Bailey® infi 90®

Instruction

Operator Interface Console
(Release J.1)
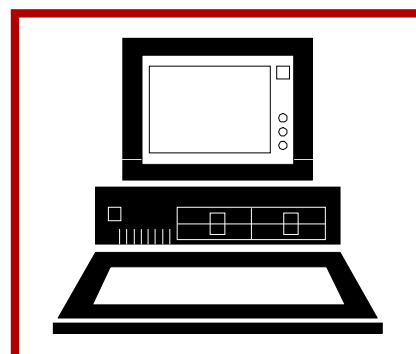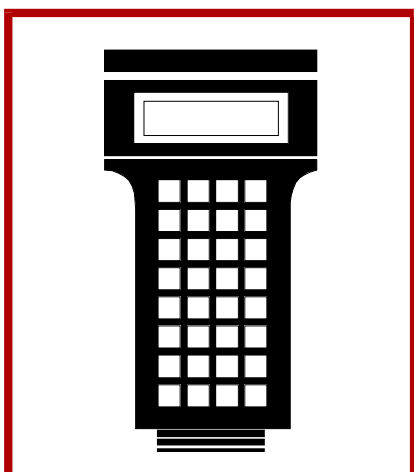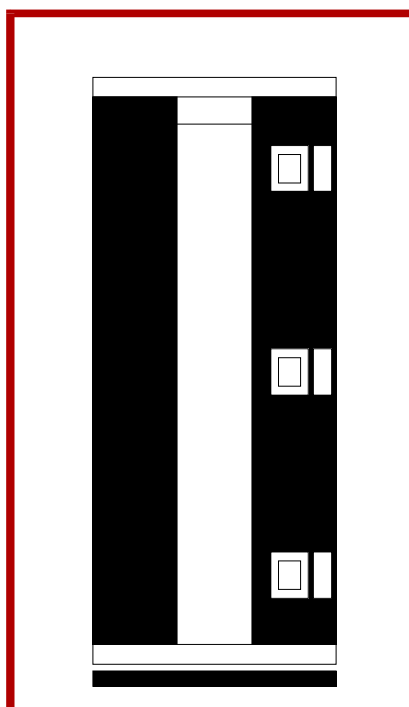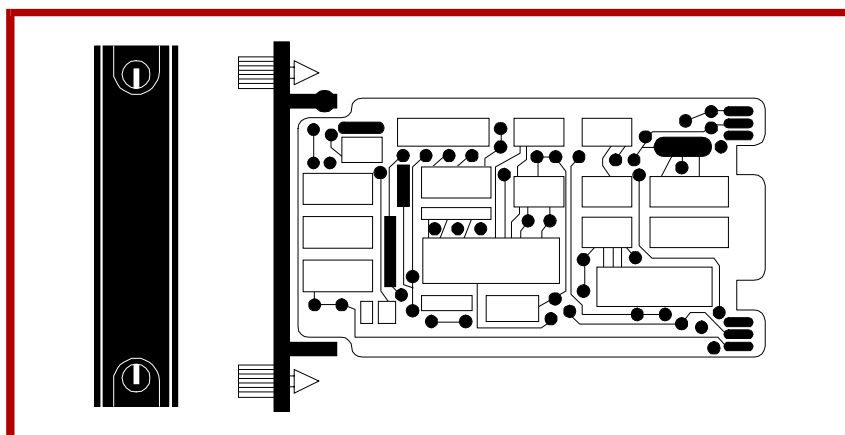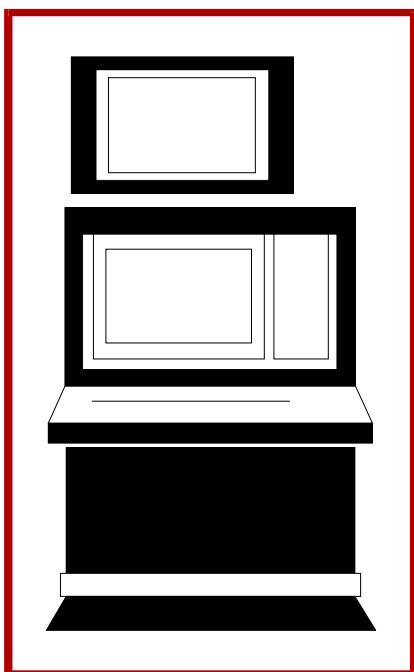
WARNING notices as used in this instruction apply to hazards or unsafe practices that could result in personal injury or death.
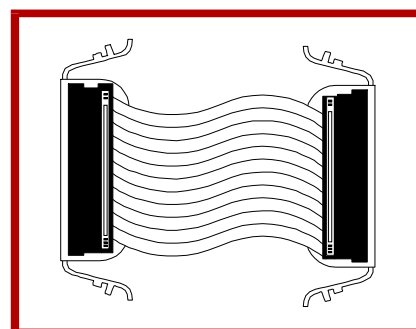
CAUTION notices apply to hazards or unsafe practices that could result in property damage.

NOTES highlight procedures and contain information that assists the operator in understanding the information contained in this instruction.

Preface

This instruction explains the procedures required to install software into and configure an IIOIC43 Operator Interface Console. This instruction reflects the J.1 software release for the OIC console.

This OIC console has the ability to operate with OIS consoles running OIS software revision level E.1.3 and later. Operational compatibility of the OIC console with a specific OIS console revision level is established during the installation process. When compatibility is established, the OIC console executes those comparable applications and utilities for the specified OIS console revision level as described in this instruction. All other functions available from an OIS window operate as detailed in the documentation for the OIS software revision level configured.

List of Effective Pages

Total number of pages in this instruction is 62, consisting of the following:

Page No.	Change Date
Preface	Original
List of Effective Pages	Original
iii through vi	Original
1-1 through 1-3	Original
2-1 through 2-14	Original
3-1 through 3-38	Original
Index-1	Original

When an update is received, insert the latest changed pages and dispose of the super-seded pages.

NOTE: On an update page, the changed text or table is indicated by a vertical bar in the outer margin of the page adjacent to the changed area. A changed figure is indicated by a vertical bar in the outer margin next to the figure caption. The date the update was prepared will appear beside the page number.

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Trademarks and Registrations

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™ Alpha	Trademark of Digital Equipment Corporation.
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SECTION 1 - INTRODUCTION

OVERVIEW

This section contains the information about the IIOIC43 auxiliary console and this instruction.

In this document, main or OIS console refers to 40 series consoles. Auxiliary or OIC console refers to the IIOIC43 series console.

INTENDED USER

This instruction can be used as a reference for system engineers or technicians responsible for installation and operation of the console.

After completely reading and understanding the information presented, the system engineer or technician should have the knowledge required to use the console.

This instruction assumes the reader is familiar with X Windows™ using MOTIF™ style windows and window manager. Refer to the *Operation* instruction for more information about X Windows and MOTIF.

INSTRUCTION CONTENT

This instruction contains three sections. It also contains a Table of Contents, List of Figures, List of Tables and Index giving several options to locate specific information quickly. The sections that make up this instruction include:

Introduction Provides an overview of the OIC console and this instruction.

Installation and Configuration Details how to load software into and configure the OIC console. This section also details how to configure the OIS console.

Applications and Utilities Describes the applications and utilities that are available on the OIC console.

HOW TO USE THIS INSTRUCTION

It is important to become familiar with the entire content of the instruction prior to performing any procedures to attain optimum and maximum use of all available functions. The organization enables finding specific information quickly, and permits using this instruction as a reference after becoming fully familiar with the console.

To use this instruction:

1. Read Section 2 for a description of how to update the console firmware of, load software into, and configure the OIC console.

2. Read Section 3 for a description of the applications and utilities that are available on the OIC console.

Be sure to read notes in text. Notes provide:

• Additional information.

• Information that should be considered before performing a certain operation or function.

DOCUMENT CONVENTIONS

This document uses standard text conventions throughout to represent keys, user data inputs and display items:

KEY   Identifies a keyboard key.

Example: Press ENTER.

Display item   Any item that displays on the screen appears as italic text.

Examples: *A OIS Configuration* (menu selection)
General Functions Menu (display title)
OIC43 updates complete (message)
Number of Copy Screen Printers (prompt)

File name   Any file names and file extensions appear as bold-italic text.

Examples: ***DISPL1.DU***

.DT

The document uses a specific set of text conventions for commands:

BOLD   Identifies any part of a command line that is **not** optional or variable, and must be entered exactly as shown.

italic   Identifies a variable parameter in a command line.

[ ]   Indicates a parameter is optional. Text within the brackets still follows the previously described conventions.

Example: **BOOTFILE: [***directory_name***]** *filename*

GLOSSARY OF TERMS AND ABBREVIATIONS

Table 1-1 is a glossary of terms and abbreviations used in the instruction. It contains those terms and abbreviations that are unique to Elsag Bailey or have a definition that is different from standard industry usage.

Table 1-1. Glossary of Terms and Abbreviations

Term	Definition
INFI-NET®	Advanced data communication highway.
OIS	Operator interface station; integrated operator console with data acquisition and reporting capabilities. It provides a digital access into the process for flexible control and monitoring.

REFERENCE DOCUMENTS

This instruction provides file utilities information only for the console. Table 1-2 lists additional documents that relate to hardware, operation, and configuration, and that are referenced in this instruction.

Table 1-2. Reference Documents

Console	Software Release	Operation	Configuration	File Utilities	Hardware
IIOIS40	E.2	I-E96-101D	I-E96-101D	N/A	I-E96-106D
IIOIS40PLUS	E.1	I-E96-103B	I-E96-103B	N/A	I-E96-106-1A
	F.1	I-E96-191-1A	I-E96-191-2A	I-E96-191-3A	I-E96-191-5A
	G.3	I-E96-191-1B	I-E96-191-2B	I-E96-191-3B	I-E96-191-5A
IIOIS41	E.1	I-E96-103B	I-E96-103B	N/A	I-E96-108A
	F.1	I-E96-191-1A	I-E96-191-2A	I-E96-191-3A	I-E96-191-4A
	G.3	I-E96-191-1B	I-E96-191-2B	I-E96-191-3B	I-E96-191-4A
IIOIS42	F.1	I-E96-192-1A	I-E96-192-2A	I-E96-192-3A	I-E96-192-4A
	G.2	I-E96-192-1B	I-E96-192-2B	I-E96-192-3B	I-E96-192-4A
	G.3	I-E96-192-1C	I-E96-192-2C	I-E96-192-3C	I-E96-192-4A I-E96-192-5A
	H.2	WBPEEUI220756A0	WBPEEUI220757A0	WBPEEUI220758A0	WBPEEUI220754A0
	J.1	WBPEEUI220756A1	WBPEEUI220757A1	WBPEEUI220758A1	WBPEEUI220754A0
IS42	G.2	I-E96-192-1B	I-E96-192-2B	I-E96-192-3B	I-E96-192-4A
	G.3	I-E96-192-1C	I-E96-192-2C	I-E96-192-3C	I-E96-192-4A
	H.2	WBPEEUI220756A0	WBPEEUI220757A0	WBPEEUI220758A0	WBPEEUI220761A0
	J.1	WBPEEUI220756A1	WBPEEUI220757A1	WBPEEUI220758A1	WBPEEUI220761A0
IIOIS43	H.2	WBPEEUI220756A0	WBPEEUI220757A0	WBPEEUI220758A0	WBPEEUI220760A0
	J.1	WBPEEUI220756A1	WBPEEUI220757A1	WBPEEUI220758A1	WBPEEUI220760A0
IS43	H.2	WBPEEUI220756A0	WBPEEUI220757A0	WBPEEUI220758A0	WBPEEUI220761A0
	J.1	WBPEEUI220756A1	WBPEEUI220757A1	WBPEEUI220758A1	WBPEEUI220761A0
IIOIC43	J.1	Software Instruction WBPEEUI220767A0			WBPEEUI220768A0

SECTION 2 - INSTALLATION AND CONFIGURATION

INTRODUCTION

This section explains the procedures necessary to load and configure the IIOIC43 console. How the OIS console is configured to function with the IIOIC43 console is also described in this section.

HARDWARE INSTALLATION

Install the OIC console according to the procedures specified in the **Hardware** instruction (Table 1-2 lists instruction numbers).

SOFTWARE INSTALLATION

The software installation procedure is divided into two parts. The first part consists of updating the OIC console firmware. The second part consists of loading the OIC console software.

The OIC console uses a hard disk drive (refer to Table 2-1 for the device names of the available drives). The OpenVMS™ operating system, its files, and the OIC console software files are stored on the hard disk drive. Installing software involves loading the disk drive from the CD-ROM drive (device name DKA400) using the current software release CD-ROM. Verify the module firmware required for this console with Table 2-2.

Table 2-1. SCSI Device Names

Name	Type
DKA0	Hard disk drive containing the IIOIC43 operating system and application software.
DKA400	CD-ROM drive used to load the OIS software.
MKA500	DAT (digital audio tape) tape drive.

Table 2-2. Current Minimum Firmware Requirements

Module	ROM	ID Number	Part Number	Revision
IIMKM02A/ IOC	27C512	U4	1900402A10	A.0

It is recommended that the following steps be performed when installing or upgrading the operating software on the OIC console.

1. When upgrading the operating software, save any software that is not supplied as part of the operating software and save

any configurations that will be reinstalled on the system. Examples include:

- Other Elsag Bailey software products.

- DEC™ layered products.

- Third-party software packages.

2. Make a record of network and OIC device definitions.

3. Make a backup of all the files on the console hard disk drives. Refer to **DISK BACKUP PROCEDURE** in this section for instructions on how to backup the hard disk drive.

> **NOTE:** It is recommended that you maintain backups of the OIC console hard disk drive as part of normal operating procedures. Maintaining an up-to-date backup is a good engineering/operating discipline. This helps ensure that a now-working version of the system can be restored in the event of a hard disk drive failure or a configuration change which has a major effect on console or plant operation.

4. Determine and update the OIC console CPU firmware revision level. Refer to **Firmware Update** in this section for more information.

5. Install the operating software in accordance with instructions provided in this section.

6. Perform any necessary network and peripheral configuration procedures.

7. Restore any additional Elsag Bailey software products, DEC layered software products, and third party software that was previously installed on the OIC console.

Firmware Update

The central processing unit of OIC consoles contains console firmware in a flash ROM memory. This firmware provides a number of basic functions including the console program, diagnostic testing capabilities, and operating system bootstrap. Before the software is installed the revision of firmware and specific firmware settings must be verified. Console commands are provided that will: display required information, set new values, save changes, or boot console. The commands are as follows:

BOOT - Boots the console using the boot device and boot flags specified by the environment variables.

INIT - Saves the changes to the environment variables and resets the central processing unit.

SET - Sets the value of a firmware variable. The command requires that the environment variable and the new value are specified.

SHOW - Displays either environmental variables or hardware configurations. The asterisk (*) wild card character can be used to display all environmental variables. Press the `Hold` key to display one screenful of information. Press the `F1` key to scroll the rest of the file one screen full at a time. A specific environmental variable setting can be displayed by typing the environmental variable name after the **SHOW** command, for example: **SHOW BOOT_DEV**. The hardware configuration can be displayed by typing **CONFIG** after the show command. Specific hardware configurations can be displayed by typing the specific configuration item after the **SHOW** command, for example **SHOW DEVICE**. Specific hardware configuration **SHOW** command options are: **DEVICE**, **ERROR**, **MEMORY**, **PAL**, **VERSION**. **DEVICE** lists all SCSI devices. **ERROR** displays the contents of the error log. **MEMORY** displays the memory configuration. **PAL** displays the versions of PALs in the central processing unit. **VERSION** displays the version of firmware currently loaded in the central processing unit.

POWERING UP THE CONSOLE

If the console has no software or is being powered up for the first time after installing a new system hard disk drive:

1. Verify the monitor is turned on.

2. Verify the AlphaStation™ is turned on.

3. Energize the console.

The system diagnostics are executed.

4. Press the `Ctrl` - **C** keys when the following message appears:

    CPU 0 booting

This key combination may have to be pressed several times before the >>> prompt appears.

5. Proceed to the firmware updating and software loading procedure portions of this instruction.

If software is already installed in the console, proceed to *DETERMINING/UPDATING FIRMWARE REVISION* in this section.

DETERMINING/UPDATING FIRMWARE REVISION

Each version of the OpenVMS Alpha™ operating system requires a minimum revision level of console firmware.

1. To determine the current console firmware revision, perform one of the following procedures to get to the >>> prompt. Either:

At power up, press the halt button on the central processing unit when the following message appears:

OpenVMS Alpha (TM) Operating System, Version Vx.x

where:

> *x.x*   Version number such as 1.5, 6.1, etc.

- or -

At power up, press the Ctrl **- C** keys when the following message appears:

CPU 0 booting

This key combination may have to be pressed several times before the >>> prompt appears.

- or -

If the console is up and running, select the **OIS SHUTDOWN** menu command, login to the SYSTEM account, and type the following DCL command at the $ prompt:

@SYS$SYSTEM:SHUTDOWN Return

Press Return in response to all prompts until >>> prompt appears on the screen.

2. At the >>> prompt, type:

SHOW VERSION Return

The current version of firmware is displayed on the screen. For example:

Version   V6.2-2 date time

NOTE: The date and time are an indication of when the firmware was created.

3. Compare the current console firmware revision level with the minimum console firmware revision requirements specified

in the release notes for the version of software being installed. If the current console firmware revision level is equal to or greater than the minimum required, proceed to ***ENVIRON-MENT VARIABLE SETTINGS*** in this section. If the current console firmware revision level is not satisfactory, proceed to the next step.

4. Press the eject button on the CD-ROM drive. The tray will slide out.

5. Remove (if present) the currently installed CD-ROM.

6. Install the CD-ROM with the OIC43J101 volume label (contains system software and firmware update utility) and press eject button on CD-ROM drive to get tray to slide in.

7. At the >>> prompt, start the firmware update utility by typing:

    BOOT -FL E,A0 DKA400 `Return`

8. When prompted, enter the name and location (directory) of the boot file specified in the release notes by typing:

    BOOTFILE: [*directory_name***]***file_name* `Return`

where:

    directory_name   Name of the directory containing the specified boot file.

    file_name   Name of the specified boot file.

The firmware update utility menu will appear on the screen.

9. At the *APU->* prompt, type:

    UPDATE SRM `Return`

10. At the *APU-I ARE YOU READY TO PROGRAM (SRM) ROM DEVICE ?* prompt, type:

    Y `Return`

The console flash ROM memory will now be updated.

11. At the *APU->* prompt, type:

    QUIT `Return`

12. Set the main power circuit breaker located on the power entry panel to the off position.

13. Wait approximately 30 seconds.

14. Set the main power circuit breaker to the on position.

The CPU firmware is now updated.

ENVIRONMENT VARIABLE SETTINGS

Proper console operation requires that specific environmental variables have certain values. Table 2-3 lists the specific environmental variables and their required values.

Table 2-3. Environmental Variables and Required Values

Environmental Variables	Required Value
Auto_action	BOOT
Boot_osflags	0,0
Bootdef_dev	DKA0.0.0.6.0
Bus_probe_algorithm	NEW
Console	GRAPHICS
Ewa0_mode	AUI
Kbd_hardware_type	LK411
Pka0_fast	0

Use the following procedures to check each of the environmental variables to ensure that the required value is set, to set the required value if it is not, and save any changes.

1. To check the environmental variable value, perform one of the following procedures to get to the >>> prompt. Either:

At power up, press the halt button on the central processing unit when the following message appears:

OpenVMS Alpha (TM) Operating System, Version Vx.x

where:

x.x   Version number such as 1.5, 6.1, etc.

- or -

At power up, press the Ctrl - C keys when the following message appears:

CPU 0 booting

This key combination may have to be pressed several times before the >>> prompt appears.

- or -

Login to the SYSTEM account, and type the following DCL command at the $ prompt:

@SYS$SYSTEM:SHUTDOWN Return

Press Return in response to all prompts until >>> prompt appears on the screen.

2. At the >>> prompt, type the following to display the value for the specific environmental variable.

SHOW *environmental_variable* Return

where:

*environmental_* *variable*	Name of the specific environmental variable.

The value set for the environmental variable will be displayed on the screen. If the value does not match the required value listed in Table 2-3 perform steps 3 and 4 to enter and save new value.

3. To enter a new environmental variable value, type:

SET *environmental_variable value* Return

where:

*environmental_* *variable*	Name of the specific environmental variable.
value	The required value listed in Table 2-3.

4. Once all the required changes have been made to the environmental values, type:

INIT Return

This saves any and all changes made to the environmental values.

Software Loading

To load the software into an OIC console:

1. Press the halt button on the central processing unit.

2. Press the eject button on the CD-ROM drive. The tray will slide out. Remove the presently installed CD-ROM.

3.   Install the CD-ROM with the OIC43J101 volume label (contains operating system and console application software) and press the eject button on the CD-ROM drive.

4.   At the >>> prompt, type:

BOOT -FL E,0 DKA400 Return

5.   After approximately 4 minutes, a menu appears. Select *Install OIC43 Revision J.1 System Disk* from the menu. The operating system and application software will be loaded and verified and the menu will be displayed.

6.   Select *Shut down this system* from the menu.

7.   Press the eject button on the CD-ROM drive. The tray will slide out. Remove the presently installed CD-ROM.

OIC CONSOLE CONFIGURATION

To configure the OIC console:

1.   Open a terminal window, logging into the SYSTEM account.

2.   Add the node name of the OIS console to the OIC console node database by typing:

ADDNODE *node_name node_address* Return

where:

node_name   Node name of the OIS console.

node_addres   DECnet™ node address of the OIS console.

3.   Verify the correct node name and address were added to the node database by typing:

SHOWNODES Return

A list of all known node addresses is displayed.

4.   Configure the OIC with the console software revision level of the OIS console it is associated with by typing:

OISREV Return

5.   Select the OIS console software revision level from the displayed list and press Return.

At this point the OIC consoles updates the session manager menu configuration files and MOTIF key mapping files. The

message *OIC43 updates complete* appears when the files are updated.

6. Enter **N** when prompted to reboot the OIC console enabling the changes to take effect.

7. Select *Exit* from the **OISREV** menu.

8. Type:

    DEFINEDEVICES $\boxed{\text{Return}}$

9. Enter the node name of the OIS console effected by startup, shutdown, and reset requests from the OIC console and press $\boxed{\text{Return}}$.

10. Enter the number of copy screen printers (0 through 4) used by the OIC console and press $\boxed{\text{Return}}$.

11. For each printer, enter the server node name where the copy screen printer will be connected.

12. For each printer, enter the port name where the copy screen printer will be connected.

A message stating that the OIC console needs to be rebooted for the changes to take effect will be displayed. Do not reboot. Continue with the OIC console configuration.

13. Change the default OIC console node name and address to a unique name and address by typing:

    CHANGEDECNET *new_name DECnet_address* $\boxed{\text{Return}}$

where:

new_name	New node name.
DECnet_address	New DECnet address or *n.m* (*n* is node area or a number 1 through 63 and *m* is node address or a number 1 through 1023).

The **CHANGEDECNET** command will automatically shut down the OIC console application.

14. At the >>> prompt, type:

    BOOT $\boxed{\text{Return}}$

The OIC console will restart with all configuration updates in effect.

OIS CONSOLE CONFIGURATION

To configure the OIS console for use with the OIC console:

1. Open a terminal window, logging into the SYSTEM account, at the OIS console.

2. Add the node name of the OIC console to the OIS console node database by typing:

   ADDNODE *node_name node_address* $\boxed{\text{Return}}$

where:

   node_name   Node name of the OIC console.

   node_addres   DECnet node address of the OIC console.

3. Verify the correct node name and address were added to the node database by typing:

   SHOWNODES $\boxed{\text{Return}}$

A list of all known node names and addresses is displayed.

4. Type:

   DEFINEDEVICES $\boxed{\text{Return}}$

If prompted, specify if the network interface unit being used is an IIMCP02 module in SCSI mode.

5. Enter the number (1 through 8) of keyboards supported by the OIS and all associated OIC consoles and press $\boxed{\text{Return}}$.

6. For each keyboard enter the device port name as:

   _TTxx**:** (Enter the default designation for OIS console keyboards.)

   - or -

   OIC_consoles_node_name (for OIC console keyboards when OIS console software revision level E or F is executing)

   - or -

   OIC41 (for OIC console keyboards when OIS console software revision level G or H is executing)

   - or -

   OIC43 (for OIC console keyboards when OIS console software revision level J or later is executing)

7. For each OIC keyboard enter the node name.

8. Enter the number (0 through 4) of general purpose printers supported by the OIS and all associated OIC consoles and press `Return`.

9. For each general purpose printer enter the device port name as:

LAT (for printer connected to a DECserver™)

- or -

OIC_console_node_name (for printers connected to OIC consoles when OIS console software revison level E or F is executing)

- or -

OIC41 (for printers connected to OIC consoles when OIS console software revision level G or H is executing)

- or -

OIC43 (for printers connected to OIC consoles when OIS console software revision level J or later is executing)

10. For each general purpose printer enter the node name (OIC printers), server name (LAT printers), and server port name (LAT printers) where the printer will be connected.

11. Enter the number (0 through 4) of screen copy printers supported by the OIS console and press `Return`

12. For each screen copy printer enter the server node name and port name where the printer will be connected.

13. Type:

REBOOT `Return`

The OIS console will restart with all configuration updates in effect.

14. Configure the OIC keyboard as an MKM2 type with one ADP panel and enter the OIC console node name as the X server node. Refer to the ***Configuration*** instruction for more information (Table 1-2 lists instruction numbers).

15. Configure the number of printers to the correct number of general purpose printers being used and save the configuration. Refer to the ***Configuration*** instruction for more information (Table 1-2 lists instruction numbers).

After the OIS software is restarted, the *X-Device Definition* screen can be used to send OIS windows to the OIC console.

DISK BACKUP PROCEDURE

After building an OIC system (software load and network configuration), back up the operating system and application software disk drive. In the event of a disk drive failure or other hardware failure, the system will not have to be rebuilt from the beginning.

The OpenVMS operating system must be shut down before a complete disk copy can be performed. Before doing this, exit any open accounts. The following procedure copies the contents of a disk drive to a single tape cartridge. Backing up the operating system and application software disk drive requires one tape cartridge. To back up multiple disk drives on one tape cartridge consult the supplied OpenVMS documentation.

To back up a disk drive:

1. Set the main power circuit breaker located on the power entry panel to the off position.

2. Attach the tape drive to the OIC console.

3. Set the main power circuit breaker to the on position.

4. Press the halt button on the front of the central processing unit after the following message appears:

   OpenVMS Alpha (TM) Operating System, Version Vx.x

where:

   x.x   Version number such as 1.5, 6.1, etc.

5. Insert a blank tape cartridge into the tape drive.

6. Install CD-ROM OIC43J101 into the CD-ROM drive.

7. At the >>> prompt, boot minimal VMS, from the CD-ROM drive, up by typing:

   BOOT -FL E,0 DKA400 `Return`

8. After approximately 4 minutes, a menu appears. Select *Execute DCL commands and procedures* from the menu.

9. At the $$$ prompt, complete disk backup by typing:

   INITIALIZE MKA500: *label* `Return`

MOUNT/FOREIGN MKA500: Return

MOUNT/OVERRIDE=ID DKA0: Return

BACKUP/VERIFY/IMAGE/REWIND DKA0:
MKA500:*name.ext***/SAVE_SET/LABEL=***label* Return

where:

label	Tape cartridge label. This should be the first six characters of the save set file name. If the file name is less than or equal to six characters in length, the tape label and save set file name should be identical.
name.ext	File name and extension of the save set file to be created on the tape.

10. Remove, label, and date the backup tape cartridge.

11. At the *$$$* prompt, type:

    LOGOUT Return

12. Select *Shut down this system* from the menu.

DISK RESTORE PROCEDURE

The OpenVMS operating system must be shut down before restoring the system disk from a backup tape cartridge. Before doing this, close any open accounts. The following procedure restores a disk drive with the saved disk drive contents from a tape cartridge.

To restore a disk drive:

1. Set the main power circuit breaker located on the power entry panel to the off position.

2. Attach the tape drive to the console.

3. Set the main power circuit breaker to the on position.

4. Press the halt button on the central processing unit after the following message appears:

    OpenVMS Alpha (TM) Operating System, Version Vx.x

where:

x.x	Version number such as 1.5, 6.1, etc.

5. Insert the desired backup tape cartridge into the tape drive.

6. Install CD-ROM OIC43J101 into the CD-ROM drive.

7. At the >>> prompt, boot minimal VMS from the CD-ROM by typing:

   BOOT -FL E,0 DKA400 `Return`

8. After approximately 4 minutes a menu appears. Select *Execute DCL commands and procedures* from the menu.

9. At the *$$$* prompt, complete disk restoration by typing:

   MOUNT/FOREIGN DKA0: `Return`

   MOUNT/FOREIGN MKA500: `Return`

   BACKUP/VERIFY/IMAGE/REWIND MKA500:*name.ext***/
   SAVE_SET DKA0:** `Return`

   where:

name.ext	File name and extension of the save set file (on the backup tape) being restored.

10. Remove the backup tape cartridge.

11. At the *$$$* prompt, type:

    LOGOUT `Return`

12. Select *Shut down this system* from the menu.

SECTION 3 - APPLICATIONS AND UTILITIES

INTRODUCTION

This section explains the applications and utilities available on the IIOIC43 console. These applications and utilities are listed in Table 3-1.

Table 3-1. Function Applicability

Application/Function	Applicable OIS Software Revision
Abort screen copy	E and later
Screen copy	
Screen copy color map	
Screen copy configuration	
Touch screen setup	
Touch pad configuration	F and later
Mouse cursor configuration	H and later
OIS window environment configuration	
OIS menu bar configuration	

NOTE: After the OIC console has been configured for the desired OIS console software revision level, only the utilities applicable to that revision level will appear on the session manager pull-down menus.

The message window application is opened during initial console start-up. All other applications and utilities are run from session manager options available from the OIC console.

LOG-IN WINDOW

A terminal window (DECterm) is needed to perform operations such as running utilities and executing system commands. Also, an application can be run by typing the appropriate command at the dollar sign ($) prompt of a terminal window. The session manager provides a *Login Window* option used to open a terminal window and log into an account.

To open a terminal window:

1. From the session manager, choose *Applications*.

2. Choose *Login Window*. After a short time, a window appears.

3. Set input focus to the window.

INTRODUCTION

4. Type the name of an account in the *Username* field, then press ⟨Return⟩. Normally, **OISENGR** or **SYSTEM** would be used for a main console and IIOIC42 auxiliary console, and **SYSTEM** for an IIOIC43 auxiliary console. Refer to the ***File Utilities*** instruction for a description of OIS accounts.

5. Type a password in the *Password* field, then press ⟨Return⟩. The password does not appear. After a short time, the dollar sign (*$*) prompt will appear.

To log into a different account from the current terminal window, type the following to call the *Username* and *Password* input fields:

SET HOST 0 ⟨Return⟩

To close a terminal window:

1. If not already open, open the window.

2. Type:

LO ⟨Return⟩

MAIL

When sending mail to a main console, send it to the OISOPER user. When sending mail to an IIOIC43 console, send it to the SLAVE user.

MESSAGE WINDOW

The message window presents OIS related messages such as start-up, shutdown, and reset messages. It also presents network related messages.

The message window becomes available after console start-up. If the message window application has been closed, it can be opened again from the session manager. To run the message window application:

1. From the session manager, choose *Applications*.

2. Choose *Message Window*.

When a message is received, the system sounds a tone to inform the operator. Open the message window to view any messages. Messages are not lost if the window is changed to an icon or overlaid.

Various network conditions can cause the generation of operation communication (OPCOM) messages. These are often seen when the network is first being configured. They also can be

generated by the network system manager and provide information relating to network shutdowns or other network events.

BOOKREADER

The bookreader application on the OIC console provides on-line documentation for:

- Using bookreader.
- POSIX for OpenVMS Alpha version 2.0.
- Digital TCP/IP Services V4.1 for OpenVMS.

SCREEN COPY

Two methods for initiating a screen copy are provided: Command line menu *PRINT* option and pull-down menu *Screen Copy* option. The *PRINT* option is accessed from within the OIS application. This option can only be used to print the contents of an OIS application window. The *Screen Copy* option is accessed from the *OIS Utilities* pull-down menu and allows printing any window including an OIS application window.

The primary difference between the two methods is that the *PRINT* option freezes the blinking attributes of the OIS application window so they can be captured for printing. This method is recommended if the blinking items are important to the copy. The *Screen Copy* option does not freeze the blinking attributes and depending on timing may or may not capture any blinking attributes.

Screen Copy Printers

A printout using either screen copy method can be directed to one of up to four network printers connected at terminal servers. The printers available for screen printing are different and completely separate from those used to print logs and reports generated by the OIS application. The screen copy function currently supports the following types of printers:

- DEC LJ250 (IIPRT06).

- DEC LF01 (IIPRT07).

- DEClaser 2150 with PostScript$^®$ option only.

- HP$^®$ Deskjet 550C (IIPRT08).

- HP Deskjet 560C (IIPRT08A).

- HP LaserJet III with PostScript option only.

- HP PaintJet XL300.

- Lexmark 4079 Plus color jet (use DEC LF01 color Post-Script printer configuration).

Refer to the **Hardware** instruction for information on printer connection and cabling (Table 1-2 lists instruction numbers). Before a screen copy can be initiated, a printer must be configured and selected.

Print Node

The print node is the node responsible for printer configuration, capture of a window, and directing the image to the print queue manager. By default, the print node for an OIS application window is the node that generates the window. X device definition can be used to identify another node as the print node for a particular OIS application window. This allows off-loading the print node work to another node. The assignment affects printing initiated with the command line menu *PRINT* option only. The session manager is always the print node when using the *Screen Copy* option of the *OIS Utilities* pull-down menu.

A print node can be selected on a per window basis. Any console running the screen copy utility can be a print node. Refer to the discussion on window management in the **Configuration** instruction for a description of X device definition (Table 1-2 lists instruction numbers).

Screen Copy Configuration Utility

Selection and configuration of a printer is performed by using the screen copy configuration utility. The printer selected with the utility will be used for printouts initiated with either the command line menu *PRINT* option or the *Screen Copy* option of the *OIS Utilities* pull-down menu. Run the utility to:

- View the current printer settings.
- Select a printer.
- Configure a printer.

   NOTE: The screen copy configuration utility does not have to be running to initiate a screen copy.

To run the screen copy configuration utility:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Screen Copy Configuration*.

Any non-fatal errors encountered during screen copy configuration appear as messages at the bottom of the utility window. A fatal error appears in a dialog box. The only fatal error is not being able to communicate with the screen copy task.

Buttons   Click *Apply* after configuring and selecting a printer. This saves the information.

Click *Reset* to restore the previously saved printer configuration and selection.

Click *Exit* to exit the utility.

> **NOTE:** In the screen copy configuration utility, a depressed button indicates enabled. A raised button indicates disabled.

Selecting a Printer

A screen copy can be directed to one of four printers. To select a printer to receive a print job:

1. Open the screen copy configuration window. If a printer has not been configured, perform the steps given in **Configuring a Printer** in this section before continuing.

2. Choose a printer from the list of configured printers at the top of the window.

3. Click *Apply* to enable the selection.

Click *Reset* before *Apply* to cancel the printer selection and restore the previous printer selection.

4. Click *Exit* to exit the utility.

Configuring a Printer

Before printing a screen, a printer must be configured. Four different configurations can be defined. A few different methods can be used to configure the printers. The following paragraphs describe two methods.

Method 1   In a system having four different printers on the network available for screen printing, each configuration can be for a specific printer. This allows selecting to which of the four to send a print job. Each printer can be of the same type or of different types.

Method 2   For a system with only one printer for screen printing, each configuration can be set up with different print attributes. In this case, the single printer can be configured four different ways. Each setup is dependent on the type of screen printing to be performed. For example, the printer can be set up for gray scale printing in one configuration and color printing in another. This allows easily switching between the two print modes without having to reconfigure the printer.

To configure a printer:

1. Open the screen copy configuration window.

2. Select a printer to configure from the list of printers at the top of the window (either a previously configured printer or an unconfigured printer).

3. Enter a name for the printer configuration in the *Configuration Name* field. The name should be meaningful since it is also the text that appears at the top of the window to identify this printer. The name should be descriptive enough to easily identify the printer and its configuration. For example:

HP 560C - B&W

4. Select a queue name from the *Queue Name* list. This is used to direct a printout to a specific printer (primary printer). The queue name is the name assigned to a printer during network configuration. Refer to **QUEUE NAME** in this section for further explanation.

5. Select a printer type from the *Printer Type* list.

    NOTE: An HP LaserJet III with a PostScript cartridge installed or a DEClaser 2150 can be used for screen printing if desired. Choose the DEC LF01 printer type when using either of these printers.

6. Select a queue name from the *Backup Queue Name* list. In this case, the queue name selects a backup printer rather than a primary printer. Refer to **SCREEN COPY PRINTER FAILOVER** in this section for an explanation of a backup printer.

7. Enter the number of copies to print in the *Copies* field.

8. Select the paper size from the *Paper Size* list if the printer type is HP PaintJet XL300.

9. Set the print attributes. The print attributes are the orientation, color swap, window border, and color mapping options. Refer to **PRINT ATTRIBUTES** in this section for an explanation of these settings.

10. Set the *Discard Prints when Dead-End Encountered* option. Refer to **SCREEN COPY PRINTER FAILOVER** in this section for an explanation of this option.

11. Click *Apply* to save the configuration. This also selects the printer.

    Click *Reset* before *Apply* to discard any changes and to restore the previous configuration and printer selection.

12. Click *Exit* to exit the utility.

The following message appears if a change is made to the configuration when print jobs are currently queued:

Warning - Configuration Change while Screen Copy in Progress

Whether a job prints according to the new or old configuration depends on timing. A print job already queued to the print manager uses the old configuration.

QUEUE NAME

Each printer used for screen printing must first be identified to the console by using the **DEFINEDEVICES** procedure. Refer to Section 2 for an explanation of the procedure. During this procedure, a queue name is automatically assigned to a printer to identify it to the print queue manager. The queue name is used in the screen copy configuration utility to direct a print job to a specific printer. A queue name is in the format:

$RSCQn

where:

n	Queue number from one to four that corresponds to printer one to four.

Selecting the same primary printer queue name in configurations that do not have the same printer type is not permitted. As long as the printer types are the same, the queue name can be used in more than one configuration. The following message appears if the printer types are different for configurations using the same queue name:

Queue x assigned to different printer types in configurations x and x

The message is only seen when configuration changes are applied.

PRINT ATTRIBUTES

The *Orientation* attribute selects either portrait or landscape printing.

The *Colors* attribute determines how the printer is to treat colors. If *As Viewed* is chosen, the printout uses the same color scheme as on the screen. If *Swap* is chosen, the colors in the printed version will be swapped based on the screen copy color map settings. Refer to ***Screen Copy Color Map Utility*** in this section. When printing OIS application windows that have a

black background, it is suggested that the swap option be used and black be mapped to white.

The *Window Border* attribute determines whether or not the printed version screen contains the window border that appears around the OIS application window. Choose *Include* to have the border print.

The *Color Mapping* attribute allows selecting either a color printout or a gray scale or black and white printout depending on the type of printer being configured. Access to the *Color* and *Grayscale/B&W* options is automatically enabled or disabled based on the type of printer selected.

> **NOTE:** If using an HP LaserJet III or a DEClaser 2150, choose the *Grayscale/B&W* option.

CONSIDERATIONS

The amount of time it takes to print an image depends on:

Window Size   The larger the window, the longer it takes to process the image.

Border Option   When printing with the border on, the print head must travel the entire width of the image on every pass. Printing without a border reduces the travel distance, which speeds up the printing process. The effects of printing without a border are more evident when there is a large amount of blank space between the image and the border.

Color Mapping Option   Printing in color takes more processing time than printing in gray scale or black and white. Also, the data files for color printing are larger. This makes gray scale or black and white printing faster than color printing.

Image Complexity   The more complex the image, the longer the time required to process then print the image.

The recommended configuration to minimize print time is:

- Gray scale/black and white.
- Color swap enabled with black swapped with white.
- No border.

SCREEN COPY PRINTER FAILOVER

Printer failover can be enabled to automatically transfer the work load of a failed primary printer to a working backup printer with no information lost or delayed. When a printer is found to be stalled or stopped, the print job is removed from the failed printer and directed to a backup printer of the same type. Additionally, when the primary printer comes back on-line, failover automatically discontinues and any new work is directed to the primary printer. Any print jobs already

queued to the backup printer when the primary comes back on-line, however, are completed by the backup printer.

A print job that transfers to a backup printer uses the print attributes configured for the printer from which it was transferred. For example, if a primary printer is configured for black and white printing and its backup printer is configured for color printing, a print job transferred from the primary printer prints on the backup printer in black and white.

Two options set during printer configuration are for printer failover: *Backup Queue Name* and *Discard Prints when Dead-End Encountered*. The discard option works whether a backup printer is selected or not.

When failover occurs, the following message appears in the OIS application window:

RSC failover on $RSCQn, job #n

The failover status can be seen in the diagnostic log. Refer to the **File Utilities** instruction for information about the diagnostic log.

> NOTE: When printing a small job, the print job will not failover to another printer if the job is no longer in the print queue when a printer fails.

Backup Queue Name

The *Backup Queue Name* is used to select a backup printer. Selecting a printer of a different type to be a backup printer is not permitted. For example, an HP Deskjet 550C printer can only failover to another HP Deskjet 550C printer. If a printer of a different type is selected, the following message appears:

Backup Queue x assigned to different printer types in configurations x and x

The message is only seen when configuration changes are applied.

The *Backup Queue Name* can be used to set up a printer failover sequence. For example, four screen printers that are all the same type are available. Printer one can be setup to failover to printer two, printer two to printer three, printer three to printer four, and printer four to printer one. By setting up failover in this way, all printers will be checked to find a working printer. If the last failover of printer four to printer one is not setup, the failover stops at printer four.
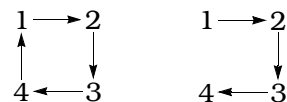
Example: If set up to fail from printer one to two and two to one and both printers have stopped or stalled, a print job is saved and both printers are continuously checked until a working printer is found. If set up to fail from printer one to two but not two to one, a print job from printer one fails over to printer two but remains queued to printer two. It waits for printer two to come back on-line and never returns to printer one. Both examples assume discard prints is not enabled. In either example, if discard prints is enabled, the print job is canceled if both printers are found to have stopped or stalled.

Discard Prints

The *Discard Prints when Dead-End Encountered* option determines what is to be done with a print job if a working printer cannot be found. A print job directed to a failed printer can either be discarded or saved until a working printer can be found.

Enable the option to cancel a print job. All files associated with the print job will be deleted. Disable the option to save a print job until a working printer can be found.

The *Discard Prints when Dead-End Encountered* can be enabled even if the *Backup Queue Name* is set to *NONE*. If enabled, a print job is canceled and all associated files for the job queued to a stalled or stopped printer will be deleted. In this case, failover is not checked.

Initiating a Screen Copy

The following sections explain the two different methods for initiating a screen copy. It is recommended to use the command line menu *PRINT* option if blinking items in an OIS application window are important to a copy. The option freezes the blinking items before capturing the image. This guarantees that they will appear in the printout. The blinking items may or may not appear in the printout if using the *Screen Copy* option. This option does not freeze the blinking items before capturing the image.

> **NOTES:**
> 1.   Only two screen copies can be queued at one time.
>
> 2.   The screen copy configuration utility does not have to be running to initiate a screen copy.

The *Screen Copy Color Map* option of the *OIS Utilities* pull-down menu can be used to set up color swapping. Refer to **Screen Copy Color Map Utility** in this section for the procedures to set up the color swapping.

COMMAND LINE MENU PRINT OPTION

The command line menu *PRINT* option is one method used to initiate a screen copy of an OIS application window. Before

initiating a screen copy, make sure the printer that is to receive the print job has been configured and selected. Refer to *Configuring a Printer* and *Selecting a Printer* in this section for the procedures.

> **NOTE:** When printing with the DEC LJ250, reduce the window size before initiating a screen copy.

To initiate a screen copy:

1. Set input focus to the OIS application window that is to be printed.

2. Press COM'D LINE MENU . This calls a bottom line menu.

3. Choose *D PRINT*. The screen freezes momentarily until captured for printing.

Refer to *Canceling a Queued Screen Copy* in this section for the procedures to cancel a print request.

PULL-DOWN MENU SCREEN COPY OPTION

The *Screen Copy* option of the *OIS Utilities* pull-down menu can be used to initiate a screen copy of any window including an OIS application window. Before initiating a screen copy, make sure the printer that is to receive the print job has been configured and selected. Refer to *Configuring a Printer* and *Selecting a Printer* in this section for more information.

To print a *selected window*:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Screen Copy*. The mouse pointer changes in shape after selecting the option.

3. Point to the window that is to be printed and click MB1 or MB3 to initiate the print. The mouse pointer should return to its original shape after the print request is made.

To print the *entire screen*:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Screen Copy*. The mouse pointer changes in shape after selecting the option.

3. Position the mouse pointer anywhere in the screen background, then click MB1 or MB3. The mouse pointer should return to its original shape after the print request is made.

To cancel the screen copy before selecting a window, click MB2. The mouse pointer should return to its original shape

after canceling. Refer to *Canceling a Queued Screen Copy* in this section for the procedures to cancel a print request after it has been initiated.

Setting the Number of Copies

To set the number of copies to print:

1. Open the screen copy configuration window.

2. Enter the number of copies in the *Copies* field.

3. Click *Apply*.

Click *Reset* before *Apply* to cancel the change.

4. Click *Exit* to exit the utility.

Canceling a Queued Screen Copy

To cancel the last queued screen copy request:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Abort Screen Copy*.

A dialog box appears to verify the cancellation.

Screen Copy Color Map Utility

The *Screen Copy Color Map* utility is used to set up color swapping. The utility is intended to allow changing the OIS application window background and the screen background for printing; however, any colors can be swapped.

To run the screen copy color map utility:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Screen Copy Color Map*.

Buttons   Click *OK* to save the changes and exit.

Click *Reset* to restore the previously saved color swap settings.

Click *Defaults* to restore the default color swaps as defined in the software.

Click *Cancel* to exit without saving.

SETTING UP A COLOR SWAP

A color swap works in two directions. For example, if set up to swap black with white, not only will black be swapped with white but white will be swapped with black.

A single color can only be swapped once. If a color is repeated in both color swap lines, the second swap will be ignored. For example, if set up to swap black with white and blue with white, the second swap of white with blue will not occur.

Black ←——→ White
Blue ——→ White

The default color swapping is to swap black with white and blue with white. When printing an OIS application window, this causes the black background to be printed in white and any white text to be printed in black. When printing the entire screen, this causes the blue background to print in white.

NOTE: Do not select blinking colors for swapping. The results of a blinking color swap are unpredictable.

To set up a color swap:

1. In the screen copy color map window, select the first color box of a swap line. The mouse pointer changes to a cross hair.

2. Place the cross hair over a color that is to be swapped, then click MB1.

3. Select the second color box of the swap line. Again the mouse pointer changes to a cross hair.

4. Place the cross hair over a color that the first color is to be swapped with, then click MB1.

5. Click *OK* to save the changes and exit.

NOTE: The OIS color palette display is a graphic that contains all 64 colors available for OIS displays. The display can be used to select colors for swapping. Use *Display by Name* and enter the display name as **!CLRPAL** to call the display.

Examples: Table 3-2 contains some examples of color swapping and describes the results of this swapping.

Table 3-2. Color Swap Examples

Example	Swap Setting	Result
A[1]	Swap black with white Swap blue with white	Black ←——→ white Blue ——→ white
B[2]	Swap black with white Swap white with blue	Black ←——→ white White ←—— blue
C[3]	Swap black with white Swap white with black	Black ←——→ white White black
D	Swap black with white Swap red with green	Black ←——→ white Red ←——→ green

NOTES:
1. Default settings.
2. Results are the same as example A.
3. Second swap is ignored.

COLOR SWAP CONSIDERATIONS

If *As Viewed* is set for the selected printer, color swapping is disabled.

If *Grayscale/B&W* is set for the selected printer, a color that is swapped to white will not appear in the printout. A color that is swapped to any other color except white prints in black.

OIS DIAGNOSTIC LOG

This utility requests an *OIS Diagnostic Log* (or *VLOG*) window from the main OIS console. To use this utility, select *OIS Diagnostic Log* from the *OIS Utilities* pull-down menu. Refer to the **Operation** instruction for more information.

OIS ACTIVITY MONITOR

This utility requests an *OIS Activity Monitor* window from the main OIS console. To use this utility, select *OIS Activity Monitor* from the *OIS Utilities* pull-down menu. This window displays network interface unit exception report information, current memory allocations, and input/output activity for the OIS console. Refer to the **Operation** instruction for more information (Table 1-2 lists instruction numbers).

TOUCH PAD

A touch pad is a window that emulates some of the actions that can be performed from the operator keyboard. Touch points allow interacting with the touch pad using either the mouse, trackball, or touch screen. There are five different touch pads: display, numeric, control, operator keyboard, and auxiliary keyboard. Figures 3-1, 3-2, 3-3, and 3-4 show the standard versions of the display, numeric, control, and operator keyboard touch pads.
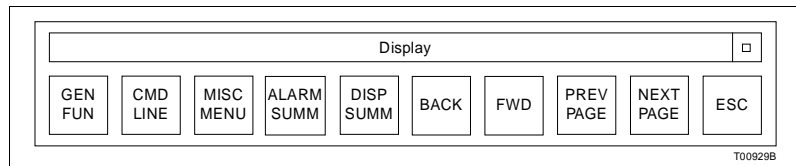
Figure 3-1. Standard Display Touch Pad

The display touch pad provides some of the same functions that are found in the display control block section of the operator keyboard. The numeric touch pad is functionally the same as the numeric keypad on the keyboard, but does not include any punctuation keys. The buttons of the control touch pad are functionally the same as the keys in the station and remote
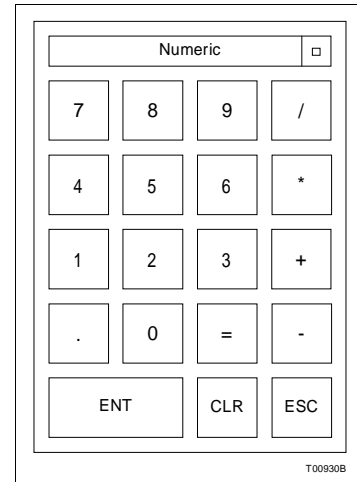
*Figure 3-2. Standard
Numeric Touch Pad*
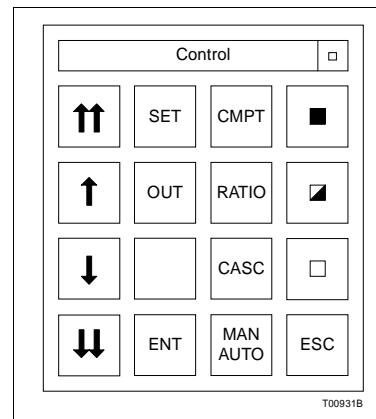
*Figure 3-3. Standard
Control Touch Pad*
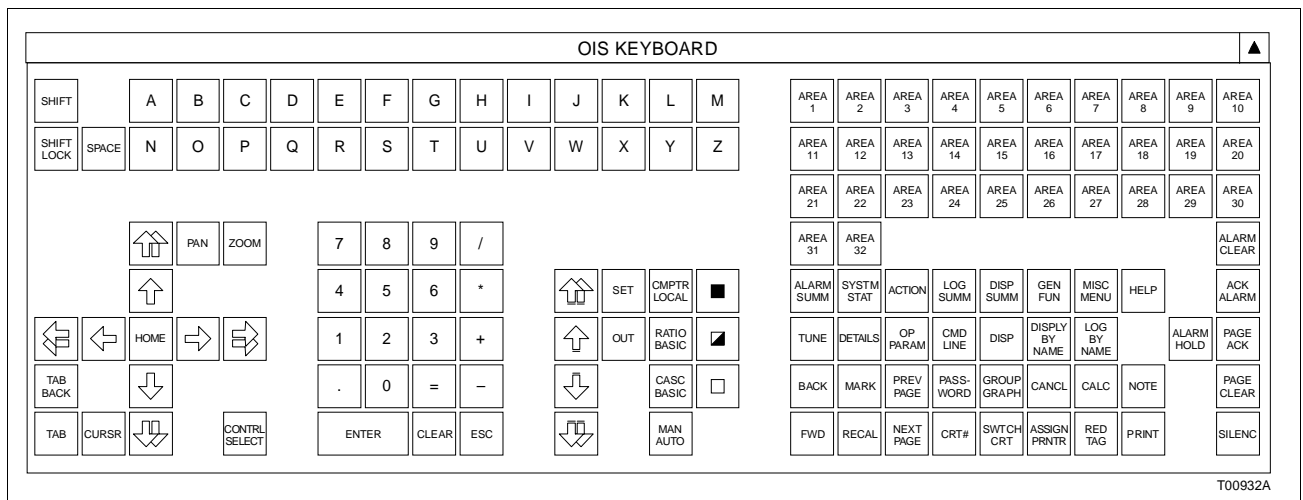
Figure 3-4. OIS Keyboard Touch Pad

TOUCH PAD

control block keyboard section with the addition of an enter (*ENT*) and escape (*ESC*) button.

> **NOTE:** The ALARM SUMM and DISP SUMM buttons do not appear when the display touch pad uses the standard key size.

The operator keyboard touch pad provides all the same functions found on the operator keyboard. The auxiliary keyboard touch pads provide the same functions as found on the physical auxiliary keyboard. The auxiliary keyboard touch pad contains all the functionality of the physical keyboard. The basic alphanumeric key layout (QWERTY) functionality is provided in the auxiliary keyboard touch pad. The keypad, however, contains only the key functionality of the numeric keypad section.

Refer to the **Operation** instruction for the location of the equivalent operator keyboard keys, a description of the functions they perform, and an explanation of the process control actions performed from the control touch pad.

OIS Application Configuration Requirements

The *Enable Control From Pointing Device* field must be enabled on the general parameters page during system configuration to enable the touch pads. Refer to the discussion on general parameters configuration in the **Configuration** instruction for the procedures to enable the field (Table 1-2 lists instruction numbers).

Touch Pad Configuration Utility

Some set up options are provided for the touch pads. The configuration for a touch pad can be changed at any time. Each touch pad can be activated or deactivated individually. Only three touch pads can be activated for a CRT at one time. The activated touch pads are the first three in the touch pad configuration listing that have a YES listed under CRT1 or CRT2. Different touch pads can be activated on different CRTs.

> **NOTE:** In the touch pad configuration utility, a depressed button (denoted by shading on the left and top) indicates enabled. A raised button (denoted by shading on the right and bottom) indicates disabled.

To run the touch pad configuration utility:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Touchpad Configuration*.

Buttons   Click *Configure* to call the configuration window for the selected touch pad or to create a new touch pad.

Click *Remove* to delete the selected touch pad from the touch pad configuration listing.

Click *Activate* after setting up the touch pads to put any changes into effect.

Click *Exit* to save any changes made to touch pad configuration files and exit utility.

Configuring Touch Pads

Both standard and custom touch pads are configured in the Configure Touchpad window. The CRT activation, initial state, and key size can be configured for both standard and custom touch pads. Custom touch pads also allow for the amount of keys, key selection, and key pad orientation to be configured. To configure a touch pad:

1.   Select the name of a custom touch pad that requires reconfiguration or select new to configure a new touch pad. Click *Configure*. This causes the Configuration Touchpad window to be displayed.

2.   Choose which screen, CRT1 for the lower or CRT2 for the upper, that the touch pad will be displayed on.

3.   Choose the initial state that the touch pad will appear on the CRT - window or icon.

Window - the touch pad is initially displayed as an open window with all touch pad keys visible.

Icon - the icon contains the name of the touch pad.

4.   Choose key size for touch pad - standard or small.

Standard - maximum touch pad matrix size is 16 x 20 keys.

Small - maximum touch pad matrix size is 22 x 28 keys.

5.   The *TouchPad Description* text box contains a description of the touch pad. Click inside text box to enter a new description (required when a new custom touch pad is configured) or change current description. The description is limited to 30 characters.

6.   The *Window/Icon* text box contains the name of the touch pad. Click inside text box to enter a new label (for a new custom touch pad) or change current label. The label is limited to 30 characters.

7.   Configure the touch pad layout. If reconfiguring a custom touch pad, use the mouse to resize, reposition, and reorient the key layout in the window. If configuring a new custom touch

pad, use the mouse to change the size, orientation, and position of the window. Changing the size and orientation of the window adjusts the number of push-button keys available.

8. Copy keys from the keyboard palette to the touch pad by: first, clicking on the key in the touch pad; then, clicking on the key in the keyboard palette. Any touch key in a custom touch pad can be changed.

The keyboard palette includes all the functionality of the standard operator keyboard as well as some additional keys. The new keys provide access to select station and remote control block key functionality that would normally be accessed by toggling between different operation modes and are described below.

The `MAN/AUTO` operator keyboard key functionality is provided by separate MANUAL and AUTO touch pad keys.

The `CMPTR` operator keyboard key, which toggles between the computer and local mode, functionality is provided by separate CMPTR and LOCAL touch pad keys.

The `CASCADE` operator keyboard key, which toggles between basic and cascade operation, functionality is provided by separate CASC and BASIC touch pad keys.

The `RATIO` operator keyboard key, which toggles between basic and ratio operation, functionality is provided by separate RATIO and BASIC touch pad keys.

Ramp value arrow touch pad keys are distinguished from cursor/trend control arrow touch pad keys in that the ramp value arrow keys have an additional bar at the end of the shaft.

9. Click *OK* to accept the custom touch pad configuration or *CANCEL* to void changes. Both commands close the Configuration Touchpad window and returns to the Configure Touchpad window.

10. Click either *ACTIVATE* or *EXIT*.

The *ACTIVATE* command provides the option to save the new custom touch pad configuration or activate a previous configuration.

Select *YES* to save and activate a new custom touch pad configuration.

Select *NO* to activate previous custom touch pad settings.

Select *CANCEL* to terminate activation.

> **NOTE:** A new custom touch pad configuration must be saved in order to be activated.

The *EXIT* command provides the option to either save the new custom touch pad configuration before exiting, or exit without saving any changes.

Select *YES* to save custom touch pad configuration and exit utility.

Select *NO* to exit utility without saving changes.

Select *CANCEL* to return to Touchpad Configuration window.

Using a Touch Pad

Using a touch pad does not change window input focus. The touch pads work only for the OIS application window that currently has input focus. Use the touch pad keys in the same way that the keyboard keys are used. The result of a touch pad action is the same as its equivalent keyboard key. The keyboard and touch pads can be used simultaneously. A touch pad window can be shrunk to an icon and moved in the same way as other windows.

> NOTE: Do *not* position the touch pads so they overlap. This causes overlapped touch pads to continually try to come to the foreground wasting excessive amounts of CPU processing time.

TOUCH SCREEN

A touch screen provides an alternate method to interact with the console by emulating the actions normally performed with the mouse. Since touch screen works similar to the mouse, any discussion about mouse operation in this instruction or the **Configuration** instruction also applies directly to touch screen. This section discusses:

- Various setup options for touch screen.

- Procedures to initially and periodically calibrate the touch screen.

- Operation of touch screen in an OIS application window and in other MOTIF windows.

Using the Touch Screen

With touch screen, the screen can be touched at a specific location to perform an action in the same way as can be performed by using a mouse (or trackball). Touch screen is operational at all times while the console is operating. The OIS application does not need to be active.

OIS Application   Within the OIS application, touch screen enables selecting a display element for control, calling another display, or choosing a menu option by touching a designated area on the

TOUCH SCREEN

screen. This designated area is called a touch point. A display must contain a touch point escape code (**ei 107**) for each of its active areas before a touch point select can be performed.

Pressing a touch point causes a short audible tone from the keyboard. Also, the outline of a display or display element changes to a highlight color when selected for control.

> **NOTE:** The *Highlight Selected Touch Area* field on the general parameters page must be enabled during system configuration for highlighting to occur. Refer to the discussion on general parameters configuration in the **Configuration** instruction for the procedures to enable the field (Table 1-2 lists instruction numbers).

Other Applications Outside the OIS application, touch screen enables the same MOTIF window operations that can normally be performed with the mouse, for example, setting input focus, relocating windows, selecting menu options, and minimize window or restore icon.

Touch Screen Setup Utility

The setup and calibration of an OIC console touch screen is performed by using the touch screen setup utility. Run the touch screen setup utility to:

- View the current touch screen settings.
- Define how touch screen is to operate.
- Perform calibration.

> **NOTE:** In the touch screen setup utility, a depressed button indicates enabled. A raised button indicates disabled.

To run the touch screen setup utility:

1. From the session manager, choose *OIS Utilities*.

2. Choose *Touchscreen Setup*.

The touch screen setup utility can be run on the upper screen and the lower screen simultaneously. The setup only affects the operation of the screen on which it is running.

Buttons Click *OK* to apply any changes then exit the utility. This applies the current settings, but does not save the changes to file. Be sure to select *Save* prior to *OK* if the changes are to be saved.

Click *Apply* to apply the changes and leave the window open. The changes are not saved to file. The previous settings saved to file can be restored at any time.

Click *Save* to save any changes made to the setup and also the last calibration to file. The settings and calibration can then be

restored from file. The information also becomes the defaults used during a boot-up.

Click *Restore* to restore the previous settings and the previous calibration. The button restores the information last saved to file.

Click *Command* to open a window to display touch coordinates. This is needed for calibration.

Click *Calibrate* to open a calibration window.

Click *Cancel* to exit the utility.

TOUCH SCREEN OPTIONS

The options in the touch screen setup utility:

*   Enable or disable dragging.
*   Enable or disable a touch tone.
*   Adjust the touch tone volume.
*   Adjust the touch sensitivity.
*   Adjust the untouch time.

Choosing the Options

To setup touch screen:

1. Set the touchdown and liftoff options to enable the desired type of touch operation. Refer to **Dragging** in this section for a description of the options.

2. Enable or disable the *Audible Touch* option. If enabled, use the *Audible Touch Volume* slide bar to adjust the volume. Refer to **Touch Tone** in this section for a description of the option.

3. Set the *Jitter Control* by adjusting the slide bar. This may require some trial and error for proper adjustment. Refer to **Touch Sensitivity** in this section for a description of the setting.

4. Set the *Untouch Time* by adjusting the slide bar. This also may require some trial and error for proper adjustment. Refer to **Untouch Time** in this section for a description of the setting.

5. When completed, click either *Save* or *Apply*.

Click *Cancel* before any other buttons to exit without making any changes.

Dragging

The *Press* and *Release* settings determine how a screen touch will be interpreted. The touch screen can be setup to interpret

a touchdown, liftoff, or both as a mouse click. One of three combinations of press and release options can be selected. The following describes the operating characteristics enabled by each combination.

Option 1   Select *Press on Touchdown* and *Release on Liftoff* to enable dragging. This allows resizing and moving an active window as if pressing and holding the mouse button, dragging the pointer, then releasing the mouse button. The touch screen sequence to achieve the same result is to press the screen, keep pressure on the screen and move to the desired location, then release the screen.

Option 2   Select *Press on Touchdown* and *Release on Touchdown* to disable dragging. A touch is immediately recognized as a mouse click when the screen is touched.

Option 3   Select *Press on Liftoff* and *Release on Liftoff* to also disable dragging. With this setting, a touch is not recognized until the screen is released.

Touch Tone

Activate *Audible Touch* to enable a tone that sounds each time the screen is touched. Use this option to hear audible feedback to verify a touch selection. This option only affects the tone outside of graphics in the OIS application. Touching a point in an OIS application graphic causes a tone to sound whether *Audible Touch* is enabled or disabled. This feedback is internal to the OIS application and cannot be disabled. The *Audible Touch* option is disabled by default.

The *Audible Touch Volume* slide bar adjusts the tone volume. Adjust the slide bar to the desired volume level. The range is from zero to 100 with 100 being the loudest.

Touch Sensitivity

Use the *Jitter Control* slide bar to adjust touch screen sensitivity. The sensitivity may need to be adjusted if experiencing problems accurately touching a point or if small movements are being interpreted as window moves rather than as a specific selection. The higher the jitter control number, the less sensitive the touch screen is to movement. Adjust the slide bar to the desired sensitivity. This may require some trial and error for proper adjustment.

Untouch Time

The *Untouch Time* slide bar adjusts the amount of delay necessary between touches for the console to recognize successive touches. For example, if the slide bar is set to one second then the operator must wait at least one second after a touch for the

next touch to be recognized. The default for the slide bar is 0.15.

CALIBRATION

After initially installing touch screen, it must be calibrated. It can also be calibrated at any time to compensate for different operators.

> **NOTE:** Within the OIS application, the *Calibrate Touch Screen* option does not function for this console.

Calibration Points

The *Calibration Points* slide bar sets the number of touch points used for calibration. The number of points ranges from four to 25. Each point appears as an icon that must be pressed during the calibration procedure.

Set the number of points before clicking *Calibrate*. The more points used, the more accurate the calibration.

Calibrating

To calibrate:

> **NOTE:** Be sure the number of calibration points is set first.

1. Click *Calibrate*. This brings up a window that covers the entire screen. The window will contain from four to 25 touch point icons depending on the *Calibration Points* slide bar setting.

2. Press each touch point icon in succession as they become active. The pointer sequences to the next active icon as each is pressed. The previous icon is replaced by an x,y coordinate. Touch an icon as close to the center as possible. Do ***not*** try to move the pointer. The console returns to the setup window after the last icon is pressed.

Click MB3 at any time to exit calibration. MB3 is the right button by default.

3. When completed, click either *Save* or *Apply*.

Click *Restore* to cancel the calibration just performed and restore the previous calibration. Click *Cancel* before any other buttons to discard the calibration just performed.

The calibration may need to be repeated to fine tune the touch screen depending on the accuracy of the initial or previous calibration.

Testing the Calibration

The touch screen calibration can be verified for accuracy while performing the calibration procedure. To do this, compare the x,y coordinate shown as each touch point is pressed with previously pressed touch points. The x-coordinate of all vertical touch points in a given column should be within 100 of each other. The y-coordinate of all horizontal touch points in a given row should be within 100 of each other.

A bad coordinate pair is one where either the x-coordinate or the y-coordinate does not align with an adjacent coordinate as described. If bad coordinates appear, repeat the previous calibration procedure. If bad coordinates still appear, follow the procedures given in **Threshold Adjustment** in this section.

To further test the calibration:

1. Click *Command*. This brings up a command window that will display an x,y coordinate as one is received from the touch screen driver.

2. Pick a spot on the screen and press it. Note the resulting x,y coordinates that display.

3. Repeatedly tap the touch screen at the same location approximately 25 to 30 times. Observe the touch screen coordinates in the command window while doing this. All resulting x,y coordinates should be within 100 of each other. If any coordinates appear bad, follow the procedures given in **Threshold Adjustment** in this section.

4. Click *OK* when finished to close the command window.

Threshold Adjustment

To adjust the touch screen controller threshold to correct for coordinate errors:

1. Shut down and power off the console.

2. Disconnect and remove the IIMKM02A module from the multibus card cage.

3. Adjust the R3 potentiometer ¼-turn counter clockwise (CCW).

4. Install and connect the IIMKM02 module.

5. Power up the console.

6. Verify the calibration as explained in **Testing the Calibration** in this section.

Do not repeat this procedure more than four times. If the R3 potentiometer is adjusted too much, the controller will stop transmitting coordinates. If this occurs, adjust R3 two full turns clockwise (CW) and repeat the adjustment procedure. If proper adjustment cannot be achieved, the touch screen controller is assumed to be bad. Replace the touch screen controller.

CONFIGURING THE OIS WINDOW ENVIRONMENT

The window features that will be made available to the operator are configured using the environment configuration utility. This utility provides the ability to select which functions each of the OIS windows will have. Windows can be configured to remain at a fixed size and location or allow for changes in size and location, as well as, minimization and maximization.

Environment Configuration Utility

The configuration dialog box for the OIS window environment is accessed through the *OIS Utilities* menu option. Run the utility to:

- Select the window to configure.

- Select which window functions to activate or deactivate.

- Select inclusion of window features such as menu bar, tear-off menus, restore window location or size at start- up, and start-up display.

To run the configuration utility:

1. From session manager, select *OIS Utilities*.

2. Select *Environment Configuration*.

   NOTE: Simultaneous multiple console access to the environment configuration utility is prohibited. If a number of consoles try to access this utility at the same time an error message will appear on the screen indicating that the console is unable to run the utility because it is already running on another console in the system. Indication of which node is currently accessing the utility is provided.

Buttons Click *OK* after selecting window functions, border decorations, and window features that are to be employed. This saves the settings to disk and exits the utility.

Click *RESET* to restore the previously saved settings.

Click *DEFAULT* to change the current settings to established default settings.

Click *CANCEL* to exit the configuration utility without saving the changes.

Selecting Windows Capabilities/Features

The capabilities and features that a particular OIS window will have depend upon the selected functions, decorations, and display features. To select these items:

1. Select the window that is to be configured.

2. Select which window function, decoration, and feature items are to be active. The items are selected by clicking on the button to the left of the item title.

Buttons   Click *SIZE* to allow the operator to vary size of the window. The *RESIZE BORDER* must be selected in order to use the mouse to resize the window.

Click *MOVE* to allow the operator to relocate the window on the screen. *TITLE* must also be selected in order to use the mouse to move the window.

Click *MINIMIZE* to allow the operator to minimize the window to an icon. *TITLE* and *MINIMIZE BUTTON* must also be selected in order to use the mouse to minimize the window.

Click *MAXIMIZE* to allow the operator to maximize the window to its maximum allowable size. *TITLE* and *MAXIMIZE BUTTON* must also be selected in order to use the mouse to maximize the window.

Click *CLOSE* to allow the operator to be able to close the OIS window. *TITLE* and *MENU* must also be selected in order to use the mouse to close the window.

Click *RESIZE BORDER* to allow the operator to resize the window using the mouse cursor. *SIZE* must also be selected otherwise this border decoration will not be active.

Click *WINDOW BORDER* to have a frame, which encloses the open window, appear on the screen.

Click *MINIMIZE BUTTON* in order to use the mouse to minimize the window to an icon. *TITLE* must be selected for the minimize button to appear in the upper right corner of the window. Also, *MINIMIZE* function must be selected otherwise this button will not be active.

Click *MAXIMIZE BUTTON* in order to use the mouse to maximize the window to its maximum allowable size. *TITLE* must be selected for the maximize button to appear in the upper right

corner of the window. Also, *MAXIMIZE* function must be selected otherwise this button will not be active.

Click *TITLE* to display the title bar along the top of the window. This is required if *MINIMIZE BUTTON*, *MAXIMIZE BUTTON*, or *MENU* are selected.

Click *MENU* to provide the window control button. This button provides access to the window control menu. *TITLE* must be selected in order for the window control button to appear in the upper left hand corner of the window.

Click *OIS MENU BAR* to display the menu bar along the top of the window just below the title bar. This provides access to pull down menus containing either standard or custom options.

Click *OIS TEAR-OFF MENUS* to provide the operator the capability to tear off any of the pull-down menus. This allows for the pull-down menus to be repositioned on the display so that the operator can see the entire window without having the pull-down menu in the way or having access to menu options when the window is pushed to the back of the stack.

Click *RESTORE WINDOW LOCATION/SIZE AT STARTUP* to restore the window to its size and location on the screen before an OIS shutdown occurred.

Click *STARTUP DISPLAY* to designate the window display that will appear upon an OIS start-up. The file name of the display is entered into the text box to the right of the command. If the display file does not exist an error message will appear along the bottom of the *Environment Configuration* window and be written to the diagnostic log.

If *STARTUP DISPLAY* is not selected or the display file does not exist the general functions menu will be displayed.

CONFIGURING THE MENU BAR

A custom OIS window menu bar and associated pull-down menus can be configured using the *Main Configuration* window. This feature provides the ability to add, remove, or reposition menu bar labels, and create pull-down and submenus which contain display call-up functions, menu options, and OIS functions. The same custom menu bar is used on all OIS windows.

Main Configuration Window

The *Main Configuration* window consists of a function menu bar, configuration area, and the move buttons. The function menu bar contains the *File*, *Edit*, and *Insert* menu options. These options allow for the creation and modification of a

custom OIS menu bar and associated pull-down and sub-menus. The configuration area contains the custom menu bar as it appears on all OIS windows, and the pull-down menu hierarchy structure of a selected menu bar label.

Menu labels, which have associated submenus, are enclosed by outward angle brackets (< and >) to differentiate them from functional items. These menus are referred to as closed. Initially, the submenus are not displayed. Positioning the mouse pointer on a menu label and double clicking the MB1 mouse button, displays the associated submenu. Double clicking MB1 on the menu label will also cause the submenu to close, that is, hide it from view. When the submenu is open the menu label is enclosed by inward angle brackets (> and <).

Items in menu hierarchy can be selected through drag operation. Any single menu item or a group of contiguous menu items can be selected (highlighted) at the same time.

To access the *Main Configuration* window:

1. From the session manager, choose *OIS Utilities.*

2. Choose *Menu Bar Configuration.*

File Options   Click *FILE* to access the following custom menu file options:

Click *SAVE* to save the current menu configuration to disk.

Click *EXIT* to exit the *Main Configuration* window. If changes have not been saved a dialog box will appear. The operator is able to either click *YES* to save changes before exiting, click *NO* to exit without saving changes, or click *CANCEL* to return to the *Main Configuration* window.

Edit Options   Click *EDIT* to access the following custom menu file editing options:

Click *CUT* to remove selected items from menu hierarchy and place them on the clipboard. The clipboard is a temporary holding area in memory. Items will remain in the clipboard until a paste operation is performed, or either a copy or another cut operation is performed. This replaces the previous contents of the clipboard with the latest selection. If the cut items has submenus associated with it the submenus will also be cut. The menu hierarchy, displayed in the configuration area, will be updated to reflect the changes.

Click *COPY* to copy the selected menu items onto the clipboard. If a selected item has submenus associated with them, the submenus will also be copied. The menu hierarchy, displayed in the configuration area, will be updated to reflect the changes.

Click *PASTE* to insert contents of clipboard into the menu hierarchy below currently selected item. If the selected item is closed, the contents of the clipboard are inserted below it. If the selected item is open, the contents of the clipboard are inserted into the associated submenu. The menu hierarchy, displayed in the configuration area, will be updated to reflect the changes.

Click *MODIFY* to perform modifications to the selected menu item. One of three windows will appear, depending on the item selected.

- If the selected item is a menu option label, the *Menu Configuration* dialog box will be displayed. Refer to ***Menu Label Configuration Dialog Box***, in this section, for a description.

- If the selected item is a display label, the *Display Configuration* dialog box will be displayed. Refer to ***Display Configuration Dialog Box***, in this section, for a description.

- If the selected item is an OIS menu option, the *OIS Function Configuration* dialog box will be displayed. Refer to ***OIS Function Configuration Dialog Box***, in this section, for a description.

Click *MOVE UP* to move a selected item up a position in its menu hierarchy. An item at the top of a menu list cannot be moved upward. Trying to do so causes an audible tone to sound to notify the operator of the error.

Click *MOVE DOWN* to move a selected item down a position in its menu hierarchy. An item at the bottom of a menu cannot be moved downward. Trying to do so causes an audible tone to sound to notify the operator of the error.

Click *LEFT/OUT* to either move a selected submenu item to the same hierarchal level as its menu label, or move a selected menu bar option label one position to the left.

Click *RIGHT/IN* to move a selected item into a submenu, that is a hierarchal level below its present position. If no submenu is present, in the hierarchal structure, and audible tone will sound to notify the operator of the error and no change will occur. Any item moved into a submenu will appear on top of the submenu. This button can also be used to move a selected menu bar item option label one position to the right.

Insert Option
Click *INSERT* to access the following custom menu build options:

Click *MENU* to add a menu item to either the menu bar, a menu, or a submenu. This is accomplished through the *Menu*

Configuration dialog box. Refer to ***Menu Label Configuration Dialog Box***, in this section, for a description.

Click *DISPLAY* to add an OIS display into a custom menu. This is accomplished through the *Display Configuration* window. Refer to ***Display Configuration Dialog Box***, in this section, for a description.

Click *OIS FUNCTIONS* to add standard OIS menu options into a custom menu. This is accomplished through the OIS Functions and Menus dialog box. Refer to ***OIS Standard Function Menu Configuration Dialog Box***, in this section, for a description.

Click *SEPARATOR* to add a line below the selected menu label. This is used to separate menu labels in pull-down menu hierarchies.

Buttons   Click *LEFT*, *RIGHT*, *UP*, and *DOWN TRIANGLE* to move selected items within a menu.

Clicking *LEFT TRIANGLE* has the same effect as the *LEFT/OUT* menu option.

Clicking *RIGHT TRIANGLE* has the same effect as the *RIGHT/IN* menu option.

Clicking *UP TRIANGLE* has the same effect as the *MOVE UP* menu option.

Clicking *DOWN TRIANGLE* has the same effect as the *MOVE DOWN* menu option.

Display Configuration Dialog Box

This dialog box provides the capability to insert an OIS display into a custom menu hierarchy, modify a display label, or select a different display call-up function file. To open this dialog box, from the *Main Configuration* window do one of the following:

Choose *Insert* and then choose *Display*.

- or -

Double click on a display label in a custom menu hierarchy.

- or -

Highlight a display label in a menu hierarchy, choose *Edit* and then choose *Modify*.

This dialog box contains a scrollable list of the display call-up function files and associated display titles. The first time this dialog box is accessed no files will appear in the list. The

operator will need to choose *Update.* The display call-up function files are listed in alphabetical order.

To insert a display title into the menu hierarchy either:

Select a display call-up function file name in the listing, then click *Insert.*

- or -

Double click on a display call-up function file name in the listing.

This will insert the associated display label either below a selected closed menu item, or at the top of a submenu if the selected item is open.

Text Boxes Click inside the *LABEL* text box to enter or modify the display label associated with the display call-up function file. The label is limited to 40 characters in length.

The display label is what is inserted into the custom menu hierarchal structure. When the operator selects the label the display call-up function file is activated.

Click inside the *DISPLAY NAME* text box to enter the name of the display call-up function file. A search is performed to find the file in the display file list or on the console hard disk drive. If the display call-up function file is not found the operator is notified that is not installed on the system. If it is found on the hard disk drive it is added to the list. If it is found in the list, the display title will appear in the *LABEL* text box.

Click inside the *SEARCH* text box to enter in the name of a display call-up function file or display label. Click on *SEARCH NAME/SEARCH LABEL* to indicate whether you are searching for a file or a label. The ? and * wildcard characters can be used to search for a number of files that have the same character(s) in the file name or label. The ? represents a single character and the * represents any number of characters. When wildcards are used the first file name or label that meets the requirements is highlighted.

Buttons Click *OK* to perform one of the following actions:

• If display title was modified, save changes to display list.

• If a menu item was selected before the *Display Configuration* dialog box was opened, insert display label into the appropriate position in the custom menu hierarchy.

• If the *Display Configuration* dialog box is accessed by double clicking on a display label in the custom menu hierarchy, apply changes to the display label in menu.

CONFIGURING THE MENU BAR

The *Display Name* text box must contain a file name in order for desired action to occur.

Click *REPLACE* to apply changes to the selected label or to change which display call-up function file is accessed from the custom menu hierarchy.

Click *INSERT* to insert the selected display label into the custom menu hierarchy displayed in *Main Configuration*.

Click *CLOSE* to close the dialog box.

Click *SEARCH* to search for the file name or label typed into the *SEARCH* text box.

Click *UPDATE* to add the display files to the list.

Click in the box next to *USE DISPLAY NAME AS DEFAULT LABEL* to use the file name as the display label in the menu hierarchy instead of the display label associated with the display file.

Menu Label Configuration Dialog Box

This dialog box provides the capability to create new menu option labels or modify existing menu option labels. To open this dialog box, from the *Main Configuration* window, either:

Choose *Insert* and then *Menu*.

- or -

Highlight a menu label, choose *Edit*, then *Modify*.

Text Box Click inside the *LABEL* text box to either create a new menu option or modify an existing menu label. Menu labels are limited to 40 characters.

Buttons Click *OK* to insert a new menu option or to apply the changes to the modified menu label.

Click *REPLACE* to apply changes to a modified menu label.

Click *INSERT* to insert the new menu option into either the custom menu hierarchal structure below the highlighted option, or into the menu bar, if a menu bar option is highlighted.

Click *CANCEL* to close the dialog box without making any changes to the label or menu.

OIS Standard Function Menu Configuration Dialog Box

This dialog box provides the capability to insert a standard OIS menu option and label into a custom menu hierarchy. To open

this dialog box from the *Main Configuration* window, choose *Insert,* then *OIS Functions.*

The dialog box displays a scrollable list of all OIS menu options and labels. Menu labels are enclosed by outward angle brackets (< and >). This is to differentiate them from functional menu options. The associated submenus are not initially displayed. Double clicking on the menu label opens or closes the associated submenu.

To insert an OIS menu label or option either:

Highlight an item in the list and click on *Insert.*

- or -

Double click on an item in the list.

The selected item will be inserted into the custom menu hierarchy, displayed in the *Main Configuration* window, below the highlighted menu option or label. If a menu label was selected the label and associated submenu will be inserted.

Buttons   Click *OK* to insert the selected menu label or option into custom menu hierarchy and close dialog box.

Click *INSERT* to insert the selected menu label or option into the custom menu hierarchy.

Click *CLOSE* to close the window.

Click on *VIEW UNUSED* to display which standard OIS menu labels and options are not used in the custom menu configuration. When *VIEW UNUSED* is selected the button label changes to *VIEW ALL* if all the standard OIS menu labels or options are not used in the custom menu configuration.

OIS Function Configuration Dialog Box

This dialog box provides the capability to modify an OIS option label that has been inserted into a custom menu hierarchy. This only changes the label, not the functionality of the option. To open this dialog box, from the *Main Configuration* window either:

Highlight an OIS option label in a custom menu hierarchy, choose *Edit*, then choose *Modify.*

- or -

Double click on the OIS option label in a custom menu hierarchy.

A short description of the OIS option is displayed in the dialog box to indicate what operations are performed by the option.

Buttons   Click on *OK* to apply the changes to the OIS option label.

Click on *REPLACE* to apply the changes to the OIS option label.

Click on *CLOSE* to close the window.

CONFIGURING THE MOUSE CURSOR

A different mouse cursor shape, foreground color, and background color can be selected through the cursor configuration dialog box. The configuration dialog box for the mouse cursor is accessed through the *OIS Utilities* menu option.

To access the mouse cursor configuration utility:

1. From the session manager, choose *OIS Utilities.*

2. Choose *Cursor Configuration.*

    NOTE: Simultaneous multiple console access to the cursor configuration utility is prohibited. If a number of consoles try to access this utility at the same time an error message will appear on the screen indicating that the console is unable to run the utility because it is already running on another console in the system. Indication of which node is currently accessing the utility is provided.

Buttons   Click *FOREGROUND* to select a new foreground color for the mouse cursor.

Click *BACKGROUND* to select a new background color for the mouse cursor.

Click *OK* after making cursor style and color selections. This saves the settings and exits the utility.

Click *RESET* to restore the previous cursor style and color selections.

Click *DEFAULT* to set the cursor style and color settings to default (i.e., white cross hair with black background).

Click *CANCEL* to exit the utility without saving changes.

Selecting a Mouse Cursor Style

Select a new mouse cursor style by either choosing one of the available cursor styles displayed in a scrollable list, or by entering the name of a user-defined cursor.

To select a cursor style from the scroll list use either the scroll box or arrows to scroll through all the available selections then click on the desired cursor style.

To select a user-defined cursor enter the name of the cursor in the text box and click *OK*.

> **NOTE:** The name of a user defined cursor specifies two different files. The first file defines which pixels will be the foreground color and which will be the background color. The second file defines which pixels are on and which are off. The on pixels define the overall cursor shape, which is also know as the mask. The following are example file names: EB_CURSOR.XBM; EB_CURSOR_MASK.XBM.

If the file cannot be located or was not set up properly an error message will appear at the bottom of the *OIS Cursor Configuration* dialog box, and the entry will not be allowed. The error message will also be entered into the diagnostic log.

The selected cursor style will appear in the current cursor window.

Change Mouse Cursor Colors

The cursor colors are changed through selection of the foreground and background color buttons. Selection of a color button automatically opens the *OIS Cursor Color* dialog box. This dialog box provides five different methods in which to generate and select a background and foreground color.

To select a new color.

1. Click *COLOR MODEL* to select the method of color selection. Name of the selected method will appear in the button.

2. Depending upon the color model selected, choose or generate the desired color. The new color will appear in the right half of the color display box (this is the rectangular box located below the title bar). The current background or foreground color appears in the left half of the box.

Buttons Click *SCRATCH PAD...* to open a window that will temporarily hold the last selected or generated color. This allows for color comparisons to be made.

Click *OK* to save the color selection and exit utility.

Click *APPLY* to apply the selected color to the current cursor. This provides the capability to preview the color before saving any changes.

Click *RESET* to restore the previous color selection.

Click *CANCEL* to exit without saving any changes.

Click *HELP* to access Bookreader to see available help screens on this utility.

Picker Color Model

This is the default color selection model. The picker allows selection of a color from one of four available color pallets as well as interpolation and adjustment of tones between two selected colors from the pallet. To generate and select a color:

1. Click the pallet button located right below the *COLOR MODEL* to select the desired color pallet. This button contains the name of the color pallet being displayed. The default is spectrum. Other pallets available are pastels, vivids, and earth tones.

2. A color can be selected directly from the color pallet bar by clicking on the desired color. Variations of two colors, displayed in the pallet, can be generated by first clicking on a color, then clicking on a paint can icon at either end of the interpolator pallet bar. Repeat this procedure so there is a color at each end of the bar. An interpolation of colors is generated by clicking *SMEAR*. If none of the colors generated are acceptable the interpolator pallet bar can be cleared by clicking *RESET*. The *UNDO* button displays the last set of interpolated colors.

Buttons
The following buttons adjust the tone of the colors displayed in the interpolator color pallet bar.

Click *LIGHTER* to lighten displayed colors.

Click *DARKER* to darken displayed colors.

Click *WARMER* to increase the amount of yellow-orange-red hue in the displayed colors.

Click *COOLER* to increase the amount of violet-green-blue hue in the displayed colors.

HLS Color Model

The HLS color model allows for creation of a cursor color through adjustment of the hue, lightness, and saturation slide bar settings. The HLS color model also allows for an adjustment of a color selected from either the picker or browser color models. Adjustments are automatically displayed in the right half of the color display box. A numeric value, representative of the slide bar position, is displayed above the slide bar.

Slide Bars
Drag the *HUE* slide bar to adjust the gradation of color; range is 0 to 359.

Drag the *LIGHTNESS* slide bar to adjust brightness of color; range is 0 to 100, where 0 is black and 100 is white.

Drag the SATURATION slide bar to adjust the amount of gray tone blended in the displayed color; range is 0 to 100, where 0 is maximum gray and 100 is maximum color.

RGB Color Model

The RGB color model allows for the creation of a cursor color through the adjustment of the amount of red, green, and blue slide bar settings. The RGB color model also allows for an adjustment of a color selected from either the picker or browser color models. Adjustments are automatically displayed in the right half of the color display box. Each scale has a range of 0 to 65535. A numeric value, representative of the slide bar setting, is displayed to the right of the slide bar.

Slide Bars   Drag the *RED* slide bar to adjust the amount of red color tone.

Drag the *GREEN* slide bar to adjust the amount of green color tone.

Drag the *BLUE* slide bar to adjust the amount of blue color tone.

Browser Color Model

The browser color model allows for selection of a cursor color from a displayed list. Each displayed color is labelled.

To select a color:

1. Either click on the scroll arrows located on the top and bottom of the scroll bar or drag the scroll box located inside the scroll bar until the desired color is displayed.

2. Click on the desired color to select it. The color will now appear in the right half of the display color box.

Grayscale Color Model

The grayscale color model allows for the creation of a gray color tone cursor. It provides an adjustable slide bar to vary the amount of gray tone.

The amount of grayscale is adjusted by dragging the slide bar. The scale range is 0 to 100, where 0 is black and 100 is white. A numeric value, representative of the slide bar setting, is displayed above the slide bar. Adjustments are automatically displayed in the right half of the color display box.

STARTUP/SHUTDOWN

Selecting *OIS Shutdown* sends a request to the main OIS console to shut down the OIS application software.

Selecting *OIS Startup* sends a request to the main OIS console to startup the OIS application software.

Selecting *OIS Reset* sends a request to the main OIS console to shut down and then restart the OIS application software.

Refer to the ***Operation*** instruction for more information.

AUTOMATIC STARTUP

The *Automatic Startup* option calls up a dialog window that contains a list of the applications and utilities configured to be started automatically when the OIC console is powered up. The left side of the window lists all the items that can be automatically started. The right side of the window contains the items to be started. The appropriate items will be selected for automatic startup by the OISREV utility during the OIC console configuration. As a minimum, the Window Manager, Pointer (controls cursor wrap around), Message Window, and KBPLUS (generates touch pads) items must be selected for automatic startup.

> **NOTE:** The KBPLUS item must not be selected for automatic startup when the OIC console is configured for use with OIS software revision E. Touch pads are not supported by this revision level.

Refer to the ***Operation*** instruction for more information.

MENUS

This option selects the menu items and contents of the OIC session manager. Refer to the ***Operation*** instruction for more information.

SCREEN BACKGROUND

This option allows the selection of the screen saver, background, and foreground colors and patterns used on the OIC console. Refer to the ***Operation*** instruction for more information.

WINDOW COLORS

This option selects the window colors, highlighting, and shadowing options available. Refer to the ***Operation*** instruction for more information.

SAVE SESSION MANAGER

This option saves the current state of the OIC session manager configuration. Refer to the ***Operation*** instruction for more information.

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