KEY OPERATOR TUTORIAL

Order Number: 138267-001
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A Computing Device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

Other Intel literature may be obtained from:

Literature Department
Intel Corporation
3065 Bowers Avenue
Santa Clara, CA 95051
(800) 548-4725

The information in this document is subject to change without notice.

Intel Corporation makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties to merchantability and fitness for a particular purpose. Intel Corporation assumes no responsibility for any errors that may appear in this document. Intel Corporation makes no commitment to update nor to keep current the information contained in this document.

Intel Corporation assumes no responsibility for the use of any circuitry other than circuitry embodied in an Intel product. No other circuit patent licenses are implied.

Intel software products are copyrighted by and shall remain the property of Intel Corporation. Use, duplication or disclosure is subject to restrictions stated in Intel's software license, or as defined in ASPR 7-104.9(a)(9).

No part of this document may be copied or reproduced in any form or by any means without the prior written consent of Intel Corporation.

The following are trademarks of Intel Corporation and its affiliates and may be used only to describe Intel products:

- Above™
- BITBUS™
- COMMputer™
- CREDIT™
- Data Pipeline™
- FASTPATH™
- Genius™
- i®
- i¹™
- iCE™
- iCEL™
- iCS™
- iDPP™
- iDIS™
- iICE™
- iLBX™
- iMDDX™
- iMMX™
- iSite™
- Intel®
- IntelGenesis®
- Intellvision™
- Intel television™
- Intelgent Identifier™
- Intelgent Programming™
- Intellec®
- Intellec Manager™
- Intellink™
- iOSP™
- iPDS™
- iPC™
- iRMX™
- iSBIC™
- iSBX™
- iSDM™
- iSXMTM
- KEPROM™
- Library Manager™
- MAP-NET™
- MCS®
- Megachassis™
- MICROMAINFRAME™
- MULTIBUS®
- MULTICAN™
- MULTIMODULE™
- ONCE™
- OpenNET™
- OTP™
- PC BUBBLE™
- Plug-A-Bubble™
- PROMPT™
- Promware™
- QueX™
- QUEST™
- Quick-Pulse Programming™
- Ripplemode™
- RMX/80™
- RUPITM
- Seamless™
- SLD™
- UPI™
- VLSICEL™
- 4-SITE™
<table>
<thead>
<tr>
<th>REV.</th>
<th>REVISION HISTORY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-001</td>
<td>Original Issue.</td>
<td>09/86</td>
</tr>
</tbody>
</table>
# CONTENTS

## CHAPTER 1 INTRODUCTION

<table>
<thead>
<tr>
<th>Administrative Overview</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-1</td>
</tr>
<tr>
<td>Key Operator Menus</td>
<td>1-2</td>
</tr>
<tr>
<td>Glossary of Terms</td>
<td>1-3</td>
</tr>
<tr>
<td>Related Publications</td>
<td>1-6</td>
</tr>
</tbody>
</table>

## CHAPTER 2 BOOT UP AND SHUTDOWN

<table>
<thead>
<tr>
<th>Booting Up the System</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-1</td>
</tr>
<tr>
<td>Shutting Down the XENIX Operating System</td>
<td>2-4</td>
</tr>
</tbody>
</table>

## CHAPTER 3 SAVING AND RESTORING WORKAREAS

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-1</td>
</tr>
<tr>
<td>Accessing the Aktop Menu</td>
<td>3-2</td>
</tr>
<tr>
<td>Accessing the Aasave Menu</td>
<td>3-4</td>
</tr>
<tr>
<td>Choosing a Current Backup Device</td>
<td>3-5</td>
</tr>
<tr>
<td>Backing Up a Workarea</td>
<td>3-6</td>
</tr>
<tr>
<td>Restoring a Workarea</td>
<td>3-10</td>
</tr>
<tr>
<td>Restoring a Workarea Unit</td>
<td>3-12</td>
</tr>
</tbody>
</table>

## CHAPTER 4 KILLING TERMINAL ACTIVITY

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-1</td>
</tr>
<tr>
<td>Determining the Name of the User's Terminal Port</td>
<td>4-2</td>
</tr>
<tr>
<td>Killing Terminal Activity</td>
<td>4-3</td>
</tr>
</tbody>
</table>

## CHAPTER 5 PRINTER ADMINISTRATION

<table>
<thead>
<tr>
<th>Hints for Printer Administration</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-1</td>
</tr>
<tr>
<td>Choosing a Current Printer</td>
<td>5-1</td>
</tr>
<tr>
<td>Showing Documents in a Printer Queue</td>
<td>5-3</td>
</tr>
<tr>
<td>Halting a Printer</td>
<td>5-4</td>
</tr>
<tr>
<td>Aligning Printer Paper</td>
<td>5-5</td>
</tr>
<tr>
<td>Restarting the Printer</td>
<td>5-6</td>
</tr>
</tbody>
</table>

## FIGURES

<table>
<thead>
<tr>
<th>Inserting a Flexible Diskette</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-8</td>
</tr>
</tbody>
</table>
This tutorial provides a basic introduction to the duties of a System 286/310 key operator. It assumes the reader has a basic knowledge of the System 286/310 and iDIS™ (for an introduction to iDIS, refer to Getting Started with iDIS™. Most of the tasks that the key operator has to perform can be done by simply choosing selections from menus provided by iDIS or by logging into the system with a specified login name.

Administrative Overview

In a typical network environment, three levels of administration can be defined: network manager, sub-network administrator, and key operator. However, these job titles and duties may be modified to fit your particular work environment.

Typically, the duties of a key operator include:

- Booting up and shutting down the system
- Printer administration (halting, restarting, aligning paper, etc.)
- "Killing" terminal activities that have caused a user's terminal to hang up
- Enabling/Disabling ports for terminals and serial printers
- Backing up/Restoring workareas
- Restoring units within a workarea
- Assisting users with day-to-day activities
• Reporting problems and requirements to the sub-network administrator

Depending upon your work environment, you may be responsible for one node or you may have responsibility for several nodes.

**Key Operator Menus**

The key operator menus allow you to perform the following tasks simply by choosing selections from the menus:

• Display who is using the system
• Display what is occurring on the system
• Display available disk space
• Broadcast a message to other users
• Change the current printer (for yourself only)
• Show documents in a printer queue
• Delete documents from a printer queue
• Align forms or printer paper in a printer
• Halt a printer
• Restart a printer
• Kill terminal activity (free a "hung" terminal)
• Disable a terminal or serial printer port
• Enable a terminal or serial printer port
• View the status of the OpenNET™ network connection
• Connect the node to the OpenNET network
• Disconnect the node from the OpenNET network
• Change the current backup device (for yourself only)
• Save the contents of a workarea to a backup device
• Restore the contents of a workarea from a backup device
• Restore an individual unit from a backup device
• Delete an archived workarea from a hard disk
• Format diskettes
• Retension tapes
• Reset the system date and time

The examples in this manual show you how to boot up and shut down the system, back up and restore a workarea, kill terminal activity, and align printer forms.

This manual is most beneficial if you follow along and try the examples on your own system.

**Glossary of Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>alias</td>
<td>A name you choose to represent a local user, remote user, or group of users. The alias is used in place of a login ID when sending mail.</td>
</tr>
<tr>
<td>drawer</td>
<td>A group of related files. Similar to a drawer in an office file cabinet.</td>
</tr>
<tr>
<td>dynamic list</td>
<td>A list of items such as files or drawers, from which you can choose those you want to open or work in.</td>
</tr>
<tr>
<td>file</td>
<td>A collection of information (report, document, mail message, etc.).</td>
</tr>
<tr>
<td>file cabinet</td>
<td>A workarea storage facility composed of several drawers.</td>
</tr>
<tr>
<td>form</td>
<td>A part of the iDIS menu system. A predesigned screen in which you fill in the fields. Similar to paper forms.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>full network</td>
<td>A group of individual systems or sub-networks connected and configured so that they may share resources.</td>
</tr>
<tr>
<td>group</td>
<td>A collection of iDIS users who have access to a common workarea.</td>
</tr>
<tr>
<td>hard disk</td>
<td>Both Winchester disk drives and SMD disk drives.</td>
</tr>
<tr>
<td>key operator</td>
<td>Typically, the person who performs the routine administrative functions that must be performed on an individual node.</td>
</tr>
<tr>
<td>local node</td>
<td>The node you are logged into.</td>
</tr>
<tr>
<td>maintenance mode</td>
<td>The single-user mode of the System 286/310. Only the root user can access the system in this mode. This mode is used for software installation and system maintenance.</td>
</tr>
<tr>
<td>multi-user mode</td>
<td>The normal operating mode of the System 286/310. More than one person can log in and use the system at one time.</td>
</tr>
<tr>
<td>network manager</td>
<td>Typically, the person who provides the planning of the network, installation and administration of public server nodes, the installation of sub-network master nodes, and updating of the network personnel directory.</td>
</tr>
<tr>
<td>node</td>
<td>An individual system on the network (or a standalone system that is not on a network).</td>
</tr>
<tr>
<td>OpenNET</td>
<td>The hardware and software which establishes and maintains permission for users or nodes to access resources on other nodes.</td>
</tr>
</tbody>
</table>
**peripheral expansion chassis**

This is a separate system chassis that contains additional peripherals, such as a Winchester disk, flexible disk drive and/or archive tape drive. This is an optional piece of equipment.

**print queues**

A facility that allows users to share a single printer. Print jobs (files) are sent to a queue where they are printed on a first-come, first-serve basis. The queues also permit you to perform other work without waiting for your print job to complete.

**sub-network administrator**

The person who manages an individual sub-network. Duties include initializing users, groups, and public workareas, controlling resources, and performing software feature installations and subnetwork node administration.

**SNR (sub-network receiver)**

A sub-network node which all mail between the full network and the sub-network must pass through.

**sub-network**

A group of networked systems with a common set of users who have access to all the nodes in the group.

**standalone system**

A system that is not connected to a network.

**system console**

Typically the key operator's terminal. It is plugged into connector J20 on the rear panel of single-, four- and eight-user systems, and connector J31 on the rear panel of 12-user systems. This is the terminal that must be used to shut down and boot up the system.
system processes: All system software activities. Each user that logs in, software package that is loaded, or command that is issued causes one or more system processes to occur.

virtual terminal: A software feature that allows a user to log into a remote node. The node responds to the user exactly the same as it would if the user's terminal were physically connected to it.

workarea: A place where file cabinets are stored. There are three types of workareas: individual, group, and public. An individual workarea is the area where your personal files are stored; other users cannot access these files. A group workarea is an area where members of a pre-defined group can share files; only members in the group can access these files. Files in a public workarea can be accessed by any user on the sub-network. When you log into the system, you automatically come up in the individual workarea.

XENIX: The multi-user operating system on the System 286/310. It controls the system activities and allows you to log into the system.

Related Publications

* Getting Started with iDIS™, Order Number 136972.
* Key Operator User's Reference, Order Number 138268.
* iBASE User's Reference, Order Number 137724.
The examples in this chapter show a key operator how to perform the following tasks:

- Boot up the system
- Shut down the system

During normal system operation, the key operator may occasionally bring the system up and down for a variety of reasons. However, in a typical environment, the system power is left on at all times. In any computer system, power cycling (turning on and off) causes additional wear. If it is necessary to bring your system down at night or on the weekends, the preferred method is to perform the XENIX operating system shutdown procedures without powering the system off. This will provide extra file system protection, without causing extra system fatigue.

NOTE

All procedures in this chapter must be run at the system console. DO NOT perform the examples in this chapter when other users are logged into the system.

Booting Up the System

Booting up a system is the process that enables the computer to begin operations. The word “boot” originated with the phrase to “pull yourself up by your bootstraps”, which is descriptive of a computer initialization sequence. When the system is first powered on, the programs that the system needs
to function are on the Winchester disk. These programs are part of the XENIX operating system and cannot be run until they have been loaded into system memory. Booting the system loads the operating system from the Winchester disk into system memory.

There are several different methods you can use to boot your system. In most instances, you will use the autoboot method described below. However, if system problems occur, you may need to use another method. If you have a problem, refer to the Key Operator User's Reference to find the necessary procedures. The following procedure tells you how to autoboot the XENIX operating system:

1. If the system was powered down:
   a. Power on the system console.
   b. Set the System 286/310 on/off switch to the ON position. The switch is located on the upper right-hand corner of the system rear panel.
   c. If your system is equipped with a 311 peripheral expansion chassis, set the on/off switch to the ON position. The switch is located on the upper right-hand corner of the chassis rear panel.
   d. Power on any other system peripherals, i.e. printers, plotters, etc.

2. If the XENIX operating system is shut down, but the System 286/310 is not powered off, press the RESET switch (red light with R on it) on the front, lower left-hand corner of the System 286/310.

3. An asterisk is displayed on the system console. After about 30 seconds the System Confidence Tests will run. As each test is run, a PASS/FAIL message is displayed. After the
confidence tests complete, the following message is displayed:

**Loading:**

The Intel licensing agreement, the XENIX buffer size message, and the board wake-up messages are displayed. The following prompt is then displayed:

Type **Ctrl-d** to proceed with normal startup, 
(or give root password for system maintenance): 
(If there is no input in 30 seconds, the system will automatically go into multi-user mode.) 
Password:

4. Either wait for 30 seconds or press the **CTRL** and **D** keys (CTRL-D) simultaneously to bring up XENIX in multi-user mode.

5. The current system time is displayed. Then the following prompt is displayed:

   **Enter new time (yyymmddhhmm):**

   If the date and time are correct, press the **CR** key.

   If the date is correct, but the time is not, enter the correct time, where:

   - **hh** is the hour in 24-hour format
   - **mm** is minutes

   If the date and time are both incorrect, type today's date and time, where:

   - **yy** is the last 2 digits of the year
   - **mm** is the number of the month
   - **dd** is the day of the month
   - **hh** is the hour in 24-hour format
   - **mm** is minutes

   For example, if the date and time are:

   April 17, 1986 1:32 PM
You would enter:

```
60417.332 CR
```

6. The final message that appears is the login message:

```
login:
```

This completes the boot up procedure. You can now log into the system.

**Shutting Down the XENIX Operating System**

Typically you will not need to power down the system. However, if you do need to power it down, you **must always shut down the XENIX operating system before you turn off the system power**. Shutting down the XENIX operating system terminates all currently running system processes in an orderly manner. First, all users logged on to the system are notified that they must log off by a broadcast message. Then, all file systems are updated before the system is stopped. This must be done before powering down the system or rebooting to insure file system integrity. If you do not shut down the XENIX operating system, files may be modified or lost.

There may also be times when you do not want to power down the system, but you want to shut down the XENIX operating system. For example, it is a good idea to shut down the XENIX operating system over the weekend or during any long period when the system will not be used. This is a precautionary measure to protect the system files in the event of a power failure, etc.

Perform the following procedure from the system console to shut down the XENIX operating system and power down the system.
1. If you are currently logged in to the system, logout.

2. When the "login:" prompt is displayed, type:

```
shutdown [CR]
```

3. If the "password:" prompt is displayed, type the password (if you do not know the password, contact your sub-network administrator or network manager).

4. The shutdown program is automatically invoked. You will be prompted to enter the number of minutes to wait before shutting down the XENIX operating system. The default value is 5 minutes. To select the default value, just press the [CR] key.

   If you would like to change the amount of time until shutdown, enter the number of minutes (if you are going select a smaller number, be sure that all users have enough time to log off the system).

6. A message telling users to complete their work and log out is displayed on the terminal of all users that are currently logged onto the system.

7. The system console is updated with shutdown status messages. When the shutdown is complete, the following message is displayed:

   **NORMAL SYSTEM SHUTDOWN**

   After this message is displayed, you can power off the system.

**NOTE**

If you have a 311 Peripheral Chassis, set the on/off switch to the OFF setting before powering down the System 286/310. The switch is located in the upper right-hand corner of the rear panel of both the System 286/310 and the 311 peripheral expansion chassis.
You now know how to boot up and shut down the system. Proceed to the next chapter to learn how to backup and restore a workarea.
The examples in this chapter show a new user how to perform the following tasks:

- Access the Key Operator Functions (Aktop) menu
- Access the Aasave menu
- Select a current backup device
- Save a workarea to a backup device
- Restore a workarea
- Restore a workarea unit

Introduction

One of the most important tasks the key operator performs is saving workareas onto a backup device. When you save a workarea, all files in that workarea are copied onto the current backup device. This guards against losing files, directories, etc., in the event your system crashes or a hardware failure occurs. If a failure occurs, you can restore the workarea or selected units within a workarea as required. This is done by copying the files from the backup device back to the system hard disk. Note that the files that are restored will only reflect those changes made prior to saving them. Any changes made after you performed the backup procedure cannot be recovered. Therefore, it is important to back up your workareas frequently.

You should save the public and group workareas, as well as your individual workarea on a weekly basis. As key operator
you can save any workarea on your node. However, you should encourage all users on your node to save their individual workareas themselves. This operation is particularly important in areas with frequent power failures or fluctuations.

The backup device can be a flexible diskette, a streamer tape, a 9-track tape, or a directory on a hard disk. However, the devices you can select are defined by the sub-network administrator or system manager. The example in this chapter uses a flexible diskette as the backup device. If you do not have a flexible disk drive assigned to you, the procedure is similar for all other devices. Refer to Chapter 3 of the iBASE User's Reference for specifics on backing up to other device types.

**Accessing the Aktop Menu**

The following steps show you how to access the Aktop menu. All key operator functions are invoked from this menu or from submenus which are invoked through this menu.
1. From the Top menu shown above, select the "Key Operator functions". The Aktop menu is displayed.

**NOTE**

To choose a menu selection, either use your arrow keys to move to the selection and then press (CR) or type the first letter of the first word of the menu selection and press (CR).
KEY OPERATOR FUNCTIONS

"user" in the individual workarea on node " "

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>disp</td>
<td>Key operator information display</td>
</tr>
<tr>
<td>bcst</td>
<td>Broadcast a message</td>
</tr>
<tr>
<td>ptr</td>
<td>Printer operations</td>
</tr>
<tr>
<td>comm</td>
<td>Communications port operations</td>
</tr>
<tr>
<td>save</td>
<td>Save/Restore operations</td>
</tr>
<tr>
<td>time</td>
<td>Set system time/date</td>
</tr>
<tr>
<td>net</td>
<td>View status of OpenNET connection</td>
</tr>
</tbody>
</table>

qdef - Define user actions: 1 2 3 4 5 6 7 8

day date time

Physical login on node " "

.b-back a menu !-enters OS :-site menu .s-start .f-help .l-logout

Which action? -

you have mail

Accessing the Aasave Menu

To perform the examples in this chapter, access the Aasave menu as shown in the following steps:

1. From the Aktop menu, choose the “Save/Restore Operations”. The Aasave menu is displayed.
Choosing a Current Backup Device

The current backup device selection is displayed in the first four menu selections of the Aasave menu. The first time you access the Aasave menu, you will notice that the current backup device is “unassigned”. You must choose a current backup device before you can save the workarea. In this example, a 5.25-inch flexible disk drive is used. Perform the following steps to select a current backup device:

1. Select “Change current backup device from: unassigned”. This action displays the Aasavec list, showing you the names and type of backup devices you can use.

2. Select the flexible disk drive device. You can either type in the name of the device or use the arrow keys. When
you have chosen a device, press the CR key. (If you do not have a flexible disk drive allocated to you, choose an available device.)

3. The Aasave menu is redisplayed. Note that the device you selected is listed as the backup device in the top four menu selections.

**Backing Up a Workarea**

Perform the following example to save the contents of your individual workarea onto 5.25-inch diskette(s). When you log into the system, you automatically come up in your individual workarea.

1. From the Aasave menu, select “Save workarea to: device_name”. The following messages are displayed:

   One moment please ...

   You are using the device_name device on node node_name

   Current work area is the individual work area on the node_name node.

   Please enter the type of work area which you want to save
   (c=current i=individual g=group p=public):

   **NOTE**

   The phrase, “on node node_name” is displayed only if your system is connected to a network.

2. Type c and press CR to select the current workarea.

3. The following prompt is displayed:

   Do you want an estimate of the number of diskettes needed? (y or n)

4. Type y and press CR. The following messages are output:

   Estimating the number of diskette(s) needed. Please wait...
5. When the program determines how large your workarea is and how many diskettes are needed to copy that workarea, the following message is displayed:

You will need about \(x\) diskette(s).

Do you want to format your diskettes? (y or n)

6. If your diskettes are not formatted, type y and press the CR key. (If your diskettes are formatted, go to step 11.)

**NOTE**

New diskettes must be formatted before they can be used. Note that formatting a used diskette erases any data that is on the diskette. Therefore, if you are not sure whether or not you should use a diskette, you can use the "View/Restore unit from: device_name" selection to read the files on the diskette. Refer to the Restoring a Workarea Unit procedure at the end of the chapter and perform steps 1 through 5. If the diskette has data on it, the file cabinets will be listed. Press the DEL key to cancel the restore unit process. If your diskette is blank, the following message is displayed:

There are no file cabinets in the archive - Press RETURN to continue

Press the CR key and continue with this procedure.

The following messages are output:

You are formatting diskettes on the device_name drive on node node_name

When you format a diskette any data it contains is erased. It is possible to view the contents of the media by the 'unit' menu selection. If you wish to cancel the format operation press the DEL key.

Please insert a diskette to be formatted.
Press return to start.
7. Insert a diskette into the disk drive as shown in Figure 3-1; then close the disk drive latch. (Do not install a write-protect tab onto a 5.25-inch diskette write-enable slot. However, if you are using 8-inch diskettes, you must install a write-enable tab.)

8. Press the \texttt{CR} key to start formatting the diskette.

9. As the diskette is formatted, the following messages are output:

\begin{verbatim}
formatting........
Formatted 80 tracks: 0 thru 79, interleave 4.
format another? (y or n)
\end{verbatim}

(Formating an 8-inch diskette results in a different message because of the difference in the number of tracks.)

If the following messages are displayed:

\begin{verbatim}
formatting.
Formatted 0 tracks.
format another? (y or n)
\end{verbatim}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure3-1}
\caption{Inserting a Flexible Diskette}
\end{figure}

\texttt{PM8-983}

\textbf{Saving and Restoring Workareas}
the diskette did not format. Check the following list to determine why it did not format:

• the drive latch was not closed,

• a write-protect tab is covering the write-enable slot on the diskette,

• the diskette was placed in the drive upside down,

• the diskette was placed in the drive backwards,

• the diskette was placed in the wrong drive or not placed in the drive at all,

• the diskette is defective.

If none of the reasons listed above caused the problem, consult your sub-network administrator or network manager.

10. Press y and the CR key if you have more diskettes to format.

11. Press n and the CR key if you have formatted all of your diskettes. The following messages are displayed:

   Ready to save the workarea now.
   Please insert a formatted diskette.
   Press return when ready.

12. Before you start to save your workarea, label all of your formatted diskettes. We recommend the following method, “1 of x”, “2 of x”, etc., with x being the total number of diskettes you will use for this particular save operation. This is very important; when you restore the workarea from the archive diskettes, they must be installed in the same order you used during the save operation.

13. Insert formatted diskette “1 of x” into the flexible disk drive; close the drive door and press the CR key to begin copying the workarea files onto the diskette. The name and size of each file displays on the screen as it is copied onto the diskette.
14. If more than one diskette is needed to backup the work-area, the following message is displayed when the first diskette becomes full:

```
tar: please insert new volume, then press RETURN.
```

Wait until the red light on the front of the flexible disk drive goes out, then remove the diskette and insert the second diskette. (This diskette should be labeled "2 of x"). Press the [CR] key to begin copying workarea files onto the second diskette.

Repeat this step until the entire workarea is saved.

15. When the entire workarea has been saved, the following message is displayed:

```
- Press RETURN for menu or select ahead
```

16. Press the [CR] key to redisplay the Aasave menu.

You have now copied (saved) your workarea onto flexible diskettes. Store the diskettes in a safe place. Note, these archive diskettes have no security; any user can read the contents into their workarea and view the data on their terminal.

**Restoring a Workarea**

Perform the following example to copy all files from the archive diskette back into your individual workarea. Note that you normally would do this procedure only when you had lost all files in your workarea. If you only need to restore a single file or directory, refer to the next section on restoring a workarea unit.

**CAUTION**

Restoring a workarea will overwrite any files in that workarea that have the same name as a file on the archive diskettes.
1. From the Aasave menu, choose the “Restore workarea from: device_name”. The following message is displayed:

   One moment please ...
   You are using the device_name device on node node_name
   Current work area is the individual work area on the node_name node.
   Please enter the type of work area which you want to restore (c=current i=individual g=group p=public):

2. Type c and press CR to select your individual workarea. The following prompts are displayed:

   Please insert the first backup diskette.
   Press return when ready.

3. Insert the first diskette into the drive; then press the CR key. (If you have more than one diskette, insert the one labeled “1 of x”.) The name and size of each file is displayed as it is copied into your individual workarea. When all files have been copied from the diskette, the following prompt is displayed:

   Are there more backup diskettes in the set? (y or n)

4. If there are more diskettes, remove the first diskette, and insert the diskette labeled “2 of x”; then type y and press the CR key. Repeat this step until all diskettes in the set have been copied.

   If there are no more diskettes in the set, type n and press the CR key.

5. When all diskettes in the set have been copied into your workarea, the following prompt is displayed:

   - Press RETURN for menu or select ahead >

6. Press the CR key to redisplay the Aasave menu.
Restoring a Workarea Unit

Perform the following example to copy an individual unit from the backup diskettes into your individual workarea. Note that a unit is the smallest piece of an archived workarea which can be individually restored. In some cases it may be a file; in others it may be a directory or a database. This procedure does not restore an entire workarea.

1. From the Aasave menu, choose the "View/Restore unit from: device_type". The following messages are displayed:

   One moment please ...
   You are using the device_name device on the node node_name
   Please insert the first backup diskette.
   Press return when ready.

2. Insert the first diskette (1 of x) into the drive, close the drive latch, and press the CR key.

3. When all the information has been read from the first diskette, the following prompt is displayed:

   Are there more backup diskettes in the set? (y or n)

4. If you have more than one diskette in the set, type y and press CR. The following prompt is then displayed:

   Please remove the current diskette and insert the next one.
   Press return to continue.

   After you have inserted the next diskette into the drive (2 of x) and closed the drive latch, press the CR key.

   Repeat this step until the complete set of archive diskettes has been loaded.

5. The program looks at the types of files on your archive diskette. It then organizes everything into file cabinets, drawers, etc. When it has finished analyzing the file structure, a list of your file cabinets is displayed.
6. Choose the file cabinet that contains the unit you wish to restore either by typing the name of the file cabinet or by using the arrow keys; then press CR. The next screen that is displayed depends on which file cabinet you chose. For example, if you chose the GENERAL, iDB, iPLAN, HOST-JOB, OTHER-iDIS, Non-iDIS, or HOST-OUTPUT file cabinet, a list of units in that cabinet is displayed. However, if you chose the iWORD or ASW file cabinet, a list of drawers is displayed. To display the units for these cabinets, choose the drawer you wish to open. A list of units in that drawer is displayed.

7. Select the units you wish to restore. To restore a unit, simply use the arrow keys to move through the list. If you want to restore only one unit from the list, press CR when the name is highlighted. If you want to select more than one unit, move to the first unit, press CTRL-f (the CTRL key and the f key), then move to the second unit and press CTRL-f, etc., until you have selected all but the last unit. Then move to the last unit and press the CR key. (If you change your mind about a unit you have selected, move to that unit and press CTRL-u to deselect it.) If you don’t want to restore any units in the list, press CR without highlighting any units.

8. When you press CR, the previous list is displayed (file cabinets or drawers). You can browse through and select units in other drawers or file cabinets at this time. When you have selected all units you wish to restore, press CR when the list of file cabinets is displayed.

9. The following messages are displayed:

Please wait ...

Current work area is the individual work area on the node_name node.

Please enter the type of work area into which you want to restore
{c=current i=individual g=group p=public}: 

Saving and Restoring Workareas 3-13
10. Type c and press the CR key to select the current workarea. The following messages are displayed:

Please insert backup diskette volume 1.
Press return when ready.

11. Press the CR key to begin restoring the units. The filenames and size are displayed as they are copied from the diskette to your workarea. When all the units have been restored, the following prompt is displayed:

- Press RETURN for menu or select ahead >

12. Press the CR key to redisplay the Aasave menu.

You now know how to choose a current backup device, save a workarea onto that device, restore a workarea, and restore units within a workarea. Proceed to the next chapter to learn about "killing" terminal activity.
The examples in this chapter show a new user how to perform the following tasks:

- See who is using the system
- Determine a user's terminal port name
- "Kill" terminal activity that has caused the terminal to hang up

Introduction

Occasionally a user's terminal gets hung up (i.e., it fails to respond to any keystrokes). When this occurs, you may have to "kill" the system processes associated with that terminal to get it to respond. However, when you kill a process, you will often lose any work not yet saved at that terminal. Therefore, do not kill a process before trying the following actions at the user's terminal:

- Power the terminal off and on.
- Press the \[DEL\] (Delete) key several times.
- Press \[CTRL-\] \[\] \[CTRL-\] \[I\] \[CTRL-\] \[I\] to abort the current processing activity.

If the terminal is still hung up after trying these actions, you must kill the system processes associated with the terminal.

NOTE

You can practice killing a terminal activity by having someone log into the system with the understanding that
they are not to use the terminal for any work until you have finished this example. You can then perform the following example without causing anyone to lose any work.

**Determining the Name of the User’s Terminal Port**

Before you can kill an activity associated with the terminal, you must know which system port the user’s terminal is connected to. Perform the following steps to find the terminal port name.

1. From the Aktop menu select “Key operator information display”.

2. The Akdisp menu is displayed as shown below:
3. Select “Display who is using the system”.

4. If your system is connected to a network, the nodes that you are responsible for are listed. Type the node name you wish to access and press CR.

5. The login ID, node, port, date and time of login are displayed in the following format:

<table>
<thead>
<tr>
<th>loginid</th>
<th>port</th>
<th>date</th>
<th>time</th>
</tr>
</thead>
<tbody>
<tr>
<td>jsmith</td>
<td>console</td>
<td>May 15</td>
<td>07:42</td>
</tr>
<tr>
<td>mlewis</td>
<td>ttyc2</td>
<td>May 15</td>
<td>07:50</td>
</tr>
<tr>
<td>ldavis</td>
<td>ttyc3</td>
<td>May 15</td>
<td>07:53</td>
</tr>
</tbody>
</table>

6. Find the login ID of the user whose terminal is hung up. The column following the login ID contains the name of the port that the user’s terminal is connected to. Write down the name of the port.

For example, Mary Lewis’ terminal is hung up. Her login ID is mlewis. If you look at the second column, you will see that her terminal is connected to port ttyc2.

7. Press the CR key and the Akdisp menu is redisplayed.

8. Press .b and CR to redisplay the Aktop menu.

**Killing Terminal Activity**

Now that you know which port the terminal is attached to, you can kill the terminal activity associated with it. Perform the following steps.

1. From the Aktop menu, select “Communications port operations” by pressing e and the CR key.

2. The Akport menu is displayed.
3. Choose the "Kill terminal activity *CAUTION*" selection.

4. If your system is connected to a network, a list of nodes you are responsible for is displayed. Select the node you wish to access and press the [CR] key.

5. The following prompt is displayed:

   Please enter the name of the port on which you want to kill activity (ttyxx or console):

6. Type in the port name. (In the example of mlewis, ttyc2 would be the entry.) Verify that you entered the correct characters; then press [CR].
7. A message is displayed as each process associated with the terminal is killed. When all processes have been killed, the following prompt is displayed at the bottom of the screen:

- Press RETURN for menu or select ahead >

A login prompt should appear on the terminal whose activities were killed.

8. Press .b and CR to redisplay the Aktop menu.

You now know how to kill an activity that has caused a terminal to hang up. Proceed to the next chapter to learn how to perform printer administration.
The examples in this chapter show a new user how to perform the following tasks:

- Select a current printer
- Show documents in a print queue
- Halt a printer
- Align printer paper
- Restart a printer

**Hints for Printer Administration**

As the key operator, you are responsible for the printers that are attached to your node. If a printer stops operating, make sure that the printer is ONLINE (check the switch settings on the printer), that it has paper, and that it has not run out of ribbon. Also, make sure that the cable is securely fastened to the printer connector and the System 310 rear panel connector.

**Choosing a Current Printer**

When you log into your system for the first time, your current printer is unassigned. You must select one of the printers that has been assigned to you. If you have already selected a current printer, you can always change your selection to any printer that has been assigned to you. This procedure shows you how to select a printer.
1. From the Aktop menu, select “Printer operations” by pressing p and the CR key.

2. The Aptr menu is displayed as shown below:

![Aptr Menu](image)

3. Select “Change current printer from: unassigned”.

4. A list of printers that have been assigned to you is displayed.

5. Select the printer you wish to use as your current printer and press the CR key.
6. The following message is displayed:

   - Press RETURN for menu or select ahead

7. Press the [CR] key to redisplay the Aptr menu.

The name of the printer you selected now appears in the first and fourth selections.

**Showing Documents in a Printer Queue**

When you send a document to the printer, it goes into the queue of the current printer. If the printer is free at that time, the document is printed immediately. However, if another document is being printed, your document is queued along with any other documents waiting to be printed. Documents are printed on a first-in, first-out basis.

**NOTE**

Files printed via Q-OFFICE* or Lyrix** are sent to a different print queue. Therefore, they will not be listed when you display this print queue. Refer to the Q-OFFICE or Lyrix manuals for details about the print queue.

1. To display the names of the documents in the printer queue, select “Show documents in printer queue” from the Aptr menu.

2. A list of the printers that have been assigned to you is displayed.

3. Select the queue you desire and press the [CR] key.

4. The job number, status, size, owner, and filename of each job in the queue are displayed in the following format.

---

*Q-OFFICE is a registered trademark of Quadratron Systems, Inc.

**Lyrix is a registered trademark of The Santa Cruz Operation, Inc.
The printer status is displayed on the second line. The printer may be halted, ready and printing, or off-line.

In this example, three jobs are in the queue. The job with the active status is currently being printed. The job that is 1st will be printed as soon as the active job is finished. The job that is 2nd will be printed after the active job and 1st job have been printed.

NOTE

If there are no jobs in the queue, only the header information is displayed.

Halting a Printer

Occasionally, you may need to realign the printer paper because someone needs to print a file onto a form or you need to install new paper into the printer. Before you perform a forms alignment, you should halt the printer to prevent other users from sending a job to the printer while you are aligning the paper. Any jobs that are currently in the print queue will be held until the printer is restarted.

1. From the Aptr menu, select “Halt printer”.

2. A list of printers that are assigned to you is displayed.

3. Select the name of the printer you want to halt, and press the CR key.
4. The following messages are displayed:

   Printer has been halted. - printer_name

   - Press RETURN for menu or select ahead

5. Press the CR key to redisplay the Aptr menu.

   Any jobs sent to the printer after it is halted will be held in the print queue until it is restarted.

**Aligning Printer Paper**

The following example shows you how to line-up text onto a form or printer paper. Note that you should perform the Halting a Printer procedure before proceeding.

1. Install the forms or printer paper. Make sure that the printer is on-line.

2. From the Aptr menu, select "Print forms alignment pattern".

3. A list of all printers that are assigned to you is listed. Select a printer by typing the printer name and pressing the CR key.

4. The following prompt is displayed:

   Printer Form Alignment

   How many characters wide?

5. Enter the number of characters in a line and press the CR key (i.e., a standard 8½ x 11 page is 80 characters wide, the wide printer paper is 133 characters wide).

6. A line is printed on the printer paper or form in the following format:

   

   7. Using the line as a guideline, adjust the paper or form to line-up properly.
8. The following prompt is displayed:

   again? (y,n)

9. Press y and \[CR\] to output the line again. Continue this process until the paper or form is properly aligned. When you are satisfied with the alignment, press n and the \[CR\] key in response to the “again?” prompt.

10. The following message is displayed:

    - Press RETURN for menu or select ahead 

    Press the \[CR\] key to redisplay the Aptr menu.

**Restarting the Printer**

Now that the paper is aligned properly, you must restart the printer to allow jobs to print. Any jobs in the queue of the halted printer will begin to print as soon as the printer is restarted.

1. From the Aptr menu, select “Restart printer”.

2. A list of printers that have been assigned to you is displayed.

3. Select the name of the printer you want to restart and then press the \[CR\] key.

4. The following message is displayed:

   Printer has been restarted. - printer_name
   - Press RETURN for menu or select ahead 

5. Press .b and the \[CR\] key to redisplay the Aktop menu.

You have now completed all the examples in this tutorial. You should now be able to boot up and shut down the System 310, save and restore workareas, kill terminal activities, halt and restart a printer, and align a printer form. For more information about the key operator menus and procedures and basic
iDIS procedures, refer to the *Key Operator User's Reference* and the *iBASE User's Reference*. 
INDEX

Aasave menu, 3-4 thru 3-14
administration
  system, 1-1
  printer, 5-1 thru 5-6
Akdisp menu, 4-2
Akport menu, 4-4
Aktop, 3-2
Aptr menu, 5-2 thru 5-6
aligning printer paper, 5-5
autoboot, 2-1 thru 2-4
backing up workareas, 3-6
backup device
  choosing, 3-5
  types, 3-1
booting up, 2-1 thru 2-4
drawer, 1-3, 3-13
halting a printer, 5-4
killing terminal activity, 4-1, 4-3 thru 4-5
menus
  Aasave, 3-4 thru 3-14
  Akdisp, 4-2
  Akport, 4-4

Aktop, 3-4
Aptr, 5-2 thru 5-6
Top, 3-3
printer
  aligning paper, 5-5
  choosing, 5-1 thru 5-2
  halting, 5-4
  queues, 1-5, 5-3
  restarting, 5-6
Q-OFFICE, 5-3
  queues, print, 1-5, 5-3
restarting a printer, 5-6
restoring
  units, 3-12 thru 3-14
  workareas, 3-10 thru 3-11
shutdown, 2-4 thru 2-5
Top menu, 3-3
units, 3-12 thru 3-14
workarea, 1-6, 3-6 thru 3-11
XENIX, 1-6, 2-1 thru 2-5
WE'D LIKE YOUR OPINION

Please use this form to help us evaluate the effectiveness of this manual and improve the quality of future documents.

To order publications, contact the Intel Literature Department (see page ii of this manual).

Fill in the squares below with a rating of 1 through 10:

<table>
<thead>
<tr>
<th>POOR</th>
<th>AVERAGE</th>
<th>EXCELLENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☐ Readability
☐ Technical depth
☐ Technical accuracy
☐ Usefulness of material for your needs
☐ Comprehensibility of material
☐ OVERALL QUALITY OF THIS MANUAL

If you gave a 4 or less (in any category), please explain here:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

What suggestions would you have for improving this manual?

__________________________________________________________________________
__________________________________________________________________________

If you would like us to call you for more specifics about this book, provide the following information. Please print clearly.

Name ________________________________________________________________

Phone Number (_______) ________________________________________________

Address ______________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Thanks for taking the time to fill out this form.