CONTROL DATA CORPORATION

INTERCOM VERSION 5
INTERACTIVE COMMAND SUMMARY
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CONTROL DATA COMPUTER SYSTEMS

INTERCOM Version 5, under the NOS/BE operating system, provides time-sharing access to CDC CYBER 178, CDC CYBER 79 (Models 71, 72, 73, and 74), or CDC 6600 Series computers from terminals at central or remote sites. Detailed descriptions of terminal operations and INTERCOM command statements appear in the INTERCOM Version 5 Reference Manual, publication number 60455010.

NOTATION

This document uses the following notations:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>Indicates point where entry can terminate; INTERCOM requests required parameters interactively.</td>
</tr>
<tr>
<td>{}</td>
<td>Encloses required elements of alternative entries; only one alternative can be specified.</td>
</tr>
<tr>
<td>[]</td>
<td>Encloses optional elements; any one can be specified or all can be omitted.</td>
</tr>
<tr>
<td>...</td>
<td>Following an element, indicates that a variable number of similar elements can be specified.</td>
</tr>
<tr>
<td>_</td>
<td>Underlined characters indicate allowable abbreviation of a command.</td>
</tr>
</tbody>
</table>

Command verbs and keyword parameters are capitalized. User-supplied information is shown in lowercase characters.

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NOS/BE CONTROL STATEMENTS

NOS/BE control statements can be entered as INTERCOM commands with the following exceptions:

ADDRT

CKP

DUMP

EXECUTE

GENLID

LABEL

LISTMS

LOAD

RECOVER

LDSTT

LOADP

RESTART

NGOFP

SLDP

SYSTEM CONTROL COMMANDS

ASSSTS

Causes INTERCOM to list: ASSSTS OF user id AT hours, minutes, seconds, equipment and port numbers, maximum number of allotted local files, number of local files in use, field length, time limit, and total elapsed central processor time. Settings of some switches, EFL, ETL, SAVFL, REDUCE, LOCK, and MAP are shown when they differ from installation defaults. SITE/STATION are given if necessary. Maximum and current ECS field lengths and REDUCE ECS flag setting are given if user is allowed ECS access.

CRT,n

Reactivates specified CRT station; n is station number in octal.

EFL,f

Specifies user's program execution field length; f is field length in octal.

ETL,e

Sets user's program or command time limit; e is seconds in octal.

LOGIN*,username*,password*[SUP]

Initiates INTERCOM session. System replies consist of date, login time, user id, equipment number, and message-of-the-day, unless these messages are

<table>
<thead>
<tr>
<th>MAP</th>
<th>OFF</th>
<th>Example: COMMAND = MAP,OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ON</td>
<td>COMMAND = DISCONT,</td>
</tr>
<tr>
<td></td>
<td>FULL</td>
<td>OUTPUT</td>
</tr>
<tr>
<td></td>
<td>PART</td>
<td>COMMAND = COBOL(*=fn)</td>
</tr>
</tbody>
</table>

Normally, no load map is produced. However, the NOS/BE control statements MAP,ON and MAP,FULL both specify a full-load map. MAP,PART omits entry-point addresses. The example sequence of NOS/BE control statements and INTERCOM commands disconnects the OUTPUT file to prevent the load map from being sent to the terminal, then the map is saved on the file OUTPUT for diagnostic examination. MAP,OFF should be entered upon completion. Default is OFF.

REDUCE, [OFF] | ON | REDUCE,OFF inhibits automatic field length reduction when entered before program execution. After execution, REDUCE,ON should be entered to restore automatic reduction. Default is OFF.

REDUCE,ECS

Restores the normal ECS field length. User's ECS field length is released between commands.

SAVFL, [OFF] | ON | SAVFL,ON requests a specific ECS field length; f is field length in octal. User's ECS field length is preserved between commands until REDUCE,ECS is entered.

INTERCOM saves and restores the field length after execution of each command or NOS/BE control statement if SAVFL,ON has been entered. This mode of operation is slower, but it is necessary with the

NOS/BE control statements allowed as options in the XEQ command only.
FILE CONTROL COMMANDS

BLOCK:ln [start[+increment]]

Reads sequential line numbers in a BASIC file; if unspecified, defaults are 100 for starting value (start), 10 for increment (increment). BASIC file must be a local file.

CONNECT:ln1[;ln2,...];lnn

Connects named files so an executing program can receive input from the terminal and display output at the terminal. File names can be INPUT and OUTPUT, as well as any other files.

DISCARD:ln [ident]

Deletes a permanent file saved with STORE or a local file. Only the file name is required. For local files, the file must be specified. ID= is not displayed to request entries.

DISCONNECT:ln1[;ln2,...;lnn]

Disconnects named files from the terminal and assigns them to acceptable mass storage.
STORE,In*[,ident]

Retains a local file as permanent for single-user access. If ident is not specified or assigned as an installation option (user id is the default permanent file identification), INTERCOM requests from the user one to five letters and/or digits for IP. 

MESSAGE CONTROL COMMANDS

LOCK, [OFF

ON prevents other users from sending messages to the user. Default is OFF.

MESSAGE,mmm...m

Flashes user message mmm...m (up to 30 characters) on the central site operator's console. A message from the central site has the following form:

user id, message ...

A user id of ** indicates a message sent to all users.

SEND*,username

System responds with TYPE MESSAGE OR END.
User then sends message lines of up to 150 characters to the specified user name. A user name of *** indicates all logged-in users. Entering END at the beginning of a message line terminates the message.

SITWRITE

Displays a list of currently logged-in user names and ids and a list of active remote batch terminals by terminal id and type. Users with LOCK,ON are marked by *.

BATCH CONTROL COMMANDS

BATCH*,ln*.

{PRINT[,d] --------- PRINT,ln*

PUNCH[,d] --------- PUNCH,ln*

PUNCHI[,d] --------- PUNCHI,ln*

BATCH*,ln*.

INPUT[,d] --------- INPUT,ln*

LOCAL --------- LOCAL

RENAME*,newln 

Allows routing of files between remote site and central file queues. Jobs can be submitted for execution at central site with optional remote output; files can be sent to central site for printing and punching. Files can also be renamed.

INPUT disposition directs file to input queue. PRINT, PUNCH, or PUNCHI specify printing, punching in Hollerith, or punching in binary at central site. To output file to remote site, the user can add id as HERE for user's own site or MINE for user's own user id or substitute a two-character user or terminal id.

LOCAL retrieves named file from output queue. RENAME changes name of local file. END terminates BATCH command.

FIND*,st[,q][Inf]

Allows user to examine queues to locate files and/or jobs that have a given character string as the first characters in the job name. Values of the parameters are:

Parameter Description

st Represents a one- to seven-character string that is compared to each job name.
q Represents one of the following:
I Searches the INPUT queue.
O Searches the OUTPUT queue.
P Searches the PUNCH queue.
E Searches the EXECUTE queue.
S Searches the SPECIAL queue (film, plot, and so on).
J Searches the JANUS queue (only works on mainframe where user is logged in).
A Searches all of the above queues.

nf Searches a specific mainframe.
\[
\text{MYQ}[x][m][f][ALL]
\]

Allows user to examine queues to locate files and/or jobs. If parameters are omitted, information is displayed on all files and jobs in the system that belong to the user. Optional parameters are:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>q</td>
<td>Indicates a member of I, O, P, E, A, A. Refer to FIND command for descriptions.</td>
</tr>
<tr>
<td>mf</td>
<td>Searches a specific mainframe.</td>
</tr>
<tr>
<td>ALL</td>
<td>Displays information about all files and jobs in the system specified by the q and mf parameters.</td>
</tr>
</tbody>
</table>

\[
\text{q \{[x][yy][ours]\}}
\]

SYNTAX

where \( x \) = a member of G, O, P, E, A, A

Allows user examination of batch processing queues in a single mainframe or multiamainframe environment. If parameter \( x \) is omitted, INTERCOM replies with a count of jobs in input, output, punch, executing, and JANUS queues. Optional parameters are:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Displays jobs in input queue.</td>
</tr>
<tr>
<td>O</td>
<td>Displays jobs in output queue.</td>
</tr>
<tr>
<td>P</td>
<td>Displays jobs in punch queue.</td>
</tr>
<tr>
<td>E</td>
<td>Displays jobs in executing queue.</td>
</tr>
<tr>
<td>J</td>
<td>Displays jobs in JANUS queues.</td>
</tr>
<tr>
<td>A</td>
<td>Displays jobs in (I, O, P, E, J) queues.</td>
</tr>
<tr>
<td>yy</td>
<td>Displays the mainframe identifier.</td>
</tr>
<tr>
<td>ours</td>
<td>Displays jobs originating in host mainframe.</td>
</tr>
<tr>
<td>ID</td>
<td>Displays mainframe identifiers for a multiamainframe environment.</td>
</tr>
<tr>
<td>SYNTAX</td>
<td>Displays Q syntax.</td>
</tr>
</tbody>
</table>
DIAGNOSTIC LIST

ERRORS,

ALGOL
COMPASS

Displays compiler or assembler generated diagnostic
from OUTPUT file. Line numbers appear for programs
created under EDITOR. SUP suppresses listing of
nonfatal and informative diagnostics.

PROGRAM EXECUTION COMMANDS

LXI
Executes binary program identified by local file name
LXI.

PAUSE
Displays message at central site, and halts execution
until operator takes action.

EXEC
[options][...[option n]]
Initiates binary program loading for execution or
absolute overlay construction. If no options are
selected, the system responds with OK, and the
user can enter any of the following options (enter
EXECUTE, NOGO, or LNK to load; or END to exit):

EXECUTE [entrypoint [param [...[param n]]]]
NOGO [ifa [entrypoint [...[entrypoint n]]]]
LNX [param [...[param n]]]
LOAD=[f1] [R/NR] [...[fN] [R/NR]]
LIB=libname [...[libname n]]
SLOAD=[ifa [R/NR] [program [...[program n]]]]
SATISFY=[libname [...[libname n]]]
LOADSET=[options [...[option n]]]

Options for LOADSET are as follows:
LIB=[libname [...[libname n]]]
MAP=[ifa]
R can be N, S, E, W, or X
PRSET=p
PRSETA-p
R can be NONE, ZERO, ONES, INDEF, INF, KGNDER, NONE, ALTZERO, ALFONTS, OR DEBUG
ERR-p
R can be AL, FATAL, or NONE
REWIND
MOREWIN
USE=param [...[param n]]
USE=entrypoint [...[entrypoint n]]
SUB=pair [...[pair n]]
UNIT=entrypoint [...[entrypoint n]]
FILES=[f0] [...[fN]]

OUTPUT CONTROL

Teleprinter terminal

| ESC | %A |
| ALT MODE | %S |
| CTRL Z | RETURN |

CTRL Z, ESC, or ALT MODE are alternate keys used
to stop current output activity only. %A terminates
current job, discards output. %S stops output, discards
output awaiting transmission to terminal, and
transmits additional output, if generated. RETURN
resumes activity.
Display terminal:

```
%A
%D

%A terminates current job and discards output; %D stops output and discards output awaiting transmission to terminal.
```

All terminals:

```
%ER
%EOF

Sends end-of-record or end-of-file signal to the executing program.
```

**PROGRAM TEXT EDITOR**

**EDITOR**

Initiates program editor; allows user to create, examine, and modify files. EDITOR signals readiness to receive input by displaying:

```
...
```

The user enters the following commands while in the program text editor (EDITOR) mode:

**ADD [line[,incr]] [SEP] [OVERWRITE]**

Inserts or adds lines to existing edit file. To exit, enter = instead of text line.

**EDIT [line[,incr]]**

Causes exit from EDITOR.

**CREATE [line[,incr]] [SUP]**

Allows entry of text lines to create new edit file. To exit, enter = instead of text line.

**DELETE [ALL | line-2 | ... | line-1 | LAST]**

```
[/text/ [col-1 | [col-2]] [UNIT] [+SF]]
```

Deletes lines in edit file.

**EDIT [line[,incr]] [SEQUENCE]**

Loads local or attached permanent file into edit file and replaces old edit file.

**END**

Causes exit from EDITOR.

**FORMAT**

```
[/text/ [col-1 | [col-2]] [UNIT] [+SF]]
```

Changes installation defined format specifications for EDITOR user input.

**LIST [ALL | line-1 | ... | line-n | LAST]**

```
[/text/ [col-1 | [col-2]] [UNIT] [+SF]]
```

Lists edit file lines at terminal.

**RESEQ [line[,incr]]**

Resequences line numbers in the edit file.

**RUN [language][FILE=filename] [NOEX][SUP]**

Transfers edit file (or local file) to compiler or assembler named by language, possibly, execution.

**SAVE [ALL] [NOSEQ] [OVERWRITE][+MERGE]**

```
[/text/ [col-1 | [col-2]] [UNIT] [+SF]]
```

Saves edit file as local file.

**-[line=text]**

Replaces or inserts text at a given line number. The first = is required only when a line is entered out of sequence under ADD or CREATE.
Replaces text strings in lines of the edit file.

Parameters for the editor commands are:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>All lines in editor file are considered by command.</td>
</tr>
<tr>
<td>CIHnum</td>
<td>Maximum characters to be permitted in each line.</td>
</tr>
<tr>
<td>col-1</td>
<td>First or only column of text, search string.</td>
</tr>
<tr>
<td>col-2</td>
<td>Last column of text, search string range.</td>
</tr>
<tr>
<td>incr</td>
<td>Increment value of edit file line numbers; default is installation option.</td>
</tr>
<tr>
<td>language</td>
<td>Compiler or assembler language: ALGOL, BASIC, C, COBOL, COMPASS, FORTRAN.</td>
</tr>
<tr>
<td>LAST</td>
<td>As first parameter, command considers only last line in edit file; as second parameter, affects range from line 1 to last line in edit file.</td>
</tr>
<tr>
<td>ln</td>
<td>File name of local file, or, for EDIT or RUN, file name of attached permanent file.</td>
</tr>
<tr>
<td>line</td>
<td>First line considered by command; default is installation option.</td>
</tr>
<tr>
<td>line-1</td>
<td>First or only line considered.</td>
</tr>
<tr>
<td>line-2</td>
<td>Final line of range beginning at line-1.</td>
</tr>
<tr>
<td>MERGE</td>
<td>Merges successive files or parts under the same file name. NOSEQ is recommended to avoid duplication of line numbers. EOS is written at the end of each file or part added.</td>
</tr>
</tbody>
</table>

Parameter | Description |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Compiler or assembler format: ALGOL, BASIC, COBOL, COMPASS, FORTRAN.</td>
</tr>
<tr>
<td>NOEX</td>
<td>Compiles without execution.</td>
</tr>
<tr>
<td>NOSEQ</td>
<td>Saves file without line numbers.</td>
</tr>
<tr>
<td>OVERWRITE</td>
<td>Permits bypassing or replacing existing line numbers (ADD), or writing over existing files (SAVE).</td>
</tr>
<tr>
<td>SEQUENCE</td>
<td>Assigns line numbers as file is entered into edit file.</td>
</tr>
<tr>
<td>SHOW</td>
<td>Displays current FORMAT conditions.</td>
</tr>
<tr>
<td>SUP</td>
<td>Suppresses display of line numbers at terminal (ADD, CREATE, LIST) or listing of nonfatal errors (RUN).</td>
</tr>
<tr>
<td>TAB-c</td>
<td>Identifies character that selects tab function.</td>
</tr>
<tr>
<td>tab-n</td>
<td>Successive tab column positions 0 to 510.</td>
</tr>
<tr>
<td>/text/</td>
<td>Text search string of 1 to 20 characters. Slash delimiters can be other special characters.</td>
</tr>
<tr>
<td>/text-1/</td>
<td>Text replacement string of 0 to 20 characters delimited by slashes or equivalent delimiters. Replaces text search string when search conditions are satisfied.</td>
</tr>
<tr>
<td>UNIT</td>
<td>Text search string is recognized only if separated from surrounding text by other than letter or digit.</td>
</tr>
<tr>
<td>VETO</td>
<td>Displays offset lines for approval. Responding Y to VETO accepts the displayed lines; CONTINUE completes the command. Other characters reject the displayed lines.</td>
</tr>
</tbody>
</table>