); CONSOLE DISPLAY.

**FEATURES (*)**

- Upward compatible
- Field Service
- Application Software
- Computational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs. N/A)**

- Removable Disk: F4721-2
- Fixed Head Disk: Drum F624K
- Flexible Disk: N/A
- Magnetic Tape: F603M/H
- Tape Cassette: N/A
- Line Printer: F642K/L
- Serial Printer: F791A
- Card Reader, P864K/F663K
- PAPER TAPE RD, PN: F749E, F766A
- DISPLAY TERMINAL: F6221D
- MULTIPLEXOR: P18021/H
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: BACCUS

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended (floating point)
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

148

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1978/No. 1
INTRODUCED IN 1970, THE FACOM 230/75 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. STANDED FEATURES INCLUDE 2 OR 4K WORDS OF CACHE MEMORY, MEMORY PARITY, PRIORITY INTERRUPTS AND STACK PROCESSING INSTRUCTIONS. SOFTWARE SUPPORT INCLUDES A DISK AND BATCH OPERATING SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 36 BITS
- MEMORY: 64 TO 1024K
- CYCLE TIME: 1 USEC
- ADD TIME: -108 USEC
- CACHE MEMORY: 2-4KB, 45NS

**INSTRUCTIONS:**
- INSTRUCTION TYPES (1): BDEFS/H
- ACCUMULATORS: 12
- INDEX REGISTERS: 8
- I/O COMMUNICATIONS (2):
  - I/O TRANSFER RATE: 2.8MB
- PROCESSOR FEATURES (3): BCFSME/
  INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**

* ASSEMBLER PASC
* MACRO ASSEMBLER
* DISK MONITOR M VII OS
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR M VII OS
* DATA BASE SYS

**PRICES**

- COMPUTER: $SEE MFR, 1000K
- MEMORY:
- SYSTEM: $SEE MFR, 1000K

INCLUDES 16B CPU; DRUM (6GB); DISK (16000KB); 8 MAG TAPE DRIVES; TWO LINE PRIMERS (630-1690 LPH); CARD READER (2000 CPM); CARD PUNCH (250 CPM); CONSOLE DISPLAY.

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: F47XB2
- FIXED HEAD DISK: DRUM F662I
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: F611A/E, F610A1
- TAPE CASSETTE: F403A2
- LINE PRINTER: 647GBH
- SERIAL PRINTER: F794A
- CARD RD, PN: F668G/F683G
- PAPER TAPE RD, PN: F749E/F766A
- DISPLAY TERMINAL: F6228A
- MULTIPLEXOR: F1802L,R
- TERMINALS/SYSTEM:
- OTHER:

**SOFTWARE LANGUAGES (*)**

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PLI
* RPG
- OTHER: BACCUS SPL

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)

WORD SIZE: 16 BITS
MEMORY: 32 TO 128K
CYCLE TIME: .65, .75 USEC
ADD TIME: .8 USEC
CACHE MEMORY: N/A
* # OF INSTRUCTIONS: 94
* INSTRUCTION TYPES (1): BIEM/F
* ACCUMULATORS: 8
* INDEX REGISTERS: 7
I/O COMMUNICATIONS (2): DS/ABT
I/O TRANSFER RATE: 2MB
PROCESSOR FEATURES (3): CFRME/INTERFACE SLOTS: 12

SYSTEMS SOFTWARE (*)

* ASSEMBLER 32K
* MACRO ASSEM 32K
* DISK MONITOR 32K
* REAL TIME MONITOR 32K
* T/S MONITOR 32K
* BATCH MONITOR 32K
DATA BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC 32K
* MULTI BASIC 32K
* COBOL 32K
* FORTRAN 32K
PL1
 RPG
OTHER:

PRICES

COMPUTER: $35000, 32K
MEMORY: $83000, 16K
SYSTEM: $60000, 32K
INCLUDES 32K CPU; DISK (1MB); PAPER TAPE READER/PUNCH.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistamental
D = Direct Memory Access
M = Multiprotin Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
Introduced in 1975, the GEC 4070 is a real-time computer for business and process control applications. Features include dynamic page relocation, memory protection, byte manipulation, floating point instructions, and a 256K memory capacity. Extensive software and peripherals devices are available.

**APPLICATION**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt. N/A)
- Word Size: 16 bits
- Memory: 32 to 512K core
- Cycle Time: .8 usec
- Add Time: .16 usec
- Cache Memory: N/A
- # of Instructions: 160
- Instruction Types (1): BDEFIN/
- Accumulators: 5
- Index Registers: 3
- I/O communications (2): ADDMST/
- I/O Transfer Rate: .9/1.5MB
- Processor Features (3): BCDFFEME/
- Interface Slots: 14

**SYSTEMS SOFTWARE**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mntr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: Archiving/Fetch Utilities

**PRICES**
- Computer: $see Mfr
- Memory: $see Mfr

**FEATURES**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable Disk: 35MB, 70MB, 4.8MB
- Fixed Head Disk: 5, 12MB, 4.8MB
- Flexible Disk: N/A
- Magnetic Tape: 9 Track, 800/1600BPT
- Tape Cassette: .75MB
- Line Printer: 300, 600, 1250 LPM
- Serial Printer: 165 CPS
- Card Reader, P/N: 286, 600 CPM; N/A
- Paper Tape Reader, P/N: 150/500 CPS
- Display Terminal: 2K CPS
- Multiplexer: ASYN, A-D
- Terminals/System:
- Other: Graphic, CAMAC

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other: Coral-66, CAYT, BCPL

**MARKETING**
- Main Market: END USER, OEM
- Units Sold: 35 (11/77)
- Maintenance: ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1973, THE GEC 4080 IS A MODULAR, REAL TIME COMPUTER FOR PROCESS CONTROL APPLICATIONS. FEATURES INCLUDE A MICROPROGRAMMED READ-ONLY CONTROL MEMORY, FLOATING POINT HARDWARE AND UP TO 256 INTERRUPT LEVELS. EXTENSIVE PERIPHERALS AND SOFTWARE ARE AVAILABLE.

**APPLICATION (*)**
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**
WORD SIZE: 16 BITS
MEMORY: 32 TO 256K CORE
CYCLE TIME: .55 USEC
ADD TIME: .1 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 160
INSTRUCTION TYPES (1): BDEPM/ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): ASDMS/7
I/O TRANSFER RATE: .9/2.5 MB
PROCESSOR FEATURES (3): BCDFORM/INTERFACE SLOTS: 14

**SYSTEMS SOFTWARE (*)**
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MONTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: EXT PROCESS CONTROL SOFTWARE

**FEATURES (*)**
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
REMOVABLE DISK: 4.8, 35.70 MB
FIXED HEAD DISK: .5,1,2,4,8 MB
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 9 TRACK, 800/1600 BPI
TAPE CASSETTE: .75 KB
LINE PRINTER: 300, 600, 1250
SERIAL PRINTER: 165 CPS
CARD RD, FW: 286/600 CPS; N/A
PAPER TAPE RD, FW: 150/500 CPS
DISPLAY TERMINAL: 2K CPS
MULTIPLEXOR: ASYN, A-D
TERMINALS/SYSTEM:
OTHER: GRAPHIC, CAMAC

**SOFTWARE LANGUAGES (*)**
APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
RPG
OTHER: CORAL-66, CATY, BCPL

**MARKETING**
MAIN MARKET: END USER, OEM
UNITS SOLD: 90 (12/77)
MAINTENANCE:

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE GEC 4082 IS THE LARGEST CURRENT UNIT IN THE ESTABLISHED GEC 4000 SERIES FOR REAL-TIME BUSINESS AND PROCESS CONTROL APPLICATIONS. THE 4082 INCLUDES A FOUR-WAY INTERLEAVED STORE.

**APPLICATION**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER**

(Std/Opt. N/A)

- WORD SIZE: 16 BITS
- MEMORY: 128 TO 1000K
- CYCLE TIME: .58 USEC
- ADD TIME: .12 USEC
- CACHE MEMORY:
  - # OF INSTRUCTIONS: 160
  - INSTRUCTION TYPES (1): DEFDIM/
  - ACCUMULATORS: 5
  - INDEX REGISTERS: 3
  - I/O COMMUNICATIONS (2): /
  - I/O TRANSFER RATE: .9/2MB
  - PROCESSOR FEATURES (3): BCDFVME/
  - INTERFACE SLOTS: 14

**SYSTEMS SOFTWARE**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MnTR
- I/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: ARCHIVING/FETCH SEQUENTIAL

**FEATURES**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS**

(Model #, Specs. N/A)

- REMOVABLE DISK: 4.8, 35, 70
- FIXED HEAD DISK: -.5, 1, 2, 4, 8
- FLEXIBLE DISK: NO
- MAGNETIC TAPE: 800, 1600 BPI
- TAPE CASSETTE: .75MB
- LINE PRINTER: 300, 600, 1250 LPM
- SERIAL PRINTER: 165 CPS
- CARD RD, PN: 286, 600
- PAPER TAPE RD, PN: 500/150
- DISPLAY TERMINAL: 2000
- MULTIPLEXOR: ASCII TO D
- TERMINALS/SYSTEM:
  - OTHER:

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLI
- RPG
- OTHER: CORAL 66, CATY, BCFL

**MARKETING**

- MAIN MARKET: END USER, GEM
- UNITS SOLD: 10 (12/77)
- MAINTENANCE: ON CALL

---

**Prices**

- COMPUTER: $SEE MFR
- MEMORY: $SEE MFR

---

***Notes***

- (1) INSTRUCTIONS:
  - B = Byte Manipulation
  - D = Decimal Arithematic
  - E = Extended Precision
  - F = Floating Point
  - I = Indirect Addressing
  - M = Multiply & Divide
  - S = Stack Processing

- (2) I/O COMMUNICATIONS:
  - A = Asynchronous
  - B = B synchronous
  - D = Direct Memory Access
  - M = Multiprot Memory
  - S = Selectable Line Speeds
  - T = Autodial

- (3) PROCESSOR FEATURES
  - B = Base Address Relocation
  - C = Real Time Clock
  - D = Dynamic Page Relocation
  - E = Memory Parity Detect
  - F = Power Fail Safe
  - K = Memory Parity Correct
  - M = Memory Protection
  - R = Priority Interrupt
  - V = Vectored Interrupt

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1978/No. 1

COMPUTER REVIEW

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**APPLICATION (*)**

- BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**

- UPWARD COMPATIBLE FIELD SERVICE
- APPLICATION SOFTWARE CONVERSATIONAL LANGUAGES USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE VIRTUAL MEMORY MACHINE MULTIPROCESSOR

**COMPUTER (Std/Opt, N/A)**

<table>
<thead>
<tr>
<th>WORD SIZE:</th>
<th>BITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMORY:</td>
<td>K</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
<td></td>
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<tr>
<td>ADD TIME:</td>
<td></td>
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<tr>
<td>CACHE MEMORY:</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
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<tr>
<td>INSTRUCTION TYPES (1):</td>
<td>/</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
<td></td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
<td></td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
<td>/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
<td></td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
<td>/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td></td>
</tr>
</tbody>
</table>

**SYSTEMS SOFTWARE (*)**

ASSEMBLER
MACRO ASSEMBLER
DISK MONITOR
REAL TIME MONITOR
I/S MONITOR
* BATCH MONITOR
DATA BASE SYS
OTHER: DEAL

**SOFTWARE LANGUAGES (*)**

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
BPL
OTHER:

**PRICES**

| COMPUTER: | $SEE MFR |
| MEMORY:   |         |
| SYSTEM:   | $SEE MFR |

**PERIPHERALS (Model #, Specs. N/A)**

REMOVABLE DISK:
FIXED HEAD DISK:
FLEXIBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE:
LINE PRINTER:
SERIAL PRINTER:
CARD RD, PN:
PAPER TAPE RD, PN:
DISPLAY TERMINAL:
MULTIPLEXOR:
TERMINALS/SYSTEM: 64
OTHER:

**SOFTWARE LANGUAGES (*)**

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
BPL
OTHER:

**MARKETING**

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975 THE SLASH 7 IS A 24-BIT, REAL TIME MINICOMPUTER USED FOR CONCURRENT TIME SHARING, REAL TIME AND BATCH SCIENTIFIC PROCESSING APPLICATIONS. FEATURES INCLUDE INTERLEAVED CORE MEMORY, HARDWARE MULTIPLY AND DIVIDE INSTRUCTIONS, AND OPTIONAL MULTI-PORT MEMORY. THE EXTENSIVE SYSTEMS SOFTWARE INCLUDES DOS (BATCH) AND DMS (REAL TIME). A VARIETY OF PERIPHERALS AND SOFTWARE LANGUAGES IS AVAILABLE.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt N/A)
- WORD SIZE: 24 BITS
- MEMORY: 96 TO 768 KB
- CYCLE TIME: ADD TIME: .58 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 120
- INSTRUCTION TYPES (1): BEIN/F
- ACCUMULATORS: 5
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): /ABDMS
- I/O TRANSFER RATE: 15MB
- PROCESSOR FEATURES (3): VRE/CFM
- INTERFACE SLOTS: 12

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MNT
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: BJE, I/O SPOOKING

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: YES
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: YES
- MAGNETIC TAPE: 62XX, 66XX, 4100
- TAPE CASSETTE:
- LINE PRINTER: 4000 SERIES
- SERIAL PRINTER:
- CARDS RD, PN: 3110, 3120, 3130; N/A
- PAPER TAPE RD, PN: YES; YES
- DISPLAY TERMINAL: YES
- MULTIPLEXOR: YES
- TERMINALS/SYSTEM:
- OTHER: PRINTER/PLTTER

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: SMOBAL IV, FORGO

MARKETING
- MAIN MARKET: END USER, GEN
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**HARRIS: 110**

Introduced in 1975, the Harris System 110 is the entry-level system in the Harris Series 100. It is the upward-compatible building block from which larger, more powerful systems may be configured. The 110 is a general purpose real time computer providing multi-use capability for the business, scientific, or educational user.

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL * COMMUNICATIONS PROCESSOR * INDUSTRIAL CONTROL * LABORATORY/SCIENTIFIC * ENGINEERING/COMPUTATION * EDUCATIONAL SYSTEM * BANKING SYSTEM * DATA ENTRY SYSTEM</td>
<td>* UPWARD COMPATIBLE * FIELD SERVICE * APPLICATION SOFTWARE * CONVERSATIONAL LANGUAGES * USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE * VIRTUAL MEMORY MACHINE * MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 24 BITS
- MEMORY: 96 TO 768K CORE
- CYCLE TIME: .75 USEC
- ADD TIME: .75 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 120/47
- INSTRUCTION TYPES (1): BEIN/F
- ACCUMULATORS: 5
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): ADS/BR
- I/O TRANSFER RATE: 4.0MB
- PROCESSOR FEATURES (3): DFVRE/CM
- INTERFACE SLOTS: 12

**SYSTEMS SOFTWARE(*)**

- * ASSEMBLER * MACRO ASSEM * DISK MONITOR * REAL TIME MTR * T/S MONITOR * BATCH MONITOR * DATA BASE SYS
- OTHER: RJE

**PRICES**

- COMPUTER: $SEE MFR
- MEMORY: $7000, 24K, #401
- SYSTEM: $85000, 95K, #110

Includes 96K CPU; CARTRIDGE DISK (10.8MB); M. TAPE; CONSOLE CRT W/KEYBOARD; COMMUNICATIONS MULTIPLEXER.

---

**PERIPHERALS (Model #.Specs. N/A)**

- REMOVABLE DISK: 55XX
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: YES
- MAGNETIC TAPE: 62XX,66XX,4100
- TAPE CASSETTE: N/A
- LINE PRINTER: 4000 SERIES
- SERIAL PRINTER: 2210
- CARD RD,PN: 3110,3120,3130; N/A
- PAPER TAPE RD,PN: 2030
- DISPLAY TERMINAL: 8610
- MULTIPLEXOR: SYM,ASYM,A-D
- TERMINALS/SYSTEM:
  - OTHER: PRINTER/PLOTTER

**SOFTWARE LANGUAGES(*)**

- APL
- ALGOL
- * SINGLE BASIC * Multi BASIC
- * COBOL * POSTERAN
- PL1
- * RPG
- OTHER: SNOBOL IV, FORGO

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Baysychronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES:**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HARRIS: 115

INTRODUCED IN 1977, THE HARRIS SYSTEM 115 IS A MEMBER OF THE HARRIS 100 SERIES OF 24-BIT MINICOMPUTERS. THE SYSTEM 115 IS SUITED FOR DISTRIBUTED PROCESSING APPLICATIONS, AND CAN HANDLE UP TO 8 TERMINAL USERS AT THE SAME TIME. IT FEATURES VIRTUAL MEMORY AND HAS A COMMUNICATIONS MULTIPLEXER. A VARIETY OF SOFTWARE LANGUAGES AND PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 24 BITS
MEMORY: 48 TO 64K
CYCLE TIME: .300 USEC
ADD TIME: .600 USEC
CACHE MEMORY:
# OF INSTRUCTIONS: 12-0
INSTRUCTION TYPES (1): BEINS/
ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): AS/B
I/O TRANSFER RATE: 7.0MB
PROCESSOR FEATURES (3): BFVREMEK/C
INTERFACE SLOTS: 10

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SY
OTHER: RJE HOST & REMOTE

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 40/80/150/300MB
FIXED HEAD DISK: .537-2.15MB
FLEXIBLE DISK: 310KB
MAGNETIC TAPE: 320Kbps/200 IPS
TAPE CASSETTE:
LINE PRINTER: 300/600/800 LPM
SERIAL PRINTER: 10 CPS, 30 CPS
CARD RD, PN: 300/600/800 LPM
PAPER TAPE RD, PN: 300/75 CPS
DISPLAY TERMINAL: 1920 CPS
MULTIPLEXOR: SYNCSYN
TERMINALS/SYSTEM: 8
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: SNOBOL, FORGO

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $SEE MFR
MEMORY: $5500, 48K
SYSTEM: $85000, 144K
INCLUDES 144K MEMORY; CRT CONSOLE; 10MB CARTRIDGE DISK; 9 TRACK 800 BPI MAGNETIC TAPE UNIT; COMMUNICATIONS MULTIPLEXOR.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisequential
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
THE HARRIS SYSTEM 120 IS COMPUTER SYSTEM CONFIGURED FOR GENERAL SCIENTIFIC AND REAL-TIME PROCESSING IN A MULTI-TERMIAL, TIME SHARING ENVIRONMENT. THE SYSTEM MAY BE USED IN A DISTRIBUTED PROCESSING NETWORK AND CAN SUPPORT UP TO 16 TERMINALS. A DMA COMMUNICATIONS MULTIPLEXOR AND THE VULCAN VIRTUAL MEMORY ARE STANDARD FEATURES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 24 BITS
MEMORY: 192 TO 768K CORE
CYCLE TIME: .75 USEC
ADD TIME: .75 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 120/47
INSTRUCTION TYPES (1): BEIN/F
ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): ADS/8M
I/O TRANSFER RATE: 4.0MB
PROCESSOR FEATURES (3): DFVS/E/CM
INTERFACE SLOTS: 12

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MONITOR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: VULCAN, JRE

PRICES
COMPUTER: $SEE NR
MEMORY: $7000, 24K, #401
SYSTEM: $125000, #120
INCLUDES 192K CPU; 10.0MB CART DISK; MAG TAPE DRIVE; 300 LPM PRINTER; 300 CPM CARD READER; CRT.

FEATURES (*)
* UPWArd COMPATIBLE
* FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USE MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 55XX
FIXED HEAD DISK: N/A
FLEXIBLE DISK: YES
MAGNETIC TAPE: 62XX, 66XX, 4100
TAPE CASSETTE: N/A
LINE PRINTER: 4000 SERIES
SERIAL PRINTER: 2210
CARD READER: 3110, 3120, 3130; N/A
PAPER TAPE READER: 2030
DISPLAY TERMINAL: 8610
MULTIPLEXOR: SYM, SYM, A-D
TERMINALS/SYSTEM: 16
OTHER: PRINTER/PLOTTER

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER: SNOBOL IV, FORGO

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bimodal
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detection
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
HARRIS: 125

INTRODUCED IN 1977, THE HARRIS SYSTEM 125 IS A MEMBER OF THE 24-BIT SERIES 100
COMPUTER LINE, AND CAN SUPPORT A VARIETY OF SCIENTIFIC AND COMMERCIAL APPLI-
CATIONS. IT OFFERS VIRTUAL MEMORY IN A MULTI-USER ENVIRONMENT. THE VULCAN OPER-
ATING SYSTEM HANDLES MULTI-TASK, INTERACTIVE TERMINAL TIME-SHARING OPERATIONS, AS
WELL AS REMOTE JOB ENTRY, REAL-TIME RUNS, AND MULTI-STREAM BATCH EXECUTIONS. THE
CPU COMES WITH 144K BYTES MOS MEMORY AND A CHOICE OF PERIPHERALS.

APPLICATION(*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 24 BITS
MEMORY: 144 TO 208K
CYCLE TIME: .300 USEC
ADD TIME: .600 USEC
CACHE MEMORY:
# OF INSTRUCTIONS: 120
INSTRUCTION TYPES (1): /
ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): /
I/O TRANSFER RATE: 7.0MB
PROCESSOR FEATURES (3): /
INTERFACE SLOTS:

SYSTEMS SOFTWARE(*)

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER: RJJE HOST & REMOTE

PRICES

COMPUTER: $SEE MFR
MEMORY: $5000, 48K
SYSTEM: $100000, 144K
INCLUDES 144KB MOS MEMORY; CRT CONSOLE; 10 MB CARTRIDGE DISK; 9 TRACK MAGNETIC
TAPE UNIT; DMA COMMUNICATIONS PROCESSOR.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multifunction Memory
S = Selectable Line Speeds
T = Automatic

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PERIPHERALS (Model #. Specs. N/A)

REMOVABLE DISK: 40/80/150/300 MB
FIXED HEAD DISK: .537-2.15 MB
FLEXIBLE DISK: 310 KB
MAGNETIC TAPE: 320 KBPS, 200 IPS
TAPE CASSETTE:
LINE PRINTER: 300/600/900 LPM
SERIAL PRINTER: 10 CPS, 30 CPS
CARD RD./PN: 300/600/1000 CPM
PAPER TAPE RD./PN: 300/75 CPS
DISPLAY TERMINAL: 120
MULTIPLEXOR: SYNC,ASYNC
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES(*)

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PLI
RPG
OTHER: SNOBOL, FORGO

MARKETING

MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL
THE HARRIS 130 IS A 24-BIT MINICOMPUTER DESIGNED FOR COMMERCIAL AND SCIENTIFIC APPLICATIONS AS WELL AS FOR USE IN ENGINEERING AND COMPUTATION. THE MODEL FEATURES OPTIONAL REAL TIME CLOCK AND FLOATING POINT, AND STANDARD BYTE MANIPULATION AND INDIRECT ADDRESSING. SOFTWARE SUPPORT INCLUDES BASIC FOR MULTI-USER, COBOL, FORTRAN, RPG, AND SNOBOL IV. A WIDE VARIETY OF SYSTEM PERIPHERALS AND SOFTWARE IS ALSO AVAILABLE.

### Application (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### Features (*)
- UPWARD COMPATIBLE
- FIELD SERVICE APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USE MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### Computer (Std/Opt. N/A)
- Word Size: 24 Bits
- Memory: 96 to 256K Core
- Cycle Time: .75 usec
- Add Time: .75 usec
- Cache Memory: N/A
- # of Instructions: 120
- Instruction Types (1): BEMS/F
- Accumulators: 5
- Index Registers: 3
- I/O Communications (2): ADS/IBM
- I/O Transfer Rate: 4.0MB
- Processor Features (3): BDYRMC/C
- Interface Slots: 12

### Systems Software (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- I/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: RJE HOST & REMOTE

### Prices
- Computer: $32,000 MFR
- Memory: $7000, 24K
- System: $155,000, 288K, #130
- Includes 128K CPU, 40MB Disk, Mag Tape, CRT, Multiplexer, Software Library

### Peripherals (Model #: Specs, N/A)
- Removable Disk: 40/80/150/300 MB
- Fixed Head Disk: 537-2.15 MB
- Flexible Disk: 310 KB
- Magnetic Tape: 320 Kbps/200 IPS
- Tape Cassette: Line Printer: 300/600/900 LPM
- Serial Printer: 10 CPS/30 CPM
- Card ED, PN: 300/600/1000 CPM
- Paper Tape ED, PN: 300/75 CPM
- Display Terminal: 1920 CPS
- Multiplexer: Sync/Async
- Terminals/System: Other:

### Software Languages (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other: SNOBOL IV, FOBGO

### Marketing
- Main Market: END USER, OEM
- Units Sold: Maintenance: On Call
- 300 LPM Printer; 300 CPM Card Reader
- CRT; Multiplexer; Software Library

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = vectored Interrupt

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Introduced in 1977, the Harris System 135 is a member of the Harris Series 100 family of 24-bit computers. The system 135 is capable of supporting over 50 interactive terminals and large data bases. Real memory is expandable to 768K bytes. The system 135 uses the Vulcan operating system for multiple, concurrent, interactive processes, for multi-stream batch, interactive terminal timesharing, and multiple remote job entry operations. A choice of peripherals is available.

**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

Word Size: 24 Bits
Memory: 128 to 768K
Cycle Time: .300 Usec
Add Time: .600 Usec
Cache Memory: 120

**INSTRUCTION TYPES (1)**: BEINS/F
Accumulators: 5
Index Registers: 3
I/O Communications (2): ABDS/
I/O Transfer Rate: 7.0 MB
Processor Features (3): DFVMEK/C
Interface Slots: 40

**SYSTEMS SOFTWARE (*)**

- Assembler
- Macro Assem
- Disk Monitor
- Real Time Monitor
- I/S Monitor
- Batch Monitor
- Data Base Sys
Other: EJG Host & Remote

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs. N/A)**

- Removable Disk: 40/60/150/300 MB
- Fixed Head Disk: .53-2.15 MB
- Flexible Disk: 310 KB
- Magnetic Tape: 320 Kbps, 200 IPS
- Tape Cassette: Line Printer: 300/600/900 LPM
- Serial Printer: 10 CPS, 200 IPS
- Card Reader/Writer: 300/600/1000 CPM
- Paper Tape Reader/Writer: 300/75 CPS
- Display Terminal: 1920 CPS
- Multiplexor: Sync, Async
- Terminals/System: 50+
Other:

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
Other: SOBOL, FORGO

**MARKETING**

Main Market: End User/OEM
Units Sold: Maintenance: On Call

**PRICES**

Computer: $265 MFR
Memory: $5500, 48K
System: $150000, 384K
Includes 384 KB Memory; Console CRT; 40 MB Disk; 9 Track Magnetic Tape Drive (800 BPI); DMA Communications Processor.

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistatic
- D = Direct Memory Access
- M = Multisport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
THE HARRIS 140 IS A 24-BIT MINICOMPUTER DESIGNED FOR COMMERCIAL AND SCIENTIFIC APPLICATIONS AS WELL AS FOR USE IN ENGINEERING AND COMPUTATION. THE MODEL FEATURES OPTIONAL REAL TIME CLOCK AND FLOATING POINT, AND STANDARD BYTE MANIPULATION AND INDIRECT ADDRESSING. SOFTWARE SUPPORT CONSISTS OF BASIC FOR MULTI-USERS, COBOL, FORTRAN, RPG, AND SNOBOL IV. A WIDE VARIETY OF SYSTEM PERIPHERALS AND SOFTWARE IS ALSO AVAILABLE.

**APPLICATION (†)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: 24 BITS
- MEMORY: 128 TO 256K CORE
- CYCLE TIME: .75 USEC
- ADD TIME: .75 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 120
- INSTRUCTION TYPES (1): BDEIMS/F
- ACCUMULATORS: 5
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): ADS/EM
- I/O TRANSFER RATE: 4.0MB
- PROCESSOR FEATURES (3): BDFVME/C
- INTERFACE SLOTS: 12

**SYSTEMS SOFTWARE (†)**
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MMR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYMB
- OTHER: RJE HOST & REMOTE

**FEATURES (‡)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #: Specs, N/A)**
- REMOVABLE DISK: 40/60/150/300 MB
- FIXED HEAD DISK: .5-.2.1 MB
- FLEXIBLE DISK: 310 KB
- MAGNETIC TAPE: 45-200 IPS, 320 KBPS
- TAPE CASSETTE:
- LINE PRINTER: 300/600/900 LPM
- SERIAL PRINTER: 10 CP, 30 CP
- CARD READER, PN: 300/600/1000 CP
- PAPER TAPE READER, PN: 300/75 CP
- DISPLAY TERMINAL: 1920 CPS
- MULTIPLEXOR: SYNC/ASYNC
- TERMINALS/SYSTEM:

**SOFTWARE LANGUAGES (†)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER: SNOBOL IV, FORGO

**MARKETING**
- MAIN MARKET: END USER, OEM
- UNITS SOLD:
- MAINTENANCE: ON CALL

**PRICES**
- COMPUTER: $525.00
- MEMORY:
- SYSTEM: $225,000, 384K, #140
- INCLUDES 128K CPU; 340MB DISK; MAG TAPE; CRT; 600 LPM PRINTER; 600 CPM CARD READER.

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Binary Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

162 COMPUTER REVIEW
© Copyright GML Corporation 1978/No. 1
The Harris 150 is a 24-bit minicomputer designed for commercial, scientific, and engineering applications. Features include optional floating point and real time clock, and standard indirect addressing. Software support consists of basic for multi-users, COBOL, FORTRAN, RPG, and SNOBOL IV. A variety of system peripherals and software is available.

**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

Word Size: 24 bits
Memory: 160 to 256K CORE
Cycle Time: .75 USEC
Add Time: .75 USEC
Cache Memory: N/A
# of Instructions: 120
Instruction Types (1): BDEINS/P
Accumulators: 5
Index Registers: 3
I/O Communications (2): ADS/BM
I/O Transfer Rate: 4.0MB
Processor Features (3): BDFVRME/C
Interface Slots: 12

**SYSTEMS SOFTWARE (*)**

- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base Sys
Other: AFE Host & Remote

**PRICES**

Computer: $31,698 FOB
Memory: $7000, 24K
System: $29,000, 480K, #150
Includes 160K CPU; Disk Storage (40MB); Mag Tape (800 BPI); Console CRT w/Keyboard; Line Printer (900 LPM); Card Reader (1000 CPH), Disk Storage (300 MB).

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Arithmetic
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Automatic

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Clock Time
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)
- **WORD SIZE:** 24 Bits
- **MEMORY:** 192 to 768k Core
- **CYCLE TIME:**
  - **ADD TIME:** .58 UseC
  - **CACHE MEMORY:** N/A
  - **# OF INSTRUCTIONS:** 167
  - **INSTRUCTION TYPES (1):** BEFIMS/
  - **ACCUMULATORS:** 5
  - **INDEX REGISTERS:** 3
- **I/O COMMUNICATIONS (2):** ADS/BM
- **I/O TRANSFER RATE:** 15MB
- **PROCESSOR FEATURES (3):** DFVRME/C
- **INTERFACE SLOTS:** 12

**SYSTEMS SOFTWARE (*)**
- **ASSEMBLER**
- **MACRO ASSEM**
- **DISK MONITOR**
- **REAL TIME MTR**
- **T/S MONITOR**
- **BATCH MONITOR**
- **DATA BASE SYS**
- **OTHER:** RJE

**FEATURES (*)**
- **UPWARD COMPATIBLE**
- **FIELD SERVICE**
- **APPLICATION SOFTWARE**
- **CONVERSATIONAL LANGUAGES**
- **USER MICROPROGRAMMABLE**
- **FACTORY MICROPROGRAMMABLE**
- **VIRTUAL MEMORY MACHINE**
- **MULTIPROCESSOR**

**PERIPHERALS** (Model #, Specs. N/A)
- **REMOVABLE DISK:** 55xx
- **FIXED HEAD DISK:** N/A
- **FLEXIBLE DISK:** Y/N
- **MAGNETIC TAPE:** 62xx, 66xx, 4100
- **TAPE CASSETTE:** N/A
- **LINE PRINTER:** 4000 Series
- **SERIAL PRINTER:** 2210
- **CARD ED., PH:** 3110, 3120, 3130; N/A
- **PAPER TAPE ED., PH:** 2030
- **DISPLAY TERMINAL:** 8616
- **MULTIPLEXOR:** SYN, ASYN, A-D
- **TERMINALS/SYSTEM:**
  - **OTHER:**

**SOFTWARE LANGUAGES (*)**
- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL1**
- **RPG**
- **OTHER:** SNOBOL IV, FORGO

**MARKETING**
- **MAIN MARKET:** END USER, OEM
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

**PRICES**
- **COMPUTER:** $50k MFR
- **MEMORY:** $30000, 96k, $703
- **SYSTEM:** $179000, 192k, $210

INCLUDES CPU WITH 192k MEMORY AND DISK (40MB); MAG TAPE; PRINTER (300LPM); CARD READER (300CPH); CONSOLE CRT W/KEYBOARD; SCIENTIFIC ARITHMETIC UNIT (SAU).

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiplex Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Address Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Prioritize Interrupt
- V = Vectored Interrupt
HARRIS: 220

Introduced in 1975, the Harris System 220 is a medium size, general purpose, real time computer used for scientific, commercial, educational, and multiterminal applications. The system 220 has sufficient interleaved core memory for effective foreground/background operation under Vulcan, a multiprogramming, priority-structured operating system.

APPLICATION (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

COMPUTER (Std/Opt. N/A)
- Word size: 24 bits
- Memory: 288 to 768K Core
- Cycle time: 56 usec
- Cache memory: N/A
- # of instructions: 167
- Instruction Types (1): Defins/Accumulators: 5
- Index Registers: 3
- I/O Communications (2): ADS/BM
- I/O Transfer Rate: 150X
- Processor Features (3): DFVRME/C Interface Slots: 12

SYSTEMS SOFTWARE (*)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: RJ2

FEATURES (*)
- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

PERIPHERALS (Model #, Specs. N/A)
- Removable Disk: 55X
- Fixed Head Disk: N/A
- Flexible Disk: Yes
- Magnetic Tape: 62X, 66X, 4100
- Tape Cassette: N/A
- Line Printer: 4000 Series
- Serial Printer: 2210
- Card Reader, Pn: 3110, 3120, 3130; N/A
- Paper Tape Reader, Pn: 2030
- Display Terminal: 8610
- Multiplexor: Syn, Asyn, A-D
- Terminals/System: Other:

SOFTWARE LANGUAGES (*)
- APL
- Algol
- Single Basic
- Multi Basic
- Cobol
- Fortran
- PL1
- RPG
- SNOBOL IV, FORGO

MARKETING
- Main Market: End User, OEM
- Units Sold:
- Maintenance: On Call

Prices
- Computer: $525 AFR
- Memory: $30000, 96K, $703
- System: $242000, #220

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 24 BITS
MEMORY: 480 TO 768K CORE
CYCLE TIME:
ADD TIME: .58 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 167
INSTRUCTION TYPES (1): BEF/AC/ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): ADS/BN
I/O TRANSFER RATE: 15MB
PROCESSOR FEATURES (3): DFVRME/C
INTERFACE SLOTS: 12

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: RJE

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 55XX
FIXED HEAD DISK: N/A
FLEXIBLE DISK: YES
MAGNETIC TAPE: 62XX, 66XX, 4100
TAPE CASSETTE: N/A
LINE PRINTER: 4000 SERIES
SERIAL PRINTER: 2310
CARD RD/PN: 3110, 3120, 3130; N/A
PAPER TAPE RD/PN: 2030
DISPLAY TERMINAL: 8610
MULTIPLEXOR: SYN, ASYN, A-D
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER: SNOBOL IV, FORGO

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
  B = Byte Manipulation
  D = Decimal Arithmetic
  E = Extended Precision
  F = Floating Point
  I = Indirect Addressing
  M = Multiply & Divide
  S = Stack Processing

(2) I/O COMMUNICATIONS:
  A = Asynchronous
  B = Synchronous
  D = Direct Memory Access
  M = Multiport Memory
  S = Selectable Line Speeds
  T = Autodial

(3) PROCESSOR FEATURES
  B = Base Address Relocation
  C = Real Time Clock
  D = Dynamic Page Relocation
  E = Memory Parity Detect
  F = Power Fail Safe
  K = Memory Parity Correct
  M = Memory Protection
  R = Priority Interrupt
  V = Vectored Interrupt

166

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 24 BITS
MEMORY: 576 TO 768K CORE
CYCLE TIME:
ADD TIME: .58 USEC
CACHE MEMORY: N/A
# INSTRUCTIONS: 167
INSTRUCTION TYPES (1): BEFM/
ACCUMULATORS: 5
INDEX REGISTERS: 3
I/O COMMUNICATIONS (2): ADS/BM
I/O TRANSFER RATE: 155B
PROCESSOR FEATURES (3): DFVM/C
INTERFACE SLOTS: 12

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MONITOR
* T/S MONITOR
* BATCH MONITOR
DATA BASE SYS
OTHER: RJE

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
COBOL
* FORTRAN
PL1
* RPG
OTHER: SNOBOL IV, FORGO

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
COMPUTER REVIEW
© Copyright GML Corporation 167
Introduction in 1975, the Hewlett-Packard's HP-2000/30 is a dual processor access system designed to function as a multiterminal on-line system. The model 30 is built around two HP-21MX minicomputers and includes a 16-port asynchronous communications multiplexer, which can handle up to 32 terminals. Standard software enables concurrent use of HASP or CDC U2000 protocols for remote job entry communications.

**Application**

* Business/commercial
* Communications processor
* Industrial control
* Laboratory/scientific
* Engineering/computation
* Educational system
* Banking system
* Data entry system

**Computer (Std/Opt. N/A)**

Word size: 16 bits
Memory: 32 to 64K bytes
Cycle time: .65 usec
Add time: 1.94 usec
Cache memory: N/A
# of instructions: 128
Instruction types (1): Befim/
Accumulators: 2
Index registers: 2
I/O communications (2): ABDS/
I/O transfer rate: .24 mb
Processor features (3): BCFRME/
Interface slots: 19

**Systems Software**

Assembler
Macro Assem
Disk monitor
Real time monitor
* T/S monitor
* Batch monitor
* Data base sys
Other:

**Prices**

Computer: $See MFR
Memory:
System: $62900, 48K
Includes 46K CPU, 2 21MX-E CPU's, 30 CPS printer, Magnetic tape drive, 15MB disk, paper tape reader, multiplexer, cabinet.

**Features**

* Upward compatible
* Field service
* Application software
* Conversational languages
* User microprogrammable
* Factory microprogrammable
* Virtual memory machine
* Multiprocessor

**Peripherals (Model #, Specs, N/A)**

Removable disk: 12962A,-65A,790XA
Fixed head disk: N/A
Flexible disk: N/A
Magnetic tape: 12970A,12973A
O TAPE CASSETTE: N/A
LINE PRINTER: 12975,12983
SERIAL PRINTER: 12762A
CARD ED,PN: 2894A
PAPER TAPE ED,PN: 12926A,12925A
DISPLAY TERMINAL: 2640A,2644A
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM: 32
Other:

**Software Languages**

A P L
ALGOL
Single basic
* Multi basic
COBOL
FORTRAN
PL1
E PL
Other:

**Marketing**

Main market: End user, OEM
Units sold:
Maintenance: On call

---

(1) Instructions:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O Communications:
A = Asynchronous
B = Base Address Relocation
C = Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1975, THE HEWLETT-PACKARD 2000/40 IS A DUAL PROCESSOR ACCESS SYSTEM DESIGNED TO FUNCTION AS A MULTITERMINAL ON-LINE SYSTEM. THE ACCESS SYSTEM IS BUILT AROUND TWO HP-21MX MINICOMPONENTS AND INCLUDES A 16-PORT ASYNCHRONOUS COMMUNICATIONS MULTIPLEXOR, WHICH CAN HANDLE UP TO 32 TERMINALS. STANDARD SOFTWARE ENABLES CONCURRENT USE OF HASP OR CDC U200 PROTOCOLS FOR REMOTE JOB ENTRY COMMUNICATIONS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USE MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)

WORD SIZE: 16 BITS
MEMORY: 32 TO 64K MOS
CYCLE TIME: .65 USEC
ADD TIME: 1.94 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 128
INSTRUCTION TYPES (1): B/E1M/
ACCUMULATORS: 2
INDEX REGISTERS: 2
I/O COMMUNICATIONS (2): ABDC/ INTERFACE SLOTS: 19
I/O TRANSFER RATE: .24 MB
PROCESSOR FEATURES (3): BCFGME/

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 12962A, 65A, 790XA
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 12970A, 12973A
tAPE CASSETTE: N/A
LINE PRINTER: 12975, 12983
SERIAL PRINTER: 2762A
CARD ED.PN: 2994A
PAPER TAPE ED,PN: 12926A, 12925A
DISPLAY TERMINAL: 2640A, 2644A
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM: 32
OTHER:

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEM
DISK MONITOR
REAL TIME MTR
* T/S MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PLI
RPG
OTHER:

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $59000, 64K
MEMORY:
SYSTEM: $706000, 64K
INCLUDES 64K CPU; 2 21MX-E CPU'S; 30 CPS PRINTER; MAGNETIC TAPE DRIVE; 15MB DISK; PAPER TAPE READER; MULTIPLEXOR; CABINET.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biphasic
D = Direct Memory Access
M = Multitap Memory
S = Selectable Line Speeds
T = Ascendal

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Clock Rate
E = Dynamic Page Replacement
F = Memory Parity Detect
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1976, THE HP 3000 SERIES II, MODEL 5 IS A SMALL SCALE, DISK-BASED, VIRTUAL MEMORY, GENERAL PURPOSE COMPUTER SYSTEM WITH MULTIPROGRAMMING AND MULTILINGUAL CAPABILITIES. MODEL 5 FEATURES INCLUDE PROVEN APPLICATION SOFTWARE AND A VARIETY OF AVAILABLE PERIPHERALS. COMPATIBLE WITH THE MODEL 7 AND THE MODEL 9, THE MODEL 5 DIFFERS ONLY IN MEMORY SIZE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: 16 BITS
- MEMORY: 64K MOS
- CYCLE TIME: .7 USEC
- ADD TIME: .55 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 203
- INSTRUCTION TYPES (1): B/DEFINS/
- ACCUMULATORS: 20
- INDEX REGISTERS: 1
- I/O COMMUNICATIONS (2): ABDMS/
- I/O TRANSFER RATE: 4.5MB
- PROCESSOR FEATURES (3): BCFRMEK/
- INTERFACE SLOTS: 13

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- * T/S MONITOR MPE-II
- * BATCH MONITOR
- * DATA BASE SYS
- OTHER:

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: 15.47MB, 790X, 12973A
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 800, 1600 BPI 45 IPS
- TAPE CASSETTE: N/A
- LINE PRINTER: 200, 300, 600, 1250 LPM
- SERIAL PRINTER: 30, 120 CPS
- CARD RD, PN: 200, 600 CPD; 75 CPM
- PAPER TAPE RD, PN: 500 CPS; 75 CPS
- DISPLAY TERMINAL: 264X
- MULTIPLEXOR: ASYN
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/1
- RPG
- OTHER: SPL

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL
- INCLUDES 64K CPU; DISK (15MB); MAGNETIC TAPE DRIVE (1600 BPI); #2648 CONSOLE.

**(1) INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**(2) I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiprotocol Memory
- S = Selectable Line Speeds
- T = Autodial

**(3) PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computution
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)

- Word size: 16 bits
- Memory: 128 to 256k
- Cycle time: 700 us
- I/O transfer rate: 2.86 MB
- Cache memory: 209
- Instruction types: 1
- Accumulable:
- Index registers:
- I/O communications: 2
- Adapters:
- Processor features: 10

**SYSTEMS SOFTWARE**

- Assembler 128 KB
- Macro Assembler 128 KB
- Disk Monitor 128 KB
- Real Time Monitor
- T/S Monitor 128 KB
- Batch Monitor 128 KB
- Data Base Sys 192 KB, Image

**PRICES**

- Computer: $3700, 64K
- Memory: $3700, 64K
- System: $110000, 128K

**FEATURES**

- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

**PERIPHERALS** (Model #, Spec, N/A)

- Removable disk: 7920A, 50 MB
- Fixed head disk:
- Flexible disk:
- Magnetic tape: 36 K CPS, 45 IPS
- Tape cassette:
- Line printer: 300/600/1800 LPM
- Serial printer: 200 LPM
- Card reader:
- Paper tape reader:
- Display terminal: 1920 CPS

**SOFTWARE LANGUAGES**

- APL256 KB
- Algol
- Single Basic 128 KB
- Multi Basic 128 KB
- COBOL 128 KB
- Fortran 128 KB
- PL1
- RPG 128 KB
- Other: SPL, 128 KB

**MARKETING**

- Main market: OEM, End User
- Units sold: 900 (12/77)
- Maintenance: Factory

**INSTRUCTIONS**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Slack Processing

**I/O COMMUNICATIONS**

- A = Asynchronous
- B = B asynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = T鲷ual

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- R = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1

© Copyright GML Corporation
INTRODUCED IN 1976, THE HP 3000 SERIES II, MODEL 7 IS A SMALL SCALE, DISK-BASED, VIRTUAL MEMORY, GENERAL PURPOSE COMPUTER SYSTEM WITH MULTIPROGRAMMING AND MULTI-LINGUAL CAPABILITIES. MODEL 7 FEATURES INCLUDE PROVEN APPLICATIONS SOFTWARE AND A VARIETY OF AVAILABLE PERIPHERALS. COMPATIBLE WITH THE MODEL 5 AND THE MODEL 9, THE MODEL 7 DIFFERS ONLY IN MEMORY SIZE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSORS</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>** APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>** CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>** USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>** FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>** VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>** MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER** (Std/Opt, N/A)

- **WORD SIZE:** 16 BITS
- **MEMORY:** 128 TO 256K MOS
- **CYCLE TIME:** .7 USEC
- **ADD TIME:** .55 USEC
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 203
- **INSTRUCTION TYPES (1):** BDEFINS/ACCUmulator: 20
- **INDEX REGISTERS:** 1
- **I/O COMMUNICATIONS (2):** ABDMS/I/O TRANSFER RATE: 4.5MB
- **PROCESSOR FEATURES (3):** BCFSMEK/INTERFACE SLOTS: 13

**SYSTEMS SOFTWARE (*)**

- **ASSEMBLER**
- **MACRO ASSEM**
- **DISK MONITOR**
- **REAL TIME MWTR**
- **T/S MONITOR MFE-II**
- **BATCH MONITOR**
- **DATA BASE SYS**
- **OTHER:**

**PRICES**

- **COMPUTER:** $595,000, 128K
- **MEMORY:**
- **SYSTEM:** $150,000, 128K
- **INCLUDES 128K CPU; DISK (15MB); MAGNETIC TAPE DRIVE (1600 BPI); #2648 CONSOLE.**

**PERIPHERALS** (Model #, Specs, N/A)

- **REMOVABLE DISK:** 15,47MB, 790XIA, 12965A
- **FIXED HEAD DISK:** N/A
- **FLEXIBLE DISK:** N/A
- **MAGNETIC TAPE:** 800,1600 BPI, 45 IPS
- **TAPE CASSETTE:** N/A
- **LINE PRINTER:** 200,300,600,1250 LPM
- **SERIAL PRINTER:** 30,120 CPS
- **CARD RDR/PN:** 200,600 CPN, 75 CPN
- **PAPER TAPE RDR/PN:** 500 CPS, 75 CPS
- **DISPLAY TERMINAL:** 264X
- **MULTIPLEXOR:** ASYN
- **TERMINALS/SYSTEM:**
- **OTHER:**

**SOFTWARE LANGUAGES (*)**

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL/I**
- **BASIC**
- **OTHER:** SPL

**MARKETING**

- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL
- **MOTION:**

(1) INSTRUCTIONS:

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:

- **A** = Asynchronous
- **B** = Bysynchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES

- **A** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
INTRODUCED IN 1977, THE HEWLETT-PACKARD 3000 SERIES II, MODEL 8 IS A 16-BIT COMPUTER INTENDED FOR ENGINEERING AND BUSINESS PURPOSES. IT HANDLES THE IMAGE OPERATING SYSTEM, AND A HOST OF SOFTWARE LANGUAGES. A CHOICE OF PERIPHERALS IS AVAILABLE.

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: 7920A, 50 MB
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE: 7970E, 1600 BPI
- TAPE CASSETTE:
- LINE PRINTER: 300/600/1000 LPM
- SERIAL PRINTER: 200 LPM
- CARD RD/WR: 200 CPM RD, 75 CPM WR
- PAPER TAPE RD/WR:
- DISPLAY TERMINAL: 1920 CPS
- MULTIPLEXOR: ASYNC
- TERMINALS/SYSTEM:
- OTHER:

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER 128 KB
- MACRO ASSEMBLER 128 KB
- DISK MONITOR 128 KB
- REAL TIME MONITOR
- T/S MONITOR 128 KB
- BATCH MONITOR 128 KB
- DATA BASE SYS 192 KB, IMAGE
- OTHER:

**SOFTWARE LANGUAGES (*)**
- APL256 KB
- ALGOL
- SINGLE BASIC 128 KB
- MULTI BASIC 128 KB
- COBOL 128 KB
- FORTRAN 128 KB
- FLI
- RPG 128 KB
- OTHER: SPL, 128 KB

**PRICES**
- COMPUTER: $SEE MFR
- MEMORY: $3700, 64K
- SYSTEM: $140000, 320K

INCLUDES 320 KB MEMORY WITH FAULT CONTROL; SYSTEM CLOCK; MODEM; 16 CHANNEL I/O MULTIPLEXOR; CRT CONSOL WITH 4K MEMORY; 50 MB DISK UNIT; 1600 BPI MAG TAPE UNIT.

**MARKETING**
- MAJOR MARKET: OEM, END USER
- UNITS SOLD: 300 (12/77)
- MAINTENANCE: FACTORY

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 178 TO 512K MOS
CYCLE TIME: .7 USEC
ADD TIME: .55 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 203
INSTRUCTION TYPES (1): BDEFINS/
ACUMULATORS: 20
INDEX REGISTERS: 1
I/O COMMUNICATIONS (2): ADDMS/
I/O TRANSFER RATE: 4.5MB
PROCESSOR FEATURES (3): BCFMEK/
INTERFACE SLOTS: 13

SYSTEMS SOFTWARE(*)
ASSEMBLER
MACRO ASSEM
DISK MONITOR
REAL TIME MTR
* 7/5 MONITOR MPR-II
* BATCH MONITOR
* DATA BASE SYS
OTHER:

PRICES
COMPUTER: $SEE MFR, 178K
MEMORY:
SYSTEM: $190000, 178K
INCLUDES 178K CPU; DISK (15MB); MAGNETICTAPE DRIVE (1600 BPI); $2648 CONSOLE.

FEATURES(*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 15.47MB, 790XA, 12965A
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 800,1600 BPI 45 IPS
TAPE CASSETTE: N/A
LINE PRINTER: 200,300,600,1250 LPM
SERIAL PRINTER: 30,120 CPS
CARD RD, PN: 200,600 CPM; 75 CPM
PAPER TAPE RD, PN: 500 CPS; 75 CPS
DISPLAY TERMINAL: 264X
MULTIPLEXOR: ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: SPL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE HITAC M-150 IS AN 8-BIT COMPUTER SYSTEM DESIGNED FOR APPLICATIONS IN BUSINESS, INDUSTRIAL PROCESS CONTROL, LABORATORY, COMPUTATION, AND EDUCATION. STANDARD FEATURES OF THE MODEL INCLUDE FLOATING POINT, REAL TIME CLOCK, AND SELECTABLE LINE SPEEDS. SOFTWARE SUPPORT INCLUDES COBOL, FORTRAN, PL1, RPG, AND HELP. A WIDE VARIETY OF SYSTEM PERIPHERALS AND SOFTWARE IS ALSO AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td></td>
<td>MULTIPROCESSOR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 192 TO 1024K</td>
</tr>
<tr>
<td>CYCLE TIME: 0.275/88 USEC</td>
</tr>
<tr>
<td>ADD TIME: 2.32 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 188</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEPIN/ACCUMULATORS: N/A</td>
</tr>
<tr>
<td>INDEX REGISTERS: N/A</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABST/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 4KB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDREK/INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME SWTR</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BASH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: H-8586, H-8589, H-8594</td>
</tr>
<tr>
<td>FIXED HEAD DISK: N/A</td>
</tr>
<tr>
<td>FLEXIBLE DISK: H-1741, H-8231</td>
</tr>
<tr>
<td>MAGNETIC TAPE: H-844X, H-864X</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: H-8242, H-8276, H-8277</td>
</tr>
<tr>
<td>SERIAL PRINTER: N/A</td>
</tr>
<tr>
<td>CARD READER: H-8232, H-829X</td>
</tr>
<tr>
<td>PAPER TAPE READER: H-8223-1, H-8225-1</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: H-9415</td>
</tr>
<tr>
<td>MULTIPLEXOR: H-8664, H-8622, H-8666</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM: OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL</td>
</tr>
<tr>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER: HELP</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION(*)**
- Business/Commercial
- Communications/Peripheral
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**
- Word Size: 32 Bits
- Memory: 256 to 2000K MOS-IC
- Cycle Time: .167 usec
- Add Time: 1.6 usec
- Cache Memory: N/A
- # of Instructions: 190
- Instruction Types (1): B/DEFN/
- Accumulators: 16
- Index Registers: 16
- I/O Communications (2): B/
- I/O Transfer Rate: 5.5MB
- Processor Features (3): BCD/MEK/
- Interface Slots:

**SYSTEMS SOFTWARE(*)**
- Assembler VOS 1,2,3
- Macro Assembler VOS 1,2,3
- Disk Monitor VOS 1,2,3
- Real Time Monitor VOS 1,2,3
- T/S Monitor VOS 1,2,3
- Batch Monitor VOS 1,2,3
- Data Base System VOS 1,2,3
- Other: Virtual Storage, Remote Batch

**FEATURES(*)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**
- Removable Disk: H=8586, H=8589-1/11
- Fixed Head Disk: Drum H=8575
- Flexible Disk: H=8231
- Magnetic Tape: H=8461, H=848X
- Tape Cassette: N/A
- Line Printer: H=8276-11/12
- Serial Printer: H=PB092-10
- Card Reader, P: H=8299-31, H=829X-10
- Paper Tape RD, FP: H=8223, H=8225
- Display Terminal: H=9415
- Multiplexer:
- Terminals/System: Other:

**SOFTWARE LANGUAGES(*)**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**
- Main Market: END User
- Units Sold: 77 (10/76)
- Maintenance: On Call

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
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(3) PROCESSOR FEATURES:
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- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt

---

**PRICES**
- Computer: $See Mfr
- Memory:
- System: $See Mfr

---

**COMPUTER REVIEW**
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1978/No. 1
INTRODUCED IN 1976, THE HITAC-H170 IS A LARGE-SCALE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. STANDARD FEATURES OF THE H-170 INCLUDE A MEMORY EXPANDABLE FROM 512KB TO 4MB, VIRTUAL MEMORY, CACHE MEMORY AND MULTIPROCESSOR CAPABILITY. SOFTWARE SUPPORT INCLUDES THE VOS 2 AND VOS 3 OPERATING SYSTEMS. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 512 TO 8000K MOS
CYCLE TIME: .085 USEC
ADD TIME: .34 USEC
CACHE MEMORY: 8KB, 85NS
# OF INSTRUCTIONS: 195
INSTRUCTION TYPES (1): BDFPM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): B/
I/O TRANSFER RATE: 8MB
PROCESSOR FEATURES (3): BCD/RK/M
INTERFACE SLOTS: N/A

SYSTEMS SOFTWARE (*)
* ASSEMBLER VOS 2,3
* MACRO ASSEM VOS 2,3
* DISK MONITOR VOS 2,3
* REAL TIME MTR VOS 2,3
* T/S MONITOR VOS 2,3
* BATCH MONITOR VOS 2,3
* DATA BASE SYS VOS 2,3
OTHER: VIRTUAL STORAGE, REMOTE BATCH S

PRICES
COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $SEE MFR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: H-8586, H-8589-1/11
FIXED HEAD DISK: DRUM 88575
FLEXIBLE DISK: H-8231
MAGNETIC TAPE: H-846X-1, H-848X-1
TAPE CASSETTE: N/A
LINE PRINTER: H-827X-11/12
SERIAL PRINTER: H-80092-10
CARD RD/WR: H-8299-31, H-829X-10
PAPER TAPE RD/WR: H-8223; H-8225
DISPLAY TERMINAL: H-9415
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 55 (10/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 512 TO 800K MOS-IC
CYCLE TIME: 0.722 USEC
ADD TIME: .08 USEC
CACHE MEMORY: 16KB, 72NS
# OF INSTRUCTIONS: 195
INSTRUCTION TYPES (1): BDEPM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): B/
I/O TRANSFER RATE: 16ME
PROCESSOR FEATURES (3): BCDEEM/M
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER VOS 2,3
* MACRO ASSEM VOS 2,3
* DISK MONITOR VOS 2,3
* REAL TIME MNTN VOS 2,3
* T/S MONITOR VOS 2,3
* BATH MONITOR VOS 2,3
* DATA BASE SYS VOS 2,3
OTHER: VIRTUAL STOR.,REMOTE BATH S

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: H-8586, H-8589-1/11
FIXED HEAD DISK: DR UM 88575
FLEXIBLE DISK: H-8231
MAGNETIC TAPE: H-846X-1, H-848X-1
TAPE CASSETTE: N/A
LINE PRINTER: H-827X-11/12
SERIAL PRINTER: H-88092-10
CARD RD, PN: H-8299-31, H-829X-10
PAPER TAPE RD, PN: H-8223, H-8225
DISPLAY TERMINAL: H-9415
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 9 (10/76)
MAINTENANCE: ON CALL

PRICES
COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistrachronous
D = Direct Memory Access
M = Multiprocess Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priorit Interrupt
V = Vectored Interrupt
INTRODUCED IN 1972, THE HITAC 8150 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND EDUCATIONAL APPLICATIONS. FEATURES INCLUDE FACTORY MICROPROGRAMMING, PRIORITY INTERRUPTS AND OPTIONAL MEMORY PROTECTION. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE.

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER (Std/Opt, N/A)**

- **WORD SIZE:** 8 BITS
- **MEMORY:** 24 TO 64K MOS-IC
- **CYCLE TIME:** .9 USEC
- **ADD TIME:** N/A
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 26
- **INSTRUCTION TYPES (1):** B/D/M/
- **ACCUMULATORS:** 4
- **INDEX REGISTERS:** 4
- **I/O COMMUNICATIONS (2):** B/
- **I/O TRANSFER RATE:** 1.1MB
- **PROCESSOR FEATURES (3):** CRME/

**SYSTEMS SOFTWARE (*)**
- **ASSEMBLER 8150 PS**
- **MACRO ASSEM 8150 PS**
- **DISK MONITOR 8150 PS**
- **REAL TIME MONITOR 8150 PS**
- **T/S MONITOR**
- **BATCH MONITOR 8150 PS**
- **DATA BASE SYS 8150 PS**
- **OTHER:** RESP (FOR EJE)

**PERIPHERALS (Model #, Specs. N/A)**

- **REMOVABLE DISK:** A-422, A-421S
- **FIXED HEAD DISK:** N/A
- **FLEXIBLE DISK:** E-1741
- **MAGNETIC TAPE:** B-6423, H-8452
- **TAPE CASSETTE:** N/A
- **LINE PRINTER:** A-24X
- **SERIAL PRINTER:** N/A
- **CARD RD, PD:** 8287-10, 8239-31, 231
- **PAPER TAPE RD, PD:** A-221, A-225
- **DISPLAY TERMINAL:** A-613
- **MULTIPLEXOR:** TERMINALS/SYSTEM:
- **OTHER:**

**SOFTWARE LANGUAGES (*)**

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL1**
- **RPG**
- **OTHER:** HELP II

**MARKETING**

- **MAIN MARKET:** END USER
- **UNITS SOLD:** 847 (02/77)
- **MAINTENANCE:** ON CALL

---

(1) **INSTRUCTIONS:**
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) **I/O COMMUNICATIONS:**
- **A** = Asynchronous
- **B** = Bisynchronous
- **D** = Direct Memory Access
- **M** = Multisport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) **PROCESSOR FEATURES**
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

**WORD SIZE:** 32 BITS
**MEMORY:** 32 TO 512K MOS-IC
**CYCLE TIME:** 1.8 USEC
**ADD TIME:** 6.7 USEC
**CACHE MEMORY:** N/A
**# OF INSTRUCTIONS:** 156
**INSTRUCTION TYPES (1):** BDEFM/
**ACCUMULATORS:** 16
**INDEX REGISTERS:** 16
**I/O COMMUNICATIONS (2):** B/
**I/O TRANSFER RATE:** 2.4MB
**PROCESSOR FEATURES (3):** BCREK/M
**INTERFACE SLOTS:**

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER NDOS
- MACRO ASSEMBLER
- DISK MONITOR NDOS
- REAL TIME MNTB NDOS
- T/S MONITOR
- BATCH MONITOR NDOS
- DATA BASE SYS NDOS
- OTHER: REMOTE BATCH STATION SUPPORT

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: H-8589-1, H-8578
- FIXED HEAD DISK: H-8567-1
- FLEXIBLE DISK: H-1741
- MAGNETIC TAPE: H-0423,8645X
- TAPE CASSETTE: N/A
- LINE PRINTER: H-8247, H-824X
- SERIAL PRINTER: N/A
- CARD READER: H-828X-10; H-8239-31
- PAPER TAPE RD, PR: H-822X-1
- DISPLAY TERMINAL: H-9415
- MULTIPLEXOR: H-8663
- TERMINALS/SYSTEM:
- OTHER: OCR H-8959

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: HELP

**PRICES**

**COMPUTER:** $522 MFR
**MEMORY:**
**SYSTEM:** $522 MFR

**MARKETING**

**MAIN MARKET:** END USER
**UNITS SOLD:** 550 (10/76)
**MAINTENANCE:** ON CALL

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bytsynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1972, THE HITAC 8350 IS A MEMBER OF THE HITAC 8000 SERIES OF GENERAL PURPOSE COMPUTERS. STANDARD FEATURES INCLUDE A MEMORY EXPANDABLE FROM 512K TO 524K, MEMORY PARTITION, FLOATING POINT HARDWARE, AND A VARIETY OF AVAILABLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Op, N/A)
WORD SIZE: 32 BITS
MEMORY: 98 TO 1000KB CORE
CYCLE TIME: 1.5 USEC
ADD TIME: 2.9 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 149
INSTRUCTION TYPES (1): BDEPM/
ACCUCLATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): B/
I/O TRANSFER RATE: 2.1MB
PROCESSOR FEATURES (3): BCRK/M
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER EDOS, EDOS-MSO
* MACRO ASSEM EDOS, EDOS-MSO
* DISK MONITOR EDOS, EDOS-MSO
* REAL TIME MONITOR EDOS, EDOS-MSO
* T/S MONITOR
* BATCH MONITOR EDOS, EDOS-MSO
* DATA BASE SYS EDOS, EDOS-MSO
OTHERS: REMOTE BATCH MONITOR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: H-8589-1, H-8578
FIXED HEAD DISK: H-8566, H-8567
FLEXIBLE DISK: N/A
MAGNETIC TAPE: H-845X
TAPE CASSETTE: N/A
LINE PRINTER: H-8274, H-824X
SERIAL PRINTER: N/A
CARD RSD, PM: H-828X-10, H-8239-31
PAPER TAPE RSD, PM: H-822X-1
DISPLAY TERMINAL: H-9415
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER: OCR H-8559

SOFTWARE LANGUAGES (*)
APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PLI
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 226 (10/76)
MAINTENANCE: ON CALL

1978/No. 1

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Asynchronous

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
© Copyright DML Corporation 181
INTRODUCED IN 1972, THE HITAC 8450 IS A MEMBER OF THE HITAC 8000 SERIES OF GENERAL PURPOSE COMPUTERS. STANDARD FEATURES INCLUDE A MEMORY EXPANDABLE FROM 256K TO 1MB, A PASTER CYCLE TIME THAN THE SIMILAR BUT SMALLER HITAC 8350, MEMORY PARITY, FLOATING POINT HARDWARE, AND A VARIETY OF AVAILABLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #. Specs. N/A)
REMOVABLE DISK: H-8589-1, H-8578
FIXED HEAD DISK: H-8566, H-8569
FLEXIBLE DISK: N/A
MAGNETIC TAPE: H-845X
TAPE CASSETTE: N/A
LINE PRINTER: H-8247, H-824X
SERIAL PRINTER: N/A
CARD READER: H-828X-10, H-8239-31
PAPER TAPE READER: H-822X-1
DISPLAY TERMINAL: H-9415
MULTIPLEXOR: N/A
TERMINALS/SYSTEM:
OTHER: H8959

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 155 (10/76)
MAINTENANCE: ON CALL

PRICES
COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $SEE MFR

SYSTEMS SOFTWARE (*)
* ASSEMBLER EDOS,EDOS-MSO
* MACRO ASSEMBLER EDOS,EDOS-MSO
* DISK MONITOR EDOS,EDOS-MSO
* REAL TIME MONITOR EDOS,EDOS-MSO
* S/S MONITOR
* BATCH MONITOR EDOS,EDOS-MSO
* DATA BASE SYS EDOS,EDOS-MSO
OTHER: REMOTE BATCH MONITOR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1972, THE HITAC 8700 IS A MEMBER OF THE HITAC 8000 SERIES OF GENERAL PURPOSE COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. STANDARD FEATURES INCLUDE A MEMORY EXPANDABLE TO 8MB, A 16K CACHE MEMORY, AND A VARIETY OF COMPATIBLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES BASIC AND RPG COMPILERS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>* EDUCATIONAL SYS-TM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
</tr>
<tr>
<td>MEMORY: 500 TO 6000K CORE</td>
</tr>
<tr>
<td>CYCLE TIME: .9 USEC</td>
</tr>
<tr>
<td>ADD TIME: .42 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB, 900NS</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 170</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEF/</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
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<tr>
<td>INDEX REGISTERS: 16</td>
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<tr>
<td>I/O COMMUNICATIONS (2): B/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 8MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDRM/M</td>
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<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER EDOS-MSO,OS7</td>
</tr>
<tr>
<td>* MACRO ASSEM EDOS-MSO,OS7</td>
</tr>
<tr>
<td>* DISK MONITOR EDOS-MSO,OS7</td>
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<tr>
<td>* REAL TIME MNT EDOS-MSO,OS7</td>
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<td>* T/S MONITOR EDOS-MSO,OS7</td>
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<tr>
<td>* BATCH MONITOR EDOS-MSO,OS7</td>
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<tr>
<td>* DATA BASE SYS EDOS-MSO,OS7</td>
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<tr>
<td>OTHER: REMOTE BATCH</td>
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</tbody>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
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<tr>
<td>MEMORY: $SEE MFR</td>
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<tr>
<td>SYSTEM: $SEE MFR</td>
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<thead>
<tr>
<th>PERIPHERALS (Model #, Specs. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: H-8569, H-8570</td>
</tr>
<tr>
<td>FIXED HEAD DISK: H-8566, H-8567</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: H-845X</td>
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<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: H-8274, H-824X</td>
</tr>
<tr>
<td>SERIAL PRINTER: N/A</td>
</tr>
<tr>
<td>CARD RD,PD: H-828X-10,H-8239-31</td>
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<tr>
<td>PAPER TAPE RD,PN: H-822X-1</td>
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<tr>
<td>DISPLAY TERMINAL: H-9415</td>
</tr>
<tr>
<td>MULTIPLEXOR: N/A</td>
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<tr>
<td>TERMINALS/SYSTEM: N/A</td>
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<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
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<tr>
<td>* ALGOL</td>
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<tr>
<td>* SINGLE BASIC</td>
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<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
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<td>* PL/I</td>
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<tr>
<td>* RPG</td>
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<td>OTHER:</td>
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<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD: 60 (10/76)</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Arithmetic
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisyynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Panty Detect
- F = Power Fail Safe
- K = Memory Panty Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1

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INTRODUCED IN 1972 THE HITAC 8800 IS THE LARGEST MEMBER OF THE HITAC 8000 SERIES OF GENERAL PURPOSE COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. STANDARD FEATURES INCLUDE A MEMORY EXPANDABLE FROM 1MB TO 6MB, 32K CACHE MEMORY, AND A VARIETY OF COMPATIBLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES BASIC AND RPG COMPILERS.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
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<td>* DATA ENTRY SYSTEM</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
<th>PERIPHERALS (Model #: Specs. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
<td>REMOVABLE DISK: H-8578, H-8589-1/11</td>
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<tr>
<td>MEMORY: 1000 TO 16K COR3</td>
<td>FIXED HEAD DISK: H-8566, H-8567</td>
</tr>
<tr>
<td>CYCLE TIME: .9 USEC</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>ADD TIME: .11 USEC</td>
<td>MAGNETIC TAPE: H-845X</td>
</tr>
<tr>
<td>CACHE MEMORY: 32KB, 900NS</td>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td># CF INSTRUCTIONS: 170</td>
<td>LINE PRINTER: H-8274/H-824X</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFM/</td>
<td>SERIAL PRINTER: N/A</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
<td>CARD RD/PN: H-828X-10,H-8239-31</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
<td>PAPER TAPE RD/PN: H-822X-1</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): B/</td>
<td>DISPLAY TERMINAL: H-9415</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 8MB</td>
<td>MULTIPLYOR: N/A</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDRM/M</td>
<td>TERMINALS/SYSTEM: OTHER:</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>SOFTWARE LANGUAGES (*)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>APL</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER EDOS-M50,057</td>
<td>ALGOL</td>
</tr>
<tr>
<td>* MACRO ASSEM EDOS-M50,057</td>
<td>SINGLE BAS</td>
</tr>
<tr>
<td>* DASM MONITOR EDOS-M50,057</td>
<td>MULTI BAS</td>
</tr>
<tr>
<td>* REAL TIME HTDR EDOS-M50,057</td>
<td>COBOL</td>
</tr>
<tr>
<td>* T/S MONITOR EDOS-M50,057</td>
<td>FORTRAN</td>
</tr>
<tr>
<td>* BATCH MONITOR EDOS-M50,057</td>
<td>PL1</td>
</tr>
<tr>
<td>* DATA BASE SYS EDOS-M50,057</td>
<td>RPG</td>
</tr>
<tr>
<td>OTHER: REMOTE BATCH</td>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
<td>MAIN MARKET: END USERS</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD: 7 (10/76)</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
<td>MAINTENANCE: 0/6 CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biseynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
Honeywell DATANET 305

Introduced in 1973, the Honeywell DATANET 305 is a front-end network processor. It can be purchased on an as-available basis only, and is designed for business and scientific applications. Standard features include a real-time clock and memory protection, as well as power fail safe and priority interrupts. A choice of user peripherals is available.

**Application (*)**
- Business/commercial
- Communications processor
- Industrial control
- Laboratory/scientific
- Engineering/computation
- Educational system
- Banking system
- Data entry system

**Computer (Std/Opt. N/A)**
- Word size: 8 bits
- Memory: N/A
- Cycle time:
- Add time:
- Cache memory: N/A
- # of instructions: 78
- Instruction Types (1): B, E, F, M
- Accumulators: 2
- Index registers: 3
- I/O communications (2): AS/TS
- I/O transfer rate: 8 KB/sec
- Processor features (3): ECFM, IPC
- Interface slots:

**Systems Software (*)**
- Assembler
- Macro assembler
- Disk monitor
- Real time monitor
- T/S monitor
- Batch monitor
- Data base sys
- Other: GRTS, NPS

**Prices**
- Computer: $52,800
- Memory:
- System: See MFR

**Features (*)**
- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory, machine
- Multiprocessor

**Peripherals (Model #, Specs. N/A)**
- Removable disk: BP474X, BP475X
- Fixed head disk: BP4510-14
- Flexible disk: N/A
- Magnetic tape: BP400X, 41XX, 552X
- Tape cassette: BP5400, BP5401
- Line printer: RP052X, RP552X
- Serial printer: RP53XX
- Card reader: CBR930, RP0121, RP51XX
- Paper tape reader: 5210
- Display terminal: YES
- Multiplexer: SYN, ASYN
- Terminals/system:
- Other:

**Software Languages (*)**
- APL
- Algol
- Single BASIC
- Multi BASIC
- COBOL
- Fortran
- F1
- RPG
- Other:

**Marketing**
- Main market: end user
- Units sold:
- Maintenance: on call

---

(1) Instructions:
- B = Byte manipulation
- D = Decimal arithmetic
- E = Extended precision
- F = Floating point
- M = Multiply/Divide
- S = Stack processing

(2) I/O Communications:
- A = Asynchronous
- B = Bisequential
- D = Direct memory access
- M = Multipoint memory
- S = Selectable line speeds
- T = Autodial

(3) Processor Features:
- B = Base address relocation
- C = Real time clock
- D = Dynamic page relocation
- E = Memory parity detect
- F = Power fail safe
- K = Memory parity correct
- M = Memory protection
- R = Priority interrupt
- V = Vectored interrupt

1978/No. 1

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THE DATANET 355 IS A PROGRAMMABLE FRONT-END NETWORK PROCESSOR WHICH CONTROLS REMOTE TERMINALS CONNECTED TO HONEYWELL'S SERIES 6000, 2000, 600, 200, 100 AND LEVELS 66 AND 68 COMPUTER SYSTEMS. THE DATANET 355 IS DESIGNED FOR LARGE-VOLUME COMMUNICATIONS APPLICATIONS AND FEATURES A 16K MEMORY AND A .7 USEC CYCLE TIME. EXTENSIVE SOFTWARE SUPPORT AND A VARIETY OF PERIPHERALS ARE AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: K</td>
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<tr>
<td>CYCLE TIME:</td>
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<tr>
<td>ADD TIME:</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 98</td>
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<tr>
<td>INSTRUCTION TYPES (1): BUEFIM/</td>
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<tr>
<td>ACCUMULATORS: 2</td>
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<tr>
<td>INDEX REGISTERS: 3</td>
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<tr>
<td>I/O COMMUNICATIONS (2): I.BST/</td>
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<tr>
<td>I/O TRANSFER RATE: .083MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCPRME/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
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<tbody>
<tr>
<td>ASSEMBLER</td>
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<tr>
<td>MACRO ASSEM</td>
</tr>
<tr>
<td>DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME MNTR</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: GEVS NFS</td>
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<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $88320, 16K</td>
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<tr>
<td>MEMORY: $58080, 16K</td>
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<tr>
<td>SYSTEM: $88 MFR</td>
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</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>MULTIPROCESSOR</td>
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</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs. N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: RP474X, RP475X</td>
</tr>
<tr>
<td>FIXED HEAD DISK: RP4510-14</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: RP40XL, 41XX, 552X</td>
</tr>
<tr>
<td>TAPE CASSETTE: RP5400, RP5401</td>
</tr>
<tr>
<td>LINE PRINTER: RP052X, RP552X</td>
</tr>
<tr>
<td>SERIAL PRINTER: RP534X</td>
</tr>
<tr>
<td>CARD RD, PN: CRF930, RP0121, RP51XX</td>
</tr>
<tr>
<td>PAPER TAPE RD, PN: 5210</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: YES</td>
</tr>
<tr>
<td>MULTIPLEXOR: SYN, ASYN</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Slack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Replacement
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
HONEYWELL: DATANET 6600


APPLICATION (1)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

FEATURES (1)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: RP474X, RP475X
- FIXED HEAD DISK: RP4510-14
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: RP40XX, 41XX, 552X
- TAPE CASSETTE: RP5400, RP5401
- LINE PRINTER: RP052X, RP552X
- SERIAL PRINTER: RP53X
- CARD READER: CR930, RP121, RP51XX
- PAPER TAPE READER: 5210
- DISPLAY TERMINAL: YES
- MULTIPLEXOR: SYN, ASYN
- TERMINALS/SYSTEM: OTHER

SOFTWARE LANGUAGES (1)
- APL
- ALGOL
- SINGLE BASIC
- MULTIBASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

MARKETING
- MAIN MARKET: END USER
- UNITS SOLD: MAINTENANCE: ON CALL

SYSTEMS SOFTWARE (1)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: GRTS NPS

PRICES
- COMPUTER: $124874, 64K
- MEMORY:
- SYSTEM: $SEE MPB

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
THE MODEL 1200 IS A MEMBER OF HONEYWELL'S SERIES 200 OF MEDIUM-SCALE, FULLY SOFTWARE COMPATIBLE COMPUTERS FOR MANUFACTURING, RETAIL, BANKING, INSURANCE, EDUCATIONAL, AND GOVERNMENTAL APPLICATIONS. BASED ON A 6-BIT CHARACTER, THE 1200 HAS A 16 TO 128K CHARACTER MEMORY. THE MODEL 1200 IS NO LONGER IN PRODUCTION, AND IS PROVIDED ON AN AS-AVAILABLE BASIS ONLY.

**APPLICATION**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**FEATURES**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS**

REMovable DISK: YES
FIXed HEAD DISK: N/A
FLEXible DISK: N/A
MAGNETIC TAPE: YES
TAPE CASSETTE: N/A
LINE PRINTER: 300 LPM
SERIAL PRINTER: N/A
CARD RD, PW: 400-600 CPm; 400 CPm
PAPER TAPE RD, PW: YES; YES
DISPLAY TERMINAL: N/A
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: DATANET 2000

**SOFTWARE LANGUAGES**

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
RPG
OTHER: EASYWRITER

**MARKETING**

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
SUPPLY; INTERVAL TIMER; DISK PACK DRIVE.

---

**COMPUTER (Std/Opt, N/A)**

| WORD SIZE: | 6 BITS |
| MEMORY: | K |
| CYCLE TIME: | | |
| ADD TIME: | | |
| CACHE MEMORY: | N/A |
| # OF INSTRUCTIONS: | 28 |
| INSTRUCTION TYPES (1): | BD/FM/ |
| ACCUMULATORS: | |
| INDEX REGISTERS: | 15 |
| I/O COMMUNICATIONS (2): | ADDS/ |
| I/O TRANSFER RATE: | |
| PROCESSOR FEATURES (3): | B/DME/ |
| INTERFACE SLOTS: | 12 |

**SYSTEMS SOFTWARE**

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER:

**PRICES**

COMPUTER: $112320, 16K
MEMORY:
SYSTEM: $SEE MFB
INCLUDES 64K CPU; CONTROL PANEL; POWER

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1965, THE HONEYWELL 615 IS A LARGE BUSINESS COMPUTER SYSTEM PROVIDED ON AN AS-AVAILABLE BASIS ONLY. IT HAS A 36-BIT WORD SIZE, A REAL-TIME CLOCK, PRIORITY INTERRUPTS, AND MEMORY PROTECTION AS STANDARD FEATURES. A CHOICE OF PERIPHERALS IS AVAILABLE TO THE USER.

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
  EDUCATIONAL SYSTEM
  BANKING SYSTEM
  DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
  APPLICATION SOFTWARE
  CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: DDS170, 160
FIXED HEAD DISK:
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MTH200, 300, 400
TAPE CASSETTE: N/A
LINE PRINTER: PRT201, 300, 301
SERIAL PRINTER:
CARD READER: CR2201, CP2100, 201
PAPER TAPE READER: PTR200, PTP200
DISPLAY TERMINAL: N/A
MULTIPLEXOR: SYN, ASTM
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
* ALGOL
  SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
  PL1
* RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES

COMPUTER: $553200, 64K
MEMORY: $553200, 64K
SYSTEM: $935800
Includes 64K CPU; DISK (165MB); PRINTER (1200 LPM); CARD READER (900/300 CPM).

(1) INSTRUCTIONS:
  B = Byte Manipulation
  D = Decimal Arithmetic
  E = Extended Precision
  F = Floating Point
  I = Indirect Addressing
  M = Multiply & Divide
  S = Stack Processing

(2) I/O COMMUNICATIONS:
  A = Asynchronous
  B = Bit Synchronous
  D = Direct Memory Access
  M = Multipoint Memory
  S = Selectable Line Speeds
  T = Autodial

(3) PROCESSOR FEATURES
  B = Base Address Relocation
  C = Real Time Clock
  D = Dynamic Page Relocation
  E = Memory Parity Detect
  F = Power Fail Safe
  K = Memory Parity Correct
  M = Memory Protection
  R = Priority Interrupt
  V = Vectored Interrupt

1978/No.1

COMPUTER REVIEW

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Honeywell: 62/40

Introduced in 1974, the Honeywell model 62/40 is a small-scale, disk oriented business computer system designed primarily for the end user. The 62/40 features user-microprogrammability, Liberator/3 software allowing conversion of systems applications software written for the IBM system/3, and a wide variety of available peripherals.

**APPLICATION(*)**

* Business/Commercial
* Communications Processor
  * Industrial Control
  * Laboratory/Scientific
  * Engineering/Computation
  * Educational System
  * Banking System
  * Data Entry System

**FEATURES(*)**

* Upward Compatible
* Field Service
  * Application Software
  * Conversational Languages
* User Microprogrammable
  * Factory Microprogrammable
  * Virtual Memory Machine
* Multiprocessor

**PERIPHERALS**

(Model #: Specs. N/A)

Removable Disk: MSU01XX, MSU0310, 330
Fixed Head Disk: MSU011X
Flexible Disk: N/A
Magnetic Tape: MSU01XX, MTU02XX
TAPE CASSETTE: CSF2003
LINE PRINTER: PR2000
SERIAL PRINTER: 30 CPS
CARD RD/PN: CBU000, CBU0306
PAPER TAPE RD/PN: N/A, N/A
DISPLAY TERMINAL: 777X
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM:
OTHER:

**SOFTWARE LANGUAGES(*)**

APL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL 32KB
* FORTRAN
* PL1
* RPG 24KB
OTHER:

**MARKETING**

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

**SYSTEMS SOFTWARE(*)**

ASSEMBLER
MACRO ASSEM
* DISK MONITOR
  * REAL TIME MTR
* T/S MONITOR
  * BATCH MONITOR
  * DATA BASE SYS
OTHER:

**PRICES**

Computers: $49500, 56K
Memory: $2450, 8K
System: $107610, 56K
Includes 56KB CPU; console with teleprinter and tape cassette unit; mass storage; (23.2MB); card reader (300 CPS); line printer (400 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

190

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HONEYWELL: 62/60


<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model *, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
<td>REMOVABLE DISK: MSU03XX, MSU0310, 330</td>
</tr>
<tr>
<td>MEMORY: 64 TO 256K MOS</td>
<td>FIXED HEAD DISK: MSU011X</td>
</tr>
<tr>
<td>CYCLE TIME: 1.0, 2B USEC</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>ADD TIME: .039 USEC</td>
<td>MAGNETIC TAPE: MTU01XX, MTU02XX</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE: CFU0203</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 141/165</td>
<td>LINE PRINTER: PRU0000</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEIM/P</td>
<td>SERIAL PRINTER: 30 CPS</td>
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<tr>
<td>ACCUMULATORS: 16</td>
<td>CARD RD,PN: CHU000, CEU0306</td>
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<tr>
<td>INDEX REGISTERS: 8</td>
<td>PAPER TAPE RD,PN: N/A, N/A</td>
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<tr>
<td>I/O COMMUNICATIONS (2): D/ABS</td>
<td>DISPLAY TERMINAL: 77XX</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1.6MB</td>
<td>MULTIPLEXOR: ASYN, SYN</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCDREMK/</td>
<td>TERMINALS/SYSTEM:</td>
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<tr>
<td>INTERFACE SLOTS: 6</td>
<td>OTHER:</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
<td>AFL</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
<td>ALGOL</td>
</tr>
<tr>
<td>** DISK MONITOR</td>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>** REAL TIME ANTS</td>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>** T/S MONITOR</td>
<td>* COBOL 32KB</td>
</tr>
<tr>
<td>** DATACH MONITOR</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>** DATA BASE SY</td>
<td>PI</td>
</tr>
<tr>
<td>OTHER:</td>
<td>* RPG 24KB</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $75410, 64K</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MEMORY: $2450, 8K</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $132670, 64K</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

INCLUDES 64K CPU; CONSOLE WITH TELEPRINTER AND TAPE CASSETTE UNIT; MASS STORAGE (58MB); CARD READER (300 CPM); LINE PRINTER (400 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Birectional
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

**APPLICATION**
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)
- WORD SIZE: 32 BITS
- MEMORY: 64 TO 192K LSI MOS
- CYCLE TIME: 1.0 USEC
- ADD TIME: 19.6 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 195
- INSTRUCTION TYPES (1): BDIRS/F
- ACCUMULATORS: 20
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): /ABST
- I/O TRANSFER RATE: 1.25MB
- PROCESSOR FEATURES (3): BCDVRMEK/
- INTERFACE SLOTS: 20

**SYSTEMS SOFTWARE** (*
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR 28K
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR 28K
- DATA BASE SYS 24K
- OTHER:

**FEATURES** (*
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)
- RENOVABLE DISK: MSU0310, MSU041X
- FILED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: NTU03X
- TAPE CASSETTE:
- LINE PRINTER: PBU1200, PBU1600
- SERIAL PRINTER: CONSOLE, 30 CPS
- CARD RD, PW: CRU, ECU, CCU SERIES
- PAPER TAPE RD, PW: N/A, N/A
- DISPLAY TERMINAL: VIP7700, HTS7500
- MULTIPLEXOR: SYW, ASYM
- TERMINALS/SYSTEM:
- OTHER: DN-2000 FRONT END

**SOFTWARE LANGUAGES** (*
- API
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL 32K
- FORTRAN IV
- PL/I
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL
- INCLUDES 64K CPU; CONSOLE UNIT; TWO MASS STORAGE UNITS (29, 100MB); MAG TAPE (37. 5 IPS); CARD READER AND PUNCH (400/100 CP); PRINTER (600 LPM).

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
The Honeywell Series 60, Level 64, Model 30 is a 32-bit computer designed for use in communications, commercial, and scientific applications. Features include standard byte manipulation, selectable line speeds, and optional floating point. Software support includes COBOL, FORTRAN, and RPG. A variety of peripherals is available.

**APPLICATION** (*)

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt. N/A)

- Word Size: 32 bits
- Memory: 64 to 256k MOS
- Cycle Time: 1 usec
- Add Time:
- Cache Memory: 
- # of Instructions:
- Instruction Types (1): 64k
- Accumulators:
- Index Registers: 8
- I/O Communications (2): ADBS/
- I/O Transfer Rate: 1.2MB
- Processor Features (3): BCHK/
- Interface Slots: 

**SYSTEMS SOFTWARE** (*)

- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mnt
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**FEATURES** (*)

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs. N/A)

- Removable Disk: 29-100MB
- Fixed Head Disk: N/A
- Flexible Disk: 
- Magnetic Tape: All Types
- Tape Cassette:
- Line Printer: 600-1600 LPM
- Serial Printer:
- Card Reader, P/M: 400-1050, 100
- Paper Tape Reader, P/M: 
- Display Terminal: 
- Multiplexer: 
- Terminals/System: 
- Other:

**SOFTWARE LANGUAGES** (*)

- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PLS
- RPG
- Other:

**MARKETING**

- Main Market: 
- Units Sold: 
- Maintenance:

**PRICES**

- Computer: $see Mfr
- Memory: 
- System: $see Mfr

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O MODEM COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiparm Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE MODEL 64/40 IS A MEMBER OF THE HONEYWELL SERIES 60, LEVEL 64 FAMILY OF MEDIUM-SCALE, GENERAL PURPOSE COMPUTERS. STANDARD FEATURES INCLUDE MOS MEMORY, THE GCOS OPERATING SYSTEM, AND PROGRAM COMPATIBILITY WITH HONEYWELL SERIES 100 AND 200/2000 COMPUTERS. A DATA COMMUNICATIONS PROCESSOR, THE DATASET 2000 IS OPTIONAL. THE MODEL 64/40 FEATURES A MEMORY EXPANDABLE FROM 196 TO 320K CHARACTERS, AND AN I/O FACILITY TO CONTROL UP TO 120 COMMUNICATIONS LINES.

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
* WORD SIZE: 32 Bits
* MEMORY: 96 TO 320K LSI MOS
* CYCLE TIME: 1.0 USEC
* ADD TIME: 12.7 USEC
* CACHE MEMORY: N/A
* OF INSTRUCTIONS: 195
* INSTRUCTION TYPES (1): BDIMS/F
* ACCUMULATORS: 20
* INDEX REGISTERS: 16
* I/O COMMUNICATIONS (2): /ABST
* I/O TRANSFER RATE: 1.25dB
* PROCESSOR FEATURES (3): BCDVERMEK/
* INTERFACE SLOTS: 20

SYSTEMS SOFTWARE(*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR 28K
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR 28K
* DATA BASE SYS 24K
* OTHER:

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL 32K
* FORTRAN IV
* PL1
* RPG
* OTHER:

MARKETING
* MAIN MARKET: END USER
* UNITS SOLD:
* MAINTENANCE: ON CALL
* INCLUDES 96K CPU; CONSOLE UNIT; TWO MASS STORAGE UNITS; MAG TAPE (37.5 IPS); CARD READER AND PUNCH (400/100 CPH); PRINTER (600 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
THE HONEYWELL SERIES 60, LEVEL 64, MODEL 60 IS A 32-BIT COMPUTER SYSTEM DESIGNED FOR EDUCATIONAL, BUSINESS, COMPUTATION, COMMUNICATIONS PROCESSING, AND LABORATORY APPLICATIONS. THE 64/60 FEATURES STANDARD REAL TIME CLOCK, SELECTABLE LINE SPEEDS, BYTE MANIPULATION, AND OPTIONAL FLOATING POINT. SOFTWARE SUPPORT INCLUDES COBOL, RPG, AND FORTRAN. A WIDE VARIETY OF PERIPHERAL IS AVAILABLE.

### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt. N/A)
- WORD SIZE: 32 BITS
- MEMORY: 192 TO 768KB MGS
- CYCLE TIME:
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): BDMS/F
- ACCUMULATORS:
- INDEX REGISTERS: 0
- I/O COMMUNICATIONS (2): ADBS/
- I/O TRANSFER RATE: 1.25MB
- PROCESSOR FEATURES (3): BCMEK/
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACHO ASSEM
- * DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- * BATCH MONITOR
- * DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #. Specs, N/A)
- REMOVABLE DISK: 29-100MB
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK:
- MAGNETIC TAPE: ALL TYPES
- TAPE CASSETTE:
- LINE PRINTER: 600-1600 LPM
- SERIAL PRINTER:
- CARD RD, PW: 400-1050; 100
- PAPER TAPE RD, PW:
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- * COBOL
- * FORTRAN
- FLC
- * RPG
- OTHER:

### MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bivalent
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
## HONEYWELL: 66/05

Introduced in 1974, the 66/05 is the entry level model of the Level 66 series of general purpose computers. The 66/05 uses GCGS (General Comprehensive Operating Supervisor) for its operating system. COBOL, FORTRAN, APL/66, BASIC, PL/1, ALGOL, JOVIAL are among the languages supported.

### APPLICATION (*
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### COMPUTER (Std/Opt, N/A)
- **Word Size:** 9 Bits
- **Memory:** 96 to 512K MOS
- **Cycle Time:**
- **Add Time:**
- **Cache Memory:** N/A
- **# of Instructions:**
- **Instruction Types (1):** BDIM/
- **Accumulators:**
- **Index Registers:**
- **I/O Communications (2):** ABD5/
- **I/O Transfer Rate:**
- **Processor Features (3):** BRMK/
- **Interface Slots:** 18

### SYSTEMS SOFTWARE (*
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mtr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

### FEATURES (*)
- **Upward Compatible**
- **Field Service**
- **Application Software**
- **Conversational Languages**
- **User Microprogrammable**
- **Factory Microprogrammable**
- **Virtual Memory Machine**
- **Multiprocessor**

### PERIPHERALS (Model #, Specs, N/A)
- **Removable Disk:** MS0310
- **Fixed Head Disk:**
- **Flexible Disk:**
- **Magnetic Tape:** MTU0400, 0500, 0600
- **Tape Cassette:** CSF 2001
- **Line Printer:** PRU1100, 1200, 1600
- **Serial Printer:** CSF 4001, 4006
- **Card Reader/Print:** CRU1050, PCU0120
- **Paper Tape Reader:** PT5 06050
- **Display Terminal:** CSU 6001
- **Multiplexer:** Sync, Async
- **Terminals/System:**
- **Other:**

### SOFTWARE LANGUAGES (*
- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

### PRICES
- **Computer:** $100
- **Memory:** $100
- **System:** $100

### MARKETING
- **Main Market:** End User
- **Units Sold:**
- **Maintenance:** On Call

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Page Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

196 1978/No. 1
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**HONEYWELL: 66/10**

Introduced in 1974, the Model 10 is the basic model of the Honeywell Level 66 series. The 66/10 is a large, general purpose single processor configuration and features the GCOS (General Comprehensive Operating Supervisor) and the Datanean 6600 front-end network processor. The 66/10 can also be configured to the Datanean DCP6624, controlling up to 56 communications lines.

**APPLICATION**

* Business/Commercial
* Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

**COMPUTER** (Std/Opt. N/A)

Word Size: 9 Bits
Memory: 80 to 1024K MOS
Cycle Time:
Add Time:
Cache Memory: N/A
# of Instructions:
Instruction Types (1): BDFIM/
Accumulators: 1
Index Registers: 8
I/O Communications (2): ABDS/
I/O Transfer Rate:
Processor Features (3): BRMK/
Interface Slots:

**SYSTEMS SOFTWARE**

* Assembler
* Macro Assembler
* Disk Monitor
* Real Time Monitor
* T/S Monitor
* Batch Monitor
* Data Base System
Other: TOLTS, HEALS

**FEATURES**

* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

Removable Disk: MSU03XO,04XX
Fixed Head Disk: N/A
Flexible Disk: N/A
Magnetic Tape: MTU0400,0500,0600
Tape Cassette: CF2003
Line Printer: PRU1100,1200,1600
Serial Printer: CF4001,4006
Card Reader, Writer: CU1050,PCU120
Paper Tape Reader, Printer: PTS06050
Display Terminal: CU6001
Multiplexer: SYN, ASYN
Terminals/System:
Other: Datanean 6600

**SOFTWARE LANGUAGES**

* APL
* ALGOL
* Single Basic
* Multi Basic
* COBOL 74 512KB
* FORTRAN
* PL 1 768KB
* RPG
Other: JOVIAL

**MARKETING**

Main Market: End User
Units Sold:
Maintenance: On Call

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiprocess Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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1978/No. 1

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INTRODUCED IN 1974, THE HONEYWELL SERIES 60, LEVEL 66, MODEL 20 IS A SINGLE PROCESSOR GENERAL PURPOSE COMPUTER SYSTEM WITH AN INTEGRATED SYSTEM CONTROLLER AND I/O MULTIPLEXOR. THE 66/20 FEATURES A MEMORY CAPACITY TO 1024K BYTES.

### APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

### COMPUTER (Std/Opt. N/A)
WORD SIZE: 9 BITS
MEMORY: 80 TO 1024K MCS
CYCLE TIME: 1.4 USEC
ADD TIME:
CACHE MEMORY: 175kS
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDPM/
ACCUMULATORS: 1
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): ABDS/
I/O TRANSFER RATE: 1.2MB
PROCESSOR FEATURES (3): 8MEK/
INTERFACE SLOTS:

### SYSTEMS SOFTWARE(*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MNT
* T/S MONITOF
* BATCH MONITOR
* DATA BASE SYS
OTHER: TOLTS, HEALS

### FEATURES(*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

### PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: M5U03X0, 04XX
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MTU0400, 0500, 0600
TAPE CASSETTE: CSF2003
LINE PRINTER: PRU1100, 1200, 1600
SERIAL PRINTER: CSF4001, 4006
CARD RD, PW: CRU1050, PCU120
PAPER TAPE RD, PW: PTS06050
DISPLAY TERMINAL: CSU6001
MULTIPLEXOR: SYN/ASYN
TERMINALS/SYSTEM:
OTHER: DATANET 6600

### SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL -74 512KB
* FORTRAN
* PLI 768KB
* RPG
OTHER: JOVIAL

### MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

### PRICES
COMPASS: $825084, 128k
MEMORY: $3840, 16k
SYSTEM: $254 MFB

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiplex Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**Honeywell 66/40**

**Application**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**Computer (Std/Opt, N/A)**

- Word Size: 9 bits
- Memory: 80 to 1024K MOS
- Cycle Time: 1.4 usec
- Add Time: 175ns
- # of Instructions: 1
- Instruction Types (1): BDIFM/
- Index Registers: 8
- I/O Communications (2): ADDS/
- I/O Transfer Rate: 2.7MB
- Processor Features (3): WRMEK/
- Interface Slots: 16/36

**Systems Software**

- Assembler
- Macro Assembler
- Disk Monitor
- Real Time HR
- T/S Monitor
- Batch Monitor
- Data Base System
- Other: TOLTS, HEALS

**Features**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**Peripherals (Model #, Specs, N/A)**

- Removable Disk: MSU030, 041X
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: MTU0400, 0500, 0600
- Tape Cassette: CSP2003
- Line Printer: PRU1100, 1200, 1600
- Serial Printer: CSP4001, 4006
- Card RD, PN: CRU1050, PCU120
- Paper Tape RD, PN: PT506050
- Display Terminal: CSU6001
- Multiplexer: SYW, ASYN
- Terminals/System: Other: DATANET 6600

**Software Languages**

- APL
- Algol
- Single Basic
- Multi Basic
- COBOL -74 512KB
- FORTRAN
- PL/I 768KB
- RPG
- Other: JOVIAL

**Marketing**

- Main Market: End User
- Units Sold: Maintenance: On Call

**Prices**

- Computer: $1179695, 128K
- System: $516695

**Notes**

(1) Instructions:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HONEYWELL: 66/60

INTRODUCED IN 1974, THE HONEYWELL SERIES 60, LEVEL 66, MODEL 60 IS A LARGE, GENERAL PURPOSE COMPUTER. IT CAN HANDLE UP TO FOUR CPUS PER SYSTEM, HAS A MAIN MEMORY CAPACITY TO 1024K BYTES, A TRANSFER RATE OF 2.7 MEGABYTES PER SECOND, AND A CACHE MEMORY.

APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*):
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)

| WORD SIZE: | 9 BITS |
| MEMORY: | 60 TO 1024K MOS |
| CYCLE TIME: | 1.4 USEC |
| ADD TIME: |
| CACHE MEMORY: | YES |
| # OF INSTRUCTIONS: |
| INSTRUCTION TYPES (1): BDFIM/ |
| ACCUMULATORS: | 1 |
| INDEX REGISTERS: | 8 |
| I/O COMMUNICATIONS (2): ABDS/ |
| I/O TRANSFER RATE: | 2.7MB |
| PROCESSOR FEATURES (3): BRNEK/ |
| INTERFACE SLOTS: | 18/56 |

SYSTEMS SOFTWARE (*):

* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME HTMR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: TOLTS, HEALS

SOFTWARE LANGUAGES (*):

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL -74 512KB
* FORTRAN
* PLI 768KB
* EPG
OTHER: JOVIAL

PERIPHERALS (Model #, Specs, N/A)

| REMOVABLE DISK: | NSU0310, 041X |
| FIXED HEAD DISK: | N/A |
| FLEXIBLE DISK: | N/A |
| MAGNETIC TAPE: | MTU0400, 0500, 0600 |
| TAPE CASSETTE: | CSP2003 |
| LINE PRINTER: | PBU1100, 1200, 1600 |
| SERIAL PRINTER: | CSP4001, 4006 |
| CARD RD/PN: | CRU1050, PCU0120 |
| PAPER TAPE RD/PN: | PTS06050 |
| DISPLAY TERMINAL: | CSU6001 |
| MULTIPLEXOR: | SYN, ASYN |
| TERMINALS/SYSTEM: |
OTHER: DATANET 6600

PRICES

| COMPUTER: | $1685955, 192K |
| MEMORY: |
| SYSTEM: | $SEE MFR |

MARKETING

| MAIN MARKET: | END USER |
| UNITS SOLD: |
| MAINTENANCE: | ON CALL |

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
HONEYWELL: 66/80


APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: MSD0310, 0416
FLEXIBLE DISK: N/A
MAGNETIC TAPES: KTO0400, 0500, 0600
TAPE CASSETTE: CSP0300
LINE PRINTER: PRU1100, 1200, 1600
SERIAL PRINTER: CSP4001, 4006
CARD RD, PN: CRU1050, PCU0120
PAPER TAPE RD, PN: PZS06050
DISPLAY TERMINAL: CSP6001
MULTIPLEXOR: SYN, ASTW
TERMINALS/SYSTEM:
OTHER: DATAMET 6600

SOFTWARE LANGUAGES (*)

APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL - 74 512KB
* FORTRAN
* FL 760KB
RPG
OTHER: JOVIAL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 9 BITS</td>
</tr>
<tr>
<td>MEMORY: 80 TO 1024K MOS</td>
</tr>
<tr>
<td>CYCLE TIME: .75 USEC</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY: YES</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDFIN/</td>
</tr>
<tr>
<td>ACCUMULATORS: 1</td>
</tr>
<tr>
<td>INDEX REGISTERS: 8</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABDS/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 4.0MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BBMEK/</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 16/66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
</tr>
<tr>
<td>* REAL TIME MONTR</td>
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<tr>
<td>* T/S MONITOR</td>
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<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: TOLTS, HEALS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $225840, 256K</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
</tr>
</tbody>
</table>

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(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
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M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

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201

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 78-156MB
FIXED HEAD DISK: 626MB
FLEXIBLE DISK: N/A
MAGNETIC TAPE: ALL TYPES
TAPE CASSETTE: N/A
LINE PRINTER: 1100-1800 LPM
SERIAL PRINTER: #CSF4001, 4006
CARD RD, PW: 1050 CPR; 100-400 CPM
PAPER TAPE RD, PW: #ETS6050
DISPLAY TERMINAL: #CSU6001
MULTIPLEXOR: SYM, ASYN
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: JOVIAL

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
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S = Stack Processing

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E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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202 1978/No. 1
INTRODUCED IN 1975, THE SERIES 60, LEVEL 60, MODEL 60 IS ONE OF THE HONEYWELL MULTICS SYSTEM PROCESSORS FOR LARGE-SCALE NETWORK PROCESSING. MULTICS FEATURES INCLUDE VIRTUAL MEMORY, SELECTIVE INFORMATION SHARING VIA CONTROL MEMORY ACCESS, HARDWARE ENFORCED SECURITY LEVELS, AND A MODULAR DESIGN. A 68/60 SYSTEM CONSISTS OF A CPU, MEMORY I/O MULTIPLEXOR, AND BULK STORAGE IN VARIOUS SIZES AND COMBINATIONS. THE DATASET 6600 COMMUNICATIONS PROCESSOR SERVES AS THE FRONT END.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 192 TO 8192K MOS</td>
</tr>
<tr>
<td>CIRCLE TIME: .75 USEC</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY: /A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1.08B</td>
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<tr>
<td>PROCESSOR FEATURES (3):</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 24</td>
</tr>
</tbody>
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<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>ASSEMBLER</td>
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<tr>
<td>MACRO ASSEM</td>
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<tr>
<td>* DISK MONITOR</td>
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<td>* REAL TIME WMTR</td>
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<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: MULTICS, GCOS-66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $1814695, 192K</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $2386164, 1024K</td>
</tr>
<tr>
<td>INCLUDES 1024K CPU; DISK STORAGE (160MB); THREE MAG TAPE UNITS; CARD READER/PUNCH; PRINTER; DATASET 6600; OPERATOR CONSOLE.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
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<tr>
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<tr>
<td>I = Indirect Addressing</td>
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<tr>
<td>M = Multiply &amp; Divide</td>
</tr>
<tr>
<td>S = Stack Processing</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = Bisynchronous</td>
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<table>
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<tr>
<th>(3) PROCESSOR FEATURES</th>
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<tbody>
<tr>
<td>B = Base Address Relocation</td>
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<tr>
<td>C = Real Time Clock</td>
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<tr>
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<td>E = Memory Parity Detect</td>
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<tr>
<td>F = Power Fail Safe</td>
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<tr>
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<td>R = Priority Interrupt</td>
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<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

1978/No. 1

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APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 192 TO 8192K MOS
CYCLE TIME: .75 USEC
ADD TIME:
CACHE MEMORY: 2KB
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): /
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): /
I/O TRANSFER RATE: 4.0MB
PROCESSOR FEATURES (3): /
INTERFACE SLOTS: 24

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* C/S MONITE
* BATCH MONITOR
* DATA BASE SYS
OTHER: MULTICS, GCOS-66

PRICES
COMPUTER: $2455580, 256K
MEMORY:
SYSTEM: $SEE MFE, 1024K
INCLUDES 1024K CPU; DISK STORAGE (160MB); THREE MAG TAPE UNITS; CARD READER/PUNCH; PRINTER; DATANET 6600; OPERATOR CONSOLE.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: MSPO0601, MSU0400
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MTP0600, MTD0400, 0500
TAPE CASSETTE: CSF2003
LINE PRINTER: PB81200, 1600
SERIAL PRINTER: CSF4001, 4006
CARD RD,PN: CUN0600, 1050
PAPER TAPE RD,PN: N/A, N/A
DISPLAY TERMINAL: CSF4013, 4014, 4001
MULTIPLEXOR: SYM, ASYM
TERMINALS/SYSTEM:
OTHER: DATANET 6600

SOFTWARE LANGUAGES (*)
* APL
ALGOL
* SINGLE BASIC
MULTI BASIC
COBOL
* FORTRAN
* PL1
RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Arithmetic
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
HONEYWELL: 2020


**APPLICATION**

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)

- WORD SIZE: 6 BITS
- MEMORY: 24 TO 64K CORE
- CYCLE TIME: 2.75/2.50 USEC
- ADD TIME: 47.5-9.0 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: DFIM/ACCUMULATORS
- INDEX REGISTERS: 15
- I/O COMMUNICATIONS (2): ABS/INTERFACE SLOTS: 4-16
- PROCESSOR FEATURES (3): CDFME/INTERFACE SLOTS: 2-16

**SYSTEMS SOFTWARE**

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS

**PRICES**

- COMPUTER: $SEE NFE
- MEMORY: $159,10, 8K
- SYSTEM: $116,510, 24K
- INCLUDES 24K CPU; 2 DISK PACK DRIVES (18.4MB); CARD READER/PUNCH (400/100-400 CPM); PRINTER (450-LPM).

**FEATURES**

* UPHARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: 170-173, 259, 274
- FIXED HEAD DISK: 270-X
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 204A, 30C, 30F, 10X
- TAPE CASSETTE: N/A
- SERIAL PRINTER: N/A
- CARD RD/PW: 123, 223, 4-X, 227, 214 X
- PAPER TAPE RD/PW: 209, 210
- DISPLAY TERMINAL: 220
- MULTIPLEXOR: SYN, ASYN
- TERMINALS/SYSTEM:
  - OTHER: DABET 2000

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLI
- RPG

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: ON CALL
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Synchronous
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- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HONEYWELL 2030

Introduced in 1972, the Honeywell 2030 is a disk oriented member of the Honeywell series 2000 of compatible sensor based computer systems. Features include multi-programming, hardware interrupts, and 8-bit transfer functions. All series 200 and 2000 software and peripherals can be utilized on the 2030, which can also be equipped with seven track and nine track magnetic tape subsystems.

**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt, N/A)**

- Word Size: 6 bits
- Memory: 40 to 96K
- Cycle Time: 2.0 usec
- Add Time: 80 nanoseconds
- Cache Memory: N/A
- Of Instructions:
- Instruction Types (1): DFIM/
- Accumulators:
- Index Registers: 15
- I/O Communications (2): ABS/
- I/O Transfer Rate: .5MB
- Processor Features (3): CFIM/
- Interface Slots: 4-16

**SYSTEMS SOFTWARE (*)**

- Assembler
- Macro Assembler
- Disk Monitor
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**

- Removable Disk: 170-173, 259, 274
- Fixed Read Disk: 270-X
- Flexible Disk: N/A
- Magnetic Tape: 204A, B, C, D, F, H, X
- Tape Cassette: N/A
- Line Printer: 112-X, 122-X, 222-I
- Serial Printer: N/A
- Card Reader: 123, 223, 4-X, 227, 214X
- Paper Tape Reader: 209, 2120
- Display Terminal: 220
- Multiplexers: SYM, ASYN
- Terminals/System:
- Other: Dataset 2000

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran
- PL1
- RPG
- Other

**MARKETING**

- Main Market: End User
- Units Sold:
- Maintenance: On Call

**PRICES**

- Computer: $100800, 40K Memory: $15910, 8K System: $186860, 40K
- Includes 40K CPU; 2 Disk Pack Drives (16.4 KB); Card Reader/Punch (400/100-400 CPM); Printer (450 LPM).

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bistochastic
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES:**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectorized Interrupt

APPLICATION(*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
- WORD SIZE: 6 BITS
- MEMORY: 40 TO 128K
- CYCLE TIME: 1.6 USEC
- ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): DFIM/
- ACCUMULATORS:
- INDEX REGISTERS: 15
- I/O COMMUNICATIONS (2): ABS/
- I/O TRANSFER RATE: .667MB
- PROCESSOR FEATURES (3): CDFSME/
- INTERFACE SLOTS: 4-16

SYSTEMS SOFTWARE(*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

PRICES
- COMPUTER: $124000, 48K
- MEMORY: $15910, 8K
- SYSTEM: $210060, 48K
- INCLUDES 48K CPU; TWO DISK PACK DRIVES (16.4 MB); CARD READER/PUNCH (400/100-400 CPM); PRINTER (450 LPM).

FEATURES(*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
- REMOVABLE DISK: 170-173, 259, 274
- FIXED HEAD DISK: 270-T
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 204A, B, C, D, F, H, I
- TAPE CASSETTE: N/A
- SERIAL PRINTER: N/A
- CARD RD, PW: 123, 223, 4-X, 227, 214X
- PAPER TAPE RD, PW: 209, 210
- DISPLAY TERMINAL: 220
- MULTIPLEXOR: SYN, ASYN
- TERMINALS/SYSTEM:
- OTHER: DATANET 2000

SOFTWARE LANGUAGES(*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

MARKETING
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Mutlipor Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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HONEYWELL: 2050


APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 6 BITS
MEMORY: 96 TO 256K
CYCLE TIME: 1.6 USEC
ADD TIME:
CACHE MEMORY: N/A
* OF INSTRUCTIONS:
INSTRUCTION TYPES (1): DFIM/
ACCUMULATORS:
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): ABS/
I/O TRANSFER RATE: 1.0MB
PROCESSOR FEATURES (3): CDFRM/
INTERFACE SLOTS: 4-16

SYSTEMS SOFTWARE (*)
* ASSEMBLER
MACRO ASSEM
* DISK MONITOR
* REAL TIME ENTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 170-173, 259, 274
FIXED HEAD DISK: 270-X
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 204A,B,C,D,F,H,X
TAPE CASSETTE: N/A
SERIAL PRINTER: N/A
CARD RD/PM: 123, 223, 4-X, 227, 214
PAPER TAPE RD/PM: 209, 210
DISPLAY TERMINAL: 220
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: DATANET 2000

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PLI
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $203280, 96K
MEMORY: $15910, 8K
SYSTEM: $289340, 96K
INCLUDES 96K CPU; TWO DISK PACK DRIVES (18.4 MB); CARD READER/PUNCH (400/100-400 CPM); PRINTER (450 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipart Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A):
WORD SIZE: 6 BITS
MEMORY: 128 TO 512K
CYCLE TIME: 1.14 USEC
ADD TIME:
CACHE MEMORY: N/A
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): DFIM/
ACCUmulators:
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): ABS/
I/O TRANSFER RATE: 1.5MB
PROCESSOR FEATURES (3): CDFMAE/
INTERFACE SLOTS: 4-16

SYSTEMS SOFTWARE (*):
* ASSEMBLER
  MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (*):
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A):
REMOVABLE DISK: 170-173,259,274
FIXED HEAD DISK: 270-X
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 204A,B,C,D,F,H,I
TAPE CASSETTE: N/A
SERIAL PRINTER: N/A
CARD RD, PW: 123, 223, 4-X, 227, 214X
PAPER TAPE RD, PW: 209, 210
DISPLAY TERMINAL: 220
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: DATANET 2000

SOFTWARE LANGUAGES (*):
APL
ALGOL
SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER:

MARKETING:
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES:
COMPUTER: $295280, 128K
MEMORY: $15910, 8K
SYSTEM: $381340, 128K
INCLUDES 128K CPU; TWO DISK PACK DRIVES (18.4 MB); CARD READER/PUNCH (400/100-400 CPM), PRINTER (450 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Binary Synchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vector Interrupt

1978/No. 1

COMPUTER REVIEW

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Honeywell: 2070

Introduced in 1972, the Honeywell 2070 is a communications oriented member of the Honeywell Series 2000 of compatible sensor based systems. The 2070 has the best performance of the 2000 series, exceeding the performance of the Series 200 Model 4200. Standard features include the visual information control console and memory purging capability. Most Series 200 and 2000 software and peripherals can be used with the 2070.

**Application (†)**
- Business/commercial
- Communication processor
- Industrial control
- Laboratory/Scientific
- Engineering/Computation
- Educational system
- Banking system
- Data entry system

**Computer (Std/Opt, N/A)**

<table>
<thead>
<tr>
<th>Word Size</th>
<th>6 Bits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>128 to 1000k Core</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>1.0 usec</td>
</tr>
<tr>
<td>Add Time</td>
<td>47.5-9.0 usec</td>
</tr>
<tr>
<td>Cache Memory</td>
<td>N/A</td>
</tr>
<tr>
<td># of Instructions</td>
<td>43/57</td>
</tr>
<tr>
<td>Instruction Types (1):</td>
<td>DPIM/</td>
</tr>
<tr>
<td>Accumulators:</td>
<td></td>
</tr>
<tr>
<td>Index Registers:</td>
<td>15</td>
</tr>
<tr>
<td>I/O Communications (2):</td>
<td>ABS/</td>
</tr>
<tr>
<td>I/O Transfer Rate</td>
<td>2.5MB</td>
</tr>
<tr>
<td>Processor Features (3):</td>
<td>CDFEME/</td>
</tr>
<tr>
<td>Interface Slots:</td>
<td>4-16</td>
</tr>
</tbody>
</table>

**Systems Software (†)**
- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Mult.
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**Prices**
- Computer: $493800, 128K
- Memory: $15910, 8K
- System: $579860, 128K
- Includes 128k CPU; two disk pack drives (18.4MB); card reader/punch (400/100)
- Printer (400 LPM).

**Features (†)**
- Upward compatible
- Field service
- Application software
- Conversational languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual memory machine
- Multiprocessor

**Peripherals (Model #, Specs, N/A)**
- Removable Disk: 170-173, 259, 274
- Fixed Head Disk: 270-x
- Flexible Disk: N/A
- Magnetic Tape: 204A, B, C, D, F, H, I
- Tape Cassette: N/A
- Line Printer: 112-x, 122-x, 222-x
- Serial Printer: N/A
- Card Reader/Punch: 123, 223, 4-x, 227, 214x
- Paper Tape Reader: 209, 210
- Display Terminal: 220
- Multiplexor: Syn, Astm
- Terminals/SYSTEM:
- Other: Databet 2000

**Software Languages (†)**
- APL
- Algol
- Single Basic
- Multi Basic
- Cobol
- Fortran
- PL1
- RPG
- Other:

**Marketing**
- Main Market: End User
- Units Sold: [Add data]
- Maintenance: On Call
- Computer Review

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Cell Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HONEYWELL: 6025

INTRODUCED IN 1973, THE MODEL 6025 IS AN ENTRY-LEVEL MEMBER OF THE SERIES 6000 FAMILY OF MEDIUM TO LARGE-SCALE COMPUTERS DESIGNED PRIMARILY FOR BUSINESS AND SCIENTIFIC APPLICATIONS. CPU FUNCTIONS ARE HANDLED BY FOUR MODULES: MEMORY, PROCESSOR, INPUT/OUTPUT MULTIPLEXOR (IOC), AND THE FRONT-END NETWORK PROCESSOR. THE GENERAL COMPREHENSIVE OPERATING SUPERVISOR (GCOS) OPERATING SYSTEM PROVIDES MULTIPROCESSING CAPABILITIES. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: DSS181, 190B, 0450
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MT200-500, MTU500
TAPE CASSETTE:
LINE PRINTER: PTZ201, 203, 301, 403
SERIAL PRINTER: N/A
CARD READER/PUNCH: CRZ201, 301, CF2201
PAPER TAPE READER/PUNCH: PTS200
DISPLAY TERMINAL: CSP6001
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEMS:
OTHER: DATAMAT 355, 305, 30

SYSTEMS SOFTWARE (*)

ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MONITOR
* CRT MONITOR
* B/N MONITOR
* DATA BASE SYS
OTHER: HEALS, TOLTS

SOFTWARE LANGUAGES (*)

APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 80K CPU, UNIT RECORD CONTROL; I/O MULTIPLEXOR; DISK UNIT (62MB); THREE MAG TAPE UNITS $81,000; TRAIN PLOTTER (1150 LPM) $75,090; CARD READER/PUNCH (900/300 CPM) $60,800.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW
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HONEYWELL: 6030

INTRODUCED IN 1971, THE MODEL 6030 IS A MEMBER OF THE HONEYWELL SERIES 6000 FAMILY OF MEDIUM TO LARGE-SCALE COMPUTERS DESIGNED PRIMARILY FOR BUSINESS AND SCIENTIFIC APPLICATIONS. CPU FUNCTIONS ARE HANDLED BY FOUR MODULES: MEMORY, PROCESSOR, INPUT/OUTPUT MULTIPLEXOR (IOM), AND THE FRONT-END NETWORK PROCESSOR. MEMORY CAPACITY IS 64K TO 128K WORDS. THE GCOS OPERATING SYSTEM PROVIDES MULTIPROCESSING CAPABILITIES. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

**APPLICATIONS**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 36 BITS
- MEMORY: 64 TO 128K CORE
- CYCLE TIME: 1.2 USEC
- ADD TIME: N/A
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 185
- INSTRUCTION TYPES (1): DEFIM/
- ACCUMULATORS: 1
- INDEX REGISTERS: 8
- I/O COMMUNICATIONS (2): ADDMS/
- I/O TRANSFER RATE: 2.8MB
- PROCESSOR FEATURES (3): BDRME/
- INTERFACE SLOTS: 10-24

**SYSTEMS SOFTWARE**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE STS
- OTHER: HEALS,TOLTS

**PRICES**

- COMPUTER: $597875, 64K
- MEMORY: $37022, 16K
- SYSTEM: $905125, 64K

**FEATURES**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: DDS181,180B,0450
- FIXED READ DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: MTB200-500, MTU600
- TAPE CASSETTE:
- LINE PRINTER: P&T201,203,30X,401
- SERIAL PRINTER: N/A
- CARD RD/PN: CHZ201,301, CPZ201
- PAPER TAPE RD/PN: PTS200
- DISPLAY TERMINAL: CSP6001
- MULTIPLEXOR: SYN, ASYN
- TERMINALS/SYSTEM:
- OTHER: DATAMPT 355,305,30

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PLT
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: ON CALL
- INCLUDES 64K CPU; I/O MULTIPLEXOR; DISK UNIT (26MB); 3 MAGNETIC TAPE UNITS;
- TRAIN PRINTER (1150 LPM); CARD RD/PN (900/300 CPM).

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = T adial

(3) PROCESSOR FEATURES:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HONEYWELL: 6040

INTRODUCED IN 1971, THE MODEL 6040 IS A MEMBER OF THE HONEYWELL SERIES 6000 FAMILY OF MEDIUM TO LARGE-SCALE COMPUTERS DESIGNED PRIMARILY FOR BUSINESS AND SCIENTIFIC APPLICATIONS. CPU FUNCTIONS ARE HANDLED BY FOUR MODULES: MEMORY, PROCESSOR, INPUT/OUTPUT MULTIPLEXOR (ICM), AND THE FRONT-END NETWORK PROCESSOR. MEMORY CAPACITY IS 64K TO 256K WORDS. THE GCOS OPERATING SYSTEM PROVIDES MULTIPROCESSING CAPABILITIES. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: DSS181, 1900, 0450
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MTH200-500, ATU600
TAPE CASSETTE:
LINE PRINTER: PRT201, 203, 301, 401
SERIAL PRINTER: N/A
CARD RD/PN: CRZ201, 301, CPZ201
PAPER TAPE RD/PN: PTS200
DISPLAY TERMINAL: CSF6001
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: DATANET 355, 305, 30

SOFTWARE LANGUAGES (*)
APL
* ALGOL
SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

1978/No. 1
COMPUTER REVIEW
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HONEYWELL: 6050

Introduced in 1971, the model 6050 is a member of the Honeywell Series 6000 family of medium to large-scale computers designed primarily for business and scientific applications. Up to four CPUs can be interconnected with two system controllers and four I/O multiplexors, all capable of concurrent asynchronous operations. Communications control is provided by the front-end communications processors DataNet 30, 305, or 355. Memory capacity is 96K to 512K words. The GCOS operating system provides multiprocessing capabilities.

APPLICATION (*)

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

FEATURES (*)

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

COMPUTER (Std/Opt, N/A)

- Word Size: 36 bits
- Memory: 96 to 512k Core
- Cycle Time: 1.2 usec
- Add Time: 105
- Cache Memory: N/A
- # of Instructions: 185
- Instruction Types (1): DEFI,
- Accumulators: 1
- Index Registers: 8
- I/O Communications (2): ADI
- I/O Transfer Rate: 3.7MB/s
- Processor Features (3): BDRME,
- Interface Slots: 10-24

SYSTEMS SOFTWARE (*)

- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base System
- Other: Heal, Tolt

SOFTWARE LANGUAGES (*)

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran
- PL1
- RPG
- Other:

PERIPHERALS (Model #, Specs, N/A)

- Removable Disk: DSS181, 190B, 0450
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: MT200-500, MTU600
- Tape Cassette:
- Line Printer: PRT201, 203, 303, 401
- Serial Printer: N/A
- Card Reader/PN: CRZ201, 301, CPZ201
- Paper Tape Reader: PTA200
- Display Terminal: CSP6001
- Multiplexor: Syn, ASYN
- Terminals/System: Other: Datnet 355, 305, 30

MARKETING

- Main Market: End User
- Units Sold: 100
- Maintenance: On Call

PRICES

- Computer: $1005597, 96K
- Memory: $37022, 16K
- System: $1312857, 96K
- Includes 96K CPU, I/O Multiplexor, Disk Unit (64MB), 3 Magnetic Tape Units; Train Printer (1150 LPM); Card Reader/PN (900/300 CPM).

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
HONEYWELL: 6060

INTRODUCED IN 1971, THE MODEL 6060 IS A MEMBER OF THE HONEYWELL SERIES 6000 FAMILY OF MEDIUM TO LARGE-SCALE COMPUTERS DESIGNED PRIMARILY FOR BUSINESS AND SCIENTIFIC APPLICATIONS. UP TO FOUR CPUs CAN BE INTERCONNECTED WITH TWO SYSTEM CONTROLLERS AND FOUR I/O MULTIPLEXORS, ALL CAPABLE OF CONCURRENT ASYNCHRONOUS OPERATIONS. COMMUNICATIONS CONTROL IS PROVIDED BY THE FRONT-END COMMUNICATIONS PROCESSORS DATAMET 30, 305, OR 355. MEMORY CAPACITY IS 96K TO 512K WORDS. THE GCOS OPERATING SYSTEM PROVIDES MULTIPROCESSING CAPABILITIES.

### APPLICATIONS

<table>
<thead>
<tr>
<th>* BUSINESS/COMMERCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

### FEATURES

| * UPWARD COMPATIBLE |
| FIELD SERVICE |
| APPLICATION SOFTWARE |
| CONVERSATIONAL LANGUAGES |
| USER MICROPROGRAMMABLE |
| FACTORY MICROPROGRAMMABLE |
| * VIRTUAL MEMORY MACHINE |
| * MULTIPROCESSOR |

### COMPUTER

<table>
<thead>
<tr>
<th>Std/Opt, N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 36 BITS</td>
</tr>
<tr>
<td>MEMORY: 96 TO 512K CORE</td>
</tr>
<tr>
<td>CYCLE TIME: 1.2 USEC</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 185</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): DEFIN, ACCUMULATOR</td>
</tr>
<tr>
<td>INDEX REGISTERS: 8</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABMVS, ABDMS</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 6.0MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BDMES, BDEM</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 10-24</td>
</tr>
</tbody>
</table>

### SYSTEMS SOFTWARE

| ASSEMBLER |
| MACRO ASSEM |
| DISK MONITOR |
| REAL TIME MTR |
| T/S MONITOR |
| BATCH MONITOR |
| DATA BASE SYS |
| OTHER: HEALS, TOLTS |

### PRICES

| COMPUTER: $1089504, 96K |
| SYSTEM: $1396754, 96K |
| INCLUDES 96K CPU; I/O MULTIPLEXOR; DISK UNIT (62MB); 3 MAGNETIC TAPE UNITS; |
| TRAIN PRINTER (1150 LPM); CARD RD/PW (900/300 CPM). |

### MAIN MARKET: END USER |

### UNITS SOLD: |

### MAINTENANCE: ON CALL |

### SOFTWARE LANGUAGES

| APL |
| ALGOL |
| SINGLE BASIC |
| MULTI BASIC |
| COBOL |
| FORTRAN |
| FPL |
| RPG |
| OTHER: |

### MARKETING

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Byte Manipulation</td>
</tr>
<tr>
<td>D = Decimal Arithmetic</td>
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<td>E = Extended Precision</td>
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<tr>
<td>F = Floating Point</td>
</tr>
<tr>
<td>I = Indirect Addressing</td>
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<tr>
<td>M = Multiply &amp; Divide</td>
</tr>
<tr>
<td>S = Stack Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = Bisyynchronous</td>
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<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multipoint Memory</td>
</tr>
<tr>
<td>S = Selectable Line Speeds</td>
</tr>
<tr>
<td>T = Autodial</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) PROCESSOR FEATURES</th>
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</thead>
<tbody>
<tr>
<td>B = Base Address Relocation</td>
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<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
</tr>
<tr>
<td>K = Memory Parity Correct</td>
</tr>
<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

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INTRODUCED IN 1971, THE MODEL 6070 IS A MEMBER OF THE HONEYWELL SERIES 6000 FAMILY OF MEDIUM TO LARGE-SCALE COMPUTERS DESIGNED PRIMARILY FOR BUSINESS AND SCIENTIFIC APPLICATIONS. UP TO FOUR CPUS CAN BE INTERCONNECTED WITH TWO SYSTEM CONTROLLERS AND FOUR I/O MULTIPLEXORS, ALL CAPABLE OF CONCURRENT ASYNCHRONOUS OPERATIONS. COMMUNICATIONS CONTROL IS PROVIDED BY THE FRONT-END COMMUNICATIONS PROCESSORS DATASET 30, 305, OR 355. MEMORY CAPACITY IS 128K TO 1024K WORDS. THE GCGS OPERATING SYSTEM PROVIDES MULTIPROCESSING CAPABILITIES.

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDOCTORIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)
- WORD SIZE: 36 BITS
- MEMORY: 128 TO 1024K CORE
- CYCLE TIME: 1.2/0.5 USEC
- ADD TIME: 71 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 185
- INSTRUCTION TYPES (1): DIFIR/ACCUMULATORS: 1
- INDEX REGISTERS: 8
- I/O COMMUNICATIONS (2): ABDMS/I
- I/O TRANSFER RATE: 6.0MB
- PROCESSOR FEATURES (3): BDRME/INTERFACE SLOTS: 10-24

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: HEALS, TOLTS

**PRICES**
- COMPUTER: $1463758, 128K
- MEMORY: $446805, 64K
- SYSTEM: $562 MFR, 128K

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)
- REMOVABLE DISK: DSS181, 190B, 0450
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: MTB200-500, MT6000
- TAPE CASSETTE: LINE PRINTER: PB201, 203, 300, 303
- SERIAL PRINTER: N/A
- CARD READER, WRITER: CB201, 301, CP2201
- PAPER TAPE ED, PH: P200
- DISPLAY TERMINAL: CSF6001
- MULTIPLEXOR: SYM, ASYM
- TERMINALS/SYSTEM: OTHER: DATASET 355, 305, 30

**SOFTWARE LANGUAGES** (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisory synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**HONEYWELL: 6080**

Introduced in 1971, the Model 6080 is the high-end of the Honeywell Series 6000 family of medium to large-scale computers designed primarily for business and scientific applications. Up to four CPUs can be interconnected with two system controllers and four I/O multiplexors, all capable of concurrent asynchronous operations. Communications control is provided by the front-end communications processors DataNet 30, 305, or 355. Memory capacity is 128K to 1024K words. The GCS operating system provides multiprocessing capabilities.

### APPLICATION (**)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### FEATURES (* *)
- Upward compatible
- Field Service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

### COMPUTER (Std/Opt, N/A)
- Word Size: 36 bits
- Memory: 128 to 1024K core
- Cycle time: 1.2/0.5 usec
- Add time: .71 usec
- Cache Memory: 2K
- # of Instructions: 185
- Instruction Types (1): Defin/accumulators: 1
- Index Registers: 8
- I/O Communications (2): ABDMN/BDMN
- Processor Features (3): BDRE/DRE
- Interface Slots: 10-24

### SYSTEMS SOFTWARE (* *)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mntr
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: Heals, Tolts

### PRICES
- Computer: $1564285, 128K
- Memory: $446919, 64K
- System: $1871536, 128K

Includes 128K CPU, I/O Multiplexor, Disk unit (62MB), 3 magnetic tape units; train printer (1150 LPM); Card reader/funch (900/300 CPM).

### PERIPHERALS (Model #, Specs, N/A)
- Removable Disk: DSS181, 1908, 0450
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: MTH200-500, MTV500
- Tape Cassette:
  - Line Printer: PRT201, 203, 301, 401
  - Serial Printer: N/A
- Card Reader: CRZ201, 301, CPZ201
- Paper Tape Reader: PT5200
- Display Terminal: CSF6001
- Multiplexor: Sym, Asyn
- Terminals/system:
  - Other: DataNet 355, 305, 30

### SOFTWARE LANGUAGES (* *)
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

### MARKETING
- Main market: end user
- Units sold: Maintenance: on call

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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Honeywell: 6180

Introduced in 1973, the Model 6180 is an enhanced version of the Model 6080. Supports the Honeywell Multics software. Multics (multiplexed information and computing service) provides data management with high-level data security. Special hardware features of the Model 6180 allow segmentation and paging of virtual memory. Model 6180 is provided on an as-available basis.

Application (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

Computer (Std/Opt, N/A)
- Word Size: 36 Bits
- Memory: 80 to 1024 K Core
- Cycle Time:
  - Add Time: 60 nsec
  - Cache Memory: 2 KB
  - # of Instructions: 185
  - Instruction Types (1): Defin/
  - Accumulators: 1
  - Index Registers: 8
  - I/O Communications (2): Abms/
  - I/O Transfer Rate:
  - Processor Features (3): Borme/
  - Interface Slots: 10-24

Systems Software (*)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mnt
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: Heals, Tolts

Prices
- Computer: $See Mfr
- Memory:
- System: $See Mfr

Features (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

Peripherals (Model #, Specs, N/A)
- Removable Disk: DSS181, 190B, 0450
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: MTH200-500, MTV600
- Tape Cassette:
  - Line Printer: PRT201, 203, 30X, 401
  - Serial Printer: N/A
  - Card R/P: CE2201, 301, CP2201
  - Paper Tape R/P: PTS200
  - Display Terminal: CSF6001
  - Multiplexer: Syn, Asyn
  - Terminals/System:
    - Other: Datnet 355, 305, 30

Software Languages (*)
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran
- PL1
- RPG
- Other: Jovial, Abacus, ALM

Marketing
- Main Market: End User
- Units Sold:
- Maintenance: On Call

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autorial

(3) Processor Features
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE IBM MODEL 12 IS A GENERAL PURPOSE MINICOMPUTER OF THE IBM SYSTEMS/3 FAMILY FOR INFORMATION PROCESSING AND COMMUNICATIONS APPLICATIONS. THE MODEL 12 USES A DIRECT ACCESS STORAGE FACILITY WHICH SIMULATES DISK STORAGE UNDER THE OPTIONAL SYSTEM CONTROL PROGRAMMING. FEATURES INCLUDE OPTIONAL REAL TIME CLOCK, AUTO DIAL I/O COMMUNICATIONS AND A VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL AND RPG.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

* REMOVABLE DISK: 3340, 3348
* FIXED HEAD DISK: 3340, 3348
* FLEXIBLE DISK: 3741 DATA STATION
* MAGNETIC TAPE: 3411-X
* TAPE CASSETTE:
* LINE PRINTER: 5203-X, 1403-X
* SERIAL PRINTER: 3281, 5471
* CARDS RD, PW: 5424; 1442
* PAPER TAPE RD, PW: N/A
* DISPLAY TERMINAL: 3277
* MULTIPLEXOR:
* TERMINALS/SYSTEM:
* OTHER: MCR 1255, OMN 3861

SYSTEM SOFTWARE (*)

* ASSEMBLER
  * MACRO ASSEM
* DISK MONITOR
  * REAL TIME MONTR
  * T/S MONITOR
* BATH MONITOR
  * DATA BASE SYS
* OTHER:

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
* OTHER:

MARKETING

* MAIN MARKET: END USER
* UNITS SOLD:
* MAINTENANCE: ON CALL

PRICES

* COMPUTER: $50645, 32K $5412
* MEMORY: $2700, 16K
* SYSTEM: $110335, 32K

INCLUDES 32K CPU, $5424 MULTIFUNCTION CARD UNIT (60-250 CPM); $3340 DISK AND CRT DISK (91.9MB); $3343 TWO DISKS (82M); $5023 PRINTER (100 LPS); $3275 DISPLAY STATION (1920 CHAR).

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Abrupt
V = Vectored Interrupt

1978/No. 1

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219
Introduced in 1973, the IBM System/3, Model 15 is an enhanced Model 10 which includes memory protection and a wide variety of peripherals, including a large capacity disk storage drive. RPG, FORTRAN, and COBOL software support is available.

**APPLICATION (*)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)
- Word Size: 8 Bits
- Memory: 48 to 256K MOSPET
- Cycle Time: 1.52 usec
- Add Time: 9.1 usec
- Cache Memory: N/A
- # of Instructions:
  - Instruction Types (1): BD/
  - Accumulators: 8
  - Index Registers: 32
  - I/O Communications (2): /BST
  - I/O Transfer Rate: Processor Features (3): RME/C Interface slots:

**SYSTEMS SOFTWARE (*)**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base System
- Other:

**FEATURES (*)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable Disk: 5444
- Fixed Head Disk: 5444
- Flexible Disk: 3741 Data Station
- Magnetic Tape: 3411-X
- Tape Cassette: N/A
- Line Printer: 1403-X
- Serial Printer: 3284, 3713
- Card Reader/Writer: 2501 RD, 1442 RD/WR
- Paper Tape Reader/Writer: N/A
- Display Terminal: 3277
- Multiplexer: Syn
- Terminals/System:
- Other: MCR 1255, OMR 3881

**SOFTWARE LANGUAGES (*)**
- ALP
- Algol
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- Other:

**MARKETING**
- Main Market: End User
- Units Sold:
- Maintenance: On Call
- Includes 48K CPU; #1403 Printer (465 LPM); #3277 Display Station; $5444 Disk and Cart Disk (4.9MB); #5424 Multifunction Card Unit (60-250 CPM).

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = B-isynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

220
INTRODUCED IN 1971, THE IBM 360/22 IS A SMALL TO MEDIUM-SCALE GENERAL PURPOSE COMPUTER. THE MODEL 22 IS A LOW-COST VERSION OF THE 360/30. IT IS UPWARD COMPATIBLE WITH THE SERIES 360, AND HAS A MULTIPLEX CHANNEL, SELECTOR CHANNEL AND DECIMAL ARITHMETIC AS STANDARD FEATURES. ONE LOW-SPEED AND ONE HIGH-SPEED I/O DEVICE CAN BE HANDED CONCURRENTLY. SEVERAL OPERATING SYSTEMS AND MANY SOFTWARE APPLICATIONS PROGRAMS ARE AVAILABLE.

APPLICATION

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS

* REMOVABLE DISK: 2311
* FIXED HEAD DISK: N/A
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: 2415,2401,341X,3420
* TAPE CASSETTE: N/A
* LINE PRINTER: 1443,1403,3211
* SERIAL PRINTER: 3284,3286
* CARD READER: 1442,25XX
* PAPER TAPE READER: 1017,1018,2671
* DISPLAY TERMINAL: 22X0,327X
* MULTIPLEXOR: 8 CONTROL UNITS
* TERMINALS/SYSTEM: 370X COMM CONTROLLER

SOFTWARE LANGUAGES

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD: ON CALL
INCLUDES CPU; #1440 CARD READ/PUNCH (400CPH, 160 CPS); #1443 PRINTER (240 LPM).

PRICES

COMPUTER: $522 MFR #2022
SYSTEM: $103400, 24K
MEMORY:
INCLUDES CPU; #1440 CARD READ/PUNCH (400CPH, 160 CPS); #1443 PRINTER (240 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1968, THE MODEL 25 IS A SMALL TO MEDIUM-SCALE, GENERAL PURPOSE
COMPUTER UPWARD COMPATIBLE WITH THE OTHER MEMBERS OF THE SYSTEM/360 SERIES.
SELECTED I/O DEVICES CAN BE DIRECTLY CONNECTED TO THE PROCESSOR VIA INTEGRATED
I/O ATTACHMENTS. ONE OPTIONAL SELECTOR OR MULTIPLEXER CHANNEL MAY ALSO BE
ATTACHED. SOFTWARE SUPPORT INCLUDES VARIOUS OPERATING SYSTEMS AND MANY APPLI-
CATIONS PACKAGES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 8 BITS
MEMORY: 16 TO 48K
CYCLE TIME: .9 USEC
ADD TIME: 47 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 94/136
INSTRUCTION TYPES (1): BDEPM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ABRT/
I/O TRANSFER RATE: 64K
PROCESSOR FEATURES (3): BCFRME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR DOS/360
* REAL TIME MTR
T/S MONITOR
* BASH MNT
* DATA BASE SYS
OTHER: BOS/360,TOS/360

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Spec, N/A)
REMOVABLE DISK: 2311
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 2401,2415,3410,3411
TAPE CASSETTE: N/A
LINE PRINTER: 1401,1441
SERIAL PRINTER: 3284,3286
CARD ED.PN: 1442;25XX
PAPER TAPE RD.PN: 1017,1018,2611
DISPLAY TERMINAL: 2260,2265,327X
MULTIPLEXOR: 8 CONTROL UNITS
TERMINALS/SYSTEM:
OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTH
* PLI
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 16K CPU; #1052 PRINTER-KEYBOARD; #2540 CARD READ/PUNCH (1000 CPM, 300
CPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisyynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

222  COMPUTER REVIEW 1978/No. 1
©Copyright GML Corporation
INTRODUCED IN 1964, THE IBM 360/30 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER. THE 360/30 HAS TWICE THE MAIN MEMORY CAPACITY, FASTER CYCLE AND ADD TIMES, AND A GREATER NUMBER OF COMMUNICATIONS CHANNELS THAN THE 360/22. SEVERAL OPERATING SYSTEMS AND MANY SOFTWARE APPLICATIONS PROGRAMS ARE AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 24 TO 64K</td>
</tr>
<tr>
<td>CYCLE TIME: 1.5 USEC</td>
</tr>
<tr>
<td>ADD TIME: 30 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 139</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEPM/</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABD/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 170+KB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCFRME/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR DOS/360</td>
</tr>
<tr>
<td>* REAL TIME ENTR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: BGS/360, TGS/360</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USE MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: 231X</td>
</tr>
<tr>
<td>FIXED HEAD DISK: 24XX, 34XX, 2420</td>
</tr>
<tr>
<td>FLEXIBLE DISK: M/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 2420</td>
</tr>
<tr>
<td>TAPE CASSETTE: M/A</td>
</tr>
<tr>
<td>LINE PRINTER: 1443, 1403, 3211</td>
</tr>
<tr>
<td>SERIAL PRINTER: 3284, 3286</td>
</tr>
<tr>
<td>CARD READER: 1442, 25XX</td>
</tr>
<tr>
<td>PAPER TAPE READER: 1017, 1018, 2671</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 22X0, 32X</td>
</tr>
<tr>
<td>MULTIPLEXOR: 8 CONTROL UNITS</td>
</tr>
<tr>
<td>TERMINALS/SYSTEMS:</td>
</tr>
<tr>
<td>OTHER: 370X COMM CONTROLLER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
</tr>
<tr>
<td>* ALGOL</td>
</tr>
<tr>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
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<tr>
<td>* PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR $2030</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $153,500</td>
</tr>
</tbody>
</table>

INCLUDES CPU; #1442 CARD READER/PUNCH (400 CPM, 160 CPS); #1443 PRINTER (240 LPM).
IBM: 360/40

Introduced in 1964, the IBM Model 40 is a medium-scale, general purpose computer that is compatible with models 22, 30, 50, 65, and 75 of the System/360. The Model 40 features a multiplexer channel as standard on up to two selector channels as optional equipment. One low-speed and one EGH-speed I/O device can be handled concurrently. Software support includes several operating systems and numerous applications packages.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 32 to 262K</td>
</tr>
<tr>
<td>CYCLE TIME: 2.5 USEC</td>
</tr>
<tr>
<td>ADD TIME: 11.88 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td>* CF INSTRUCTIONS: 136</td>
</tr>
<tr>
<td>* INSTRUCTION TYPES (1): BDFM/</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABD/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 0.8MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCFRME/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEMBLER</td>
</tr>
<tr>
<td>* DISK MONITOR DOS/360</td>
</tr>
<tr>
<td>* REAL TIME NWSB</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATABASE SYSTEMS</td>
</tr>
<tr>
<td>OTHER: BOS/360, TOS/360, OS/MFT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR $2040</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $250200</td>
</tr>
<tr>
<td>INCLUDES 32K CPU; $1442 CARD READ/PUNCH (400 CPM, 16 CPS); $1443 PRINTER (240 LPM).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: 231X</td>
</tr>
<tr>
<td>FIXED HEAD DISK: 2303</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 24X, 34X</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: 1403-04, 1403, 3211</td>
</tr>
<tr>
<td>SERIAL PRINTER: 3284, 3286</td>
</tr>
<tr>
<td>CARD ED., FD.</td>
</tr>
<tr>
<td>PAPER TAPE ED., FD.</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 22X0, 22X5, 327X</td>
</tr>
<tr>
<td>MULTIPLEXOR: 8 CONTROL UNITS</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: 370X COMM CONTROLLER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
</tr>
<tr>
<td>* ALGOL</td>
</tr>
<tr>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL</td>
</tr>
<tr>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* PL1</td>
</tr>
<tr>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multislot Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1964, THE IBM MODEL 50 IS A GENERAL PURPOSE COMPUTER THAT IS COMPATIBLE WITH MODELS 22, 30, 40, 65 AND 75 OF THE SYSTEM/360. THE MODEL 50 FEATURES A MULTIPLEXER CHANNEL AS STANDARD AND UP TO THREE SELECTOR CHANNELS AS OPTIONAL EQUIPMENT. ONE LOW-SPEED AND ONE HIGH-SPEED I/O DEVICE CAN BE HANDLED CONCURRENTLY. SOFTWARE SUPPORT INCLUDES SEVERAL OPERATING SYSTEMS AND NUMEROUS APPLICATION PACKAGES.

**APPLICATION**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 8 BITS
- MEMORY: 131 TO 524K
- CYCLE TIME: 2 USEC
- ADD TIME: 4 USEC
- CACHE MEMORY: N/A
- OF INSTRUCTIONS: 136
- INSTRUCTION TYPES (1): BDEFM/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABD/
- I/O TRANSFER RATE: 1MB
- PROCESSOR FEATURES (3): BCFRME/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS/360
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: OS/MFT,OS/EVT,TOS/360,BOS/36

**PRICES**

- COMPUTER: $SEE MP #2050
- MEMORY: $571,000
- INCLUDES 13K CPU; #2415 MAG TAPE UNIT AND CONTROL (15KB, 800 BPI); #144) PRINTER:
- (240 LPM).

**FEATURES**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: 231X
- FIXED HEAD DISK: 2303
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 241X,34XX
- TAPE CASSETTE: N/A
- LINE PRINTER: 1403-04,1443,3211
- SERIAL PRINTER: 3284,3286
- CARD RD,PN: 1442,145X
- PAPER TAPE RD,PN: 1017,1018,2671
- DISPLAY TERMINAL: 22X0,2265,327X
- MULTIPLEXOR: 8 CONTROL UNITS
- TERMINALS/SYSTEM:
- OTHER: 370X COMM CONTROLLER

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL
- 1978/No. 1

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**COMMUNICATIONS:**

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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INTRODUCED IN 1965, THE IBM MODEL 65 IS A LARGE-SCALE, GENERAL PURPOSE COMPUTER COMPATIBLE WITH MODELS 22, 30, 40, 50, 75, AND 195 OF THE SYSTEM/360. THE MODEL 65 HAS THE ABILITY TO FUNCTION AS A MULTIPROCESSOR SYSTEM. IT CAN HAVE UP TO SEVEN I/O CHANNELS WITH ARIOUS COMBINATIONS OF SELECTOR AND MULTIPLEXER CHANNELS AVAILABLE. NUMEROUS SOFTWARE APPLICATION PACKAGES AND OPERATING SYSTEMS ARE AVAILABLE.

**APPLICATION(*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 8 BITS
- MEMORY: 262 TO 2097K
- CYCLE TIME: .75 USEC
- ADD TIME: 1.4 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 136
- INSTRUCTION TYPES (1): BDEPM /
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABD /
- I/O TRANSFER RATE: 1.3MB
- PROCESSOR FEATURES (3): BCFRME /
- INTERFACE SLOTS: 

**SYSTEMS SOFTWARE(*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS/360
- REAL TIME MTR
- T/S MTRor
- BATCH MONITOR
- DATA BASE SYS
- OTHER: OS/MFT,OS/MFT,205/360, DOS/36

**PRICES**

- COMPUTER: $520,000 #3165
- MEMORY: $117,250

INCLUDES 262K CPU; #2365 PROCESSOR STORAGE; #2860 SELECTOR CHANNEL; MAGNETIC TAPE UNIT AND CONTROL (15KB, 800 BPI); PRINTER (240 LPM).

**FEATURES(*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: 231X
- FIXED HEAD DISK: 2301,2303
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 2401,2415,2420,3420
- TAPE CASSETTE: N/A
- LINE PRINTER: 1403,1443,3211
- SERIAL PRINTER: 3284,3286
- CARD RD,PN: 1442;25XX
- PAPER TAPE RD,PN: N/A;N/A
- DISPLAY TERMINAL: 2210,2265,3271
- MULTIPLEXOR: 8 CONTROL UNITS
- TERMINALS/SYSTEM:
- OTHER: 370X COMM CONTROLLER

**SOFTWARE LANGUAGES(*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:

- **A** = Asynchronous
- **B** = Bisynchronous
- **D** = Direct Memory Access
- **M** = Multiplex Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES

- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
INTRODUCED IN 1965, THE IBM MODEL 67 IS A LARGE-SCALE COMPUTER SYSTEM DESIGNED FOR TIME SHARING APPLICATIONS. OPTIONAL FEATURES INCLUDE MULTI-STORAGE AND MULTI-CHANNEL SWITCHING CAPABILITIES WITH DUAL PROCESSOR CONFIGURATIONS. EXTENSIVE SOFTWARE SUPPORT IS AVAILABLE.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 262 TO 1048kB
CYCLE TIME: .75 USEC
ADD TIME: 1.6 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 136
INSTRUCTION TYPES (1): BDEFM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ABD/
I/O TRANSFER RATE: 1.3MB
PROCESSOR FEATURES (3): BCDFRME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS/360
- REAL TIME MTR
- T/S MONITOR TSS/360
- BATCH MONITOR
- DATA BASE SYS
OTHER: TOS,BOS,OS(MVT,MPT),CP/67

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 231X
FIXED HEAD DISK: 2301,2303
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 2401,2415,2420,3420
TAPE CASSETTE: N/A
LINE PRINTER: 1403,1443,3211
SERIAL PRINTER: 3284,3286
CARD READER/WRITER: 2442,2501,25XX
PAPER TAPE READER/WRITER: 2822,2671
DISPLAY TERMINAL: 2560,2565,327K
MULTIPLEXOR: YES
TERMINALS/SYSTEM:
OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $SEE MFR #2067
MEMORY:
SYSTEM: $1254175
INCLUDES 262K CPU; #2365 PROCESSOR STORAGE; #1052 PRINTER-KEYBOARD; #2860 SELECTOR CHANNEL.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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COMPUTER REVIEW
1978/No.1
227
**APPLICATION (**)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

- Word Size: 8 Bits
- Memory: 262 to 1048K
- Cycle Time: .75 usec
- Add Time: .7 usec
- Cache Memory: N/A
- # of Instructions: 136
- Instruction Types (1): BDFNM/
- Accumulators: 16
- Index Registers: 16
- I/O Communications (2): ABDC/
- I/O Transfer Rate: 1.5MB
- Processor Features (3): BCFRME/
- Interface Slots:

**SYSTEMS SOFTWARE (**)**

- Assembler
- Macro Assem
- Disk Monitor DOS/360
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: OS/MT, OS/MFT, TOS/360, BOS/360

**PRICES**

- Computer: $SEE MPR #2075
- Memory: System: $1492100

**FEATURES (**)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**

- Removable Disk: 231X
- Fixed Head Disk: 2301, 2303
- Flexible Disk: N/A
- Magnetic Tape: 2401, 2415, 2420, 3420
- Tape Cassette: N/A
- Line Printer: 1403, 1443, 3211
- Serial Printer: 3284, 3286
- Card RDR, PN: 1442; 25XX
- Paper Tape RDR, PN: N/A; N/A
- Display Terminal: 22X0, 2265, 327X
- Multiplexor: 8 Control Units
- Terminals/System:
- Other: 370X Comm Controller

**SOFTWARE LANGUAGES (**)**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**

- Main Market: End User
- Units Sold:
- Maintenance: On Call

Includes 262K CPU; 2365 Processor Storage; #2860 Selector Channel; Mag Tape
Unit and Control (15KB, 800 BPI); Printer (240 LPM).

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1968, THE IBM SYSTEM 360, MODEL 195 IS A LARGE-SCALE, GENERAL PURPOSE COMPUTER COMPATIBLE WITH MODELS 22, 30, 40, 50, 65, AND 75 OF SYSTEM./360. MODEL 195 FEATURES PRECISION FLOATING POINT ARITHMETIC AND CAN HAVE UP TO SEVEN I/O CHANNELS WITH VARIOUS COMBINATIONS OF SELECTOR, MULTIPLEXOR, AND BLOCK MULTIPLEXOR CHANNELS. VARIOUS OPERATING SYSTEMS AND NUMEROUS SOFTWARE APPLICATION PACKAGES ARE AVAILABLE.

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES(*)
* UPGRADE COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
* REMOVABLE DISK: 333X, 3630, 231X
* FIXED READ DISK: 230X
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: 2401, 2420, 3420
* TAPE CASSETTE: N/A
* LINE PRINTER: 1403, 1443, 3211
* SERIAL PRINTER: 3284, 3286
* CARD RD, PN: 1442, 25XX, 35X5, 2540
* PAPER TAPE RD, PN: N/A, N/A
* DISPLAY TERMINAL: 22X0, 2265, 327X
* MULTIPLEXOR: 8 CONTROL UNITS
* TERMINALS/SYSTEM:
* OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER:

MARKETING
* MAIN MARKET: END USER
* UNITS SOLD:
* MAINTENANCE: ON CALL

PRICES
* COMPUTER: $SEE MFR, 1048K $3195
* MEMORY:
  SYSTEM: $4715700, 1048K
  INCLUDES 1048K CPU, #2860 SELECTOR CHANNEL, #3060 CONSOLE, #1442 PRINTER, #1442 CARD RD/PN.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bia synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW
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229
INTRODUCED IN 1973, THE IBM 370/115 IS A MEDIUM-SCALE GENERAL PURPOSE COMPUTER UPWARD COMPATIBLE WITH THE OTHER MEMBERS OF THE IBM 370 SERIES. FEATURES INCLUDE A WRITABLE CONTROL STORE. SELECTED I/O DEVICES CAN BE ATTACHED DIRECTLY TO THE PROCESSOR VIA INTEGRATED ATTACHMENTS. ADDITIONAL PERIPHERALS MAY ALSO BE CONNECTED VIA AN OPTIONAL MULTIPLEXOR CHANNEL. SOFTWARE SUPPORT IS EXTENSIVE INCLUDING VARIOUS OPERATING SYSTEMS AND APPLICATIONS PACKAGES.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 8 BITS
- MEMORY: 64 TO 256K
- CYCLE TIME: 480 USEC
- ADD TIME: 14.5 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTION TYPES (1): BDEFN/
- ACCUMULATOR(S): 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABDMT/
- I/O TRANSFER RATE: .029MB
- PROCESSOR FEATURES (3): BCDFRNMKE/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS/VS
- REAL TIME RTE
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**

- COMPUTER: $97700, 65K $3115
- MEMORY: $238800, 65K
- SYSTEM INCLUDES CPU; #3340 DISK AND CONTROL; 2 #3348 DATA MODULES; #1442 CARD ED/PN;
- #5248 MULTIPLEXOR CHANNEL; #1443 PRINT- EE.

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Bistynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**APPLICATION**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)
- WORD SIZE: 8 BITS
- MEMORY: 64 to 256K
- CYCLE TIME: .480 USEC
- ADD TIME: 9.8 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 165
- INSTRUCTION TYPES (1): BDFM/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABDMT/
- I/O TRANSFER RATE: .029MB
- PROCESSOR FEATURES (3): BCDFPMK/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS/YS
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**FEATURES**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #:_specs. N/A)
- REMOVABLE DISK: 333k, 3340
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 3540 (READ/ WRITE)
- MAGNETIC TAPE: 3410, 3411
- TAPE CASSETTE: N/A
- LINE PRINTER: 3203, 1443, 1403
- SERIAL PRINTER: 3284, 3286
- CARD RD/PN: 35X5, 25X0, 1442
- PAPER TAPE RD/PN: 1017, 1016
- DISPLAY TERMINAL: 2260, 2265, 327X
- MULTIPLEXOR: 8 CONTROL UNITS
- TERMINALS/SYSTEM:
- OTHER: 370X COMM CONTROLLER

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

**PRICES**
- COMPUTER: $161300, 100K $3125
- MEMORY: $SEE MFR
- SYSTEM: $SEE MFR
- INCLUDES CPU: #3340 DISK AND CONTROL; 2 #3348 DATA MODULES; #1442 CARD RD/PN;
  #1443 PRINTER.

---

(1) **INSTRUCTIONS**:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS**:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**APPLICATION**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

- WORD SIZE: 8 BITS
- MEMORY: 96 TO 524K
- CYCLE TIME: .275-.1,485 USEC
- ADD TIME: 4.2 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 163
- INSTRUCTION TYPES (1): BDEPM/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABDMNT/
- I/O TRANSFER RATE: 2.6MB
- PROCESSOR FEATURES (3): BCDFRMK/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR DOS, DOS/VS
- REAL TIME MTR
- T/S MONITOR
- BASH MONITOR
- DATA BASE SYS
- OTHER: OS/VS1, OS/VT, VH/370

**FEATURES**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: 231X, 333X, 3630
- FIXED HEAD DISK: 2303
- FLEXIBLE DISK: 3540 (READ, WRITE)
- MAGNETIC TAPE: 24X, 34X
- TAPE CASSETTE: N/A
- LINE PRINTER: 3211, 14X3
- SERIAL PRINTER: 3210, 3215, 3284, 3286
- CARD ED/PW: 1442, 35X5, 25X
- PAPER TAPE ED/PW: 1017, 1018
- DISPLAY TERMINAL: 2260, 2265, 327X
- MULTIPLEXOR: 8 CONTROL UNITS
- TERMINALS/SYSTEM:
- OTHER: 370X COMM CONTROLLER

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTHAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL
- INCLUDES 96K CPU; #3046 POWER UNIT; #3210 CONSOLE AND ADAPTER; #1442 CARD ED/PW;
- #3340 DISK DRIVE ADAPTER AND 2 #3348 DATA MODULES; 2 MAG TAPE UNITS.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE IBM 370/138 IS A MEDIUM-TO-LARGE SCALE, VIRTUAL MEMORY, GENERAL PURPOSE COMPUTER DESIGNED TO OPERATE UNDER THE VM/370 OPERATING SYSTEM. IT FEATURES 500KB OF 1MB OF MEMORY, A .275 TO 1.485 USEC CYCLE TIME, A #3203 LINE PRINTER, AND A SYNCHRONOUS DATA LINK. THE TWO VERSIONS ARE THE MODEL 138I (500KB OF MEMORY) AND MODEL 138J (1MB OF MEMORY). A VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
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<th>FEATURES (*)</th>
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<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* MULTIPROCESSOR</td>
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</tbody>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
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<tbody>
<tr>
<td>W/ SIZE: 8 256</td>
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<tr>
<td>MR: 500 TO 1000K</td>
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<tr>
<td>CYCLE TIME: .275 TO 1.485 USEC</td>
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<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 165</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFIN/</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABT/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCD/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
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<tr>
<td>* MACRO ASSEM</td>
</tr>
<tr>
<td>* DISK MONITOR DOS, DOS/VS</td>
</tr>
<tr>
<td>* REAL TIME MNTR</td>
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<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
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<tr>
<td>* DATA BASE SYS</td>
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<tr>
<td>OTHER: OS/VS, OS/VM/370</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $350000, 500K #1</td>
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<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $NONE</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: 231X, 333X, 535U</td>
</tr>
<tr>
<td>FIXED HEAD DISK: 2303</td>
</tr>
<tr>
<td>FLEXIBLE DISK: 3540 (READ, WRITE)</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 24XX, 34XX</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: 3211, 14X3, 3203</td>
</tr>
<tr>
<td>SERIAL PRINTER: 3284, 3286</td>
</tr>
<tr>
<td>CARD RD/WD: 1442, 3555, 25X</td>
</tr>
<tr>
<td>PAPER TAPE RD/WD: 1017, 1018</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 2260, 2265, 327X</td>
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<tr>
<td>MULTIPLEXOR: 8 CONTROL UNITS</td>
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<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: 370X COMM CONTROLLER</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
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<tr>
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<tr>
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<tr>
<td>* MULTI BASIC</td>
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<tr>
<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
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<td>* PLI</td>
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<td>* RPG</td>
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<td>OTHER:</td>
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<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
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</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1970, THE IBM MODEL 145 IS A MEDIUM-SCALE, VIRTUAL STORAGE COMPUTER SYSTEM DESIGNED FOR COMMERCIAL AND SCIENTIFIC APPLICATIONS. THE MODEL 145 IS UPWARD COMPATIBLE FROM THE SERIES 360 AND COMPATIBLE WITH THE SERIES 370. MULTIPLEXER AND SELECTOR CHANNELS ARE STANDARD AND UP TO THREE ADDITIONAL SELECTOR CHANNELS MAY BE APPLIED. EXTENSIVE SOFTWARE SUPPORT IS AVAILABLE INCLUDING SEVERAL OPERATING SYSTEMS AND A WIDE VARIETY OF APPLICATIONS PACKAGES.

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 8 BITS
MEMORY: 163 TO 2097K
CYCLE TIME: .2025/.315 USEC
ADD TIME: 2.1 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 165
INSTRUCTION TYPES (1): 8 DEFN/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ADOM/
I/O TRANSFER RATE: 1.65MB
PROCESSOR FEATURES (3): BCDFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE(*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR DOS/VS, DOS
* REAL TIME MNTR
  T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: OS/VS1, OS/VS2, OS/HVT, OS/HVT

PRICES
COMPUTER: $534700, 163K #3145
SYSTEM: $825300
INCLUDES 163K CPU; #1442 CARD READ/PUNCH; #3210 CONSOLE PRINT;
#2314 DISK CONTROL; TWO MAG TAPE DRIVES.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 231X, 333X, 3830
FIXED HEAD DISK: 2303, 2305
FLEXIBLE DISK: 3540 (READ, WRITE)
MAGNETIC TAPE: 24XX, 34XX
TAPE CASSETTE: N/A
LINE PRINTER: 3211, 14X3
SERIAL PRINTER: 3210, 3215, 3284, 3286
CARD ED, PN: 1442, 35X5, 25X5
PAPER TAPE ED, PN: 1017, 1018, 2896
DISPLAY TERMINAL: 2260, 2265, 327X
MULTIPLEXOR: 8 CONTROL UNITS
TERMINALS/SYSTEM:
OTHER: 370X CONA CONTROLLE

SOFTWARE LANGUAGES(*)
* APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

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APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 1000 TO 2000K
CYCLE TIME: .18 TO .27 USEC
ADD TIME:
CACHE MEM: N/A
# OF INSTRUCTIONS: 165
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ADBM/
I/O TRANSFER RATE: 1.65MB
PROCESSOR FEATURES (3): BCDFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR DOS/V, DOS
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: OS/VS1, OS/VS2, OS/MFT, OS/MVT

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 231X, 333X, 3630
FIXED HEAD DISK: 230X, 320X
FLEXIBLE TAPE DISK: 3540 (READ/WRIT)
MAGNETIC TAPE: 24X2, 34X2
TAPE CASSETTE: N/A
LINE PRINTER: 3211, 14X3, 3203
SERIAL PRINTER: 3284, 3286
CARD RD, PN: 1442, 351X, 25X
PAPER TAPE RD, PN: 1017, 1018, 2896
DISPLAY TERMINAL: 2260, 2265, 327X
MULTIPLEXOR: 8 CONTROL UNITS
TERMINALS/SYSTEM:
OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $689000, 1000X #J
MEMORY:
SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = B asynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
IBM: 370/155

INTRODUCED IN 1970, THE IBM MODEL 155 IS A LARGE-SCALE, GENERAL PURPOSE SYSTEM, UPWARD COMPATIBLE WITH THE SERIES 360. A BYTE MULTIPLEXER CHANNEL AND TWO BLOCK MULTIPLEXER CHANNELS ARE STANDARD. UP TO THREE ADDITIONAL BLOCK MULTIPLEXER CHANNELS CAN BE APPLIED. EXTENSIVE SOFTWARE INCLUDES SEVERAL OPERATING AND MANY APPLICATIONS PACKAGES.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
<tr>
<td>COMPUTER (Std/Opt. N/A)</td>
<td></td>
</tr>
<tr>
<td>WORD SIZE: 8 BITS</td>
<td>PERIPHERALS (Model #, Specs, N/A)</td>
</tr>
<tr>
<td>MEMORY: 262 TO 2097K</td>
<td>REMOVABLE DISK: 231X, 333X, 3340</td>
</tr>
<tr>
<td>CYCLE TIME: 2.1 USEC</td>
<td>FIXED HEAD DISK: 2303, 2305</td>
</tr>
<tr>
<td>ADD TIME: .99 USEC</td>
<td>FLEXIBLE DISK: 3540 (READ, WRITE)</td>
</tr>
<tr>
<td>CACHE MEMORY: 8KB, 60NS</td>
<td>MAGNETIC TAPE: 24XX, 34XX</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 159</td>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEPM/</td>
<td>LINE PRINTER: 3210, 3215, 3284, 3286</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
<td>SERIAL PRINTER: 3210, 3215, 3284, 3286</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
<td>CABD RD/PN: 1442, 35X5, 25XX</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABDM/</td>
<td>PAPER TAPE RD/PN: 1017, 1018, 20X6</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1.5MB</td>
<td>DISPLAY TERMINAL: 2260, 2265, 327X</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDFROM/</td>
<td>MULTIPLEXOR: 8 CONTROL UNITS</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>SYSTEMS SOFTWARE (*)</td>
<td>OTHER: 370X COMM CONTROLLER</td>
</tr>
<tr>
<td>* ASSEMBLER</td>
<td>SOFTWARE LANGUAGES (*)</td>
</tr>
<tr>
<td>* MACRO ASSEM MVS, SYS</td>
<td>* APL</td>
</tr>
<tr>
<td>* DISK MONITOR DOS/VSSYS</td>
<td>ALGOL</td>
</tr>
<tr>
<td>* REAL TIME NTR</td>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>T/S MONITOR</td>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>OTHER: OS/VS1, OS/VS2, OS/NVT, OS/NFT</td>
<td></td>
</tr>
</tbody>
</table>

PRICES

COMPUTER: $1017300, 262K #3155
MEMORY:
SYSTEM: $1240300
INCLUDES 262K CPU; #3360 PROCESSOR STORAGE; #3210 CONSOLE PRINTER; #1442 CARD RD/PN (400 CPM/160 CPS); #1443 PRINTER (240 LPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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236 1978/No. 1 COMPUTER REVIEW
IBM: 370/158


APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS/PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 524 TO 4194K
CYCLE TIME: .69-1.035 USEC
ADD TIME: .8 USEC
CACHE MEMORY: 8KB
# OF INSTRUCTIONS: 159
INSTRUCTION TYPES (1): BDEPM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ABDE/!
I/O TRANSFER RATE: 1.5MB
PROCESSOR FEATURES (3): BCDFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR DOS/VS
- REAL TIME AUT
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
OTHER: OS/HVT, OS/HFT, OS/VS1, OS/VS2

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 231X, 333X, 3340
FIXED HEAD DISK: 2303, 2305
FLEXIBLE DISK: 3540
MAGNETIC TAPE: 24XX, 34XX
TAPE CASSETTE: N/A
LINE PRINTER: 3211, 14X3
SERIAL PRINTER: 3284, 3286
CARD RD/PN: 1442, 35X5, 25X1
PAPER TAPE RD/PN: 1017; 1018
DISPLAY TERMINAL: 2260, 2265, 3271
MULTIPLEXOR: 8 CONTROL UNITS
TERMINALS/SYSTEM:
OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 524K CPU; #3213 PRINTER (85 CPS); #7840 PRINTER ATTACHMENT; #1442 CARD READ/PUNCH (400 CPS, 160 CPS).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bivaurchonic
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW
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237
INTRODUCED IN 1971, THE IBM MODEL 165 IS A LARGE-SCALE GENERAL PURPOSE SYSTEM, UPWARD COMPATIBLE WITH THE SERIES 360. UP TO SEVEN LOGICAL CHANNELS CAN BE ATTACHED PER CPU CONSISTING OF VARIOUS COMBINATIONS OF MULTIPLEXER AND SELECTOR CHANNELS. EXTENSIVE SOFTWARE INCLUDES SEVERAL OPERATING SYSTEMS AND MANY APPLICATIONS PACKAGES.

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
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</thead>
<tbody>
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<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 524 TO 3185K</td>
</tr>
<tr>
<td>CYCLE TIME: 2 USEC</td>
</tr>
<tr>
<td>ADD TIME: .16 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB, 80NS</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 159</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFM/ACCUCLAMATOR: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABDM/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 3MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDFREMK/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE(*)</th>
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<tbody>
<tr>
<td>* ASSEMLER</td>
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<tr>
<td>* MACRO ASSEM MYN, SYS</td>
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<tr>
<td>* DISK MONITOR DOS/VS</td>
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<tr>
<td>* REAL TIME MTR</td>
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<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER: OS/VS1, OS/VS2, OS/VTOS/VT</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $1814600 #3165</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $2772600</td>
</tr>
<tr>
<td>INCLUDES 524K CPU; TWO $3360 PROCESSOR STORAGE; CONSOLE; PRINTER; CARD READER/-PUNCHER.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: 231X, 333X, 3340</td>
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<tr>
<td>FIXED HEAD DISK: 230X</td>
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<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 24V1, 24V1, 24V2, 3420</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: 3211, 14X3</td>
</tr>
<tr>
<td>SERIAL PRINTER: 3284, 3286</td>
</tr>
<tr>
<td>CARD RD, FN: 1442, 3515, 25XX</td>
</tr>
<tr>
<td>PAPER TAPE RD, FN: 1017, 1018, 2896</td>
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<tr>
<td>DISPLAY TERMINAL: 2260, 2265, 327X</td>
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<tr>
<td>MULTIPLYOR: 8 CONTROL UNITS</td>
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<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: 370X COMM CONTROLLER</td>
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</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
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<tr>
<td>* ALGOL</td>
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<tr>
<td>* SINGLE BASIC</td>
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<td>* MULTI BASIC</td>
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<td>* COBOL</td>
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<td>* FORTRAN</td>
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<td>* PLI</td>
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<tr>
<td>* RPG</td>
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<tr>
<td>OTHER:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1972, THE IBM MODEL 168 IS A LARGE-SCALE, GENERAL PURPOSE COMPUTER. IT IS UPWARD COMPATIBLE WITH S/360 MODELS 22 TO 195 AND SERIES 370 MODELS 135, 145, 156. A DUAL PROCESSOR VERSION OF THE MODEL 168 IS AVAILABLE. UP TO SEVEN CHANNELS CONSISTING OF COMBINATIONS OF SELECTOR, MULTIPLEXER AND BLOCK MULTIPLEXER CHANNELS CAN BE ATTACHED. EXTENSIVE SOFTWARE INCLUDES SEVERAL OPERATING SYSTEMS AND MANY APPLICATIONS PACKAGES.

**APPLICATION**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt. N/A)
- WORD SIZE: 8 BITS
- MEMORY: 1048 TO 8388K
- CYCLE TIME: .48 USEC
- ADD TIME: .15 USEC
- CACHE MEMORY: 16KB, 80NS
- # OF INSTRUCTIONS: 159
- INSTRUCTION TYPES (1): BDEFPM/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ABD/
- I/O TRANSFER RATE: 3MB
- PROCESSOR FEATURES (3): BCDPRMRK/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE**
- ASSEMBLER
- MACRO ASSEMBLY VSYS, SYS
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: OS/VS1, OS/VS2, OS/MVT, OS/MPT

**PRICES**
- COMPUTER: $2094500, 1000K #3168
- MEMORY:
- SYSTEM: $3671600
- INCLUDES 104K CPU; CONSOLE; PRINTER; CARD READER.

**FEATURES**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs. N/A)
- REMOVABLE DISK: 231X, 333X, 3340
- FIXED HEAD DISK: 230X
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 2041, 2415, 2420, 3420
- TAPE CASSETTE: N/A
- LINE PRINTER: 3211, 14X3
- SERIAL PRINTER: 3284, 3286
- CARD READER, P1: 1442, 35X5, 25X
- PAPER TAPE READER: 1017, 1018, 2896
- DISPLAY TERMINAL: 2260, 2265, 327X
- MULTIPLEXOR: 8 CONTROL UNITS
- TERMINALS/SYSTEM:
- OTHER: 370X COMM CONTROLLER

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Arithmetic
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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INTRODUCED IN 1971, THE MODEL 195 IS A LARGE-SCALE SYSTEM FOR USE IN LARGE BUSINESS AND INSTITUTIONAL DATA CENTERS IN ANY FIELD. UP TO SEVEN SELECTOR AND/OR MULTIPLEXOR CHANNELS MAY BE ATTACHED WITH AT LEAST ONE REQUIRED. SEVERAL OPERATING SYSTEMS AND A WIDE RANGE OF APPLICATIONS SOFTWARE ARE AVAILABLE. A BASIC COMPUTER INCLUDES A CPU WITH 1024K MEMORY, CONSOLE, HARD COPY OUTPUT DEVICES, CARD READER AND PUNCHER, SELECTOR CHANNEL, POWER UNIT, POWER DISTRIBUTION UNIT, COOLANT DISTRIBUTION UNIT, AND MOTOR GENERATOR SET.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 8 BITS
MEMORY: 1048 TO 4194K
CYCLE TIME: .756 USEC
ADD TIME: .054 USEC
CACHE MEMORY: 32KB, 54NS
# OF INSTRUCTIONS: 136
INSTRUCTION TYPES (1): BDEFM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ABD/
I/O TRANSFER RATE: 1.5MB
PROCESSOR FEATURES (3): BCFRME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEMBLY SYS.
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: OS/VS1, OS/HVT, OS/MPT

PRICES

COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $4819710
INCLUDES 1048K CPU; CONSOLE; #1443 PRINTER; #1442 CARD READER/PUNCHER.

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 333X, 3830, 231X
FIXED HEAD DISK: 230X
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 2401, 2420, 3420
TAPE CASSETTE: N/A
LINE PRINTER: 1403, 1443, 3211
SERIAL PRINTER: 3264, 3286
CARD RD, PW: 1442, 25X1, 35X5
PAPER TAPE RD, PW: N/A
DISPLAY TERMINAL: 2210, 2265, 327X
MULTIPLEXOR: 8 CONTROL UNITS
TERMINALS/SYSTEM:
OTHER: 370X COMM CONTROLLER

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNIT SOLD: 
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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INTRODUCED IN 1977, THE IBM 3031 IS A MEMBER OF THE IBM 30 SERIES OF 8-BIT PROCESSORS DESIGNED FOR A VARIETY OF COMMERCIAL AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE FOUR-WAY INTERLEAVING, 2 TO 6 MEGABYTES IN MAIN MEMORY, UPGRADEABLE IN 1 MEGABYTE INCREMENTS, 32K BUFFER STORAGE, A MEMORY CYCLE TIME OF 345 TO 805 NSEC, A MACHINE CYCLE TIME OF 115 NSEC, 6 BUILTIN CHANNELS, INSTRUCTION PRE-FETCHING DONE BY FIRMWARE IN SEPARATE BUFFERS, AND COMPATIBILITY WITH THE IBM 370 SERIES. FIRST DELIVERIES ARE SCHEDULED FOR THE FIRST QUARTER OF 1978. A 4-YEAR LEASE AT $39,310/MONTH IS AVAILABLE.

**Application**

- Business/Commercial Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**Computer** (Std/Opt, N/A)

- Word Size: 8 Bits
- Memory: 2097 To 6291K
- Cycle Time: 115 Usec
- Add Time: 90 Usec
- Cache Memory:
  - # of Instructions: 128
  - Instruction Types (1): F/
  - Accumulators:
  - Index Registers:
  - I/O Communications (2): /
  - I/O Transfer Rate:
  - Processor Features (3): /
  - Interface Slots:

**Systems Software**

- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mnt
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: OS/VS1,0S/VS2,0S/HT,0S/HFT

**Prices**

- Computer: $830000
- Memory: $110000
- System: SEE MFR

**Features**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**Peripheral** (Model #, Specs, N/A)

- Removable Disk: 231X, 333X, 3540
- Fixed Head Disk: 2305
- Flexible Disk:
  - Magnetic Tape: 24X, 34X, 3420
  - Tape Cassette:
    - Line Printer: 1053, 1403, 32XX
    - Serial Printer:
      - Card, PN: 144X, 25XX, 35XX
      - Paper Tape, PN:
        - Display Terminal: 2250, 2260, 3277
        - Multiplexer: SYX, ASY
        - Terminals/Systems:
          - Other: Array Processor 3838

**Software Languages**

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran
- PLI
- RPG
- Other:

**Marketing**

- Main Market: End User
- Units Sold:
- Maintenance: On Call

---

1. Instructions:
   - B = Byte Manipulation
   - D = Decimal Arithmetic
   - E = Extended Precision
   - F = Floating Point
   - I = Indirect Addressing
   - M = Multiply & Divide
   - S = Stack Processing

2. I/O Communications:
   - A = Asynchronous
   - B = Bisynchronous
   - D = Direct Memory Access
   - M = Multiport Memory
   - S = Selectable Line Speeds
   - T = Autodial

3. Processor Features:
   - B = Base Address Relocation
   - C = Real Time Clock
   - D = Dynamic Page Relocation
   - E = Memory Parity Detect
   - F = Power Fail Safe
   - K = Memory Parity Correct
   - M = Memory Protection
   - R = Priority Interrupt
   - V = Vectored Interrupt

---

1978/No. 1  COMPUTER REVIEW  241
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**APPLICATION (*)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt, N/A)**
- Word Size: 8 Bits
- Memory: 2097 to 6192K
- Cycle Time: 1.00 usec
- Add Time:
- Cache Memory:
  - # of Instructions:
  - Instruction Types (1):
  - Accumulators:
  - Index Registers:
  - I/O Communications (2):
  - I/O Transfer Rate:
  - Processor Features (3):
  - Interface Slots:

**SYSTEMS SOFTWARE (*)**
- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base System
- Other: OS/VS1, OS/VS2, OS/VT, OS/HFT

**PRICES**
- Computer: $1590000, 6000K
- System: $522 MFR

**FEATURES (*)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- Use Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**
- Removable Disk: 231X, 333X, 3540
- Fixed Head Disk: 2305
- Flexible Disk:
- Magnetic Tape: 241X, 341X, 3420
- Tape Cassette:
- Line Printer: 1053, 1403, 32XX
- Serial Printer:
- Card Reader, Punch: 144X, 25XX, 35XX
- Paper Tape Reader, Punch:
- Display Terminal: 2259, 2269, 3277
- Multiplexers: 8 IN, 8 ON
- Terminals/System: ABFAY PROC.3838
- Other:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL-1
- RPG
- Other:

**MARKETING**
- Mail Basket: End User
- Units Sold:
- Maintenance: On Call

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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**IBM: 3033**

Introduced in 1977, the IBM 3033 is a member of the IBM 30 Series of 8-bit computers designed for a variety of commercial and scientific applications. Features include four-way memory interleaving, 4 to 8 megabytes in main memory, 64K buffer storage, a memory cycle time of 290 to 464 nsec, a machine cycle time of 58 nsec, 12 built in channels, and compatibility with the IBM 370 Series. The 3033 uses the same peripherals as the 370 models.

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER (Std/Opt, N/A)**
- WORD SIZE: 8 BITS
- MEMORY: 4096 TO 8192K
- CYCLE TIME:
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): 2PS/
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): /
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): Ek/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEM
- DISK MIRROR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**
- COMPUTER: $3070000, 4K
- MEMORY:
- SYSTEM: $SEE MFR

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: 231X, 333X, 3540
- FIXED HEAD DISK: 2305
- FLEXIBLE DISK:
- MAGNETIC TAPE: 24XX, 341X, 3420
- TAPE CASSETTE:
- LINE PRINTER: 1053, 1403, 32XX
- SERIAL PRINTER:
- CARD BD, PN: 144X, 25XX, 35XX
- PAPER TAPE BD, PN:
- DISPLAY TERMINAL: 2250, 2260, 3277
- MULTIPLEXOR: SYNC, ASYNC
- TERMINALS/SYSTEM:
- OTHER: ARRAY PROCESSOR 3638

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Biphase
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1971, THE ICL 4/72 IS A GENERAL PURPOSE, REAL TIME, MICROPROGRAMMED COMPUTER DESIGNED FOR LARGE-SCALE COMMERCIAL AND SCIENTIFIC APPLICATIONS. THE ICL 4/72 CPU FEATURES A MEMORY CAPACITY OF 1048K, SCRATCHPAD STORAGE, PARITY CHECK, STORE PROTECT, A 144 INSTRUCTION SET, MULTIPROGRAMMING, AND UP TO 56 PERIPHERALS. SOFTWARE SUPPORT INCLUDES ALGOL AND FORTRAN COMPILERS.

### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- WORD SIZE: 8 BITS
- MEMORY: 65 TO 1048K
- CYCLE TIME: .52 USEC
- ADD TIME: 1(32 BITS) USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 144
- INSTRUCTION TYPES (1): BENV/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): / I/O TRANSFER RATE: 4MB
- PROCESSOR FEATURES (3): BCDME/
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)
- assembler
- macro assem
- disk monitor
- real time mmtr
- t/s monitor
- batch monitor
- data base sys
- other:

### PRICES
- computer: $500 mfr
- memory:
- system: $500 mfr

### FEATURES (*)
- upward compatible
- field service
- application software
- conversational languages
- user microprogrammable
- factory microprogrammable
- virtual memory machine
- multiprocessor

### PERIPHERALS (Model #, SpecS, N/A)
- removable disk: 4425, 4440
- fixed head disk: 4430
- flexible disk: N/A
- magnetic tape: 445X, 4460
- tape cassette: N/A
- line printer: 4550
- serial printer: N/A
- card reader, pn: 451X, 4520
- paper tape reader, pn: N/A
- display terminal: N/A
- multiplexer: N/A
- terminals/system:
- other:

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- single basic
- multi basic
- COBOL
- FORTRAN
- PL/I
- RPG
- other:

### MARKETING
- main market:
- units sold:
- maintenance:

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1971, THE ICL 1904S IS A 24-BIT COMPUTER SYSTEM DESIGNED FOR LARGE-SCALE APPLICATIONS SUCH AS DATA BASE MANAGEMENT. IT INCORPORATES HARDWARE PROTECTION FEATURES, TO STRENGTHEN ITS SUITABILITY FOR DATA BASE SYSTEMS, WHERE BATCH PROCESSING AND COMMUNICATIONS TERMINAL ACTIVITY ARE CARRIED OUT SIMULTANEOUSLY. THE 1904S PROCESSOR HAS A MONOLITHIC MEMORY WITH A 500 NANOSECOND CYCLE TIME. A CHOICE OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL * COMMUNICATIONS PROCESSOR * INDUSTRIAL CONTROL LABORATORY/SCIENTIFIC * ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM BANKING SYSTEM DATA ENTRY SYSTEM</td>
<td>* UPWARD COMPATIBLE FIELD SERVICE * APPLICATION SOFTWARE * CONVERSATIONAL LANGUAGES USER MICROPROGRAMMABLE FACTORY MICROPROGRAMMABLE VIRTUAL MEMORY MACHINE MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
<th>PERIPHERALS (Model #, Specs. N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 24 BITS</td>
<td>REMOVABLE DISK: 28XX</td>
</tr>
<tr>
<td>MEMORY: 32 TO 524K</td>
<td>FIXED HEAD DISK: 1962</td>
</tr>
<tr>
<td>CYCLE TIME: .3 USEC</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>ADD TIME: 1.8 USEC</td>
<td>MAGNETIC TAPE: 197X, 250X</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 115</td>
<td>LINE PRINTER: 193X, 240X</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): FIM/</td>
<td>SERIAL PRINTER: 708X</td>
</tr>
<tr>
<td>ACCUMULATORS: 8</td>
<td>CASB RD, PN: 210X, 2151, 192X</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3</td>
<td>PAPER TAPE RD, PN: 7024, 7025</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): /</td>
<td>DISPLAY TERMINAL: 7181</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 6MB</td>
<td>MULTIPLEXOR: N/A</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CDRM/</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>OTHER:</td>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
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<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
<td>* ALGOL BABS</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>* REAL TIME MATR</td>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
<td>FORTRAN FORCON, FLAIR</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>PL/I</td>
</tr>
<tr>
<td>OTHER: GEORGE 3,4</td>
<td>* RPG</td>
</tr>
<tr>
<td></td>
<td>OTHER:</td>
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</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
<td>MAIN MARKET:</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $SEE MFR</td>
<td>MAINTENANCE:</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Arithmetic
F = Floating Point
I = Indirect Addressing
M = Multiply Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**ICL: 1906s**

**APPLICATION(**
* Business/Commercial
* Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

**FEATURES(**
* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

**COMPUTER (Std/Opt. N/A)**
- Word Size: 24 bits
- Memory: 32 to 524k
- Cycle Time: .3 usec
- Add Time: .6 usec
- Cache Memory: N/A
- # of Instructions: 115
- Instruction Types (1): PIN/
- Accumulators: 8
- Index Registers: 3
- I/O Communications (2): / I/O Transfere Base: 11MB
- Processor Features (3): CON/ I/F Interface Slots

**SYSTEMS SOFTWARE(**
- Assembler
- Macro Assem
- Disk Monitor
* Real Time Mtr
* T/S Monitor
* Batch Monitor
* Data Base Sys
- Other: GEORGE 3.4

**PRICES**
- Computer: $See Mfr
- Memory:
- System: $See Mfr

**APPLICATION**

**FEATURES**

**COMPUTER**

**SYSTEMS SOFTWARE**

**PRICES**

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

**MARKETING**

**SOFTWARE LANGUAGES:**
- APL
  * ALGOL BAES
  * SINGLE BASIC
  * MULTI BASIC
  * COBOL
  * FORTRAN FORCON, FLAIR
  * PL1
  * RPG
  * OTHER:

**MAIN MARKET:**

**UNITS SOLD:**

**MAINTENANCE:**
INFORMEX: 7110

INTRODUCED IN 1977, THE INFORMEX 7110 IS A DISTRIBUTED PROCESSING INTELLIGENT TERMINAL SYSTEM. IT FEATURES TWICE THE MEMORY CAPACITY OF THE 7115. LIKE ALL SYSTEM 7000 PROCESSORS, THE 7110 CAN BE USED ALONE OR IN CLUSTERED SYSTEMS.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

* REMOVABLE DISK: 10MB (UP TO 4)
* FIXED HEAD DISK: N/A
* FLEXIBLE DISK: 250MB
* MAGNETIC TAPE: 9/800, 9/1600
* TAPE CASSETTE: N/A
* LINE PRINTER: 300-600 LPM
* SERIAL PRINTER: 45-165 CPS
* CARDS RD, PN: 300; N/A
* PAPER TAPE RD, PN: N/A
* DISPLAY TERMINAL: 1920 CHARS
* MULTIPLEXOR: YES
* TERMINALS/SYSTEM: OTHER:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MNTB
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER:

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/1
* RPG
* OTHER:

PRICES

COMPUTER: $58,995
MEMORY: $68100
SYSTEM: $68100
INCREASES 64K CPU; MASTER TERMINAL; SEVEN LOCAL OR REMOTE TERMINALS; FOUR MESS STORAGE UNITS; 600 LPM PRINTER.

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**APPLICATION (1)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**
- WORD SIZE: 32 BITS
- MEMORY: 1024K
- CYCLE TIME: .75 USEC
- ADD TIME: 1.25 USEC
- CACHE MEMORY: 450NS
- # OF INSTRUCTIONS: 219
- INSTRUCTION TYPES (1): BESM/F
- ACCUMULATORS: 32
- INDEX REGISTERS: 15
- I/O COMMUNICATIONS (2): /ABDMST
- I/O TRANSFER RATE: 6MB
- PROCESSOR FEATURES (3): BCDV/FME
- INTERFACE SLOTS: 2 BUS

**SYSTEMS SOFTWARE (1)**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/G MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**
- COMPUTER: $89100, 128K
- MEMORY: $20000, 128K
- SYSTEM: $SEE MFR, 128K

**FEATURES (1)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK: 2.5-256MB, 8NS80, 300
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: YES (AVAIL 2/77)
- MAGNETIC TAPE: YES
- TAPE CASSETTE: YES
- LINE PRINTER: 200-600 LPM
- SERIAL PRINTER: 15-30 CPS
- CARD READ, P/N: 400-1000 CPS, N/A
- PAPER TAPE READ, P/N: YES
- DISPLAY TERMINAL: YES
- MULTIPLEXOR: ASYN, SYN, A-D
- TERMINALS/SYSTEM:
- OTHER: DIGITAL I/O

**SOFTWARE LANGUAGES (1)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: MACRO CAL

**MARKETING**
- MAIN MARKET:
- UNITS SOLD: 100 (00/00)
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- T = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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1978/No. 1

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THE ADVANCED SYSTEM 4 IS A 16-BIT COMPUTER FEATURING 1MB OF MEMORY, A CONTROL CONSOLE AND A PRINTER. UP TO 4MB CAN BE ADDED IN 1MB INCREMENTS. THE AS/4 IS COMPLETELY COMPATIBLE WITH THE IBM 370/158; ALL PERIPHERALS WHICH WILL INTERFACE TO AN IBM 370/158 WILL RUN ON THE AS/4. MOST USER SOFTWARE DEVELOPED FOR THE IBM 370/158 IS ALSO COMPATIBLE. PRINCIPLE OPERATING SYSTEMS INCLUDE DOS/YS, OS/YS1, OS/VS2, VS AND VS/370.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
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</tbody>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
</tr>
<tr>
<td>MEMORY: 1000 TO 4000K</td>
</tr>
<tr>
<td>CYCLE TIME: .115 US</td>
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<tr>
<td>ADD TIME:</td>
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<tr>
<td>CACHE MEMORY:</td>
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<tr>
<td># OF INSTRUCTIONS:</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
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<tr>
<td>I/O COMMUNICATIONS (2):</td>
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<td>I/O TRANSFER RATE:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3):</td>
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<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>* ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
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<tr>
<td>* DISK MONITOR</td>
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<td>* REAL TIME MONTR</td>
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<td>* T/S MONITOR</td>
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<td>* BATCH MONITOR</td>
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<tr>
<td>DATA BASE SYS</td>
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<tr>
<td>OTHER:</td>
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<table>
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<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR, 1000K</td>
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<tr>
<td>MEMORY: $110000, 1000K</td>
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<tr>
<td>SYSTEM: $812000, 1000K</td>
</tr>
<tr>
<td>INCLUDES 1MB CPU; DISPLAY CONSOLE WITH KEYBOARD AND LIGHT PEN; 160 CPS PRINTER.</td>
</tr>
</tbody>
</table>

1. INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing  

2. I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multipport Memory  
S = Selectable Line Speeds  
T = Autodial  

3. PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
THE ADVANCED SYSTEM 5-1 IS A 16-BIT COMPUTER FEATURING 1 MB OF MEMORY, A CONTROL CONSOLE AND A PRINTER. UP TO 8 MB OF MEMORY CAN BE ADDED IN 1 MB INCREMENTS. THE AS/5-1 IS COMPLETELY OPERATIONAL COMPATIBLE WITH THE IBM 370/158; ALL PERIPHERALS WHICH WILL INTERFACE TO THE 370/156 WILL RUN ON AN AS/5-1. MOST USER SOFTWARE IS ALSO COMPATIBLE. PRINCIPLE OPERATING SYSTEMS INCLUDE DOS/VS, OS/VS1, OS/VS2, MVS AND VM/370.

APPLICATION(*)
BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

FEATURES(*)
UPWARD COMPATIBLE
FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: YES
FIXED HEAD DISK: YES
FLEXIBLE DISK: YES
MAGNETIC TAPE: YES
TAPE CASSETTE: LINE PRINTER: YES
SERIAL PRINTER: 180 CPS
CARD RD,PN: YES
PAPER TAPE RD,PN: YES
DISPLAY TERMINAL: YES
MULTIPLEXOR: YES
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

PRICES
COMPUTER: $SEE MFR, 1000K
MEMORY: $82000, 1000K
SYSTEM: $107200, 1000K
INCLUDES IMB CPU; CRT CONSOLE AND LIGHT PEN; 180 CPS PRINTER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
A = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
THE ADVANCED SYSTEM 5-3 IS A 16-BIT COMPUTER FEATURING 1 MB OF MEMORY, A CONTROL
CONSOLE AND A PRINTER. UP TO 8 MB OF MEMORY CAN BE ADDED IN 1 MB INCREMENTS. THE
AS/5-3 IS COMPLETELY OPERATIONALLY COMPATIBLE WITH THE IBM 370/158; ALL PERI-
PHERALS WHICH WILL INTERFACE TO THE 370 /156 WILL RUN ON THE AS/5-3. MOST USER
SOFTWARE DEVELOPED FOR THE 370/158 IS ALSO COMPATIBLE. PRINCIPLE OPERATING SYS-
TEMS INCLUDE DOS/VS, OS/VS1, OS/VS2, MVS, AND VM/370.

APPLICATION (*)
BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

FEATURES (*)
UPWARD COMPATIBLE
FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 1000 TO 8000K
CYCLE TIME: .115 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1):
/ ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2):
/ I/O TRANSFER RATE:
PROCESSOR FEATURES (3):
/ INTERFACE SLOTS:

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: YES
FIXED HEAD DISK: YES
FLEXIBLE DISK: YES
MAGNETIC TAPE: YES
TAPE CASSETTE:
LINE PRINTER: YES
SERIAL PRINTER: 180 CPS
CARD RD, PN: YES
PAPER TAPE RD, PN: YES
DISPLAY TERMINAL: YES
MULTIPLEXOR: YES
TERMINALS/SYSTEM:
OTHER:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
DATA & BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:
PEN; 180 CPS PRINTER.

PRICES
COMPUTER: $SEE MFG, 1000K
MEMORY: $62000, 1000K
SYSTEM: $1137000, 1000K
INCLUDES 1 MB CPU; CRT CONSOLE AND LIGHT

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1973, THE QM-1 IS A USER-PROGRAMMABLE, 18-BIT COMPUTER FOR SMALL TO MEDIUM-SCALE APPLICATIONS. FEATURED IS A WRITEABLE CONTROL STORE OF UP TO 32K WORDS FOR MICRO-INSTRUCTIONS, PERMITTING THE COMPUTER TO BE MICROPROGRAMMED ON SITE TO MEET CHANGING REQUIREMENTS.

### APPLICATION (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### COMPUTER (Std/Opt, N/A)
- **Word Size:** 18 Bits
- **Memory:** 16 to 1000K Core
- **Cycle Time:** .24 usec
- **Add Time:** 1.5 usec
- **Cache Memory:** 8K, 75ns
- **# of Instructions:** Unlimited
- **Instruction Types (1):** D, B, E, M, S, I, M, T
- **Accumulators:** 44
- **Index Registers:** 60
- **I/O Communications (2):** ADS/BD
- **I/O Transfer Rate:** 2.5MB
- **Processor Features (3):** DBC/EPFM
- **Interface Slots:** 8

### SYSTEMS SOFTWARE (*)
- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base System

### PRICES
- **Computer:** $91824
- **Memory:** $4960, 16K
- **System:** $191276

**Includes CPU with 9K Control Store and 16K Main Store; Cartridge Tape System; Card Reader; Line Printer; Disk Drive; Console Assembly with CRT.**

### FEATURES (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### PERIPHERALS (Model #, Specs, N/A)
- **Removable Disk:** 9750, 9755
- **Fixed Head Disk:** N/A
- **Flexible Disk:** N/A
- **Magnetic Tape:** N243x, 253x, N48810
- **Cassette:** N/A
- **Line Printer:** N244x
- **Serial Printer:** N/A
- **Card Reader/Punch:** N600, N2468
- **Paper Tape Reader:** N4023
- **Display Terminal:** N4032
- **Multiplexer:** N4023
- **Terminals/Systems:** N/A

### SOFTWARE LANGUAGES (*)
- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL1**
- **RPG**
- **Other:**

### MARKETING
- **Main Market:** End User
- **Units Sold:** 10 (00/00)
- **Maintenance:** On Call
INTRODUCED IN 1970, THE NCR CENTURY 50 IS THE LOW END OF THE NCR CENTURY SERIES OF UPWARDLY COMPATIBLE COMPUTERS DESIGNED TO SUPPORT DISK-Oriented BUSINESS DATA PROCESSING APPLICATIONS. THE CENTURY 50 FEATURES A 16K TO 32K ROD TYPE MEMORY, NEAT/3, COBOL, FORTRAN, AND SINGLE AND MULTI-USER BASIC LANGUAGES.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 8 BITS
MEMORY: 16 TO 32K ROD
CYCLE TIME: .8 USEC
ADD TIME: 22.4/8 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 19
INSTRUCTION TYPES (1): E/D/
ACCUMULATORS: 1
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: .208MB
PROCESSOR FEATURES (3): /E
INTERFACE SLOTS: 8/16

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR 8K
- T/S MONITOR 16K
- BATCH MONITOR 4K
- DATA BASE SYS
- OTHER:

PRICES
COMPUTER: $N/A, 16K
MEMORY: $55850, 16K
INCLUDES 16K CPU; DISK (8.4MB) PRINTER

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 655-101
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 633-117/119
TAPE CASSETTE:
LINE PRINTER: 640
SERIAL PRINTER: 260
CARD READER/WRITER: 682-100; 686-111
PAPER TAPE READER/WRITER: 660-101; 665-101
DISPLAY TERMINAL: 796
MULTIPLEXER: ASYN/ASYN 621-103
TERMINALS/SYSTEM:
- OTHER: NCR SORTER 670-101

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC 16K
- DUAL BASIC 32K
- COBOL 16K
- FORTRAN 16K
- PLI
- RPG 16K
- OTHER: NCR NEAT/3 16K

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 1186 (11/76)
MAINTENANCE: ON CALL
(200 LPM); CARD READER (300 CPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiret Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 8 BITS
MEMORY: 16 TO 64K
CYCLE TIME: 1.2 USEC
ADD TIME: 28.8, 5BYTES USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 34/3
INSTRUCTION TYPES (1): BDI/M
ACCUMULATORS: 0
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): ABST/
I/O TRANSFER RATE: .416MB
PROCESSOR FEATURES (3): RE/D
INTERFACE SLOTS: 7

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSER 16K
* DISK MONITOR
* REAL TIME NSTR 8K
* T/S MONITOR 16K
* BATE MONITOR 4K
* DATA BASE SYS
* OTHER: MULT/PROGRAMMER

PRICES

COMPUTER: $52,880, 16K
MEMORY: $5000, 32K
SYSTEM: $56,850, 16K

INCLUDES 16K CPU; CARD READER (300 CPM); PRINTER (200 LPM); 9.8 MB DISK (1 FIXED, 1 REMOVABLE, 4.9 MB EACH), ITT, I/O WRITER (60 CPS).

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 656
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 633
TAPE CASSETTE: 636, 260-6
LINE PRINTER: 640-102
SERIAL PRINTER: 30 CPS
CARD READER, P/N: 682 (STANDARD) READER
PAPER TAPE READER, P/N: N/A; N/A
DISPLAY TERMINAL: 796
MULTIPLEXOR: ASYN/SYN
TERMINALS/SYSTEM: OTHER

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC 16K
* MULTI BASIC 32K
* COBOL 16K
* FORTRAN 16K
PL1
* RPG 16K
* OTHER: NCR BASIC/3 16K

MARKETING

MAIN MARKET: END USER
UNITS SOLD: 66 (12/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1968, THE CENTURY 100 IS A MINICOMPUTER SYSTEM DESIGNED TO SUPPORT DISK-ORIENTED BUSINESS DATA PROCESSING APPLICATIONS. IT IS BASED ON THE NCR CENTURY 50 PROCESSOR, BUT INCLUDES HIGHER PERFORMANCE PERIPHERALS. FEATURES INCLUDE A 16K TO 32K ROD TYPE MEMORY, NEAT/3, FORTRAN, COBOL, PLUS SINGLE AND MULTI-USER BASIC LANGUAGES.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)
WORD SIZE: 6 BITs
MEMORY: 16 TO 32K ROD
CYCLE TIME: .8 USEC
ADD TIME: 22.4/8 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 19
INSTRUCTION TYPES (1): BDI/
ACCUMULATORS: 1
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: .2088B
PROCESSOR FEATURES (3): /Z
INTERFACE SLOTS: 8/16

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MONITOR 8K
- T/S MONITOR 16K
- BATCH MONITOR 4K
- DATA BASE SYS
- OTHER:

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC 16K
- BASIC 32K
- COBOL 16K
- FORTRAN 16K
- PL/1
- EPG 16K
- OTHER: NCR NEAT/3 16K

PRICES
COMPUTER: $3233 NSF, 16K
MEMORY:
SYSTEM: $71500, 16K
INCLUDES 16K CPU; DISK (8.4MB); PRINTER (450-900 LPM); CARD READER (300 CPM).

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 1495 (11/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipurpose Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1972, THE NCR CENTURY 101 IS A VERSATILE AND FASTER GENERAL PURPOSE COMPUTER SYSTEM THAN THE MODELS 50 AND 100 IN THE CENTURY SERIES, DESIGNED TO SUPPORT DISK-ORIENTED BUSINESS DATA PROCESSING APPLICATIONS. THE MEMORY CAPACITY IS EXPANDABLE TO 64K WORDS, TWO MORE I/O TRUNKS CAN BE ADDED, AND A WIDE RANGE OF PERIPHERALS AND EXTENSIVE SOFTWARE ARE AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS.COMMERCIAL COMMUNICATIONS PROCESSOR</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* DATA ENCRYPTION SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
<td>REMOVABLE DISK: 656</td>
</tr>
<tr>
<td>MEMORY: 16 TO 128K CORE</td>
<td>FIXED HEAD DISK: N/A</td>
</tr>
<tr>
<td>CYCLE TIME: 1.2 USEC</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>ADD TIME: 26.8 (5DIG) USEC</td>
<td>MAGNETIC TAPE: 634,635</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE: 636</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 34/8 OPT</td>
<td>LINE PRINTER: 647,649</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BI/M</td>
<td>SERIAL PRINTER: 260</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
<td>CARD RD,PD: 680,680</td>
</tr>
<tr>
<td>INDEX REGISTERS: 63</td>
<td>PAPER TAPE RD,PD: 660</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ST/AB</td>
<td>DISPLAY TERMINAL: 796</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 633MB</td>
<td>MULTIPLEXOR: ASYN,SYN</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): RK/CM</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 9</td>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE(*)</th>
<th>SOFTWARE LANGUAGES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>* MACRO ASSEM 16K</td>
<td>ALGOL</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
<td>* SINGLE BASIC 16K</td>
</tr>
<tr>
<td>* REAL TIME MTR 8K</td>
<td>* MULTI BASIC 32K</td>
</tr>
<tr>
<td>* T/S MONITOR 16K</td>
<td>* COBOL 16K</td>
</tr>
<tr>
<td>* BATH MONITOR 4K</td>
<td>* FORTRAN 16K</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>FLL</td>
</tr>
<tr>
<td>OTHERS: MULT/PROGRAMMER 16K</td>
<td>* RPG 16K</td>
</tr>
<tr>
<td></td>
<td>OTHER: NCR NEAT/3 16K</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR, 16K</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MEMORY: $65520, 16K</td>
<td>UNITS SOLD: 1375 (12/76)</td>
</tr>
<tr>
<td>INCLUDES 16KB CPU; FIXED DISK (4.9MB); DISK UNIT AND CONTROLLER (4.9MB); PRINTER (300 LPM); CARD READER (300 CPM).</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Biynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1974, THE CENTURY 151 IS A GENERAL PURPOSE COMPUTER USED FOR BUSINESS APPLICATIONS. FEATURES INCLUDE MEMORY PARITY, PRIORITY INTERRUPTS AND OPTIONAL HARDWARE MULTIPLY AND DIVIDE INSTRUCTIONS. SOFTWARE SUPPORT INCLUDES MULTIPROGRAMMING, TWO TIME SHARING MONITORS, BASIC AND BASIC II, AND AN EPG COMPILER. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (')
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 16 TO 256K MOS
CYCLE TIME: .75 USEC
ADD TIME: 18 (5 B) USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 34
INSTRUCTION TYPES (1): BI/D/M
ACCUMULATORS: 0
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): /AB
I/O TRANSFER RATE: 1.33MB
PROCESSOR FEATURES (3): RE/CM
INTERFACE SLOTS:

SYSTEMS SOFTWARE (')
* ASSEMBLER MNT 3
* MACRO ASSEMBLER MNT 3, HIGH LEVEL
* DISK MONITOR
* REAL TIME MTR B-2 8K
* T/S MONITOR 16K, 32K
* BASH MONITOR B-1 4K
* DATA BASE SYS MCR TOTAL
OTHER: MULTIPROGRAMMING B-3 16K

PRICES
COMPUTER: $N/A, 64K
MEMORY: 
$11,992.50, 64K
INCLUDES 64K CPU; DISK (9.8MB); LINE PRINTER (300 LPM); SERIAL PRINTER (30 CPS); CARD READER (300 CPM).

FEATURES (')
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 65X
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 63X
TAPE CASSETTE: 636
LINE PRINTER: 64X
SERIAL PRINTER: 260
CARD RD, PW: 1200 CPM, 460 CPM
PAPER TAPE RD, PW: 660
DISPLAY TERMINAL: 796
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (')
APL
ALGOL
* SINGLE BASIC 16K
* MULTI BASIC 32K
* COBOL 16K
* FORTRAN 16K
PL/I
* EPG 16K
OTHER: 16K

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 249 (11/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
 B = Byte Manipulation
 D = Decimal Arithmetic
 E = Extended Precision
 F = Floating Point
 I = Indirect Addressing
 M = Multiply & Divide
 S = Stack Processing

(2) I/O COMMUNICATIONS:
 A = Asynchronous
 B = Bisynchronous
 D = Direct Memory Access
 M = Multiprocessory
 S = Selectable Line Speeds
 T = Autodial

(3) PROCESSOR FEATURES
 B = Base Address Relocation
 C = Real Time Clock
 D = Dynamic Page Relocation
 E = Memory Parity Detect
 F = Power Fail Safe
 K = Memory Parity Correct
 M = Memory Protection
 R = Priority Interrupt
 V = Vectored Interrupt

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INTRODUCED IN 1969, THE CENTURY 200 IS A MEDIUM-SCALE, DISK-ORIENTED SYSTEM DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE MULTIPROGRAMMING AND OPTIONAL FLOATING-POIN'T AND DECIMAL MULTIPLICATION HARDWARE. SOFTWARE SUPPORT INCLUDES BASIC AND RPG COMPILERS, APPLICATION PACKAGES, AND TWO TIME SHARING MONITORS, BASIC AND BASIC M.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 16 BITS
MEMORY: 16 TO 256K
CYCLE TIME: .68 USEC
ADD TIME: 16 (9 BITS) USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 39
INSTRUCTION TYPES (1): BDI/PM
ACCUMULATORS: 1
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): /ABST
I/O TRANSFER RATE: .909MB
PROCESSOR FEATURES (3): RE/BCM
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER NEAT-3
* MACRO ASSEMBLER NEAT-3, HIGH LEVEL
* DISK MONITOR
* REAL TIME MNTR B-2 8K
* T/S MONITOR 16K, 32K
* BATCH MONITOR B-1 14K
* DATA BASE SYS MCR TOTAL
OTHER: MULTIPROGRAMMING B-3 16K

PRICES
COMPUTER: $N/A, 16K
MEMORY: $4000, 16K
SYSTEM: $168500, 16K
INCLUDES 16K CPU; DUAL DISK (8.4MB); LINE PRINTER (1500/3000 LPM); CARD READER (300 CPM); TELEPRINTER WITH KEYBOARD.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* CONVERSATIONAL LANGUAGES
* FACTORY PROGRAMMABLE
* VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 657-102
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 635-209
TAPE CASSETTE: 535-301
LINE PRINTER: 647-201
SERIAL PRINTER: 260-1
CARD RD, PN: 684-101
PAPER TAPE RD, PN: 660-101; 665-101
DISPLAY TERMINAL: 796-101/201/301
MULTIPLEXOR: 621-103
TERMINALS/SYSTEM:
OTHER: MICS SORTER 671-101

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC 16K
* MULTI BASIC 32K
* COBOL 16K
* FORTRAN 16K
PL/1
* RPG 16K
OTHER: NEAT-3 16K

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 637 (11/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**COMPUTER (Std/Opt, N/A)**

- Word Size: 16 Bits
- Memory: 32 to 256K Core
- Cycle Time: 68 Usec
- Add Time: 18 (8 Bits) Usec
- Cache Memory: N/A
- # of Instructions: 39
- Instruction Types (1): BDI/EPM
- Accumulators:
- Index Registers: 63
- I/O Communications (2): N/ABST
- I/O Transfer Rate: 1.7MB
- Processor Features (3): RE/BCM
- Interface Slots:

**SYSTEMS SOFTWARE (*)**

- Assembler neat-3
- Macro Assem Neat-3, High Level
- Disk Monitor
- Real Time Monitor B-2 8K
- T/S Monitor 16K, 32K
- Batch Monitor B-1 4K
- Data Base SYS MCR TOTAL
- Other: Multiprogramming B-3 16K

**PERIPHERALS (Model #, Specs, N/A)**

- Removable Disk: 650-201
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: 635-209
- Tape Cassette: 636-301
- Line Printer: 647-201
- Serial Printer: 260-1
- Card Reader: 684-101
- Display Terminal: 796-101/201/301/401
- Multiplexor: 621-103
- Terminals/SYSTEM:
  - Other: Micr Sorter 671-101

**SOFTWARE LANGUAGES (*)**

- APL
- Algol
- Single BASIC 16K
- Multi BASIC 32K
- COBOL 16K
- FORTRAN 16K
- PL1
- RPG 16K
- Other: Neat-3 16K

**MARKETING**

- Main Market: End User
- Units Sold: 315 (11/76)
- Maintenance: On Call

**PRICES**

- Computer: $8/KB, 32K
- Memory:
  - ROM: $28,000, 32K
- Includes 32K CPU; Dual Disk (968B); Line Printer (1500/3000 LPM); Card Reader (300 CPM); Teleprinter with Keyboard.

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**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

---

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

---

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1973, THE CENTURY 251 IS A MEDIUM TO LARGE-SCALE, UPWARD COMPATIBLE COMPUTER SYSTEM DESIGNED FOR MULTIPROGRAMMING APPLICATIONS. IT CAN CONTROL LARGE MULTITERMINAL SYSTEMS WHILE CONCURRENTLY PROCESSING SEVERAL BATCH PROGRAMES. OPTIONAL FEATURES OF THE CENTURY 200 ARE STANDARD FOR THE 251. SOFTWARE SUPPORT INCLUDES DATA BASE MANAGEMENT, EXTENSIVE BUSINESS APPLICATIONS PROGRAMS, BASIC AND FORTRAN COMPILERS, AND TWO TIME SHARING MONITORS. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 24 TO 1024K CORE
CYCLE TIME: .68 USEC
ADD TIME: 4.8 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 71
INSTRUCTION TYPES (1): B, DEF, M, ACCUMULATOR
INDEX REGISTERS:
I/O COMMUNICATIONS (2): AB, ST
I/O TRANSFER RATE: 3.10 MB
PROCESSOR FEATURES (3): BCR, CME, INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER MENT-3 16K
- MACRO ASSEMBLER 16K, HIGH LEVEL
- REAL TIME MONITOR 8K
- T/S MONITOR 16K, 32K
- BATCH MONITOR 1K
- DATA BASE SYS NCR TOTAL 17.5K
OTHER: MULTIPRO. B-3 24K; B-4 64K

PRICES
COMPUTER: $223700, 96K
MEMORY: $SEE NBR, 48K

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 658-201
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 635-209
TAPE CASSETTE: 636-301
LINE PRINTER: 647-201
SERIAL PRINTER: 260-1
CARD READER, PN: 684-101
PAPER TAPE READER, PN: 66-101, 665-101
DISPLAY TERMINAL: 796-101, 201/301/401
MULTIPLEXOR: 621-103, SYSS, ASY
TERMINALS/SYSTEM
OTHER: NCR SORTER 671-101

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC 16K
- MULTI BASIC 32K
- COBOL 16K
- FORTRAN 16K
- PL/I
- RPG 32K
OTHER: NEAT-3 16K

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 80 (12/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Arithmetic
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing
(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multimode Memory
S = Selectable Line Speeds
T = Autodial
(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parasite Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**APPLICATION (1)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

- **WORD SIZE:** 32 BITS
- **MEMORY:** 24 TO 1024K CORE
- **CYCLE TIME:** 68 USEC
- **ADD TIME:** 4.8 USEC
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 71
- **INSTRUCTION TYPES (1):** BDEFIM/Accumulators
- **INDEX REGISTERS:** 63
- **I/O COMMUNICATIONS (2):** AB/ST
- **I/O TRANSFER RATE:** 3.72MB
- **PROCESSOR FEATURES (3):** BCRME/INTERFACE SLOTS

**SYSTEMS SOFTWARE (1)**

- **ASSEMBLER NEXT-3 16K**
- **MACRO ASSEMBLER 16K, HIGH LEVEL**
- **DISK MONITOR**
- **REAL TIME MONITOR B-2 8K**
- **T/S MONITOR 16K, 32K**
- **BATCH MONITOR B-1 8K**
- **DATA BASE SYS NCR TOTAL 17.5K**
- **OTHER:** MULTIPRO. B-3 24K; B-4 64K

**PRICES**

- **COMPUTER:** $279120, 32K
- **MEMORY:** SYSTEM; $SEE MFR, 48K

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES:**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- T = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1 COMPUTER REVIEW

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INTRODUCED IN 1977, THE CRITERION 8450 IS A 32-BIT GENERAL PURPOSE COMPUTER SYSTEM WITH MEMORY CAPACITY RANGING FROM 128K TO 1024K. THE MODEL FEATURES OPTIONAL SELECTABLE LINE SPEEDS AND DYNAMIC PAGE RELOCATION. AMONG STANDARD FEATURES ARE REAL TIME CLOCK AND INDIRECT ADDRESSING. SOFTWARE SUPPORT INCLUDES BASIC FOR MULTI-USERS, COBOL, RPG, FORTRAN, AND NEAT/3. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 128 TO 1024K MOS
CYCLE TIME: 112 NS USEC
ADD TIME: 0.11 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 71
INSTRUCTION TYPES (1): BDEFIN/
ACCUMULATORS: N/A
INDEX REGISTERS: 63
I/O COMMUNICATIONS (2): DM/ABST
I/O TRANSFER RATE: 4KB
PROCESSOR FEATURES (3): BCRX, MUX/D
INTERFACE SLOTS: N/A

SYSTEMS SOFTWARE (*)
* ASSEMBLER 64KB
* MACRO ASSEMBLY 64KB
* DISK MONITOR 6.5KB
* REAL TIME MONITOR 8.0KB
* T/S MONITOR 16KB
* BATCH MONITOR 6.5KB
* DATA BASE SYS 17.5KB
OTHER:

PRICES
COMPUTER: $88950, 128K
MEMORY: $9500, 1024K
SYSTEM: $199525, 32K
INCLUDES 128K CPU; INTEGRATED DISK CONTROLLER; DISK; LINE PRINTER; CARD READER.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 656,658
FIXED HEAD DISK:
FLEXIBLE DISK: YES
MAGNETIC TAPE: 634,635
TAPE CASSETTE: 636
LINE PRINTER: 641
SERIAL PRINTER: 260,6440
CARD RD/PN: 6831
PAPER TAPE RD/PN: 6640
DISPLAY TERMINAL: 796
MULTIPLEXOR: 621
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
* MULTI BASIC 32KB
* FORTRAN 16KB
* RPG 32KB
* OTHER: NEAT/3, 64KB

MARKETING
MAIN MARKET: END USER
UNIT Solds:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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NCR: CRITERION 8550

Introduced in 1976, the Criterion 8550 is a general purpose computer designed for business and scientific applications. It features an internal transfer bus (ITB) for high-speed communications between criterion subsystems, virtual memory under the VMS operating system and from 32K to 128K words of MOS memory. The criterion series is hardware and software compatible with the NCR Century Series.

**APPLICATION (*)**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**
- Word Size: 32 Bits
- Memory: 32 to 128K
- Cycle Time: .475 Usec
- Add Time: 8.2 (8Bits) Usec
- Cache Memory: N/A
- # of Instructions: 71
- Instruction Types (1): B/DEFIN/
- Accumulators:
- Index Registers: 63
- I/O Communications (2): B/ADST
- I/O Transfer Rate: 3.14db
- Processor Features (3): B/CMERK/D
- Interface Slots:

**SYSTEMS SOFTWARE (*)**
- Assembler 64K
- Macro Assembler 64K
- Disk Monitor 6.5K
- Real Time MTR 8.0K
- T/S Monitor 16K
- Batch Monitor 6.5K
- Data Base Sys 17.5K
- Other:

**FEATURES (*)**
- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #. Specs. N/A)**
- Removable Disk: 658
- Flexible Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: 63X
- Tape Cassette: 636
- Line Printer: 64X
- Serial Printer: 260, 644
- Card Reader, PW: 64K
- Paper Tape RD, PW: 6440
- Display Terminal: 796
- Multiplexer: SYN, ASYN, A-D
- Terminals/System:
  - Other:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- Single Basic
- Multi Basic 32K
- COBOL 32K
- Fortran 16K
- PLI
- RPG 32K
- Other: NEAT/3 64K

**MARKETING**
- Main Market: End User
- Units Sold:
- Maintenance: On Call

**PRICES**
- Computer: $107400, 32K
- Memory: $16500, 16K
- System: $258900, 32K
- Includes 32K CPU; Disk (200MB); #646 Printer; Card Reader (600 CPM).

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1977, THE CRITERION 8560 IS A 32-BIT GENERAL PURPOSE COMPUTER SYSTEM FEATURING MEMORY CAPACITY RANGING FROM 48K TO 384K. OTHER FEATURES INCLUDE OPTIONAL SELECTABLE LINE SPEEDS, DYNAMIC PAGE RELOCATION, PLUS STANDARD REAL TIME CLOCK AND INDIRECT ADDRESING. SOFTWARE SUPPORT INCLUDES BASIC FOR MULTIPLE USERS, COBOL, RPG, FORTRAN AND NEAT/3. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td></td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td></td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td></td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION</td>
<td></td>
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<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td></td>
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<tr>
<td>* BANKING SYSTEM</td>
<td></td>
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<tr>
<td>** DATA ENTRY SYSTEM **</td>
<td></td>
</tr>
<tr>
<td>* UPWARD COMPATIBLE</td>
<td></td>
</tr>
<tr>
<td>** FIELD SERVICE **</td>
<td></td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
<td></td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
<td></td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
<td></td>
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<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
<td></td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
<td></td>
</tr>
<tr>
<td>** MULTIPROCESSOR **</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
</tr>
<tr>
<td>MEMORY: 192 TO 1536K MOS</td>
</tr>
<tr>
<td>CYCLE TIME: 64 NS USEC</td>
</tr>
<tr>
<td>ADD TIME: 08 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 71</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFMX</td>
</tr>
<tr>
<td>ACCUMULATORS: N/A</td>
</tr>
<tr>
<td>INDEX REGISTERS: 63</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): DM/ABST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 5KB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCRMEK/D</td>
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<tr>
<td>INTERFACE SLOTS: N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLE 64KB</td>
</tr>
<tr>
<td>* MACRO ASSEM 64KB</td>
</tr>
<tr>
<td>* DISK MONITOR 6.5KB</td>
</tr>
<tr>
<td>* REAL TIME MONITOR 8.0KB</td>
</tr>
<tr>
<td>* T/S MONITOR 16KB</td>
</tr>
<tr>
<td>* BATH MONITOR 6.5KB</td>
</tr>
<tr>
<td>* DATA BASE SYS 17.5KB</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>* MULTI BASIC 32KB</td>
</tr>
<tr>
<td>COBOL 32KB</td>
</tr>
<tr>
<td>FORTRAN 16KB</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>RPG 32KB</td>
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<tr>
<td>OTHER: NEAT/3, 64KB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $195200, 192K</td>
</tr>
<tr>
<td>MEMORY: $9500, 1536K</td>
</tr>
<tr>
<td>SYSTEM: $34550, 192K</td>
</tr>
</tbody>
</table>

Includes 192K CPU, INTEGRATED DISK CONTROLLER; 3 DISKS; LINE PRINTER; CARD READER.

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Arithmetic  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multipoint Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1977, THE CRITERION 8570 IS A 32-BIT GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. IT FEATURES AN INTERNAL TRANSFER BUS (ITB) FOR HIGH SPEED COMMUNICATIONS BETWEEN CRITERION SUBSYSTEMS, MEMORY INTERLEAVING, VIRTUAL MEMORY UNDER THE VAX OPERATING SYSTEM, AND FROM 64K TO 256K WORDS OF MOS MEMORY. THE CRITERION SERIES IS HARDWARE AND SOFTWARE COMPATIBLE WITH THE MCRO CENTURY SERIES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 32 BITS
MEMORY: 256 TO 2048K
CYCLE TIME: 475 USEC
ADD TIME: 6.37 (8BT) USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 71
INSTRUCTION TYPES (1): B/DEFIN/
  ACCUMULATORS:
  +INDEX REGISTERS: 63
  +I/O COMMUNICATIONS (2): DM/ABST
  +I/O TRANSFER RATE: 5.01 MB
  +PROCESSOR FEATURES (3): BCRMEK/D
  +INTERFACE SLOTS: N/A

SYSTEMS SOFTWARE (*)
* ASSEMBLER 64K
* MACRO ASSESS 64K
* DISK MONITOR 6.5K
* READ TIME RTNR 8.0K
* T/S MONITOR 16K
* BATCH MONITOR 6.5K
* DATA BASE SYS 17.5K
* OTHER:

PRICES
COMPUTER: $28,270, 256 K #5750
MEMORY: $19,000, 128K
SYSTEM: $45,825, 128K

INCLUDES 64K CPU; DISK (200MB); #646 PRINTER; CARD READER (600 CPM).

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 658
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 63K
TAPE CASSETTE: 63K
LINE PRINTER: 64K
SERIAL PRINTER: 260, 044
CARD READER: 68K
PAPER TAPE READER: 6640
DISPLAY TERMINAL: 796,7200
MULTIPLEXOR: SYN, ASYN-A-D
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC 32K
COBOL 32K
FORTRAN 16K
PL/1
RPG 32K
OTHER: NEAT/3 64K

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiprocessor Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
The NCR N-8350 is a business-oriented computer system. The N-8350 features a CRT console, cassette reader, line printer and disk drive. Memory can be expanded to 128K and a second cassette and thermal printer can be added. The N-8350 is upward compatible. Software support includes COBOL, FORTRAN, NEAT/3, BASIC, batch and online operating systems and pre-programmed business applications.

**APPLICATIONS (1)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**FEATURES (1)**

- Upward compatible
- Field Service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

**COMPUTER (Std/Opt, N/A)**

- **Word Size:** Bits
- **Memory:** 32 to 128K core
- **Cycle Time:**
- **Add Time:**
- **Cache Memory:**
- **# of Instructions:**
- **Instruction Types (1):** /M
- **Accumulators:**
- **Index Registers:**
- **I/O Communications (2):** /
- **I/O Transfer Rate:**
- **Processor Features (3):** /C
- **Interface Slots:**

**PERIPHERALS (Model #, Specs, N/A)**

- **Removable Disk:** Yes
- **Fixed Head Disk:**
- **Flexible Disk:**
- **Magnetic Tape:**
- **Tape Cassette:** Yes
- **Line Printer:** Yes
- **Serial Printer:**
- **Card Reader:**
- **Paper Tape Reader:**
- **Display Terminal:** Yes
- **Multiplexor:**
- **Terminals/System:**
- **Other:**

**SYSTEMS SOFTWARE (1)**

- **Assembler**
- **Macro Assembler**
- **Disk Monitor**
- **Real-Time Monitor**
- **T/S Monitor**
- **Batch Monitor**
- **Data Base Sys**
- **Other:**

**SOFTWARE LANGUAGES (1)**

- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PDL
- RPG
- Other: NEAT/3

**PRICES**

- **Computer:** $5000 FOB
- **Memory:**
- **System:** $5000 FOB

Includes 32K core memory; cartridge disk unit; cassette tape reader; CRT console.

**MARKETING**

- **Main Market:**
- **Units Sold:**
- **Maintenance:**

---

**INSTRUCTIONS: (2)**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS: (1)**

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES (1)**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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INTRODUCED IN 1977, THE V-8580 IS AT THE TOP OF THE NCR 8000 SERIES. IT INCORPORATES A HARDWARE ASSIST UNIT, ALLOWING INDEX REGISTERS TO REPLACE Firmware SUBRoutines FOR ADDRESS ACCESSING. FOUR-WAY INTERLEAVING TO ENHANCE MEMORY ACCEssING IS ALSO FEATURED. THE SYSTEM OPERATES UNDER THE NCR VIRTUAL RESOURCE EXECUTIVE AND COMES WITH A LIBRARY OF APPLICATION PROGRAMS. A CHOICE OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
  * COMMUNICATIONS PROCESSOR
  * INDUSTRIAL CONTROL
  * LABORATORY/SCIENTIFIC
  * ENGINEERING/COMPUTATION
  * EDUCATIONAL SYSTEM
  * BANKING SYSTEM
  * DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 32 BITS
MEMORY: 256 TO 1000K
CYCLE TIME: .056 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1):
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE:
PROCESSOR FEATURES (3):
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

ASSEMBLER
MACRO ASSEM
DISK MONITOR
REAL TIME MNT
T/S MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER:

FEATURES (*)

UPWARD COMPATIBLE
FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK:
FIXED HEAD DISK:
FLEXIBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE:
LINE PRINTER:
SERIAL PRINTER:
CARD RD, PD:
PAPER TAPE RD, PD:
DISPLAY TERMINAL:
MULTIPLEXER:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

API
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
PL/I
* RPG
OTHER:

MARKETING

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

PRICES

COMPUTER: $517600, 256K
MEMORY:
SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisyynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE V-8590 IS A TOP-OF-THE-LINE NCR 8000 SERIES COMPUTER. IT INCORPORATES A HARDWARE ASSIST UNIT, ALLOWING INDEX REGISTERS TO REPLACE FIRMWARE SUBROUTINES FOR ADDRESS ACCESSING. FOUR-WAY INTERLEAVING TO ENHANCE MEMORY ACCESSING IS ALSO FEATURED. THE SYSTEM USES THE NCR VIRTUAL RESOURCE EXECUTIVE AND COMES WITH A LIBRARY OF APPLICATION PROGRAMS. A CHOICE OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
- WORD SIZE: 32 BITS
- MEMORY: 512 TO 1500K
- CYCLE TIME: .056 USEC
- ADD TIME:
- CACHE MEMORY:
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1):
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2):
- I/O TRANSFER RATE: 2.0MB
- PROCESSOR FEATURES (3):
- INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- B/TCH MONITOR
- DATA BASE SYS
- OTHER:

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK:
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE:
- LINE PRINTER:
- SERIAL PRINTER:
- CARD READER:
- PAPER TAPE READER:
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MUMPS BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

PRICES
- COMPUTER: $720000, 512K
- MEMORY:
- SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
P = Priority Interrupt
V = Vectored Interrupt
**APPLICATION**

* Business/Commercial
  Communications Processor
  Industrial Control
  Laboratory/Scientific
  Engineering/Computation
  Educational System
  Banking System
  Data Entry System

**FEATURES**

* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
  User Microprogrammable
* Factory Microprogrammable
  Virtual Memory Machine
  Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

Removable Disk: 4.9-9.8MB
Fixed Head Disk: N/A
Flexible Disk: 243-486KB
Magnetic Tape: 10-30KB/SEC
Tape Cassette: .7KB/SEC, 200KB
Line Printer: 100, 200, 300 LPM
Serial Printer: 40, 180 CPS
Card Reader, Printer: 300 CPM
Paper Tape Reader: N/A
Display Terminal: 640, 1920 Ch/Screen
Multiplexor: Asyn
Terminals/SYSTEM:
  Others: Mark Sheet Reader

**SOFTWARE LANGUAGES**

APL
ALGOL
* Single Basic
* Multi Basic
* COBOL 8.5KB
* FORTRAN 13.5KB
  PL/I
* RPG
Others: APLIKA, BEST (8.5KB)

**MARKETING**

Main Market: End User, OEM
Units Sold: 2860 (06/77)
Maintenance: On Call

**COMPUTER REVIEW**

1978/No. 1

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INTRODUCED IN 1973, THE NIPPON NEC SYSTEM 100G IS A MEDIUM-SCALE ENHANCED VERSION OF THE FORMER NIPPON SYSTEM 100 COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS, AND FEATURES MULTIPLE WORKSTATION CAPABILITY. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE, INCLUDING THE BADMINTON SERIAL PRINTER.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

- **WORD SIZE:** 8 Bits
- **MEMORY:** 8 to 32K MOS MSI
- **CYCLE TIME:** 0.96 USEC
- **ADD TIME:** 2 USEC
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 30
- **INSTRUCTION TYPES (1):** BDI/
  ACCUMULATORS: 16
- **INDEX REGISTERS:** 16
- **I/O COMMUNICATIONS (2):** ABD/
  I/O TRANSFER RATE: 1MB
- **PROCESSOR FEATURES (3):** BVREK/
  INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME ENTER/S MONITOR
- BATCH MONITOR
- DATA BASE SYSTEM

**PRISES**

- COMPUTER: $SEE MFR
- MEMORY: $SEE MFR
- SYSTEM: $SEE MFR

**FEATURES (*)**

- UPward compatible
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- **REMOVABLE DISK:** 2.45-9.8MB
- **FIXED HEAD DISK:** N/A
- **FLEXIBLE DISK:** N/A
- **MAGNETIC TAPE:** 10KB/SEC, 800 BPI
- **TAPE CASSETTE:** 200KB
- **LINE PRINTER:** 100 LPM
- **SERIAL PRINTER:** 20 CPS
- **CARD E/P, P/M:** 100 CPM; N/A
- **PAPER TAPE E/P, P/M:** 20-300 CPS; 20 CPS
- **DISPLAY TERMINAL:** 1920 CHAR.
- **MULTIPLEXOR:** SYN, ASYN
- **TERMINALS/SYSTEM:**
- **OTHER:** DROM 256KB

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG

**MARKETING**

- **MAIN MARKET:** END USER, OEM
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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INTRODUCED IN 1973, THE NIPPON NEC SYSTEM 100H IS A LARGE-SCALE VERSION OF THE 1386, DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. THE NEC SYSTEM 100F FEATURES MULTIPLE WORK STATION CAPABILITY. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPUTERS. A VARIETY OF PERIPHERALS IS AVAILABLE, INCLUDING TTN/NO SERIAL PRINTER.

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</table>
INTRODUCED IN 1976, THE NIPPON SYSTEM 100J IS AN 8-BIT BUSINESS COMPUTER WITH A MEMORY EXPANDABLE FROM 32 TO 64K. SOFTWARE LANGUAGES INCLUDE COBOL, FORTRAN, AND BEST. THE SYSTEM 100J IS AVAILABLE IN TWO BASIC FORMS. ONE WITH A 32KB CPU AND ONE CPU, AND THE OTHER WITH A 468KB CPU AND FOUR CPU. BOTH INCLUDE A FLEXIBLE DISKETTE, DISK AND LINE PRINTER.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
</tr>
<tr>
<td>MEMORY: 32 TO 64K</td>
</tr>
<tr>
<td>CYCLE TIME: .99 USEC</td>
</tr>
<tr>
<td>ADD TIME:</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 30</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1):</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): A8/</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 1MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BV/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSEMBLER</td>
</tr>
<tr>
<td>* DISK MONITOR 7-10K</td>
</tr>
<tr>
<td>* REAL TIME MNT 12-16K</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>* BACH MONITOR 7-10K</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
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<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL 8.5K</td>
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<tr>
<td>FORTRAN 13.5K</td>
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<tr>
<td>PL</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER: BEST 8.5K</td>
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<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER, OEM</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR, 32K</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $69600, 32K</td>
</tr>
<tr>
<td>INCLUDES 32K CPU; DISK (4.9MB); FLEXIBLE DISKETTE (243KB); LINE PRINTER (200 LPM); DISPLAY TERMINAL.</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing 

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Binasynchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial 

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
**HIPPOW ELECTRIC: NEC SYSTEM 200**

Introduced in 1974, the NEC System 200 is a member of the ACOS Series 77 of general purpose computers designed for business, scientific and industrial applications. Standard features include multiport memory, priority interrupts and parity. Software support includes COBOL and RPG compilers. A variety of peripherals is available.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER (Std/Opt: N/A)**

- **WORD SIZE**: 8 BITS
- **MEMORY**: 48 TO 224K
- **CYCLE TIME**: 1 USEC
- **ADD TIME**: 11.8 USEC
- **CACHE MEMORY**: N/A
- **# OF INSTRUCTIONS**: 120
- **INSTRUCTION TYPES (1)**: BDFMST/
- **ACCUMULATORS**: 16
- **INDEX REGISTERS**: 8
- **I/O COMMUNICATIONS (2)**: ABDMST/
- **I/O TRANSFER RATE**: 1.8MB
- **PROCESSOR FEATURES (3)**: BCPRMEX/
- **INTERFACE SLOTS**: *

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**

- **COMPUTER**: $SEE MFR
- **MEMORY**: $SEE MFR
- **SYSTEM**: $SEE MFR

**PERIPHERALS** (Model #, Specs: N/A)

- **REMOVABLE DISK**: 5,8,11,6,29,58,100
- **FIXED HEAD DISK**: N/A
- **FLEXIBLE DISK**: 243KB
- **MAGNETIC TAPE**: 30,60,120KB/SEC
- **TAPE CASSETTE**: 446KB
- **LINE PRINTER**: 200,1000,1400,2400LP
- **SERIAL PRINTER**: 40 CPS
- **CARD RD, PW**: 300,600,1050; 400 CPM
- **PAPER TAPE RD, PW**: 600,1000 CPS; 110 CPS
- **DISPLAY TERMINAL**: 640,1920 CHAR
- **MULTIPLEXER**: SYM, ASYM
- **TERMINALS/SYSTEM**: OTHER: OMR

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER: GMP

**MARKETING**

- **MAIN MARKET**: END USE
- **UNITS SOLD**: NA
- **MAINTENANCE**: NA

---

1) **INSTRUCTIONS:**
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

2) **I/O COMMUNICATIONS:**
- **A** = Asynchronous
- **B** = Bistable
- **D** = Direct Memory Access
- **M** = Multiprocess Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

3) **PROCESSOR FEATURES**
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
NIPPON ELECTRIC: NEC SYSTEM 300

INTRODUCED IN 1974, THE NEC SYSTEM 300 IS A MEMBER OF THE ACOS SERIES 77 FAMILY OF COMPUTERS USED FOR A VARIETY OF APPLICATIONS. FEATURES INCLUDE VIRTUAL MEMORY, AN I/O TRANSFER RATE OF 4 MEGABYTES PER SECOND, STACK PROCESSING AND MANY PERIPHERALS. SOFTWARE SUPPORT INCLUDES DATA BASE SYSTEM CAPABILITY AND A VARIETY OF PROGRAMMING LANGUAGES.

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<th>APPLICATION(*)</th>
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<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
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<td>* BANKING SYSTEM</td>
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<td>* DATA ENTRY SYSTEM</td>
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<tr>
<th>FEATURES(*)</th>
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<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>* FIELD SERVICE</td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>* USER MICROPROGRAMMABLE</td>
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<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: 96 TO 512K MOS,LSI</td>
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<tr>
<td>CYCLE TIME: 1 USEC</td>
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<td>ADD TIME: 6.8 USEC</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 222</td>
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<tr>
<td>INSTRUCTION TYPES (1): BDEPIMS/</td>
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<tr>
<td>ACCUMULATORS: 20</td>
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<td>INDEX REGISTERS: 8</td>
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<tr>
<td>I/O COMMUNICATIONS (2): ABDMST/</td>
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<tr>
<td>I/O TRANSFER RATE: 4MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCFRMK/</td>
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<td>INTERFACE SLOTS:</td>
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<tr>
<th>SYSTEMS SOFTWARE(*)</th>
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<tbody>
<tr>
<td>ASSEMBLER</td>
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<tr>
<td>MACRO ASSEM</td>
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<tr>
<td>* DISK MONITOR</td>
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<tr>
<td>* REAL TIME MON</td>
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<tr>
<td>* T/S MONITOR</td>
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<tr>
<td>* BATCH MONITOR</td>
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<tr>
<td>* DATA BASE SYS</td>
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<tr>
<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>PRICES</th>
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</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
</tr>
<tr>
<td>MEMORY: $SEE MFR</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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</thead>
<tbody>
<tr>
<td>REMOVABLE DISK: 29,58,100,200MB</td>
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<tr>
<td>FIXED HEAD DISK: N/A</td>
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<tr>
<td>FLEXIBLE DISK: 243KB</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 30,60,120,200KB/SEC</td>
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<tr>
<td>TAPE CASSETTE: 44KB</td>
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<tr>
<td>LINE PRINTER: 1000,1400,2400 LPM</td>
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<tr>
<td>SERIAL PRINTER: 40/180 CPS</td>
</tr>
<tr>
<td>CARD RD,PN: 300/600/1050; 400</td>
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<tr>
<td>PAPER TAPE RD,PN: 600/1000CPS; 110CPS</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 640/1920 CHAE.</td>
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<tr>
<td>MULTIPLEXOR: SYN,ASYN</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: OME,OCR,FLOTTER</td>
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</table>

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
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<tr>
<td>ALGOL</td>
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<tr>
<td>SINGLE BASIC</td>
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<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL</td>
</tr>
<tr>
<td>* FORTRAN</td>
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<tr>
<td>PL1</td>
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<tr>
<td>* RPG</td>
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<tr>
<td>OTHER: GMP,HPL,NL/II</td>
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<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE:</td>
</tr>
</tbody>
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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1974, THE NEC SYSTEM 400 IS A MEMBER OF THE ACOS SERIES 77 FAMILY
OF GENERAL PURPOSE COMPUTERS FOR REAL TIME APPLICATIONS. THE SYSTEM 400 FEATURES
A MEMORY EXPANDABLE FROM 120 TO 640K. SOFTWARE SUPPORT INCLUDES COBOL AND RPG
COMPILERS. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 128 TO 768K MOS, LSI
CYCLE TIME: 1 USEC
ADD TIME: 2.4 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 222
INSTRUCTION TYPES (1): BDEPINS/
ACCUMULATORS: 20
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): ABDMST/
I/O TRANSFER RATE: 4MB
PROCESSOR FEATURES (3): BCFRMBK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: GMP, HPL, BL/II

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 29, 68, 100, 200KB
FIXED HEAD DISK: N/A
FLEXIBLE DISK: 243KB
MAGNETIC TAPE: 30, 60, 120, 200KB/SEC
TAPE CASSETTE: 446KB
LINE PRINTER: 1000, 1400, 2400LPM
SEPARATION PRINTER: 40/180 CPS
CARD RD, PW: 300/600/1050; 100
PAPER TAPE RD, PW: 600/1000CPS; 110CPS
DISPLAY TERMINAL: 640/1920 CHAR.
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: OMK, OCE, PLOTTER

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
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(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
INTRODUCED IN 1975, THE NEC SYSTEM 500 IS A MEMBER OF THE ACOS SERIES 77 FAMILY OF GENERAL PURPOSE COMPUTERS FOR REAL TIME APPLICATIONS. THE SYSTEM 500 IS SIMILAR TO NIPPON'S NEC SYSTEM 400 BUT FEATURES TWICE THE MAIN MEMORY, FASTER CYCLE AND ADD TIMES, A FASTER I/O TRANSFER RATE, AND A WIDER RANGE OF AVAILABLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL, COBOL, AND RPG COMPILERS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 8 BITS
MEMORY: 256 TO 1792K MGS, LSI
CYCLE TIME: .75 USEC
ADD TIME: 1.4 USEC
CACHE MEMORY: 6KB
# OF INSTRUCTIONS: 222
INSTRUCTION TYPES (1): BDEFMS/
ACCUMULATORS: 20
INDX REGISTERS: 8
I/O COMMUNICATIONS (2): ABDMST/
I/O TRANSFER RATE: 10MB
PROCESSOR FEATURES (3): BCFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
ASSEMBLER
BASIC ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

PRICES
COMPUTER: $SEE MFR
MEMORY: $SEE MFR
SYSTEM: $SEE MFR

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 29,58,100,200,317MB
FIXED HEAD DISK: N/A
FLEXIBLE DISK: 243KB
MAGNETIC TAPE: 30-1250KB/SEC
TAPE CASSETTE: 446KB
LINE PRINTER: 1000,1400,2400 LPM
SERIAL PRINTER: 40/180 CPS
CARD RD/FM: 600/1050CPH; 400 CP
PAPER TAPe RD/FM: 600/1000 CPS; 110 CPS
DISPLAY TERMINAL: 640/1920 CHAR.
MULTIPLEXOR: STR,ASYN
TERMINALS/SYSTEM:
OTHER: OMR, OCE, PLOTTER

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER: GMP, HPL, ML/II

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1974, THE NEC SYSTEM 600 IS A MEMBER OF THE ACOS SERIES 77 FAMILY OF COMPUTERS DESIGNED FOR A VARIETY OF REAL TIME APPLICATIONS. THE SYSTEM 600 FEATURES A MEMORY EXPANDABLE FROM 384 TO 2048K. SOFTWARE SUPPORT INCLUDES A DATA BASE SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

| WORD SIZE: | 36 BITS |
| MEMORY:    | 96 TO 512K |
| CYCLE TIME:| 1.2 USEC |
| ADD TIME: | 1.9 USEC |
| CACHE MEMORY: | N/A |
| # OF INSTRUCTIONS: | 271 |
| INSTRUCTION TYPES (1): | BDEIFS |
| ACCUMULATORS: | 1 |
| INDEX REGISTERS: | 8 |
| I/O COMMUNICATIONS (2): | ABDNST/ |
| I/O TRANSFER RATE: | 7.2MB |
| PROCESSOR FEATURES (3): | BCDFRMEK/ |
| INTERFACE SLOTS: |

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: 100, 200, 317MB
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 243KB
- MAGNETIC TAPE: 120-780KB/S
- TAPE CASSETTE: N/A
- LINE PRINTER: 1000, 1400, 2400 LPM
- SERIAL PRINTER: 40, 180 CPS
- CARD RD, FW: 600, 1050 CPM; 400 CPM
- PAPER TAPE RD, FW: 1000 CPM; 150 CPS
- DISPLAY TERMINAL: 640/1920 CHAR
- MULTIPLEXOR: STN, ASYN
- TERMINALS/SYSTEM:
  - OTHER: GR, OR, PLOTTER

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: MAINTENANCE:

**PRICES**

- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1974, THE NEC SYSTEM 700 IS A MEMBER OF THE ACOS SERIES 77 FAMILY OF COMPUTERS DESIGNED FOR A VARIETY OF REAL TIME APPLICATIONS. THE SYSTEM 700 FEATURES A MEMORY EXPANDABLE FROM 512 TO 4096K AND A FASTER MEMORY CYCLE AND I/O TRANSFER RATE THAN ITS SMALLER RELATIVE, THE SYSTEM 600. SOFTWARE SUPPORT INCLUDES A DATA BASE SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt N/A)
WORD SIZE: 36 BITS
MEMORY: 128 TO 1024K
CYCLE TIME: .7 USEC
ADD TIME: .5 USEC
CACHE MEMORY: 8KB
# OF INSTRUCTIONS: 272
INSTRUCTION TYPES (1): BDEPIMS/
ACCUMULATORS: 1
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): ARDMST/
I/O TRANSFER RATE: 17.6MB
PROCESSOR FEATURES (3): BDFRMEK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 100, 200, 317MB
FIXED HEAD DISK: N/A
FLEXIBLE DISK: 243KB
MAGNETIC TAPE: 120-780KB
TAPE CASSETTE: N/A
LINE PRINTER: 1000, 1400, 2400 LPM
SERIAL PRINTER: 40, 180 CPS
CARD RD, PW: 600, 1050, 400, 150 CPS
PAPER TAPE RD, PW: 1000, 150 CPS
DISPLAY TERMINAL: 640/1920 CHAR.
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER: OMN, OCR, PLOTTER

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Central Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
Introduced in 1976, NEC System 800 is a member of the ACOS Series 77 family of computers designed for a variety of realtime applications. The System 800 features a memory expandable from 1 to 16MB. Software support includes a data base system. A variety of peripherals is available.

**APPLICATION (‘)***
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)
- Word Size: 36 Bits
- Memory: 256 to 2048k
- Cycle Time: 0.6 usec
- Add Time: 200ns
- Cache Memory: 8K
- # of instructions: 301
- Instruction Types (1): IDEFINS/
- Accumulators: 1
- Index Registers: 8
- I/O communications (2): ABDNST/
- I/O transfer rate: 46MB
- Processor features (3): BCDPRMK/
- Interface slots:

**SYSTEMS SOFTWARE (‘)**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mem
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**FEATURES (‘)**
- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable disk: 100MB, 200MB, 317MB
- Fixed head disk: N/A
- Flexible disk: 243KB
- Magnetic tape: 120-1250KB
- Tape Cassette: N/A
- Line printer: 500-2400 LPM
- Serial printer: 30-180 CPS
- Card read, write: 600, 1050 CPR, 400 CPR
- Paper tape read, write: 600, 1000 CPS, 110 CPS
- Display terminal: 640/1920 char.
- Multiplexer: Syn, Asyn
- Terminals/system:
- Other: OMR, OCE, Digital Pltr

**SOFTWARE LANGUAGES (‘)**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL1
- RPG
- Other:

**MARKETING**
- Main market:
- Units sold:
- MAINTENANCE:

**PRICES**
- Computer: $See Mfr
- Memory:
- System: $68k/HO

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiplex Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE NEC SYSTEM 900 IS A MEMBER OF THE ACOS SERIES 77 FAMILY OF COMPUTERS DESIGNED FOR A VARIETY OF REAL TIME APPLICATIONS. THE SYSTEM 900 FEATURES A MEMORY EXPANDABLE FROM 1 TO 16KB AND HAS A FASTER I/O TRANSFER RATE THAN ITS SMALLER RELATIVE, THE NIPPON SYSTEM 800. SOFTWARE SUPPORT INCLUDES A DATA BASE SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 36 BITS</td>
<td>REMOVABLE DISK: 100MB, 200MB, 317MB</td>
</tr>
<tr>
<td>MEMORY: 256 TO 4096K</td>
<td>FIXED HEAD DISK: N/A</td>
</tr>
<tr>
<td>CYCLE TIME: 0.6 USEC</td>
<td>FLEXIBLE DISK: 243KB</td>
</tr>
<tr>
<td>ADD TIME:</td>
<td>MAGNETIC TAPE: 120-1250KB</td>
</tr>
<tr>
<td>CACHE MEMORY: 16KB</td>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 301</td>
<td>LINE PRINTER: 500-2400 LPM</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEFIMS/</td>
<td>SERIAL PRINTER: 30-180 CPS</td>
</tr>
<tr>
<td>ACCUMULATORS: 1</td>
<td>CARD READER: 600, 1050 CPM; 400 CPM</td>
</tr>
<tr>
<td>INDEX REGISTERS: 8</td>
<td>PAPER TAPE READER: 600, 1000 CPS; 110 CPS</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ABDMST/</td>
<td>DISPLAY TERMINAL: 640/1920 CHAR.</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 60MB</td>
<td>MULTIPLEXOR: SYN, ASYN</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCDPRIME/</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>OTHER: OME, OCR, DIGITI FLOTTR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>* MACRO ASSEM</td>
<td>* ALGOL</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
<td>* SINGLE BASIC</td>
</tr>
<tr>
<td>* REAL TIME MTR</td>
<td>* MULI BASIC</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>* PL1</td>
</tr>
<tr>
<td>OTHER:</td>
<td>RPG</td>
</tr>
<tr>
<td></td>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $SEE MFR</td>
<td>MAIN MARKET:</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $65K/MO, #900-1</td>
<td>MAINTENANCE:</td>
</tr>
<tr>
<td>OTHER BASIC COMPUTERS: $65,000/MO. (900-1) AND $88,000/MO. (900-2).</td>
<td></td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bistable synchronous  
D = Direct Memory Access  
M = Multipoint Memory  
S = Selectable Line Speeds  
T = Timed

(3) PROCESSOR FEATURES:  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1976, THE IMPEX 600/50 IS A COMPUTER DESIGNED FOR BUSINESS, COMMUNICATIONS, AND DATA ENTRY APPLICATIONS. IT FEATURES A FIXED 64K MEMORY AND DISK STORAGE OF UP TO 264MB.

**APPLICATION**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)
- WORD SIZE: 16 BITS
- MEMORY: 64 TO 128K
- CYCLE TIME: 1.2 USEC
- ADD TIME: 1.2 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 62
- INSTRUCTION TYPES (1): BI/
- ACCUMULATORS: 4
- INDEX REGISTERS: 2
- I/O COMMUNICATIONS (2): BDS/
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): BFR/E
- INTERFACE SLOTS: 9

**SYSTEMS SOFTWARE**
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**
- COMPUTER: $N/A, 32K
- MEMORY: $N/A
- SYSTEM: $SEE MFR, 32K
- INCLUDES 64K CPU; 4.8MB DISK; MAG TAPE UNIT; CRT.

**FEATURES**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)
- REMOVABLE DISK: 223, 225; 33MB, 66MB
- FIXED HEAD DISK: 263A, 4.8MB
- FLEXIBLE DISK: 327A, 315 KB
- MAGNETIC TAPE: 38X, 31X, 25 IPS
- TAPE CASSETTE: N/A
- LINE PRINTER: 533, 536, 300/600 LPM
- SERIAL PRINTER: 515, 510, 45/165 CPS
- CARD READER: 710, 300 CPS
- PAPER TAPE READER: N/A
- DISPLAY TERMINAL: 161, 162, 480/1920CHAR
- MULTIPLEXOR: N/A
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL (NO ADD. MEMORY)
- FORTRAN
- PLI
- RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER, OEM
- UNITS SOLD: 150 (06/77)
- MAINTENANCE: ON CALL

1. INSTRUCTIONS:
   - B = Byte Manipulation
   - D = Decimal Arithmetic
   - E = Extended Precision
   - F = Floating Point
   - I = Indirect Addressing
   - M = Multiply & Divide
   - S = Stack Processing

2. I/O COMMUNICATIONS:
   - A = Asynchronous
   - B = Bisynchronous
   - D = Direct Memory Access
   - M = Multiport Memory
   - S = Selectable Line Speeds
   - T = Autodial

3. PROCESSOR FEATURES
   - B = Base Address Relocation
   - C = Real Time Clock
   - D = Dynamic Page Relocation
   - E = Memory Parity Detect
   - F = Power Fail Safe
   - K = Memory Parity Correct
   - M = Memory Protection
   - R = Priority Interrupt
   - V = Vectored Interrupt

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**APPLICATION(*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES(*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: YES
- FIXED HEAD DISK:
- FLEXIBLE DISK: YES
- MAGNETIC TAPE: 45-75IPS, 800-1600BPI
- TAPE CASSETTE:
- LINE PRINTER: 300-900 LPM
- SERIAL PRINTER: 180 CPS
- CARD RD/PN: 285,600 CPR
- PAPER TAPE RD/PN: YES
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

**SOFTWARE LANGUAGES(*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER: NORD-PL

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

**SYSTEMS SOFTWARE(*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MONTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**PRICES**

- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = B asynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
THE P1175 IS A GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND COMMERCIAL APPLICATIONS. FEATURES INCLUDE MULTIPROGRAMMING AND LARGE DATA BASE CAPABILITY, OVER 200 INSTRUCTIONS AND A VARIETY OF PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS AND APPLICATIONS PACKAGES INCLUDING PRODUCTION, INVENTORY AND DISTRIBUTION CONTROL.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
- WORD SIZE: 32 BITS
- MEMORY: 96 TO 512K
- CYCLE TIME: .96 USEC
- ADD TIME:
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 200
- INSTRUCTION TYPES (1): DFIS/
- ACCUMULATORS: 2
- INDEX REGISTERS: 14
- I/O COMMUNICATIONS (2): A/
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): CM/
- INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATH MONITOR
- DATA BASE SYS
- OTHER:

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: YES
- FIXED HEAD DISK: YES
- FLEXIBLE DISK:
- MAGNETIC TAPE: YES
- TAPE CASSETTE:
- LINE PRINTER: YES
- SERIAL PRINTER:
- CARD READER, P/N: YES
- PAPER TAPE READER:
- DISPLAY TERMINAL:
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER: PLOTTER

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

PRICES
- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

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INTRODUCED IN 1976, THE P400 IS A HIGH-PERFORMANCE, GENERAL PURPOSE MINICOMPUTER. A FULL COMPLEMENT OF PERIPHERALS DEVICES ARE AVAILABLE ALONG WITH BASIC, COBOL, AND FORTRAN SOFTWARE PACKAGES. OTHER FEATURES INCLUDE A MEMORY EXPANDABLE FROM 64K TO 4M WORDS, AND THE PRIMOS IV VIRTUAL MEMORY OPERATING SYSTEM.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 64 TO 4000K MOS
- CYCLE TIME: .6 USEC
- ADD TIME: .56 (16BTS) USEC
- CACHE MEMORY: 2KB, 80NS
- # OF INSTRUCTIONS: 312
- INSTRUCTION TYPES (1): BEFINS/
  ACCUMULATORS: 1
- INDEX REGISTERS: 2
- I/O COMMUNICATIONS (2): D/ABST
- I/O TRANSFER RATE: 2.5MB
- PROCESSOR FEATURES (3): BDVMPF/F
- INTERFACE SLOTS: 17, 27

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
  - MACRO ASSEM 8K
  - DISK MONITOR 16K
  - REAL MTIME 4K
  - T/S MONITOR 32K
  - BATCH MONITOR 32K
  - DATA BASE SYS 4K
  - OTHER:

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: 422X, 4133, 4241, 42, 43
- FIXED HEAD DISK: 4204, 4207
- FLEXIBLE DISK: 43X
- MAGNETIC TAPE: 402X, 414X, 4156
- TAPE CASSETTE:
  - LINE PRINTER: 316X
  - SERIAL PRINTER: 3127
  - CARD ED, PN: 3141, 3181
  - PAPER TAPE ED, PN: 3121, 3123
  - DISPLAY TERMINAL: 3129
  - MULTIPLEXER: 50X, 53X
  - TERMINALS/SYSTEM:
  - OTHER: DATA ACQUISITION/C+T

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- * SINGLE BASIC 16K
- * MULTI BASIC 16K
- * COBOL 16K
- * FORTRAN 16K
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

**PRICES**

- COMPUTER: $71200, 128K
- MEMORY: $30000, 128K
- SYSTEM: $140000, 128K
- INCLUDES 128K CPU; 100MB DISK; 100 MAGNETIC TAPE; 30 CPS PRINTER.

(1) INSTRUCTIONS:
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:
- **A** = Asynchronous
- **B** = Bisynchronous
- **D** = Direct Memory Access
- **M** = Multiplex Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 256 TO 8MBK MOS
CYCLE TIME:
ADD TIME:
CACHE MEMORY: 2KB, 80NS
# OF INSTRUCTIONS: 80
INSTRUCTION TYPES (1): BDEFINS/
ACCUMULATORS: 1
INDEX REGISTERS: 2
I/O COMMUNICATIONS (2): D/ABST
I/O TRANSFER RATE: 2.5KB
PROCESSOR FEATURES (3): BDFVBEK/CF
INTERFACE SLOTS: 17,27

SYSTEMS SOFTWARE (*)
ASSEMBLER
- MACRO ASSEM 6K
- DISK MONITOR 16K
- REAL TIME MONTR 4K
- T/S MONITOR 8K
- BATCH MONITOR 32K
- DATA BASE SYS 4K
OTHER:

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 422X,4133,424X
FIXED HEAD DISK: 4204,4207
FLEXIBLE DISK: 433X
MAGNETIC TAPE: 402X,414X,4156
TAPE CASSETTE:
LINE PRINTER: 316X
SERIAL PRINTER: 3127
CARD RD,PD: 3141,3181
PAPER TAPE RD,PD: 3121,3123
DISPLAY TERMINAL: 3129
MULTIPLEXOR: 50XI,53XI
TERMINALS/SYSTEM:
OTHER: DATA AQUIS./CONTROL

SOFTWARE LANGUAGES (*)
APL
ALGOL
- SINGLE BASIC 16K
- MULTI BASIC 16K
- COBOL 16K
- FORTRAN 16K
PL1
EPG
OTHER:

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1977, THE PRIME T/3 IS A PACKAGED BUSINESS SYSTEM BASED ON THE PRIME P300 THAT PROVIDES A MULTI-USER CAPABILITY FOR TRANSACTION PROCESSING AND DATA BASE MANAGEMENT APPLICATIONS. THE T/3 SYSTEM OFFERS FOUR COMPATIBLE LEVELS OF DATA MANAGEMENT FACILITIES INCLUDING A CODASYL-COMPLIANT DATA BASE MANAGEMENT SYSTEM, A MULTIPE INDEX DATA ACCESS SYSTEM, A FORMS MANAGEMENT SYSTEM, COBOL, FORTRAN IV AND RPG II. ALL FOUR LEVELS OPERATE UNDER PRIMOS, THE PRIME VIRTUAL MEMORY OPERATING SYSTEM.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

WORD SIZE: 16 BITS
MEMORY: 0 TO 256K MOS
CYCLE TIME: 6/64 USEC
ADD TIME: 1.56, 16BYS USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 172
INSTRUCTION TYPES (1): BEIS/FM
ACCUMULATORS: 1
INDEX REGISTERS: 1
I/O COMMUNICATIONS (2): AD/BST
I/O TRANSFER RATE: 2.5MB
PROCESSOR FEATURES (3): BDVRME/CF
INTERFACE SLOTS: 10-27

**SYSTEMS SOFTWARE (*)**

ASSEMBLER
- MACRO ASSEM 8K
- DISK MONITOR 16K
- REAL TIME MTR 4K
- T/S MONITOR 32K
- BATCH MONITOR 32K
- DATA BASE SYS 4K
- OTHER: PRIMOS

**PRICES**

COMPUTER: $SEE MFR, 192K
MEMORY:
SYSTEM: $100,000, 192K
INCLUDES 192K CPU; CONSOLE; DISK (40MB); M. TAPE UNIT; LINE PRINTER (200 LPM).

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

REMOVABLE DISK: 422X, 4133, 4241, 4242
FIXED HEAD DISK: 4204, 4207
FLEXIBLE DISK: 43X
MAGNETIC TAPE: 402X, 414X, 4156
TAPE CASSETTE:
LINE PRINTER: 316X
SERIAL PRINTER: 3127
CARD FD.PN: 3141, 3181
PAPER TAPE RD.PN: 3121, 3123
DISPLAY TERMINAL: 3129
MULTIPLEPLUG: 50XX, 53XX
TERMINALS/SYSTEM:
OTHER: DATA AQUIS./CONTROL

**SOFTWARE LANGUAGES (*)**

- ABL
- ALGOL
- SINGLE BASIC 16K
- MULTI BASIC 16K
- COBOL 16K
- FORTRAN 16K
- PL1
- RPG
- OTHER:

**MARKETING**

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multisert Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
F = Memory Parity Detect
K = Power Fail Safe
L = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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**APPLICATION (*)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)

- Word Size: 16 bits
- Memory: 64 to 48K MOS
- Cycle Time: .6 USEC
- Add Time: .56 USEC
- Cache Memory: 2KB, 80NS
- # of Instructions: 312
- Instruction Types (1): BEFINS/
  ACCUMULATORS: 1
- Index Registers: 2
- I/O Communications (2): D/ABST
- I/O Transfer Rate:
- Processor Features (3): BDVREK/CF
- Interpace Slots:

**SYSTEMS SOFTWARE (*)**

- Assemble
- Macro Assemble 8k
- Disk Monitor 16K
- Real Time Monitor 4K
- T/S Monitor 32K
- Batch Monitor 32K
- Data Base Sys 8K
- Other: PRIMOS

**FEATURES (*)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Spec, N/A)

- Removable Disk: 422X, 4133, 424X
- Fixed Head Disk: 4204, 4207
- Flexible Disk: 433X
- Magnetic Tape: 402X, 414X, 4156
- Tape Cassette:
- Line Printer: 316X
- Serial Printer: 3127
- Card Reader/Writer: 3141, 3181
- Paper Tape Reader/Writer: 3121, 3123
- Display Terminal: 3129
- Multiplier: 50XX, 53XX
- Terminals/Systems:
  - Other: Data Aquis./Control

**SOFTWARE LANGUAGES (*)**

- APL
- Algol
- Single Basic 16K
- Multi Basic 16K
- COBOL 16K
- Fortran 16K
- PL/1
- RPG
- Other:

**MARKETING**

- Main Market: End User
- Units Sold:
- Maintenance:

**PRICES**

- Computer: $288 MFR
- Memory:
- System: $250000

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1

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INTRODUCED IN 1977: THE PRIME T/5 IS A PACKAGED BUSINESS SYSTEM BASED ON THE PRIME 300 THAT PROVIDES A MULTI-USER CAPABILITY FOR TRANSACTION PROCESSING AND DATABASE MANAGEMENT APPLICATIONS. THE T/5 SYSTEM OFFERS FOUR COMPATIBLE LEVELS OF DATA MANAGEMENT FACILITIES INCLUDING A CODASYL-COMPLIANT DATABASE MANAGEMENT SYSTEM, A MULTIPLE INDEX DATA ACCESS SYSTEM, A FORMS MANAGEMENT SYSTEM, COBOL, FORTRAN IV AND RPG II. ALL FOUR LEVELS OPERATE UNDER PRIMOS, THE PRIME VIRTUAL MEMORY OPERATING SYSTEM.

APPLICATION (*)
* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
  EDUCATIONAL SYSTEM
  BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 16 BITS
MEMORY: 256 TO 6000K MOS
CYCLE TIME:
ADD TIME:
CACHE MEMORY: 2KB, 80NS
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDEFINS/
ACCUMULATORS: 1
INDEX REGISTERS: 2
I/O COMMUNICATIONS (2): D/ABST
I/O TRANSFER RATE: 2.5MB
PROCESSOR FEATURES (3): BDRVMEK/CP
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
  * MACRO ASSEM 8K
  * DISK MONITOR 16K
  * REAL TIME NTR 4K
  * T/S MONITOR 32K
  * BATCH MONITOR 32K
  * DATA BASE SYS 4K
  OTHER:

FEATURES (*)
* UPWARD COMPATIBLE
  * FIELD SERVICE
  * APPLICATION SOFTWARE
  * CONVERSATIONAL LANGUAGES
  * USER MICROPROGRAMMABLE
  * FACTORY MICROPROGRAMMABLE
  * VIRTUAL MEMORY MACHINE
  * MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 422X,413X,424X
FIXED HEAD DISK: 420X,4207
FLEXIBLE DISK: 43XX
MAGNETIC TAPE: 402X,414X,4156
TAPE CASSETTE:
  LINE PRINTER: 316X
  SERIAL PRINTER: 3127
  CARD RD,WN: 3141,3181
  PAPER TAPE RD,WN: 3121,3123
  DISPLAY TERMINAL: 3129
  MULTIPLEXOR: 50XX,53XX
  TERMINALS/SYSTEM:
  OTHER: DATA ACQUIS./CONTROL

SOFTWARE LANGUAGES (*)
* APL
  ALGOL
  * SINGLE BASIC 16K
  * MULTI BASIC 16K
  * COBOL 16K
  * FORTRAN 16K
  PL1
  RPG
  OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

PRICES
COMPUTER: $600,000, 1000K
MEMORY:
SYSTEM: $500,000, 1000K
INCLUDES 1MB CPU; CONSOLE; FOUR DISK STORAGE MODULES (300MB EACH); 3 MAG TAPE UNITS; LINE PRINTER (1200 LPM); CARD READER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
PRIME COMPUTER: TEMPUS CREATE/3

INTRODUCED IN 1973, THE CREATE/3 IS THE MIDDLE MODEL OF THREE ENTRY-LEVEL, PACKAGED SYSTEMS IN PRIME'S TEMPUS CREATE SERIES OF COMPUTERS FOR SCIENTIFIC, ENGINEERING, EDUCATIONAL, AND BUSINESS ENVIRONMENTS. THE CREATE/3 PACKAGE INCLUDES A MODEL 300 CPU WITH 128K MOS MAIN MEMORY, FLOATING POINT ARITHMETIC, AN OPERATOR TERMINAL, DISK DRIVE, MAGNETIC TAPE DRIVE, LINE PRINTER AND COMMUNICATIONS CONTROLLER FOR SIXTEEN ASYNCHRONOUS LINES. SYSTEM SOFTWARE INCLUDES THE PRIMOS III OPERATING SYSTEM.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 16 BITS
MEMORY: 64 TO 128K MOS
CYCLE TIME: .6 OR .44 USEC
ADD TIME: 1.56 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 172
INSTRUCTION TYPES (1): F/
ACCUCLATORS: 1
INDEX REGISTERS: 1
I/O COMMUNICATIONS (2): ADS/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): VRE/K
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATH MONITOR
* DATA BASE SYS
OTHER: PRIMOS III

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: YES
FIXED HEAD DISK: YES
FLEXIBLE DISK: YES
MAGNETIC TAPE: 9-TRACK 800 BPI
TAPE CASSETTES:
LINE PRINTER:
SERIAL PRINTER: 165 CPS
CARD RD, PW:
PAPER TAPE RD, PW:
DISPLAY TERMINAL: YES
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: COMM. CONTROLLER

SOFTWARE LANGUAGES (*)

APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PLI
RPG
OTHER:

MARKETING

MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: CUSTOMER

PRICES

COMPUTER: $SEE MFR, 128K
MEMORY:
SYSTEM: $67300, 128K
INCLUDES 128K CPU; 30 CPS OPERATOR TERMINAL; 12MB DISK DRIVE; MAG TAPE DRIVE; LINE PRINTER; COMMUNICATION CONTROLLER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistatic
D = Direct Memory Access
M = Multiplexed Memory
S = Selectable Line Speeds
T = Terminal

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Centralized Synchronization
D = Dynamic Page Relocation
E = Error Handling
F = Full PAGE Keith
K = Keyed Memory Protection
M = Memory Protection
R = Priority Interrupt
S = Soft Interrupt
THE CREATE/4 IS THE TOP MODEL OF THREE ENTRY-LEVEL PACKAGED SYSTEMS IN THE PRIME TEMPS CREATE SERIES OF COMPUTERS FOR SCIENTIFIC, ENGINEERING, EDUCATIONAL, AND BUSINESS ENVIRONMENTS. THE CREATE/4 PACKAGE INCLUDES A Model 400 CPU WITH 256KB MOS MAIN MEMORY, 2KB CACHE MEMORY, FLOATING POINT, OPERATOR TERMINAL, DISK DRIVE, TAPE DRIVE, LINE PRINTER, AND COMMUNICATION CONTROLLER FOR 16 ASYNCHRONOUS LINES. SYSTEM SOFTWARE INCLUDES THE PRIMOS IV VIRTUAL MEMORY OPERATING SYSTEM, AS WELL AS THE LANGUAGE PROCESSORS AND UTILITY PROGRAMS OFFERED WITH THE OTHER CREATE SYSTEMS.

**APPLICATION (*)**
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRY CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**
WORD SIZE: 16 BITS
MEMORY: 128 TO 2MK MOS
CYCLE TIME: .6 USEC
ADD TIME: .56 USEC
CACHE MEMORY: 2KB, 80NS
# OF INSTRUCTIONS: 312
INSTRUCTION TYPES (1): B/E/F/M/S
ACCU. CUMULATORS: 1
INDEX REGISTERS: 2
I/O COMMUNICATIONS (2): /
I/O TRANSFER RATE: 2.5MB
PROCESSOR FEATURES (3): /
INTERFACE Slots: 17, 27

**SYSTEMS SOFTWARE (*)**
ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MONITOR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: PRIMOS IV

**FEAURES (*)**
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
REMOVABLE DISK: YES
FIXED HEAD DISK: YES
FLEXIBLE DISK: YES
MAGNETIC TAPE: YES
TAPE CASSETTE: /
LINE PRINTER: YES
SERIAL PRINTER:
CARD RD, PD:
PAPER TAPE RD, PD:
DISPLAY TERMINAL: YES
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

**SOFTWARE LANGUAGES (*)**
APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
RPG
OTHER:

**MARKETING**
MAIN MARKET: END USER, OEM
UNITS SOLD: 75 (10/76)
MAINTENANCE: CUSTOMER

**PRICES**
COMPUTER: $5000 MFR, 128K
MEMORY: $12000, 32K
SYSTEM: $30000, 128K

INCLUDES 128K CPU; 30 CPS OPERATOR TERMINAL; 80MB DISK DRIVE; TAPE DRIVE; 300 LPM PRINTER; COMMUNICATION CONTROLLER.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Count Inc/Dec
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE RT8000 IS A 24-BIT MINICOMPUTER DESIGNED FOR MULTIPROCESSOR OPERATION. THE RT8000 FEATURES BYTE MANIPULATION AND FLOATING POINT INSTRUCTIONS AND IS FACTORY MICROPROGRAMMABLE. A MINIMUM CONFIGURATION INCLUDES THE REGNECENTRALEN RF3600 FRONT END. SOFTWARE SUPPORT AND A VARIETY OF PERIPHERALS ARE AVAILABLE.

### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- WORD SIZE: 24 BITS
- MEMORY: 32 TO 4096 KB
- CYCLE TIME: 6.8 USEC
- ADD TIME: 1.8 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: N/A
- INSTRUCTION TYPES (1): BFM/
- ACCUMULATORS: 4
- INDEX REGISTERS: 3
- I/O COMMUNICATIONS (2): D/
- I/O TRANSFER RATE: 1MB
- PROCESSOR FEATURES (3): BCFRME/
- INTERFACE SLOTS: 8

### SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $SEE MFR, 32K
- MEMORY: $68500, 32K

### MARKETING
- MAIN MARKET: N/A
- UNITS SOLD: N/A
- MAINTENANCE: N/A

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: YES
- FIXED HEAD DISK: YES
- FLEXIBLE DISK: YES
- MAGNETIC TAPE: YES
- TAPE CASSette: YES
- LINE PRINTER: UP TO 1800 LPM
- SERIAL PRINTER: N/A
- CARD RD, PW: 600 CPM; YES
- PAPER TAPE RD, PW: N/A; N/A
- DISPLAY TERMINAL: N/A
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

### (1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

### (2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

### (3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 16 TO 1024K CORE
CYCLE TIME: 1 USEC
ADD TIME: 1 USEC
CACHE MEMORY:
# OF INSTRUCTIONS: 230
INSTRUCTION TYPES (1): B/EINS/
ACCUMULATORS: 12
INDEX REGISTERS: 2
I/O COMMUNICATIONS (2): D/ABS
I/O TRANSPARENCY RATE: 2MB
PROCESSOR FEATURES (3): PVEN/
INTERFACE SLOTS:

SYSTEMS SOFTWARE(*)
* ASSEMBLER 16K
* MACRO ASSEMBLE 64K
* DISK MONITOR RMA/RDOS 64K
* REAL TIME MTR RIOS 16K
* T/S MONITOR 64K
* BATCH MONITOR 64K
* DATA BASE SYS 64K
OTHER: SOS STAND-ALONE O.S.

SOFTWARE LANGUAGES(*)
* ALGOL 64K
* SINGLE BASIC 64K
* MULTI BASIC
* COBOL
* FORTRAN 64K
* PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD: 6 (00/00)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistrarchical
D = Direct Memory Access
M = Multipart Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

PRICES
COMPUTER: $57000
MEMORY: $7000, 16K
SYSTEM: $120000, 64K
INCLUDES 64K MEMORY; DISK DRIVE; CRT TERMINAL.
THE SCAN-DATA 2250/2 is a system for data entry applications. The 2250/2 features up to 256K of directly accessible bytes of memory, program overlay capability, remote key stations, and multiple station supervisors. The 2250/2 is a shared processor system supporting up to 32 Scan-plex II key stations. Software support includes COBOL. Key station printers are available.

**APPLICATION**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt. N/A)

- Word Size: Bits
- Memory: To 256K
- Cycle Time: N/A
- Add Time: N/A
- Cache Memory: N/A
- # of Instructions: N/A
- Instruction Types (1): N/A
- Accumulators: N/A
- Index Registers: N/A
- I/O Communications (2): N/A
- I/O Transfer Rate: N/A
- Processor Features (3): N/A
- Interface Slots: N/A

**SYSTEMS SOFTWARE**

- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base System

**PRICES**

- Computer: $See Mfr
- Memory: * 32K
- System: $See Mfr

**FEATURES**

- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

- Removable Disk:
- Fixed Head Disk:
- Flexible Disk:
- Magnetic Tape:
- Tape Cassette:
- Line Printer:
- Serial Printer: 110 CPS
- Card Reader/Pen:
- Paper Tape Reader/Pen:
- Display Terminal:
- Multiplexer:
- Terminals/System: 32
- Other:

**SOFTWARE LANGUAGES**

- APL
- Algol
- Single Basic
- Multi Basic
- * COBOL
- Fortran
- PL1
- RPG
- Other:

**MARKETING**

- Main Market:
- Units Sold:
- Maintenance:

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = B asynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1968, THE IRIS 50 IS A GENERAL PURPOSE COMPUTER FOR STORAGE, CONTROL, AND COMMUNICATIONS APPLICATIONS. FEATURES INCLUDE MODULAR DESIGN, STORAGE EXPANDABLE FROM 16K TO 256K WORDS, MULTIPROGRAMMING, AND A WIDE VARIETY OF AVAILABLE PERIPHERALS. SOFTWARE SUPPORT INCLUDES COBOL AND FORTRAN COMPILERS.

### APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt. N/A)
- WORD SIZE: 8 BITS
- MEMORY: 16 TO 264K
- CYCLE TIME: .95 USEC
- ADD TIME: 4.6 (42BITS) USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 102
- INSTRUCTION TYPES (1): BFIN/
- ACCUMULATORS: 16
- INDEX REGISTERS: 7
- I/O COMMUNICATIONS (2):
- I/O TRANSFER RATE: 1.5MB
- PROCESSOR FEATURES (3): BCRM/
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- * REAL TIME MONITOR
- I/S MONITOR
- * BATCH MONITOR
- DATA BASE SYS
- OTHER:

### PRICES
- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $SEE MFR

### FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs. N/A)
- REMOVABLE DISK: 702X2
- FIXED HEAD DISK: 7020X
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 7231X, 70322
- TAPE CASSETTE: N/A
- LINE PRINTER: 70445, 72444
- SERIAL PRINTER: N/A
- CARD RD, PN: 70140
- PAPER TAPE RD, PN: YES
- DISPLAY TERMINAL:
- MULTIPLEXOR: YES
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: LPG

### MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1971, THE IRIS 80 IS A LARGE-SCALE, 32-BIT WORD COMPUTER DESIGNED SPECIFICALLY AS A MULTIPROCESSOR. FEATURES INCLUDE A CAPACITY WHICH CAN EXCEED 4M BYTES, A BUS TRANSFER RATE OF 12M BYTES, PAGING, MULTIPROGRAMMING, STACK HANDLING, AND A VARIETY OF PERIPHERALS. EXTENSIVE SOFTWARE IS AVAILABLE FOR LOCAL BATCH, REMOTEJOB ENTRY, TIME SHARING, BUSINESS ORIENTED FAST-RESPONSE TRANSACTIONS, AND REAL TIME OPERATIONS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
ENGINEERING/COMPUTATION
EDUCATIONAL SYSTEM
BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
UPWARD COMPATIBLE
FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)
WORD SIZE: 32 BITS
MEMORY: 256 TO 4000K
CYCLE TIME: .65 USEC
ADD TIME: .85 (32KTS) USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 112
INSTRUCTION TYPES (1): BEFINS/
ACCUMULATORS: 16
INDEX REGISTERS: 7
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE: 3.5MB
PROCESSOR FEATURES (3): CDRM/
INTERFACE SLOTS:

PERIPHERALS (Model #. Specs. N/A)
REMOVABLE DISK: 72282
FIXED HEAD DISK: 70212
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 723IX, 70322
TAPE CASSETTE: N/A
LINE PRINTER: 70140/70160
SERIAL PRINTER: 300 CPS; 50 CPS
CARD READER, PN: 70140; 70160
PAPER TAPE RD, PN: 300 CPS; 50 CPS
DISPLAY TERMINAL: YES
MULTIPLEXOR:
TERMINAL/SYSTEM:
OTHER: PLOTTER

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEMBLER
* DISK MONITOR SIRIS 8
* REAL TIME MTR SIRIS 8
* I/S MONITOR
* BACH MONITOR SIRIS 8
DATA BASE SYS
OTHER:

SOFTWARE LANGUAGES (*)
APL
* ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
PL1
RPG
OTHER:

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
THE SFENA DSI CO/ORDINATEUR 500 IS A 16-BIT COMPUTER FOR BUSINESS APPLICATIONS. THE CO/ORDINATEUR 500 FEATURES 24 PROGRAMMABLE GENERAL PURPOSE REGISTERS, BYTE MANIPULATION, 6 ADDRESSING MODES, AND STACK PROCESSING. THE CO/ORDINATEUR 500 CAN FUNCTION AS A MULTI-USER INTERACTIVE SYSTEM OR AS A REMOTE BATCH SYSTEM. UP TO 32 TERMINALS AND 4 FLOPPY DRIVES CAN BE ACCOMMODATED. SOFTWARE SUPPORT INCLUDES THE METER OPERATING SYSTEM AND THE LEM LANGUAGE (WHICH IS SIMILAR TO COBOL). PERIPHERALS, INCLUDING A CARD READER AND PUNCH, ARE AVAILABLE.

**APPLICATION (**)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: 16 BITS
- MEMORY: TO 128K CORE
- CYCLE TIME: .75 USEC
- ADD TIME:
- CACHE MEMORY: KB, 112NS
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): BEINS/
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): ADS/
- I/O TRANSFER RATE: 1.3MB
- PROCESSOR FEATURES (3): CFVBM/
- INTERFACE SLOTS:

**SYSTEMS SOFTWARE (**)**
- ASSEMBLER
- RACER ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: METER O.S.

**PRICES**
- COMPUTER: $SEE MFR
- MEMORY: * 32K
- SYSTEM: $SEE MFR

**FEATURES (**)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**
- REMOVABLE DISK:
- FIXED HEAD DISK: YES
- FLEXIBLE DISK: YES
- MAGNETIC TAPE: YES
- TAPE CASSETTE:
- LINE PRINTER:
- SERIAL PRINTER:
- CARD RD, PN: YES
- PAPER TAPE RD, PN:
- DISPLAY TERMINAL: YES
- MULTIPLEXOR:
- TERMINALS/SYSTEM: 32
- OTHER:

**SOFTWARE LANGUAGES (**)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: LEM

**MARKETING**
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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Introduced in 1970, the 4004/150 is a large-scale computer designed for business and scientific applications. Features include user microprogramming, memory expansion to 2048kB and a variety of peripherals. Software support includes three data base systems: Sesam (128kB), Prisma (256kB) and Golem (256kB), and the BS1000 operating system.

**APPLICATION (*)**
- Business/Commercial communications processor
- Industrial control
- Laboratory/scientific engineering/computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt, N/A)**
- Word size: 32 bits
- Memory: 128 to 2048K
- Cycle time: .76 usec
- Add time: 1.36 usec
- Cache memory: N/A
- # of instructions: 153
- Instruction types (1): BDFINS/accumulators
- Index registers: 43
- I/O communications (2): AD
- I/O transfer rate: 5.2MB
- Processor features (3): BCFRMK/Interface slots

**SYSTEMS SOFTWARE (*)**
- Assembler 34K, 70K
- Macro assembler 24K, 34K, 70K
- Disk monitor 35K
- Real time monitor 30K
- T/S monitor 4K
- Batch monitor 35K
- Data base system 128K, 256K

**PRICES**
- Computer: $see MFR, 128K
- Memory: $see MFR, 128K

**FEATURES (*)**
- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable virtual memory machine
- Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**
- Removable disk: 45x1,580
- Fixed head disk: N/A
- Flexible disk: 920
- Magnetic tape: 430, 442, 442x, 45x
- Tape cassette: N/A
- Line printer: 424x, 243
- Serial printer: N/A
- Card reader, punch: 600-1430, 100-300
- Paper tape reader, punch: 1200-1500, 150
- Display terminal: 815, 816
- Multiplexor: 216KB
- Terminals/system: N/A

**SOFTWARE LANGUAGES (*)**
- APLBS2000
- Algol BS2000
- Single basic BS2000
- Multi basic BS2000
- Cobol BS2000
- Fortran BS2000
- PLI BS2000
- RPG BS2000

**MARKETING**
- Main market: end user
- Units sold: N/A
- Maintenance: N/A

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = B synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1970, THE 4004/151 IS A GENERAL PURPOSE COMPUTER AND A LARGER VERSION OF THE 4004/150 SYSTEM. IT FEATURES THE BS2000 OPERATING SYSTEM WHICH HANDLES APL AND BASIC IN ADDITION TO ALGOL, FORTRAN, COBOL, PL/1 AND RPG LANGUAGES WHICH ARE HANDLED BY THE BS1000 OPERATING SYSTEM. FEATURES INCLUDE MICROPROGRAMMABLE AND A VARIETY OF PERIPHERALS. THREE DATA BASE SYSTEMS: SESAM (120KB) PRISMA (256KB) AND GOLEM (256KB) ARE AVAILABLE.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER** (Std/Opt N/A)

- WORD SIZE: 32 BITS
- MEMORY: 256 TO 2080K
- CYCLE TIME: .76 USEC
- ADD TIME: 1.02 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 154
- INSTRUCTION TYPES (1): BDFIMS/
- ACCUMULATORS:
- INDEX REGISTERS: 43
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: 5.0MB
- PROCESSOR FEATURES (3): BCDPRMK/
- INTERFACE SLOTS:

**PERIPHERALS** (Model #, Specs. N/A)

- REMOVABLE DISK: 45X, 580
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 920/250KB
- MAGNETIC TAPE: 430, 442, 442X, 45X
- TAPE CASSETTE: N/A
- LINE PRINTER: 424X, 243/
- SERIAL PRINTER: N/A
- CARD RD, PW: 600-1430; 100-300
- PAPER TAPE RD, PW: 1200-1500; 150
- DISPLAY TERMINAL: 615X, 616X
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER 34, 70K
- MACRO ASSEMBLY 24K, 34K, 70K
- DISK MONITOR 35K
- REAL TIME MONITOR 30K
- T/S MONITOR 4K
- BASTION MONITOR 35K
- DATA BASE SYS 128K, 256K
- OTHER:

**SOFTWARE LANGUAGES (*)**

- APL (BS2000)
- ALGOL 66K (BS1000)
- SINGLE BASIC (BS2000)
- MULTI BASIC (BS2000)
- COBOL 24/48K (BS1000)
- FORTRAN 56/92K (BS1000)
- PL1 86K (BS1000)
- RPG 26/30K (BS1000)
- OTHER:

**PRICES**

- COMPUTER: $SEE MFR, 256K
- MEMORY:
- SYSTEM: $SEE MFR, 256K

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE:

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bysynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

**PROCESSOR FEATURES:**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE 7.722 IS A SMALL-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. STANDARD FEATURES INCLUDE MEMORY PARITY DETECT AND CORRECT, PRIORITY INTERRUPTS, AND STACK PROCESSING. EXTENSIVE SOFTWARE SUPPORT AND A WIDE VARIETY OF PERIPHERALS ARE AVAILABLE.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
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<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>MULTIPROCESSOR</td>
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<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<td>WORD SIZE: 64 BITS</td>
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<tr>
<td>MEMORY: 96 TO 384K</td>
</tr>
<tr>
<td>CYCLE TIME: .61 USEC</td>
</tr>
<tr>
<td>ADD TIME: 6.0 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 169</td>
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<tr>
<td>INSTRUCTION TYPES (1): BDEFM/</td>
</tr>
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<td>ACCUMULATORS:</td>
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<td>INDEX REGISTERS: 43</td>
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<tr>
<td>I/O COMMUNICATIONS (2): AD/</td>
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<tr>
<td>I/O TRANSFER RATE: 1.4MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCDFROM/</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER 34, 170K</td>
</tr>
<tr>
<td>* MACRO ASSEM 24, 34, 70K</td>
</tr>
<tr>
<td>* DISK MONITOR 35K</td>
</tr>
<tr>
<td>* REAL TIME MTR 30K</td>
</tr>
<tr>
<td>* I/S MONITOR 4K</td>
</tr>
<tr>
<td>* BATCH MONITOR 35K</td>
</tr>
<tr>
<td>* DATA BASE SYS 128, 256K</td>
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<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: 3440, 345X, 346X</td>
</tr>
<tr>
<td>FIXED HEAD DISK:</td>
</tr>
<tr>
<td>FLEXIBLE DISK: 920</td>
</tr>
<tr>
<td>MAGNETIC TAPE: 353X, 3540, 355X</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: 334X, 3352</td>
</tr>
<tr>
<td>SERIAL PRINTER: 8120</td>
</tr>
<tr>
<td>CARD RD, PN: 660-1000, 100-290</td>
</tr>
<tr>
<td>PAPER TAPE RD, PN: 1200-1500, 150</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: 815X, 816X</td>
</tr>
<tr>
<td>MULTIPLEXOR:</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>SOFTWARELANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL (BS2000)</td>
</tr>
<tr>
<td>* ALGOL 66K (BS2000)</td>
</tr>
<tr>
<td>* SINGLE BASIC (BS2000)</td>
</tr>
<tr>
<td>* MULTI BASIC (BS2000)</td>
</tr>
<tr>
<td>* COBOL 24/48K (BS1000)</td>
</tr>
<tr>
<td>* FORTRAN 56/92K (BS1000)</td>
</tr>
<tr>
<td>* LPI 86K (BS1000)</td>
</tr>
<tr>
<td>* RPG 26/30K (BS1000)</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE:</td>
</tr>
</tbody>
</table>

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1974, THE 7.730 IS THE LOW END OF THE 7.000 SERIES OF GENERAL PURPOSE COMPUTERS DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE .05K BYTES OF CACHE MEMORY, USER MICROPROGRAMMING AND STACK PROCESSING HARDWARE. SOFTWARE SUPPORT INCLUDES THREE DATA BASE SYSTEMS: SESAM (128KB), PRISMA (256KB) AND GOLEM (256KB), AND THE BS1000 OPERATING SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE, COMPATIBLE WITH ALL MEMBERS OF THE 7.000 SERIES.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 24 TO 64K
CYCLE TIME: .68 USEC
ADD TIME: 2.7 USEC
CACHE MEMORY: .06K
# OF INSTRUCTIONS: 169
INSTRUCTION TYPES (1): BDEFINS/
ACCUMULATORS:
INDEX REGISTERS: 43
L/O COMMUNICATIONS (2): ADSI/
L/O TRANSFER RATE: 3MB
PROCESSOR FEATURES (3): BCFROMK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER 34K, 70K
* MACRO ASSEMBLER 24K, 34K, 54K
* DISK MONITOR 35K
* REAL TIME MONITOR 30K
* T/S MONITOR 4K
* B/R MONITOR 35K
* DATA BASE SYS 128K, 256K

PRICES
COMPUTER: $SEE MFR, 96K
MEMORY:
SYSTEM: $SEE MFR, 96K

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 4580,4578
FIXED HEAD DISK: 567–8,567–16
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 4421–30/60,4453
TAPE CASSETTE: N/A
LINE PRINTER: 424X
SERIAL PRINTER: N/A
CARD READ, WRITE: 4239–10/20,4238
PAPER TAPE WRITE: N/A
DISPLAY TERMINAL: 815X
MULTIPLEXOR: 320KB
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APLBS2000
* ALGOL BS2000
* SINGLE BASIC BS2000
* MULTI BASIC BS2000
* COBOL BS2000
* FORTRAN BS2000
* PL1 BS2000
* RPL BS2000
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
1978/No. 1

INTRODUCED IN 1976, THE 7.738 IS A SMALL-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS APPLICATIONS. STANDARD FEATURES INCLUDE MEMORY PARITY DETECT AND CORRECT, PRIORITY INTERRUPTS, AND STACK PROCESSING. EXTENSIVE SOFTWARE SUPPORT AND A WIDE VARIETY OF PERIPHERALS ARE AVAILABLE.

APPLICATIONS
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 128 BITS
MEMORY: 512 TO 1024K
CYCLE TIME: .61 USEC
ADD TIME: 2.77 USEC
CACHE MEMORY: 2KB
NO OF INSTRUCTIONS: 169
INSTRUCTION TYPES (1): BDE/DEFINS/ACCUMULATORS:
INDEX REGISTERS: 43
I/O COMMUNICATIONS (2): AD/
I/O TRANSFER RATE: 4.5MB
PROCESSOR FEATURES (3): BCDPRM/MK/INTERFACE SLOTS:

SYSTEM SOFTWARE
* ASSEMBLER 34, 70K
* MACRO ASSEM 24, 34, 70K
* DISK MONITOR 35K
* REAL TIME WTR 30K
* T/S MONITOR 4K
* BATCH MONITOR 35K
* DATABASE SYS 120/256K

PRICES
COMPUTER: $SEE MFR
MEMORY: $SEE MFR
SYSTEM: $SEE MFR

FEATURES
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 3340, 345X, 346X
FIXED HEAD DISK: 3470
FLEXIBLE DISK: 920
MAGNETIC TAPE: 353X, 3540, 355X
TAPE CASSETTE: N/A
LINE PRINTER: 3341, 3352
SERIAL PRINTER: 8120
CARD RD/PN: 660-1000, 100-290
PAPER TAPE RD/PN: 1200-1500, 150
DISPLAY TERMINAL: 815X, 816X
MULTIPLEXOR: N/A
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES
* APL (BS2000)
* ALGOL 66K (BS1000)
* SINGLE BASIC (BS2000)
* MULTI BASIC (BS2000)
* COBOL 24/48K (BS1000)
* FORTRAN 56/92K (BS1000)
* PLI 66K (BS1000)
* RPG 26/30K (BS1000)

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multislot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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INTRODUCED IN 1974, THE 7.740 IS A SMALL-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR BUSINESS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE VIRTUAL MEMORY, MEMORY PARITY, PRIORITY INTERRUPTS AND FLOATING POINT HARDWARE. SOFTWARE SUPPORT IS THE SAME AS FOR THE 7.730. A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

* REMOVABLE DISK: 3340, 345X, 346X
* FIXED HEAD DISK: 3470
* FLEXIBLE DISK: 920
* MAGNETIC TAPE: 353X, 3540, 355X
* TAPE CASSETTE: N/A
* LINE PRINTER: 334X, 3352
* SERIAL PRINTER: 8120
* CARD RD, PN: 660-1000, 100-290
* PAPER TAPE RD, PN: 1200-1500, 150
* DISPLAY TERMINAL: 815X, 816X
* MULTIPLEXOR:
* TERMINALS/SYSTEM:
* OTHER:

SOFTWARE LANGUAGES (*)

* APL (BS2000)
* ALGOL (BS1000) 66K
* SINGLE BASIC (BS2000)
* MULTI BASIC (BS2000)
* COBOL (BS1000) 24/48K
* FORTRAN (BS1000) 56/92K
* PL1 (BS1000) 86K
* RPG (BS1000) 26/30K
* OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

COMPUTER REVIEW
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302 1978/No. 1
INTRODUCED IN 1976, THE SIEMENS 7.748 IS A 128 BIT COMPUTER FOR BUSINESS APPLICATIONS FOR THE END USER. THE 7.748 FEATURES A REAL TIME CLOCK, VIRTUAL MEMORY, EXTENDED PRECISION AND 43 GENERAL PURPOSE REGISTERS. SOFTWARE SUPPORT INCLUDES TIME-SHARING, BATCH AND DATA-BASE SYSTEMS, BASIC, FORTRAN AND PL/I. MANY PERIPHERALS ARE AVAILABLE INCLUDING DISK DRIVES (FIXED, REMOVABLE OR FLOPPY), MAGNETIC TAPE DRIVES, LINE AND SERIAL PRINTERS, AND DISPLAY TERMINALS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 128 BITS
MEMORY: 1024 TO 2048K
CYCLE TIME: .615 USEC
ADD TIME: .8 USEC
CACHE MEMORY: 4K
# OF INSTRUCTIONS: 169
INSTRUCTION TYPES (1): /
ACCUMULATORS:
INDEX REGISTERS: 43
I/O COMMUNICATIONS (2): /
I/O TRANSFER RATE: 6M5
PROCESSOR FEATURES (3): /
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER 34/70K
* MACRO ASSEMBLY 24/34/70K
* DISK MONITOR 35K
* REAL TIME MONITOR 30K
* T/S MONITOR 4K
* BATCH MONITOR 35K
* DATA BASE SYS 128/256K
OTHER:

PRICES
COMPUTER: $SEE MFR
MEMORY: $SEE MFR
SYSTEM: $SEE MFR

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 3440, X50, X55, X60, X65
FIXED HEAD DISK: 3470
FLEXIBLE DISK: TRANSDATA 920
MAGNETIC TAPE: 3530-3559, 18-200 IPS
TAPE CASSETTE:
LINE PRINTER: 3340, 3343, 3352
SERIAL PRINTER: 8120, 180 CPS
CARD RD, PN: 660-1000, 100-290
PAPER TAPE RD, PN: 1200-1500, 150
DISPLAY TERMINAL: 8150, 152, 152, 153, 161
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APLS2000
* ALGOL BS1000 66K
* SINGLE BASIC BS2000
* MULTI BASIC BS2000
* COBOL BS1000 24/48K
* FORTRAN BS1000 56/92K
* PL1 BS1000 86K
* EPG BS1000 26/30K
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing
(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisequential
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial
(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)

* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
  DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 3440, X50, X55, X60, X65
FIXED HEAD DISK: 3470
FLEXIBLE DISK: TRANS DATA 920
MAGNETIC TAPE: 3530-3559, 18-200 IPS
TAPE CASSETTE:
LINE PRINTER: 3340, 3343, 3352
SERIAL PRINTER: 8120, 180 CPS
CARD ED, WR: 660-1000, 100-250
PAPER TAPE RD, WR: 1200-1500, 150
DISPLAY TERMINAL: X150, X51, X52, X53, X61
MULTIPLEXOR:
  TERMINALS/SYSTEM:
  OTHER:

SOFTWARE LANGUAGES (*

* APLBS2000
* ALGOL BS1000 66K
* SINGLE BASIC BS2000
* MULTI BASIC BS2000
* COBOL BS1000 24K, 48K
* FORTRAN BS1000 56K, 92K
* PLI BS1000 86K
* RPG BS1000 26K, 30K

OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
  B = Byte Manipulation
  D = Decimal Arithmetic
  E = Extended Precision
  F = Floating Point
  I = Indirect Addressing
  M = Multiply & Divide
  S = Stack Processing

(2) I/O COMMUNICATIONS:
  A = Asynchronous
  B = Byte Manipulation
  D = Direct Memory Access
  M = Multiprot Memory
  S = Selectable Line Speeds
  T = Autodial

(3) PROCESSOR FEATURES
  B = Base Address Relocation
  D = Dynamic Page Relocation
  E = Memory Parity Detect
  F = Power Fail Safe
  K = Memory Parity Correct
  M = Memory Protection
  P = Priority Interrupt
  V = Vectored Interrupt

304

COMPUTER REVIEW
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INTRODUCED IN 1976, THE SIEMENS 7.760 IS A 256-BIT COMPUTER FOR END-USER BUSINESS APPLICATIONS. THE 7.760 FEATURES A REAL TIME CLOCK, VIRTUAL MEMORY, EXTENDED PRECISION AND 43 GENERAL PURPOSE REGISTERS. SOFTWARE SUPPORT INCLUDES TIME-SHARING, BATCH AND DATA-BASE ORIENTED SYSTEMS, BASIC, FORTRAN AND PL/I. MANY PERIPHERALS ARE AVAILABLE INCLUDING DISK DRIVES (FIXED, REMOVABLE AND FLOPPY), MAGNETIC TAPE DRIVES, LINE AND SERIAL PRINTERS, AND CRT DISPLAY TERMINALS.

APPLICATION (*)
* BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 3400,x50, x55, x60, x65
FIXED HEAD DISK: 3470
FLEXIBLE DISK: TRANSDATA 920
MAGNETIC TAPE: 3350-3559, 16-200 IPS
TAPE CASSETTE:
LINE PRINTER: 3340,3343,3352
SERIAL PRINTER: 8120,180 CPS
CARD READER, Punch: 660-1000, 100-290
PAPER TAPE READER, Punch: 1200-1500, 150
DISPLAY TERMINAL: 8150,x51,x52,x53,x61
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
* APLBS2000
* ALGOL BS1000 66K
* SINGLE BASIC BS2000
* MULTI BASIC BS2000
* COBOL BS1000 24/48K
* FORTRAN BS1000 56/92K
* PLI BS1000 86K
* RPG BS1000 26/30K
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

PRICES
COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1
THE SPECTRUM 8 MINICOMPUTER HAS AN 8085 MICROPROCESSOR AND IS DESIGNED FOR THE INEXPERIENCED USER. THE SPECTRUM 8 FEATURES A BLACK AND WHITE OR COLOR DISPLAY CONSOLE (COLOR SYSTEM $2,695) AND A 5 IPS CASSETTE TAPE UNIT. SOFTWARE SUPPORT INCLUDES A CONVERSATIONAL OPERATING SYSTEM, EXTENDED BASIC, A TEXT EDITOR, AN ASSEMBLER, AND GRAPHICS AND APPLICATIONS PACKAGES. HIGH SPEED PRINTERS, FLOPPY DISKS AND ADDITIONAL TAPE DRIVES ARE AMONG THE PERIPHERALS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
  * INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
  * ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
  * BANKING SYSTEM
  * DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: BITS
MEMORY: 16 TO 65K RAM
CYCLE TIME:
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1):
/ ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE:
PROCESSOR FEATURES (3):
/ INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
  MACRO ASSEM
DISK MONITOR
REAL TIME BMT
T/S MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER:

PRICES

COMPUTER: $SEE NFE
MEMORY:
SYSTEM: $2195, 16K
INCLUDES PHI-DECK TAPE DRIVE; VIDEO DISPLAY WITH 7X9 MATRIX AND 1920 CHARACTERS; ALPHANUMERIC KEYBOARD WITH CURSOR AND GRAPHICS CONTROL.

FEATURES (*)

UPWARD COMPATIBLE
FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
  * VIRTUAL MEMORY MACHINE
  * MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK:
FIXED HEAD DISK: YES
FLEXIBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE: PHI-DECK
LINE PRINTER: YES
SERIAL PRINTER:
CARD RD, PN:
PAPER TAPE RD, PN:
DISPLAY TERMINAL: B+W, COLOR 1920 CH.
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

APL
ALGOL
* SINGLE BASIC EXTENDED BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
STC SYSTEMS: ULTIMACC 3010

INTRODUCED IN 1975, THE ULTIMACC 3010 IS A MODULAR TURNKEY MINICOMPUTER SYSTEM CUSTOMIZED FOR ACCOUNTING AND BUSINESS MANAGEMENT APPLICATIONS. THE MODEL 3010 FEATURES MEMORY PROTECTION AND PRIORITY INTERRUPTS, AND IS FASTER THAN THE SIMILAR MODEL 2000. SOFTWARE SUPPORT INCLUDES A DATA BASE MANAGEMENT SYSTEM. THE 3010 SUPPORTS UP TO 30 CRTS AND MULTIPLE PRINTERS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING/COMPUTATION
  EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 16 BITS
MEMORY: 16 TO 128K CODE
CYCLE TIME: 0.8 USEC
ADD TIME: 1.0 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 300
INSTRUCTION TYPES (1): BE/IM
ACCUMULATORS: 4
INDEX REGISTERS: 4
I/O COMMUNICATIONS (2): ABD/ST
I/O TRANSFER RATE: 1.0MB
PROCESSOR FEATURES (3): FRM/C
INTERFACE SLOTS: 17+17

SYSTEMS SOFTWARE (*)
* ASSEMBLER 16K
  MACRO ASSEM
* DISK MONITOR 16K
* REAL TIME MAN 16K
* T/S MONITOR 16K
* BATTERY MONITOR 16K
* DATA BASE SYS 16K
OTHER:

PRICES
COMPUTER: $SEE MFR
MEMORY:
SYSTEM: $60000, 64K

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 10-40MB
FIXED HEAD DISK: N/A
FLEXIBLE DISK: 512-1024KB
MAGNETIC TAPE: 45 IPS
TAPE CASSETTE: N/A
LINE PRINTER: 300/600 LPM
SERIAL PRINTER: 165 CPS
CARD RD, PM: 267 COL/PS
PAPER TAPE RD, PM: OPT
DISPLAY TERMINAL: 1920 CHAR
MULTIPLEXOR: ASYNCHRONOUS
TERMINALS/SYSTEM: 30
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC 16K
* MULTI BASIC 16K
COBOL
FORTRAN
PLI
EPG
OTHER: ENGLISH 210 - 8K

MARKETING
MAIN MARKET: END USER
UNITS SOLD: 30 (11/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**STC SYSTEMS: ULTIMACC 3080**

The Ultimacc 3080 is a 16-bit minicomputer system designed for business and commercial applications. Optional features include a real time clock, indirect addressing, and selectable line speeds. The Ultimacc system offers English 120 as part of its operating system, in addition to FORTRAN and BASIC for single and multi-users. A wide variety of peripherals is available.

### Application (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Computer (Std/Opt, N/A)
- **Word Size:** 16 bits
- **Memory:** 32 to 256k core
- **Cycle Time:** 0.8 usec
- **Add Time:** 1.0 usec
- **Cache Memory:** N/A
- **# of Instructions:** 300
- **Instruction Types (1):** BE/INS
- **Accumulators:** 4
- **Index Registers:** 4
- **I/O Communications (2):** ABD/ST
- **I/O Transfer Rate:** 1.0Mbps
- **Processor Features (3):** FM/C
- **Interface Slots:** 17

### Systems Software (*)
- **Assembler 16k**
- **Macro Assem**
- **Disk Monitor 16k**
- **Real Time Mntr 16k**
- **T/S Monitor 16k**
- **Bashc Monitor 16k**
- **Data Base Sys 16k**
- **Other:**

### Prices
- **Computer:** $599 mfr
- **Memory:**
- **System:** $85000

### Features (*)
- **Upward Compatible**
- **Field Service**
- **Application Software**
- **Conversational Languages**
- **User Microprogrammable**
- **Factory Microprogrammable**
- **Virtual Memory Machine**
- **Multiprocessor**

### Peripherals (Model #, Specs, N/A)
- **Removable Disk:** 80–320MB
- **Fixed Head Disk:** N/A
- **Flexible Disk:** N/A
- **Magnetic Tape:** 45 IPS
- **Tape Cassette:** N/A
- **Line Printer:** 300–900 LPM
- **Serial Printer:** 165 CPS
- **Card Reader:** 267 col/sec
- **Paper Tape Reader:** 600/300 CPS
- **Display Terminal:** 1920 char.
- **Multiplexer:** ASYN/ SYN.
- **Terminals/Systems:** Other:

### Software Languages (*)
- **APL**
- **ALGOL**
- **Single BASIC 16k**
- **Multi BASIC 16k**
- **COBOL**
- **FORTRAN 32K**
- **PL1**
- **RPG**
- **Other:** English 210–8K

### Marketing
- **Main Market:** End User
- **Units Sold:** 5 (07/77)
- **Maintenance:** On Call

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Bistatic
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1975, THE ULTIMACC 3370 IS A MODULAR TURNKEY MINICOMPUTER SYSTEM CUSTOMIZED FOR ACCOUNTING AND BUSINESS MANAGEMENT APPLICATIONS. THE MODEL 3370 FEATURES MEMORY PROTECTION AND PRIORITY INTERUPTS, AND OFFERS GREATER DISK STORAGE CAPACITY THAN THE SIMILAR MODEL 3000. SOFTWARE SUPPORT INCLUDES A DATA BASE MANAGEMENT SYSTEM.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- COMMUNICATIONS/PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 16 TO 128K COUP
- CYCLE TIME: 0.8 USEC
- ADD TIME: 1.0 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 300
- INSTRUCTION TYPES (1): BR/IM
- ACCUMULATORS: 4
- INDEX REGISTERS: 4
- I/O COMMUNICATIONS (2): ABD/ST
- I/O TRANSFER RATE: 1.0MB
- PROCESSOR FEATURES (3): PBR/C
- INTERFACE SLOTS: 17 x 17

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER 16K
- MACRO ASSEM 16K
- DISK MONITOR 16K
- REAL TIME MTR 16K
- T/S MONITOR 16K
- BATCH MONITOR 16K
- DATA BASE SYS 16K

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK: 40MB, 160MB
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 18K-1024MB
- MAGNETIC TAPE: 45 IPS
- TAPE CASSETTE: N/A
- LINE PRINTER: 300/600 LPS
- SERIAL PRINTER: 165 CPS
- CARD ED., PW: 267 COL/PS
- PAPER TAPE ED., PW: OPT
- DISPLAY TERMINAL: 1920 CB/ST
- MULTIPLEXOR: ASYN, SYN
- TERMINALS/SYSTEM: OTHER

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC 16K
- MULTI BASIC 16K
- COBOL
- FORTRAN
- PL1
- RPG

**PRICES**

- COMPUTER: $SEE MFR
- MEMORY:
- SYSTEM: $150,000, 128K

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: 5 (11/76)
- MAINTENANCE: ON CALL

---

**NOTES**

(1) INSTRUCTIONS:

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:

- **A** = Asynchronous
- **B** = Bysynchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES

- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
SYCOR: 445

Introduced in 1978, the Sycor 445 is a distributed data entry and processing system. It will support up to 256K bytes main memory, and eight 2000-character CRT terminals. The computer is capable of networking, by way of Sycoblink (which links multiple 445 processors). Data stations for the 445 are supported by COBOL and BASIC languages. The Sycor 445 also uses TAL 2000, a language developed by Sycor.

**APPLICATIONS**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt. N/A)
- Word Size: Bits
- Memory: To 256K
- Cycle Time:
- Add Time:
- Cache Memory:
- # of Instructions:
- Instruction Types (1):
- Accumulators:
- Index Registers:
- I/O Communications (2):
- I/O Transfer Rate:
- Processor Features (3):
- Interface Slots:

**SYSTEMS SOFTWARE**
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

**PRICES**
- Computer: $See Mfr
- Memory:
- System: $60300, 64K
- Includes: 64KB main memory; 5 MB disk memory; 5 MB cartridge tape drive; 4 CRT terminals; Sprinter printer; communications adapter.

**FEATURES**
- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable Disk: 70
- Fixed Head Disk:
- Flexible Disk: Yes
- Magnetic Tape: Yes
- Tape Cassette: Yes
- Line Printer: Yes, 300/600 LPM
- Serial Printer: Yes, 60/120/180 CPS
- Card Reader, P/N:
- Paper Tape Reader, P/N:
- Display Terminal: Yes, 2000 C/S
- Multiplexor:
- Terminals/System: 8
- Other:

**SOFTWARE LANGUAGES**
- APL
- Algol
- Single Basic
- Multi Basic
- Cobol
- Fortran
- PL/I
- RPG
- Other: TAL 2000

**MARKETING**
- Main Market: End User
- Units Sold:
- Maintenance:

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bi-directional
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1977, THE SEL 32/75 IS A BUS-STRUCTURED MINICOMPUTER PRIMARILY FOR SCIENTIFIC, INDUSTRIAL, AND LABORATORY APPLICATIONS. MULTIPROCESSOR CONFIGURA-
TIONS WITH A MIX OF SHARED MEMORIES AND/OR COMMUNICATIONS BETWEEN MACHINES VIA INTER-BUS LINKS ALLOW A WIDE VARIETY OF DISTRIBUTED NETWORKS. THE SEL 32/75 FEAT-
URES WRITABLE CONTROL STORE AND A LARGER MEMORY THAN THE SEL 32/55.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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<table>
<thead>
<tr>
<th>FEATURES (*)</th>
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</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>* FIELD SERVICE</td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>MULTIPROCESSOR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
</tr>
<tr>
<td>MEMORY: 32 TO 4000K CORE</td>
</tr>
<tr>
<td>CYCLE TIME: .6 USEC</td>
</tr>
<tr>
<td>ADD TIME: 1.2 USEC</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 163</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): I=IN/OUT</td>
</tr>
<tr>
<td>ACCUMULATORS: 8</td>
</tr>
<tr>
<td>INDEX REGISTERS: 3</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): D/ABMST</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 26.7MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CFVE/M</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER 9.5K</td>
</tr>
<tr>
<td>* MACRO ASSEM 9.5K, $750</td>
</tr>
<tr>
<td>* DISK MONITOR 11.5K, PDX, $500</td>
</tr>
<tr>
<td>* REAL TIME NTR 11.5K, RTH, $1500</td>
</tr>
<tr>
<td>* T/S MONITOR 4.5K, TSS UNDER RTH</td>
</tr>
<tr>
<td>* BATCH MONITOR 5K, UNDER RTH, N/C</td>
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<tr>
<td>DATA BASE SYS</td>
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<tr>
<td>OTHER: PDX 8K</td>
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</tbody>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $68200, 131K #2312</td>
</tr>
<tr>
<td>MEMORY: $6300, 32K, #2350</td>
</tr>
<tr>
<td>SYSTEM: $52828</td>
</tr>
</tbody>
</table>

INCLUDES 32K CPU W/PANEL; CARD READER/PUNCH W/CONTROLLER (200 CPM, 15 CPM); TTY W/CONTROLLER (10 CPS); 0 SEL BUS SLOTS. (65KB ADD ON MEMORY #2353, $7,000).

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>D = Decimal Arithmetic</td>
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<tr>
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</tr>
<tr>
<td>M = Multiply &amp; Divide</td>
</tr>
<tr>
<td>S = Stack Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = B asynchronous</td>
</tr>
<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multiport Memory</td>
</tr>
<tr>
<td>S = Selectable Line Speeds</td>
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<tr>
<td>T = Autodial</td>
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</tbody>
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<table>
<thead>
<tr>
<th>(3) PROCESSOR FEATURES</th>
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<tbody>
<tr>
<td>B = Base Address Relocation</td>
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<tr>
<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
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<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

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TELEFUNKEN: AEG 80-60

Introduced in 1974, the AEG 80-60 is designed for communications, process control, and data entry applications. Standard features include byte manipulation, decimal and floating point arithmetic, and indirect addressing. Telefunken's 80-60 offers faster cycle and add times than the 80-40 and also a substantially higher I/O transfer rate. Software language support includes FORTRAN and PEARL. A wide variety of peripherals is available.

**APPLICATION (*)**

- Business/Commercial
- Communications/Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)

- **Word Size:** 32 bits
- **Memory:** 16 to 256K
- **Cycle Time:** 65 usec
- **Add Time:** 56 usec
- **Cache Memory:** N/A
- **# of Instructions:** 219
- **Instruction Types (1):** 8-bit
- **Accumulators:** 16
- **Index Registers:** 15
- **I/O Communications (2):** RS-232
- **I/O Transfer Rate:** 2.5MB
- **Processor Features (3):** LCD/READ/INTERFACE SLOTS: 16

**SYSTEMS SOFTWARE (*)**

- Assembler 6.16KB
- Macro Assem
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: ARSL, GEAMED, GEALAB

**PRICES**

- **Computer:** $87500, 16K
- **Memory:** $27300, 64K
- **System:** $8/A

**FEATURES (*)**

- Upward compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

- [ ] Removable Disk: KSP 3720, UPS 3750.
- [ ] Fixed Head Disk: DFS 3770, FK3800, X00
- [ ] Flexible Disk: MF 3700.00
- [ ] Magnetic Tape: MBS 36XX, X100
- [ ] Tape Cassette: MBS 3600.00
- [ ] Line Printer: ZDR 310X, 3000
- [ ] Serial Printer: SDR 30XX, X00
- [ ] Card Reader, P/N: LKL 3400, LKS 3400.
- [ ] Paper Tape Reader, P/N: LSL 3110, 010; S 3800.
- [ ] Display Terminal: SGT 3200, 100
- [ ] Multiplexer: Autonomous Channel
- **Terminals/Systems:**
- **Other:** Many

**SOFTWARE LANGUAGES (*)**

- [ ] APL
- [ ] ALGOL
- [ ] Single Basic
- [ ] Multi Basic
- [ ] COBOL
- [ ] FORTRAN
- [ ] PL1
- [ ] RPG
- **Other:** PEARL

**MARKETING**

- **Main Market:**
- **Units Sold:** 2 (10/74)
- **Maintenance:** On Call

---

(1) **INSTRUCTIONS:**
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) **I/O COMMUNICATIONS:**
- **A** = Asynchronous
- **B** = Synchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) **PROCESSOR FEATURES**
- **B** = Base Address Relocation
- **G** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt

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TELEFUNKEN: TR 440/200


APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
  BANKING SYSTEM
  DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
* REMOVABLE DISK: WSP414, WSP430
* FIXED READ DISK: TSP500
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: MD252, MB253
* TAPE CASSETTE: MKS237
* LINE PRINTER: SDB176-1/2, SDB154
* SERIAL PRINTER: FSB120, FSB208
* CARD RD, PN: LKL1720, LS145
* PAPER TAPE RD, PN: LSL195, LSS150
* DISPLAY TERMINAL: SIG100, SIG50
* MUXPLEXOR: YES
* TERMINALS/SYSTEMS:
  OTHER: PLOTTER ZCH231/3

SYSTEMS SOFTWARE (*)
* ASSEMBLER TASS
* MACRO ASSEMBLY
* DISK MONITOR
* REAL TIME MNTR BS3
* T/S MONITOR BS3
* BATCH MONITOR BS3
* DATA BASE SYS

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG

OTHER: BCPL

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
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S = Stack Processing

(2) I/O COMMUNICATIONS:
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1978/No. 1

313

APPLICATION (*)

BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTER
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)

WORD SIZE: 48 BITS
MEMORY: 64 TO 2097K
CYCLE TIME: .38 USEC
ADD TIME: .36-.83 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 247
INSTRUCTION TYPES (1): B,M,/,
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE: 1MB
PROCESSOR FEATURES (3): BCDEN/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER TASS
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR BS3
* T/S MONITOR BS3
* BATCH MONITOR BS2
* DATA BASE SYS
* OTHER:

PRICES

COMPUTER: $5E6 MFR
MEMORY:
SYSTEM: $5E6 MFR

FEATURES (*)

UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)

REMOVABLE DISK: WSP414,WSP430
FIXED HEAD DISK: TSP500
FLEXIBLE DISK: N/A
MAGNETIC TAPE: MS252,MBG253
TAPE CASSETTE: MKS3237
LINE PRINTER: SDR176-1/2, SDR154
SERIAL PRINTER: FSR10X, FS1208
CARD RD,PN: LKL720; LKS1045
PAPER TAPE RD,PN: LSL195; LSS150
DISPLAY TERMINAL: SIG100, SIG50
MULTIPLEXOR: Y/N
TERMINALS/SYSTEM:
OTHER: PLOTER 2XH231/3

SOFTWARE LANGUAGES (*)

APL
* ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PLI
* RPG
OTHER: BCP

MARKETING

MAIN MARKET:
UNIT SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW 1978/No. 1
© Copyright GMG Corporation
TELEFUNKEN: TR 440/500

INTRODUCED IN 1974, THE TR 440/500 IS THE FASTEST PROCESSOR OF THE TR 440 SERIES OF GENERAL PURPOSE COMPUTER SYSTEMS DESIGNED TO SIMULTANEOUSLY HANDLE CONVERGATIONAL TIME SHARING, REAL TIME INQUIRY/RESPONSE, AND CONVENTIONAL BACKGROUND BATCH PROCESSING. FEATURES INCLUDE MULTIPROCESSOR CAPABILITY, Multiprogramming, AND A WIDE VARIETY OF PERIPHERALS. THE BS3 OPERATING SYSTEM ALLOWS MULTIPROGRAMMING OF UP TO TEN USER PROGRAMS IN STORE AND CAN SERVE UP TO 96 CONVERGATIONAL TIME SHARING TERMINAL USERS SIMULTANEOUSLY ON A ROLL-IN, ROLL-OUT BASIS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
- WORD SIZE: 48 BITS
- MEMORY: 64 TO 2097K
- CYCLE TIME: ~38 USEC
- ADD TIME: ~36 - 83 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 247
- INSTRUCTION TYPES (1): BFM/
  ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2):
- I/O TRANSFER RATE: 188
- PROCESSOR FEATURES (3): BCDRM/
  INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER TAS
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MNT BS3
- T/S MONITOR BS3
- BACH MONITOR BS3
- DATA BASE SYS
- OTHER:

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: WSP414, WSP430
- FIXED HEAD DISK: TSP500
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: RDS252, RBG253
- TAPE CASSETTE: RAS3237
- LINE PRINTER: SDR176-1/2, SDR154
- SERIAL PRINTER: FSR10X, FSR208
- CARD RD, PN: LKL720; LKS145
- PAPER TAPE RD, PN: LSL195; LSS150
- DISPLAY TERMINAL: SIG100, SIG50
- MULTIPLEXOR: YES
- TERMINALS/SYSTEM:
- OTHER: FLOTTERS 2CH231/3

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: BCPL

MARKETING
- MAIN MARKET:
- UNITS SOLD:
- MAINTENANCE:

PRICES
- COMPUTER: $SEE MFR
- MEMORY: $SEE MFR
- SYSTEM: $SEE MFR

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Basicynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1976, THE DCP IS A PROGRAMMABLE COMMUNICATIONS UNIT DESIGNED TO PROVIDE THE PROCESSOR AS PART OF THE UNIVAC TELCON SYSTEM. WITHIN THE TELCON SYSTEM THE DCP MAY BE USED AS A FRONT END PROCESSOR, REMOTE CONCENTRATOR, OR A NODAL PROCESSOR.

**APPLICATION (*)**

- BUSINESS/COMMERCIAL
- *COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt, N/A)**

- WORD SIZE: 16 BITS
- MEMORY: 8 TO 64K
- CYCLE TIME: .75 USEC
- ADD TIME: 1.5 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 200
- INSTRUCTION TYPES (1): BM/
- ACCUMULATORS: 32
- INDEX REGISTERS: 32
- I/O COMMUNICATIONS (2): ADMS/T
- I/O TRANSFER RATE: .038MB

**PROCESSOR FEATURES (3): CFRE/INTERFACE SLOTS:**

**SYSTEMS SOFTWARE:**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

**FEATURES (*)**

- UPWARD COMPATIBLE
- *FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs, N/A)**

- REMOVABLE DISK:
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE: 0866
- LINE PRINTER:
- SERIAL PRINTER:
- CARD RD, PN:
- PAPER TAPE RD, PN:
- DISPLAY TERMINAL: UNISCOPE 100
- MULTIPLEXOR: YES
- TERMINALS/SYSTEM:
- OTHER: SELECTOR

**SOFTWARE LANGUAGES (**)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Bifunctional
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt

316

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### APPLICATIONS
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### COMPUTER (Std/Opt. N/A)
- **Word Size:** 32 Bits
- **Memory:** 65 to 131K MOS
- **Cycle Time:** .6usec
- **Add Time:** 7.8usec
- **Cache Memory:** N/A
- **# of Instructions:** 84/148
- **Instruction Types (I):** BDM/F
- **Accumulators:** 32
- **Index Registers:** 32
- **I/O Communications (2):** ABDST/I/O
- **Processor Features (3):** BCRE/M
- **Interface Slots:** 10

### SYSTEMS SOFTWARE
- **Assembler**
- **Macro Assem**
- **Disk Monitor**
- **Real Time Mntr**
- **I/E Monitor**
- **Batch Monitor**
- **Data Base Sys**
- **Other:** IBM/90, RASP BJE, RSP, DMS/90

### PRICES
- **Computer:** $64096, 65K
- **Memory:** $14256, 32K
- **System** $110149, 64K
- **Includes 6K CPU:** #8415 Disk Storage Subsystem (33.6K); Card Reader (300 CPM); Line Printer (300 LPM); CRT Keyboard Console.

### FEATURES
- **Upward Compatible**
- **Field Service**
- **Application Software**
- **Conversational Languages**
- **User Microprogrammable**
- **Factory Microprogrammable**
- **Virtual Memory Machine**
- **Multiprocessor**

### PERIPHERALS (Model #, Spec. N/A)
- **Removable Disk:** #8415, 8418
- **Fixed Head Disk:** #8413
- **Flexible Disk:** #8413
- **Magnetic Tape:** UNISERVO 10
- **Tape Cassette:**
- **Line Printer:** 0778
- **Serial Printer:** Console
- **Card Rq, Pr:** 0719, 0605
- **Paper Tape Rq, Pr:** 0920
- **Display Terminal:** UNISCOPE 100, 200
- **Multiplexer:** OPT
- **Terminals/System:** DEC 500-1000,
- **Other:** UTS-400 Display

### SOFTWARE LANGUAGES
- **APL**
- **ALGOL**
- **Single Basic**
- **Multi Basic**
- **COBOL**
- **FORTRAN**
- **PL/I**
- **BPG RPG II**
- **Other:** RPGII Telecomm.

### MARKETING
- **Main Market:** End User
- **Units Sold:**
- **Maintenance:** On Call

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Correct
- V = Vectored Interrupt

1978/No. 1
INTRODUCED IN 1974, MODEL 90/30 IS A MEDIUM-SCALE PROCESSOR DESIGNED FOR BATCH, COMMUNICATIONS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE A WRITABLE CONTROL STORE AND MULTIPROCESSING CAPABILITY WHICH PERMITS UP TO SEVEN JOBS TO BE PROCESSED CONCURRENTLY. A WIDE VARIETY OF PERIPHERALS MAY BE ATTACHED INCLUDING UP TO SIXTEEN DISK DRIVES AND TWENTY FOUR HALF-DUPLEX COMMUNICATIONS LINES. VARIOUS AIDS FOR CONVERSION FROM UNIVAC SERIES 9000 SYSTEMS OR FOR IBM SYSTEM/360/20 OR SYSTEM/3 ARE AVAILABLE.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8 K6, 8 K8, 8 K30
FIXED HEAD DISK: N/A
FLEXIBLE DISK: 8 K13
MAGNETIC TAPE: 10, 12, 14, 16, 20
TAPE CASSETTE: N/A
LINE PRINTER: 0773, 0770+0776
SERIAL PRINTER: CONSOLE
CARD READER, P/N: 0717, 0605, 0716
PAPER TAPE READER: 0920
DISPLAY TERMINAL: UNISCOPE 100, 200
MULTIPLEXOR: 8 SUBCHANNELS
TERMINALS/SYSTEM: DCT 500-2000,
OTHER: SELECTOR, UTS-400 CRT

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
COBOL
FORTRAN
PL1
BAS
OTHER: RPG TELECOMMUN.

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $70632, 32K
MEMORY: $6048, 16K
SYSTEM: $137592, 32K
INCLUDES 32K CPU; CARD READER; PRINTER;
  DISK ADAPTER; 2 DISK DRIVES; CRT KEY-
  BOARD CONSOLE.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Asynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
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E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

**APPLICATION (*)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS COMMERCIAL</td>
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<tr>
<td>COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>INDUSTRIAL CONTROL</td>
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<tr>
<td>BANKING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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</tbody>
</table>

**COMPUTER** (Std/Opt. N/A)

- WORD SIZE: 32 BITS
- MEMORY: 65 TO 524K MOS
- CYCLE TIME: .6 USEC
- ADD TIME: 5.4 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 84/148
- INSTRUCTION TYPES (1): BDM/F
- ACCUMULATORS: 32
- INDEX REGISTERS: 32
- I/O COMMUNICATIONS (2): ABSD/ T/S MONITOR
- I/O TRANSFER RATE: 2.4MB
- PROCESSOR FEATURES (3): BCRK/N
- INTERFACE SLOTS: 31

**SYSTEMS SOFTWARE (*)**

- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTE
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: IMS 90, ICS/90, HASP RJE, RSP

**PRICES**

- COMPUTER: $82726, 65K
- MEMORY: $10800, 32K
- SYSTEM: $141525, 65K
- INCLUDES 65K CPU, CARD READER, PRINTER, DISK ADAPTER, TWO DISK DRIVES.

**FEATURES (*)**

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS** (Model #, Specs, N/A)

- REMOVABLE DISK: 8416, 8418, 8430, 8415
- FIXED HEAD DISK: N/A
- FLEXIBLE DISK: 8413
- MAGNETIC TAPE: UNISEVRG 10-20
- TAPE CASSETTE: N/A
- LINE PRINTER: 0773, 0770, 0776, 0778
- SERIAL PRINTER: CONSOLE
- CARD RD/PR: 0717, 0605
- PAPER TAPE RD/PR: 0920
- DISPLAY TERMINAL: UNISCOPE 100, 200
- MULTIPLEXOR: 8 SUBCHANNELS
- TERMINALS/SYSTEM: DCT500-2000, 2780
- OTHER: SELECTOR,UTS-400 CRT

**SOFTWARE LANGUAGES (*)**

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/1
- RPG
- OTHER: RPG II TELECOMM.

**MARKETING**

- MAIN MARKET: END USER
- UNITS SOLD: MAINTENANCE: ON CALL
- DISK ADAPTER: TWO DISK DRIVES.
INTRODUCED IN 1973, THE MODEL 90/60 IS A MEDIUM TO LARGE-SCALE COMPUTER DESIGNED FOR BATCH, COMMUNICATIONS, AND SCIENTIFIC PROCESSING. FEATURES INCLUDE DATA BASE MANAGEMENT AND IBM SYSTEM/360 EMULATION. COMMUNICATIONS CAN BE CONTROLLED BY A 120-LINE MULTICHANNEL COMMUNICATIONS CONTROLLER (RCC) THAT IS SUPPORTED BY THE VIRTUAL MEMORY OPERATING SYSTEM/9 CUS/9.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
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</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<td>* INDUSTRIAL CONTROL</td>
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<table>
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<th>FEATURES (*)</th>
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<tr>
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<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: 529 TO 2048K MOS</td>
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<tr>
<td>CYCLE TIME: .6 USEC</td>
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<tr>
<td>ADD TIME: 1.5 USEC</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 154</td>
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<tr>
<td>INSTRUCTION TYPES (1): BDEFIN/ACUMULATOR: 16</td>
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<tr>
<td>INDEX REGISTERS: 16</td>
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<tr>
<td>I/O COMMUNICATIONS (2): ADST/I/O TRANSFER RATE: 1.1MB</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): BCD/NK/INTERFACE SLOTS:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (*)</th>
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<tbody>
<tr>
<td>* ASSEMBLER</td>
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<tr>
<td>* MACRO ASSEM</td>
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<td>* DISK MONITOR</td>
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<td>* REAL TIME MNR</td>
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<tr>
<td>* T/S MONITOR</td>
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<tr>
<td>* BATCH MONITOR</td>
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<tr>
<td>* DATA BASE SYM</td>
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<tr>
<td>OTHER: VS/9</td>
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</tbody>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $284000, 512K</td>
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<tr>
<td>MEMORY: $46800, 256K</td>
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<tr>
<td>SYSTEM: $700000, 128K</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: #8433, #8430</td>
</tr>
<tr>
<td>FIXED HEAD DISK: #8405</td>
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<tr>
<td>FLEXIBLE DISK: N/A</td>
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<tr>
<td>MAGNETIC TAPE: UNIVERSE 12, 14, 16-34</td>
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<tr>
<td>TAPE CASSETTE:</td>
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<tr>
<td>LINE PRINTER: #0768 SERIES 0770</td>
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<tr>
<td>SERIAL PRINTER: N/A</td>
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<tr>
<td>CARD RD/PR: #0176, #0604</td>
</tr>
<tr>
<td>PAPER TAPE ED/PR: #0920</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: UNISCOPE 100, 200, 400</td>
</tr>
<tr>
<td>MULTIFLEXOR: YES</td>
</tr>
<tr>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>OTHER: SELECTOR</td>
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</tbody>
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<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* APL</td>
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<td>* COBOL</td>
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<tr>
<td>* FORTRAN</td>
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<td>* PLI</td>
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<tr>
<td>* RPG</td>
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<tr>
<td>OTHER: RPG II</td>
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<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USE</td>
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<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bynynchronous  
D = Direct Memory Access  
M = Multipoint Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: 8 BITS
- MEMORY: 128 TO 2096K KOS
- CYCLE TIME: .6 USEC
- ADD TIME: 1.3 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 154
- INSTRUCTION TYPES (1): BDEFIM/
- ACCUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): ADT/
- I/O TRANSFER RATE: 1.1MB
- PROCESSOR FEATURES (3): BCDRMK/
- INTERFACE SLOTS:

**PERIPHERALS (Model #, Spec. N/A)**
- REMOVABLE DISK: 8433
- FIXED HEAD DISK: 8405
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: UNISEVO 12,14,16-34
- TAPE CASSETTE:
- LINE PRINTER: 0768,0770,0776
- SERIAL PRINTER: N/A
- CARD RD, PN: 0170,0604
- PAPER TAPE RD, PN: 0920
- DISPLAY TERMINAL: UNISCOPE 100
- MULTIPLEXER: YRS
- TERMINALS/SYSTEM:
- OTHER: SELECTOR

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: VS/9

**SOFTWARE LANGUAGES (*)**
- APL
- AGL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPL
- OTHER: RPL II

**PRICES**
- COMPUTER: $398000, 512K
- MEMORY: $46800, 262K
- SYSTEM: $900000, 128K

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD: 
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

(2) I/O COMMUNICATIONS:
- **A** = Asynchronous
- **B** = Bisynchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

(3) PROCESSOR FEATURES
- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt

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1978/No. 1

© Copyright GML Corporation
INTRODUCED IN 1976, THE 90/80 IS A LARGE MEMBER OF THE SERIES 90 FAMILY OF GENERAL PURPOSE COMPUTERS. THE 90/80 IS COMPATIBLE WITH ALL SERIES 90 AND THE LARGER SERIES 70 COMPUTER SYSTEMS. THE 90/80 HARDWARE CONSISTS OF AN INSTRUCTION PROCESSOR AND A PERIPHERAL PROCESSOR. FEATURES INCLUDE A HIGH-SPEED SEMICONDUCTOR MEMORY, ERROR CORRECTION CODE (ECC), AND Emitter Coupled Logic (ECL) CIRCUITRY FOR ADDED SYSTEM RELIABILITY. ADD-ON MEMORY IS AVAILABLE IN 524B BITE INCREMENTS UP TO 4MB. SOFTWARE IS THE VS/9 OPERATING SYSTEM, WHICH PROVIDES FULL FACILITIES FOR BATCH, INTERACTIVE AND COMMUNICATIONS USERS.

**APPLICATION (*)**
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**
WORD SIZE: 8 BITS
MEMORY: 524 TO 4000K MOS
CYCLE TIME: .098 USEC
ADD TIME:
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 187
INSTRUCTION TYPES (1): BDEFIM/
ACCUMULATORS: 36
INDEX REGISTERS: 32
I/O COMMUNICATIONS (2): AD/
I/O TRANSFER RATE: 6MB
PROCESSOR FEATURES (3): BCDFRNEK/
INTERFACE SLOTS: 8

**SYSTEAMS SOFTWARE (*)**
* ASSEMBLER VS/9
* MACHRO ASSEM VS/9
* DISK MONITOR VS/9
* REAL TIME RTS VS/9
* T/S MONITOR VS/9
* BATCH MONITOR VS/9
* DATA BASE SYS DMS/90
* OTHER:

**FEATURES (*)**
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS (Model #: Specs, N/A)**
REMOVABLE DISK: 8414, 8425, 8430, 8433
FIXED HEAD DISK: 8405-00, 04, 5040/8434
FLEXIBLE DISK:
MAGNETIC TAPE: UNISERVO 12,14,16-36
TAPE CASSETTE:
LINE PRINTER: 0768, 0770, 0776
SERIAL PRINTER:
CARD RD, PN: 0715; 1000 CPM, 0604
PAPER TAPE RD, PN: 300 CPS, 100 CPS
DISPLAY TERMINAL: UTS 1-2-4-700, DCT
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER: VISUAL DSPL UNISCOPE

**SOFTWARE LANGUAGES (*)**
* APL
* ALGOL
* SINGLE BASIC
* MULTIBASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER: RPG II, IMS/90

**MARKETING**
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

**PRICES**
COMPUTER: $108,000, 524K
MEMORY: $218,400, 524K
SYSTEM: $200,000, 524K
INCLUDES 524K CPU; DISK SUBSYSTEM; MAGNETIC TAPE SUBSYSTEM; SYSTEM CONSOLE; CARD READER; AND PRINTER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

### APPLICATION (*)

- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)

- **WORD SIZE**: 8 BITS
- **MEMORY**: 1000 TO 1000K MOS
- **CYCLE TIME**: 0.13 USEC
- **ADD TIME**: CACHE MEMORY:
  - # OF INSTRUCTIONS:
  - INSTRUCTION TYPES (1): BDEFIN/
  - ACCUMULATORS:
  - INDEX REGISTERS:
  - I/O COMMUNICATIONS (2): A/
  - I/O TRANSFER RATE:
  - PROCESSOR FEATURES (3): EX/
  - INTERFACE SLOTS:

### SYSTEMS SOFTWARE (*)

- ASSEMBLER
- MACHO ASSEM
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYST
- OTHER: OS/7

### PRICES

- **COMPUTER**: $720000
- **MEMORY**: $87550
- **SYSTEM**: $798250, 1000K INCLUDES 1000K CPU.

### FEATURES (*)

- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Spec, N/A)

- REMOVABLE DISK: 84XX
- FIXED HEAD DISK: 8405, 5040/8434
- FLEXIBLE DISK: 8406
- MAGNETIC TAPE: UNIVERSO 1X
- TAPE CASSETTE: 610
- LINE PRINTER: 0760
- SERIAL PRINTER:
  - CARD RD, PN: 0716;250 CPN
  - PAPER TAPE RD, PN: 300 CPS, 100 CPS
  - DISPLAY TERMINAL: UTS 400,700, DCT LINE
  - MULTIPLEXOR: STD
  - TERMINALS/SYSTEM: OTHER

### SOFTWARE LANGUAGES (*)

- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- CHERI:

### MARKETING

- **MAIN MARKET**: END USER
- **UNITS SOLD**: MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:

- **B**: Byte Manipulation
- **D**: Decimal Arithmetic
- **E**: Extended Precision
- **F**: Floating Point
- **I**: Indirect Addressing
- **M**: Multiply & Divide
- **S**: Stack Processing

(2) I/O COMMUNICATIONS:

- **A**: Asynchronous
- **B**: Biphasic
- **D**: Direct Memory Access
- **M**: Multiple Memory
- **S**: Selectable Line Speeds
- **T**: Autodial

(3) PROCESSOR FEATURES:

- **B**: Base Address Relocation
- **C**: On-The-Fly Clock
- **D**: Dynamic Page Relocation
- **E**: Memory Parity Detect
- **F**: Power Fail Safe
- **K**: Memory Parity Correct
- **M**: Memory Protection
- **R**: Priority Interrupt
- **V**: Vectored Interrupt

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1978/No.1

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APPLICATION(*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 8 BITS
MEMORY: 4000 TO 4000K MOS
CYCLE TIME: 0.1 USEC
ADD TIME:
CACHE MEMORY:
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDEFM/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): A/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): EK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE(*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: OS/7

PRICES
COMPUTER: $900000
MEMORY:
SYSTEM: $1019700

FEATURES(*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 84XX
FIXED HEAD DISK: 8405, 5040/8434
FLEXIBLE DISK: 8406
MAGNETIC TAPE: UNIVERSOSO 1X
TAPE CASSETTE: 610
LINE PRINTER: 0768
SERIAL PRINTER:
CARD RD, PN: 0716; 250 CPM
PAPER TAPE RD, PN: 300 CPS; 100 CPS
DISPLAY TERMINAL: 4TS 400, 700, DCT LINE
MULTIPLEXOR: STD
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES(*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bysynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
UNIVAC: 1100/10

Introduced in 1976, the 1100/10 is the low end of the UNIVAC 1100 series of compatible, communications-oriented computer systems. The 1100 series incorporates semiconductor memories and mass storage peripherals for fast execution and large storage capacity. The 1100/10 has a memory cycle time of .875 usec and a memory capacity of 128K to 512K words. Communications can be handled by either the general communications subsystem (GCS) or the communications/systems processor (C/SP). The 1100/10 system offers the full range of 1100 series peripherals and software.

**APPLICATION (*)**
- Business/commercial
- Communications processor
- Industrial control
- Laboratory/scientific
- Engineering/computation
- Educational system
- Banking system
- Data entry system

**COMPUTER** (Std/Opt. N/A)
- Word size: 36 bits
- Memory: 128 to 512K words
- Cycle time: .875 usec
- Add time: .875 usec
- Cache memory: N/A
- # of instructions: 200
- Instruction types (1): B/EIM/ACUMULATORS: 16
- Index registers: 15
- I/O communications (2): AST/B
- I/O transfer rate: Processor features (3): BCDRXEK/INTERFACE SLOTS:

**SYSTEMS SOFTWARE (*)**
- Assembler
- Macro Assembler
- Disk monitor
- Real time monitor
- T/S monitor
- Batch monitor
- Data base SYSSP 1100
- OTHER:

**PRICES**
- Computer: $4,50000, 128K
- Memory: SYSTEM: $705000, 128K
- Includes 128K CPU; #0770 printer; #7016
- Units: 8430 disk (100MB); Uniscope 100
- Inal $4,378.

**FEATURES (*)**
- Upward compatible
- Field service
- Application software
- Conversational languages
- User microprogrammable
- Factory microprogrammable
- Virtual memory machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)
- Removable disk: 8430, 8433, 8425
- Fixed head disk: 8405, FH-432/1782, 845
- Flexible disk: N/A
- Magnetic tape: Uniservo 12, 14, 16, 20
- Tape cassette:
- Line printer: 0770
- Serial printer: N/A
- Card reader, PN: 0716; 0604
- Paper tape reader, PN: 0920
- Display terminal: Uniscope 100, 200
- Multiplexor: S/N, ASYN
- Terminals/systerm: OTHER:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: JOVIAL, JUALGOL

**MARKETING**
- Main market: end user, OEM
- Units sold: maintenance: on call
- Card reader, 4 Uniservo 12 magnetic tape
- Display terminal.

(1) INSTRUCTIONS:
- B = Byte manipulation
- D = Decimal arithmetic
- E = Extended precision
- F = Floating point
- I = Indirect addressing
- M = Multiply & divide
- S = Stack processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Biphase synchronous
- D = Direct memory access
- M = Multiprocessor Memory
- S = Selectable line speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base address relocation
- C = Real time clock
- D = Dynamic page relocation
- E = Memory parity detect
- F = Power fail safe
- K = Memory parity correct
- M = Memory protection
- R = Priority interrupt
- V = Vectored interrupt

**APPLICATION (*)**
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

**COMPUTER (Std/Opt. N/A)**
- WORD SIZE: 36 BITS
- MEMORY: 128 TO 512K MOS
- CYCLE TIME: .675 USEC
- ADD TIME: .68 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 200
- INSTRUCTION TYPES (1): BDEFMS/
- ACCUMULATORS: 16
- INDEX REGISTERS: 15
- I/O COMMUNICATIONS (2): ABD/
- I/O TRANSFER RATE: .42MB
- PROCESSOR FEATURES (3): BCDEM/
- INTERFACE SLOTS: 4-16

**SYSTEMS SOFTWARE (*)**
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MONITOR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYSTEMS 1100
- OTHER:

**FEATURES (*)**
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

**PERIPHERALS (Model #, Specs. N/A)**
- REMOVABLE DISK: 8430,8433,8425
- FIXED HEAD DISK: 8405,8432/1782
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: UNISERVO 12,14,16,20
- TAPE CASSETTE: SERIES 600 7CS
- LINE PRINTER: 0770
- SERIAL PRINTER: N/A
- CARD RD,PN: 0716-0604
- PAPER TAPE RD,PN: 0920
- DISPLAY TERMINAL: UNISCOPE 100,200
- MULTIPLEXOR: SYN,ASYN
- TERMINALS/SYSTEM: OTHER:

**SOFTWARE LANGUAGES (*)**
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER: JOVIAL,N,ALGOL

**MARKETING**
- MAIN MARKET: END USER, OEM
- UNITS SOLD:
- MAINTENANCE: ON CALL

**PRICES**
- COMPUTER: $710000, 128K
- MEMORY:
- SYSTEM: $1200000, 128K
- INCLUDES 128K CPD; CRT, PRINT; CARD READER; MAG TAPE; DISK STORAGE.

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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Asynchronous

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
UNIVAC: 1100/40

Introduced in 1975, the 1100/40 is a member of the UNIVAC 1100 series of compatible, communications-oriented computer systems. The 1100 series incorporates semiconductor memory and mass storage peripherals for fast execution and large storage capacity. The 1100/40 has a memory cycle time of .8 usec and a memory capacity of 32K to 1536K words. Unit or multiprocessor configurations (up to four processors) are available and communications can be handled by either the general communications subsystem (GCS) or the C/SP front-end processor.

**Application**
- *Business/Commercial*
- *Communications Processor*
- *Industrial Control*
- *Laboratory/Scientific*
- *Engineering/Computation*
- *Educational System*
- *Banking System*
- *Data Entry System*

**Computer** (Std/Opt. N/A)
- **Word Size**: 36 bits
- **Memory**: 32 to 1536K MOS
- **Cycle Time**: .3/.8 usec
- **Add Time**: .8 usec
- **Cache Memory**: N/A
- **# Of Instructions**: 200
- **Instruction Types (1)**: BEFM/
- **Accumulators**: 16
- **Index Registers**: 15
- **I/O Communications (2)**: ADST/B
- **I/O Transfer Rate**: .5MB
- **Processor Features (3)**: BCDRMEK/
- **Interface Slots**: 1

**Systems Software**
- *Assembler*
- *Macro Assembler*
- *Disk Monitor*
- *Real Time Monitor*
- *TS Monitor*
- *Batch Monitor*
- *Data Base SYS RPS 1100*
- **Other**:

**Prices**
- **Computer**: $160,000, 192K
- **Memory**: $32,900, 64K
- **System**: $185,000, 192K

INCLUDES 192K CPU; #0770 PRINTER; #7016 CARD READER; 4 UNISERVO 12 MAGNETIC TAPE UNITS; #8430 DISK (100MB); UNISCOPE 100 DISPLAY TERMINAL.

**Features**
- *Upward Compatible Field Service*
- *Application Software*
- *Conversational Languages*
- *User Microprogrammable Factory Microprogrammable*
- *Virtual Memory Machine*
- *Multiprocessor*

**Peripherals** (Model #, Specs, N/A)
- **Removable Disk**: 8430, 8433, 8425
- **Fixed Head Disk**: 8405, 432/1782, 845
- **Flexible Disk**: N/A
- **Magnetic Tape**: UNISERVO 12, 14, 16, 20
- **Tape Cassette**:
  - **Line Printer**: 0770, 0776
  - **Serial Printer**: N/A
  - **Card Ed.PN**: 0716, 0604
  - **Paper Tape Ed.PN**: 0920
  - **Display Terminal**: UNISCOPE 100, 200
  - **Multiplexor**: Syn, Asyn
  - **Terminals/Systems**:
    - **Other**: Jovial, Wualgol

**Sales**
- **Main Market**: End User, OEM
- **Units Sold**:
- **Maintenance**: On Call

1978/No. 1

**Computer Review**

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327

APPLICATION (*):
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A):
WORD SIZE: 36 BITS
MEMORY: 2000 TO 16KK MOS
CYCLE TIME: .05 USEC
ADD TIME: .2 USEC
CACHE MEMORY: 12KB, 100NS
# OF INSTRUCTION TYPES: 210
INSTRUCTION TYPES (1): B/EXEC/ACCUMULATOR: 16
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): ADST/B
I/O TRANSFER RATE: 1.5MBP/S
PROCESSOR FEATURES (3): BCD/MM/INTERFACE SLOTS:

SYSTEMS SOFTWARE (*):
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MNTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

PRISES
COMPUTER: $144,760, 512K
MEMORY: $200,000, 512K
SYSTEM: $168,248, 512K
INCLUDES 512K CPU; #0776 PRINTER; #0776 CARTRIDGE; 4 UNISERVO 12 MAGNETIC TAPE UNITS; 8# 240K DISK (100MB); 6 I/O

FEATURES (*):
UPWARD COMPATIBLE
FIELD SERVICE
APPLICATION SOFTWARE
CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A):
REMOVABLE DISK: 8424
FIXED HEAD DISK: 8405, 8450
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISERVO 12, 14, 16-20
TAPE CASSETTE: SERIES 600 TCS
LINE PRINTER: 0770, 800LP; 0776, 250
SERIAL PRINTER: N/A
CARD RD/HP: 0716, 1000CPM; 0604
PAPER TAPE RD/HP: 0920
DISPLAY TERMINAL: 100, 200 UTS 400
MULTIPLEXOR: STD
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*):
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER: JOVIAL, MUALGOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD: MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1976, THE UNIVAC 1100/81 IS A 36-BIT COMPUTER SYSTEM DESIGNED FOR BUSINESS, EDUCATIONAL, COMMUNICATIONS, COMPUTATION, AND LABORATORY APPLICATIONS. STANDARD FEATURES INCLUDE FOUR WORD CHANNELS, FLOATING POINT, INDIRECT ADDRESSING, AND A VARIETY OF SOFTWARE LANGUAGES INCLUDING RPG, APL, PL/I, BASIC, FORTRAN, AND COBOL. THE 1100/81 PROCESSOR SYSTEM HAS OVER 40% MORE POWER THAN THE ORIGINAL 1100/80. IT CAN BE EXPANDED TO THE FULL 1100/84 SYSTEM WITHOUT ANY EXCHANGE OF EQUIPMENT OR OPERATING SYSTEMS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

FEATURES (*)
- FORWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 8424
- FIXED HEAD DISK: 8405,8431
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE:
- LINE PRINTER: 0770,800LPM;0776,760
- SERIAL PRINTER:
- CARD RD,PN: 0716,15 CPM;0604,250
- PAPER TAPE RD,PN:
- DISPLAY TERMINAL: F197X,F2074
- MULTIPLEXOR: STD
- TERMINALS/SYSTEM:
- OTHER:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

PRICES
- COMPUTER: $1621690
- MEMORY:
- SYSTEM: $SEE MFR

MARKETING
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiprot Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**UNIVAC: 1100/82**

INTRODUCED IN 1976, THE UNIVAC 1100/82 IS A 36-BIT COMPUTER DESIGNED FOR COMMERCIAL, COMMUNICATIONS, SCIENTIFIC, ENGINEERING, AND EDUCATIONAL APPLICATIONS. THE FEATURES ARE SIMILAR TO THOSE OF THE 1100/81, INCLUDING FLOATING POINT AND FOUR WORD CHANNELS. SOFTWARE SUPPORT CONSISTS OF RPG, PL/1, FORTRAN, COBOL, APL, BASIC, AND ALGOL. THE MODEL HAS MORE POWER THAN THE 1100/80 BASIC SYSTEM, AND IT CAN BE EXPANDED TO THE FULL 1100/84 SYSTEM WITHOUT ANY EXCHANGE OF EQUIPMENT OR OPERATING SYSTEMS. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

### APPLICATION (*)
- * BUSINESS/COMMERCIAL
- * COMMUNICATIONS PROCESSOR
- * INDUSTRIAL CONTROL
- * LABORATORY/SCIENTIFIC
- * ENGINEERING/COMPUTATION
- * EDUCATIONAL SYSTEM
- * BANKING SYSTEM
- * DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- **WORD SIZE:** 36 BITS
- **MEMORY:** K NOS, CORE
- **CYCLE TIME:**
- **ADD TIME:**
- **CACHE MEMORY:**
- **# OF INSTRUCTIONS:**
- **INSTRUCTION TYPES (1):** BDEFMS/
  ACCUMULATORS:
- **INDEX REGISTERS:**
- **I/O COMMUNICATIONS (2):** AB/
- **I/O TRANSFER RATE:**
- **PROCESSOR FEATURES (3):** /
- **INTERFACE SLOTS:**

### SYSTEMS SOFTWARE (*)
- * ASSEMBLER
- * MACRO ASSEM
- * DISK MONITOR
- * REAL TIME MTR
- * T/S MONITOR
- * BATCH MONITOR
- * DATA BASE SYS
- OTHER:

### PRICES
- **COMPUTER:** $SEE MFR
- **MEMORY:** $SEE MFR
- **SYSTEM:** $SEE MFR

---

### FEATURES (*)
- **UPWARD COMPATIBLE**
- **FIELD SERVICE**
- **APPLICATION SOFTWARE**
- **CONVERSATIONAL LANGUAGES**
- **USER MICROPROGRAMMABLE**
- **FACTORY MICROPROGRAMMABLE**
- **VIRTUAL MEMORY MACHINE**
- **MULTIPROCESSOR**

### PERIPHERALS (Model #, Specs. N/A)
- **REMOVABLE DISK:** 8424
- **FIXED HEAD DISK:** 8405, 843X
- **FLEXIBLE DISK:**
- **MAGNETIC TAPE:**
- **TAPE CASSETTE:**
- **LINE PRINTER:** 0770, 800LPH; 0776, 760
- **SERIAL PRINTER:**
- **CABD BD, PW:** 0716, 1K CPM; 0604, 250
- **PAPER TAPE ED, PW:**
- **DISPLAY TERMINAL:** F1971, F2074
- **MULTIPLEXOR:** STD
- **TERMINALS/SYSTEM:**
- OTHER:

### SOFTWARE LANGUAGES (*)
- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL/1**
- **RPG**
- OTHER:

### MARKETING
- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

330  COMPUTER REVIEW  1978/No. 1

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UNIVAC: 1100/83


<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
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<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>* USER MICROPROGRAMMABLE</td>
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<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>* VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt. N/A)</th>
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<tr>
<td>WORD SIZE: 36 BITS</td>
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<td>MEMORY: 2000 TO 160K 80S, CORE</td>
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<td>ADD TIME:</td>
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<td>INDEX REGISTERS:</td>
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<td>I/O COMMUNICATIONS (2): AB/</td>
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<td>I/O TRANSFER RATE:</td>
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<td>PROCESSOR FEATURES (3): /</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
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<tr>
<th>APPLICATION(\text{*})</th>
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<tr>
<td>* ASSEMBLER</td>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>* MACRO ASSEM</td>
<td>* FIELD SERVICE</td>
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<tr>
<td>DISK MONITOR</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* REAL TIME MTR</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* T/S MONITOR</td>
<td>* USER MICROPROGRAMMABLE</td>
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<tr>
<td>* BATH MONITOR</td>
<td>* FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>OTHER:</td>
<td>* MULTIPROCESSOR</td>
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<tr>
<th>SYSTEMS SOFTWARE(\text{*})</th>
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<td>* T/S MONITOR</td>
<td>* COBOL</td>
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<td>* BATH MONITOR</td>
<td>* FORTRAN</td>
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<td>* DATA BASE SYS</td>
<td>* PL/I</td>
</tr>
<tr>
<td>OTHER:</td>
<td>* RPG</td>
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<table>
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<th>PERIPHERALS (Model #, Specs. N/A)</th>
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<tr>
<td>REMOVABLE DISK: 8424</td>
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<tr>
<td>FIXED HEAD DISK: 8405, 843X</td>
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<td>FLEXIBLE DISK:</td>
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<td>MAGNETIC TAPE:</td>
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<tr>
<td>TAPE CASSETTE:</td>
</tr>
<tr>
<td>LINE PRINTER: 0770, 800LPM; 0776, 760</td>
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<td>SERIAL PRINTER:</td>
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<tr>
<td>CARD BD, PS: 0716, 1K CP; 0604, 250</td>
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<td>PAPER TAPE BD, PN:</td>
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<td>DISPLAY TERMINAL: F197X, P2074</td>
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<td>MULTIPLEXOR: STD</td>
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<td>TERMINALS/SYSTEM:</td>
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<table>
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<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
</tr>
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<td>MAINTENANCE: ON CALL</td>
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---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**UNIVAC: 1100/84**

Introduced in 1977, the UNIVAC 1100/84 is a 36-bit computer designed for engineering, communications processing, scientific, educational, and business applications. Standard features include multiply and divide, floating point, indirect addressing, and byte manipulation. Software support consists of PL, ALGOL, BASIC, COBOL, FORTRAN, VLI, and RPG. The 1100/84 has about 4 times the power of the single processor 1100/81 model. A wide variety of peripherals is available.

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
<th>FEATURES (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
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<td><strong>COMPUTER</strong> (Std/Opt, N/A)</td>
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<td><strong>FEATURES</strong> (*)</td>
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<td>* FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<tr>
<td>* MULTIPROCESSOR</td>
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### PERIPHERALS (Model #, Specs, N/A)

- **REMOVABLE DISK:** 8428
- **FIXED HEAD DISK:** 8405, 6431
- **FLEXIBLE DISK:**
- **MAGNETIC TAPE:**
- **TAPE CASSETTE:**
- **LINE PRINTER:** 0770, 800LPM; 0774, 760
- **SERIAL PRINTER:** 0716, 1K CPM; 0604, 250
- **CARD RD, PW:**
- **PAPER TAPE RD, PW:**
- **DISPLAY TERMINAL:** F197X, F2074
- **MULTIPLEXOR:** STD
- **TERMINALS/SYSTEM:**
- **OTHER:**

### SOFTWARE LANGUAGES (*)

- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PLI**
- **RPG**
- **OTHER:**

### MARKETING

- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

### PRICES

- **COMPUTER:** $3700000
- **MEMORY:** $2358 KB
- **SYSTEM:** SEE NFR

Includes 6 I/O CHANNELS.

---

**INSTRUCTIONS:**

- **B** = Byte Manipulation
- **D** = Decimal Arithmetic
- **E** = Extended Precision
- **F** = Floating Point
- **I** = Indirect Addressing
- **M** = Multiply & Divide
- **S** = Stack Processing

**I/O COMMUNICATIONS:**

- **A** = Asynchronous
- **B** = Bysynchronous
- **D** = Direct Memory Access
- **M** = Multiport Memory
- **S** = Selectable Line Speeds
- **T** = Autodial

**PROCESSOR FEATURES**

- **B** = Base Address Relocation
- **C** = Real Time Clock
- **D** = Dynamic Page Relocation
- **E** = Memory Parity Detect
- **F** = Power Fail Safe
- **K** = Memory Parity Correct
- **M** = Memory Protection
- **R** = Priority Interrupt
- **V** = Vectored Interrupt
INTRODUCED IN 1970, THE 1106 IS A MEDIUM-SCALE, 36-BIT, GENERAL PURPOSE COM-
PUTER. IT SUPPORTS MULTIPROGRAMMING, HAS A HIGH SPEED MEMORY, AND IS AVAILABLE
IN MULTIPLE PROCESSOR CONFIGURATIONS. SOFTWARE SUPPORT IS EXTENSIVE AND INCLUDES AP-
PPLICATIONS PACKAGES. COMMUNICATION FUNCTIONS FOR THE 1106 CAN BE HANDLED BY THE
C/SP OR ECP FRONT-END COMMUNICATIONS PROCESSORS.

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
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<tr>
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<td>* ENGINEERING/COMPUTATION</td>
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<td>* EDUCATIONAL SYSTEM</td>
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<td>* BANKING SYSTEM</td>
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<td>** COMPUTER (Std/Opt: N/A)**</td>
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<td>* REAL TIME MNTR</td>
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<td>* BATCH MONITOR</td>
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<td>* DATA BASE SYS</td>
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<td>OTHER:</td>
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<td>** PRICES**</td>
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<td>COMPUTER: $300k, 128k</td>
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<td>MEMORY: $12000, 128k</td>
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| INCLUDES CPU, DISK SUBSYSTEM w/3 MAG DRUMS; UNISERO 20 MAGNETIC TAPE SUB-
SYSTEMS w/3 TAPE UNITS; CARD READER w/ CONTROL; CONSOLE. |

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F  = Floating Point
I  = Indirect Addressing
M  = Multiply & Divide
S  = Stack Processing

(2) I/O COMMUNICATIONS:
A  = Asynchronous
B  = Bistable
D  = Direct Memory Access
M  = Multiprocess Memory
S  = Selectable Line Speeds
T  = Autodial

(3) PROCESSOR FEATURES
B  = Base Address Relocation
C  = Real Time Clock
D  = Dynamic Page Relocation
E  = Memory Parity Detect
F  = Power Fail Safe
K  = Memory Parity Correct
M  = Memory Protection
R  = Priority Interrupt
V  = Vectored Interrupt

1978/No.1

COMPUTER REVIEW
© Copyright GML Corporation
INTRODUCED IN 1964, THE 1108 IS A LARGE-SCALE, 36-BIT, GENERAL PURPOSE COMPUTER. IT SUPPORTS MULTIPROGRAMMING, AND IS AVAILABLE IN MULTIPROCESSOR CONFIGURATIONS. THE 1108, A MEMBER OF THE UNIVAC 1100 FAMILY, IS NO LONGER MANUFACTURED.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 36 BITS
MEMORY: 65 TO 262K
CYCLE TIME: .75 USEC
ADD TIME: .75 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 165
INSTRUCTION TYPES (1): BEFIM/
ACCUMULATORS: 16
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): ASI/B
I/O TRANSFER RATE: 8MB
PROCESSOR FEATURES (3): BCDEM/
INTERFACES SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
  MACRO ASSEM
  DISK MONITOR
* REAL TIME MONTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER:

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8414, 8440
FIXED HEAD DISK: FH432, FH752
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISERVO 12, 14, 16, 20
TAPE CASSETTE:
LINE PRINTER: 0762, SERIES 0770
SERIAL PRINTER: N/A
CARD RD/PO: 0716; 0604
PAPER TAPE RD/PN: 0920
DISPLAY TERMINAL: UNISCOPE 100
MULTIPLEXOR: YES
TERMINALS/SYSTEM:
* OTHER: SELECTOR

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER: JOVIAL, NUALGOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 65K CPU, 65K MODULE; DISK SUBSYSTEM W/3 MAG DRUM; UNISERVO 20 MAGNETIC TAPE SUBSYSTEM W/3 TAPE UNITS; CARD READER W/CONTROL.

(1) INSTRUCTIONS:
B = Byte Maniplulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Asynchronous
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K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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Introduction in 1970, the 1100 is a large-scale, 36-bit, general purpose computer. Multiple processors and instruction stacking are standard features. Extensive software support includes various operating systems and many business and scientific applications packages. Communications functions for the 1100 are handled by the C/SP front-end communications processor.

### APPLICATION (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### COMPUTER (Std/Opt. N/A)
- Word Size: 36 bits
- Memory: 32 to 1048K
- Cycle Time: .32 usec
- Add Time: .3 usec
- Cache Memory: N/A
- # of Instructions: 210
- Instruction Types (1): BDEFS/A
- Accumulators: 16
- Index Registers: 15
- I/O Communications (2): AD
- I/O Transfer Rate: 24MB
- Processor Features (3): BCD/RME
- Interface Slots:

### SYSTEMS SOFTWARE (*)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time Mtr
- I/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

### PRICES
- Computer: $555 MFR, 32K
- Memory: $2000000, 163K
- Includes 32K main 131K external storage; drum subsystem w/2 disk drums; disk subsystem w/2 drives; magnetic tape subsystem w/4 tape units; card reader w/cont rol.

---

### FEATURES (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### PERIPHERALS (Model #, Specs, N/A)
- Removable Disk: 8414, 8440
- Fixed Head Disk: FH432, 1782, 5046/8434
- Flexible Disk: N/A
- Magnetic Tape: UNISERVO 12,14,16,20
- Tape Cassette: 0866
- Line Printer: 0768, SERS. 0770+0776
- Serial Printer: ON SYS. CONSOL
- Card ED, PN: 0716; 0604
- Paper Tape ED, PN: 0920
- Display Terminal: UNISCOPE 100
- Multiplexer: YES
- Terminals/Systems:
- Other: JOVIAL, NUALGOL

### SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PDL
- RFG
- Other: JOVIAL, NUALGOL

### MARKETING
- Main Market: End User
- Units Sold:
- Maintenance: On Call
- Includes 32K main 131K external storage; drum subsystem w/2 disk drums; disk subsystem w/2 drives; magnetic tape subsystem w/4 tape units; card reader w/cont rol.

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Biynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

1978/No. 1

© Copyright GML Corporation
INTRODUCED IN 1973, THE 9480 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR RANDOM OR SEQUENTIAL BATCH OR COMMUNICATIONS-ORIENTED PROCESSING. UP TO FIVE PROGRAMS MAY BE PROCESSED CONCURRENTLY IN A MULTIPROGRAMMING ENVIRONMENT. AVAILABLE SOFTWARE INCLUDES COBOL, FORTRAN AND RPG.

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 32 BITS
MEMORY: 65 TO 262K MOS
CYCLE TIME: .6 USEC
ADD TIME: 6 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 70
INSTRUCTION TYPES (1): BDBM/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): AT/
I/O TRANSFER RATE: .75MB
PROCESSOR FEATURES (3): BCRME/
INTERFACE SLOTS: 24

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS IMS 4
OTHER: IMS/90

PRICES
COMPUTER: $177216, 65K
MEMORY: $240000, 32K
SYSTEM: $420520, 65K
INCLUDES 65K CPU AND CONSOLE; PRINTER;
CARD READER; TWO TAPE DRIVES.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8411, 8414, 8425
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISERO 12, 16
TAPE CASSETTE: N/A
LINE PRINTER: 0768
SERIAL PRINTER: N/A
CARD RD, PW: 0716, 0604
PAPER TAPE RD, PW: 0920
DISPLAY TERMINAL: UNISCOPE 100, 300
MULTIPLEXOR: YES
TERMINALS/SYSTEM: XCT500, 524, 1000,
OTHER: SELECTOR 2

SOFTWARE LANGUAGES (*)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
THREE DISK DRIVES AND CONTROLLER;

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisyynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
**APPLICATION (**)**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER (Std/Opt. N/A)**

- Word Size: 32 Bits
- Memory: 16 to 262K
- Cycle Time: 645 nsec
- Add Time: 1.72 usec
- Cache Memory: N/A
- # of Instructions: 97
- Instruction Types (1): BDINS/
  Accumulators: 16
- Index Registers: 7
- I/O Communications (2): DM/
  I/O Transfer Rate: 1MB
- Processor Features (3): CFVRME/
  Interface Slots:

**SYSTEMS SOFTWARE (**)**

- Assembler Meta
- Macro Assem
- Disk Monitor
- Real Time Mon Mon CP-R
- T/S Monitor CP-R
- Batch Monitor CP-R
- Data Base Sys
- Other:

**PRICES**

- Computer: $104700, 16K
- Memory: $24000, 16K
- System: $196500, 16K

  Includes 16K CPU; 2.88MB Disk; Magnetic Tape; 300 LPM; Card Reader (200 CPM).

---

**FEATURES (**)**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS (Model #, Specs. N/A)**

- Removable Disk: 3283, 320X, 323X
- Fixed Head Disk: 321X, 320X
- Flexible Disk: N/A
- Magnetic Tape: 333X, 334X
- Tape Cassette: N/A
- Line Printer: 346X
- Serial Printer: 701X, 702X
- Card Reader, PW: 712X, 7140; 716X
- Paper Tape Recorder: 7062, 7063
- Display Terminal: N/A
- Multiplexer: Asyn, Syn
- Terminals/Systems: N/A
- Other: Plotter 7530/1

**SOFTWARE LANGUAGES (**)**

- APLCP-R
- Algol
- Single Basic
- Multi Basic
- Cobol
- Fortran
- PL/I
- RPG
- Other:

**MARKETING**

- Main Market:
- Units Sold:
- Maintenance:

---

**INSTRUCTIONS:**

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**I/O COMMUNICATIONS:**

- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Aautodial

**PROCESSOR FEATURES**

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
**Xerox 560**

Introduced in 1974, the Xerox 560 is a large-scale system designed for scientific and engineering processing. The 560 features a remote console control, five remote multiplexors, and 512 memory mappings in addition to the equipment standard on the 550. The 560 also features a time sharing mode which allows simultaneous servicing of up to 128 users. Software support includes the CP-V operating system and FORTRAN and RPG compilers.

### Application (*)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Computer (Std/Opt, N/A)
- Word Size: 32 Bits
- Memory: 16 to 262K
- Cycle Time: .645 USEC
- Add Time: 1.72 USEC
- Cache Memory: N/A
- CP Instructions: 117
- Instruction Types (1): BDFMS/
- Accumulators: 16
- Index Registers: 7
- I/O Communications (2): DM/
- I/O Transfer Rate: 1MB
- Processor Features (3): CPYRME/
- Interface Slots:

### Systems Software (*)
- Assembler META
- MACRO ASSEM
- Disk Monitor
- Real Time Monitor CP-V
- T/S Monitor CP-V
- Batch Monitor CP-V
- Data Base Sys
- OTHER:

### Prices
- Computer: $162700, 16K
- Memory: $24000, 16K
- System: $254500, 16K
- Includes 16K CPU; Disk (2.88MB); MAG Tape; Line Printer (300 LPM); Card Reader (200 CPM).

### Features (*)
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multi-Processor

### Peripherals (Model #, Specs, N/A)
- Removable Disk: 3283, 320X, 323X
- Fixed Head Disk: 321X, 320X
- Flexible Disk: N/A
- Magnetic Tape: J333X, J34X
- Tape Cassette: N/A
- Line Printer: 346X
- Serial Printer: 701X, 702X
- Card RD, PN: 712X, 7140; 716X
- Paper Tape RD, PN: 7062; 7063
- Display Terminal: N/A
- Multiplexor: ASYM, SYN
- Terminals/SYSTEM:
- Other: PLOTTER 7530/1

### Software Languages (*)
- APLCP-V
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

### Marketing
- Main Market:
- Units Sold:
- Maintenance:

### Instructions:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Byte Manipulation</td>
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<tr>
<td>D</td>
<td>Decimal Arithmetic</td>
</tr>
<tr>
<td>E</td>
<td>Extended Precision</td>
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<tr>
<td>F</td>
<td>Floating Point</td>
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<tr>
<td>I</td>
<td>Indirect Addressing</td>
</tr>
<tr>
<td>M</td>
<td>Multiply &amp; Divide</td>
</tr>
<tr>
<td>S</td>
<td>Stack Processing</td>
</tr>
</tbody>
</table>

### I/O Communications:

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
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<td>B</td>
<td>Bistynchronous</td>
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<tr>
<td>D</td>
<td>Direct Memory Access</td>
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<tr>
<td>M</td>
<td>Multiport Memory</td>
</tr>
<tr>
<td>S</td>
<td>Selectable Line Speeds</td>
</tr>
<tr>
<td>T</td>
<td>Autodial</td>
</tr>
</tbody>
</table>

### Processor Features:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>B</td>
<td>Base Address Relocation</td>
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<tr>
<td>C</td>
<td>Real Time Clock</td>
</tr>
<tr>
<td>D</td>
<td>Dynamic Page Relocation</td>
</tr>
<tr>
<td>E</td>
<td>Memory Parity Detect</td>
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<tr>
<td>F</td>
<td>Power Fail Safe</td>
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<tr>
<td>K</td>
<td>Memory Parity Correct</td>
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<tr>
<td>M</td>
<td>Memory Protection</td>
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<tr>
<td>R</td>
<td>Priority Interrupt</td>
</tr>
<tr>
<td>V</td>
<td>Vectored Interrupt</td>
</tr>
</tbody>
</table>
INTRODUCED IN 1971, THE XEROX SIGMA 8 IS A MEDIUM TO LARGE SCALE, GENERAL PURPOSE COMPUTER CAPABLE OF CONCURRENT REAL TIME, BATCH, AND TIME SHARING PROCESSING. THE SIGMA 8 IS ORIENTED TO SCIENTIFIC ENVIRONMENTS AND FEATURES A MEMORY EXPANDABLE FROM 16 TO 512K WORDS. SOFTWARE SUPPORT INCLUDES FORTRAN IV-N AND FLAG (FORTRAN LOAD AND GO). A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*):

BUSINESS/COMMERCIAL
COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
BANKING SYSTEM
DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A):

WORD SIZE: 32 BITS
MEMORY: 16 TO 512K
CYCLE TIME: .9 USEC
ADD TIME: .73 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 101
INSTRUCTION TYPES (1): BDEFINED/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): M/
I/O TRANSFER RATE: .5 MB
PROCESSOR FEATURES (3): CPVRME/
INTERFACE Slots:

SYSTEMS SOFTWARE (*):

* ASSEMBLER
* MACRO ASSEM
DISK MONITOR
REAL TIME MNTR
T/S MONITOR
BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (*):

* UPWARD COMPATIBLE
FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
USER MICROPROGRAMMABLE
FACTORY MICROPROGRAMMABLE
VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A):

REMOVABLE DISK: 7271
FIXED HEAD DISK: 720X, 7212, 7232
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 73XX
TAPE CASSETTE: N/A
LINE PRINTER: 744X, 7450
SERIAL PRINTER: 701X, 702X
CARD RD, PN: 7140, 716X
PAPER TAPE RD, PN: 7062, 7063
DISPLAY TERMINAL: N/A
MULTIPLEXOR: ASYN, SYN
TERMINALS/SYSTEM:
OTHER: PLOTTER 7530/1

SOFTWARE LANGUAGES (*):

APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
RPG
OTHER: FLAG

MARKETING:

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

PRICES:

COMPUTER: $238000, 16K
MEMORY: $43000, 16K
SYSTEM: $310000, 16K
INCLUDES 16K CPU; DISK (.75 MB); MAGNETIC TAPE; LINE PRINTER (225 LPM); CARD READER (200 CPM).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1978/No. 1

COMPUTER REVIEW

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**APPLICATION (*)**

* BUSINESS/COMMERCIAL
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**FEATURES (*)**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS (Model #, Spec. N/A)**

- REMOVABLE DISK: 7271
- FIXED HEAD DISK: 720X, 7212, 7232
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 73XX
- TAPE CASSETTE: N/A
- LINE PRINTER: 749X, 7450
- SERIAL PRINTER: 701X, 702X
- CARD RD., PN: 712X, 7140, 716X
- PAPER TAPE RD., PN: 7062, 7063
- DISPLAY TERMINAL: N/A
- MULTIPLEXOR: ASYN, SYN
- TERMINALS/SYSTEM: OTHER: PLOTTER 7530/1

**SYSTEMS SOFTWARE (*)**

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MTR CP-V
* TYS MONITOR CP-V
* BATCH MONITOR CP-V
* DATA BASE SYS
* OTHER:

**SOFTWARE LANGUAGES (*)**

* APLCP-V
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG CP-V
* OTHER:

**PRICES**

<table>
<thead>
<tr>
<th>COMPUTER:</th>
<th>$450000, 64K</th>
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</thead>
<tbody>
<tr>
<td>MEMORY:</td>
<td>$43000, 16K</td>
</tr>
<tr>
<td>SYSTEM:</td>
<td>$522000, 64K</td>
</tr>
</tbody>
</table>

INCLUDES 64K CPU; MAGNETIC TAPE; 225 LPM LINE PRINTER; 200 CPM CARD READER.

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
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(3) PROCESSOR FEATURES
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- R = Priority Interrupt
- V = Vectored Interrupt

---

1978/No. 1

© Copyright ACM, Corporation
ORIGINALLY INTRODUCED BY BCA IN 1968, THE MODEL 70/46 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER FOR BUSINESS AND SCIENTIFIC APPLICATIONS. THE 70/46 IS A VIRTUAL MEMORY SYSTEM EMPLOYING THE VMOS OPERATING SYSTEM, AND IS COMPATIBLE WITH THE IBM SYSTEM/360 COMPUTERS VIA SOURCE LANGUAGE EMULATION. ALTHOUGH NO LONGER MANUFACTURED, THIS MACHINE IS SUPPORTED AND SOLD ON AN AS-AVAILABLE BASIS.

APPLICATION (•)
• BUSINESS/COMMERCIAL
• COMMUNICATIONS/PROCESSOR
• INDUSTRIAL CONTROL
• LABORATORY/SCIENTIFIC
• ENGINEERING/COMPUTATION
• EDUCATIONAL SYSTEM
• BANKING SYSTEM
• DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 16 TO 524K
CYCLE TIME: 1.44 USEC
ADD TIME: 0.8 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 152
INSTRUCTION TYPES (1): 8DEFIN/
ACCUMULATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): AD/
I/O TRANSFER RATE: .69MB
PROCESSOR FEATURES (3): PCDR/M
INTERFACE SLOTS:

SYSTEMS SOFTWARE (•)
• ASSEMBLER
• MACRO ASSEMBLER
• DISK MONITOR DOS/RMS
• REAL TIME MTR
• I/S MONITOR
• BATCH MONITOR
• DATA BASE SYS
OTHER: TDOS, VMOS

PRICES
COMPUTER: $183330, 16K
MEMORY:
SYSTEM:
INCLUDES 16K CPU; KSR TYPEWRITER.

FEATURES (•)
• UPWARD COMPATIBLE
• FIELD SERVICE
• APPLICATION SOFTWARE
• CONVERSATIONAL LANGUAGES
• USER MICROPROGRAMMABLE
• FACTORY MICROPROGRAMMABLE
• VIRTUAL MEMORY MACHINE
• MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8564, 8565
FIXED HEAD DISK: 8567
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 8442, 8443
TAPE CASSETTE: N/A
LINE PRINTER: 8242, 8243
SERIAL PRINTER: N/A
CARD READER, P/N: 8237, 8234
PAPER TAPE READER, P/N: 8221, 8224
DISPLAY TERMINAL: 8751, 8752
MULTIPLEXOR & SUBCHANNELS
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (•)
AFL
ALGOL
• SINGLE BASIC
• MULTI BASIC
• COBOL
• FORTRAN
• PLI
• RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
The 70/55 is a medium-scale, general purpose computer for business and scientific applications. It is compatible with the IBM System/360 models via source language emulation. Although no longer manufactured, these machines are supported and sold on an as-available basis.

<table>
<thead>
<tr>
<th>APPLICATION (+)</th>
<th>FEATURES (+)</th>
<th>PERIPHERALS (Model #, Spec, N/A)</th>
<th>SOFTWARE LANGUAGES (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BUSINESS/COMMERCIAL</td>
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<tr>
<td>• COMMUNICATIONS PROCESSOR</td>
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<td>• ENGINEERING/COMPUTATION EDUCATIONAL SYSTEM</td>
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<td>• BANKING SYSTEM</td>
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<td>• FORWARD COMPATIBLE</td>
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<td>• MULTIPROCESSOR</td>
<td></td>
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<tr>
<td>• REMOVABLE DISK: b564, b566</td>
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<tr>
<td>• FIXED HEAD DISK: 8567</td>
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<td>• FLEXIBLE DISK: N/A</td>
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<tr>
<td>• MAGNETIC TAPE: 8442, 8443</td>
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<tr>
<td>• TAPE CASSETTE: N/A</td>
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<tr>
<td>• LINE PRINTER: 8242, 8243</td>
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<tr>
<td>• SERIAL PRINTER: N/A</td>
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<td>• CARD READER: 8237, 8234</td>
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<tr>
<td>• PAPER TAPE READER: 8221, 8224</td>
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<tr>
<td>• DISPLAY TERMINAL: 8751, 8752</td>
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<tr>
<td>• MULTIPLEXOR: 8 SUBCHANNELS</td>
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<td>• TERMINALS/SYSTEM: OTHER:</td>
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</tr>
<tr>
<td>• ASSEMBLER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MACRO ASSEMBLER</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• DISK MONITOR DOS/PUSS</td>
<td></td>
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<tr>
<td>• REAL TIME MONITOR</td>
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<td>• T/S MONITOR</td>
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<tr>
<td>• BATCH MONITOR</td>
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<tr>
<td>• DATA BASE SYS</td>
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</tbody>
</table>
| • SOFTWARE LANGUAGES (
| • AFL |
| • ALGOL |
| • SINGLE BASIC |
| • MULTII BASIC |
| • COBOL |
| • FORTRAN |
| • PLI |
| • RPG |
| • OTHER: |

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (+)</th>
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<tbody>
<tr>
<td>• ASSEMBLER</td>
</tr>
<tr>
<td>• MACRO ASSEMBLER</td>
</tr>
<tr>
<td>• DISK MONITOR DOS/PUSS</td>
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<tr>
<td>• REAL TIME MONITOR</td>
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<tr>
<td>• T/S MONITOR</td>
</tr>
<tr>
<td>• BATCH MONITOR</td>
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<tr>
<td>• DATA BASE SYS</td>
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<tr>
<td>• OTHER: TDOS/TOS</td>
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<tr>
<th>PRICES</th>
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<tbody>
<tr>
<td>COMPUTER: $425250, b4K</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM:</td>
</tr>
<tr>
<td>INCLUDES 64K CPU; KSR TYPEWRITER.</td>
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</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bidirectional
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
ORIGINALLY INTRODUCED BY RCA IN 1969, THE MODEL 70/60 IS A GENERAL PURPOSE COMPUTER FOR BUSINESS AND SCIENTIFIC APPLICATIONS. MODEL 70/60 IS PARTIALLY COMPATIBLE WITH THE IBM SYSTEM/360 SERIES VIA SOURCE LANGUAGE EMULATION. ALTHOUGH NO LONGER MANUFACTURED, THIS MACHINE IS SUPPORTED AND SOLD ON AN AS-AVAILABLE BASIS.

APPLICATIONS
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
- WORD SIZE: 8 BITS
- MEMORY: 131 TO 1048K
- CYCLE TIME: .76 USEC
- ADD TIME: 2.64 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 145
- INSTRUCTION TYPES (1): BDEFIM/ACCUUMULATORS: 16
- INDEX REGISTERS: 16
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE: .9MB
- PROCESSOR FEATURES (3): BCKME/INTERFACE SLOTS:

SYSTEMS SOFTWARE
- ASSEMBLER
- MACEO ASSEM
- DISK MONITOR DOS/RMS
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: TCGS

PRICES
- COMPUTER: $577395, 131K
- MEMORY:
  INCLUDES 131K CPU; KSR TYPEWRITER.

FEATURES
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK:
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE:
- LINE PRINTER:
- SERIAL PRINTER:
- CARD RD/PN:
- PAPER TAPE RD/PN:
- DISPLAY TERMINAL:
- MULTIPLEXOR: 16 SUBCHANNELS
- TERMINALS/SYSTEM:
- OTHER:

SOFTWARE LANGUAGES
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

MARKETING
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- P = Priority Interrupt
- V = Vectored Interrupt

1977/No. 1
ORIGINALLY INTRODUCED BY ECA IN 1969, THE MODEL 70/61 IS A GENERAL PURPOSE COMPUTER FOR BUSINESS AND SCIENTIFIC APPLICATIONS. THE 70/61 IS A VIRTUAL MEMORY SYSTEM EMPLOYING THE VMOS OPERATING SYSTEM, AND IS PARTIALLY COMPATIBLE WITH THE IBM SYSTEM/360 SERIES VIA SOURCE LANGUAGE EMULATION. ALTHOUGH NO LONGER MANUFACTURED, THIS MACHINE IS SUPPORTED AND SOLD ON AS-AVAILABLE BASIS.

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<tr>
<th>APPLICATION (+)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
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<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
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<tr>
<td>* INDUSTRIAL CONTROL</td>
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<tr>
<td>* LABORATORY/SCIENTIFIC</td>
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<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
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<tr>
<td>BANKING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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<table>
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<tr>
<th>FEATURES (+)</th>
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<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>* FIELD SERVICE</td>
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<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMOHY MACHINE</td>
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<td>MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: 262 TO 1048K</td>
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<tr>
<td>CYCLE TIME: .76 USEC</td>
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<tr>
<td>ADD TIME: 2.64 USEC</td>
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<tr>
<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 145</td>
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<td>INSTRUCTION TYPES (1): BDEFIM/ACUMULATORS: 16</td>
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<td>INDEX REGISTERS: 16</td>
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<td>I/O COMMUNICATIONS (2): AD/</td>
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<td>I/O TRANSFER RATE: .9MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCDIME/INTERFACE SLOTS:</td>
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<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (+)</th>
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<tbody>
<tr>
<td>* ASSEMBLER</td>
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<tr>
<td>MACRO ASSEM</td>
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<tr>
<td>DISK MONITOR</td>
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<tr>
<td>* REAL TIME NTE</td>
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<tr>
<td>* T/S MONITOR</td>
</tr>
<tr>
<td>* BATCH MONITOR</td>
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<tr>
<td>DATA BASE SYS</td>
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<td>OTHER: VMOS</td>
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<td>INCLUDES 262K CPU; KSR TYPEWRITER.</td>
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<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tr>
<td>REMOVABLE DISK:</td>
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<td>FIXED HEAD DISK:</td>
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<td>FLEXIBLE DISK:</td>
</tr>
<tr>
<td>MAGNETIC TAPE:</td>
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<tr>
<td>TAPE CASSETTE:</td>
</tr>
<tr>
<td>LINE PRINTER:</td>
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<tr>
<td>SERIAL PRINTER:</td>
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<tr>
<td>CARD RD., PW:</td>
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<tr>
<td>PAPER TAPE RD., PW:</td>
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<tr>
<td>DISPLAY TERMINAL:</td>
</tr>
<tr>
<td>MULTIPLEXOR: 16 SUBCHANNELS</td>
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<tr>
<td>TERMINALS/SYSTEM:</td>
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<tr>
<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES (+)</th>
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<tbody>
<tr>
<td>APL</td>
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<tr>
<td>* SINGLE BASIC</td>
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<tr>
<td>MULTI BASIC</td>
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<tr>
<td>COBOL</td>
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<tr>
<td>FORTRAN</td>
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<tr>
<td>PL1</td>
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<td>RPG</td>
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<table>
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<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistronous
- D = Direct Memory Access
- M = Multimedia Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1977, UNIVAC'S MODEL 90/25 IS A MEDIUM-SCALE PROCESSOR DESIGNED FOR BATCH, COMMUNICATIONS, AND SCIENTIFIC APPLICATIONS. THE 90/25 FEATURES MICROPROGRAMMED LOGIC AND BYTE-ADDRESSABLE, HALF-WORD-ORIENTED SEMICONDUCTOR MEMORY. INTEGRATED COMMUNICATIONS CAPABILITY IS PROVIDED BY A COMMUNICATIONS ADAPTER, WHICH SUPPORTS THREE COMMUNICATIONS LINES. THE 90/25 SYSTEM IS OPERATED UNDER CONTROL OF OS/5 SOFTWARE AND IS EASILY UPGRADEABLE TO A MODEL 90/30.

### APPLICATION (+)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- WORD SIZE: 8 BITS
- MEMORY: 64 TO 126K MOS
- CYCLE TIME: .6 USEC
- ADD TIME:
- CACHÉ MEMORY: N/A
- # OF INSTRUCTIONS: 64/148
- INSTRUCTION TYPES (1): EDI/FM
- ACCUMULATORS:
- INDEX REGISTERS: 32
- I/O COMMUNICATIONS (2): AD/
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): BC/ME/
- INTERFACE SLOTS:

### SYSTEMS SOFTWARE (+)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- I/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER: IMS/90

### PRICES
- COMPUTER: $334,400, 64K
- MEMORY: $164,000, 32K
- SYSTEM: $1,111,170
- INCLUDES 64K CPU; 64K5 DISK STORAGE SUBSYSTEM (24.9MB) $15,600; CARD READER (300 CPR) $6,770; LINE PRINTER (300 LPM) $15,360.

### FEATURES (+)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

### PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 6415, 6416
- FIXED HEAD DISK:
- FLEXIBLE DISK: 6413
- MAGNETIC TAPE: UNISERVO 10
- TAPE CASSETTE:
- LINE PRINTER: 077b
- SERIAL PRINTER:
- CARD RD/PR: 0714, 0605
- PAPER TAPE RD/PR: 0920
- DISPLAY TERMINAL: UNISCOPE 100, 200
- MULTIPLEXOR:
- TERMINALS/SYSTEM:
- OTHER:

### SOFTWARE LANGUAGES (+)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
- OTHER:

### MARKETING
- MAIN MARKET: END USER
- UNITS SOLD: 0 (02/77)
- MAINTENANCE: ON CALL

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(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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UNIVAC: 90/30

INTRODUCED IN 1974, MODEL 90/30 IS A MEDIUM-SCALE PROCESSOR DESIGNED FOR BATCH, COMMUNICATIONS AND SCIENTIFIC APPLICATIONS. FEATURES INCLUDE A WRITABLE CONTROL STORE AND MULTIPROCESSING CAPABILITY WHICH PERMITS UP TO SEVEN JOBS TO BE PROCESSED CONCURRENTLY. A WIDE VARIETY OF PERIPHERALS MAY BE ATTACHED INCLUDING UP TO SIXTEEN DISK DRIVES AND TWENTY FOUR HALF-DUPLEX COMMUNICATIONS LINES. VARIOUS AIDS FOR CONVERSION FROM UNIVAC SERIES 7000 SYSTEMS OR FOR IBM SYSTEM/360 EMULATION ARE AVAILABLE.

APPLICATION (+)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (+)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 8416, 8418, 8430
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 10, 12, 14, 16, 20
TAPE CASSETTE: 0866
LINE PRINTER: 0773, 0770+0776
SERIAL PRINTER: N/A
CARD RD.PN: 0717, 0605
PAPER TAPE BD.PN: 0920
DISPLAY TERMINAL: UNISCOPE 100
MULTIPLEXOR: 8 SUBCHANNELS
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)

AFL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES

COMPUTER: $78,500, 32K
MEMORY: $6,700, 16K
SYSTEM: $485,000, 32K
INCLUDES 32K CPU; CARD RD $9,120; PRINTER $22,080; DISC ADAPTER $9,600; TWO DISC STORAGE $23,040; CRT KEYBOARD CONSOLE.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, UNIVAC'S MODEL 90/30B IS A MEDIUM-SCALE PROCESSOR DESIGNED FOR BATCH, COMMUNICATIONS, AND SCIENTIFIC APPLICATIONS. IT FEATURES 90/30 PERFORMANCE BUT CAN ACCOMMODATE LOWER SPEED PERIPHERALS. IT CARRIES THE SAME LIST PRICE AS THE REGULAR 90/30 PROCESSOR.

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<th>APPLICATION (+)</th>
<th>FEATURES (+)</th>
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<tbody>
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<td>BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
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<td>COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
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<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
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<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
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<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
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<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
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<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
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<tr>
<td>WORD SIZE: 8 BITS</td>
<td>REMOVABLE DISK: 8416, 8416, 8430</td>
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<td>FIXED HEAD DISK: N/A</td>
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<td>CYCLE TIME: 6 USEC</td>
<td>FLEXIBLE DISK: N/A</td>
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<td>ADD TIME: 43 USEC</td>
<td>MAGNETIC TAPE: UNISEW 10-20</td>
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<td>CACHE MEMORY: N/A</td>
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<td>LINE PRINTER: 0773, 0770</td>
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<td>INSTRUCTION TYPES (1): BDEFIN/</td>
<td>SERIAL PRINTER: N/A</td>
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<td>CARD RD, PW: 0771, 0505</td>
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<td>FAPPE TAPE RD, PW: 0920</td>
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<td>DISPLAY TERMINAL: UNISCOPE 100</td>
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<td>PROCESSOR FEATURES (3): BCRK/N</td>
<td>TERMINALS/SYSTEM:</td>
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<td>OTHER:</td>
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<td>SYSTEMS SOFTWARE (-)</td>
<td>SOFTWARE LANGUAGES (-)</td>
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<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
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<tr>
<td>REAL TIME NATR</td>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
<td>PL/1</td>
</tr>
<tr>
<td>OTHER: IMS 90</td>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER:</td>
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<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: 78500, 32K</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MEMORY: 86000, 16K</td>
<td>UNITS SOLD:</td>
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<tr>
<td>SYSTEM:</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Binary
- D = Direct Memory Access
- M = Multiprocess Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1973, THE MODEL 90/60 IS A MEDIUM TO LARGE-SCALE COMPUTER DESIGNED FOR BATCH, COMMUNICATIONS, AND SCIENTIFIC PROCESSING. FEATURES INCLUDE THE 05/7 MONITOR WHICH SUPPORTS MULTITASKING OF UP TO FOURTEEN CONCURRENT PROGRAMS. A THIRTY LINE COMMUNICATIONS CAPACITY, DATA BASE MANAGEMENT AND IBM SYSTEM/360 EMULATION. COMMUNICATIONS CAN BE CONTROLLED BY A 32-LINE MULTICHANNEL COMMUNICATIONS CONTROLLER (MCC) THAT SUPPORTS THE VIRTUAL MEMORY OPERATING SYSTEM/9.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/DATA PROCESSING
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 128 TO 1024K BOS
CYCLE TIME: .6 USEC
ADD TIME: 1.5 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 154
INSTRUCTION TYPES (1): BDEFIM/
ACCUMLATORS: 16
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): AD/
I/O TRANSFER RATE: 1.1 MB
PROCESSOR FEATURES (3): BCD/60/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)
* ASSEMBLER
* MACRO ASSEMBLY
* DISK MONITOR
* REAL TIME ENTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: 05/7

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: #8433,8440
FIXED HEAD DISK: #8405
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISERVO 12,14,16-34
TAPE CASSETTE: #0866
LINE PRINTER: #0768 SERIES 0770
SERIAL PRINTER: N/A
CARD RD/PD: #0176,0604
PAPER TAPE RD/PD: #0920
DISPLAY TERMINAL: UNISCOPE 100
MULTIPLEXOR: YAS
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)
* APL
* BASIC
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $284000, 512K
MEMORY: $46800, 256K
SYSTEM: $700000, 128K
INCLUDES 128K CPU.
UNIVAC: 90/70

INTRODUCED IN 1973, THE MODEL 90/70 IS A DISK-ORIENTED COMPUTER DESIGNED FOR BATCH, COMMUNICATIONS, AND SCIENTIFIC PROCESSING. FEATURES INCLUDE AN OS/7 MONITOR WHICH SUPPORTS MULTIJOBING OF UP TO FOURTEEN CONCURRENT PROGRAMS, A 30-LINE COMMUNICATIONS CAPACITY, DATA BASE MANAGEMENT, IBM SYSTEM/360 EMULATION, AND A 1346K MAIN STORAGE CAPACITY. SYSTEM PERFORMANCE IS INCREASED BY THE OPERATING SYSTEM STORAGE FACILITY (OSSM) WHICH CONSISTS OF A FIXED-HEAD DISK SUBSYSTEM CONNECTED TO A CONTROL CHANNEL.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USERS MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
* REMOVABLE DISK: 8H84, 8H840
* FIXED HEAD DISK: 8H840
* FLEXIBLE DISK: N/A
* MAGNETIC TAPE: UNISERVO 12, 14, 16-34
* TAPE CASSETTE: 8060
* LINE PRINTER: 0766, 0770
* SERIAL PRINTER: N/A
* CARD RD, FW: 0170, 0604
* PAPER TAPE RD, FW: 0920
* DISPLAY TERMINAL: UNISCOPE 10F
* MULTIPLEXOR: YES
* TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (+)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
* OTHER:

MARKETING
* MAIN MARKET: END USER
* UNITS SOLD: MAINTENANCE: ON CALL

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349

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPUTER (Std/Opt. N/A)

WORD SIZE: 8 BITS
MEMORY: 1000 TO 1000K MOS
CYCLE TIME: 0.13 USEC
ADD TIME:
CACHE MEMORY: KB, WS
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDFPIM/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): A/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): BK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MONTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: OS/7

PRICES

COMPUTER: $720,000
MEMORY: $87,550
SYSTEM: $798,250, 1000K
INCLUDES 1000K CPU.

PERIPHERALS (Model #. Specs, N/A)

REMOVABLE DISK: 844X
FIXED HEAD DISK: 9405, 5040/8434
FLEXIBLE DISK: 8406
MAGNETIC TAPE: UNIVPSSO 1X
TAPE CASSETTE: 610
LINE PRINTER: 0768
SERIAL PRINTER:
CAPD BD, PR: 0716; 250 CPM
PAPER TAPE BD, PR: 300 CPS; 700 CPS
DISPLAY TERMINAL: UT5 400, 700, DCB LINE
MULTIPLEX: 2SD
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

AFL
ALGOL
SINGLE BASIC
MUTL BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING

MAIN MARKET: FWD USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

<table>
<thead>
<tr>
<th>APPLICATION (*)</th>
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<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
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<tr>
<td>BANKING SYSTEM</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
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<thead>
<tr>
<th>FEATURES (*)</th>
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</thead>
<tbody>
<tr>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>USER MICROPROGRAMMABLE</td>
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<tr>
<td>FACTORY MICROPROGRAMMABLE</td>
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<tr>
<td>* VIRTUAL MEMORY MACHINE</td>
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<td>MULTIPROCESSOR</td>
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<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: 4000 TO 4000K MOS</td>
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<tr>
<td>CYCLE TIME: 0.1 USEC</td>
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<tr>
<td>ADD TIME:</td>
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<td>CACHE MEMORY: FB, NS</td>
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<td># OF INSTRUCTIONS:</td>
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<tr>
<td>INSTRUCTION TYPES (1): BDEPI/ACCU</td>
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<td>INDEX REGISTERS:</td>
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<tr>
<td>I/O COMMUNICATIONS (2): A/</td>
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<tr>
<td>I/O TRANSFER RATE:</td>
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<tr>
<td>PROCESSOR FEATURES (3): FK/</td>
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<tr>
<td>INTERFACE SLOTS:</td>
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<table>
<thead>
<tr>
<th>PERIPHERALS (Model #, Spec, N/A)</th>
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<tbody>
<tr>
<td>REMOVABLE DISK: 84XX</td>
</tr>
<tr>
<td>FIXED HEAD DISK: 9405,5040/6434</td>
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<tr>
<td>FLEXIBLE DISK: 8406</td>
</tr>
<tr>
<td>MAGNETIC TAPE: UNIVERSO 1X</td>
</tr>
<tr>
<td>TAPE CASSETTE: 610</td>
</tr>
<tr>
<td>LINE PRINTER: 0768</td>
</tr>
<tr>
<td>SERIAL PRINTER:</td>
</tr>
<tr>
<td>CARD RD/PF: 0716; 250 CPM</td>
</tr>
<tr>
<td>PAPER TAPE RD/PN: 300 CPS; 100 CPS</td>
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<tr>
<td>DISPLAY TERMINAL: 800,700, DCT LINP</td>
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<tr>
<td>MULTIPLEXOR: STD</td>
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<tr>
<td>TERMINALS/SYSTEM:</td>
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<tr>
<td>OTHER:</td>
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</table>

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<th>SOFTWARE LANGUAGES (*)</th>
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<tbody>
<tr>
<td>APL</td>
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<tr>
<td>COBOL</td>
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<tr>
<td>FORTRAN</td>
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<tr>
<td>PL/1</td>
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<td>RPG</td>
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<table>
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<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
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<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biphaseynchronous
D = Direct Memory Access
M = Multipass Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Count Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
UNIVAC: 90/80

Introduced in 1976, the 90/80 is the fourth and largest system in the Series 90 family of general purpose computers. The 90/80 is compatible with all Series 90 and the large Series 70 computer systems. The 90/80 hardware consists of an instruction processor and a peripheral processor. Features include a high-speed semiconductor memory, error correction code (ECC), and emitter coupled logic (ECL) circuitry for added system reliability. Add-on memory is available in 524K byte increments up to 4M.

**APPLICATION**
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt, N/A)
- Word Size: 8 bits
- Memory: 524 to 4000K
- Cycle Time: 45/8 bits usec
- Add Time:
- Cache Memory: N/A
- # of Instructions: 187
- Instruction Types (1): BDEFIM/ACCU:
- Accumulators: 36
- Index Registers: 32
- I/O Communications (2): AD/
- I/O Transfer Rate: 8M
- Processor Features (3): ECDPBE/IFACE
- Interface Slots: 8

**SYSTEMS SOFTWARE**
- Assembler
- Macro Assembler
- Disk Monitor
- Real Time BMI
- T/S Monitor VS/9
- Batch Monitor VS/9
- Data Base SYS DMS/90

**SOFTWARE LANGUAGES**
- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL
- Fortran
- PL1
- RPG
- Other: Unique

**PRICES**
- Computer: $105,000.00, 524K
- Memory: $218,400.00, 524K
- System: $200,000.00

Includes 524K CPU; disk subsystem; magnetic tape subsystem; system console; card reader; printer; and 1 year maintenance.

**PERIPHERALS** (Model #, Spec, N/A)
- Removable Disk: 8414, 8425, 8430, 8433
- Fixed Head Disk: 8405, 00, 04, 5040, 8434
- Flexible Disk: 8406
- Magnetic Tape: Uniservo 10, 12, 14, 16
- Tape Cassette: 610
- Line Printer: 0768, Series 0770
- Serial Printer:
- Card RD/PF: 0716, 250 CPM
- Paper Tape RD/PF: 300 CPS; 100 CPS
- Display Terminal: UTS 400, 700, DCT Line Multiplexor:
- Terminals/System:
  - Others:

**MARKETING**
- Main Market: EWD User
- Units Sold:
- Maintenance: On Call

---

**INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

**COMMUNICATIONS:**
- A = Asynchronous
- B = Bidirectional
- D = Direct Memory Access
- M = Multiprotocol
- S = Selectable Line Speeds
- T = Timer

**PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

350 1977/No. 1
INTRODUCED IN 1976, THE 1100/10 IS THE LOW END OF UNIVAC'S 1100 SERIES OF COMPATIBLE, COMMUNICATIONS-ORIENTED COMPUTER SYSTEMS. THE 1100 SERIES INCORPORATES SEMICONDUCTOR MEMORIES AND MASS STORAGE PERIPHERALS FOR FAST EXECUTION AND LARGE STORAGE CAPACITY. THE 1100/10 HAS A MEMORY CYCLE TIME OF 1.25 USEC AND A MEMORY CAPACITY OF 728K TO 512K WORDS. COMMUNICATIONS CAN BE HANDLED BY EITHER THE GENERAL COMMUNICATIONS SUBSYSTEM (GCS) OR THE COMMUNICATIONS/SYMMETRICAL PROCESSOR (C/SP). THE 1100/10 SYSTEM OFFERS THE FULL RANGE OF 1100 SERIES PERIPHERALS AND SOFTWARE.

APPLICATIONS
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 36 BITS
MEMORY: 128 TO 512K MGS
CYCLE TIME: 1.25 USEC
ADD TIME:
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 200
INSTRUCTION TYPES (1): 5DEIFS/ACCUMULATES: 16
INDEX REGISTERS: 15
1/O COMMUNICATIONS (2): ABDS/
1/O TRANSFER RATE:
PROCESSOR FEATURES (3): BCDPRMEX/
INTERFACE SLOTS:

SYSTEM SOFTWARE
* ASSEMBLER
* MACRO ASSEMBLER
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS EFS 1100

PRICES
COMPUTER: $450000, 128K
MEMORY:
SYSTEM: $705000, 128K
INCLUDES 128K CPU; 40770 PRINTER $56,304; 97016 CARD READER $15,504; 4 UNISEBWO 12 M. TAPE UNITS $81,552; 8430 DISK (100DD) $96,960; UNISCOPE 100 DISPLAY TERMINAL $4,376.

APPLICATION (1)
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

FEATURES (2)
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprotocol Memory
S = Selectable Line Speeds
T = Autodial

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8430, 8432, 8425
FIXED HEAD DISK: 8405, FH-432/1782
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISEBWO 12, 11, 16, 20
TAPE CASSETTE: SERIES 600 TCS
LINE PRINTER: 2070
SERIAL PRINTER: N/A
CARD READER: 8716; 0600
PAPER TAPE READER: 0920
DISPLAY TERMINAL: UNISCOPE 100, 200
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (3)
* APL
* ALGOL
* SINGLE BASIC
* MULTIBASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER: JOVIOL,物料GOL

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
(2) I/O COMMUNICATIONS:
(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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INTRODUCED IN 1975, THE 1100/20 IS A MEMBER OF UNIVAC'S 1100 SERIES OF COMPATIBLE, COMMUNICATIONS-ORIENTED COMPUTER SYSTEMS. THE 1100 SERIES INCORPORATES SEMICONDUCTOR MEMORY AND MASS STORAGE PERIPHERALS FOR FAST EXECUTION AND LARGE STORAGE CAPACITY. THE 1100/20 HAS A MEMORY CYCLE TIME OF .875 USEC AND A MEMORY CAPACITY OF 128K TO 512K WORDS. COMMUNICATIONS CAN BE HANDLED BY EITHER THE GENERAL COMMUNICATIONS SUBSYSTEM (GCS) OR THE COMMUNICATIONS/SYMBIONT PROCESSOR (C/SP). THE 1100/20 SYSTEM OFFERS THE FULL RANGE OF 1100 SERIES PERIPHERALS AND SOFTWARE.

### APPLICATIONS
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### COMPUTER
**Std/Opt, N/A**
- Word Size: 36 Bits
- Memory: 128 to 512K MOS
- Cycle Time: .875 USEC
- Add Time: .68 USEC
- Cache Memory: N/A
- # of Instructions: 200
- Instruction Types (1): BDEPMS/
  Accumulators: 16
- Index Registers: 15
- I/O Communications (2): ABDS/
- I/O Transfer Rate: .42MB
- Processor Features (3): BCDRMEK/
  Interface Slots: 4-16

### SYSTEMS SOFTWARE
- Assembler
- Macro Assembler
- Disk Monitor
- Real Time Monitor
- T/S Monitor
- Batch Monitor
- Data Base SYS KPS 1100

### PRICES
**Computer**: $710000
**System**: $1200000, 128K
Includes 128K CPU; CRT; Printer; Card Reader; MAG Tape; Disk Storage.

### FEATURES
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### PERIPHERALS
**Model #, Specs, N/A**
- Removable Disk: 8430, 8433, 8425
- Fixed Head Disk: 8405, FH-432/1782
- Flexible Disk: N/A
- Magnetic Tape: UNISERVO 12,14,16,20
- Tape Cassette: Series 600 TCS
- Line Printer: 0770
- Serial Printer: N/A
- Card BD,FN: 0716;0604
- Paper Tape BD,FN: 0920
- Display Terminal: UNISCOPE 106,200
- Multiplexor: SYN,ASYM
- Terminals/System: Other

### SOFTWARE LANGUAGES
- AFL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PLI
- RPG

### MARKETING
Main Market: End User, OEM
Units Sold: Maintenance: On Call
Reader; MAG Tape; Disk Storage.
INTRODUCED IN 1975, THE 1100/40 IS A MEMBER OF UNIVAC'S 1100 SERIES OF COMPATIBLE, COMMUNICATIONS-ORIENTED COMPUTER SYSTEMS. THE 1100 SERIES INCORPORATES SEMICONDUCTOR MEMORY AND MASS STORAGE PERIPHERALS FOR FAST EXECUTION AND LARGE STORAGE CAPACITY. THE 1100/40 HAS A MEMORY CYCLE TIME OF .8 USEC AND A MEMORY CAPACITY OF 32K TO 1536K WORDS. UNIT OR MULTIPROCESSOR CONFIGURATIONS (UP TO FOUR PROCESSORS) ARE AVAILABLE AND COMMUNICATIONS CAN BE HANDLED BY EITHER THE GENERAL COMMUNICATIONS SUBSYSTEM (GCS) OR THE C/SP FRONT-END PROCESSOR.

### APPLICATION (+)  
- BUSINESS/COMMERCIAL  
- COMMUNICATIONS PROCESSOR  
- INDUSTRIAL CONTROL  
- LABORATORY/SCIENTIFIC  
- ENGINEERING/COMPUTATION  
- EDUCATIONAL SYSTEM  
- BANKING SYSTEM  
- DATA ENTRY SYSTEM

### FEATURES (+)  
- UPWARD COMPATIBLE  
- FIELD SERVICE  
- APPLICATION SOFTWARE  
- CONVERSATIONAL LANGUAGES  
- USER MICROPROGRAMMABLE  
- FACTORY MICROPROGRAMMABLE  
- VIRTUAL MEMORY MACHINE  
- MULTIPROCESSOR

### COMPUTER (Std/Opt, N/A)  
- WORD SIZE: 36 BITS  
- MEMORY: 32 TO 1536K MOS  
- CYCLE TIME: .3 TO .8 USEC  
- ADD TIME: .8 USEC  
- CACHE MEMORY: N/A  
- # OF INSTRUCTIONS: 200  
- INSTRUCTION TYPES (1): BDEFINS/ACCU  
- INDEX REGISTERS: 15  
- I/O COMMUNICATIONS (2): ABD/S  
- I/O TRANSFER RATE: 5MB  
- PROCESSOR FEATURES (3): BCDEMEX/INTERFACE SLOTS: 8-24

### SYSTEMS SOFTWARE (+)  
- ASSEMBLER  
- MACRO ASSEMBLER  
- DISK MONITOR  
- REAL TIME MONITOR  
- T/S MONITOR  
- BATCH MONITOR  
- DATA BASE SYS RFS 1100  
- OTHER:

### PRICES  
- COMPUTER: $1600000, 192K  
- MEMORY: $3200000, 64K  
- SYSTEM: $1850000, 192K  
- INCLUDES 192K CPU; #1770 PRINTER $56,304; #7016 CARDBREADER $15,504; 4 UNISERO 12 M. TAPE UNITS $81,552; #8430 DISK (100MB) $96,960; UNISCOPE 100 DISPLAY TERMINAL $4,378.

### PERIPHERALS (Model #, Spec#)  
- REMOVABLE DISK: 8430, 8433, 8425  
- FIXED HEAD DISK: 8405, FH-432/1762  
- FLEXIBLE DISK: N/A  
- MAGNETIC TAPE: UNISERO 12, 14, 16, 20  
- TAPE CASSETTE: SERIES 600 TCS  
- LINE PRINTER: 0770  
- SERIAL PRINTER: N/A  
- CARD RD, RD: 0716, 0604  
- FAX TAPE RD, FD: 0920  
- DISPLAY TERMINAL: UNISCOPE 100, 200  
- MULTIPLEXOR: SYN, ASYN  
- TERMINALS/SYSTEM: OTHER:

### SOFTWARE LANGUAGES (+)  
- APL  
- Algol  
- SINGLE BASIC  
- MULTI BASIC  
- COBOL  
- FORTRAN  
- PL/1  
- RPG  
- OTHER: JOVIAL, NUALGOL

### MARKETING  
- MAIN MARKET: END USER, OEM  
- UNITS SOLD:  
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:  
- B = Byte Manipulation  
- D = Decimal Arithmetic  
- E = Extended Precision  
- F = Floating Point  
- I = Indirect Addressing  
- M = Multiply & Divide  
- S = Stack Processing

(2) I/O COMMUNICATIONS:  
- A = Asynchronous  
- B = Synchronous  
- D = Direct Memory Access  
- M = Multisport Memory  
- S = Selectable Line Speeds  
- T = Autodial

(3) PROCESSOR FEATURES  
- B = Base Address Relocation  
- C = Real Time Clock  
- D = Dynamic Page Relocation  
- E = Memory Parity Detect  
- F = Power Fail Safe  
- K = Memory Parity Correct  
- M = Memory Protection  
- R = Priority Interrupt  
- V = Vectored Interrupt

COMPUTER REVIEW  
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353  
1977/No. 1
UNIVAC: 1100/81

INTRODUCED IN 1976, THE UNIVAC 1100/81 IS A 36-BIT COMPUTER SYSTEM DESIGNED FOR BUSINESS, EDUCATIONAL, COMMUNICATIONS, COMPUTATION, AND LABORATORY APPLICATIONS. STANDARD FEATURES INCLUDE FOUR WORD CHANNELS, FLOATING POINT, INDIRECT ADDRESSING, AND A VARIETY OF SOFTWARE LANGUAGES INCLUDING RPG, APL, PL1, BASIC, FORTRAN, AND COBOL. THE 1100/81 PROCESSOR SYSTEM HAS OVER 40% MORE POWER THAN THE ORIGINAL 1100/60. IT CAN BE EXPANDED TO THE FULL 1100/84 SYSTEM WITHOUT ANY EXCHANGE OF EQUIPMENT OR OPERATING SYSTEMS.

APPLICATION (*)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
- WORD SIZE: 36 BITS
- MEMORY: K MOS, CORE
- CYCLE TIME: ADD TIME:
- CACHE MEMORY: KB, NS
- # OF INSTRUCTIONS:
- INSTRUCTION TYPES (1): BDEPIMS/
- ACCUMULATORS:
- INDEX REGISTERS:
- I/O COMMUNICATIONS (2): AB/
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3): /
- INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- TV/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

FEATURES (*)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 8424
- FIXED HEAD DISK: 8405, 843X
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE:
- LINP PRINTER: 0770, 800LPM; 0776, 760
- SERIAL PRINTER:
- CAPT ED.PN: 0716, 15 CPM; 0604, 250
- PAPER TAPE ED.PN:
- DISPLAY TERMINAL: F197X, F2674
- MULTIPLEXOR: STD
- TERMINALS/SYSTEM:
- OTHER:

SOFTWARE LANGUAGES (*)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- OTHER:

MARKETING
- MAIN MARKET: PND USER
- UNITS SOLD:
- MAINTENANCE: ON CALL
- INCLUDES 2 TO 8 DISKS PER SYSTEM; 4 WORD CHANNEL; 8K WORDS OF BUFFERS STORAGE PER MODULE; SYSTEM MAINTENANCE UNIT; TRANSITION UNIT; SYSTEM CONSOLE.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1977/No. 3

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INTRODUCED IN 1976, THE UNIVAC 1100/82 IS A 36-BIT COMPUTER DESIGNED FOR COMMERCIAL, COMMUNICATIONS, SCIENTIFIC, ENGINEERING, AND EDUCATIONAL APPLICATIONS. THE FEATURES ARE SIMILAR TO THOSE OF THE 1100/61, INCLUDING FLOATING POINT AND FOUR WORD CHANNELS. SOFTWARE SUPPORT CONSISTS OF FORTRAN, COBOL, APL, BASIC, AND ALGOL. THE MODEL HAS MORE POWERS THAN THE 1100/80 BASIC SYSTEM, AND IT CAN BE EXPANDED TO THE FULL 1100/84 SYSTEM WITHOUT ANY EXCHANGE OF EQUIPMENT OR OPERATING SYSTEMS. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (*)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 36 BITS
MEMORY: Y MOS, CORE
CYCLE TIME:
ADD TIME:
CACHE MEMORY: KB, NS
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDEPINS/Accumulators:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): AB/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): /
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MONITOR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYSTEM
OTHER:

PRICES

COMPUTER:
MEMORY:
SYSTEM:
INCLUDES 2 TO 8 DISKS PER SYSTEM.

FEATURES (*)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USEP MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

REMOVABLE DISK: 8424
FIXED HEAD DISK: 8405, 843X
PLOMBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE:
LINE PRINTER: 0770, 800 LPM; 0776, 760
SERIAL PRINTER:
CARD READER: 0716, 1K CPM; 0604, 250
PAPER TAPE READER:
DISPLAY TERMINAL: F197X, P2074
MULTIPLEXOR: STD
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)

* APL
* ALGOL
* SINGLE BASIC
MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

MARKETING

MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (*)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt. N/A)
WORD SIZE: 36 BITS
MEMORY: 2000 TO 16K MOS, CORE
CYCLE TIME: 0.05 USEC
ADD TIME:
CACHE MEMORY: KB, MS
# OF INSTRUCTIONS:
INSTRUCTION TYPES (1): BDEFINS/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2): AB/
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): /
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

PRICES
COMPUTER: $3700000
MEMORY: 2358K
SYSTEM:
INCLUDES 6 I/O CHANNELS.

FEATURES (*)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs. N/A)
REMOVABLE DISK: 8424
FIXED HEAD DISK: 8405, 843X
PLATABLE DISK:
TAPE CASSETTE:
LINE PRINTER: 0770, 8001PM; 0776, 760
SERIAL PRINTER:
PAPER TAPE RD, FN
DISPLAY TERMINAL: F197X, P2070
MULTIPLEXOR: STD
TERMINALS/STYPM:
OTHER:

SOFTWARE LANGUAGES (*)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistatic
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>* ENGINEERING/COMPUTATION</td>
<td>USE MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>* BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>* DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

**COMPUTER** (Std/Opt. N/A)
- WORD SIZE: 36 BITS
- MEMORY: 2000 TO 16k MOS,CORE
- CYCLE TIME: 0.05 USPC
- ADD TIME:
  - CACHE MEMORY: KB, GS
- # OF INSTRUCTIONS:
  - INSTRUCTION TYPES (1): BDEFMPS/
  - ACCUMULATORS:
- INDEX REGISTER:
- I/O COMMUNICATIONS (2):
  - T/S MONITOR
- I/O TRANSFER RATE:
- PROCESSOR FEATURES (3):
  - INTERFACE SLOTS:

**SYSTEMS SOFTWARE(*)**
- * ASSEMBLER
- * MACRO ASSEM
- * DSK MONITOR
- * REAL TIME WNT
- * T/S MONITOR
- * BACH MONITOR
- * DATA BASE SYS
- * OTHER:

**PRICES**
- COMPUTER: $37000000
- MEMORY: $2358 KB
- SYSTEM:
  - INCLUDES 6 I/O CHANNELS.

**PERIPHERALS** (Model †, Specs, N/A)
- REMOVABLE DISK: 8424
- FIXED HEAD DISK: 8405, 843X
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE:
  - LINE PRINTERS: 0770, 800LPM; 0776, 760
  - SERIAL PRINTER: 9716, 1K CPM; 0604, 250
  - CARD RD, PN:
  - PAPER TAPE RD, PN:
  - DISPLAY TERMINAL: F197X, P2074
  - MULTIPLEXOR: STD
  - TERMINALS/SYSTEM:
  - OTHER:

**SOFTWARE LANGUAGES(*)**
- * APL
- * ALGOL
- * SINGLE BASIC
- * MULTI BASIC
- * COBOL
- * FORTRAN
- * PL1
- * RPG
- OTHER:

**MARKETING**
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

---

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multipoint Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN LATE 1976, THE 1100/80 LARGE-SCALE COMPUTER IS THE HIGH END OF UNIVAC'S 1100 SERIES OF GENERAL PURPOSE COMPUTERS. FEATURES INCLUDE CACHE MEMORY, ERROR DETECT AND CORRECT, MULTIPROCESSOR CONFIGURATIONS, AND SOFTWARE COMPATIBILITY WITH OTHER MEMBER OF THE 1100 SERIES. A WIDE VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (+)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 36 BITS
MEMORY: 512 TO 4096K BOS
CYCLE TIME:
ADD TIME:
CACHE MEMORY: 64K, 125K
# OF INSTRUCTIONS: 200
INSTRUCTION TYPES (1): BDEFS/
ACCUMULATORS; 16
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): ABDS/
I/O TRANSFER RATE: 1.5MB
PROCESSOR FEATURES (3): BCDRMK/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MNTR
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
OTHER:

FEATURES (+)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8436, 8433, 8425
FIXED HEAD DISK: 8405, 432/1782, 8434
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNISERVO 12, 14, 16-36
TAPE CASSETTE: SERIES 600 TCS
LINE PRINTER: 0770
SERIAL PRINTER: N/A
CARD RD/PN: 0716/0604
PAPER TAPE RD/PN: 0920
DISPLAY TERMINAL: 100, 200, VTS400
MULTIPLEXOR: SYN, ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL/I
- RPG
OTHER: JOVIAL, NVALGOL

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 512K CPU; 6770 PRINTER $56,304; 7016 CARD READER $15,504; 4 UNISERVO 12 IN. TAPE UNITS $81,552; 88430 DISK (100MB) $96,960; UNISCOPE 100 DISPLAY TERMINAL $4,348.

INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

354
UNIVAC: 1106

INTRODUCED IN 1970, THE 1106 IS A MEDIUM-SCALE, 36-BIT, GENERAL PURPOSE COMPUTER. IT SUPPORTS MULTIPROGRAMMING, HAS HIGH SPEED MEMORY, AND IS AVAILABLE IN MULTIPROCESSOR CONFIGURATIONS. SOFTWARE SUPPORT IS EXTENSIVE AND INCLUDES VARIOUS OPERATING SYSTEMS AND APPLICATIONS PACKAGES. COMMUNICATION FUNCTIONS FOR THE 1106 CAN BE HANDLED BY THE C/SP FRONT-END COMMUNICATIONS PROCESSOR.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
* REMOVABLE DISK: 8414, 8440
* FIXED HEAD DISK: FH433, FH1782
* FLEXIBLE DISK: W/A
* MAGNETIC TAPE: UNISERO 12, 14, 16, 20
* TAPE CASSETTE: 0866
* LINE PRINTER: 0768, SERIES 0770
* SERIAL PRINTER: W/A
* CARD BD, PN: 0716; 0604
* PAPER TAPE BD, PN: 0920
* DISPLAY TERMINAL: UNISCOPE 100
* MULTIPLEXOR: YES
* TERMINALS/SYSTEM: OTHER

SOFTWARE LANGUAGES (+)
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
* OTHER: JOVIAL, NUALGOL

MARKETING
* MAIN MARKET: END USER
* UNITS SOLD: MAINTENANCE: ON CALL

PRICES
* COMPUTER:
* MEMORY:
* SYSTEM: $1200000, 128K
* INCLUDES 128K CPU; DISK SUBSYS. W/3 MAG DRUMS $270,340; UNISERO 20 M. TAPE SUBSYS. W/3 TAPE UNITS $135,360; 9300 SYS. W/REG'D ATTACH. $108,760; CARD BD + CTRL. $15,504; CONSOLE $42,240.

SYSTEMS SOFTWARE (+)
* ASSEMBLER
* MACRO ASSEM
* DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
* OTHER:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Arithmetic
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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1977/No. 1 355
UNIVAC: 1108

INTRODUCED IN 1964, THE 1108 IS A LARGE-SCALE, 36-BIT, GENERAL PURPOSE COMPUTER. IT SUPPORTS MULTIPROGRAMMING, AND IS AVAILABLE IN MULTIPROCESSOR CONFIGURATIONS. THE 1108, A MEMBER OF UNIVAC'S 1100 FAMILY, IS NO LONGER MANUFACTURED.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 36 BITS
MEMORY: 65 TO 262K
CYCLE TIME: .75 USEC
ADD TIME: .75 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 165
INSTRUCTION TYPES (1): B/E/I/
ACCUMULATORS: 16
INDEX REGISTERS: 15
I/O COMMUNICATIONS (2): A/
I/O TRANSFER RATE: 8MB
PROCESSOR FEATURES (3): BCD/MM/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)
* ASSEMBLER
  MACRO ASSEM
  DISK MONITOR
* REAL TIME MTR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER:

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Spec, N/A)
REMOVABLE DISK: 8414,8440
FIXED HEAD DISK: PH432,PH1762
FLEXIBLE DISK: N/A
MAGNETIC TAPE: UNICARVO 12,14,16,20
TAPE CASSETTE: 0866
LINE PRINTER: 0768,SERIES 0770
SERIAL PRINTER: N/A
CARD RD/PW: 0716,0604
PAPER TAPE RD/PW: 0920
DISPLAY TERMINAL: UNISCOPE 100
MULTIPLEXOR: YES
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)
* APL
* ALGOL
* SINGLE BASIC
  MULTI BASIC
* COBOL
* FORTRAN
* PLI
* RPG
OTHER: JOVIAL,NUAlgol

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
IN STOCK 65K CPU, 65K MODULE $511,150;

(1) INSTRUCTIONS:
  B = Byte Manipulation
  D = Decimal Arithmetic
  E = Extended Precision
  F = Floating Point
  I = Indirect Addressing
  M = Multiply & Divide
  S = Stack Processing

(2) I/O COMMUNICATIONS:
  A = Asynchronous
  B = Bisynchronous
  D = Direct Memory Access
  M = Multipoint Memory
  S = Selectable Line Speeds
  T = Autodial

(3) PROCESSOR FEATURES
  B = Base Address Relocation
  C = Real Time Clock
  D = Dynamic Page Relocation
  E = Memory Parity Detect
  F = Power Fail Safe
  K = Memory Parity Correct
  M = Memory Protection
  R = Priority Interrupt
  V = Vectored Interrupt

COMPUTER REVIEW
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INTRODUCED IN 1970, THE 1110 IS A LARGE-SCALE, 36-BIT, GENERAL PURPOSE COMPUTER. MULTIPLE PROCESSORS AND INSTRUCTION STACKING ARE STANDARD FEATURES. EXTENSIVE SOFTWARE SUPPORT INCLUDES VARIOUS OPERATING SYSTEMS AND MANY BUSINESS AND SCIENTIFIC APPLICATIONS PACKAGES. COMMUNICATIONS FUNCTIONS FOR THE 1100 ARE HANDLED BY THE C/SP FRONT-END COMMUNICATIONS PROCESSOR.

<table>
<thead>
<tr>
<th>APPLICATION (+)</th>
<th>FEATURES (+)</th>
<th>PERIPHERALS (Model #: Spec, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>UPWARD COMPATIBLE</td>
<td>REMOVABLE DISK: 8444, 8440</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
<td>FIELD SERVICE</td>
<td>FIXED HEAD DISK: PH432, 1782, 5046/B434</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>CONVERSATIONAL LANGUAGES</td>
<td>MAGNETIC TAPE: UNISERO 12, 14, 16, 20</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>USE MICROPROGRAMMABLE</td>
<td>TAPE CASSETTE: 016</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
<td>LINE PRINTER: 0766, SER. 0770+0776</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
<td>SERIAL PRINTER: OM SYS. CONSOLE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>MULTIPROCESSOR</td>
<td>CARD ED, PN: 0716, 0604</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (+)</th>
<th>SOFTWARE LANGUAGES (+)</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MACRO ASSEMBLER</td>
<td>ALGOL</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>SINGLE BASIC</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>REAL TIME MONITOR</td>
<td>MULTI BASIC</td>
<td></td>
</tr>
<tr>
<td>I/S MONITOR</td>
<td>COBOL</td>
<td></td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>FORTRAN</td>
<td></td>
</tr>
<tr>
<td>DATA BASE SYS</td>
<td>PL/I</td>
<td></td>
</tr>
<tr>
<td>OTHER:</td>
<td>RPG</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>OTHER: JOVIAL, NUAGOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTEH:</td>
<td></td>
</tr>
<tr>
<td>MEMORY:</td>
<td></td>
</tr>
<tr>
<td>SYSTEM: $200,000, 163K</td>
<td></td>
</tr>
<tr>
<td>INCLUDES 32K MAIN 13K EXT. STORAGE:</td>
<td></td>
</tr>
<tr>
<td>DRUM SUBSYS. W/2 DISK DRUMS $208,420; DISK SUBSYS. W/2 DRIVES $128,660; MAG TAPE SUBSYS. W/4 TAPE UNITS $196,192; 9300 SUBSYS $108,776; CARD READER + CTP.</td>
<td></td>
</tr>
</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistable
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1972, THE 3760 IS A PROGRAMMABLE COMMUNICATIONS UNIT DESIGNED TO INTERFACE UNIVAC TERMINALS TO IBM SYSTEM/360 AND SYSTEM/370 HOST PROCESSORS WITHOUT CONVERSION OF IBM TELECOMMUNICATIONS SOFTWARE.

APPLICATION (+)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS: PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

FEATURES (+)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

COMPUTER (Std/Opt, N/A)
- WORD SIZE: 16 BITS
- MEMORY: 8 TO 64K
- CYCLE TIME: .75 USEC
- ADD TIME: 1.5 USEC
- CACHE MEMORY: N/A
- # OF INSTRUCTIONS: 200
- INSTRUCTION TYPES (1): BM/
- ACCUMULATORS: 32
- INDEX REGISTERS: 32
- I/O COMMUNICATIONS (2): ADM/T
- I/O TRANSFER RATE: .038MB
- PROCESSOR FEATURES (3): CFRE/
- INTERFACE SLOTS:

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK:
- FIXED HEAD DISK:
- FLEXIBLE DISK:
- MAGNETIC TAPE:
- TAPE CASSETTE: 0866
- LINE PRINTER:
- SERIAL PRINTER:
- CARD BD, PW:
- PAPER TAPE BD, PW:
- DISPLAY TERMINAL: UNISCOPE 100
- MULTIPLEXOR: YES
- TERMINALS/SYSTEM:
- OTHER:

SOFTWARE LANGUAGES (+)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FORTRAN
- PL1
- EPI
- OTHER:

SYSTEMS SOFTWARE (+)
- ASSEMBLER
- MACRO ASSEM
- DISK MONITOR
- REAL TIME MSIN
- T/S MONITOR
- BATCH MONITOR
- DATA BASE SYS
- OTHER:

MARKETING
- MAIN MARKET: END USER
- UNITS SOLD:
- MAINTENANCE: ON CALL

PRICES
- COMPUTER:
- MEMORY:
- SYSTEM: $55000

(1) INSTRUCTIONS:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:
- A = Asynchronous
- B = Bisynchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
INTRODUCED IN 1966, UNIVAC'S 9200 IS A SMALL GENERAL PURPOSE, CARD ORIENTED SYSTEM DESIGNED PRIMARILY FOR BUSINESS DATA PROCESSING. THE 9200 CAN BE EXPANDED EASILY TO MORE VERSATILE CONFIGURATIONS OR CONVERTED TO A LARGER UNIVAC 9200III SYSTEM.

<table>
<thead>
<tr>
<th>APPLICATION (+)</th>
<th>FEATURES (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
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<tr>
<td>APPLICATION SOFTWARE</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>COMMUNICATIONS PROCESSOR</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC</td>
<td>USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>MULTIPROCESSOR</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
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<tbody>
<tr>
<td>WORD SIZE: 8 BITs</td>
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<tr>
<td>MEMORY: 8 TO 16K PLATED WIRE</td>
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<tr>
<td>CYCLE TIME: 1.2 USBC</td>
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<tr>
<td>ADD TIME: 40.8 USEC</td>
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<td>CACHE MEMORY: N/A</td>
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<td># OF INSTRUCTIONS: 35</td>
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<td>INSTRUCTION TYPES (1): BDEM/A</td>
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<td>ACCUMULATORS: 8</td>
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<tr>
<td>INDEX REGISTERS: 6</td>
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<tr>
<td>I/O COMMUNICATIONS (2): /ABS</td>
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<tr>
<td>I/O TRANSFER RATE: .35 MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): EE/</td>
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<tr>
<td>INTERFACE SLOTS: 3</td>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
</tr>
<tr>
<td>* MACRO ASSEM 8K</td>
</tr>
<tr>
<td>* DISK MONITOR 12K</td>
</tr>
<tr>
<td>REAL TIME MNTR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>SOFTWARE LANGUAGES (+)</th>
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<tbody>
<tr>
<td>APL</td>
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<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>* COBOL 16K</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL1</td>
</tr>
<tr>
<td>* RPG 8K</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $34,176, 8K</td>
</tr>
<tr>
<td>MEMORY: $19,296, 8K</td>
</tr>
<tr>
<td>SYSTEM: $48,336, 8K</td>
</tr>
<tr>
<td>INCLUDES 8K CPU; PRINTER (250 LPM); CARD READER (400 CPM) $6,288; CARD PUNCH 200 CPM $7,872.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Byte Manipulation</td>
</tr>
<tr>
<td>D = Decimal Arithmetic</td>
</tr>
<tr>
<td>E = Extended Precision</td>
</tr>
<tr>
<td>F = Floating Point</td>
</tr>
<tr>
<td>I = Indirect Addressing</td>
</tr>
<tr>
<td>M = Multiply &amp; Divide</td>
</tr>
<tr>
<td>S = Stack Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = Bisynchronous</td>
</tr>
<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multiport Memory</td>
</tr>
<tr>
<td>S = Selectable Line Speeds</td>
</tr>
<tr>
<td>T = Autodial</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) PROCESSOR FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Base Address Relocation</td>
</tr>
<tr>
<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
</tr>
<tr>
<td>K = Memory Parity Correct</td>
</tr>
<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

1977/No. 1

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INTRODUCED IN 1966, UNIVAC'S MODEL 9200II IS A GENERAL PURPOSE SYSTEM DESIGNED PRIMARILY FOR BUSINESS DATA PROCESSING. THE 9200II IS BASICALLY AN UPGRADED VERSION OF UNIVAC'S MODEL 9200, AND THUS CAN BE TAPE, DISC, AND CARD ORIENTED, HAS A LARGER MEMORY, AND CAN ACCEPT MANY MORE PERIPHERALS, PRODUCING FASTER THROUGHPUT AND GREATER VERSATILITY.

### APPLICATION (+)

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### FEATURES (+)

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### COMPUTER (Std/Opt, N/A)

- **Word Size:** 8 Bits
- **Memory:** 8 to 32K Flated Wire
- **Cycle Time:** 1.2 USEC
- **Add Time:** 40.6 USEC
- **Cache Memory:** N/A
- **# of Instructions:** 35
- **Instruction Types (1):** BDEM/
- **Accumulators:** 8
- **Index Registers:** 8
- **I/O Communications (2):** /ABS
- **I/O Transfer Rate:** .35MB
- **Processor Features (3):** BF/
- **Interface Slots:** 3x2

### SYSTEMS SOFTWARE (+)

- Assembler
- BASIC Assem 8K
- Disk Monitor 12K
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other:

### SOFTWARE LANGUAGES (+)

- APL
- ALGOL
- Single Basic
- Multi Basic
- COBOL 16K
- FORTRAN
- PLI
- RPG 8K
- Other:

### PRICES

- **Computer:** $34,176, 8K
- **Memory:** $19,296, 8K
- **System:** $48,336

Includes 8K CPD; Printer (250 LPM); Card Reader (400 CPM) $6,288; Card Punch 200 CPN $7,672.

### PERIPHERALS (Model #, Specs, N/A)

- Removable Disk: 841X, 8424
- Fixed Head Disk: N/A
- Flexible Disk: N/A
- Magnetic Tape: Uniservo VII-C, 12
- Tape Cassette: N/A
- Line Printer: 0768-00,-99,02
- Serial Printer: N/A
- Card Reader, P/N: 071X, 060X
- Paper Tape Reader, P/N: F1033, F1032
- Display Terminal: N/A
- Multiplexer: Asyn/Syn
- Terminals/System:
- Other:

### MARKETING

- Main Market: End User
- Units Sold:
- Maintenance: On Call

(1) Instructions:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:

- A = Asynchronous
- B = Bistable
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt
UNIVAC: 9300

Introduced in 1966, UNIVAC'S 9300 is a small scale, general purpose computer designed primarily for business data processing. The 9300 is similar to the 9200 but has better performance and cycle times. The 9300 can be expanded easily to more versatile configurations or converted to a larger Univac 9300II system.

APPLICATION (+)
* Business/Commercial
* Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

COMPUTER (Std/Opt, N/A)
Word size: 8 bits
Memory: 8 to 32k Plated Wire
Cycle time: .6 usec
Add time: 20.4 usec
Cache memory: N/A
# of instructions: 35
Instruction types (1): BDEM/
Accumulators: 8
Index registers: 8
I/O communications (2): /ABS
I/O transfer rate: .35MB
Processor features (3): Re/
Interface slots: 3/1

SYSTEMS SOFTWARE (+)
* Assembler
* Macro Assembler 8K
* Disk Monitor 12K
* Real Time Monitor
* SYS Monitor
* Batch Monitor
* Data Base Sys
* Other:

PRICES
Computer: $65627, 8K
Memory:
System:

FEATURES (+)
* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

PERIPHERALS (Model #, Specs, N/A)
Removable Disk: 842, 842A
Fixed Head Disk: N/A
Flexible Disk: N/A
Magnetic Tape: 0588-XX
Tape Cassette: N/A
Line Printer: 0738
Serial Printer: N/A
Card Reader/Writer: 0711, 0601
Paper Tape Reader/Writer: 1033, 1032
Display Terminal: N/A
Multiplexor: ASYNCHRONOUS
Terminals/Systems:
Other:

SOFTWARE LANGUAGES (+)
* APL
* ALGOL
* Single Basic
* Multi Basic
* COBOL
* FORTRAN 16K
* PL1
* RPG 8K
* Other:

MARKETING
Main Market: End User
Units Sold:
Maintenance: On Call

(1) INSTRUCTIONS:
A = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multisport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

APPLICATION (+)
* BUSINESS COMMERCIAL
  COMMUNICATIONS PROCESSOR
  INDUSTRIAL CONTROL
  LABORATORY/SCIENTIFIC
  ENGINEERING COMPUTATION
  EDUCATIONAL SYSTEM
  BANKING SYSTEM
  DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 8 BITS
MEMORY: 8 TO 32K PLATED WIRE
CYCLE TIME: .6 USEC
ADD TIME: 2.0 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 35
INSTRUCTION TYPES (1): BDEM/
ACCUMULATORS: 8
INDEX REGISTERS: 8
I/O COMMUNICATIONS (2): /ABS
I/O TRANSFER RATE: .35MB
PROCESSOR FEATURES (3): RE/
INTERFACE SLOTS: 3+2

SYSTEMS SOFTWARE (+)
ASSEMBLER
* MACRO ASSEM 8K
* DISK MONITOR 12K
  REAL TIME BITE
  T/S MONITOR
  BATCH MONITOR
DATA BASE SYS
OTHER:

PRICES
COMPUTER: $65627
MEMORY: SYSTEM:

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
  CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 8411, 8424
FIXED HEAD DISK: N/A
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 0850-XX
TAPE CASSETTE: N/A
LINE PRINTER: 0768
SERIAL PRINTER: N/A
CARD RD, PW: 0711, 060X
PAPER TAPE RD, PW: P1033, P1032
DISPLAY TERMINAL: N/A
MULTIPLEXOR: ASTN, STM
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (+)
APL
ALGOL
SINGLE BASIC
MULTI BASIC
* COBOL 16K
* FORTRAN 16K
PL1
* RPG 8K
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
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(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1973, THE 9480 IS A MEDIUM-SCALE, GENERAL PURPOSE COMPUTER DESIGNED FOR RANDOM OR SEQUENTIAL BATCH OR COMMUNICATIONS-ORIENTED PROCESSING. UP TO FIVE PROGRAMS MAY BE PROCESSED CONCURRENTLY IN A MULTIPROGRAMMING ENVIRONMENT. AVAILABLE SOFTWARE INCLUDES COBOL, FORTRAN AND RPG.

<table>
<thead>
<tr>
<th>APPLICATION (•)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BUSINESS/COMMERCIAL</td>
</tr>
<tr>
<td>• COMMUNICATIONS PROCESSOR</td>
</tr>
<tr>
<td>• INDUSTRIAL CONTROL</td>
</tr>
<tr>
<td>• LABORATORY/SCIENTIFIC</td>
</tr>
<tr>
<td>• ENGINEERING/COMPUTATION</td>
</tr>
<tr>
<td>• EDUCATIONAL SYSTEM</td>
</tr>
<tr>
<td>• BANKING SYSTEM</td>
</tr>
<tr>
<td>• DATA ENTRY SYSTEM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 8 BITS</td>
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<tr>
<td>MEMORY: 64 TO 256K HOS</td>
</tr>
<tr>
<td>CYCLE TIME: .6 USEC</td>
</tr>
<tr>
<td>ADD TIME: 6 USEC</td>
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<td>CACHE MEMORY: N/A</td>
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<tr>
<td># OF INSTRUCTIONS: 70</td>
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<td>INDEX REGISTERS: 16</td>
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<tr>
<td>I/O COMMUNICATIONS (2): AT/1/1/O TRANSFER RATE: .33 MB</td>
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<tr>
<td>PROCESSOR FEATURES (3): BCEME/INTERFACE SLOTS:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (•)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ASSEMBLER</td>
</tr>
<tr>
<td>MACRO ASSRM</td>
</tr>
<tr>
<td>DISK MONITOR</td>
</tr>
<tr>
<td>REAL TIME MNTR</td>
</tr>
<tr>
<td>T/S MONITOR</td>
</tr>
<tr>
<td>• BATCH MONITOR</td>
</tr>
<tr>
<td>• DATA BASE SYS IMS</td>
</tr>
<tr>
<td>• OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER:</td>
</tr>
<tr>
<td>MEMORY:</td>
</tr>
<tr>
<td>SYSTEM: $350000, 65K</td>
</tr>
<tr>
<td>INCLUDES 65K CPU AND CONSOLE; PRINTER + $71,090; CARD RD. + CTRL. $12,192.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(1) INSTRUCTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Byte Manipulation</td>
</tr>
<tr>
<td>D = Decimal Arithmetic</td>
</tr>
<tr>
<td>E = Extended Precision</td>
</tr>
<tr>
<td>F = Floating Point</td>
</tr>
<tr>
<td>I = Indirect Addressing</td>
</tr>
<tr>
<td>M = Multiply &amp; Divide</td>
</tr>
<tr>
<td>S = Stack Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) I/O COMMUNICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Asynchronous</td>
</tr>
<tr>
<td>B = B synchronous</td>
</tr>
<tr>
<td>D = Direct Memory Access</td>
</tr>
<tr>
<td>M = Multisport Memory</td>
</tr>
<tr>
<td>S = Selectable Line Speeds</td>
</tr>
<tr>
<td>T = Autodial</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) PROCESSOR FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B = Base Address Relocation</td>
</tr>
<tr>
<td>C = Real Time Clock</td>
</tr>
<tr>
<td>D = Dynamic Page Relocation</td>
</tr>
<tr>
<td>E = Memory Parity Detect</td>
</tr>
<tr>
<td>F = Power Fail Safe</td>
</tr>
<tr>
<td>K = Memory Parity Correct</td>
</tr>
<tr>
<td>M = Memory Protection</td>
</tr>
<tr>
<td>R = Priority Interrupt</td>
</tr>
<tr>
<td>V = Vectored Interrupt</td>
</tr>
</tbody>
</table>

PERIPHERALS (Model #, Specs, N/A)

<table>
<thead>
<tr>
<th>PERIPHERALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED HEAD DISK: 8411, 8414</td>
</tr>
<tr>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>MAGNETIC TAPE: UNISERVO 12, 16</td>
</tr>
<tr>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td>LINE PRINTER: 0766</td>
</tr>
<tr>
<td>SERIAL PRINTER: N/A</td>
</tr>
<tr>
<td>CARD RD, PN: 0716; 0604</td>
</tr>
<tr>
<td>PAPER TAPE RD, PN: 0920</td>
</tr>
<tr>
<td>DISPLAY TERMINAL: UNISCOPE 100, 300</td>
</tr>
<tr>
<td>MULTIPLEXOR: YES</td>
</tr>
<tr>
<td>TERMINAL/SYSTEM: OTHER:</td>
</tr>
</tbody>
</table>

SOFTWARE LANGUAGES (•)

<table>
<thead>
<tr>
<th>SOFTWARE LANGUAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
</tr>
<tr>
<td>ALGOL</td>
</tr>
<tr>
<td>SINGLE BASIC</td>
</tr>
<tr>
<td>MULTI BASIC</td>
</tr>
<tr>
<td>COBOL</td>
</tr>
<tr>
<td>FORTRAN</td>
</tr>
<tr>
<td>PL/I</td>
</tr>
<tr>
<td>RPG</td>
</tr>
<tr>
<td>OTHER:</td>
</tr>
</tbody>
</table>

MARKETING

<table>
<thead>
<tr>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>CTRL. $63,220, TWO DISC STORAGE + CTRL.</td>
</tr>
</tbody>
</table>

1977/No. 1

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COMPANY PROFILE

Corporate Address
VARIAN DATA MACHINES
2722 Michelson Drive
Irvine, California 92713
(714) 835-2400

Varian Data Machines, a subsidiary of Varian Associates manufactures and markets a family of general-purpose computers and has been a pioneer in the application of minicomputers to science and engineering in government and industry.

Established 1967
Number of Employees 10,000
Revenue $310,444,000 (Varian Associates, 9/75)
Net Earnings (Loss) $7,705,000 (Varian Associates, 9/75)
Offices U.S., Germany
Sales

PRODUCTS available include minicomputers and computers plus the following peripheral devices: disk units, magnetic tape transports, line printers, card and paper tape equipment, display terminals, STATUS printer/plotters and digital plotters.

SOFTWARE support includes an assembler, macro assemblers BASIC, FORTRAN and RPG II and IV compilers, VORTEX and VORTEX II (Varian Ammitask Real Time Executive) multi-programming, real time operating system, TOTAL data base management system, HASP/RJE system and a Time Sharing Subsystem (TSS).
INTRODUCED IN 1972, THE C/SP IS A FRONT-END COMMUNICATIONS PROCESSOR DESIGNED TO HANDLE THE COMMUNICATIONS REQUIREMENTS OF THE 1100 SERIES COMPUTERS. IT CAN CONTROL UP TO 64 FULL-DUPLEX OR 128 HALF-DUPLEX LINES WITH TRANSMISSION RATES FROM 45 TO 50,000 BPS.

### APPLICATION (+)
- BUSINESS/COMMERCIAL
- * COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC
- ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

### COMPUTER (Std/Opt, N/A)
- **WORD SIZE:** 8 BITS
- **MEMORY:** 32 TO 128K
- **CYCLE TIME:** .63 USEC
- **ADD TIME:** 2.52 USEC
- **CACHE MEMORY:** N/A
- **# OF INSTRUCTIONS:** 52
- **INSTRUCTION TYPES (1):** BM/
- **ACUMULATORS:** 16
- **INDEX REGISTERS:** 16
- **I/O COMMUNICATIONS (2):** D/ABT
- **PROCESSOR FEATURES (3):** CRRN/
- **INTERFACE SLOTS:**

### SYSTEMS SOFTWARE (+)
- * ASSEMBLER
- * MACRO ASSEMBLER
- DISK MONITOR
- * REAL TIME MONITOR
- T/S MONITOR
- * BATCH MONITOR
- DATA BASE SYS
- OTHER:

### PRICES
- **COMPUTER:**
- **MEMORY:**
- **SYSTEM:** $91400, 32K

INCREASES A CPU UNIT $22,180; 32K STORAGE $42,840; SP. DEVICE CH. $1,510; CARD RD $2,270; CONSOLE $5,440; CH. ADAPTER $5,5,540; GEN. PURPOSE COMM. CH. $11,590.

### FEATURES (+)
- **UPWARD COMPATIBLE**
- **FIELD SERVICE**
- **APPLICATION SOFTWARE**
- **CONVERSATIONAL LANGUAGES**
- **USER MICROPROGRAMMABLE**
- **FACTORY MICROPROGRAMMABLE**
- **VIRTUAL MEMORY MACHINE**
- **MULTIPROCESSOR**

### PERIPHERALS (Model #, Specs, N/A)
- **REMOVABLE DISK:** 8425
- **FIXED HEAD DISK:** N/A
- **FLEXIBLE DISK:** N/A
- **MAGNETIC TAPE:** UNISERO 16
- **TAPE CASSETTE:** N/A
- **LINE PRINTER:** 0760, SERIES 0770
- **SERIAL PRINTER:** N/A
- **CARD RD, PN:** 0711, 0604
- **PIPER PRINT RD, PN:** N/A
- **DISPLAY TERMINAL:** UNITROPE 100, DCT LINE
- **MULTIPLEXOR:** YES
- **TERMINALS/SYSTEM:** OTHER:

### SOFTWARE LANGUAGES (+)
- **APL**
- **ALGOL**
- **SINGLE BASIC**
- **MULTI BASIC**
- **COBOL**
- **FORTRAN**
- **PL1**
- ** RPG**
- **OTHER:**

### MARKETING
- **MAIN MARKET:** END USER
- **UNITS SOLD:**
- **MAINTENANCE:** ON CALL

---

(1) **INSTRUCTIONS:**
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) **I/O COMMUNICATIONS:**
- A = Asynchronous
- B = Bypass
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) **PROCESSOR FEATURES**
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

---

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**APPLICATION**

- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

**COMPUTER** (Std/Opt., N/A)

- Word Size: 16 Bits
- Memory: 8 to 256K Core
- Cycle Time: .66 usec
- Add Time: .66-2.4 usec
- Cache Memory: N/A
- # of Instructions: 160
- Instruction Types (1): BINS/EQ
- Accumulators: 16
- Index Register: 16
- I/O Communications (2): AD/B
- I/O Transfer Rate: .33 mb/s
- Processor Features (3): CDROM/E
- Interface Slots: 14

**SYSTEMS SOFTWARE**

- ASSEMBLER 4K
- MACRO ASSEMBLER 8K
- DISK MONITOR 8K
- REAL TIME MTR 4K, 8K
- T/S MONITOR
- BATCH MONITOR 8K
- DATA BASE SYS
- OTHER: VORTEX

**PRICES**

- COMPUTER: $3500, 8K
- MEMORY: INCLUDES 32K CPU; MODEL 33 TTY; DISK CARTRIDGE (2.34MB); DISK READER (300 CPR); VORTEX OPERATING SYSTEM.

**FEATURES**

- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**PERIPHERALS** (Model #, Specs, N/A)

- Removable Disk: 75K, 76K
- Fixed Head Disk: 76K, 77K
- Flexible Disk: N/A
- Magnetic Tape: 71K
- Tape Cassette: N/A
- Line Printer: 61K
- Serial Printer: 61K
- Card Reader/Writer: 6200/201
- Paper Tape Reader/Writer: 63K
- Display Terminal: 640X
- Multiplexor: ASCII, SYN, A-D, D-A
- Terminals/Systems:
- Other:

**SOFTWARE LANGUAGES**

- APL
- ALGOL
- Single Basic 8K
- Multi Basic
- COBOL
- FORTRAN 8K
- PL/I
- RPG 4K
- Other:

**MARKETING**

- Main Market: MID USER, OEM
- Units Sold: 600 (09/75)
- Maintenance: ON CALL

---

(1) INSTRUCTIONS:

- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O COMMUNICATIONS:

- A = Asynchronous
- B = Synchronous
- D = Direct Memory Access
- M = Multiport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) PROCESSOR FEATURES:

- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

APPLICATION (s)
- BUSINESS/COMMERCIAL
- COMMUNICATIONS PROCESSOR
- INDUSTRIAL CONTROL
- LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION
- EDUCATIONAL SYSTEM
- BANKING SYSTEM
- DATA ENTRY SYSTEM

FEATURES (s)
- UPWARD COMPATIBLE
- FIELD SERVICE
- APPLICATION SOFTWARE
- CONVERSATIONAL LANGUAGES
- USER MICROPROGRAMMABLE
- FACTORY MICROPROGRAMMABLE
- VIRTUAL MEMORY MACHINE
- MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
- REMOVABLE DISK: 75XX, 76XX
- FIXED HEAD DISK: 76XX, 77XX
- FLEXIBLE DISK: N/A
- MAGNETIC TAPE: 71XX
- TAPE CASSETTE: N/A
- LINE PRINTER: 67XX
- SERIAL PRINTER: 61XX
- CARD READER, PUNCH: 6200, 6201
- FAX TAPE READER, PUNCH: 63XX
- DISPLAY TERMINAL: 640X
- MULTIPLEXOR: ASTN, SYNR, A-D, D-A
- TERMINAIS/SYSTEM:

SYSTEM SOFTWARE (s)
- ASSEMBLER
- MACRO ASSEMBLER
- DISK MONITOR
- REAL TIME MTR
- T/S MONITOR
- BATCH MONITOR
- Data BASE SYS
- OTHER: VOTEX

SOFTWARE LANGUAGES (s)
- APL
- ALGOL
- SINGLE BASIC
- MULTI BASIC
- COBOL
- FSTATRAN
- PL1
- RPG
- OTHER:

MARKETING
- MAIN MARKET: END USER, OEM
- UNITS SOLD: ON CALL
- MAINTENANCE: ON CALL

PRICES
- COMPUTER: $14500, 8K
- MEMORY: $3500, 8K
- SYSTEM: $71600
- INCLUDES 32K CPU; #ASR-33 TTY; CARD READER (300 CPM); LINE PRINTER (300 LPM); N. TAPE (37.5 IPS); DISK (4.68MB).

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bidirectional
D = Direct Memory Access
M = Multilport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

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**VARIAN DATA: V-74**

Introduced in 1973, the V-74 is a general purpose, microprogrammed computer for scientific, industrial, and data-communication applications. The V-74 is user-microprogrammable and supports real-time multiprocessing, under control of the vortex operating system. The V-74 features dual-port memories for multiprocessor configurations and priority memory access (PMA) that permits automatic, high-speed block data transfers between the computer memory and peripherals controllers via block transfer controllers. Memory MAP hardware, permitting memory expansion to 256K words, is standard.

### Application (+)
- Business/Commercial
- Communications Processor
- Industrial Control
- Laboratory/Scientific
- Engineering/Computation
- Educational System
- Banking System
- Data Entry System

### Computer (Std/Opt, N/A)
- Word Size: 16 Bits
- Memory: 8 to 256K MOS, Core
- Cycle Time: .33/.66 USEC
- Add Time: N/A
- Instruction Types (1): IMS/FP
- Accumulators: 16
- Index Registers: 16
- I/O Communications (2): ADM/B
- I/O Transfer Rate: .33MB
- Processor Features (3): CDPRM/E
- Interface Slots: 14

### Systems Software (+)
- Assembler
- Macro Assem
- Disk Monitor
- Real Time MTR
- T/S Monitor
- Batch Monitor
- Data Base Sys
- Other: Vortex

### Prices
- Computer: $35900, 8K
- Memory: $3500, 8K
- System: $101750

Includes 64K CPU; Card Reader (300 CPM); Paper Tape Reader/Punch (300CPS/75CPS); Line Printer (300 LPM); N. Tape (37.5 IPS); Disk (23.4MB).

---

**Features (+)**
- Upward Compatible
- Field Service
- Application Software
- Conversational Languages
- User Microprogrammable
- Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

**Peripherals (Model #, Spec, N/A)**
- Removable Disk: 751X, 761X
- Fixed Head Disk: 761X, 771X
- Flexible Disk: N/A
- Magnetic Tape: 711X
- Tape Cassette: N/A
- Line Printer: 67X
- Serial Printer: 61X
- Card Reader, PN: 6200, 6201
- Paper Tape Reader, PN: 63X
- Display Terminal: 640X
- Multiplexor: Asyn, Syn, A-D, D-A
- Terminals/Systerm: N/A
- Other: N/A

**Software Languages (+)**
- APL
- ALGOL
- Single BASIC
- Multi BASIC
- COBOL
- FORTRAN
- PL1
- RPG
- Other: N/A

**Marketing**
- Main Market: End User, OEM
- Units Sold: N/A
- Maintenance: On Call

---

(1) Instructions:
- B = Byte Manipulation
- D = Decimal Arithmetic
- E = Extended Precision
- F = Floating Point
- I = Indirect Addressing
- M = Multiply & Divide
- S = Stack Processing

(2) I/O Communications:
- A = Asynchronous
- B = Busynormous
- D = Dynamic Memory Access
- M = Multipport Memory
- S = Selectable Line Speeds
- T = Autodial

(3) Processor Features:
- B = Base Address Relocation
- C = Real Time Clock
- D = Dynamic Page Relocation
- E = Memory Parity Detect
- F = Power Fail Safe
- K = Memory Parity Correct
- M = Memory Protection
- R = Priority Interrupt
- V = Vectored Interrupt

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367
**VARIAN DATA: V-75**

**INTRODUCED IN 1975, THE V-75 IS A GENERAL PURPOSE, MICROPROGRAMMED COMPUTER FOR SCIENTIFIC, INDUSTRIAL, AND DATA-COMMUNICATION APPLICATIONS. THE V-75 IS USER-MICROPROGRAMMABLE AND SUPPORTS REAL-TIME MULTIPROGRAMMING, UNDER CONTROL OF THE VORTEX OPERATING SYSTEM. THE V-75 FEATURES A MAIN MEMORY EXPANDABLE FROM 64K TO 256K WORDS USING STANDARD MEMORY MAPPING HARDWARE, PRIORITY MEMORY ACCESS (PMA), AND DUAL-PORT MEMORIES FOR MULTIPROCESSOR CONFIGURATIONS.**

<table>
<thead>
<tr>
<th>APPLICATION (+)</th>
<th>FEATURES (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS/COMMERCIAL</td>
<td>* UPWARD COMPATIBLE</td>
</tr>
<tr>
<td>* COMMUNICATIONS PROCESSOR</td>
<td>* FIELD SERVICE</td>
</tr>
<tr>
<td>* INDUSTRIAL CONTROL</td>
<td>* APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>* LABORATORY/SCIENTIFIC</td>
<td>* CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>ENGINEERING/COMPUTATION</td>
<td>* USER MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>FACTORY MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BANKING SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
</tr>
<tr>
<td>DATA ENTRY SYSTEM</td>
<td>* MULTIPROCESSOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 16 BITS</td>
<td>REMOVABLE DISK: 75XX, 76XX</td>
</tr>
<tr>
<td>MEMORY: 64 TO 256K MOS, CORE</td>
<td>FIXED HEAD DISK: 76XX, 77XX</td>
</tr>
<tr>
<td>CYCLE TIME: .33/.66 USEC</td>
<td>FLEXIBLE DISK: N/A</td>
</tr>
<tr>
<td>ADD TIME:</td>
<td>MAGNETIC TAPE: 71XX</td>
</tr>
<tr>
<td>CACHE MEMORY: N/A</td>
<td>TAPE CASSETTE: N/A</td>
</tr>
<tr>
<td># OF INSTRUCTIONS:</td>
<td>LINE PRINTER: 67XX</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BIN/EF</td>
<td>SERIAL PRINTER: 61XX</td>
</tr>
<tr>
<td>ACCUMULATORS: 16</td>
<td>CARDS RD, PN: 6200; 6201</td>
</tr>
<tr>
<td>INDEX REGISTERS: 16</td>
<td>PAPER TAPE RD, PN: 63XX</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2): ADM/B</td>
<td>DISPLAY TERMINAL: 640X</td>
</tr>
<tr>
<td>I/O TRANSFER RATE: 6MB</td>
<td>MULTIPLEXOR: ASTN, STR, A-D, D-A</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): CDPMM/E</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS: 19</td>
<td>OTHER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SYSTEMS SOFTWARE (+)</th>
<th>SOFTWARE LANGUAGES (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>* MACRO ASSEMBLER</td>
<td>ALGOL</td>
</tr>
<tr>
<td>* DISK MONITOR</td>
<td>* SINGLE BASIC</td>
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<td>* REAL-TIME MONITOR</td>
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<tr>
<td>* BATCH MONITOR</td>
<td>* FORTRAN</td>
</tr>
<tr>
<td>* DATA BASE SYS</td>
<td>PL1</td>
</tr>
<tr>
<td>OTHER: VORTEX</td>
<td>* RPG</td>
</tr>
<tr>
<td>OTHER:</td>
<td>OTHER:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER: $35000, 64K</td>
<td></td>
</tr>
<tr>
<td>MEMORY: $3500, 8K</td>
<td></td>
</tr>
<tr>
<td>SYSTEM:</td>
<td></td>
</tr>
</tbody>
</table>

**MAIN MARKET: End User, OEM**

**UNITS SOLD:**

**MAINTENANCE: ON CALL**

---

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing  

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = B synchronous  
D = Direct Memory Access  
M = Multisport Memory  
S = Selectable Line Speeds  
T = Autodial  

(3) PROCESSOR FEATURES:  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
VARIAN DATA: V-76


APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

COMPONENTS (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 16 TO 1000K
CYCLE TIME: 66 USEC
ADD TIME: 1.609 USEC
CACHE MEMORY: 2KB, 371NS
# OF INSTRUCTIONS: 167/14
INSTRUCTION TYPES (1): BDEFIN/
ACCOMPLIATOR: 8
INDEX REGISTERS: 16
I/O COMMUNICATIONS (2): ABDMST/
I/O TRANSFER RATE: 1.66MB
PROCESSOR FEATURES (3): BCDPVRME/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)
* ASSEMBLER 4K
* MACRO ASSEM 8K
* DISK MONITOR 8K
* REAL TIME MONITOR 4K, 8K
* T/S MONITOR
* BATCH MONITOR 8K
* DATA BASE SYS
OTHER: VORTEX

SOFTWARE LANGUAGES (+)
APL
ALGOL
* SINGLE BASIC 8K
MULTI BASIC
* COBOL
* FORTRAN 8K
PL/I
* RPG 4K
OTHER:

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 75XX, 76XX
FIXED HEAD DISK: 76XX, 77XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 71XX
TAPE CASSETTE: N/A
LINE PRINTER: 67XX
SERIAL PRINTER: 61XX
CARD RD, PW: 6200; 6201
PAPER TAPE RD, PW: 63XX
DISPLAY TERMINAL: 64OX
MULTIPLEXO: ASTR, SYN, A-D, D-A
TERMINALS/SYSTEM:
OTHER:

PRICES
COMPUTER: $11000, 16K
MEMORY: $2900, 16K
SYSTEM: $35000
INCLUDES 32K CPU; MODEL 33 TTY; CART DISK (2.34MB); CARD READER (300 CPM); VORTEX OPERATING SYSTEM.

MARKETING
MAIN MARKET:
UNITS SOLD: 300 (09/76)
MAINTENANCE: ON CALL

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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369
INTRODUCED IN 1976, THE VARIAN V77/200 IS THE SMALLEST MEMBER OF VARIAN'S V77 FAMILY OF MINICOMPUTERS FOR SOPHISTICATED USERS IN SCIENTIFIC AND DATA COMMUNICATIONS APPLICATIONS. THE V77/200 CAN BE USED IN STAND-ALONE OR MULTIPLE-COMPUTER DISTRIBUTED DATA PROCESSING NETWORKS WITH LARGER MEMBERS OF THE V77 FAMILY. IT IS AVAILABLE ON A SINGLE BOARD, AND FEATURES THE ABILITY TO HANDLE 8, 16, OR 32-BIT DATA, DUAL BUS ARCHITECTURE, AND THE VORTEX MULTI-TASK OPERATING SYSTEM.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 16 BITS
MEMORY: 8 TO 32K MOS
CYCLE TIME: -66 USEC
ADD TIME: N/A
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 187
INSTRUCTION TYPES (1): BEIR/
ACCUmulator: 1
INDEX REGISTERS: 7
I/O COMMUNICATIONS (2): ADBS/T
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): CPY/R
INTERFACE SLOTS: 24

SYSTEMS SOFTWARE (+)
* ASSEMBLER 8K
* MACRO ASSEMBLER 16K
* DISK MONITOR 16K
* REAL TIME MONITOR 16K
* T/S MONITOR
* BACH MONITOR 32K
DATA BASE SYS
OTHER: VORTEX OS

FEATURES (+)
* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMmABLE
* FACTORY MICROPROGRAMmABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 75X, 76X
FIXED HEAD DISK: 76X, 77X
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 710X
TAPE CASSSETTE: N/A
LINE PRINTER: 67X
SERIAL PRINTER: 610X
CARD READER/WRITER: 6200/5201
PAPER TAPE READER/WRITER: 63XX
DISPLAY TERMINAL: 6401
MULTIPLEXOR: SYN/ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)
* APL
* ALGOL
* SINGLE BASIC 16K
* MULXI BASIC
* COBOL
* FORTRAN 32K
* PL/I
* RPG 32K
OTHER:

MARKETING
MAIN MARKET: END USER, OEM
UNITS SOLD:
MAINTENANCE: ON CALL

PRICES
COMPUTER: $2550, 8K
MEMORY: $1850, 8K
SYSTEM: $42675
INCLUDES 32K CPU; CARD READER (300 CPW); $6404 DISPLAY TERMINAL; SERIAL PRINTER (165 CPS); DISK (2.34MB); #9204 CABINET.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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1977/No. 1
INTRODUCED IN 1976, THE V77/400 IS A POWERFUL, USER-MICROPROGRAMMABLE MINICOMPUTER DESIGNED AS A STAND-ALONE SYSTEM FOR HIGH VOLUME SCIENTIFIC AND FINANCIAL APPLICATIONS, OR AS THE "MIDDLEMAN" IN A MULTI-TIERED NETWORK COMPRised OF ALL THREE MEMBERS OF VARIAN'S NEW V77 COMPUTER FAMILY. FEATURES INCLUDE 32-BIT MICROINSTRUCTIONS, 660 NSEC MEMORY CYCLE TIME AND A 1024K MAXIMUM MEMORY CAPACITY.

APPLICATION (+)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)

WORD SIZE: 16 BITS
MEMORY: 8 TO 1024K BOS
CYCLE TIME: .66 USEC
ADD TIME:
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 187
INSTRUCTION TYPES (1): B/EIM/D
ACCUMULATORS: 1
INDEX REGISTERS: 7
I/O COMMUNICATIONS (2): ABMS/T
I/O TRANSFER RATE: .72/2MB
PROCESSOR FEATURES (3): CPWM/RE
INTERFACE SLOTS: 24

SYSTEMS SOFTWARE (+)

* ASSEMBLER
* MACRO ASSEMBLER
* DISK MONITOR
* REAL TIME MONITOR
* T/S MONITOR
* BATCH MONITOR
* DATA BASE SYS
OTHER: TRANSACTION PROCESSOR

FEATURES (+)

* UPGRADE COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Spec, N/A)

REMOVABLE DISK: #75XX, #76XX
FIXED HEAD DISK: #76XX, #77XX
FLEXIBLE DISK: N/A
MAGNETIC TAPE: #710X
TAPE CASSETTE: N/A
LINE PRINTER: #67XX
SERIAL PRINTER: #610X
CARD RD/PN: #6200; #6201
PAPER TAPE RD/PN: #63XX
DISPLAY TERMINAL: #680X
MULTIPLEXOR: STK, ASYN
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)

APL
ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
PL1
* RPG
OTHER:

MARKETING

MAIN MARKET:
UNITS SOLD:
MAINTENANCE: ON CALL

INCLUDES 32K CPU; #6402 AND #6404 DISPLAY TERMINALS; MAG TAPE UNIT (800 BPI; 25 IPS); DISK (128MB); #9204 CABINET.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiprot Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1977/No. 1

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371
Wang Laboratories is an innovator in applied electronics for office use. The company pioneered the development of the programmable calculator, which fills the gap between desk-top calculators and the computer. Applications include engineering, medical-scientific, education and business.

Established 1951
Number of Employees 2,800
Revenue $75,828,000 (6/75)
Net Earnings (Loss) $3,255,000
Offices Worldwide
Sales

PRODUCTS available include the Disk Work Station, minicomputers plus the following peripheral devices: disk units, diskettes, magnetic tape transports and cassettes, serial printers and card paper tape equipment, display terminals, digitizers, flat bed plotters and plotting typewriters.

SOFTWARE support includes a hardwired disk monitor, a data base system and a BASIC interpreter.
WANG LABORATORIES: WCS/60

Introduced in 1977, the WCS/60 is a 32-bit minicomputer system designed for business and commercial applications. The model features standard floating point, memory parity detect and correct, virtual memory (plus up to 512K bytes of real memory), and independent I/O processors. Software support includes PEG, COBOL, and BASIC. The system is based on the Wang 2200VS processor, and can support up to 16 CRT's. A wide variety of peripherals is available. The WCS/60 is only marginally compatible with less powerful Wang systems.

<table>
<thead>
<tr>
<th>APPLICATION(*)</th>
<th>FEATURES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* BUSINESS/COMMERCIAL COMMUNICATIONS PROCESSOR</td>
<td>UPWARD COMPATIBLE FIELD SERVICE</td>
</tr>
<tr>
<td>INDUSTRIAL CONTROL</td>
<td>APPLICATION SOFTWARE</td>
</tr>
<tr>
<td>LABORATORY/SCIENTIFIC ENGINEERING/COMPUTATION</td>
<td>CONVERSATIONAL LANGUAGES</td>
</tr>
<tr>
<td>EDUCATIONAL SYSTEM</td>
<td>USEP MICROPROGRAMMABLE</td>
</tr>
<tr>
<td>BAKING SYSTEM</td>
<td>FACTORY MICROPORGRAMMABLE</td>
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<tr>
<td>DATA ENTRY SYSTEM</td>
<td>VIRTUAL MEMORY MACHINE</td>
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<tr>
<td></td>
<td>MULTIPROCESSOR</td>
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</tbody>
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<table>
<thead>
<tr>
<th>COMPUTER (Std/Opt, N/A)</th>
<th>PERIPHERALS (Model #, Specs, N/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD SIZE: 32 BITS</td>
<td>REMOVABLE DISK:</td>
</tr>
<tr>
<td>MEMORY: 64 TO 256K MOS</td>
<td>FIXED HEAD DISK:</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
<td>FLEXIBLE DISK:</td>
</tr>
<tr>
<td>ADD TIME:</td>
<td>MAGNETIC TAPE:</td>
</tr>
<tr>
<td>CACHE MEMORY: KB, NS</td>
<td>TAPE CASSETTE:</td>
</tr>
<tr>
<td># OF INSTRUCTIONS: 170+</td>
<td>LINE PRINTER:</td>
</tr>
<tr>
<td>INSTRUCTION TYPES (1): BDEPM/</td>
<td>SERIAL PRINTER:</td>
</tr>
<tr>
<td>ACCUMULATORS:</td>
<td>CARD PD, P4:</td>
</tr>
<tr>
<td>INDEX REGISTERS:</td>
<td>PAPER TAPFD, P5:</td>
</tr>
<tr>
<td>I/O COMMUNICATIONS (2):</td>
<td>DISPLAY TERMINAL:</td>
</tr>
<tr>
<td>I/O TRANSFER RATE:</td>
<td>MULTIPLEXOR:</td>
</tr>
<tr>
<td>PROCESSOR FEATURES (3): PK</td>
<td>TERMINALS/SYSTEM:</td>
</tr>
<tr>
<td>INTERFACE SLOTS:</td>
<td>OTHER:</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>SYSTEMS SOFTWARE(*)</th>
<th>SOFTWARE LANGUAGES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSEMBLER</td>
<td>APL</td>
</tr>
<tr>
<td>MACRO ASSEM</td>
<td>ALGOL</td>
</tr>
<tr>
<td>DISK MONITOR</td>
<td>* SINGLE BASIC</td>
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<tr>
<td>PPAL TIMP MNTP</td>
<td>* MULTI BASIC</td>
</tr>
<tr>
<td>T/S MONITOR</td>
<td>* COBOL</td>
</tr>
<tr>
<td>BATCH MONITOR</td>
<td>FORTRAN</td>
</tr>
<tr>
<td>DATA BASE SYS</td>
<td>PLI</td>
</tr>
<tr>
<td>OTHER:</td>
<td>* RPG</td>
</tr>
<tr>
<td></td>
<td>OTHER:</td>
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<tr>
<th>PRICES</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER:</td>
<td>MAIN MARKET: END USER</td>
</tr>
<tr>
<td>MEMORY:</td>
<td>UNITS SOLD:</td>
</tr>
<tr>
<td>SYSTEM: $84800</td>
<td>MAINTENANCE: ON CALL</td>
</tr>
<tr>
<td>INCLUDES 192K CPD; 6 WORK STATIONS, 2 10MB DISK DRIVES; DISKETTE; 240 LPM PRINT-</td>
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<td>ER:</td>
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</tbody>
</table>

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bistynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1977, THE WCS/80 IS A 32-BIT MINICOMPUTER SYSTEM DESIGNED FOR BUSINESS AND COMMERCIAL APPLICATIONS. FEATURES INCLUDE STANDARD FLOATING POINT, MEMORY PARITY DETECT AND CORRECT, VIRTUAL MEMORY (PLUS 57 KB OF REAL MEMORY), AND INDEPENDENT I/O PROCESSORS. SOFTWARE SUPPORT INCLUDES RPG, COBOL, AND BASIC. THE SYSTEM IS BASED ON THE WANG 2200 PROCESSOR, AND SUPPORTS UP TO 23 CPU'S. THE WCS/80 COSTS APPROXIMATELY TWICE AS MUCH AS THE WCS/60 BUT HAS TWICE AS GREAT A CPU MEMORY CAPACITY. A VARIETY OF PERIPHERALS IS AVAILABLE. THE WCS/60 IS MARGINALLY COMPATIBLE WITH LESS POWERFUL WANG SYSTEMS.

APPLICATION (*)
* BUSINESS/COMMERCIAL
  * COMMUNICATIONS PROCESSOR
  * INDUSTRIAL CONTROL
  * LABORATORY/SCIENTIFIC
  * ENGINEERING/COMPUTATION
  * EDUCATIONAL SYSTEM
  * BANKING SYSTEM
  * DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 256 TO 512K MOS
CYCLE TIME:
ADD TIME:
CACHE MEMORY: FB, NS
# OF INSTRUCTIONS: 170+
INSTRUCTION TYPES (1): BDEPM/
ACCUMULATORS:
INDEX REGISTERS:
I/O COMMUNICATIONS (2):
I/O TRANSFER RATE:
PROCESSOR FEATURES (3): EN/
INTERFACE SLOTS:

SYSTEMS SOFTWARE (*)
ASSEMBLER
MACRO ASSEM
DISK MONITOR
REAL TIME MMP
TAS MONITOR
BATCH MONITOR
DATA BASE SYS
OTHER:

FEATURES (*)
UPWARD COMPATIBLE
FIELD SERVICE
APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK:
FIXED HEAD DISK:
FLEXIBLE DISK:
MAGNETIC TAPE:
TAPE CASSETTE:
LINE PRINTER:
SERIAL PRINTER:
CARD RD/WR:
PAPER TAPE RD/WR:
DISPLAY TERMINAL:
MULTIPLEXOR:
TERMINALS/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (*)
APL
ALGOL
* SINGLE BASIC
* MULTIBASIC
* COBOL
Fortran
PL1
* RPG
OTHER:

MARKETING
MAIN MARKET: END USER
UNITS SOLD:
MAINTENANCE: ON CALL
INCLUDES 3284K CPU; 10 WORKSTATIONS; 3 75MB DISK DRIVES; DISKETTE; 400 IPI PRINT-ER.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing
(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Biphased
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial
(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

1977/No. 3

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372C
COMPANY PROFILE

Corporate Address: XEROX CORPORATION - COMPUTER SYSTEMS
701 South Aviation Boulevard
El Segundo, California 90245
(213) 679-4511

Xerox is no longer manufacturing computers.

Established: 1906
Number of Employees: 93,532
Revenue: $4,054,000,000 (12/75)
Net Earnings (Loss): $ 244,000,000 (12/75)
Offices: Worldwide
Sales:

PRODUCTS include the 530 small business computer plus
the following peripheral devices: disk units, magnetic
tape transports, line and serial printers, card and pa-
per tape equipment, graphic plotters and data communica-
tions equipment.

SOFTWARE support includes an assembler, a macro assembler,
ANS FORTRAN IV, RPG II, and ANS COBOL compilers, a disk-
based real time batch monitor (RBM) and the Basic Control
Monitor (BCM) for multi-tasking.
Introduced in 1976, the V77/600 is a powerful, user-microprogrammable minicomputer. Features include a 330 nsec processor, a high speed cache memory, memory mapping techniques that enable up to sixteen users to tie into a main memory of up to one million 16-bit words, and 64-bit microinstructions. Options include floating point instructions and autodial.

**APPLICATION (+)**
* Business/Commercial
* Communications Processor
* Industrial Control
* Laboratory/Scientific
* Engineering/Computation
* Educational System
* Banking System
* Data Entry System

**COMPUTER (Std/Opt, N/A)**

Word size: 16 bits
Memory: 16 to 1024k 80s
Cycle time: .66 usec
Add time:
Cache memory: 2KB, NS
# of instructions: 187
Instruction tuples (1): B/EIN/DF
Accumulators: 1
Index registers: 7
I/O communications (2): ABDM/RE
I/O transfer rate: .72/2.8
Processor features (3): CF/MB/RE
Interface slots: 24

**SYSTEMS SOFTWARE (+)**
* Assembler
* Macro Assem
* Disk Monitor
* Real Time Montr
* T/S Monitor
* Batch Monitor
* Data Base Syst
Other: Transaction Processor

**FEATURES (+)**
* Upward Compatible
* Field Service
* Application Software
* Conversational Languages
* User Microprogrammable
* Factory Microprogrammable
* Virtual Memory Machine
* Multiprocessor

**PERIPHERALS (Model #, Specs, N/A)**

Removable Disk: #75XX, #76XX
Fixed Head Disk: #76XX, #77XX
Flexible Disk: N/A
Magnetic Tape: #710X
TAPE CASSETTE: N/A
LINE PRINTER: #67XX
SERIAL PRINTER: #610X
CARD RD, PW: #6200, #6201
PAPER TAPE RD, PW: #63XX
DISPLAY TERMINAL: #640X
MULTIPLEXOR: SYN/ASYN
TERMINALS/SYSTEM:
OTHER:

**SOFTWARE LANGUAGES (+)**
* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL1
* RPG
OTHER:

**MARKETING**
Main market: OEM, END User
Units sold:
Maintenance: on call

Includes 64K CPU; Printer (300 LPM): #6401 Display Terminal; 2 M Tape units (800 BPI, 25 IPS); Disk (256MB); #9204 Cabinet.

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Synchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
B = Base Address Relocation
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F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

372

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INTRODUCED IN 1974, THE XEROX 550 IS A LARGE-SCALE SYSTEM DESIGNED FOR SCIENTIFIC AND ENGINEERING PROCESSING. FEATURES INCLUDE MICROPROGRAMMING, VIRTUAL MEMORY, MODULAR ARCHITECTURE, AND MEMORY MAP MANAGEMENT. SOFTWARE SUPPORT INCLUDES THE CP-R (CONTROL PROGRAM FOR REAL TIME) OPERATING SYSTEM.

**APPLICATION (+)**

* BUSINESS/COMMERCIAL
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

**COMPUTER** (Std/Opt, N/A)

WORD SIZE: 32 BITS
MEMORY: 16 TO 262K
CYCLE TIME: 645 USEC
ADD TIME: 1.72 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 97
INSTRUCTION TYPES (1): BDPIR, S
ACCUMULATORS: 16
INDEX REGISTERS: 7
I/O COMMUNICATIONS (2): DM/RE
I/O TRANSFER RATE: 1 MB
PROCESSOR FEATURES (3): CPUTIME/INTERFACE SLOTS:

**SYSTEMS SOFTWARE (+)**

* ASSEMBLER/汇编
* MACRO ASSEMBLY
* DISK MONITOR
* REAL TIME MONITOR CP-R
* T/S MONITOR CP-R
* BATCH MONITOR CP-R
* DATA BASE SYS
* OTHER:

**PRICES**

COMPUTER: $104700, 16K
MEMORY: $24000, 16K
SYSTEM: $96500
INCLUDES 16K CPU; 2.88MB DISK $37,240; MAG TAPE $29,700; 300 LPM $17,000; CARD READER (200 CPR) $7,900.

**FEATURES (+)**

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

**PERIPHERALS** (Model #, Spec, N/A)

REMOVABLE DISK: 3283, 320X, 323X
FIXED HEAD DISK: 321X, 320X
FLEXIBLE DISK: N/A
MAGNETIC TAPE: 333X, 334X
TAPE CASSETTE: N/A
LINE PRINTER: 346X
SERIAL PRINTER: 701X, 702X
CARD RD/PN: 712X, 7140, 716X
PAPER TAPE RD/PN: 7062, 7063
DISPLAY TERMINAL: N/A
MULTIPLEXOR: ASCII/SYN
TERMINALS/SYSTEM:
* OTHER:

**SOFTWARE LANGUAGES (+)**

* APLC-P
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/1
* RPG
* OTHER:

**MARKETING**

MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

---

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = FloatingPoint
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES
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R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1974, THE XEROX 560 IS A LARGE-SCALE SYSTEM DESIGNED FOR SCIENTIFIC AND ENGINEERING PROCESSING. THE 560 IS SIMILAR TO THE 550 BUT FEATURES A REMOTE CONSOLE CONTROL, FIVE REMOTE MULTIPLEXORS, AND 512 RECORD MAP PAGES IN ADDITION TO THE EQUIPMENT STANDARD ON THE 550. THE 560 ALSO FEATURES A TIME SHARING MODE WHICH ALLOWS SIMULTANEOUS SERVICING OF UP TO 128 USERS. SOFTWARE SUPPORT INCLUDES THE CP-IV OPERATING SYSTEM AND FORTRAN AND RPG COMPILERS.

APPLICATION (+)
* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)
WORD SIZE: 32 BITS
MEMORY: 16 TO 262K
CYCLE TIME: .665 USEC
ADD TIME: 1.72 USEC
CACHE MEMORY: N/A
# OF INSTRUCTIONS: 117
INSTRUCTION TYPES (1): BDFINS/ACCU MULATORS: 16
INDEX REGISTERS: 7
I/O COMMUNICATIONS (2): DM/
I/O TRANSFER RATE: 1MB
PROCESSOR FEATURES (3): CFYRM/INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)
* ASSEMBLER MEGA
  MACRO ASSEMBLY
  DISK MONITOR
  REAL TIME MNT EM CP-V
  T/S MONITOR CP-V
  BATCH MONITOR CP-V
  DATA BASE SYS
  OTHER:

PRICES
COMPUTER: $162,700, 16K
MEMORY: $24,000, 16K
SYSTEM: $254,500, 16K
INCLUDES 16K CPU; DISK (2.86MB) $37,240; MAG TAPE $29,700; LINE PRINTER (300 LPM) $17,000; CARD READER (200 CPM) $7,900.

FEATURES (+)
* UPWARD COMPATIBLE
  FIELD SERVICE
* APPLICATION SOFTWARE
  CONVERSATIONAL LANGUAGES
  USER MICROPROGRAMMABLE
  FACTORY MICROPROGRAMMABLE
  VIRTUAL MEMORY MACHINE
  MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)
REMOVABLE DISK: 3283, 320X, 323X
FIXED HEAD DISK: 321X, 320X
FLEXIBLE DISK: N/A
MAGNETIC TAM: 333X, 334X
TAPE CASSETTE: N/A
LINE PRINTER: 346R
SERIAL PRINTER: 701X, 702X
CARD RD,PD: 712X, 7140; 716X
PAPER TAPE RD,PD: 7062; 7063
DISPLAY TERMINAL: N/A
MULTIPLEXOR: ASYN,SYN
TERMINAL/SYSTEM:
OTHER:

SOFTWARE LANGUAGES (+)
* APLCP-V
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTRAN
* PL/I
* RPG
OTHER:

MARKETING
MAIN MARKET:
UNITS SOLD:
MAINTENANCE:

(1) INSTRUCTIONS:
B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing
(2) I/O COMMUNICATIONS:
A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multipoint Memory
S = Selectable Line Speeds
T = Autodial
(3) PROCESSOR FEATURES
B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt

COMPUTER REVIEW
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1977/No. 1
THE SCU IS A MODULAR, MICROPROGRAMMABLE, GENERAL PURPOSE CONTROLLER. IT CAN FUNCTION AS A STAND-ALONE, REAL TIME PROCESSOR, AN INTELLIGENT REMOTE TERMINAL, OR A COMMUNICATIONS OR PERIPHERALS CONTROLLER/PROCESSOR IN CONJUNCTION WITH A LARGER HOST COMPUTER.

APPLICATION (+)

* BUSINESS/COMMERCIAL
* COMMUNICATIONS PROCESSOR
* INDUSTRIAL CONTROL
* LABORATORY/SCIENTIFIC
* ENGINEERING/COMPUTATION
* EDUCATIONAL SYSTEM
* BANKING SYSTEM
* DATA ENTRY SYSTEM

FEATURES (+)

* UPWARD COMPATIBLE
* FIELD SERVICE
* APPLICATION SOFTWARE
* CONVERSATIONAL LANGUAGES
* USER MICROPROGRAMMABLE
* FACTORY MICROPROGRAMMABLE
* VIRTUAL MEMORY MACHINE
* MULTIPROCESSOR

PERIPHERALS (Model #, Specs, N/A)

* REMOVABLE DISK:
* FIXED HEAD DISK: YES
* FLEXIBLE DISK:
* MAGNETIC TAPE:
* TAPE CASSETTE:
* LINE PRINTER:
* SERIAL PRINTER: YES
* CARD RD/PN:
* PAPER TAPF RD/PN: YES; YES
* DISPLAY TERMINAL:
* MULTIPLEXOR:
* TERMINALS/SYSTEM:
* OTHER:

SOFTWARE LANGUAGES (+)

* APL
* ALGOL
* SINGLE BASIC
* MULTI BASIC
* COBOL
* FORTH
* PL1
* RPG
* OTHER:

MARKETING

* MAIN MARKET:
* UNITS SOLD:
* MAINTENANCE:

(1) INSTRUCTIONS:

B = Byte Manipulation
D = Decimal Arithmetic
E = Extended Precision
F = Floating Point
I = Indirect Addressing
M = Multiply & Divide
S = Stack Processing

(2) I/O COMMUNICATIONS:

A = Asynchronous
B = Bisynchronous
D = Direct Memory Access
M = Multiport Memory
S = Selectable Line Speeds
T = Autodial

(3) PROCESSOR FEATURES:

B = Base Address Relocation
C = Real Time Clock
D = Dynamic Page Relocation
E = Memory Parity Detect
F = Power Fail Safe
K = Memory Parity Correct
M = Memory Protection
R = Priority Interrupt
V = Vectored Interrupt
INTRODUCED IN 1971, THE XEROX SIGMA 8 IS A MEDIUM TO LARGE SCALE, GENERAL PURPOSE COMPUTER CAPABLE OF CONCURRENT REAL TIME, BATCH, AND TIME SHARING PROCESSING. THE SIGMA 8 IS ORIENTED TO SCIENTIFIC ENVIRONMENTS AND FEATURES A MEMORY EXPANDABLE FROM 16 TO 128K WORDS. SOFTWARE SUPPORT INCLUDES FORTRAN IV-R AND FLAG (FORTRAN LOAD AND GO). A VARIETY OF PERIPHERALS IS AVAILABLE.

APPLICATION (+)  
BUSINESS/COMMERCIAL  
COMMUNICATIONS PROCESSOR  
* INDUSTRIAL CONTROL  
* LABORATORY/SCIENTIFIC  
* ENGINEERING/COMPUTATION  
* EDUCATIONAL SYSTEM  
BANKING SYSTEM  
DATA ENTRY SYSTEM

COMPUTER (Std/Opt, N/A)  
WORD SIZE: 32 BITS  
MEMORY: 16 TO 512K  
CYCLE TIME: .9 USEC  
ADD TIME: .73 USEC  
CACHE MEMORY: N/A  
# OF INSTRUCTIONS: 101  
INSTRUCTION TYPES (1): BDEFIN/ACCUMULATORS: 16  
INDEX REGISTERS: 16  
I/O COMMUNICATIONS (2): N/  
I/O TRANSFER RATE: .5MB  
PROCESSOR FEATURES (3): CPYLE/G/INTERFACE SLOTS:

SYSTEMS SOFTWARE (+)  
* ASSEMBLER  
* MACRO ASSEM  
DISK MONITOR  
REAL TIME MTR  
T/S MONITOR  
BATCH MONITOR  
* DATA BASE SYS  
OTHER:

PRICES  
COMPUTER: $238000, 16K  
MEMORY: $43000, 16K  
SYSTEM: $310000  
INCLUDES 16K CPU $238,000; DISK (.75MB) $24,000; CARD READER (200 CPM) $8,000.

PERIPHERALS (Model #, Specs, N/A)  
REMOVABLE DISK: 7271  
FIXED HEAD DISK: 720X, 7212, 7232  
FLEXIBLE DISK: N/A  
MAGNETIC TAPE: 73XX  
TAPE CASSETTE: N/A  
LINE PRINTER: 745X, 7450  
SERIAL PRINTER: 701X, 702X  
CARD ED, PN: 7140; 716X  
PAPER TAPE ED, PN: 706; 7063  
DISPLAY TERMINAL: N/A  
MULTIPLEXOR: ASYN/ASYN  
TERMINALS/SYSTEM: OTHER:

SOFTWARE LANGUAGES (+)  
APL  
ALGOL  
* SINGLE BASIC  
* MULTI BASIC  
* COBOL  
* FORTRAN  
* PL/1  
RPG  
OTHER:

MARKETING  
MAIN MARKET:  
UNITS SOLD:  
MAINTENANCE:  
$23,000; MAG TAPE $17,000; LINE PRINTER ($225 L/B) $24,000; CARD READER (200 CPM) $8,000.

(1) INSTRUCTIONS:  
B = Byte Manipulation  
D = Decimal Arithmetic  
E = Extended Precision  
F = Floating Point  
I = Indirect Addressing  
M = Multiply & Divide  
S = Stack Processing

(2) I/O COMMUNICATIONS:  
A = Asynchronous  
B = Bisynchronous  
D = Direct Memory Access  
M = Multiport Memory  
S = Selectable Line Speeds  
T = Autodial

(3) PROCESSOR FEATURES  
B = Base Address Relocation  
C = Real Time Clock  
D = Dynamic Page Relocation  
E = Memory Parity Detect  
F = Power Fail Safe  
K = Memory Parity Correct  
M = Memory Protection  
R = Priority Interrupt  
V = Vectored Interrupt
INTRODUCED IN 1971, THE XEROX SIGMA 9 IS A MEDIUM TO LARGE SCALE, GENERAL PURPOSE COMPUTER CAPABLE OF CONCURRENT REAL TIME, BATCH, AND TIME SHARING PROCESSING. THE SIGMA 9 IS ORIENTED TO COMMERCIAL APPLICATIONS AND FEATURES A MEMORY EXPANDABLE FROM 65 TO 512K WORDS. SOFTWARE SUPPORT INCLUDES THE CP-V OPERATING SYSTEM. A VARIETY OF PERIPHERALS IS AVAILABLE.

### APPLICATIONS
- Business/Commercial Communications Processor
- Industrial Control Laboratory/Scientific
- Engineering/Computation
- Educational System Banking System
- Data Entry System

### FEATURES
- Upward Compatible Field Service
- Application Software Conversational Languages
- User Microprogrammable Factory Microprogrammable
- Virtual Memory Machine
- Multiprocessor

### COMPUTER (Std/Opt, N/A)
- **Word Size:** 32 Bits
- **Memory:** 16 to 512K
- **Cycle Time:** .9 Usec
- **Add Time:** .73 Usec
- **Cache Memory:** N/A
- **# of Instructions:** 112
- **Instruction Types (1):** BDEFM/
- **Accumulators:** 16
- **Index Registers:** 16
- **I/O Communications (2):** N/
- **I/O Transfer Rate:** .5MB
- **Processor Features (3):** CDPVRME/
- **Interface Slots:**

### SYSTEMS SOFTWARE
- **Assembler**
- **Macro Assem**
- **Disk Monitor**
- **Real Time RMTR CP-V**
- **T/S Monitor CP-V**
- **Batch Monitor CP-V**
- **Data Base Sys**
- **Other:**

### PRICES
- **Computer:** $45,000, 64K
- **Memory:** $43,000, 16K
- **System:** $52,000

INCLUDES 64K CPU $23,000; MAG TAPE $17,000; 225 LPM LINE PRINTER $24,000; 200 CPM CARD READER $8,000.

### MARKETING
- **Main Market:**
- **Units Sold:**
- **Maintenance:**

### TECHNOLOGY
- **Instructions:**
  - **B** = Byte Manipulation
  - **D** = Decimal Arithmetic
  - **E** = Extended Precision
  - **F** = Floating Point
  - **I** = Indirect Addressing
  - **M** = Multiply & Divide
  - **S** = Stack Processing

- **I/O Communications:**
  - **A** = Asynchronous
  - **B** = Synchronous
  - **D** = Direct Memory Access
  - **M** = Multiprocessor Memory
  - **S** = Selectable Line Speeds
  - **T** = Autodial

- **Processor Features:**
  - **B** = Base Address Relocation
  - **C** = Real Time Clock
  - **D** = Dynamic Page Relocation
  - **E** = Memory Parity Detect
  - **F** = Power Fail Safe
  - **K** = Memory Parity Correct
  - **M** = Memory Protection
  - **R** = Priority Interrupt
  - **V** = Vectored Interrupt

1977/No. 1

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## DISK & DRUM STORAGE

### Explanation of Column Headings

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>The disk device model number.</td>
</tr>
<tr>
<td>Disk Type</td>
<td>D = drum</td>
</tr>
<tr>
<td></td>
<td>F = fixed disk</td>
</tr>
<tr>
<td></td>
<td>R = removable disk</td>
</tr>
<tr>
<td>Head Type</td>
<td>F = fixed head</td>
</tr>
<tr>
<td></td>
<td>M = moveable head</td>
</tr>
<tr>
<td>Character Size</td>
<td>The number of binary digits in a single character in the storage device.</td>
</tr>
<tr>
<td>Drive Capacity</td>
<td>The maximum storage capacity per single drive or drum in millions of characters.</td>
</tr>
<tr>
<td>Average Access Time</td>
<td>The average time in milliseconds required to make the unit ready to access a specified location on the disk or drum.</td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>The speed at which data may be read from the unit in thousands of characters per second exclusive of seek or latency delays.</td>
</tr>
<tr>
<td>Maximum Drives per Controller</td>
<td>The maximum number of single drives which may be attached to a single controller and be concurrently operational.</td>
</tr>
<tr>
<td>Controller Price</td>
<td>The purchase price of the controller and the equipment necessary to attach the controller to the CPU. If the storage unit is a subsystem containing a controller and one or more drives, the controller price is the subsystem price less the price of the designated number of drives. &quot;NC&quot; indicates there is no charge for the controller in excess of the drive unit price. &quot;RPQ&quot; indicates Request for Price Quotation.</td>
</tr>
<tr>
<td>Drive Price</td>
<td>The purchase price of a single drive unit.</td>
</tr>
<tr>
<td>MODEL</td>
<td>Disk Type</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td>BASIC FOURB</td>
<td>FR</td>
</tr>
<tr>
<td>2215</td>
<td>FR</td>
</tr>
<tr>
<td>2324</td>
<td>FR</td>
</tr>
<tr>
<td>BSL NORTHBOP</td>
<td>FR</td>
</tr>
<tr>
<td>BURROUGHS</td>
<td>A/B9480-2</td>
</tr>
<tr>
<td></td>
<td>H. SEE B9480-1, NOTE H.</td>
</tr>
<tr>
<td>A/B9481-2</td>
<td>R M</td>
</tr>
<tr>
<td>H. SEE B9480-1, NOTE H.</td>
<td></td>
</tr>
<tr>
<td>B9370-3</td>
<td>F F</td>
</tr>
<tr>
<td>J. CONTROLLER AND DRIVE.</td>
<td></td>
</tr>
<tr>
<td>B9371-14</td>
<td>F F</td>
</tr>
<tr>
<td>J. FIRST DRIVE. ADDITIONAL DRIVES, $26, 400.</td>
<td></td>
</tr>
<tr>
<td>B9371-18</td>
<td>F F</td>
</tr>
<tr>
<td>H. CONTROL FOR B2700 SERIES. CONTROL FOR B3700/B700 SERIES, $16,000.</td>
<td></td>
</tr>
<tr>
<td>B9371-7</td>
<td>F F</td>
</tr>
<tr>
<td>J. FIRST DRIVE. ADDITIONAL DRIVES, $19,200.</td>
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</tr>
<tr>
<td>B9372-12</td>
<td>F F</td>
</tr>
<tr>
<td>H. SEE B9371-18, NOTE H.</td>
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</tr>
<tr>
<td>B9372-20</td>
<td>F F</td>
</tr>
<tr>
<td>J. SEE B9372-12, NOTE J.</td>
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</tr>
<tr>
<td>B9373-20</td>
<td>F F</td>
</tr>
<tr>
<td>J. SEE B9373-3, NOTE J.</td>
<td></td>
</tr>
</tbody>
</table>

1 Disk Type: D = Drum     F = Fixed disk     R = Removable disk

2 Head Type: M = Movable head     F = Fixed head

**DISK & DRUM CHARACTERISTICS**
<table>
<thead>
<tr>
<th>MODEL</th>
<th>Disk Type1</th>
<th>Head Type2</th>
<th>Character Size</th>
<th>Drive Capacity in Millions of Characters (MB)</th>
<th>Average Access Time in Millions of Seconds</th>
<th>Transfer Rate in Characters per Second</th>
<th>Maximum Number of Drives per Controller</th>
<th>Controller Price</th>
<th>Drive Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>B9373-3</td>
<td>F</td>
<td>F</td>
<td>8</td>
<td>10</td>
<td>23</td>
<td>-</td>
<td>5</td>
<td>10368*H</td>
<td>95760*J</td>
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<tr>
<td>B9373-30</td>
<td>F</td>
<td>F</td>
<td>8</td>
<td>20</td>
<td>40</td>
<td>-</td>
<td>5</td>
<td>16800</td>
<td>66690*J</td>
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<tr>
<td>B9375-1</td>
<td>F</td>
<td>F</td>
<td>100*D</td>
<td>23</td>
<td>-</td>
<td>1</td>
<td>16800</td>
<td>250960</td>
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<tr>
<td>B9383-16</td>
<td>R</td>
<td>M</td>
<td>348.8</td>
<td>30</td>
<td>625</td>
<td>4</td>
<td>-</td>
<td>109350</td>
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<td>B9383-17</td>
<td>R</td>
<td>M</td>
<td>348.8</td>
<td>30</td>
<td>625</td>
<td>4</td>
<td>-</td>
<td>177500</td>
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<tr>
<td>B9383-18</td>
<td>R</td>
<td>M</td>
<td>174.4</td>
<td>30</td>
<td>625</td>
<td>4</td>
<td>-</td>
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<td>B9387</td>
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<td>M</td>
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<td>25</td>
<td>605</td>
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<td>46000</td>
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<td>B9388-2</td>
<td>M</td>
<td>-</td>
<td>64.8</td>
<td>42.5</td>
<td>625</td>
<td>2*g</td>
<td>60000*H</td>
<td>83760*J</td>
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<td>B9470</td>
<td>F</td>
<td>F</td>
<td>5.5</td>
<td>5</td>
<td>650</td>
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<td>-</td>
<td>34000</td>
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<td>B9480-1</td>
<td>R</td>
<td>M</td>
<td>2.34</td>
<td>89</td>
<td>193</td>
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<td>2700*H</td>
<td>10000</td>
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<td>B9480-12</td>
<td>R</td>
<td>M</td>
<td>4.67</td>
<td>80</td>
<td>193</td>
<td>1</td>
<td>675</td>
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<tr>
<td>B9484-3,B9485-3</td>
<td>M</td>
<td>8</td>
<td>60.5</td>
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<td>16</td>
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<td>48000*J</td>
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<td>8</td>
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<td>48000*J</td>
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<td>B9486-2</td>
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<td>9481-1</td>
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<td>M</td>
<td>8</td>
<td>4.67</td>
<td>80</td>
<td>193</td>
<td>2</td>
<td>3500*H</td>
<td>13200</td>
</tr>
</tbody>
</table>

1 Disk Type: D = Drum      F = Fixed disk      R = Removable disk
2 Head Type: M = Movable head      F = Fixed head

**DISK & DRUM CHARACTERISTICS**
<table>
<thead>
<tr>
<th>MODEL</th>
<th>Disk Type</th>
<th>Head Type</th>
<th>Character Size</th>
<th>Drive Capacity in Millions of Characters (MB)</th>
<th>Average Access Time in Milliseconds</th>
<th>Transfer Rate in Thousands of Characters per Second</th>
<th>Maximum Number of Drives per Controller</th>
<th>Controller Price</th>
<th>Drive Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASCADE</td>
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<td>413</td>
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<td>75</td>
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<td>414</td>
<td>FR</td>
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<td>5</td>
<td>75</td>
<td>195</td>
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<td>CENTURY COMPUTER</td>
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<td>301</td>
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<td>5500</td>
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<td>CHI</td>
<td>R</td>
<td>M</td>
<td>8</td>
<td>0.256</td>
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<td>2</td>
<td>-</td>
<td>6500</td>
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<td>1660</td>
<td>R</td>
<td>M</td>
<td>8</td>
<td>20.5</td>
<td>47.5</td>
<td>-</td>
<td>2</td>
<td>6000</td>
<td>10000*J</td>
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<tr>
<td>J. SECOND DRIVE ADAPTOR, $2,000.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CII</td>
<td>F</td>
<td>-</td>
<td>8</td>
<td>8.4</td>
<td>10</td>
<td>170</td>
<td>1</td>
<td>NC</td>
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1 Disk Type: D = Drum      F = Fixed disk      R = Removable disk
2 Head Type: M = Movable head    F = Fixed head

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$^1$ Disk Type: D = Drum, F = Fixed disk, R = Removable disk
$^2$ Head Type: M = Movable head, F = Fixed head

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H. ADDITIONAL SUBCONTROLLER REQUIRED FOR MORE THAN FOUR DRIVES, $5,825.

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J. SHALLEST SYSTEM AVAILABLE (THREE DRIVES AND ONE SPARE).

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1 Disk Type: D = Drum       F = Fixed disk       R = Removable disk
2 Head Type: M = Movable head       F = Fixed head

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1 Disk Type: D = Drum        F = Fixed disk        R = Removable disk
2 Head Type: M = Movable head    F = Fixed head

**DISK & DRUM CHARACTERISTICS**
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1 Disk Type: D = Drum    F = Fixed disk    R = Removable disk
2 Head Type: M = Movable head    F = Fixed head

DISK & DRUM CHARACTERISTICS
### Disk & Drum Characteristics

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**RK05J-RA**

H. RK11J-RA 2.5MB CARTRIDGE DRIVE AND CONTROLLER, EXPANDABLE TO 20MB BY ADDING COMBINATIONS OF RK05J's AND RK05F's, $9,900.

**RK06-EA**

1 Disk Type: D = Drum      F = Fixed disk      R = Removable disk

2 Head Type: M = Movable head      F = Fixed head

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1977/No. 1

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1 Disk Type: D = Drum       F = Fixed disk       R = Removable disk
2 Head Type: M = Movable head       F = Fixed head

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<sup>1</sup>Disk Type: D = Drum  F = Fixed disk  R = Removable disk  
<sup>2</sup>Head Type: M = Movable head  F = Fixed head

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1 Disk Type: D = Drum    F = Fixed disk    R = Removable disk
2 Head Type: M = Movable head    F = Fixed head

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1 Disk Type: D = Drum       F = Fixed disk       R = Removable disk
2 Head Type: M = Movable head   F = Fixed head

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1 Disk Type: D = Drum, F = Fixed disk, R = Removable disk
2 Head Type: M = Movable head, F = Fixed head

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¹Disk Type: D = Drum  F = Fixed disk  R = Removable disk
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2 Head Type: M = Movable head  \( F = \) Fixed head

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1 Disk Type: D = Drum       F = Fixed disk       R = Removable disk
2 Head Type: M = Movable head       F = Fixed head

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1 Disk Type: D = Drum    F = Fixed disk    R = Removable disk
2 Head Type: M = Movable head    F = Fixed head

DISK & DRUM CHARACTERISTICS
### Disk & Drum Characteristics

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1Disk Type: D = Drum  F = Fixed disk  R = Removable disk
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**N. DEPENDENT ON CPU. J. ADDITIONAL DRIVES REQUIRE SPECIAL ATTACHMENTS.**

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**P. DEPENDENT ON CPU. J. ATTACHMENT PRICES DEPEND ON CPU.**

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**P. DEPENDENT ON CPU. J. ATTACHMENT PRICES DEPEND ON CPU. DUAL DRIVE.**

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1. **Disk Type:** D = Drum  F = Fixed disk  R = Removable disk
2. **Head Type:** M = Movable head  F = Fixed head

**DISK & DRUM CHARACTERISTICS**
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<sup>1</sup> Disk Type: D = Drum, F = Fixed disk, R = Removable disk

<sup>2</sup> Head Type: M = Movable head, F = Fixed head

**DISK & DRUM CHARACTERISTICS**
### Disk & Drum Characteristics

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¹ Disk Type: D = Drum F = Fixed disk R = Removable disk
² Head Type: M = Movable head F = Fixed head
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1 Disk Type: D = Drum    F = Fixed disk    R = Removable disk

2 Head Type: M = Movable head    F = Fixed head

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1 Disk Type: D = Drum    F = Fixed disk    R = Removable disk
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2Head Type: M = Movable head   F = Fixed head

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1 Disk Type: D = Drum  F = Fixed disk  R = Removable disk
2 Head Type: M = Movable head  F = Fixed head

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1 Disk Type: D = Drum, F = Fixed disk, R = Removable disk
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1 Disk Type: D = Drum, F = Fixed disk, R = Removable disk
2 Head Type: M = Movable head, F = Fixed head

**DISK & DRUM CHARACTERISTICS**

1977/No. 1
### DISK & DRUM CHARACTERISTICS

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G. AUXILIARY CONTROLS ALLOW UP TO 116 DRIVES TO BE CONNECTED TO STANADARD CONTROL

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A. CARD RANDOM-ACCESS SYSTEM.

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1 Disk Type: D = Drum  F = Fixed disk  R = Removable disk
2 Head Type: M = Movable head  F = Fixed head

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¹ Disk Type: D = Drum     F = Fixed disk     R = Removable disk
² Head Type: M = Movable head     F = Fixed head

**DISK & DRUM CHARACTERISTICS**
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<th>Head Type (^2)</th>
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<th>Drive Capacity in Millions of Characters (MB)</th>
<th>Average Access Time in Milliseconds</th>
<th>Transfer Rate in Thousands of Characters per Second</th>
<th>Maximum Number of Drives per Controller</th>
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<th>Drive Price</th>
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R. INCLUDES DUAL DRIVE.

\(^1\) Disk Type: D = Drum \quad F = Fixed disk \quad R = Removable disk

\(^2\) Head Type: M = Movable head \quad F = Fixed head

**DISK & DRUM CHARACTERISTICS**
## MAGNETIC TAPE

**Explanation of Column Headings**

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<thead>
<tr>
<th>Column</th>
<th>Description</th>
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<tbody>
<tr>
<td>Model</td>
<td>The tape transport device model number.</td>
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<tr>
<td>Tracks</td>
<td>The number of bits which may be written in a single position across the width of the tape, including parity bits.</td>
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<tr>
<td>Tape Speed</td>
<td>The rate, in inches per second, at which the tape moves past the recording head during a data transfer.</td>
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<td>Densities</td>
<td>200 bpi</td>
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<tr>
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<td>556 bpi An asterisk shows availability of the</td>
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<td>800 bpi specified densities (the number of bits</td>
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<td>1600 bpi which may be written per inch on a</td>
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<td>single track).</td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>The speed in at which data may be read from the unit in thousands of characters per second, exclusive of latency delays.</td>
</tr>
<tr>
<td>Maximum Transports</td>
<td>The maximum number of single tape transports which may be attached to a single controller and be concurrently operational.</td>
</tr>
<tr>
<td>per Controller</td>
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<tr>
<td>Controller Price</td>
<td>The purchase price of the controller and the necessary equipment to attach the controller to the CPU. If the transport unit is a subsystem containing a controller and one or more transports, the controller price is the subsystem price less the price of the designated number of transports. “NC” indicates there is no charge for the controller in excess of the drive unit price. “RPQ” indicates Request for Price Quotation.</td>
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<tr>
<td>Transport Price</td>
<td>The purchase price of a single tape transport unit.</td>
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<td>MODEL</td>
<td>Tracks</td>
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* Denotes available

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<th>Inches per Second</th>
<th>Densities:</th>
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<th>500 bpi</th>
<th>800 bpi</th>
<th>1600 bpi</th>
<th>Transfer Rate in</th>
<th>Thousands of Characters per Second</th>
<th>Maximum Transports per Controller</th>
<th>Controller Price</th>
<th>Transport Price</th>
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* Denotes available
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**GENERAL AUTOMATION**

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* Denotes available

**MAGNETIC TAPE CHARACTERISTICS**
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<th>800 bpi</th>
<th>1600 bpi</th>
<th>Transfer Rate in Thousands of Characters per Second</th>
<th>Maximum Transports per Controller</th>
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* Denotes available

**MAGNETIC TAPE CHARACTERISTICS**
# LINE PRINTERS

## Explanation of Column Headings

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<tr>
<th>Description</th>
<th>Explanation</th>
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<tr>
<td><strong>Model</strong></td>
<td>The line printer device model number.</td>
</tr>
<tr>
<td><strong>Print Positions</strong></td>
<td>The maximum number of characters which can be printed on a single line.</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>The maximum number of lines per minute at which the unit prints data for all characters in the minimum character set. The minimum character sets have 16 to 64 characters.</td>
</tr>
<tr>
<td><strong>Lines per Minute/Minimum Character Set</strong></td>
<td>The maximum number of lines per minute at which the unit prints data in the full 64 character set.</td>
</tr>
<tr>
<td><strong>Lines per Minute/64-character Set</strong></td>
<td>The maximum number of lines per minute at which the unit prints data for all the characters in the full character set. The maximum character sets have more than 64 characters.</td>
</tr>
<tr>
<td><strong>Controller Price</strong></td>
<td>The purchase price of the controller. “NC” indicates there is no charge for the controller in excess of the printer unit price. “RPQ&quot; indicates Request for Price Quotation.</td>
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<tr>
<td><strong>Printer Unit Price</strong></td>
<td>The purchase price of a single printer unit.</td>
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## MODEL

<table>
<thead>
<tr>
<th>Print Position</th>
<th>Lines per Minute of Minimum Character Set</th>
<th>Lines per Minute of Maximum Character Set</th>
<th>Controller Price</th>
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### BASIC FOUR

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<th>Lines per Minute of Maximum Character Set</th>
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<td>/96</td>
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### BURBROUGHS

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F. CONTROL FOR B1714. CONTROl FOR B1726/1728, $2,880.

### Line Printer Characteristics

- A/B9249-1 132 90/48  -D  625*F  8500
  C. Optional 64-character set.
  D. Optional 96-character set.
  P. CTLRL-B700. CTLRL-B1712/B1714, $1,000.
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<thead>
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<th>Lines Per Minute/Minimum Character Set</th>
<th>Lines Per Minute for 64-Character Set</th>
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**A988**

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**LINE PRINTER CHARACTERISTICS**

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**COMPUTER REVIEW**
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3800 -**A  -**A  -**A  -**A  -**A  -**A
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# CARD EQUIPMENT

## Explanations of Column Headings

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<tr>
<th>Column</th>
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<td>Model</td>
<td>The card device model number.</td>
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<td>R = reader</td>
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<td>P = punch</td>
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<tr>
<td>Columns</td>
<td>The maximum number of columns on a card.</td>
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<td>Reader Speed</td>
<td>The rate, in cards per minute, at which the full card is read by the unit.</td>
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<tr>
<td>Punch Speed</td>
<td>The rate, in cards per minute, at which the full card is punched by the unit.</td>
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<td>Controller Price</td>
<td>The purchase price of the controller. “NC” indicates there is no charge for the controller in excess of the drive unit price. “RPQ” indicates Request for Price Quotation.</td>
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<td>Card Unit Price</td>
<td>The purchase price of a single card unit.</td>
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1Type: R = reader  P = punch

CARD EQUIPMENT CHARACTERISTICS
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¹Type: R = reader P = punch

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1Type: R = reader  P = punch

CARD EQUIPMENT CHARACTERISTICS

A108

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1977/No. 1
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^Type: R = reader  P = punch

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¹Type: R = reader  P = punch

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\(^1\)Type: R = reader    P = punch

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1 Type: R = reader  P = punch

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1 Type: R = reader       P = punch

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\(^1\) Type: R = reader  \( P = \) punch

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1 Type: R = reader  P = punch

CARD EQUIPMENT CHARACTERISTICS

1977/No. 1

COMPUTER REVIEW
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1Type: R = reader     P = punch

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*1 Type: R = reader   P = punch

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'Type: R = reader  P = punch

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1 Type: R = reader   P = punch

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¹Type: R = reader     P = punch

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¹Type: R = reader   P = punch

**CARD EQUIPMENT CHARACTERISTICS**
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<tr>
<th>MODEL</th>
<th>Type</th>
<th>Columns</th>
<th>Reader Speed Cards per Minute</th>
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1 Type: R = reader   P = punch

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\(^1\text{Type: R = reader}\quad \text{P = punch}\)

**CARD EQUIPMENT CHARACTERISTICS**
SOFTWARE OPERATING SYSTEMS

Explanation of Categories

MARKETING

Latest Release  The month and year of the most recent operating system update.
First Installed  The month and year when the operating system was first installed at a customer's site.
Current Users   The number of customer sites where the operating system is installed.

CHARACTERISTICS

OS Type         A description of the operating system type, and the number of memory partitions if applicable. (Batch-oriented and/or interactive.)
Memory Management The operating system's supervision of storage. (Single-user, relocations, or virtual.)
Simultaneous Users The number or user-terminals which the operating system will support concurrently.
Programs in Package The number of general purpose applications programs which are available to the operating system user.
Languages       The list of languages supported by the operating system (e.g. COBOL, FORTRAN, RPG, PL/1.)
Compatibility   The computers on which the operating system will run, indicated by manufacturers and model numbers.
Main Memory     The amount of memory and/or mass storage necessary to support the operating system.
Communications  The transmission discipline (e.g. synchronous, asynchronous.)
Peripherals     Any peripherals required by the operating system, indicated by model number, capacity and/or speed.
System Type     Defines the operating system as either multiprocessor or multiprogramming.
Diagnostics  Indicates the availability of software routines within the operating system which diagnose system failures in real time (e.g. a memory parity error.)

Debugging Tools  The availability of software routines which aid the user of the operating system when coding and executing application programs.

PRICES

Documentation  The price of user instructions for maintaining the operating system.

Training  The cost to train personnel, either on-site or at the manufacturer's facility.

Purchase  A one-time charge for the operating system.

Lease  The operating system's lease price and duration.

Maintenance  If maintenance is required, the cost per month is indicated.
OS NAME: ARBAT SYSTEMS AIMS-11
AIMS-11 (Interactive Multi-user System) is a real-time operating system with a system programming extension. AIMS-11 is an interpretive system compatible with Digital Equipment Corporation's Disk Operating System (DOS). Designed specifically for the DEC PDP-11, AIMS-11 supports a wide range of PDP-11 peripherals. It is a multi-user system, employing keyboard display devices for input/output activity.

MARKETING
Latest Release: 6/76
First Installed: 5/72
Current Users: 20

CHARACTERISTICS
OS Type: Interactive timesharing
Memory Management: Virtual
Simultaneous Users: 127
Programs in Package: 50
Languages: BASIC
Compatibility: Any DEC PDP-11
Main Memory: 24K

Communications: Asynchronous
Peripherals: Any standard DEC disk
System Type: Multiprogramming
Diagnostics: Self reporting system
Debugging tools: Interactive aids

PRICES
Documentation:
Training:
Purchase:
Lease:
Maintenance:

OS NAME: ARTRONIX DOS/PC
ARTRONIX DOS/PC is the operating system for the largest PC-12 systems. DOS/PC features the Disk Pack Mass Storage System, compatibility with ARTRONIX OS/PC, logical unit device independence and total file interchangeability.

MARKETING
Latest Release:
First Installed:
Current Users:

CHARACTERISTICS
OS Type: Interactive
Memory Management: no relocations
Simultaneous Users:
Programs in Package:
Languages: MUMPS, FORTRAN
Compatibility: ARTRONIX PC-12
Main Memory: 8K

Communications: syn, asyn
Peripherals: Disk Pack, CRT
System Type: Multiprogramming
Diagnostics:
Debugging tools:

PRICES
Documentation:
Training:
Purchase:
Lease:
Maintenance:

SOFTWARE OPERATING SYSTEMS
OS NAME: ARTRONIX LTOS
LTOS (LINCTape Operating System) provides the Artronix PC-12 user with a keyboard programming system including editing, assembling, and file handling. LTOS is upward compatible to OS/PC, the PC-12 Operating System. All programs are directly transferrable and may be run under the OS/PC, excepting program return to the operating system.

MARKETING
Latest Release: Communications: syn
First Installed: Peripherals: LinCTape, CRT
Current Users: System Type: Multiprogramming

CHARACTERISTICS
OS Type: Interactive Diagnostics:
Memory Management: No relocations Debugging tools:
Simultaneous Users: PRICES
Programs in Package:
Languages: MUMPS, FORTRAN Documentation:
Compatibility: ARTRONIX PC-12 Training:
Lease:
Main Memory: 4K Maintenance:

OS NAME: ARTRONIX OS/PC
ARTRONIX OS/PC is an operating system designed for expanded PC-12 computer systems with LINCMass storage. OS/PC features a modular structure, consisting of a Resident Monitor, Command Monitor, System index, Linking loader, Library Subprograms, and user adaptability by adding or deleting modules.

MARKETING
Latest Release: Communications: syn, asyn
First Installed: Peripherals: LINCTape, CRT
Current Users:

CHARACTERISTICS
OS Type: Interactive System Type: Multiprogramming
Memory Management: No relocations Diagnostics:
Simultaneous Users: Debugging tools:
Programs in Package:
Languages: MUMPS, FORTRAN PRICES
Maintenance:

Main Memory: 8K

SOFTWARE OPERATING SYSTEMS
OS NAME: BASIC/FOUR  BOSS
The Basic Four Operating System (Boss) is a real-time interactive software system for use with Basic Four 350, 400, 500 and 600 computers. BOSS was designed to support an extended BASIC called Business BASIC, and all applications and utility programs are written in Business BASIC. Business BASIC was created by adding system-oriented I/O Control, formatted I/O, datafile management, and decimal arithmetic capability to standard Basic.

MARKETING
Latest Release: 8/76  
First Installed: 8/71  
Current Users: 3000 (8/76)

CHARACTERISTICS
OS Type: Interactive, 8 partitions  
Memory Management: No relocations  
Simultaneous Users: 8  
Programs in Package: 35+  
Languages: Business BASIC  
Compatibility: Basic/Four - Models 350, 400, 500, 600  
Main Memory: 16K  

Communications: asyn, bisyn  
Peripherals: CRT, Printer, Disk  
System Type: Multiprogramming  
Diagnostics: yes  
Debugging tools: On-line debug program  

PRICES
Documentation: Included  
Training: Included  
Purchase: Included in system cost  
Lease: N/A  
Maintenance: Included

OS NAME: BURROUGHS CM 80 MCP
Burroughs Master Control Program (MCP) is a comprehensive operating system for Burroughs 80 systems for business and communications applications. CM 80 MCP includes multi-programming, random access disk file storage, and accepts source programs in COBOL, RPG, NDL, and MPL II.

MARKETING
Latest Release:  
First Installed:  
Current Users:  

CHARACTERISTICS
OS Type: Interactive  
Memory Management: no relocations  
Simultaneous Users:  
Programs in Package:  
Languages: COBOL, RPG, NDL, MPL II  
Compatibility: Burroughs 80 systems  
Main Memory:  

Communications:  
Peripherals: Disk, Console printer  
System Type:  
Diagnostics: Debugging utilities  
Debugging tools:  

PRICES
Documentation:  
Training:  
Purchase:  
Lease:  
Maintenance:  

SOFTWARE OPERATING SYSTEMS
OS NAME: BURROUGHS MCP (Master Control Program)
Burroughs advanced Master Control Program is an operating system for B80 Systems. It functions in complete integration with B80 logic to simplify system operation and control, provide automatic multiprogramming, centralize I/O control, permit the use of high-level, user-oriented programming languages, and to accommodate future growth without reprogramming.

MARKETING
Latest Release: 7/76
First Installed: N/A
Current Users: N/A

CHARACTERISTICS
OS Type: Batch
Memory Management: Virtual memory
Simultaneous Users: 1
Programs in Package: 5
Languages: COBOL, RPG, NDL, MPL II
Compatibility: All Burroughs 80 systems

Main Memory: 32KB

Communications: RS 80 to B80
Peripherals: Burroughs Super Mini-Disk
Or Cartridge Disk
System Type: Multi-programming
Diagnostics: Error handling
Debugging tools: N/A

PRICES
Documentation: Included
Training: Included
Purchase: Included in system cost
Lease: N/A
Maintenance: Included

OS NAME: CINCINNATI MILACRON CIMOS
The Cincinnati Milacron CIMOS is an operating system designed for small business computers. CIMOS features a full set of utility programs, supports up to 25 simultaneous users entering data and has a Text Editor to simplify on-line editing. An additional feature of CIMOS is a multiple Video Display Terminal handler (VDT) which supervises the orderly operation of a variety of CRT devices.

MARKETING
Latest Release: 2/76
First Installed: 6/73
Current Users: 112 (5/76)

CHARACTERISTICS
OS Type: Interactive, 2 partitions
Memory Management: no relocations
Simultaneous Users: 25
Programs in Package: 16
Languages: RPG II
Compatibility: Cincinnati Milacron - Models CIP/2200B and CIP/4400
Main Memory: 32KB

Communications: IBM 2780 discipline
Peripherals: IOMEC Disk (SM or 10MB)
System Type: Multiprogramming
Diagnostics: yes
Debugging tools: Resident diagnostic sys.

PRICES
Documentation: Included
Training: $375
Purchase: Included in system cost
Lease: N/A
Maintenance: Included

SOFTWARE OPERATING SYSTEMS
OS NAME: CINCINNATI MILACRON CIMOS-22
CIMOS-22 is an operating system designed for the Cincinnati Milacron CIP/2200B minicomputer for process control or general business applications. CIMOS-22 is a disk-oriented system, offers RPG II and assembler languages, two methods of data entry, multiprogramming, sequential, random, or indexed files, and a wide range of peripherals.

MARKETING
Latest Release: 4/76
First Installed: 2/73
Current Users:

CHARACTERISTICS
OS Type: 1
Memory Management: Single user
Simultaneous Users: 1
Programs in Package: 15

Languages: Macro Assembler, Assembler, FORTRAN IV, BASIC
Compatibility: Computer Automation ALPHA 1S1-2 and ALPHA 16
Main Memory: 16K

Communications: Peripherals: ASR 33 and, Floppy or Moving-head Disk, or Mag Tape
System Type: Central Error Message Proc.
Debugging tools: Interactive debugging program.

PRICES
Documentation: Included
Training: 5 Day Course - $300.
Purchase: $1,900 - $2,000
Lease: N/A
Maintenance: No Charge

a Documentation on distribution media included (Disk, Diskette or Paper Tape).

SOFTWARE OPERATING SYSTEMS
**OS NAME:** COMPUTER AUTOMATION  SYCLOPS  

The Concurrent Logic Operating System (SYCLOPS) is a virtual storage operating system designed for Computer Automation's SYFA Distributed Processing System for business applications. It accommodates up to 24 local and remote information station terminals for the simultaneous execution of up to 24 foreground applications, 16 background utility programs, 1 emulator and 2 printer spooling tasks, for a total of 43 concurrent functions. Syclops also features OVERLAY processing verification for error detection.

### MARKETING
- Latest Release:
- First Installed:
- Current Users:

### CHARACTERISTICS
- **OSType:** Interactive
- **Memory Management:** Virtual
- **Simultaneous Users:** 24
- **Programs in Package:** 43
- **Languages:** BASIC, FORTRAN, SYBOL
- **Compatibility:** Computer Automation Syfa
- **Main Memory:** 16K

### COMMUNICATIONS:
- *Communications:* syn
- *Peripherals:* Disk, Printer, VDT

### PRICES:
- **System Type:** Multiprogramming
- **Diagnostics:** OVERLAY
- **Debugging tools:**
- **Documentation:**
- **Training:**
- **Purchase:** $2,500
- **Lease:**
- **Maintenance:**

---

**OS NAME:** COMTEN  SUPERVISOR  

Supervisor is the executive system which controls and maintains an orderly flow of work through the Comten Communications Systems. The Supervisor ensures efficiency by overlapping the computer and I/O tasks of several programs while providing concurrent, a multi-sequential task operation on a priority basis. The Supervisor has a dynamic job priority scheme, a complete array of executive utility routines resident on the system disk (called via operator control), and can accept unsolicited commands for the operator at run time.

### MARKETING
- **latest Release:**
- **First Installed:** 8/69
- **Current Users:**

### CHARACTERISTICS
- **OSType:** Interactive, to 15 part.
- **Memory Management:** No relocations
- **Simultaneous Users:** Oper. dependent
- **Programs in Package:** 20+
- **Languages:** CODEL Assembler
- **Compatibility:** COMTEN 476
- **Main Memory:** 32K

### COMMUNICATIONS:
- *Communications:* syn, asyn, bisyn
- *Peripherals:* Disk 6214, Console

### PRICES:
- **System Type:** Multiprogramming
- **Diagnostics:** None
- **Debugging tools:** On-line debug utilities
- **Documentation:** Included
- **Training:** 1wk-$40/student/day
- **Purchase:** Included in system cost
- **Lease:** N/A
- **Maintenance:** Included

---

**SOFTWARE OPERATING SYSTEMS**
OS NAME: DATA GENERAL MRDOS
Mapped Real-time Disc Operating System is a disc operating system that features memory mapping, MRDOS supports a wide variety of real-time multi-user, and batch processing applications. An important feature of MRDOS is its ability to perform dual operations concurrently. By incorporating dynamic memory allocation to give users the effect of dual computer systems, MRDOS techniques surpass foreground/background programming techniques. MRDOS has all the features of RDOS plus background checkpointing and user program swapping, chaining, and overlaying.

MARKETING
Latest Release: 5/76
First Installed: 4/73
Current Users: N/A

CHARACTERISTICS
OS Type: Batch interactive, 2 part.
Memory Management: dual user
Simultaneous Users: Oper. dependent
Programs in Package:

Languages: FORTRAN IV, V, BASIC, COBOL, RPG II, ALGOL, Assembler
Compatibility: NOVA 3, 830, ECLIPSE S/200, ECLIPSE C/300 and C/3300
Main Memory: 64KB

Communications: syn, asyn, bisyn
Peripherals: Console, 512KB Disk, R-T Clock, Memory Allocate + Protect unit
System Type: Dual programming
Diagnostics: no
Debugging tools: Interactive debugger

PRICES
Documentation: Included
Training: $325/wk
Purchase: Included in system cost
Lease: N/A
Maintenance: $400/year

OS NAME: DATAGENERAL RDOS
Real-time Disc Operating System (RDOS) is an operating system which supports real-time and interactive program development in user-oriented environments. Features include foreground/background processing, multitasking monitor, multiprocessor support, RTOS and SOS program compatibility, and intertask communications. An Operator Communications Package (OPCOM) allows the task environment to be monitored and modified from the console. In addition, an interactive, free-form Command Line Interpreter (CLI) accepts operator commands from the console keyboard.

MARKETING
Latest Release: 5/76
First Installed: 9/71
Current Users: N/A

CHARACTERISTICS
OS Type: Batch interactive, 2 part.
Memory Management: dual user
Simultaneous Users: Oper. dependent
Programs in Package:

Languages: FORTRAN IV, 5, BASIC, ALGOL, COBOL, Assembler
Compatibility: 32KB

Main Memory:

Communications: syn, asyn, bisyn
Peripherals: Console (CRT, Teletype, or other) 512KB Disk, Real-Time Clock
System Type: Dual programming
Diagnostics: no
Debugging tools: Interactive debugger

PRICES
Documentation: Included
Training: $325/week
Purchase: Included in system cost
Lease: N/A
Maintenance: $350/year

Software Operating Systems

a Dual user with dynamic virtual memory management.
b RJE: 80 is a 2780/3780 emulator.
OS NAME: DATA GENERAL RTOS
Real-Time Operating System (RTOS) is a general purpose core-resident multi-task operating system that controls a wide range of real-time applications. RTOS provides system functions that schedule the execution of tasks. As a modular re-entrant software system, RTOS provides the user with a library of modules for system processing, task processing, and device processing. Features include inter-task communication/synchronization, program compatibility with RDOS/MRDOS and SOS, and disk-file compatibility with RDOS/MRDOS.

MARKETING
Latest Release: 3/76
First Installed: 9/71
Current Users: N/A

CHARACTERISTICS
OS Type: Batch, 1 partition
Memory Management: Single user
Simultaneous Users: 1
Programs in Package:
Languages: FORTRAN, Assembler
Compatibility: All Data General computers
Main Memory: 16KB

Communications: syn, asyn, bisyn\textsuperscript{a}
Peripherals: Real-time clock
System Type:
Diagnostics: None
Debugging tools: Interactive debugger

PRICES
Documentation: None
Training: $325/wk
Purchase: Included in system cost
Lease: N/A
Maintenance: $100/year

OS NAME: DATA GENERAL SOS
The Data General Stand-alone Operating System (SOS) is an easy to use, compact operating system that provides a full complement of utility programs for Data General computers. Any Data General computer with an ASR Teletype is sufficient hardware to compile, assemble, edit and execute programs under SOS. Features include paper, magnetic or cassette tape support, RDOS/MRDOS and RTOS compatibility, and device independence.

MARKETING
Latest Release: 8/75
First Installed: 5/73
Current Users: N/A

CHARACTERISTICS
OS Type: Batch
Memory Management: Single user
Simultaneous Users: 1
Programs in Package:
Languages: FORTRAN IV, BASIC, Assembler
Compatibility: All Data General computers
Main Memory: 16KB

Communications: syn, asyn, bisyn\textsuperscript{a}
Peripherals: Console (CRT, Teletype, or other)
System Type:
Diagnostics: None
Debugging tools: Interactive debugger

PRICES
Documentation: None
Training: $150/2 days
Purchase: Included in system cost
Lease: N/A
Maintenance: $100/year

\textsuperscript{a}RJE: 80 is a 2780/3780 emulator.
OS NAME: DATAPoint CTOS

The Datapoint Cassette Tape Operating System (CTOS) is an interactive software system which enables the user to create, debug, and execute programs utilizing any Datapoint processor with cassettes and at least 8K of user memory. A file structure for cassettes is defined so that programs may be catalogued onto the CTOS tape. The operating system is designed to be overlayed by application programs that do not utilize all of the subroutines contained in the system library.

MARKETING
Latest Release: 10/72
First Installed: N/A
Current Users: N/A

CHARACTERISTICS
OS Type: Interactive, 1 partition
Memory Management: Single user
Simultaneous Users: 1
Programs in Package:
Languages: BASIC, DATAFORM, DATABUS, SCRIBE
Compatibility: Datapoint 1100, 2200, 5500

Main Memory: 8K

OS NAME: DATAPoint DOS

Disk Operating System (DOS) is a dynamic file management system which provides file allocation, expansion, contraction, and random/sequential and index/sequential data access. Complete file and directory management is available with internal foreground task control. There are five disk operating systems, each designed for a specific hardware configuration. Thes specifications below are for the DOS-D operating system.

MARKETING
Latest Release: 2/76
First Installed: 2/76
Current Users: N/A

CHARACTERISTICS
OS Type: Interactive-up to 3 part.
Memory Management: Virtual
Simultaneous Users: up to 16
Programs in Package: 37
Languages: BASIC, RPG II, DATAFORM, DATABUS, DATASHARE, SCRIBE
Compatibility: Datapoint 5500

Main Memory: 48K

SOFTWARE OPERATING SYSTEMS

Communications: asyn, syn to 9600 baud
Peripherals: None required

System Type:
Diagnostics: yes, diagnostic programs
Debugging tools: Included in utilities package

PRICES
Documentation: $4.50 (user's guide)
Training: $300 (1 week - optional)
Purchase: $15.00
Lease: N/A
Maintenance: Included

Communications: syn, asyn to 9600 baud
Peripherals: 2 mass storage disks and multiport adaptor

System Type: Multiprocessing
Diagnostics: yes, diagnostic programs
Debugging tools: Included in utilities package

PRICES
Documentation: Included
Training: $300 (1 week - optional)
Purchase: Included in system cost
Lease: N/A
Maintenance: Included
OS NAME: DECISION DDOS
Disc Operating System (DDOS) is a file oriented system which provides the user with high level I/O management and system control. Also available are two subsystems, DINOS and LOS. DINOS provides multitasking and multiprogramming and features dynamic resource allocation, program overlay, and initiation, and index sequential mass storage access. LOS allows machine language assembly under DDOS and provides for efficient flexible disk and peripheral device I/O operations.

MARKETING
Latest Release: 9/76
First Installed: 1971
Current Users: 500 (8/76)

COMMUNICATIONS
Communications: asyn
Peripherals: Console, Floppy Disk, Mag.
Tape, Card Reader, Line Printer
System Type: Multiprogramming
Diagnostics: Extensive hardware checking
Debugging tools: On-line debug program

PRICES
Documentation: Included
Training: free (1 student, 2 weeks)
Purchase: Inc. in disk subsys. cost
Maintenance: Included

CHARACTERISTICS
OS Type: Batch
Memory Management: Single user
Simultaneous Users: 1 (16 with DINOS)
Programs in Package: 25
Languages: FORTRAN IV, BASIC (single
* Multi-user) Assembly Language
Compatibility: Any Data General or
Digital computer controls computer
Main Memory: 16K

OS NAME: DIGICO EXEC
Digico's EXEC is an operating system designed exclusively for the Digico M16V central processor. Multi-user BASIC will provide access to a maximum of 16 terminals. Five programs are included in EXEC: Nominal 1, Magnetic Tape, Disc Operating System, Disc File Handling, and Console Control. Minimum memory required is 1K, however the M16V may be expanded to a maximum of 6K.

MARKETING
Latest Release: 5/76
First Installed: 12/72
Current Users: 60

COMMUNICATIONS
Communications: syn, asyn, ICL discipline
Peripherals: N/A

PRICES
Documentation: N/A
Training: N/A
Purchase: $40
Lease: N/A
Maintenance: N/A

CHARACTERISTICS
OS Type: Single or multiprogramming
Memory Management: User per partition
Simultaneous Users: 16
Programs in Package: 5
Languages: Assembler, BASIC
Compatibility: 1K
Main Memory:

---

M Multi-user with DINOS.
B Also, read after write and retry.

SOFTWARE OPERATING SYSTEMS
OS NAME: DICOM INDUSTRIES CMTOS
Cassette Magnetic Tape Operating Systems (CMTOS) is a proprietary software/hardware operating system which provides the DEC PDP-8 computer user with system capabilities and efficiencies previously available only in more expensive multiple-transport magnetic tape systems. Executive interpreted commands direct complete “hands-off” multi-pass assemblies, compilations, and system utility functions. CMTOS requires a three transport PDP-9 cassette computer system and replaces all system paper tape functions.

MARKETING
Latest Release: 1974
First Installed: 1971
Current Users: 900 (8/76)

CHARACTERISTICS
OS Type: Interactive
Memory Management: Single user
Simultaneous Users: 1
Programs in Package: 20

Languages: BASIC (single user) FORTRAN IV, ALGOL, Assembler
Compatibility: DEC PDP-8, PDP-11, All Data General, all HP 2100 Series
Main Memory: 8K

Communications: DICOM Cassette #344
Peripherals: System Type:
Diagnostics: None
Debugging tools: On-line debug program

PRICES
Documentation: Included
Training: $300
Purchase: $1000
Lease: N/A
Maintenance:

OS NAME: DICOM INDUSTRIES FOOS-II
FOOS-II is a flexible disk operating system designed specifically for use on the Hewlett-Packard 21 series of minicomputers. The assembly language provided is identical to the one used with the Hewlett-Packard 21 series, and requires a minimum of 8K-words of main memory. The only required I/O device is a 33 ASR Teletype (10 cps), or compatible CRT keyboard/display.

MARKETING
Latest Release: 7/76
First Installed: 6/73
Current Users: 80

CHARACTERISTICS
OS Type: Interactive
Memory Management: Single user
Simultaneous Users: N/A
Programs in Package: N/A

Languages: DOS-M-FDS-2, FORTRAN II, RTE-II/III-FDS-2, Assembler
Compatibility: Hewlett-Packard HP 21XX
Main Memory: 8K

Communications: RS 232-C, Asyn
Peripherals: 422 Floppy Disk;
33 ASR TTY
System Type: Single user
Diagnostics: N/A
Debugging tools: Interactive Debugger

PRICES
Documentation: Included
Training: N/A
Purchase: $1,000
Lease: N/A
Maintenance: none

SOFTWARE OPERATING SYSTEMS
OS NAME: DIGITAL COMPUTER EOS
Extended Operating Systems (EOS) is a multi-terminal, time-sharing system that is designed to simultaneously support real-time data acquisition and process control, data communications, interactive time-sharing and background data processing. EOS features an enriched ANSI Fortran Compiler, Business Basic, Microassembler, Report Writer, Text Editor, peripheral spooler, Library File Editor, and a program debugging package. EOS operates on any of the DCC "16 Series" family of processors.

MARKETING
Latest Release: 3/76
First Installed: 3/76
Current Users: 60 (6/76)
Communications: async line unit
Peripherals: Teletype and Disk
System Type: Diagnostics: yes
Debugging tools: Interactive debug programs (B2UP and DSP)

CHARACTERISTICS
OS Type: Interactive, 1 partition
Memory Management: Single user
Simultaneous Users: 16
Programs in Package:

Languages: FORTRAN, BASIC
Compatibility: DATA GENERAL Nova Series
Main Memory: 16K

OS NAME: DIGITAL COMPUTER IRIS
Interactive Real-Time Information System (IRIS) is an operating system for DCC's 16-bit minicomputers. IRIS is a multilingual, file oriented system that operates in real-time, batch, or time-sharing modes. Features include concurrent time-sharing and batch processing, random index file access, support for up to 16 time-sharing terminals, a user accounting system, a security system and an extensive program library. Business BASIC, a business oriented extended BASIC with COBOL-like formatted output, and extended precision-arithmetic is available.

MARKETING
Latest Release:
First Installed:
Current Users:

CHARACTERISTICS
OS Type: Interactive
Memory Management: No relocations
Simultaneous Users: 16
Programs in Package:

Languages: Business BASIC
Compatibility: Digital Computer Controls D116
Main Memory: 16K

SOFTWARE OPERATING SYSTEMS
**OS NAME:** DIGITAL COMPUTER MSOS  
Mass Storage Operating System (MSOS) is a real-time operating system for use with random access storage devices, such as disks and drums, as well as with sequentially accessed storage units such as magnetic tapes. Features include separate file directories for each user, contiguous and linked files, file overlay and swapping by program request, and capability to enter requests during system operation to create, delete, rename and modify files via operator or program control.

<table>
<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>Latest Release:</td>
<td>Communications: async line unit</td>
</tr>
<tr>
<td>First Installed:</td>
<td>Peripherals: ASR 33 Teletype, Real-time clock, Mass storage device</td>
</tr>
<tr>
<td>Current Users:</td>
<td>System Type:</td>
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<tr>
<td></td>
<td>Diagnostics: yes</td>
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<td></td>
<td>Debugging tools: Extended debug programs</td>
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</tbody>
</table>

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<tr>
<th>CHARACTERISTICS</th>
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<tbody>
<tr>
<td>OS Type: Interactive</td>
<td></td>
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<tr>
<td>Memory Management: Single user</td>
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<tr>
<td>Simultaneous Users:</td>
<td></td>
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<tr>
<td>Programs in Package:</td>
<td></td>
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<tr>
<td>Languages: FORTRAN, BASIC</td>
<td></td>
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<tr>
<td>Compatibility: Digital Computer D116</td>
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<tr>
<td>Main Memory: 12K</td>
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</tbody>
</table>

**OS NAME:** ELECTRONIC ASSOC DOS  
DOS is a disk oriented control system which consists of the system loader, monitor, I/O routines, and system programs. The system loader is used to load system subroutines and system constants into memory. Programs are read into core from the disk through use of EAI's Standard Universal Hardware Bootstrap. The Control Option Processor (COP) and Job Control Language (JCL) processor are included under DOS.

<table>
<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>Latest Release:</td>
<td>Communications: syn, async</td>
</tr>
<tr>
<td>First Installed:</td>
<td>Peripherals: Console and floppy disk or cartridge disk</td>
</tr>
<tr>
<td>Current Users:</td>
<td>System Type:</td>
</tr>
<tr>
<td></td>
<td>Diagnostics: Diagnostic software package</td>
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<td></td>
<td>Debugging tools:</td>
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<tr>
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<tbody>
<tr>
<td>OS Type: Batch</td>
<td></td>
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<tr>
<td>Memory Management: Single user</td>
<td></td>
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<tr>
<td>Simultaneous Users: 1</td>
<td></td>
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<tr>
<td>Programs in Package: 15</td>
<td></td>
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<tr>
<td>Languages: FORTRAN a</td>
<td></td>
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<tr>
<td>Compatibility: EAI PACER 100</td>
<td></td>
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<tr>
<td>Main Memory: 16K</td>
<td></td>
</tr>
</tbody>
</table>

**SOFTWARE OPERATING SYSTEMS**

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\(a\) FORTRAN Assembler with hybrid interpreter similar to BASIC.
**OS NAME:** ELECTRONIC ASSOC FDOS

Floppy Disc Operating System (FDOS) is a batch operating system designed to replace the Cartridge Operating System (COS) and Tape Operating System (TOS). FDOS has many DOS features including support for the Control Option Processor (COP), and a Job Control Language (JCL) processor.

<table>
<thead>
<tr>
<th>MARKETING</th>
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<tbody>
<tr>
<td>Latest Release: 5/76</td>
</tr>
<tr>
<td>First Installed: 5/76</td>
</tr>
<tr>
<td>Current Users: 10 (8/76)</td>
</tr>
<tr>
<td>Communications: syn, asyn</td>
</tr>
<tr>
<td>Peripherals: Console and floppy disk or cartridge disk</td>
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<tr>
<td>System Type:</td>
</tr>
<tr>
<td>Diagnostics: Diagnostic software pkg.</td>
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<tr>
<td>Debugging tools: OEDIPUS debug program</td>
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</tbody>
</table>

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<tr>
<th>CHARACTERISTICS</th>
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<tbody>
<tr>
<td>OS Type: Batch</td>
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<tr>
<td>Memory Management: Single user</td>
</tr>
<tr>
<td>Simultaneous Users: 1</td>
</tr>
<tr>
<td>Programs in Package: 15</td>
</tr>
<tr>
<td>Languages: FORTRAN&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Compatibility: 16K</td>
</tr>
<tr>
<td>Main Memory:</td>
</tr>
<tr>
<td>Purchased: Included in system cost</td>
</tr>
<tr>
<td>Lease: N/A</td>
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<tr>
<td>Maintenance: 1 year warranty</td>
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</tbody>
</table>

**OS NAME:** ELECTRONIC ASSOC RTOS

Real-Time Operating System (RTOS) is a powerful multi-task operating system designed for use in real-time environment. In addition to supervising the systematic and efficient running of real-time foreground programs, RTOS provides a background program development and data reduction capability. This capability effectively gives the user two ports to his computer. RTOS allocates and deallocates memory for foreground and background operations as required.

<table>
<thead>
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<tbody>
<tr>
<td>Latest Release: 9/76</td>
</tr>
<tr>
<td>First Installed: 9/74</td>
</tr>
<tr>
<td>Current Users: 35 (8/76)</td>
</tr>
<tr>
<td>Communications: syn, asyn</td>
</tr>
<tr>
<td>Peripherals: Console and floppy disk or cartridge disk</td>
</tr>
<tr>
<td>System Type: Multiprogramming</td>
</tr>
<tr>
<td>Diagnostics: Diagnostic software pkg.</td>
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<tr>
<td>Debugging tools: OEDIPUS debug program</td>
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</tbody>
</table>

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<thead>
<tr>
<th>CHARACTERISTICS</th>
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</thead>
<tbody>
<tr>
<td>OS Type: Interactive, 2 partitions</td>
</tr>
<tr>
<td>Memory Management: Dual user</td>
</tr>
<tr>
<td>Simultaneous Users: 2</td>
</tr>
<tr>
<td>Programs in Package: 15</td>
</tr>
<tr>
<td>Languages: FORTRAN&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Compatibility: EAI PACER 100</td>
</tr>
<tr>
<td>Main Memory: 16K</td>
</tr>
<tr>
<td>Purchase: Included in system cost</td>
</tr>
<tr>
<td>Lease: N/A</td>
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<tr>
<td>Maintenance: 1 year warranty</td>
</tr>
</tbody>
</table>

<sup>a,b</sup>FORTRAN Assembler with hybrid interpreter similar to BASIC.

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**SOFTWARE OPERATING SYSTEMS**
**OS NAME:** FORTH

FORTH provides virtual memory on disk or tape and the ability to multiprogram several concurrent tasks for on-line control, data acquisition and analysis, and control-language interfacing. FORTH is being used on at least 12 different manufacturer's computers, and can be adapted to others as required. The complete operating system, including compiler, assembler, and application program resides in 4K (16-bit word) core.

**MARKETING**

Latest Release: 5/76  
First Installed: 1/74  
Current Users: 50

**CHARACTERISTICS**

OS Type: Real-time  
Memory Management: Virtual  
Simultaneous Users: limited by hdw.  
Programs in Package: 1  
Languages: FORTH  
Compatibility: see manufacturer  
Main Memory: 4K

Communications: Hardware dependent  
Peripherals: Disk  
System Type: Multiprogramming  
Diagnostics: yes  
Debugging tools: Interactive aids

**PRICES**

Documentation: Included  
Training: $600/4 days  
Purchase: $10,000  
Lease: N/A  
Maintenance: N/A

---

**OS NAME:** GEC COMPUTERS DOS

DOS is a disk-oriented operating system which requires a minimum of one 10MB disc. Other peripherals supported include a range of line printers offering speeds from 500 to 1250 lines-per-minute, and a variety of industry-compatible magnetic tape drives, paper tape readers and punches, and card readers. The system is specifically designed for use on the GEC 4000 series.

**MARKETING**

Latest Release: 1/76  
First Installed: 11/73  
Current Users: 63

**CHARACTERISTICS**

OS Type: Real-time  
Memory Management: virtual  
Simultaneous Users: 1  
Programs in Package: 50  
Languages: FORTRAN, CORAL, BABBAGE  
Compatibility: All GEC 4000 series  
Main Memory: 62KB

Communications: IBM Discipline  
Peripherals: 10MB Disc  
System Type: Multiprogramming  
Diagnostics: yes  
Debugging tools: Interactive aids

**PRICES**

Documentation:  
Training:  
Purchase:  
Lease:  
Maintenance:
OS NAME: GEC COMPUTERS OS 4000
OS 4000 is a disk-oriented operating system which requires a minimum of two 10MB disks. Other peripherals supported include a range of line printers offering speeds from 300 to 1250 lines per minute, and a variety of industry-compatible magnetic tape drives, paper tape readers and punches, and card readers. Communications to teleprinters, CRT displays, and IBM 360/370 systems (IBM via HASP) are provided.

MARKETING
Latest Release: 6/76
First Installed: 4/76
Current Users: 3

CHARACTERISTICS
OS Type: Multi-access
Memory Management: Virtual
Simultaneous Users: 16
Programs in Package: 80
Languages: BASIC, FORTRAN, CORAL, BABBAGE
Compatibility: All GEC 4000 series
Main Memory: 128KB

Communications: IBM discipline
Peripherals: Two disks (10, 35, 60MB)
System Type: Multiprogramming
Diagnostics: yes
Debugging tools: Interactive aids

PRICES
Documentation:
Training:
Purchase:
Lease:
Maintenance:

OS NAME: GRI COMPUTER OS/99
OS/99 is a multi user interactive operating system designed for the GRI System 99 computer. Features include independent core partitions, interactive RPG II Programming language, and low core memory requirements. Applications programs available with OS/99 include packaged savings and loan, inventory management, client time report, and wholesale distributor shipping control. Also available are general, client, law office, small college, and federal oil dealership accounting program packages.

MARKETING
Latest Release: 3/76
First Installed: 1/74
Current Users: 75-100 (8/76)

CHARACTERISTICS
OS Type: Interactive, 6 partitions
Memory Management: Multi-user
Simultaneous Users: 6
Programs in Package:
Languages: Interactive RPG II
Compatibility: GRI System 99
Main Memory: 8K

Communications: asyn, bisyn
Peripherals: Keyboard/Display (640 or 1280 char.) Up to 4 disks, printer
System Type: Multiprogramming
Diagnostics: yes-extensive
Debugging tools: yes

PRICES
Documentation: Included
Training: $500/Man/Week
Purchase: Included in System Cost
Lease: N/A
Maintenance: Approx. 75% of list price/mo.

a64 partitions starting January 1, 1977.
bRelocatable.
OS NAME: HARRIS DMS
Disc Monitor System (DMS) is an operating system which provides foreground real-time processing concurrent with queued background batch processing. Real-time events are handled by a mix of software and hardware to provide optimum response. DMS is expandable from a minimal batch configuration to a large scale system that supports spooled I/O, remote and local interactive terminals, dynamic memory allocation, timer-scheduled programs, and dynamic file creation. DMS can also support remote job entry emulation to a "foreign" system such as CDC, IBM, or Univac.

MARKETING
Latest Release: 6/76
First Installed: 12/71
Current Users: 50 (7/76)

CHARACTERISTICS
OS Type: Batch, Interactive
Memory Management: Relocatable
Simultaneous Users: 16
Programs in Package: 12 plus hardware diagnostics
Languages: Assembler, FORTRAN, BASIC, RPG, SNOBOL IV
Compatibility: HARRIS SLASH 1, 3, 4, 5, 6, 7, 4VM, 7VM
Main Memory: 48KB

Communications: RJE: IBM, CDC, Univac
Peripherals: TTY (110 or 300 baud) or CRT (up to 9600 baud) + Disk 5.4 to 80MB
System Type: Diagnostics: yes
Debugging tools: Debug package, Object Time Trace.

PRICES
Documentation: $25. DMS Manual-$150. Full Set
Training: $500 per student
Purchase: Each RJE subsystem - $5000.

OS NAME: HARRIS DOS
Disk Operating System (DOS) is a real-time software system compatible with Harris ROS and TOS systems. Similar to TOS, DOS has non-resident linking and loading from disk files, resident disc file management services, a 3K overhead buffer, and processor, source, library, and name file editors. DOS also features the Job Control Language (JCL) operator communication facilities, relocating link loader, debugging and trace facilities and asynchronous, logical file oriented input/output processing.

MARKETING
Latest Release: 7/75
First Installed: 1970
Current Users: 50 (7/76)

CHARACTERISTICS
OS Type: Batch
Memory Management: Relocatable
Simultaneous Users: 1
Programs in Package: 11 plus hardware diagnostics
Languages: SNOBOL IV, RPG, Assembler
Extended BASIC + FORTRAN IV
Compatibility: Harris Slash 1, 3, 4, 5, 6, 7, 4VM, 7VM
Main Memory: 24KB

Communications: None
Peripherals: TTY (110 or 300 baud), and Disk 2.7MB or 80MB
System Type: Diagnostics: yes
Debugging tools: Debug Package, Object Time Trace

PRICES
Documentation: $142-full set
Training: $250 per student
Purchase: Included in system cost
Maintenance: Included

a $1530 for on site course plus documentation per person and instructions expenses.

SOFTWARE OPERATING SYSTEMS
### OS NAME: Harris ROS

Resident Operating System (ROS) is a foreground/background processing software system that requires no mass storage. ROS features memory file management which allows background job execution at foreground discretion, flexible I/O structure that supports double buffering and concurrent I/O, and a 3K overhead buffer. ROS also features operator communication facilities, relocating link loader, Job Control Language (JCL), debugging and trace facilities, and asynchronous logical file oriented input/output processing.

#### MARKETING
- **Latest Release:** 7/75
- **First Installed:** 1969
- **Current Users:** 110 (7/76)

#### CHARACTERISTICS
- **OS Type:** Batch
- **Memory Management:** Relocatable
- **Simultaneous Users:** 1
- **Programs in Package:** 11 plus hardware diagnostics
- **Languages:** Assembler, BASIC, SNOBOL IV, RPG, FORTRAN
- **Compatibility:** Harris SLASH 1, 3, 4, 5, 6, 7, 4VM, 7VM
- **Main Memory:** 24KB

#### PRICES
- **Communications:** None
- **Peripherals:** TTY (110 or 300 baud) and paper tape, or card reader
- **System Type:** Diagnostics: yes
- **Debugging tools:** Debug package. Object Time Trace
- **Documentation:** $140-Full set
- **Training:** $250. per student\(^a\)
- **Purchase:** Included in system cost
- **Lease:** N/A
- **Maintenance:** Included

### OS NAME: Harris TOS

Tape Operating System (TOS) is a real-time system software compatible with Harris ROS. TOS allows non-resident linking and loading of tape files, a 3K overhead buffer, and processor file, library file and source file editors. Like ROS, TOS features foreground/background operation, Job Control Language (JCL) for job stream input, operator communications facilities, relocating link loader, debugging and trace facilities, and asynchronous, logical file oriented input/output processing.

#### MARKETING
- **Latest Release:** 7/75
- **First Installed:** 1/71
- **Current Users:** 30 (7/76)

#### CHARACTERISTICS
- **OS Type:** Batch
- **Memory Management:** Relocatable
- **Simultaneous Users:** 1
- **Programs in Package:** 11 plus hardware diagnostics
- **Languages:** Assembler, BASIC, RPG, SNOBOL IV, FORTRAN
- **Compatibility:** Harris SLASH 1, 3, 4, 5, 6, 7, 4VM, 7VM
- **Main Memory:** 24KB

#### PRICES
- **Communications:** None
- **Peripherals:** TTY (110 or 300 baud), and Mag. tape drive - 45 ips
- **System Type:** Diagnostics: Diagnostic control panel
- **Debugging tools:** Debug Package. Object Time Trace
- **Documentation:** $140 Full set
- **Training:** $250. per student\(^b\)
- **Purchase:** Included in system cost
- **Lease:** N/A
- **Maintenance:** Included

\(^a\),\(^b\):$1350. plus documentation per student and instructor's expenses on site.

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**SOFTWARE OPERATING SYSTEMS**
OS NAME: HARRIS VULCAN
Vulcan is a virtual core management operating system which provides concurrent time sharing, multi-batch, real-time processing. Vulcan was designed as an expandable software system, and was developed concurrently with the Slash 4 Virtual Memory hardware. Vulcan supports disc storage as required for a given system application and features file editing, batch, remote job and real-time program initiation, concurrent job processing, remote job entry, automatic I/O spooling, high-response program execution, and inter-program communications.

MARKETING
Latest Release: 6/76
First Installed: 8/76
Current Users: 25 (7/76)

CHARACTERISTICS
OS Type: Batch, Interactive
Memory Management: Virtual memory
Simultaneous Users: 64
Programs in Package: 12 plus hardware diagnostics
Languages: Assembler, FORTRAN, COBOL
RPG, TOTAL, VULCAN
Compatibility: HARRIS S100 and S200 computer systems (SLASH 4VM and 7VM CPU's)
Main Memory: 96KB

OS NAME: HEWLETT-PACKARD RTE III
Real-Time Executive III (RTE III) is a multiprogramming operating system which is multilingual, and has a multiterminal monitor. Features include a hardware fence register for memory protection, device independence, a relocating loader 2780 emulation, and an interactive editor which allows on-line disk-based program development. As many as 64 disk-based programs on reside in memory at one time.

MARKETING
Latest Release: 8/76
First Installed: 2/76
Current Users: 30+ (8/76)

CHARACTERISTICS
OS Type: Interactive Batch, 64 part.
Memory Management:
Simultaneous Users: 8+(Oper. dependent)
Programs in Package:
Languages: BASIC (multi-user), FORTRAN, ALGOL, Assembler
Compatibility: Hewlett-Packard HP 21MX Series (2105, 2108, 2112)
Main Memory: 32K

aData Base Management System.
bJob Control Interactive Command Language.
c$2700. plus documentation per student and instructions expenses for on site course.

SOFTWARE OPERATING SYSTEMS
OS NAME: HONEYWELL GCOS Series 60 Level 64

General Comprehensive Operating System (GCOS) is a powerful software system designed to provide the Series 60, Level 64 user with multiprogramming, main memory management, and fail-safe capability. Modular system design and extensive peripheral and communications processing support allow the user to specify an operating system tailored to his needs. Additional features include sophisticated data management tools, language processing (COBOL, FORTRAN, EASYCODER), error recovery, automatic volume overload recognition, and device independence.

MARKETING
Latest Release: 3/76
First Installed: 8/75
Current Users: N/A

CHARACTERISTICS
OS Type: Batch, 6 partitions
Memory Management: Multi-user
Simultaneous Users: 4
Programs in Package:
Languages: COBOL, FORTRAN, EASYCODER
Compatibility: HONEYWELL Series 60 Level 64 (Models 20 - 40)
Main Memory: 16K

Communications: Up to 6 lines
Peripherals: 2 disks (MSU Series), console (CSU4100), Card RD, Line Printer
System Type: Multiprogramming
Diagnostics: Automatic Error Logging
Debugging tools: Standard CODASYL DEBUG

PRICES
Documentation: Included
Training: $300/student (2 basic courses)
Purchase: $156/month (program tools)
Lease: N/A
Maintenance: No cost

OS NAME: IBM BOS/360

Basic Operating System (BOS/360) is a disk-resident software system designed to provide operating system capabilities for 8K and larger System/360 configurations. This operating system is used specifically in 2311 disk drive configurations. System/360 hardware configurations above 8K requiring disk-oriented stack job operations which do not require the expanded functions of DOS/360 or OS/360, can use BOS/360. Users tailor the BOS/360 to their installation configurations and processing requirements.

MARKETING
Latest Release:
First Installed:
Current Users:

CHARACTERISTICS
OS Type:
Memory Management: Multi-user
Simultaneous Users:
Programs in Package: 15
Languages: RPG, Assembly
Compatibility: IBM System/360
Main Memory: 8K

Communications: syn, (BTAM)
Peripherals: Disk (#2311); Card RD, PN; Printer, Keyboard Printer (#1052)
System Type: Multiprogramming
Diagnostics: OLTEX
Debugging tools: Autotest

PRICES
Documentation:
Training:
Purchase:
Lease:
Maintenance:

On-line Text Executive Program.

aVariable size partitions
bRelocatable.
cOS resides in 6K

SOFTWARE OPERATING SYSTEMS
OS NAME: IBM DOS/VS
DOS/VS is a disk-resident operating system which operates in Extended Control (EC) mode only. Dynamic Address Translation (DAT) is used to provide virtual storage support. The DOS/VS includes sequential access methods for data management, virtual, basic, and queued telecommunications access methods for telecommunications support, utility programs, tape and disk error recovery procedures; and the on-line Test Executive Program for diagnostic aid.

MARKETING
Latest Release: Communications: syn (VTAM)
First Installed: Peripherals: 3 or 4 disks; Printer,
Current Users: Console, Mag.Tape, Card RD, PN.

CHARACTERISTICS
OS Type: Interactive, Batch, 5 part. System Type: Multiprog.,-proc.
Memory Management: Virtual Diagnostics: OLTEx
Simultaneous Users: Debugging tools:
Programs in Package: 30+

Languages: ANS COBOL, COBOL D,
FORTRAN, PL/1
Compatibility: IBM System/370 Models
115,125,135,138,145,148,155 II,158
Main Memory:

OS NAME: IBM DOS/360
Disc Operation System (DOS/360) is a disk resident system designed to provide operating system capabilities for System/360 and System/370 computers. Available under the single partition system with foreground and background modes are symbolic device addressing, automatic job-to-job transaction, and library maintenance functions. DOS can run as a multi-programming system with multiprogramming specified at system generation time. Each user program partition may be altered by the operator to satisfy software program requirements during system operation.

MARKETING
Latest Release: Communications: syn (BTAM, QTAM)
First Installed: Peripherals: Disk (231x), Card RD,
Current Users: PN, Keyboard

CHARACTERISTICS
OS Type: Interactive Batch System Type: Multiprogramming
Memory Management: Multi-user Diagnostics: OLTEx
Simultaneous Users: Debugging tools: Autotest
Programs in Package: 40+

Languages: ANS COBOL, COBOL-D,
FORTRAN IV, PL/1, RPG, Assembly
Compatibility: IBM System/360 (System/370 support later DOS/360 releases)
Main Memory: 24K

a,b On-Line Text Executive Program.

SOFTWARE OPERATING SYSTEMS
OS NAME: IBM OS/VS 1

OS/VS1 is a virtual storage operating system compatible with the OS/360 Multiprogramming operating system with a fixed number of tasks. OS/VS1 provides up to 16 megabytes of virtual storage independent of the main memory size. Virtual Storage is the name given to the address space referenced by a System/370 processor which has the Dynamic Address Translation feature. Features of the OS/VS1 Supervisor include task dispatching in up to 15 software program partitions, and task and I/O supervision.

MARKETING
Latest Release:
First Installed: 1971
Current Users:

CHARACTERISTICS
OS Type: Interactive, Batch, 15 part.
Memory Management: Virtual
Simultaneous Users:
Programs in Package: 30+

Languages: RPG, FORTRAN, COBOL, PL/1, ALGOL, Assembly
Main Memory: 144K-4M

Communications: syn (VTAM, TCAM)
Peripherals: 3 or 4 disks; printer, console, Mag.Tape, Card Rd, PN
System Type: Multiprog.,-Proc.
Diagnostics: OLTEPA
Debugging tools: Generalized Trace Facility (GTF), Dynamic Support Sys. (DSS)

PRICES
Documented:
Training:
Pricing:

OS NAME: IBM OS/VS 2

OS/VS 2 is a virtual storage operating system upward compatible from OS/VS 1. Standard features common to the OS/VS 1 and OS/VS 2 are Password Protected Page File, Protected Task I/O Table (TIOT), and Authorized Program Facility (APF). In addition, optional features on the OS/VS 1 which are standard on the OS/VS 2 are Data Extent Block (DEB) validity checking and fetch protect. Region Protection is a standard feature of the OS/VS 2 not available on the OS/VS 1.

MARKETING
Latest Release:
First Installed:
Current Users:

CHARACTERISTICS
OS Type: Interactive, Batch, 5 part.
Memory Management: Virtual
Simultaneous Users:
Programs in Package: 30+

Languages: FORTRAN, COBOL, PL/1, BASIC, Assembly
Main Memory: 348K, 768Kb

Communications: syn (VTAM, TCAM)
Peripherals: 3 or 4 Disks; Printer, Console, Mag.Tape, Card Rd, PN
System Type: Multi-prog., proc.
Diagnostics: OLTEPC
Debugging tools: Generalized Trace Facility (GTF), Dynamic Support Sys. (DSS)

PRICES
Documented:
Training:
Pricing:

a, c On-Line Test Executive Program.
b 348K for releases 1, 748K for release 2.

SOFTWARE OPERATING SYSTEMS

B26

COMPUTER REVIEW
© Copyright GML Corporation 1977/No. 1
OS NAME: IBM OS/360
OS/360 is the most comprehensive operating system available to users with 64K or more of core storage. OS/360 offers a broad range of control program options, language processors, I/O device support, application programs, and service programs to meet the needs of users who require the extensive facilities of a large operating system. Features include device independence, dynamic program loading facilities, Primary Control Program (PCP), and multiprocessing with a Fixed number of Tasks (MFT) or a variable number of tasks (MVT).

MARKETING
Latest Release: Communications: syn (BTAM, QTAM, TCAM)
First Installed: Peripherals: Direct access storage
current Users: device (#23xx & #3330)
Current Users: System Type: Multiprog.,-proc.
CHARACTERISTICS
OS Type: Interactive, Batch Diagnostics: OLTPc
Memory Management: Multi-user Debugging tools: Generalized Trace Facili-
Simultaneous Users: ty (GTF)
Programs in Package: 30+
Languages: RPG, COBOL, FORTRAN, PL/I, Lease:
ALGOL, Assembler Main memory:
Compatibility: IBM System/360, Maintenance:
System/370
Main Memory: 64K (360), 512K (370)

OS NAME: IBM TOS/360
Tape Operating System (TOS/360) is a tape resident system which provides operating system capabilities for 16K and larger System/360 configurations. Prerequisite for the proper functioning of the TOS/360 are engineering changes to the System/360 hardware. TOS/360 is composed of control programs and processing programs. Control program I/O functions include System Residency, System Reader, System Input, System List, System Punch and System Log. Processing programs include programming languages and compilers.

MARKETING
Latest Release: Communications:
First Installed: Peripherals: Mag. Tape (2400/3400),
Current Users: Card RD, PN, Printer, Keyboard/printer

CHARACTERISTICS
OS Type: Interactive, Batch, 3 part. System Type: Multiprogramming
Memory Management: Multi-user Diagnostics: OLTPbd
Simultaneous Users: Debugging tools: Autotest
Programs in Package: 13
Languages: RPG, COBOL, FORTRAN IV, Lease:
PL/1 Architecture
Compatibility: IBM System/360 Main memory:

Main Memory: 16K (32K-multiprogram)

On-Line Test Executive Program.

SOFTWARE OPERATING SYSTEMS

1977/No. 1

COMPUTER REVIEW
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B27
**OS NAME:** IBM VM/370  
Virtual Machine Facility (VM/370) is a multiple-access time-sharing system. VM/370 contains three major elements: a control program which provides an environment for multiple virtual machines, also providing virtual support for operating systems that do not offer such support; the Conversational Monitor System (CMS) which provides a general purpose, conversational time-sharing system environment; and the Remote Spooling Communications Subsystem (RSCS). System/370 Models 158MP and 168M are supported in uniprocessor configurations only.

| MARKETING |  |  |
|-----------|-------------------------------------------------------------|
| Latest Release: | Communications: syn (VTAM, TCAM)  |
| First Installed: | Peripherals: Disk, Mag. Tape, Printer,  |
| Current Users: | Console, Card RD, PN.  |

| CHARACTERISTICS |  |  |
|-----------------|-------------------------------------------------------------|
| OS Type: Interactive, Batch | System Type: Multiprogrammed, proc.  |
| Memory Management: Virtual | Diagnostics: DLTEPA  |
| Simultaneous Users: | Debugging tools:  |
| Programs in Package: |  |

| Languages: COBOL, FORTRAN IV, PL/I, BASIC, APL/CMS, MATH/6, STAT/BASIC |  |
| Main Memory: 240K |  |

**OS NAME:** INTERDATA OS/16 M72  
OS/16 M72 is a real-time Multi-Tasking operating system designed for the requirements of real-time applications. OS/16 M72 allows the user to minimize memory requirements by using disk memory to store non-time critical OS functions. Features include up to 256 task priorities, task scheduling, Intersect Communications, overlay facilities, file protection at file, and task levels and device independent I/O.

| MARKETING |  |  |
|-----------|-------------------------------------------------------------|
| Latest Release: | Communications: asyn, bissyn (ITAM/16)  |
| First Installed: | Peripherals: Console  |
| Current Users: | System Type: Multiprogramming  |
| 27 (6/76) | Diagnostics: None  |

| CHARACTERISTICS |  |  |
|-----------------|-------------------------------------------------------------|
| OS Type: Batch, Interactive, 255 part. | Debugging tools: Interactive Debugger  |
| Memory Management: Multi-user | (OS/AIDS)  |
| Simultaneous Users: 80 |  |
| Programs in Package: 15 |  |

| Languages: FORTRAN, Assembler, MACRO-Assembler, BASIC |  |
| Compatibility: Interdata 5/16, 6/16, 8/16 |  |
| Main Memory: 16KB-40KB |  |

---

*a On-Line Test Executive Program.  

b (20-24KB Typical).  

c 2780/3780 discipline.

**SOFTWARE OPERATING SYSTEMS**
OS NAME: INTERDATA OS/32 MT
The OS/32 MT is an operating system structured to be responsive in single, parallel, and multi-tasking environments. As the more powerful counterpart of OS/16 MT2, the 32 bit oriented OS/32 MT has all of the features of the OS/16 MT2 as well as dynamic program relocation, random and sequential access methods, clock service, error recovery at task and operator level, task administration, and overlapped I/O. A minimal operating system requires 40K core memory, a real-time clock, Carousel printer and magnetic tape cassette storage.

MARKETING
Latest Release: 5/76
First Installed: 10/74
Current Users: 170 (6/76)

CHARACTERISTICS
OS Type: Batch, Interactive, 255 part.
Memory Management: Multi-user
Simultaneous Users: 255
Programs in Package: 20

Languages: FORTRAN, Assembler, COBOL, Lease: N/A
MACRO-Assembler, BASIC
Compatibility: Interdata 7/32, 8/32

Main Memory: 48KB - 70KB

OS NAME: LOCKHEED DOS/2
DOS/2 (Disk Operating System/2) is a multiprocessing and multiprogramming operating system for use with Lockheed's System II and System III, and Servus' System 80 and System 100. A video display unit serves as the operator's console. Documentation and training are bundled in system cost. DOS/2 is sold only with Lockheed Systems and Servus Systems. Maintenance cost depends upon configuration.

MARKETING
Latest Release: 6/76
First Installed: 1/73
Current Users: 150

CHARACTERISTICS
OS Type: N/A
Memory Management: N/A
Simultaneous Users: 1
Programs in Package: N/A

Languages: RPG II, FORTRAN

Compatibility: Lockheed II, III; Servus 80, 100

Main Memory: 16KB

COMMUNICATIONS: asynchronous
PERIPHERALS: 9MB disk, video displays
SYSTEM TYPE: multipro., -prog.
DIAGNOSTICS: yes
DEBUGGING TOOLS: DEBUG Package

PRICES
DOCUMENTATION: Included
TRAINING: Included
PURCHASE: $5000C (no license req.)
LEASE: None
MAINTENANCE:

60KB Typical
2780/3780/HASP discipline
Include Installation and Operating training (up to 3 days).

SOFTWARE OPERATING SYSTEMS
OS NAME: LOCKHEED MOS
MOS (Multi-user Operating System) is a multiprocessing and multiprogramming operating system for use with Lockheed's System II and System III, and Servus' System 80 and System 100. A video display unit serves as the operator's console. Documentation and training are bundled in system cost. MOS is sold only with Lockheed Systems and Servus Systems. Maintenance cost depends upon configuration.

MARKETING
Latest Release: 6/76
First Installed: 1/75
Current Users: 100

CHARACTERISTICS
OS Type: Two partitions
Memory Management:
Simultaneous Users: 9
Programs in Package: N/A
Languages: RPG II, FORTRAN
Compatibility: Lockheed II, III; Servus 80, 100
Main Memory: 24KB

Communications: Asynchronous
Peripherals: 5MB Disk, video displays
System Type: Multiproc.,-prog.
Diagnostics: yes
Debugging tools: DEBUG Package

PRICES
Documentation: Included
Training: Included
Purchase:
Lease:
Maintenance:

OS NAME: MICRODATA EXPRESS
The Microdata Express is a virtual storage operating system designed specifically for the Microdata Express Computer Systems. Express software is built around stack architecture and features an interactive debugging system with which the user may monitor execution, perform selective execution, and display selective data on demand. Express also features a higher level language called EPL (Express Programming Language), an extended version of PL/I.

MARKETING
Latest Release: 1/77
First Installed:
Current Users:

CHARACTERISTICS
OS Type: Batch Interactive
Memory Management: Virtual
Simultaneous Users: 4 to 32
Programs in Package: N/A
Languages: EPL, FORTRAN IV, COBOL, BASIC
Compatibility: All Microdata Express systems
Main Memory: 64KB

Communications: syn, asyn
Peripherals: Disk (10MB), Mag.Tape, Line Printer, Terminal
System Type: Multiprogramming
Diagnostics: Debugging tools: On-line debugging

PRICES
Documentation:
Training:
Purchase:
Lease:
Maintenance:

aUser may monitor execution, perform selective execution and display selective data.

SOFTWARE OPERATING SYSTEMS
<table>
<thead>
<tr>
<th>OS NAME: MICRODATA REALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICRODATA REALITY is an operating system designed for information management applications. REALITY was the first available (1973) small computer system offering virtual memory capability. The entire system resources of reality are managed by a virtual memory operating system implemented in microcode. ENGLISH and the new DATA/BASIC are the operating languages for REALITY although it can support coding in high level RPG II, making it compatible with System/3 programs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>Latest Release: 5/76</td>
</tr>
<tr>
<td>First Installed: 11/73</td>
</tr>
<tr>
<td>Current Users: 585 (8/76)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS Type: Interactive</td>
</tr>
<tr>
<td>Memory Management: Virtual</td>
</tr>
<tr>
<td>Simultaneous Users: 32</td>
</tr>
<tr>
<td>Programs in Package: 30+</td>
</tr>
<tr>
<td>Languages: DATA/BASIC, RPG II, ENGLISH, PROCEDURE, and Assembly</td>
</tr>
<tr>
<td>Compatibility: Microdata 1600 Series</td>
</tr>
<tr>
<td>Main Memory: 16K</td>
</tr>
</tbody>
</table>

| Communications: asyn, bisyn (2780) |
| Peripherals: Disk |
| System Type: Multi-programming, multi-processing |
| Diagnostics: yes |
| Debugging tools: On-line debug program |

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation: Included</td>
</tr>
<tr>
<td>Training: Included</td>
</tr>
<tr>
<td>Purchase: Included in system cost</td>
</tr>
<tr>
<td>Lease: N/A</td>
</tr>
<tr>
<td>Maintenance:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OS NAME: MITSUBISHI UTS/VS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTS/VS is a real-time operating system for use with random access storage devices, such as disks and drums, as well as with sequentially accessed storage units such as magnetic tapes. Features include separate file directories for each user, contiguous and linked files, file overlay and swapping by program request, and capability to enter requests to create, delete, rename and modify files via operator or program control.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKETING</th>
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</thead>
<tbody>
<tr>
<td>Latest Release: 12/75</td>
</tr>
<tr>
<td>First Installed: 12/75</td>
</tr>
<tr>
<td>Current Users:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS Type: Batch a</td>
</tr>
<tr>
<td>Memory Management: Virtual</td>
</tr>
<tr>
<td>Simultaneous Users: 128</td>
</tr>
<tr>
<td>Programs in Package: 16</td>
</tr>
<tr>
<td>Languages: ALGOL, BASIC, COBOL, FORTRAN, META-SYMBOL, APL</td>
</tr>
<tr>
<td>Compatibility:</td>
</tr>
<tr>
<td>Main Memory:</td>
</tr>
</tbody>
</table>

| Communications: Half duplex, 50-9600 bps |
| Peripherals: |
| System Type: Multiprogramming |
| Diagnostics: yes |
| Debugging tools: DELTA, FDP, OCD |

<table>
<thead>
<tr>
<th>PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation:</td>
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<tr>
<td>Training:</td>
</tr>
<tr>
<td>Purchase:</td>
</tr>
<tr>
<td>Lease:</td>
</tr>
<tr>
<td>Maintenance:</td>
</tr>
</tbody>
</table>

aAlso transaction, timesharing, remote batch, and real-time memory management.

SOFTWARE OPERATING SYSTEMS
**OS NAME: MODULAR COMPUTER MAX I**

MAX I is a real-time operating system designed for the assembly language user with very tight core requirements. MAX I is a core-resident multi-programming system capable of running multiple real-time programs and a single batch processing task. MAX I controls and schedules core-resident programs and has an optional non-resident task loading capability. Batch processing functions required by the non-resident task are controlled via Operator Communication Commands which operate the Assembly and Link-editor batch processors.

<table>
<thead>
<tr>
<th>MARKETING</th>
<th>Communications: syn, asyn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest Release</td>
<td>Peripherals: Console</td>
</tr>
<tr>
<td>8/76</td>
<td>System Type: Multiprogramming</td>
</tr>
<tr>
<td>First Installed</td>
<td>Diagnostics: None</td>
</tr>
<tr>
<td>8/74</td>
<td>Debugging tools: On-line debug program</td>
</tr>
<tr>
<td>Current Users:</td>
<td></td>
</tr>
</tbody>
</table>

**CHARACTERISTICS**

OS Type: Batch

- Memory Management: Single user
- Simultaneous Users: 1
- Programs in Package: 12+
- Languages: Assembly

Compatibility: Any Modcomp computer

Main Memory: 4K

**OS NAME: MODULAR COMPUTER MAX II**

MAX II is an operating system designed for the batch-oriented user with limited real-time requirements. MAX II is capable of executing multiple core-resident tasks concurrently with a batch job stream and is available in two versions. The core version has an operator communications package; task activation based on operator directives, interrupts, or another task; interrupt driven I/O for full overlap with task execution; and loader service for non-resident overlay programs. In addition the batch version supports disk and magnetic tape mass storage devices.

<table>
<thead>
<tr>
<th>MARKETING</th>
<th>Communications: syn, asyn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest Release</td>
<td>Peripherals: Console and disk or mag</td>
</tr>
<tr>
<td>8/76</td>
<td>tape</td>
</tr>
<tr>
<td>First Installed</td>
<td>System Type: Multi-programming, -processing</td>
</tr>
<tr>
<td>8/71</td>
<td>Diagnostics: None</td>
</tr>
<tr>
<td>Current Users:</td>
<td>Debugging tools: On-line debug program</td>
</tr>
</tbody>
</table>

**CHARACTERISTICS**

OS Type: Batch, Interactive, 15 part.

- Memory Management: No relocations
- Simultaneous Users: 5
- Programs in Package: 12+
- Languages: FORTRAN IV, BASIC (multi-user).
- Compatibility: Modcomp II, III, IV

Main Memory: 16K

---

**SOFTWARE OPERATING SYSTEMS**
OS NAME: MODULAR COMPUTER  MAX III

MAX III is a real-time task oriented operating system which supports foreground-, and background processing of up to 256 active tasks. Three versions are available. The core version\(^a\) executes core resident foreground tasks in fixed areas of core memory. In addition, the batch version supports magnetic tape and disk storage, has a full-service loader, and allows background processing. Further, the extended version includes checkpointing, and allocates and deallocates core to active tasks.

MARKETING
Latest Release: 8/76
First Installed: 8/71
Current Users: 2000 (8/76)

CHARACTERISTICS
OS Type: Batch, Interactive, 15 part.
Memory Management: No relocations
Simultaneous Users: 5
Programs in Package: 12+

Languages: FORTRAN IV, BASIC (multi-user)
Compatibility: Modcomp II, III, IV

Main Memory: 16K

Communications: syn, asyn
Peripherals: Console and disk or mag tape
System Type: Multi-programming,-processing
Diagnostics: None
Debugging tools: On-line debug program

PRICES
Documentation: Included
Training: $300/wk.
Purchase:
Lease:
Maintenance: $500/yr./System

OS NAME: MODULAR COMPUTER  MAX IV

MAX IV is a real-time task-oriented operating system with all the features of MAX III. In addition MAX IV has hardware relocation, individual core map protection, multiple register sets and standard multiported memories. The MAX IV system loader loads tasks and overlay segments from disk in absolute format. The system core allocator is implemented with special hardware instruction which can allocate core pages quickly and efficiently. Memory protection is provided by a four level keyed hardware scheme and memory mapping.

MARKETING
Latest Release: 8/76
First Installed: 1/74
Current Users: 300 (8/76)

CHARACTERISTICS
OS Type: Batch, Interactive, 15 part.
Memory Management: Virtual
Simultaneous Users: 16
Programs in Package: 12+

Languages: FORTRAN IV, BASIC (multi-user)
Compatibility: Modcomp IV

Main Memory: 16K

Communications: syn, asyn
Peripherals: Console, disk and mag tape or paper tape
System Type: Multi-programming,-processing
Diagnostics: None
Debugging tools: On-line debug program

PRICES
Documentation: Included
Training: $300/wk.
Purchase:
Lease:
Maintenance: $500/yr./System

\(^a\)MAX III core version includes all the features of the MAX II core version.
**OS NAME: MODULAR COMPUTER MAXCOM**

MAXCOM is a specialized operating system for dedicated communications applications which does not require background system processing. MAXCOM supplies the basic program switching mechanism, services, and standard peripherals I/O capability for developing a wide range of communications applications. MAXCOM is core-resident, but an extended version allows non-resident applications programs to operate. Features include dynamic core management, a loader for non-resident tasks and I/O support of synchronous and/or asynchronous communications channels.

**MARKETING**

- Latest Release:  
- First Installed:  
- Current Users:  

**CHARACTERISTICS**

- **OS Type:** Interactive, Batch  
- **Memory Management:** Single user  
- **Simultaneous Users:** 1  
- **Programs in Package:** 1  
- **Languages:**  
- **Compatibility:** Modcomp II, III  
- **Main Memory:** 4-8K  
- **Communications:** syn, asyn  
- **Peripherals:** Console (recommended but not required).  
- **System Type:** Multiprogramming  
- **Diagnostics:** None  
- **Debugging tools:** Stand alone debug program  

**PRICES**

- **Documentation:** Included  
- **Training:** $300/wk.  
- **Purchase:**  
- **Lease:**  
- **Maintenance:**

---

**OS NAME: NANODATA PROD/TASK**

Nanodata PROD/TASK is a multi-user, multiprogramming operating system. PROD is a general operator interface routine with debugging and control capability for microprogramming computers compatible with PROD/TASK. TASK is a test control routine for microprogramming computers and features microprogramming control to emulate QM-I systems.

**MARKETING**

- **Latest Release:** 6/76  
- **First Installed:** 2/75  
- **Current Users:** 7 (6/76)  

**CHARACTERISTICS**

- **OS Type:**  
- **Memory Management:** Multiuser<sup>a</sup>  
- **Simultaneous Users:**  
- **Programs in Package:**  
- **Languages:** ALL  
- **Compatibility:** Nanodata QM-I<sup>b</sup>  
- **Main Memory:** Config. dependent  

- **Communications:** syn, asyn  
- **Peripherals:** Configuration dependent  
- **System Type:** Multiprogramming  
- **Diagnostics:**  
- **Debugging tools:** Full user control and debug package  

**PRICES**

- **Documentation:**  
- **Training:**  
- **Purchase:**  
- **Lease:**  
- **Maintenance:**

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<sup>a</sup>Relocatable.  
<sup>b</sup>Emulated machines include: IBM 360, IBM 7094, NOVA, CDC 160A, PDP-11.

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**SOFTWARE OPERATING SYSTEMS**

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**COMPUTER REVIEW**

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1977/No. 1
OS NAME: PRIME COMPUTER PRIMOS III
PRIMOS III is a virtual memory disk operating system that supports up to 31 simultaneous users. Features include direct, sequential, and indexed sequential access methods, segmented files, nested user file directories, and file access privileges and protection by user assigned passwords. Total memory protection for multiple tasks are assured by the paging system associated with the virtual memory disk operating system. The operating system also supports comprehensive disk file integrity checks and recovery procedures.

MARKETING
Latest Release: 8/76
First Installed: 1/73
Current Users: 500 (8/76)

CHARACTERISTICS
OS Type: Batch, Interactive
Memory Management: Virtual
Simultaneous Users: 31
Programs in Package: 45 modules
Languages: BASIC, FORTRAN, COBOL, Data Base
Compatibility: Prime 300
Main Memory: 32K

Communications: TTY, IBM, CDC, ICL
Peripherals: Disk (#4224, 6MB)
System Type: Multiprogramming
Diagnostics: Memory Parity
Debugging tools: Symbolic Debugger
PRICES
Documentation: None (one set free)
Training: None (4 man-weeks free)
Purchase: Included in system cost
Maintenance: Included

OS NAME: PRIME COMPUTER PRIMOS IV
PRIMOS IV is a virtual memory disk operating system that supports up to 64 simultaneous users with up to eight megabytes of virtual space per user. PRIMOS IV also supports shared re-entrant procedures and dynamic linking. Error correcting code, as a software/hardware feature, is available for larger main memory disk configurations.

MARKETING
Latest Release: 8/76
First Installed: 8/76
Current Users: 20 (8/76)

CHARACTERISTICS
OS Type: Batch, Interactive
Memory Management: Virtual
Simultaneous Users: 64
Programs in Package: 50 modules
Languages: BASIC, COBOL, FORTRAN, Data Base
Compatibility: Prime 400
Main Memory: 64K

Communications: TTY, IBM, CDC, ICL
Peripherals: Disk (#4224, 6MB)
System Type: Multiprogramming
Diagnostics: Memory Parity
Debugging tools: Symbolic Debugger
PRICES
Documentation:
Training:
Purchase: $12,000
 Lease:
Maintenance:

SOFTWARE OPERATING SYSTEMS
**OS NAME: ROLM RDOS**

RDOS is a sophisticated, interactive, dual user minicomputer operator system designed to ease program development of user applications. RDOS supports data files on disk with three separate file structures optimizing disk access time. RDOS provides program segmentation via overlay operations or program chaining.

**MARKETING**
- Latest Release: 5/76
- First Installed:
- Current Users:

**CHARACTERISTICS**
- OS Type: Interactive
- Memory Management: Dual user
- Simultaneous Users: 2
- Programs in Package: 20 (approx.)
- Languages: ASM, FORTRAN, ALGOL, BASIC
- Compatibility: ROLM 1601, 1602, 1603, 1650, 1664
- Main Memory: 10-12K
- Communications: async
- Peripherals: Disk, high speed paper tape reader
- System Type: Multi-tasking
- Diagnostics: None
- Debugging tools: Symbolic debugger

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: Included in system cost
- Lease: N/A
- Maintenance: Included

**OS NAME: ROLM RTOS**

RTOS is a small core resident operating system designed to aid in implementing user applications. RTOS contains modules for interrupt handling, task scheduling, data I/O and intertask communications. RTOS is a compatible subset of the system functions furnished by ROLM RDOS. RTOS supports ASM assembly language and FORTRAN. In conjunction with the 1602 or 1664 hardware systems, RTOS can support user programs up to 64K in size.

**MARKETING**
- Latest Release: 6/76
- First Installed:
- Current Users:

**CHARACTERISTICS**
- OS Type: Applications Support
- Memory Management: N/A
- Simultaneous Users: 1
- Programs in Package: N/A
- Languages: ASM, FORTRAN
- Compatibility: ROLM 1601, 1602, 1603, 1650, 1664
- Main Memory: 2-4.6K
- Communications: async
- Peripherals: Real-Time Clock
- System Type: Multi-tasking
- Diagnostics: None
- Debugging tools: Symbolic Debugger

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: Included in system cost
- Lease: N/A
- Maintenance: Included
OS NAME: SYSTEMS ENG LABS  RTM
Real Time Monitor (RTM) is a disk-oriented system that provides concurrent execution of multiple tasks in foreground and background modes. RTM provides full capabilities for background processing of batch jobs. Features include dynamic memory allocation for foreground and background; system security via dynamic memory page protection; inter-task, inter-system and task/system communications facilities; debugging in foreground and background modes; and automatic roll-out, roll-in of selected priority levels for optimum system use.

MARKETING
Latest Release: 3/76
First Installed: 1970
Current Users: 125 (6/76)

CHARACTERISTICS
OS Type: Interactive, Batch
Memory Management: Multi-user
Simultaneous Users: 64
Programs in Package: 20
Languages: Macro Assembler, FORTRAN, BASIC
Compatibility: SEL 32/55, SEL Systems 85/86
Main Memory: 32K

Communications: Peripherals: Disk (93xx), Card RD (#9210, #9211), Line Printer, Mag Tape
System Type: Multiprogramming
Diagnostics: Debugging tools: Yes

PRICES
Documentation: b
Training: $300/student/week
Lease: N/A
Maintenance: Included (Extended maintenance available at cost).

OS NAME: TEKTRONIX PLOT 80 GOS
The Plot 80 Graphics Operating System (GOS) is a software system designed for the Tektronix 4081 computer. Utilized for stand-alone operations and host oriented terminal operations which require complex image display and manipulation, GOS allows the user to initialize communications, access data files, set character size, resume execution of interrupted programs, reset the system for the next program, and invoke programs from mass storage. The system is designed primarily to display and manipulate vectors on the screen.

MARKETING
Latest Release: 6/76
First Installed: 12/75
Current Users: N/A

CHARACTERISTICS
OS Type: Interactive, 1 partition
Memory Management: Single user
Simultaneous Users: 1
Programs in Package:
Languages: Assembly, FORTRAN
Compatibility: Tektronix 4081
Main Memory: 18K-31K

Communications: asyn (110-9600 Baud)
Peripherals: Integral Tape Cartridge
System Type: Multiprocessing
Diagnostics: Hardware verification pack.
Debugging tools: GOS AIDS

PRICES
Documentation: Included
Training: Included
Purchase: Included in system cost
Lease: N/A
Maintenance: Included

aRelocatable
b$125 for Reference ($35) and Technical ($90) manuals, $1,500 for source.
cCentral Processor/Graphic Controller.
dAIDS provides cell/register manipulation, snapshot dumps, trace, breakpoint.

SOFTWARE OPERATING SYSTEMS
**OS NAME: TEXAS INSTRUMENTS DX 980**

DX 980 is a general purpose operating system that supports the Model 980 computer family in batch, interactive terminal and real-time processing. Systems software features include modular construction which organizes common executive functions into the nucleus, while unique executive functions are embodied in subsystems. The nucleus is partially memory resident and partially disk resident, with disk portions called into memory using a dynamic allocation technique. Nucleus functions include job, task, memory, I/O and file management as well as operator communication.

**MARKETING**
- Latest Release: 5/76
- First Installed: 6/74
- Current Users: 50+ (8/76)

**CHARACTERISTICS**
- OS Type: Batch, Interactive\(^a\)
- Memory Management: Multi-user
- Simultaneous Users: 32
- Programs in Package: 18
- Languages: FORTRAN, PLEXUS, Assembly
- Compatibility: Texas Instruments 980

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: $10,000 (source kit)
- Lease: N/A
- Maintenance: Included

Main Memory: 48K

---

**OS NAME: ULTIMACC (STC Systems) OPERATING SYSTEM**

The Ultimacc Operating System is a real-time on-line software system which can support up to twenty different programs simultaneously. Features include re-entrant code techniques, fixed core partitions, and single, double, and triple precision arithmetic. The operating system also features a Memory Management Protection Unit (MMPU) which remaps core in real time, and binary bit packing which increases storage efficiency. Over fifty display terminals can be supported in real-time without significant degradation of computer response time.

**MARKETING**
- Latest Release: 6/76
- First Installed: 5/71
- Current Users: 100 (1971)

**CHARACTERISTICS**
- OS Type: Interactive, to 50 part.
- Memory Management: Relocatable
- Simultaneous Users: 50
- Programs in Package: up to 300
- Languages: BASIC, COBOL, Assembly
- Compatibility: Data General NOVA Series

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: Included in system cost\(^b\)
- Lease: N/A
- Maintenance: $305/month.

Main Memory: 16K

\(^a\)Variable partitions.

\(^b\)Minimum System cost, $41,000.

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**SOFTWARE OPERATING SYSTEMS**
**OS NAME: UNIVAC OS/3**

OS/3 is an operating system designed to provide control of system and user programs and to furnish a flexible environment for communications, batch and disk-oriented processing, and user program development. In concert with a variety of programming languages, utility routines, and application programs, Sperry Univac provides the user with a program library to take full advantage of the extended capabilities of the 90/50 Data Processing System.

**MARKETING**
- Latest Release: 10/76
- First Installed: 2/75
- Current Users: 1200+ (8/76)

**CHARACTERISTICS**
- OS Type: Interactive, Batch
- Memory Management: Multi-user
- Simultaneous Users: Oper. dependent
- Programs in Package: 20+
- Languages: COBOL, FORTRAN, RPG II, Assembly
- Compatibility: Univac 90/30

**Main Memory:** 32K

**Communications:** ICAM
**Peripherals:** Card RD, Printer, 2 disks
**System Type:** Multiprogramming
**Diagnostics:** On-line diagnostics
**Debugging tools:**

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: N/A
- Lease: N/A
- Maintenance: Included

---

**OS NAME: UNIVAC OS/1100**

OS/1100 is a flexible multiprogramming/multiprocessing operating system that can be tailored to any 1100 computer configuration to provide complete compatibility and handle concurrently all operations in batch, interactive, and real-time environments. Software enhancements include Remote Processing System (RPS), Data Management System (DMS), Transaction Interface Package (TIP), Conversational Time-Sharing System (CTS), Query Language Processors (QCP) and Terminal Security System (TSS).

**MARKETING**
- Latest Release: 6/76
- First Installed: 1967
- Current Users: 700+ (8/76)

**CHARACTERISTICS**
- OS Type: Interactive, Batch
- Memory Management: Multi-uscr
- Simultaneous Users: Oper. dependent
- Programs in Package: 20+
- Languages: COBOL, FORTRAN, APL, PL/1, RPG, NUALGOL, SIMULA, JOVIAL
- Compatibility: Univac 1100 Series

**Main Memory:**

**Communications:**
**Peripherals:**
**System Type:** Multi-programming, processing
**Diagnostics:** PMD Processor, DIAG
**Debugging tools:** ED Processor

**PRICES**
- Documentation: Included
- Training: Included
- Purchase: N/A
- Lease: N/A
- Maintenance: Included

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**SOFTWARE OPERATING SYSTEMS**
OS NAME: UNIVAC VS/9 OPERATING SYSTEM

VS/9 is a full service virtual storage operating system which provides a large number of users with extensive facilities for the development and operation of software programs. VS/9 controls multiprogramming in a virtual memory environment and supports a concurrent job mix, transaction processing, communications, data base management, interactive applications and program development, personal computing and on-line maintenance programs. VS/9 is the native operating system for the 90/80 computer and is user compatible with the 90/60 and 90/70 software.

MARKETING
Latest Release: 6/76
First Installed: 11/75
Current Users: 100+ (8/76)

CHARACTERISTICS
OS Type: Interactive, Batch
Memory Management: Virtual
Simultaneous Users: 120
Programs in Package: 20+

Languages: COBOL, FORTRAN IV, RPG II, Lease:
BASIC, FAST FORTRAN, Assembler.
Compatibility: Unicov 90/60, 90/70, 90/80

Main Memory:

OS NAME: VARIAN DATA VORTEX/VORTEX II OPERATION SYSTEM

VORTEX is a multiprogramming operating system that permits concurrent execution of a variable number of real-time and background tasks. VORTEX allocates priorities for memory, I/O access and processing, provides inter-task protection, debugging, scheduling, and resource management facilities. VORTEX can include many subsystems such as: data base management, transaction processing, remote job entry, and multi-user editing. Applications extend from scientific to commercial, from real-time to batch, and from stand alone to data communications.

MARKETING
Latest Release: 7/77
First Installed: 12/73
Current Users: N/A

CHARACTERISTICS
OS Type: Real-time
Memory Management: Multi-user
Simultaneous Users: Oper. dependent
Programs in Package: 20+

Languages: FORTRAN,COBOL, RPG II, IV,
Microprogramming Assembler (MIDAS)
Compatibility: VORTEX 620/L-100 and all
V-70 series computers
Main Memory: 8-32K

Communications: asyn, syn, binary syn
Peripherals: Teletype, disk and mag tape
paper tape or disk unit.
System Type: Multiprogramming
Diagnostics: Customer Acceptance Test Prog.
Debugging tools: AID II, BLD, DEBUG, SNAPSHOT
DUMP, Conditional statements compile

PRICES
Documentation: $500
Training: $300/wk.
Purchase: $1000
Lease: N/A
Maintenance: $1200 per year for SGL update service.

Minimum system cost, $14,000.

VORTEX II is identical to VORTEX except that VORTEX II is used in conjunction with memory map to control systems with up to 256K of main memory.

Reallocatable (VORTEX II includes memory map).
Depending on subsystems and peripheral controllers used (VORTEX II minimum 32K)

Purchase price for System Generation Library.

SOFTWARE OPERATING SYSTEMS
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