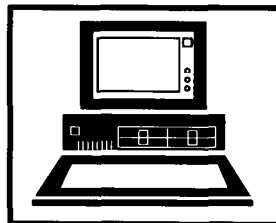
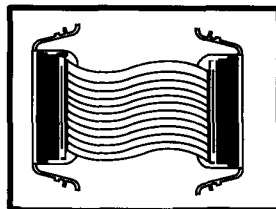
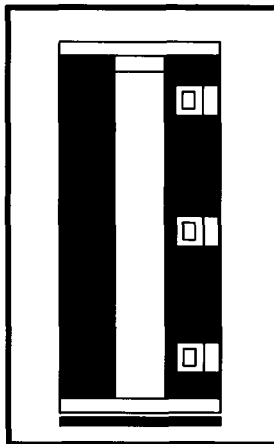
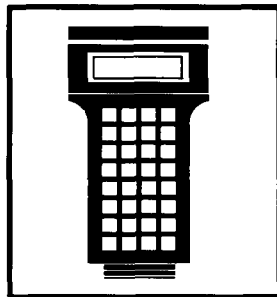
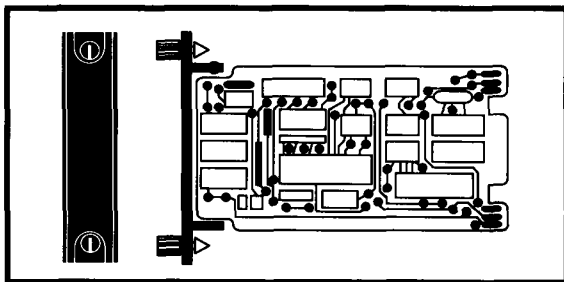
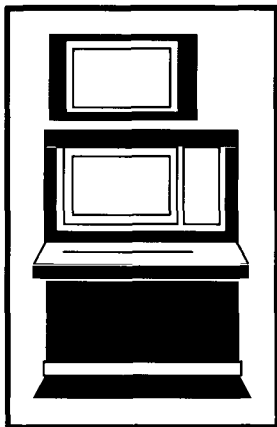




40 Series

Instruction

File Utilities Operator Interface Station (Release J)



WARNING notices as used in this manual apply to hazards or unsafe practices which could result in personal injury or death

CAUTION notices apply to hazards or unsafe practices which could result in property damage

NOTES highlight procedures and contain information which assist the operator in understanding the information contained in this manual

WARNING

INSTRUCTION MANUALS

DO NOT INSTALL MAINTAIN OR OPERATE THIS EQUIPMENT WITHOUT READING UNDERSTANDING AND FOLLOWING THE PROPER **Bailey Controls** INSTRUCTIONS AND MANUALS OTHERWISE INJURY OR DAMAGE MAY RESULT

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MAINTENANCE MUST BE PERFORMED ONLY BY QUALIFIED PERSONNEL AND ONLY AFTER SECURING EQUIPMENT CONTROLLED BY THIS PRODUCT ADJUSTING OR REMOVING THIS PRODUCT WHILE IT IS IN THE SYSTEM MAY UPSET THE PROCESS BEING CONTROLLED SOME PROCESS UPSETS MAY CAUSE INJURY OR DAMAGE

AVERTISSEMENT

MANUELS D'OPERATION

NE PAS METTRE EN PLACE REPARER OU FAIRE FONCTIONNER CE MATERIEL SANS AVOIR LU COMPRIS ET SUIVRE LES INSTRUCTIONS REGLEMENTAIRES DE **Bailey Controls** TOUTE NEGLIGENCE A CET EGARD POURRA ETRE UNE CAUSE D'ACCIDENT OU DE DEFALLANCE DU MATERIEL

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PERTES RODEE RENERVERSEMENTS

L'ENTRETIEN DOIT ETRE ASSURE PAR UNE PERSONNE QUALIFIEE ET EN CONSIDERATION DE L'ASPECT SECURITAIRE DES EQUIPEMENTS CONTROLES PAR CE PRODUIT L'ADJUSTMENT ET/OU L'EXTRAITON DE CE PRODUIT LORSQU'IL EST INSERE A UN SYSTEME ACTIF PEUT OCCASIONNER DES A-COUPS AU PROCEDE CONTROLE SUR CERTAINS PROCEDES CES A-COUPS PEUVENT EGALEMENT OCCASIONNER DES DOMMAGES OU BLESSURES

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Preface

This instruction provides software load, upgrade and maintenance procedures, along with save and restore configuration procedures for 40 Series Operator Interface Stations. The Signature Series Work Stations are also covered by this instruction. This instruction reflects the J 1 software release for the console.

NOTE: In this instruction the 40 series refers to only the IOIS42 IO S43 IO S42^{PLUS} IO S41^{PLUS2}, Signature IS42 and S43 and IS42^{PLUS} consoles.

There are three additional instructions that explain how to set up and use the console. The instructions include:

- Hardware** Provides hardware installation, troubleshooting, maintenance, repair and replacement procedures.
- Operation** Gives a brief overview of the console and INFI 90° OPEN system to familiarize the reader. It then explains the operations that can be performed after configuring the console.
- Configuration** Gives the procedures to configure the console as a system for proper operation with its peripherals and the INFI 90° OPEN system. It also explains each function of the console, and gives configuration procedures and requirements.

List of Effective Pages

Total number of pages in this instruction is 175, consisting of the following

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List of Effective Pages	Original
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2 1 through 2 54	Original
3 1 through 3 21	Original
4 1 through 4 21	Original
5 1 through 5 21	Original
6 1 through 6 6	Original
7 1 through 7 39	Original
8 1 through 8 7	Original
Index 1 through Index 3	Original

When an update is received, insert the latest changed pages and dispose of the superseded 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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SECTION 1 - INTRODUCTION

OVERVIEW

This instruction contains information and instructions necessary to install the system software and to use the terminal utilities for the 40 Series Operator Interface Station. The Signature Series Operator Interface Station is also covered in this instruction. The console provides an integrated operations interface, data acquisition and reporting capability in addition to process control for the INFI 90 OPEN Strategic Enterprise Management System.

In this document, main, OIS, or console refers to 40 series consoles. An IIOIS42A, IIOIS43A, IIOIS42D and IIOIS43D series driver cabinets are also a main consoles, but they require auxiliary consoles. Auxiliary or OIC console refers to IIOIC41 consoles.

INTENDED USER

This instruction can be used as a reference for system engineers or technicians responsible for installing the system software on or using the terminal utilities of the console.

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

This instruction assumes the reader is familiar with X™ windows using MOTIF™ style windows and window manager. Refer to the discussion on the windows system in the **Operation** instruction for a further explanation of X windows and MOTIF (Table 1 2 lists instruction numbers).

INSTRUCTION CONTENT

This instruction contains seven sections. It also includes a Table of Contents, List of Figures, List of Tables and Index giving several options to locate specific information quickly.

This instruction explains the operation of the terminal utilities and the software loading procedures. The sections that make up this instruction include:

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

INTRODUCTION

Terminal Utilities	Describes how to open and use a terminal window and how to start up, shut down, and reset the OIS application. This section also explains utility commands and file directories.
Configurations	Explains how to save new or existing configurations, restore configurations, and transfer configuration files.
Software	Details how to load the console software into new or existing consoles. This section also details the file conversions required whenever off line generated configurations are loaded into the console.
Network Configuration	Describes how to configure the console to communicate over DECnet and TCP/IP networks, how to configure peripheral devices connected to the console(s), and how to configure a console for @aGlance/IT operation.
IIOIC42 Console Configuration	Explains how to start up and update the IIOIC42 console.
DDT Commands	Lists and explains the commands available for the DDT utility. The format for each command is explained and some example usages are provided.
Page Type Printer Setup	Lists and explains the files used to set up a page type printer, and gives examples of these printer files.

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 the instruction:

1. Read Section 2 to become familiar with the VT series terminal and terminal windows and how to use them.
2. Read Section 3 for a description of how to save and how to restore configurations.
3. If necessary, configure the software and database. Refer to the **Configuration** instruction for more information.
4. Read Section 4 for a description of how to install the software, configure the console and backup the hard disk drives.
5. Read Section 5 for a description of how to configure the network to allow the OIS console to communicate with IIOIC41 consoles and other nodes. How to configure keyboards and

printers connected on the network Also, how to configure the console for @aGlance/IT operation

6 Read Section 6 for a description of how to configure IIOIC40 series consoles.

7. Read Section 7 to find information about the use of DDT commands.

8 Read Section 8 for a description of how to configure the printer files for page type printers

Be sure to read the **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**.

USER INPUT Indicates a fixed input that must be entered exactly as shown.

Example Type **HELP**.

Display item Any item that displays on the screen appears as italic text in this document

Examples *A OIS Configuration* (menu selection)
General Functions Menu (display title)
SELECT a Cell Item from the Menu (message)
Tag name or index number (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.

INTRODUCTION

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

Examples ei 108,87,key1,key2,x-coord,y-coord

PUSH filename ext nodename ext [L]

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
EWS	Engineering work station
NIU	Network interface unit. Term for a local and remote interfaces, computer interfaces and console interfaces to the INF-NET communication system.
O/S	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

Number	Document
E96-1925	Hardware, Operator Interface Console (OIC42)
I-E96-200	Function Code Application Manual
I-E96-771	Console Configuration Tools (WLDG)
E96-825	Software Global Database Manager (SGDM)
WBPEEU220754A0	Hardware, Operator Interface Station (IOS42)
WBPEEU350255A0	Open Data Server/Client
WBPEEU1220756A1	Operation (40 Series)
WBPEEU220757A1	Configuration (40 Series)
WBPEEU220760A0	Hardware, Operator Interface Station (IOS43)
WBPEEU1220761A0	Hardware, Signature Work Station (IS42/IS43)

SECTION 2 - TERMINAL UTILITIES

INTRODUCTION

This section describes how to start up the console and software and how to use the available utility functions.

NOTE: The procedures in this section assume that an engineering keyboard is being used for data entry. The same functions can be performed using the operator keyboard as the data entry device. Refer to the **Operation** instruction for a description of both keyboards (Table 1.2 lists instruction numbers).

START-UP

After applying power, the console executes a load sequence that automatically loads the software. To apply power to the console:

1. Open the front cabinet door to gain access to the main power circuit breaker.
2. Set the breaker to the on position. The POWER ON lamp illuminates to verify power is being supplied to the console.

If no software has been installed, the console runs the powerup procedure and waits for software to be loaded. Refer to **POWERING UP THE CONSOLE** in Section 4 for more information about the powerup procedure. If software has been installed, the console runs the powerup procedure and automatic software start up procedure. A complete start-up takes several minutes.

AUTOMATIC SOFTWARE START-UP PROCEDURE

The automatic software start up procedure consists of starting the windowing system; opening the session manager, message window, and setup windows; and initializing the OIS application. The OIS application appearing in an open window verifies a successful start up of the console.

There are situations when starting up the OIS application is not desired such as connecting an console to a network. Refer to **Console Configuration** in Section 5 for more information on configuring an console on the network. Cancelling the automatic start up of the OIS application eliminates the need to

wait for the application to initialize and then having to shut the application down.

NOTE Cancellation must be done before the console begins initializing the O/S application. The console waits approximately 30 seconds after initializing a other applications before it begins initializing the O/S application.

The automatic start up procedure of a console also automatically starts up a session manager window on any of its auxiliary OIC consoles provided they were using a session manager window from the console when the console was shut down, rebooted, or powered down.

To cancel the automatic start up of the OIS application:

- 1 Power up the console as normal.
- 2 When the session manager icon appears, immediately open the session manager window by double clicking the left mouse button on the session manager icon.
- 3 Click on the *Abort Auto OIS* option from the startup/shut down pull down menu.

TERMINALS AND TERMINAL WINDOWS

A VT series terminal or a terminal window is required for performing operations such as running terminal utilities and executing system commands. An application can be run by typing the appropriate command at the \$ prompt of the terminal or terminal window. Refer to the **Hardware** instruction for instructions on how to connect the VT series terminal (Table 1 2 lists instruction numbers). Unless otherwise specified, procedures for terminal window usage will be used in this instruction.

Accounts

Under the OpenVMS™ Alpha™ operating system, the operator or process engineer logs into an account to perform certain functions. The available accounts are:

OISENGR allows normal operations such as start up, shut down, and reset of the console application. Access to configuration and system build data is also allowed. Execute all procedures described in this instruction from this account unless specifically directed otherwise.

OISWIN used to initially define or make changes to window assignments of the console. An OISWIN account can be accessed to perform remote window management from a remote node or OIC console. After logging into this account, the

system runs an interactive program that displays current window assignments, and gives the ability to redirect windows similar to the *X Device Definition* function. Refer to the discussion on remote window assignment in the **Configuration** instruction for further explanation of the OISWIN account (Table 1 2 lists instruction numbers).

SYSTEM allows access to the main system definition area for all procedures that require this level of access

NOTE: Only personnel responsible for system configuration and maintenance should have access to the SYSTEM account

NOLOCK runs an interactive program that allows the locking and unlocking of the CONFIG and TUNE key locks. This feature is useful when sending windows to a remote node or OIC console that does not have an IIMKM02A keyboard module to provide keylock access

Passwords

A password defines accessibility to accounts. A password must be entered that gives access to an account before the system allows logging into that account. For the console, the default password (except for the SYSTEM account) is the same as the account name. The password for the SYSTEM account is **BAILEYCONTROLS**. Passwords can be changed by the system manager or other authorized personnel at any time.

VT-Series Terminal

To log into an account from a VT-series terminal that is connected through a **terminal server**:

1. Press **Return** twice.
2. Enter the terminal server name, *Username*, and *Password* (if required). Press **Return** after each entry. These entries are site specific and depend on the network setup.
3. At the *local>* prompt, type:

CONNECT *nodename* **Return**

where

nodename Node name assigned to the console that the VT series terminal will be connected to.

4. Enter an account name at the *Username* prompt and an account password at the *Password* prompt. Press **Return** after

each entry. After a short time, the \$ prompt appears. The VT series terminal will now function the same as a terminal window.

To log into an account from a VT series terminal that is connected directly to a **driver cabinet** (IIOIS40 Series A/D).

1. Press **Return**
2. Enter an account name at the *Username* prompt and an account password at the *Password* prompt. Press **Return** after each entry. After a short time, the \$ prompt appears. The VT series terminal will now function the same as a terminal window.

Terminal Window

To open a terminal window and log into an account at a local console.

1. Open the session manager window by double clicking on the session manager icon
2. From the session manager window, select *Applications*
3. From the applications menu, select *Login Window*. After a short time, the terminal window appears. In dual screen consoles, this will open the terminal window on the lower screen. To open the terminal window on the upper screen, select the three ellipses just to the right of the login window menu item. The login window dialog box appears. Enter 1 in the screen field and click on the OK button
4. Position the mouse pointer anywhere within the window and click the left mouse button to assign the keyboard to the window (i.e., set input focus)
5. Enter the name of an account at the *Username* prompt, then press **Return**. OIS and IIOIC42 consoles have access to all accounts. IIOIC41 consoles must first log into the SYSTEM account before logging into other accounts on other consoles using the SET HOST command.

NOTE: Logging into a login window activated on an O C42 console actually logs into the main console displaying the session manager window
6. Enter the password at the *Password* prompt, then press **Return**. The password does not appear on the screen. After a short time, the \$ prompt appears

To log into an account on another console from the local console, execute the following additional steps

1 Type:

SET HOST *nodename* **Return**

where

nodename Name assigned to the target console

2 Enter the name of an account at the *Username* prompt and a password at the *Password* prompt. This is the account name and password to log into at the target console. Press **Return** after each entry.

After a short time, the \$ prompt appears.

3 To exit the remote console and return to the local console, type:

LOGOUT **Return**

4. To close the local terminal window, type:

LOGOUT **Return**

OIS APPLICATION START-UP

Normally, the OIS application automatically starts up after powering up the console. The session manager and pull down menus (on an OIS or OIC console) provide the ability to start up the OIS application if it has been shut down or if the automatic software start up procedure was aborted. Manual start up of the application can also be done from a VT series console.

To manually start up the OIS application from a terminal window logged into the OISENGR account, type:

OISSTARTUP **Return**

To manually start up the OIS application from the console

1. Open the session manager by double clicking the session manager icon

2. Select *OIS Startup* from the startup/shutdown menu

NOTE: Do not select *OIS Startup* again or *OIS Shutdown* or *OIS Reset* when the console performs its start up procedure

After initialization begins, a message stating the status of the start up operation is sent to the message window. Depending on the configuration, the OIS application windows and icons appear indicating a successful start up.

TERMINAL UTILITIES

OIS APPLICATION SHUTDOWN

The session manager and pull down menus provide the ability to shut down the OIS application at the OIS console or from an OIC console which is configured to be associated with the main console. Shutdown of the application can also be done remotely from a VT series console.

To shut down the OIS application from a terminal window logged into the OISENGR account, type.

OISSHUTDOWN

To shut down the OIS application from a console

1. Open the session manager by double clicking the session manager icon.
2. Select *OIS Shutdown* from the startup/shutdown menu.

NOTE: Do not select *OIS Shutdown* again, or *OIS Reset* or *OIS Startup* while the console performs its shutdown procedure.

After a short time, all OIS displays and OIS icons disappear. The message window displays the status of the shutdown operation.

OIS APPLICATION RESET

Some procedures require that the OIS application be restarted to enable changes to the operating parameters. A reset may also be required due to a system problem. Resetting the application does not require a physical shutdown of the entire console. The session manager and pull down menus provide the ability to reset the OIS application at the OIS console or from an OIC console. Reset of the application can also be done from a VT series terminal.

To reset the OIS application from a terminal window logged into the OISENGR account, type

OISRESET

To reset the OIS application from a console

1. Open the session manager by double clicking the left mouse button on the session manager icon.
2. Select *OIS Reset* from the startup/shutdown menu.

NOTE: Do not select *OIS Reset* again or *OIS Shutdown* or *OIS Startup* while the console performs its reset procedure.

After a short time, all displays and icons disappear, then reappear at reset completion. A message window displays the status of the reset operation.

UTILITIES

The utilities provide management capabilities for system files and the ability to monitor the operation of both the DECstation and the OIS application.

NOTE. Some utilities are affected by the password security function. Refer to the *Configuration* instruction for more information about password security (Table 1-2 lists instruction numbers).

Directories

The OIS application uses two separate directories with subdirectories. Figure 2-1 shows the directory structure.

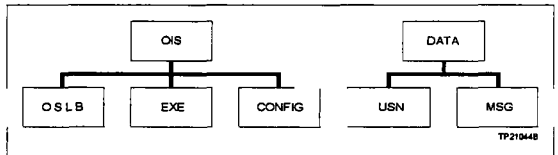


Figure 2-1. OIS Application Directories

The [OIS] directory contains the executable code, required libraries, and system configuration information. The [DATA] directory contains all data files for the OIS application.

Accessing Utilities

To access the utilities listed in this section, log into the OISENGR account from a terminal window. While in this account, utilities can be run by entering commands at the \$ prompt. Additionally, some of the utilities can be accessed through pull down menus of the session manager.

Changing Directories

Changing directories is a simple task. At the \$ prompt, type

```
D directory-name Return
```

where.

directory-name Name of desired directory or subdirectory

TERMINAL UTILITIES

Entering a backslash (\) in place of *directory-name* causes the system to move up one directory level. For example, if the current directory is [OIS.CONFIG], type **D ** to change to the [OIS] directory.

NOTE This utility is available only through the OS accounts not the OpenVMS operating system.

Diagnostic Log

The console maintains a diagnostic log during normal operations. The default log file (shipped with the system software) will hold 2,000 messages. There are two utilities that allow access to and manipulation of the log file. They are **VL** and **VLOG**. The primary differences between these utilities is that the **VL** utility allows for scrolling forward and backward (in time) and for searching the log while the **VLOG** utility permits only backward (in time) scrolling and only in full page increments. The **VLOG** utility is an older version of the diagnostic log.

VL This utility has six options that are listed across the bottom of the window:

```

Find (Home) New msgs
N/P Next/Prev 100
D Dump
S Search
F Find
O Options

```

The window shows the most recent message written into the log upon starting up.

Find (home) returns to the most recent message of the log.

Next/Prev 100 steps through the log in 100 message increments.

NOTE: The **[Next]** and **[Prev]** keys allow scrolling one screen at a time while the **[↑]** and **[↓]** keys allow scrolling one message at a time.

Dump copies the messages in the log to the specified file or sends the contents to the specified printer. Selecting this option causes the dump diagnostic log display to appear. This display allows the dump file name and number of messages dumped (starting with the most recent message) to be specified. The default dump file and directory name is **[data.msg]dumplog.lis**. The dump file will be stored in the [data.msg] directory unless otherwise specified. Using the send to printer and printer number fields, the files can be dumped to a printer in addition to being stored in a file.

Search allows a 32 character text string to be entered. Press **Return** after entering the desired text causes the first occurrence of the search text to be found.

Find searches for subsequent occurrences of the text string entered with the **Search** option.

Options enables the create and initiate functions of this utility. Initiating a log erases all log contents. Creating a log deletes the log and creates a log of the size designated at the prompt

To utilize these options.

1 At the \$ prompt, type:

VL **Return**

2. The utility prompts for input as needed. When prompted, press the key corresponding to the desired option.

3. Press **F20** (engineering keyboard) or **ESC** (operator key board) at the *Select:* prompt to exit the VL utility or to exit any option without executing the option

VLOG This utility has four options:

1. *create*
2. *list to screen*
3. *list to file*
4. *init file*

Create deletes the messages from the current log and then creates a log of the size designated at the prompt

List to screen lists the messages in the log to the window. The messages are listed to the window starting with the most recent message.

List to file copies the specified number of messages from the log to the specified file. The *Enter the number of records to dump to file [ALL]*. prompt allows the number of messages copied (starting with the most recent message) to be specified. The copying of all messages is the default condition. The *Enter the output filename [DUMPLOG.LIS]*. prompt allows the directory and file receiving the messages to be specified. **DUMPLOG.LIS** is the default file name and will be stored in the current directory unless otherwise specified

Initiate file erases all log contents. This option does not alter the size of the log.

TERMINAL UTILITIES

To utilize these options

1. At the \$ prompt, type

VLOG **Return**

2. The utility prompts for input as needed. When prompted, select the number of the desired option followed by **Return**.
3. Press **Return** at the *Select:* prompt to exit the **VLOG** utility.

Access to the diagnostic log can also be gained by selecting *OIS Diagnostic Log* from the OIS utilities pull down menu of the session manager.

NOTE: The *OIS Diagnostic Log* option at the session manager uses the **VL** command.

Activity Monitor

The activity monitor utility allows monitoring system loading and resource usage. Four displays are provided. Press **N** to go to the next display or **P** to go to the previous display.

Some of the information contained on display one is exception report and trend poll notes, console interface status, console time, console start time, console address (INFI NET[®] and DEC net[™]), and a listing of the last eight time synchronization messages received.

Display two shows memory pool information such as total blocks, blocks currently used (actual number and percentage), and the largest amount of blocks used (actual number and percentage) since console start up.

Display three contains a measure of file activities by tasks. File activities are allocating, deleting, opening, closing, reading, writing, and renaming of files. Directory listing requests are also listed.

Display four lists task to task communication statistics.

To run the activity monitor utility

1. At the \$ prompt, type.

ACTMON **Return**

2. The default display shows information specific to the interface unit of the console. The screen updates automatically every ten seconds. To exit press **Return**.

Access to the activity monitor can also be gained by selecting *OIS Activity Monitor* from the OIS utilities pull-down menu of the session manager.

OpenVMS Monitor

The OpenVMS monitor utility shows CPU utilization, I/O activity, page faulting and other system parameters. This is a standard procedure that is part of the OpenVMS operating system. To look at statistics, type the following at the \$ prompt

MONITOR SYS overall system statistics.

MONITOR PROC/TOPC top CPU users.

MONITOR PROC/TOPD top direct I/O users.

MONITOR PROC/TOPB top buffered I/O users

MONITOR PROC/TOPF top page faulters.

To exit from any of the monitor functions, press

Task Monitor

A task monitor function provides indications of software failures in the OIS application. If a task aborts, the console continues to operate and the task monitor function indicates termination of a task through an operator action message. The message is *Software Failure, Please Restart Console*. The function allows completing any current operations before correcting the failure. Refer to the operator action requests discussion in the **Operations** instruction for procedures to access the operator actions request page and for a description of the indications the console gives to inform of any outstanding action requests (Table 1 2 lists instruction numbers).

If a task problem is encountered, manually reset the OIS application. The allows normal operation to continue. Refer to **OIS APPLICATION RESET** in this section for procedures to reset the application.

The console records the task failure as an entry in the diagnostic log. The entry appears as *<taskname> is no longer in the CPU queue*. *Taskname* is the name of the aborted task. Refer to **Diagnostic Log** in this section for procedures to access the diagnostic log utility.

While the task monitor works well for most tasks, it does not inform of a failure in a task that controls keyboard input or a display output. If either failure occurs, reactivate the window using the *X Device Definition* function or through the OISWIN

account. If the window can not be reactivated, reset the application

NOTE. Resetting the application may not resolve the problem if the window failures caused by the network or a hardware problem

MSG Subdirectory

An MSG subdirectory contains files that are useful in trouble shooting. If a task or tasks in the OIS application abort, the console writes information to a **.LOG** file in the [DATA MSG] directory. This file provides a method of tracing a software problem. The console keeps up to three historical copies of this log in **.SAV** files. The **.LOG** file contains the most recent information after a system crash.

To view these files to see why an abort keeps occurring, type the files to the terminal window. Example:

TYPE OIS_CIU_ERR.LOG **Return**

Use the OpenVMS **COPY** command to direct the files to a printer. Refer to **OISPR Procedure** in this section for procedures on how to store the data on floppy disks.

OpenVMS Help

A help utility provides details and some examples of OpenVMS commands. To access the help utility, type the following at the \$ prompt.

HELP **Return**

Follow the instructions on the screen.

Software Key Lock

A desktop DECstation or personal computer running X windows software does not have a physical key lock available to prevent unauthorized use. A software key lock function allows setting key locks as desired. The key locks only affect the OIS application.

The software key lock function is accessed through a terminal. Perform a **SET HOST** operation to the target console, then log into the NOLOCK account. The system runs an interactive program that allows changing the key locks to four possible configurations. The key locks can be set to prevent tuning, configuration, tuning and configuration, or to a setting that allows all operations. The menu of the lock options is self

explanatory. Press **Return** to exit this utility. Exiting the program automatically logs out of the account

NOTE: As an alternative password security alone can be used to prevent unauthorized use

Computer Interface Test

The computer interface test (**CIUTEST**) utility performs computer interface unit and loop communication tests. The utility can execute the computer interface **RESTART**, **ENVIRONMENT**, and **DEMAND MODULE STATUS** commands. This utility is very useful in testing the computer interface unit hardware and setup without having to activate the console software. The console **must be off-line (the OIS application must be shut down)** when using this utility. The **CIUTEST** utility supports INFI NET, Plant Loop, and both SCSI and serial computer interface communications for INFI NET systems. To access the computer interface test utility, type the following at the \$ prompt:

CIUTEST **Return**

This utility has four options that are listed at the bottom of the window. They are.

- 0 (or Ret) Exit
- 1 CIU Restart
- 2 Loop Test
- 3 CIU Info

Exit exits the utility and returns the cursor to the \$ prompt.

CIU restart attempts to restart the computer interface. Wait a few seconds between attempts to restart the computer interface or it will go into error mode (red light). A successful restart will return a reply code of zero along with the loop and node number of the computer interface. Refer to Table 2.1 for an explanation of and corrective action for any other error codes received. This option uses the computer interface **RESTART** command.

Loop test displays the data transmitted and received from the module located at the module address specified. A successful loop test will return a reply code of zero along with the module type and node number. Refer to Table 2.1 for an explanation of and corrective action for any other error codes received. This option uses the computer interface **DEMAND MODULE STATUS** command.

CIU info displays computer interface environment information that is transmitted and received by the computer interface. A successful computer interface information request will

return a reply code of zero and all the computer interface environment information. Refer to Table 2.1 for an explanation of and corrective action for any other error codes received. This option uses the computer interface **ENVIRONMENT** command.

Table 2.1. CIUTEST Utility Reply Codes

Error Code	Condition	Corrective Action																
12	General communication problem between the host computer and the computer interface	Check communication parameters (baud rate, stop bits, etc.). Also check for a noisy transmission line between the host computer and the computer interface.																
16	An illegal number was specified for the loop, node, or module	<table border="1"> <thead> <tr> <th colspan="4">Valid Numbers</th> </tr> <tr> <th></th> <th>Loop</th> <th>Node</th> <th>Module</th> </tr> </thead> <tbody> <tr> <td>NF-NET</td> <td>0 to 250</td> <td>1 to 250</td> <td>0 to 31</td> </tr> <tr> <td>Parant Loop</td> <td>0 or 1</td> <td>1 to 63</td> <td>0 to 31</td> </tr> </tbody> </table>	Valid Numbers					Loop	Node	Module	NF-NET	0 to 250	1 to 250	0 to 31	Parant Loop	0 or 1	1 to 63	0 to 31
Valid Numbers																		
	Loop	Node	Module															
NF-NET	0 to 250	1 to 250	0 to 31															
Parant Loop	0 or 1	1 to 63	0 to 31															
18	The computer interface requires a RESTART command to define its operating parameters	Execute a RESTART command for the computer interface before attempting a loop test.																
31	Checksum compare error	Verify the computer interface is set up to use checksums. If the computer interface is set up for checksums, reissue the command. If this error occurs frequently, check for a noisy transmission line between the host computer and the computer interface.																
32	The specified node is offline or does not exist	Put the specified node online or verify the correct node was specified.																
36	The NBTM01 or NNS01 module is communicating with the loop but has gone offline	Issue the ONLINE/OFFLINE or RESTART command to put the module back online.																
110	The specified module is offline or does not exist	Put the specified module online or verify the correct module was specified.																

OISPR Procedure

The **OISPR** procedure is used to gather data useful in diagnosing any console software problems. The procedure requires a blank 3.5 inch floppy disk. The following data will be copied to the floppy disk:

- Diagnostic log output
- Device configuration data
- Various OIS log files.
- All files from the [OIS.MSG] directory

2. The utility prompts for input as needed. When prompted, select the number of the desired option followed by **Return**.
3. Press **Return** at the *Select*. prompt to exit the AAGLOG utility.

@aGlance/IT Server Status

The status of @aGlance/IT servers can be verified and changed using this utility. The @aGlance/IT Server Status utility will provide a listing of the five servers the console has access to, the ability to shutdown an active server, and the ability to restart a server that has been shutdown. To access the @aGlance/IT server status utility, type the following at the \$ prompt

AAGSERVERS **Return**

This utility has four options

- 1 *List Servers*
- 2 *Shutdown Server*
- 3 *Restart Server*
- 4 *Exit*

List Servers displays the list of five licensed @aGlance/IT servers that the console has access to. The list includes the server index number, the server name, the current operational status of the server, and the date and time the server was started. The server has three different operational states: running, shutdown, and aborted. Running indicates that the console has access to the server. Shutdown indicates that the console is unable to access the server. Shutdown servers have an additional date and time message that indicates when the server was shutdown. Aborted indicates that a system crash has occurred on a particular server and the console is unable to access it.

Shutdown Server provides the capability to shutdown a server that the console has access to and that has an operational status of running. At the *Server# (1 based) [0]* prompt enter the index number of the server to be shutdown. Entering a 0 returns to the list of options. When the *Shutdown? (Y/N) [N]* prompt appears enter **Y** to shutdown the server or **N** to escape without shutting the server down.

NOTES

1 It is recommended that before a server is shutdown that the AAG ADMIN utility be run to ensure that no clients are connected to that server. The instructions on how to run this utility can be found in the @aGlance/IT System Manual.

2 A server with the operational status of aborted cannot be shutdown. Attempting to do so causes an error message to appear and requires a restart of the O/S application.

Restart Server provides the capability to restart a server that has been shutdown. At the *Server# (1 based) [0]* prompt enter the number of the server to be restarted. Entering a 0 returns to the list of options. Messages indicating that an attempt to start the server and that the server is starting will be displayed.

NOTE: A server with the operational status of aborted cannot be restarted. Attempting to do so causes an error message to appear and requires a restart of the OS application.

Exit exits the utility and returns to the \$ prompt.

COMMANDS

The following information provides a quick reference of the utility commands that can be run through a terminal window. It is intended to be a reference only. Detailed procedures for using these commands are given earlier in this section and in other sections of this instruction. OpenVMS commands are not covered in this section.

TERMINAL UTILITIES

AAGLOG

PURPOSE The AAGLOG command runs an @aGlance/IT diagnostic log utility on a selected server. The server diagnostic log (created during server startup) will hold 1,000 messages.

COMMAND: **AAGLOG#**

where

Server index number Number ranges
from 1 to 5

DISCUSSION: This utility provides the following options:

- 1 List to Screen
- 2 List to File
- 3 Initialize File

Refer to **@aGlance/IT Server Diagnostic Log** in this section for more information.

AAGSERVERS

PURPOSE The AAGSERVERS command runs the @aGlance/IT server utility. This utility provides the capability to list licensed servers, shutdown a server, and restart a server that has been shutdown.

COMMAND: AAGSERVERS

DISCUSSION: This utility provides the following options:

- 1 - List Servers
- 2 - Shutdown Server
- 3 - Restart Server
- 4 - Exit

Refer to **@aGlance/IT Server Status** in this section for more information.

TERMINAL UTILITIES

ACTMON

PURPOSE The **ACTMON** command starts an activity monitor utility that allows monitoring of system loading and resource usage.

COMMAND: **ACTMON**

DISCUSSION: At the \$ prompt type.

ACTMON **Return**

The default display shows the information specific to the interface unit of the console. Press **N** to go to the next display or **P** to go to the previous display. The screen updates automatically every ten seconds. To exit the utility press **Return**. Refer to **Activity Monitor** in this section for more information.

ADDTOUCHPAD

PURPOSE The **ADDTOUCHPAD** command adds an OIC node to the list of OIC nodes to which this main console sends touch pad windows

COMMAND **ADDTOUCHPAD** *nodename* DECNET [**PRIVATE**]

Parameter	Description
<i>nodename</i>	Network node name assigned to the OIC console
PRIVATE	Flag that forces the OIC console to maintain separate touch pad configuration files

DISCUSSION: The default node name is that of the main console. The private option allows the OIC console to maintain separate touch pad configuration files. This allows the OIC console to use touch pads different from that of the main console. Refer to the **Operation** instruction for more information about the touch pad configuration utility.

TERMINAL UTILITIES

CIUTEST**PURPOSE**

The **CIUTEST** command starts a utility that allows the testing of computer interface and loop communications.

NOTE: The OIS app cat on on the console must be shut down for this command to function properly

COMMAND:**CIUTEST****DISCUSSION:**

This utility provides a menu of the following choices:

- 0 (or Ret) Exit
- 1 CIU Restart
- 2 Loop Test
- 3 CIU Info

Refer to **Computer Interface Test** in this section for more information.

COMPRESS

PURPOSE The **COMPRESS** command starts a utility that compresses the size of an ASCII text file

COMMAND. **COMPRESS**

DISCUSSION: After starting the utility, enter the file name and extension of the file to be compressed as directed by the prompts. The compressed file will have a **.CP** extension. Refer to **FILE COMPRESSION** in Section 3 for more information.

TERMINAL UTILITIES

D

PURPOSE: The D directory command allows changing directories

COMMAND: D *directory-name*

Parameter	Description
<i>directory-name</i>	Name of the desired directory or subdirectory. OIS directories include [DATA] (which contains subdirectories MSG USN00 through USNFF and USN0102) and [OIS] (which contains subdirectories CONFIG EXEC and OSLB)

DISCUSSION: Refer to **Changing Directories** in this section for more information

Example D CONFIG [Return](#)

Enter a backslash (\) in place of *directory name* to cause the system to move up one directory level. For example, if the current directory is [OIS CONFIG], type D \ to change to the [OIS] directory

DATABASE

PURPOSE: The **DATABASE** command starts a database builder utility that allows converting a database created with the console configuration tools (WLDG) to an OIS format, or converting the OIS database to a format readable by the console configuration utilities program

NOTE: The OIS application on the console must be shut down for this command to function properly

COMMAND: **DATABASE**

DISCUSSION: The message window provides informational messages to identify the status of operations performed through the utility. The message *DATA BASE BUILD INITIALIZATION IN PROGRESS* appears at the message window after starting the utility. After a short time, the message *INITIALIZATION COMPLETE* appears at the message window, and the following menu appears at the terminal window

- 1 *Build Data Base*
- 2 *Unbuild Data Base*
- 3 *Quit*
- Select:*

The console requires the following files to reside in the [OIS.CONFIG] directory to continue with a database build

- EUDSCP.CP**
- LSDESCP.CP**
- ALMCOM11.CP**
- TAGLST1n.CP** (1 of n)
- TAGLST2n.CP** (2 of n)
- ⋮
- ⋮
- TAGLSTmn.CP** (m of n)

The database build writes the following files to the [DATA USN02] directory:

- EUDSCP.CF** Engineering unit descriptors.
- LSDESCP.CF** Logic state descriptors
- ALMDESC.CF** Alarm comments
- TAGNAME.CF** Tag names.
- TAGDESC.CF** Tag descriptors.
- TAGCNFG.CF** Tag configurations
- CUSTTGID.CF** Customer identifier

TERMINAL UTILITIES

DATABASE *(continued)*

Refer to **TAG DATABASE BUILDER** in Section 3 for the procedures to initiate a build or unbuild of the database, and additional information

PURPOSE: The **DDT** command gives the terminal or terminal window the ability to execute diagnostic/debug terminal commands

COMMAND: **DDT**

DISCUSSION: To exit the utility, type

EXIT

Refer to Section 7 for a listing of the available commands

TERMINAL UTILITIES

DOT

PURPOSE: The **DOT** command starts a utility that generates an assembled display file (**.DU**) or symbol file (**.DL**) in the appropriate [DATA.USNxx] directory. The **DOT** utility performs the same function as the *Display Generator* available through menu selections of the OIS application

COMMAND: **DOT filename.DT**

DISCUSSION: Use the **DOT** utility on only those files already processed using the **XLATEDT** utility. Refer to **USER CREATED DISPLAY AND SYMBOL FILES** in Section 3 for the procedures and further explanation. Refer to the display generation discussion in the **Configuration** instruction for a complete explanation (Table 1 2 lists instruction numbers)

NOTE: When using the **DOT** utility the tag select tables will be built

FLUSH**PURPOSE:**

The **FLUSH** command starts a utility that erases only the contents of the display cache memory except for the display(s) currently being shown on any console.

NOTE: The O S application on the console must be up and running for this command to function properly.

COMMAND:**FLUSH****DISCUSSION:**

Refer to **USER-CREATED DISPLAY AND SYMBOL FILES** in Section 3 for more information.

TERMINAL UTILITIES

LOGS

PURPOSE: The **LOGS** command starts a utility used to convert a log definition file (**.LF**) created with the console configuration tools (**WLDG**) to an OIS format

NOTE The O S application on the console must be up and running for this command to function properly

COMMAND **LOGS**

DISCUSSION: After starting the utility, continue as directed by the prompts. The log name is in the format:

logname.LF

where.

logname Name of the log definition file transferred from the console configuration utilities workstation

Refer to **LOG REPORT DEFINITION** in Section 3 for more information.

MERGECTEXT

PURPOSE: The **MERGECTEXT** command starts a utility that merges any changes made to the configurable text of the previous software release into the configurable text of the current release

NOTE: The O S app cat on on the console must be shut down for this command to function properly

COMMAND: **MERGECTEXT**

DISCUSSION: After starting the utility, enter the previous software release number and the current software release number when prompted. For example, enter **F1** for release **F.1**. Refer to **CON FIGURABLE TEXT CONVERSION** in Section 4 for more information

TERMINAL UTILITIES

OISPR

PURPOSE: The **OISPR** command starts a utility that copies certain information (to a blank 3 5 inch floppy disk) that is useful in diagnosing console software problems

COMMAND: **OISPR**

DISCUSSION: This utility is used when submitting a problem report. The copied information consists of.

- Diagnostic log output
- Device configuration data
- All files from the [OIS MSG] directory
- Various OIS log files.

Refer to **OISPR Procedure** in this section for more information

OISRESET**PURPOSE:**

The **OISRESET** command initiates a reset of the OIS application at the console. (This command has no effect on an IIOIC41 console but the functionality is available through pull down menus.) Some configuration procedures require a reset to enter changes to the OIS operating parameters. A reset also may be required due to a system problem. An OIS reset does not require a physical shutdown of the entire console. Reset of the OIS application can also be done remotely from a VT series terminal. This command is functionally the same as doing an **OISSHUTDOWN** followed by an **OISSTARTUP**.

NOTE: The O S application on the console must be up and running for this command to function properly.

COMMAND:**OISRESET****DISCUSSION:**

Refer to **OIS APPLICATION RESET** in this section for further explanation.

TERMINAL UTILITIES

OISSHUTDOWN

PURPOSE

The **OISSHUTDOWN** command initiates a shutdown of the OIS application at the console. (This command can not be entered on an IIOIC41 console but the functionality is available through pull down menus.) Shutdown of the OIS application can also be done remotely from a VT series terminal.

NOTE The OIS application on the console must be up and running for this command to function properly.

COMMAND:**OISSHUTDOWN****DISCUSSION:**

Refer to **OIS APPLICATION SHUTDOWN** in this section for further explanation.

OISSTARTUP**PURPOSE:**

The **OISSTARTUP** command initiates a start up of the OIS application at the console. (This command can not be entered on an II/OIC41 console but the functionality is available through pull down menus.) Start up of the OIS application can also be done remotely from a terminal

NOTE. The O S applicat on on the conso e must be shut down for th s command to f..nction properly

COMMAND:**OISSTARTUP****DISCUSSION:**

After the start up sequence completes, an OIS application window and icons appear to indicate a successful start up. Normal process operations can now be performed. Refer to **OIS APPLICATION START-UP** in this section for further explanation.

TERMINAL UTILITIES

PROCDT

PURPOSE:

The **PROCDT** command starts a utility that performs the combined functions of the **XLATEDT** and **DOT** utilities. It translates an EWS display file or symbol file in the [OIS CONFIG] directory to OIS format in the [DATA USN54] directory, and creates an assembled display (**.DU**) or symbol file (**.DL**) in the appropriate [DATA.USNxx] directory.

COMMAND:

PROCDT *filename*

Parameter	Description
<i>filename</i>	Source file name without .DT extensions. A wildcard asterisk (*) can be used as a wildcard. The wildcard asterisk (*) character can also be used to process multiple files having names that match a certain character pattern. For example, entering D* as the file name causes the console to process all files with names having D as the first character. Entering DISPL*1 processes all files having names that start with D SP_L and end with 1 (e.g. D SP_A1 , D SP_B1 , D SP_C1 , etc.).

DISCUSSION:

Run this utility while in the [OIS CONFIG] directory. Refer to **USER CREATED DISPLAY AND SYMBOL FILES** in Section 3 for more information.

NOTE: Pressing **Ctrl** **C** during the file transfer causes the file to be reserved by the operating system. This means the file can not be accessed. To clear the reservation, execute the **OISRESET** command.

PULL

PURPOSE: The **PULL** command starts a utility that imports a file from another console

NOTE: The O S application on both consoles must be shut down for this command to function properly

COMMAND: **PULL filename ext nodename [L]**

Parameter	Description
<i>filename</i>	Name of the file to be imported
<i>ext</i>	File extension
<i>nodename</i>	Network node name assigned to the console containing the file
L	Flag that forces the utility to give the status of the transfer at completion

DISCUSSION: Refer to **DECNET FILE TRANSFER** in Section 3 for more information

TERMINAL UTILITIES**PULLCFG**

PURPOSE: The **PULLCFG** command starts a utility that imports a subset of database configuration files from another console

NOTE: The O S appl cat on on both conso es must be shut down for this command to funct on properly

COMMAND: **PULLCFG** *nodename*

Parameter	Description
<i>nodename</i>	Network node name ass gned to the conso e contain ng the database conf gurat on files

DISCUSSION: The files included in the subset of database configuration files imported are

ALMDESC.CF
CUSTGID.CF
EUDSCP.CF
LSDSCP.CF
TAGCNFG.CF
TAGDESC.CF
TAGNAME.CF

Refer to **DECNET FILE TRANSFER** in Section 3 for more information.

PUSH

PURPOSE: The **PUSH** command starts a utility that exports a file to another console.

NOTE: The O S application on both consoles must be shut down for this command to function properly.

COMMAND: **PUSH filename ext nodename [L]**

Parameter	Description
<i>filename</i>	Name of the file to be exported
<i>.ext</i>	File extension
<i>nodename</i>	Network node name assigned to the console receiving the file
L	Flag that forces the utility to give the status of the transfer at completion

DISCUSSION: Refer to **DECNET FILE TRANSFER** in Section 3 for more information.

TERMINAL UTILITIES

PUSHCFG

PURPOSE: The **PUSHCFG** command starts a utility that exports a subset of database configuration files to another console.

NOTE: The O S application on both consoles must be shut down for this command to function properly.

COMMAND: **PUSHCFG** *nodename*

Parameter	Description
<i>nodename</i>	Network node name assigned to the console receiving the database configuration files.

DISCUSSION. The files included in the subset of database configuration files exported are:

ALMDESC.CF
CUSTGID.CF
EUDSCP.CF
LSDSCP.CF
TAGCNFG.CF
TAGDESC.CF
TAGNAME.CF

Refer to **Transferring Between Consoles** in Section 3 for more information.

REMOVETOUCHPAD

PURPOSE: The **REMOVETOUCHPAD** command removes an OIC node from the list of OIC nodes to which this main console sends touch pad windows

COMMAND: **REMOVETOUCHPAD** *nodename*

Parameter	Description
<i>nodename</i>	Network node name assigned to the O C console

DISCUSSION: This command is useful when the OIC console initially shares touch pad configuration files with the main console but at a later time it is decided that the OIC console should use separate touch pad configuration files. Refer to the **Operation** instruction for more information on the touch pad configuration utility.

TERMINAL UTILITIES

RESTARTALLTOUCHPADS

PURPOSE: The **RESTARTALLTOUCHPADS** command restarts all touch pads sent by this main console.

COMMAND: **REMOVETOUCHPADS**

DISCUSSION. When making changes to shared touch pad configuration files, use this command to activate the updated touch pad windows on all OIC consoles at one time. The alternative is to manually activate the touch pad windows at each OIC console. Refer to the *Operation* instruction for more information on the touch pad configuration utility.

NOTE: The touch pad windows temporarily disappear after issuing this command.

RESTORECONFIG**PURPOSE:**

The **RESTORECONFIG** command starts a utility that automatically restores a configuration previously saved using the **SAVECONFIG** utility (of the same revision as the console). The utility copies all configuration files to the console and stores them in the correct directories on the hard disk.

NOTE. The O S application on the console must be shut down for this command to function properly.

COMMAND:**RESTORECONFIG****DISCUSSION:**

Refer to **RESTORING CONFIGURATIONS** in Section 3 for further explanation.

TERMINAL UTILITIES

SAVECONFIG

PURPOSE: The **SAVECONFIG** command starts a utility that automatically saves a backup copy of certain configuration files to tape. Use the **RESTORECONFIG** utility to copy configuration files to the console.

NOTE: The O S app cat on on the console must be shut down for this command to function properly.

COMMAND: **SAVECONFIG**

DISCUSSION: This command copies the following types of files

- Configuration
- User display.
- Symbol
- Symbol library.
- Operator configurable display
- Trend
- Operator assignable trend
- Log definition.
- Configurable text.
- XY background
- XY MFP Information
- Archival retrieval
- Tag historian
- Automatic Display

Refer to **SAVING CONFIGURATIONS** in Section 3 for further explanation.

SHOWTOUCHPADS

- PURPOSE:** The **SHOWTOUCHPADS** command displays a list of all the OIC nodes to which this main console sends touch pad windows
- COMMAND:** **SHOWTOUCHPADS**
- DISCUSSION:** In the resulting list, node zero represents the main console and is automatically added to the list Refer to the **Operation** instruction for more information on the touch pad configuration utility.

TERMINAL UTILITIES

SYMLIB

PURPOSE: The **SYMLIB** command runs a utility that maintains a library of all the symbols used by the OIS display subsystem

COMMANDS: **SYMLIB**

DISCUSSION. This utility provides a menu of the following choices:

- 1 *Build/Rebuild Symbol Library*
 - 2 *Add Symbol to Library*
 - 3 *Delete Library*
 - 4 *Find Symbol in Library*
 - 5 *Display Library Statistics*
 - 6 *Display Symbols in Library*
 - 7 *List Symbols in Library to File*
- <Return> to Exit*

Refer to **DISPLAY SYMBOL LIBRARY** in Section 3 for more information

TAGMODE

PURPOSE. The **TAGMODE** command runs a utility that puts the OIS application in an off line mode to receive a tag list broadcast from a work station running the global database manager (GDM) program. The procedures are similar to running the database builder.

COMMANDS. **TAGMODE**

DISCUSSION. The OIS application must be put on line after receiving the broadcast by initiating a reset of the console.

TERMINAL UTILITIES

TRENDS

PURPOSE: The **TRENDS** command starts a database build utility that converts a trend list file (**.CP**) containing a trend list created with the console configuration tools (**WLDG**) to an **OIS** format

NOTE: The **OIS** application on the console must be shut down for this command to function properly

COMMAND: **TRENDS**

DISCUSSION: After starting the utility, continue as directed by the prompts. The file name of the trend list file is in the format:

filename.CP

where:

<i>filename</i>	Name of the trend list file transferred from the console configuration utilities workstation
-----------------	--

Upon completion, the utility writes the trend definition file (**TRENDEF.CF**) to the [DATA USN02] directory. Refer to **TAG DATABASE BUILDER** in Section 3 for more information.

UNCOMPRESS

PURPOSE The **UNCOMPRESS** command starts a utility that decompresses ASCII text files that have been compressed using the **COMPRESS** utility.

COMMAND: **UNCOMPRESS**

PROCEDURE After starting the utility, enter the file name and **.CP** extension of the file to be decompressed as directed by the prompts. Refer to **FILE COMPRESSION** in Section 3 for more information.

TERMINAL UTILITIES

UNTRENDS

PURPOSE

The **UNTRENDS** command starts a database rebuild utility that converts a trend definition file (**.CF**) to an uncompressed trend list file (**.TTR**) that can be manipulated by the console configuration tools (WLDG) program

NOTE: The O S application on the console must be shut down for this command to function properly

COMMAND:

UNTRENDS *filename.TTR*

Parameter	Description
<i>filename</i>	Name of the trend definition file to be converted

DISCUSSION:

Upon completion, the utility writes the trend list file (**.TTR**) to the current directory. Refer to **TAG DATABASE BUILDER** in Section 3 for more information

UPGRADECONFIG

PURPOSE

The **UPGRADECONFIG** command starts a utility that upgrades a E.1, F.1, G.2, G.3 or H.2 software release configuration to a J.1 software release format configuration.

NOTE: The OIS application on the console must be shut down for this command to function properly.

COMMAND

UPGRADECONFIG xx

Parameter	Description
xx	Software release number of the configuration being upgraded to software release J.1. For example, use G3 for release G.3.

DISCUSSION:

After starting the utility, answer the prompts that appear on the screen. Refer to **RESTORE AND UPGRADE FILES** in Section 4 for more information.

TERMINAL UTILITIES

VL or VLOG

PURPOSE The **VL** or **VLOG** command runs a diagnostic log utility. The **VLOG** command calls a older version of the log. The default diagnostic log (automatically created during start up) will hold 2,000 messages.

COMMAND: **VL**
VLOG

DISCUSSION. The **VL** utility provides the following options:

Find (Home) New msgs
N/P Next/Prev 100
D Dump
S Search
F Find
O Options

NOTE: The **Next** and **Prev** keys allow scrolling one screen at a time while the **↑** and **↓** keys allow scrolling one message at a time.

The **VLOG** utility provides the following options:

1. *create*
2. *list to screen*
3. *list to file*
4. *init file*

Refer to **Diagnostic Log** in this section for more information.

XFERDISPLAYS

PURPOSE: The **XFERDISPLAYS** command starts a utility that exports all user created display files that have been translated using the **XLATEDT**, **DOT**, or **PROCDT** utilities to another console.

COMMAND: **XFERDISPLAYS** *nodename*

Parameter	Description
<i>nodename</i>	Network node name assigned to the console receiving the user created display files

DISCUSSION: If the application is up and running on the destination console, the utility prompts if the symbol library file is to be automatically rebuilt at the destination console. Answer **YES** and the translated display files are exported to the destination console where the symbol library is automatically rebuilt. Answer **NO** and only the translated display files are exported.

NOTE: If the display files contain **any** new symbols or **any** modified symbols that do not already exist on the destination console, the symbol library should be rebuilt at the destination console.

If the application on the destination console is shut down, the utility prompts if the symbol library file is to be exported. Answer **YES** and symbol library file along with the translated display files are exported to the destination console. Answer **NO** and only the translated display files are exported. The utility will prompt if the symbol library file is to be automatically rebuilt at the destination console after the display files are exported. Answer **YES** and the symbol library file is rebuilt after the display files are exported. Answer **NO** and the symbols in the symbol library on the destination console will be used in all displays. If symbols are used that are not in the destination console symbol library, the console must search the hard disk drive which may slow display times.

Refer to **USER CREATED DISPLAY AND SYMBOL FILES** in Section 3 for more information.

TERMINAL UTILITIES

XLATEDT

PURPOSE: The **XLATEDT** command starts a utility that translates an EWS display file in the [OIS CONFIG] directory to OIS format. It creates a translated copy of the file using the same name and extension in the [DATA USN54] directory.

COMMAND: **XLATEDT** *filename*

Parameter	Description
<i>filename</i>	Source file name without .DT extension. A wildcard asterisk (*) can be used to process all .DT files in the directory. The wildcard asterisk (*) character can also be used to process multiple files having names that match a certain character pattern. For example, entering D* as the file name causes the console to process all files with names having D as the first character. Entering D SPL* processes all files having names that start with DISPL and end with 1 (e.g. D SPLA1 D SPLB1 D SPLC1 etc).

DISCUSSION: Run this utility while in the [OIS CONFIG] directory. Refer to **USER CREATED DISPLAY AND SYMBOL FILES** in Section 3 for further explanation.

SECTION 3 - CONFIGURATIONS

INTRODUCTION

This section explains how to save an existing console configuration as a backup or to restore a saved configuration. To restore a configuration after a software release upgrade, refer to **RESTORE AND UPGRADE FILES** in Section 4. The console provides utilities, that once executed, automatically save or restore a complete configuration. These utilities require the powering down of the console, installation of a DAT tape drive, and powering up of the console. All utilities must be run from a VT series terminal or a terminal window logged into the OISENGR account.

NOTE: The IOIC42 console utilizes the configuration of the main console and therefore does not require the procedures described in this section. Refer to Section 6 for more information.

SAVING CONFIGURATIONS

To save a configuration using the save utility:

1. Load a blank tape cartridge into the tape drive and wait for the green LED to stop flashing and remain illuminated.
2. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.
3. At the \$ prompt, type:

SAVECONFIG

4. When the \$ prompt appears again, all configuration files have been copied to tape. Unload (press the eject button and remove) and label the tape cartridge.

RESTORING CONFIGURATIONS

To restore a configuration that was saved (from a 40 series console running the current revision of OIS software release) using the **SAVECONFIG** command:

1. Load the tape cartridge containing the saved configuration into the tape drive and wait for the green LED to stop flashing and remain illuminated.

CONFIGURATIONS

2. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.

3. At the \$ prompt, type

RESTORECONFIG

4. When the \$ prompt appears again, all configuration files have been copied from the tape to the correct directories on the hard disk of the console.

TRANSFERRING CONFIGURATION FILES

A transfer allows the sending of configuration files (.CF) or any type of files from one console to another. Once a configuration has been built, file transfer methods can be used to move an existing configuration to other consoles. This instruction gives procedures to:

- Transfer configuration files between consoles
- Transfer a configuration created using the console configuration utilities program

Transferring Between Consoles

The procedures given allow transferring files over the DECnet network, on floppy disk, and using tape cartridges. These procedures can be used to transfer an existing configuration to any other consoles.

NOTE: The following transfer operation examples utilize a subdirectory of the [O/S] directory. Other subdirectories can be used by substituting the appropriate subdirectory name.

DISPLAY FILE TRANSFER

To allow an IIOIS40 console running a software release prior to E 1 to transfer display files to a 40 series console, the **XFERDISPLAYS.COM** file must be copied (and renamed **XFERDTS42.COM**) from a 40 series console to the IIOIS40 console. Once the IIOIS40 console contains a copy of this file, it can transfer display files to any 40 series console on the network using the **XFERDISPLAYS** utility or the following floppy disk or tape cartridge file transfer procedures. To enable the IIOIS40 console to transfer display files.

1. Perform an OIS application shutdown on both consoles if the applications are currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the applications are not running, continue with the next step.

2. From the HIOIS40 console logged into the OISENGR account, type

COPY/LOG *source*::[OIS.OISLIB]XFERDISPLAYS.COM-[OIS.LIB]XFERDTS42.COM **Return**

where

source Network node name of the 40 series console containing the **XFERDISPLAYS.COM** file to be copied

NOTE: A dash () in VMS syntax at the end of a command line determines the continuation of the command on the next line with a \$ prompt

3 To use the **XFERDISPLAYS** utility to transfer display files, type:

@[OIS.OISLIB]XFERDTS42 *destination* **Return**

where:

destination Network node name of the 40 series console receiving the display files

DECNET FILE TRANSFER

For DECnet transfer of files, both consoles must reside on the same network. The network provides the most convenient and quickest transfer method. When running any of the transfer utilities, a file copies to the same directory on the target console as it occupied on the source console

NOTE: Use the asterisk (*) and percent sign (%) wild card characters of the OpenVMS operating system when specifying a *filename* to define multiple file transfers

Export File To export a file from one console to another.

- 1 Open a terminal window at the source console.
- 2 At the \$ prompt, change to the [OIS.CONFIG] directory by typing:

D CONFIG **Return**

- 3 Export the file by typing:

PUSH *filename ext nodename* [L] **Return**

where

<i>filename</i>	Name of the file to export.
<i>ext</i>	File extension
<i>nodename</i>	Network node name assigned to the target console
L	Flag that forces the utility to give the status of a transfer at completion

Import File To import a file from the target console

- 1 Open a terminal window at the target console
2. At the \$ prompt, change to the [OIS CONFIG] directory by typing

D CONFIG **Return**

3. Import the file by typing:

PULL filename ext nodename [L] **Return**

where:

<i>filename</i>	Name of the file to import
<i>ext</i>	File extension
<i>nodename</i>	Network node name assigned to the source console
L	A flag that forces the utility to give the status of a transfer at completion

Export Database The console provides utilities to transfer a subset of database configuration files to another console over the network. The files in the subset include

ALMDESC.CF
CUSTGID.CF
EUDSCP.CF
LSDSCP.CF
TAGCNFG.CF
TAGDESC.CF
TAGNAME.CF

To export a database:

- 1 Open a terminal window at the source console
2. At the \$ prompt, change to the [OIS CONFIG] directory by typing:

D CONFIG **Return**

3 Export the files by typing

PUSHCFG *nodename* **Return**

where:

nodename Network node name assigned to the target console.

Import Database To import a database:

1. Open a terminal window at the target console.
2. At the \$ prompt, change to the [OIS CONFIG] directory by typing:

D CONFIG **Return**

3 Export the files by typing:

PULLCFG *nodename* **Return**

where

nodename Network node name assigned to the source console

FLOPPY DISK FILE TRANSFER

A floppy disk transfer uses standard OpenVMS operating system commands to copy files from the console to floppy disk. Once on the floppy disks, the files can be copied to another console.

NOTE: Use the OpenVMS operating system asterisk (*) and percent sign (%) wildcard characters when specifying a *filename* to define multiple transfers.

Copy to Floppy Disk (OpenVMS Format)

To copy a file from a console to floppy disk:

1. Open a terminal window at the console
2. At the \$ prompt, change to the directory containing the file by typing:

D directory **Return**

3 Insert a formatted floppy disk into the floppy disk drive. If the floppy disk is not formatted, type.

**INITIALIZE-
/DENSITY=DOUBLE \$FLOPPY volume-label** **Return**

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where

volume-label Identifier to be assigned to the floppy disk.

NOTE: A dash (-) in VMS syntax at the end of a command determines the continuation of the command on the next line with a \$ prompt

- 4 Mount the floppy disk by typing

MOUNT \$FLOPPY: *volume-label* **Return**

where:

volume-label Identifier previously assigned to the floppy disk when initialized.

5. If a directory needs to be created on the floppy disk, type

CREATE/DIR \$FLOPPY:*[directory]* **Return**

where

directory Name of the directory that will be created

- 6 Copy the file by typing:

COPY *sourcefile ext* **\$FLOPPY:***[directory]destinationfile ext*
Return

where:

directory Name of the directory that will contain a copy of the file

sourcefile Name of the file to copy

destinationfile Name to assign to the file after copy. The asterisk (*) wildcard can be used if the name is to remain the same

.ext File extension

NOTE: The source and destination file names in most cases should be the same

7. When the copy operation is complete, dismount the floppy by typing:

DISMOUNT \$FLOPPY **Return**

**Copy from Floppy Disk
(OpenVMS Format)**

8 Remove the floppy disk from the floppy disk drive.

To copy a file from floppy disk to a console.

- 1 Open a terminal window at the console.
- 2 At the \$ prompt, change to the directory that will contain the file by typing:

D *directory* **Return**

where:

directory Name of the directory that will contain the file

3 Insert the floppy disk containing the file to copy into the floppy disk drive of the console.

4 Mount the floppy disk by typing.

MOUNT \$FLOPPY: *volume-label* **Return**

where:

volume-label Identifier previously assigned to the floppy disk when initialized.

5. Copy the file by typing:

COPY \$FLOPPY:*[directory]sourcefile ext destinationfile ext*
Return

where:

directory Name of the directory that will contain a copy of the file

sourcefile Name of the file to copy.

destinationfile Name to assign to the file after copy. The asterisk (*) wildcard can be used if the name is to remain the same.

ext File extension.

NOTE: The source and destination file names in most cases should be the same

6. When the copy operation is complete, dismount the floppy by typing:

DISMOUNT \$FLOPPY **Return**

- 7 Remove the floppy disk from the floppy disk drive.

TAPE CARTRIDGE FILE TRANSFER

A tape transfer uses standard OpenVMS operating system commands to copy files from a console to a tape cartridge. Once on tape, the files can be copied back to another console. This requires installation of a DAT tape drive.

NOTE Use the OpenVMS operating system asterisk (*) and percent sign (%) wildcard characters to define multiple transfers.

Copy to Tape To copy a file from a console to tape cartridge:

- 1 Open a terminal window at the console
- 2 At the \$ prompt, change to the directory containing the file by typing

D *directory* **Return**

where

directory Name of the directory containing the file

- 3 Load a blank formatted tape cartridge into the tape drive and wait for the green LED to stop flashing and remain illuminated. If the tape cartridge is not formatted, type

INITIALIZE \$TAPE1 *volume-label* **Return**

where

volume-label Identifier to be assigned to the tape cartridge

4. Mount the tape by typing

MOUNT \$TAPE1: *volume-label* **Return**

where

volume-label Identifier previously assigned to the tape cartridge when initialized

- 5 Copy the file by typing

COPY *sourcefile ext \$TAPE1:destinationfile ext* **Return**

where.

- sourcefile* Name of the file to copy.
- destinationfile* Name to assign to the file after copy
The asterisk (*) wildcard can be used if
the name is to remain the same.
- ext* File extension

NOTE: The source and destination file names in most cases should be the same

6. Dismount the tape cartridge by typing:

DISMOUNT \$TAPE1

7. Unload (press the eject button and remove) and label the tape cartridge.

Copy from Tape To copy a file from tape cartridge to a console:

1. Open a terminal window at the console.
2. At the \$ prompt, change to the directory that will contain the file by typing:

D *directory*

where:

directory Name of the directory that will contain the file

3. Load the tape cartridge containing the file to copy into the tape drive of the console and wait for the green LED to stop flashing and remain illuminated

4. Mount the tape by typing:

MOUNT \$TAPE1: volume-label

where:

volume-label Identifier previously assigned to the tape cartridge when initialized

5. Copy the file by typing:

COPY \$TAPE1:sourcefile ext destinationfile ext

where:

sourcefile Name of the file to copy.

destinationfile Name to assign to the file after copy
The asterisk (*) wildcard can be used if
the name is to remain the same

ext File extension

NOTE. The source and destination file names in most cases should be the same

6. Dismount the tape cartridge by typing:

DISMOUNT \$TAPE1

7. Unload (press the eject button and remove) the tape cartridge

Transferring Console Configuration Tools Created Configurations

The console configuration tools (WLDG) running on an engineering work station (EWS) allows creating and modifying configurations. The steps required to implement a configuration created with the console configuration tools include

1. Transferring files to directories of the OIS application after building the various pieces of a configuration with the console configuration tools.
2. Converting the transferred files to an OIS format for use

The console configuration tools provide the capability to define several, but not all configuration requirements of the console. Refer to the **Console Configuration Utilities** instruction for the capabilities of the program (Table 1.2 lists instruction numbers). The configuration files to transfer include

- Compressed ASCII tag database files (.CP)
- Display and symbol source files (.DT)
- Trend list text files (.CP)
- Log definition files (.LF).

FLOPPY DISK TRANSFER

NOTES:

1 The engineering work station must have the proper 3.5 inch (1.44 megabyte) floppy disk drive (PS/2 style) installed to transfer files from the engineering work station to the console using floppy disks. The console comes equipped with the appropriate floppy disk drive as standard equipment.

2 It is possible to transfer files from one console to another over the DECnet network but this requires additional software.

Configuration files created at the engineering work station can be transferred to the console on floppy disk. Copy the configu

Reading from DOS Floppy Disk

ration files to floppy disk using the standard DOS **COPY** command, or using console configuration tools.

To read a file from a DOS floppy disk to a console:

- 1 Open a terminal window at the console.
- 2 At the \$ prompt, type

```
MC PCDISK 
```

3. Insert the floppy disk containing the file to be read into the floppy disk drive

- 4 At the *PCDISK*> prompt, type.

```
USE A: $FLOPPY: 
```

5. Type:

```
EXPORT A:DOSfile ext [directory]VMSfile ext 
```

where:

<i>directory</i>	Name of the directory that will contain a copy of the file
<i>DOSfile</i>	Name of the file to transfer
<i>VMSfile</i>	Name to assign the file after transfer
<i>ext</i>	File extension.

NOTE: The DOS and VMS file names in most cases should be the same

When reading a log file, type.

```
EXPORT/FORMAT=FIXED A:DOSfile.LF  
[OIS.CONFIG]VMSfile.LF 
```

where:

<i>DOSfile</i>	Name of the log file to transfer.
<i>VMSfile</i>	Name to assign the log file after transfer.
<i>ext</i>	File extension.

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Use the asterisk (*) wild card character to transfer multiple files. For example, to transfer all display files to the proper sub directory using a wild card, type

```
EXPORT A:*.DT [OIS.CONFIG] 
```

6 When the transfer completes, type

```
EXIT 
```

7 Remove the floppy disk

Writing to DOS Floppy Disk

To write to a DOS floppy disk for transfer to the console configuration tools work station.

1. Open a terminal window at the console

2. At the \$ prompt, type

```
MC PCDISK 
```

3. Insert a formatted floppy disk into the floppy disk drive

4. At the *PCDISK*> prompt, type.

```
USE A: $FLOPPY: 
```

5. Type:

```
IMPORT [directory]VMSfile ext A:DOSfile ext 
```

where

<i>directory</i>	Name of the directory containing the file.
<i>DOSfile</i>	Name to assign to the file after transfer
<i>VMSfile</i>	Name of the file to transfer
<i>ext</i>	File extension

NOTE. The DOS and VMS file names in most cases should be the same

Use the asterisk (*) wild card character to transfer multiple files. For example, to transfer all display files from the [OIS.CONFIG] directory to the floppy disk using a wild card, type.

```
IMPORT [OIS.CONFIG]*.DT 
```


6 When the transfer completes, type:

EXIT

7 Remove the floppy disk

TAG DATABASE BUILDER

After transferring the tag list configuration files (.CP) created with the console configuration tools, a database build utility must be run to convert the database to an OIS format. Type **DATABASE** at the \$ prompt to initiate the builder routine.

To run the database builder.

1 Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.

NOTE: It may be beneficial to open the message window before continuing to view status messages that indicate the progress of the database builder.

2 Open a terminal window (logging into the OISENGR account).

3 At the \$ prompt, type.

DATABASE

The message window provides informational messages to identify the status of operations performed through the utility. The message *Database Build Initialization In Progress* appears at the message window after starting the utility. After a short time, the message *Initialization Complete* appears at the message window, and the following menu appears at the terminal window.

- 1 *Build Data Base*
 - 2 *Unbuild Data Base*
 - 3 *Quit*
- Select:

Build Database

The console requires the following files to reside in the [OIS.CONFIG] directory to continue with a database build.

- EUDSCP.CP**
- LSDSCP.CP**
- ALMCOM11.CP**
- TAGLST1n.CP** (1 of n)
- TAGLST2n.CP** (2 of n)
- .
- .

TAGLSTmn.CP (m of n)

NOTE: The console requires an **ALMCOM11 CP** file even if alarm comments are not used. In this case, create an alarm comment file using the console configuration utilities program with at least one blank alarm comment.

To initiate a build

1. Select **1 Build Data Base**. The console prompts for the number of tag list files.
2. Enter the number of tag list files, which must correspond to the **n** portion of the **TAGLSTmn.CP** files. The console checks for a complete set of tag list files based on this entry before continuing. If any files are missing, it immediately exits the build routine and displays the name of the missing files. If no files are missing, the console prompts for maximum number of tags.
3. Enter the maximum number of tags used by the system. After entering, the build begins.

A start time displays along with messages that reflect various stages of the build sequence. The display presents a series of dots to identify the current progress of the database build. A new dot displays each time 85 tags have been built. This allows monitoring the progress of the build and estimating the completion time since a database build takes considerable time.

When the entire build process completes successfully, the following message appears:

Tag List build completed successfully

4. Once complete, select the **3 Quit** option.

If the console detects an unrecoverable error while performing a build, specific messages appear to indicate a failure, and to indicate that the build cannot continue. The entire database build is first made to temporary files with **.XX** extensions. These temporary files do not become permanent unless the build is successful. The old database is retained until the new database is completely and successfully built.

Examples of unrecoverable errors are tag indexes out of sequence or an index greater than the configured system size. Refer to **Diagnostic Log** in Section 2 for information on how to use the diagnostic log to diagnose errors. If an error occurs while decoding the input of a tag, a message displays to indicate that the tag was made inactive. This is considered to be a recoverable error and the build continues.

The database build writes the following files to the [DATA.USN02] directory

EUDSCP.CF	Engineering unit descriptors
LSDSCP.CF	Logic state descriptors.
ALMDESC.CF	Alarm comments
TAGNAME.CF	Tag names.
TAGDESC.CF	Tag descriptors
TAGCNFG.CF	Tag configurations
CUSTTID.CF	Customer identifier

Upon successful completion of the tag database build the console automatically deletes the .CP files from the [DATA USN02] directory.

Unbuild Database

Database unbuild performs the exact opposite of the database build to create the .CP files for transfer to an engineering workstation. To unbuild the database, select 2 **UNBUILD**

USER-CREATED DISPLAY AND SYMBOL FILES

A display or symbol source file (.DT) must be translated and assembled before it can be used in normal OIS operations. All display files transferred to the console from the console configuration utilities workstation reside in the [OIS CONFIG] directory. Three utilities provide the display file processing capabilities **XLATEDT**, **DOT** and **PROCDT**

In certain cases, the display cache memory should be flushed after using either the **DOT** or **PROCDT** utilities. Flush the display cache memory if the OIS application is running and the display that was just built has been previously called up. Be sure the display being built is not displayed on any console window. (This includes iconified windows).

To flush the display cache, type the following at the \$ prompt

FLUSH

or

DDT FDS *

To flush the symbol cache, type the following at the \$ prompt.

DDT FDS

XLATEDT

The **XLATEDT** utility translates an EWS display file in the [OIS.CONFIG] directory to OIS format. It creates a translated copy of the file using the same name and extension in the

[DATA USN54] directory. Run this utility while in the [OIS CONFIG] directory.

To run the utility:

1. At the \$ prompt, change to the [OIS CONFIG] directory by typing

D CONFIG

2. Type

XLATEDT filename (source file name without **.DT** extension)

or

XLATEDT * (wild card for all files)

The wild card asterisk (*) character can also be used to process multiple files having names that match a certain character pattern. For example, entering **D*** as the file name causes the console to process all files with names having **D** as their first character. Entering **DISPL*1** processes all files having names that start with **DISPL** and end with **1** (e.g., **DISPLA1**, **DISPLB1**, **DISPLC1**, etc.)

DOT

The **DOT** utility generates an assembled display file (**.DU**) or symbol file (**.DL**) in the appropriate [DATA USNxx] directory. The **DOT** utility performs the same function as the *Display Generator* available through menu selections of the *OIS application*. Refer to the display generation discussion in **Configuration** instruction for an explanation (Table 1 2 lists instruction numbers).

To run the utility type:

DOT filename.DT (requires the **.DT** extension)

NOTE: Use the **DOT** utility on only those files already processed using the **XLATEDT** utility.

PROCDT

The **PROCDT** utility performs the same function as both the **XLATEDT** and **DOT** utilities. It translates an EWS display file in the [OIS CONFIG] directory to OIS format, generates a translated copy of the file in the [DATA USN54] directory, and creates an assembled display (**.DU**) or symbol file (**.DL**). Run this utility while in the [OIS.CONFIG] directory. Any new or modi-

filed symbol files must be translated using this utility before translating any display files.

NOTE: Pressing **Ctrl C** during the file translation causes the file to be reserved by the operating system. This means the file cannot be accessed. To clear the reservation, execute the **OISRESET** command.

To run the utility:

1. At the \$ prompt, change to the [OIS.CONFIG] directory by typing.

D CONFIG **Return**

2. Type

PROCDT filename **Return** (source file name with or without .DT extension)

OR

PROCDT * **Return** (wild card for all files)

The wild card asterisk (*) character can also be used to process multiple files having names that match a certain character pattern. For example, entering **D*** as the file name causes the console to process all files with names having D as their first character. Entering **DISPL*1** processes all files having names that start with DISPL and end with 1 (e.g., DISPLA1, DISPLB1, DISPLC1, etc.).

Refer to Table 3-1 for a summary of the display file processing using these utilities.

Table 3-1. Display File Processing

Utility	Directory		
	[OIS.CONFIG]	[DATA.USN54]	[DATA.USNxx]
XLATEDT	filename.DT	→ filename.DT	
DOT		filename.DT	→ filename.DU/DL
PROCDT	filename.DT	→ filename.DT	→ filename.DU/DL

NOTE: filename is the name of the display file generated and transferred from an engineering work station.

EXPORTING TRANSLATED DISPLAY FILES

To export translated display files to another console, use the **XFERDISPLAYS** utility. Using this utility saves translating display files more than once. The OIS application on both con

soles should be shut down before using this utility. To use the **XFERDISPLAYS** utility, type.

XFERDISPLAYS *nodename* **Return**

where

nodename Node name of the console receiving the exported display files

The utility will prompt if the symbol library is to be exported or rebuilt at the destination console. If the application on the destination console is up and running, only the display files can be exported. The symbol library file must be rebuilt at the destination console. If the application on the destination console is shut down, export only the display files if no new or modified symbols are used in the displays. Export the symbol library and display files when the destination console is to be identical to the source file. Export only the display files and rebuild the symbol library file at the destination console when the destination console requires more symbols than those used in the exported display files.

NOTE: If the display files contain *any* new symbols or *any* modified symbols that do not already exist on the destination console, the symbol library should be rebuilt at the destination console.

Refer to **DISPLAY SYMBOL LIBRARY** in this section for more information about the **SYMLIB** utility.

TREND DATABASE BUILDER

After transferring the trend list file (**.TTR** or **.CP**) created with the console configuration utilities program, a database build utility must be run to convert the database to an **OIS** format. To run the builder:

1. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.

2. At the \$ prompt, type:

TRENDS **Return**

3. Continue as directed by the prompts. Type the name of the file from which to build the trend database in the format.

filename.CP (compressed form)

where

filename Name of the trend list file transferred from the engineering work station.

Upon completion, the utility writes the trend definition file to the [DATA.USN02] directory.

To convert a trend definition file (**.CF**) to an uncompressed trend list file (**.TTR**) that can be manipulated by the console configuration tools program, a database unbuild utility must be run. To run the unbuilder

1. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.

2. At the \$ prompt, type:

UNTRENDS filename.TTR

where.

filename Name of the trend definition file to be unbuild and uncompressed

Upon completion, the utility writes the trend list file to the current directory.

LOG REPORT DEFINITION

After transferring log definition files (**.LF**) created with the console configuration tools program, the files must be converted to an OIS format. The OIS application must be running for the LOGS utility to function properly. To convert the files

1. At the \$ prompt, type:

LOGS

2. Continue as directed by the prompts. Type the name of the log file to convert in the format:

logname.LF

where.

logname Name of the log definition file transferred from the engineering work station.

CONFIGURATIONS

Upon completion, the utility writes the log definition files to the appropriate [DATA USN.xcd directory

FILE COMPRESSION

The console provides a compress and uncompress file capability for ASCII text files. In the case of a large text file, a compression option can be used to reduce the size of the file prior to transfer, which speeds up the transfer process.

To compress a file, at the \$ prompt, type:

COMPRESS

filename ext

This creates a compressed file with a **.CP** extension.

To uncompress a file, at the \$ prompt, type.

UNCOMPRESS

filename.CP

This utility creates a file with the same *filename* and a **.TXT** extension.

DISPLAY SYMBOL LIBRARY

Normally when a display is called up, the console must open, read, and close individual symbol files (**.DL**) for every symbol used in that display. This takes time especially if many symbols are used. To reduce the time delay, the **SYMLIB** utility can be used to maintain a library of all the symbols used by the OIS display subsystem application. The advantage of the symbol library is that display files are read from a single library file.

The **SYML B** utility provides a menu of the following choices.

- 1 *Build/Rebuild Symbol Library*
 - 2 *Add Symbol to Library*
 - 3 *Delete Library*
 - 4 *Find Symbol in Library*
 - 5 *Display Library Statistics*
 - 6 *Display Symbols in Library*
 - 7 *List Symbols in Library to File*
- <Return> to Exit

Build/Rebuild symbol library searches the configuration for all the symbols used and puts them into a single library file.

Add symbol to library allows a symbol to be added to the library file without having to rebuild the entire file.

Delete library - deletes the entire library file. After deleting the library file, the only available options are to exit the **SYMLIB** utility or to build the library file

Find symbol in library displays the symbol name, starting record number, number of records, and the date the symbol was last inserted

Display library statistics displays the current number of symbols inserted, maximum number of symbols allowed, percentage of symbols used, current number of records used, maximum number of records allowed, and percentage of records used

Display symbols in library lists the symbol name, starting record, number of records, last inserted date for all the symbols in the library file.

List symbols in library to file copies the directory listing of all the files in the library file to a file in the current directory. The default file name is **sym.lis**.

Symbols that have been changed or copied in from another console have to be manually added or the library must be rebuilt for quicker access in the library file. The symbol library is searched first. If a symbol is not in the library, a check for the individual symbol file (**.DL**) is made. Display symbol builds via the **PROCDT** utility or the display generator will automatically add the symbol to the library.

To use the **SYMLIB** utility, type the following at the \$ prompt:

SYMLIB

23 36 53 04 10 07

Bailey.

SECTION 4 - SOFTWARE

INTRODUCTION

This section contains the steps to install the software and to configure the console. It also explains how to back up the hard disk drives

NOTE: The O C42 console utilizes the software of the main console and therefore does not require the procedures described in this section. Refer to Section 6 for more information.

The console uses two hard disk drives (refer to Table 4.1 and 4.2 for the device names of the available drives). The OpenVMS operating system and its files are stored on the OIS operating system hard disk drive. The OIS application (console code) and its files are stored on the OIS application software hard disk drive. Installing software involves loading both disk drives from the CD ROM drive using current software release CD ROMs. Verify the module firmware required for the J.1 release with Table 4.4.

Table 4.1. SCSI Device Names IS43/IIOIS43

SCSI ID	Name	Type
0	DKA0	OIS operating system hard disk
1	DKA100	OIS application software hard disk
2	DKA200	Floppy disk drive
3	GKA300	MCP02 communication module
4	DKA400	CD ROM drive used to load the OIS software
5	MKA500	DAT (digital audio tape) tape drive
6	DKA600	Optical disk drive used to archive data
7	CPU	Central processing unit

Table 4.2. SCSI Device Names IS42/IIOIS42

SCSI ID	Name	Type
0	DKA0	Floppy disk drive
1	DKA100	Optical disk drive used to archive data
2	DKA200	OIS operating system hard disk
3	DKA300	OIS application software hard disk
4	GKA400	MCP02 communication module
5	MKA500	DAT (digital audio tape) tape drive
6	DKA600	CD ROM drive used to load the OIS software
7	CPU	Central processing unit

Table 4 3. SCSI Device Names IIOIC41

SCSI ID	Name	Type
2	DKA200	O S operat ng system hard d sk
5	MKA500	DAT (dig ta audio tape) tape dr ve
7	DKA700	CD ROM dr ve used to load the OIC software (on IO C41 conso es)

Table 4 4. Current Minimum Firmware Requirements

Module	ROM	ID Number	Part Number	Revision
N PST01	27C1024	U23	1900208C11	C 1
	27C1024	U24	1900208C21	C 1
MCP02	28F010	U4	1900283F10	1
	28F010	U3	1900283F20	= 1
	28F010	U2	1900283F30	- 1
	28F010	U1	1900283F40	= 1
I MKM02A/ IOC	27C512	U4	1900402A10	A 0
I MLM01	27512	U2	1900165E13	E 3

After the firmware is verified, load the software. There are several ways to load a configuration:

- Create a new configuration on the console
- Create a new configuration, or modify an existing one, using WLDG 2.0 for software release J.1 on the engineering workstation
- Restore a configuration saved from a previous 40 series console running a previous software release and convert it to the current software release.
- Restore a configuration saved from a previous 40 series console running the current software release

SOFTWARE INSTALLATION/UPGRADE OVERVIEW

It is recommended that the following steps be performed when installing or upgrading the operating software on the 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 Elsasg Bailey software products, such as User Task Interface
- DEC layer products, such as Pathworks

- Third-party software packages.
- 2 Make a record of network and OIS device definitions
- 3 Make a backup of the console configuration. Refer to **SAVING CONFIGURATIONS** in Section 3 for instructions on how to save console configurations.
- 4. Make a backup of all the files on the console hard disk drives Refer to **BACKING UP AND RESTORING OIS DISKS** in this section for instructions on how to backup the hard disk drives

NOTES:

1 It is recommended to make and retain an up-to-date backup of both the OpenVMS operating system and O/S application hard disk drives before upgrading the console software. A system failure, hard disk drive failure, or media error occurring during software installation could leave the console in an unusable condition. Restoring previous operational console software and configuration can be the quickest method to recover from this type of failure.

2 It is recommended that you maintain backups of console hard disk drives as part of normal operating procedures. Maintaining an up-to-date backup is a good engineering/operational discipline. This helps ensure that a known 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.

- 5 Determine console CPU firmware revision level. Refer to **CENTRAL PROCESSING UNIT FIRMWARE** in this section for more information.
- 6. Install the operating software in accordance with instructions provided in this section.
- 7 Perform any necessary network and peripheral configuration procedures. @aGlance/IT requires that the TCP/IP network be configured on the console. Refer to Section 5 for more information.
- 8. Restore console application software configuration. Refer to **RESTORE AND UPGRADE FILES** in this section for more information. Also, restore any additional Elsas Bailey software products, DEC layered software products, and third party software that was previously installed on the console.

POWERING UP THE CONSOLE

If the console has no software or is being powered up for the first time:

- 1 Verify the monitor is turned on.
- 2 Verify the CD ROM drive is turned on.

- 3 Verify the DECstation is turned on
4. Energize the console
- 5 Wait for the diagnostics to stop
- 6 An OpenVMS self test message should appear followed by the >>> prompt. If the prompt does not appear, a hardware problem exists. Refer to the **Hardware** instruction for trouble shooting procedures (Table 1 2 lists instruction numbers).

If software is already installed in the console, power up the console as described in **START UP** in Section 2

CENTRAL PROCESSING UNIT FIRMWARE

The central processing unit of 40 series 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 boot strap. 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 **~HO:**

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.

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

IS43/IOIS43 Only

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. Wait until the >>> prompt appears on the screen.

2. At the >>> prompt, type:

IS42/IOIS42

SHOW CONFIG **Return**

IS43/IOIS43

SHOW VERSION **Return**

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

Version V6 0 943 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 console software being installed. If the current console firmware revision level is equal to or greater than the minimum required, proceed to **Environment 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. Gently pull the tray to the fully extended position and (if necessary) remove the presently installed CD ROM.

6. Install the OIS/Signature System Disk (contains system software and firmware update utility) and press eject button on CD ROM drive to get tray to slide in. Refer to the **Release Notes** for the volume labels of the CD ROMS available.

NOTE: Check the disk nomenclature to be sure that the correct disk is being used for the console (e.g. SYS43J101 s for the IS43/ OIS43 consoles).

7.

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

IS42/IOIS42 **BOOT -FL E,80 DKA600**

IS43/IOIS43 **BOOT -FL E,A0 DKA400**

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

BOOTFILE: [*directory_name*]*file_name*

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

10. At the *UPD* > prompt, type

UPDATE SRM

NOTE: SRM parameter not necessary for some newer firmw are revisions

11 At the *UPD > ARE YOU READY TO PROGRAM DEVICE ?* prompt, type:

Y

The console flash ROM memory will now be updated.

12. At the *UPD->* prompt, type:

QUIT

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

14 Wait approximately 30 seconds

15. 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 4 5 lists the specific environmental variables and their required values

Table 4 5. Environmental Variables and Required Values

Environmental Variables	Required Value
Auto_act on	BOOT
Boot osf ags ²	0,0
Bootdef dev	DKA0 0 0 6 0 ¹
Bus_probe_a gorithm ²	NEW
Conso e ²	GRAPH CS
Ewa0 mode ²	AU
Kbd hardware type ²	LK411
Pka0 fast ²	0

Note

1 DKA0 represents the name of the OIS operating system hard disk for the S43/IO S43 console Refer to Tables 4-1 and 4-2 for the device names of the S42/IOIS42 and the S43/IO S43 consoles

2 Not relevant for the S42/IO S42

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

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 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 4 5 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 4 5

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 INSTALLATION - OPERATIONAL

NOTE: When upgrading console software save the existing configuration before starting this procedure. Failure to do so will result in the loss of the existing configuration. Refer to Section 3 for the procedures.

This section contains two software installation procedures. The first procedure is for 40 series consoles. The second procedure is for IIOIC41 consoles. To upgrade an existing configuration to a software release J.1 configuration, refer to **RESTORE AND UPGRADE FILES** in this section for more information.

Save the existing configurations using the **SAVECONFIG** command. After restoring and before operating the console, convert prior console revision configuration files to 40 series J.1 software release files. Refer to Section 3 for the procedures. The files can be converted before or after doing the network configuration.

NOTE: The following installation examples use the device names for the S43/IO S43 console. For the device names of the S42/IO S42 console refer to Table 4 2.

OIS Console To load the software into an 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 OIS/Signature System Disk (contains operating system and firmware update utility) and press the eject button.

on the CD ROM drive Refer to the **Release Notes** for the volume labels of the CD ROMS available

NOTE: Check the disk nomenclature to be sure that the correct disk is being used for the console (i.e. SYS43J101 is for the S43/IO S43 consoles)

4 At the >>> prompt, type

IS42/IOIS42 **BOOT -FL E,0 DKA600**

IS43/IOIS43 **BOOT -FL E,0 DKA400**

NOTE: The SCSI address of the CD-ROM drive is dka600 for S42/IO S42 consoles, dka400 for S43/IO S43 consoles and dka7C0 for C41 consoles. Do not reverse addresses as the SCSI address of the CPU is dka700 for 40 series consoles.

5. After approximately eight minutes, a menu appears. Select *Install OIS/Signature 40 Series Revision J.1 Operating System Disk* from the menu. The operating system 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.

8. Install the Application Disk (contains application software) and press the eject button on the CD ROM drive. Refer to the **Release Notes** for the volume labels of the CD ROMS available.

9 At the >>> prompt, type

IS42/IOIS42 **BOOT -FL E,0 DKA600**

IS43/IOIS43 **BOOT -FL E,0 DKA400**

NOTE: The SCSI address of the CD ROM drive is dka600 for S42/IO S42 consoles, dka400 for IS43/IO S43 and dka700 for IO C41 consoles. Do not reverse addresses as the SCSI address of the CPU is dka700 for 40 series consoles.

10 After approximately four minutes, a menu will appear. Select *Install OIS/Signature 40 Series Revision J.1 OIS Software Disk* from the menu. The console application software will be loaded and verified and the menu will be displayed.

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

OIC Console To load the software into an OIC41 console:

- 1 Press the gray halt button on the back of the central processing unit

NOTE: The halt button is in different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

2. Press the eject button on the CD ROM drive. The tray will slide out part way.

3. Gently pull the tray to the fully extended position and (if necessary) remove the presently installed CD ROM.

4. Install the IIOIC41 System Disk (contains application software) and gently push the tray completely into the CD ROM drive. Refer to the **Release Notes** for the volume labels of the CD ROMS available.

5. Boot the stand alone backup from the CD ROM by typing:

B/E0000000 DKA700

NOTE: The SCS address of the CD-ROM drive is dka400 for S43/IOIS43 consoles and dka700 for IO C41 consoles. Do not reverse addresses as the SCS address of the CPU is dka700 for 40 series consoles.

When the stand alone backup is done loading, the system prompts:

PLEASE ENTER DATE AND TIME (DD-MMM YYYY HH:MM)

6. Enter the date and time, then press .

The system will display a list of all available devices and their device types (floppy disk drive, hard disk drive, tape drive, and CD ROM drive). The system will then display the following message followed by the \$ prompt:

*Stand alone BACKUP V6.1:
the date is DD MMM YYYY HH:MM*

7. At the \$ prompt, type.

BACKUP/VERIFY DKA700: DKA200:

The console starts to load the CD ROM. After a while, the system displays

BACKUP I STARTVERIFY (starting verification pass)

NOTE: This message does not always appear.

After a while, this message appears:

BACKUP I PROCDONE, operation completed. Processing finished at (date and time). If you do not want to perform another standalone BACKUP operation, use the console to halt the system.

If you want to perform another standalone BACKUP operation, ensure the standalone application volume is online and ready. Enter "YES" to continue.

- 8 Press the eject button on the CD ROM drive. The tray will slide out part way.
9. Gently pull the tray to the fully extended position and remove the presently installed CD ROM.
- 10 Gently push the tray completely into the CD ROM drive.
11. Press the gray halt button on the central processing unit.

NOTE: The halt button has different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

12. At the >>> prompt, type

SET BOOT DKA200

This command instructs the system to always boot off of hard disk 1. This completes the steps for loading the software.

- 13 Boot the system by typing.

BOOT

RESTORE AND UPGRADE FILES

To load and convert a software release E.1, F.1, G.2, G.3, or H.2 configuration to a software release J.1 configuration, connect a tape drive to the console and perform the following:

1. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLICATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.
2. Load the SAVECONFIG tape into the tape drive.
3. At the \$ prompt of a terminal window logged into the OISENGR account, type.

UPGRADECONFIG xx

where:

xx	Previous software release:
	E1 - E.1 X
	F1 = F.1
	G2 - G.2
	G3 - G 3 X
	H2 - H.2 X

4. Answer the prompts that appear on the screen. The configuration files will be converted to J.1 software release format configuration files.
5. Remove the SAVECONFIG tape.

CONFIGURABLE TEXT CONVERSION

If modifications to the configurable text of the previous release were made, follow these steps to merge the changes into the configurable text for the current release.

1. Perform an OIS application shutdown if the application is currently running. Use the procedures given under **OIS APPLI CATION SHUTDOWN** in Section 2. If the application is not running, continue with the next step.
2. Load the SAVECONFIG tape into the tape drive.
3. At the \$ prompt of a terminal window logged into the OISENGR account, type.

MERGE TEXT

4. From the list of available upgrade options provided, specify the upgrade option that will merge configurable text changes into the configurable text for the current software release.
5. The configurable text files saved on the SAVECONFIG tape will now be merged into the configurable text for the current software release.
6. Once the merge is complete, remove the SAVECONFIG tape.

BACKING UP AND RESTORING OIS DISKS

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

Saving a disk drive image to a tape cartridge or restoring a disk image from a tape cartridge requires connecting the tape drive and CD ROM drive to the central processing unit before starting up the console.

Disk Backup Procedure

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 disk drive and application software disk drive requires two tape cartridges. To back up multiple disk drives on one tape cartridge, consult the supplied OpenVMS documentation.

OIS Console 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 and CD ROM drive to the console.
3. Set the main power circuit breaker to the on position.
4. Press the blue halt button on the back 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 OIS/Signature disk or the Application Disk into the CD ROM drive.
7. At the >>> prompt, boot minimal VMS, from the CD ROM drive, up by typing:

IS42/II0IS42 **BOOT -FL E,0 DKA600** **Return**

IS43/II0IS43 **BOOT -FL E,0 DKA400** **Return**

8. After approximately 15 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:

MOUNT/OVERRIDE=ID disk:

BACKUP/VERIFY/IMAGE/REWIND-
disk: MKA500:name ext/SAVE_SET/LABEL=label

where:

<i>label</i>	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.
<i>disk</i>	Device name of the disk drive being backed up. Table 4-1 lists the available device names.
<i>name ext</i>	File name and extension of the save set file to be created on the tape.

NOTE: A dash (), in VMS syntax at the end of a command line determines the continuation of the command on the next line with a \$ prompt.

- 10 Remove, label, and date the backup tape cartridge.
- 11 At the \$\$\$ prompt, type:

LOGOUT

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

OIC Console To back up a disk drive:

- 1 Open a terminal window and log into the SYSTEM account at the console.
2. At the \$ prompt, type.

SHUTDOWN

3. Press the gray halt button on the back of the central processing unit after the *USE CONSOLE TO HALT* prompt appears.

NOTE: The halt button is in different locations and colors for different consoles. Refer to the *Hardware* instruction for the location of the halt button.

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

- 5 Attach the tape drive to the console
- 6 Set the main power circuit breaker to the on position and allow the console to completely start up
7. Open a terminal window and log into the SYSTEM account at the console
- 8 Insert a blank tape cartridge into the tape drive
- 9 At the \$ prompt, type:

INITIALIZE \$TAPE1 *label*

where.

label Tape 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

- 10 At the \$ prompt, type

SHUTDOWN

- 11 Press the gray halt button on the back of the central processing unit after the *USE CONSOLE TO HALT* prompt appears

NOTE. The halt button is in different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

12. At the >>> prompt, type:

B/E0000000

- 13 Enter the date and time, then press

14. At the \$ prompt, type:

BACKUP/VERIFY/IMAGE/REWIND *disk:-*
MKA500:name ext **SAVE SET**

where.

disk Device name of the disk drive being backed up.

name ext File name and extension of the file to be created on the tape

NOTE: A dash () in VMS syntax at the end of a command line determines the continuation of the command on the next line with a \$ prompt

15 When the backup is complete, press the gray halt button on the back of the central processing unit

NOTE: The halt button is in different locations and colors for different consoles. Refer to the *Hardware* instruction for the location of the halt button

16 At the >>> prompt, type:

BOOT

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

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. Repeat this procedure for each disk drive being restored or consult the supplied OpenVMS documentation for more information.

OIS Console 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 and CD ROM 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 OIS\Signature disk or Application disk into the CD ROM drive.
7. At the >>> prompt, boot minimal VMS from the CD ROM by typing

IS42//IOIS42 **BOOT -FL E,0 DKA600**

IS43//IOIS43 **BOOT -FL E,0 DKA400**

8 After approximately 15 minutes a menu appears. Select *Execute DCL commands and procedures* from the menu.

9 At the \$\$\$ prompt, complete disk restoration by typing

MOUNT/FOREIGN *disk:*

MOUNT/FOREIGN MKA500:

BACKUP/VERIFY/IMAGE/REWIND-
MKA500:name ext /SAVE_SET *disk:*

where

disk Device name of the disk drive to be restored. Table 4.1 lists the available device names.

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

NOTE: A dash (-) in VMS syntax at the end of a command line determines the continuation of the command on the next line with a \$ prompt.

10. Remove the backup tape cartridge.

11 At the \$\$\$ prompt, type.

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

OIC Console To restore a disk drive.

1. Open a terminal window and log into the **SYSTEM** account at the console.

2. At the \$ prompt, type

SHUTDOWN

3. Press the gray halt button on the back of the central processing unit after the **USE CONSOLE TO HALT** prompt appears.

NOTE: The halt buttons are in different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

4. Set the main power circuit breaker located on the power entry panel to the off position
5. Attach the tape drive and CD ROM drive to the console
6. Set the main power circuit breaker to the on position
7. Press the gray halt button on the back of the central processing unit after the following message appears:

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

where

x.x Version number such as 5.5, 6.1, etc

NOTE: The halt button is in different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

8. Insert the desired backup tape cartridge into the tape drive
9. Install CD ROM into the CD ROM drive
10. At the >>> prompt, type:

B/E0000000 DKA700

11. Enter the date and time, then press .

12. At the \$ prompt, type:

BACKUP/VERIFY/IMAGE/REWIND
MKA500:name ext disk:

where.

name ext File name and extension of the file to be restored

disk Device name of the disk drive being restored

NOTE: A dash (-) in VMS syntax at the end of a command line determines the continuation of the command on the next line with a \$ prompt.

13. When the restoration is complete, press the gray halt button on the back of the central processing unit.

NOTE: The halt button is in different locations and colors for different consoles. Refer to the **Hardware** instruction for the location of the halt button.

14 At the >>> prompt, type

BOOT

15 Remove the backup tape cartridge.

OPTIONAL RWZ52 OPTICAL DRIVE SOFTWARE INSTALLATION

The RWZ52 Optical Drive is offered as an optional archival storage device. This device requires that special license software is activated and drive system software be installed after the optical drive is connected. To activate the license and install the drive software:

1. Set the main power circuit breaker located on the power entry panel to the off position
2. Connect the cable from the optical drive to the SCSI port on the console. Set the SCSI ID of the drive to 6 on the IS43/HOIS43 or 1 on the IS42/HOIS42. Also, connect the AC power cord of the optical drive
3. Set the main power circuit breaker to the on position
4. Log into the SYSTEM account from a terminal window.
5. At the \$ prompt, type:

@SYS\$UPDATE:VMSLICENSE.COM

6. Select the *REGISTER* option and enter in requested information of the license PAK.

7. To enable the optical disk software, type

ED SY\$MANAGER:SYCONFIG.COM

8. Find the following line in the file.

RWZ52 == (0)

and change it to read

RWZ52 == (1)

9. To save the changed configuration file type.

Z

then

EXIT

10. To reboot the console, type.

REBOOT

11. To verify that optical disk was configured properly, type

\$SH LOGICAL \$OPTICAL

The following message should be displayed

"\$OPTICAL" = " ODAO." (LNM:SYSTEM TABLE)

12. To verify that the console is able to communicate with the optical drive, type

\$MOUNT/OVER = ID \$OPTICAL:

This results in the optical disk being loaded into the drive

Then type.

\$DISM/UNLOAD \$OPTICAL:

This results in the optical disk being ejected from the drive

23 37 14 04 10 07

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SECTION 5 - NETWORK CONFIGURATION

INTRODUCTION

DECnet network configuration sets up the DECnet network to allow the OIS console to communicate with IIOIC41 consoles and other nodes. TCP/IP network configuration sets up the consoles to communicate on an Internet network. Peripheral configuration defines network addresses for keyboards and printers. @aGlance/IT server configuration configures the consoles for @aGlance/IT operations on the network.

Previous releases of the IIOIS43 system software utilize some commands that contain underscores (**ADD_NODE** for example). The current convention is to not use an underscore (**ADDNODE** for example). Commands should be utilized as they appear in this instruction. The underscored commands are still supported, however.

NOTES:

- 1 Refer to the TCP/IP services for OpenVMS documentation for more information about network configuration on OpenVMS systems. TCP/IP documentation is available in an on-line form by selecting *Bookreader* from the session manager applications menu.
- 2 The OIC42 console does not require the procedures described in this section. However, some of the procedures in this section also upgrade configuration files used by the IIC42 console. Refer to Section 6 for more information.

DECNET NETWORK

The DECnet network allows OIS consoles to communicate with OIC consoles and other nodes. Installing the current software release also sets up a network configuration that allows system start up and testing. This section describes how to change the network parameters to match the network configuration.

The network configuration steps should be performed before connecting an console to a plant wide network or a network with other consoles. However, any executions of the **CHANGE-DECNET** command *must* be performed before connecting this console to the network.

During configuration, the windowing system may go blank on the console due to start up DECnet errors (the screen goes black and an error message appears in the top two or three lines of the screen). Press **[Ctrl]-F2** to restore the windowing

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system Repeat if needed. Configuration tasks are somewhat complex; please read these steps closely.

NOTE: The OS console and its OC consoles should not be connected to the larger network unit they are configured

Node Name and Address Assignment

To change the DECnet node name and address of the current node

- 1 Open a terminal window logging into the SYSTEM account at the OIS or IIOIC41 console
- 2 At the \$ prompt, type

CHANGEDECNET *new_name DECnet_addr REBOOT* Return

NOTES

- 1 Enter information into all fields of the command
- 2 This command also updates the OIC node database configuration file Refer to Section 6 for more information
- 3 The **REBOOT** command is optional It causes the OS or IO C41 console to reboot with the new configuration without having to perform a system shutdown and reboot

where:

<i>new_name</i>	Desired name
<i>DECnet_addr</i>	DECnet address or <i>nm</i> (<i>n</i> is node area or a number 1 through 63 and <i>m</i> is node address or a number 1 through 1023)

NOTE: Each OIS and IO C41 console in the system requires a unique DECnet address

The **CHANGEDECNET** command will automatically shut down the OIS or IIOIC41 console application

- 3 When the OIS or IIOIC41 console application is completely shut down, press the reset button on the console

NOTE: Go to Step 5 if the optional **REBOOT** command was used with the **CHANGEDECNET** command

4. At the >>> prompt of each affected OIS or IIOIC41 console, type.

BOOT Return

This will cause the OIS or IIOIC41 console to reboot with the new configuration.

5. At the OIS or IIOIC41 console, log into the SYSTEM account

6. Verify correct address and/or name change by typing the following command at the \$ prompt

SHOWNODES

This displays a list of all DECnet addresses known to the system

The steps to define or remove another console's name and address in the DECnet database are the same as the steps to change a node name with one difference. To define a node name, replace the **CHANGEDECNET** command with the **ADDNODE** command

ADDNODE *node_name* *DECnet_address*

NOTES:

1. This command does not shut down the OIS or IIOIC41 console application
2. This command also updates the OIS node database configuration file. Refer to Section 6 for more information

where:

node_name Name of the node being added
DECnet_addresses Address of the node being added

To remove a node name, replace the **CHANGEDECNET** command with the **REMOVENODE** command

REMOVENODE *node_name*

NOTES:

1. This command does not shut down the OIS or IIOIC41 console application
2. This command also updates the OIS node database configuration file. Refer to Section 6 for more information

where

node_name Name of the node being removed

CONFIGURATION

Server Configuration

A DECSERVER™ connects printers to the system and the system to a plant Loop (via a computer interface unit). To configure the DECSERVER, follow these steps

NOTE: Be sure to take note of the server name and ports for future use

1. Open a terminal window, logging into the SYSTEM account, at the console
2. At the \$ prompt, type:

```
CONSERVER 08-00-2B-xx-xx-xx [Return]  
where  
xx-xx-xx
```

3. Press **[Return]** after the monitor displays the message
ETHERNET ADDRESS FOUND ON THE BACK OF THE DECSERVER
4. At the # prompt, type

```
CONSOLE CONNECTED (CTRL/D WHEN FINISHED)  
ACCESS [Return]
```

Note that this will not be echoed on the screen

5. Type in any letter at the Enter Username > prompt, then press **[Return]**. This completes the log in to the terminal server
6. At the Local > prompt, type:
SET PRIV **[Return]**
7. At the Password > prompt, type:
SYSTEM **[Return]**
8. At the Local > prompt, type:
DEFINE SERVER NAME node_name **[Return]**

where:

node_name Unique DECnet node name for the
DECserver Record this name for
future use

9 Configure a DECserver port for use by all supported print
ers except the HP500 series by typing

LOGOUT PORT *n*

DEFINE PORT *n* ACCESS REMOTE AUTOBAUD DIS-
INACTIVITY DIS

DEFINE PORT *n* SPEED 9600 CHARA SIZE 8 PARITY-
NONE

DEFINE PORT *n* FLOW CONTROL XON

DEFINE PORT *n* SIGNAL ENA

LOGOUT PORT *n*

where

n Port number or any number 2 through 8.

NOTE: A dash (), *n* VMS syntax at the end of a command *ne*
determines the continuation of the command on the next *ne* with a
\$ prompt

Configure a DECserver port for use by HP500 series printers by
typing:

LOGOUT PORT *n*

DEFINE PORT *n* BROADCAST DISABLED FAILOVER -
DISABLED TYPE HARD

DEFINE PORT *n* FLOW CONTROL DSR ACCESS -
REMOTE SPEED 9600

DEFINE PORT *n* AUTOBAUD DISABLED -
AUTOPROMPT DISABLED

DEFINE PORT *n* LOCK DISABLED LOSS -
NOTIFICATION DISABLED

DEFINE PORT *n* MESSAGE CODES DISABLED -
VERIFICATION DISABLED

LOGOUT PORT *n*

NETWORK CONFIGURATION

where:

n Port number or any number 2 through 8

NOTE: A dash () in VMS syntax, at the end of a command, determines the continuation of the command on the next line with a \$ prompt.

Configure a DECserver for connection to a Plant Loop computer interface unit by typing.

LOGOUT PORT *n*

**DEFINE PORT *n* BROADCAST DISABLED FAILOVER -
DISABLED TYPE HARD**

DEFINE PORT *n* ACCESS REMOTE

**DEFINE PORT *n* AUTOBAUD DISABLED -
AUTOPROMPT DISABLED**

**DEFINE PORT *n* LOCK DISABLED LOSS -
NOTIFICATION DISABLED**

DEFINE PORT *n* MESSAGE CODES DISABLED

DEFINE PORT *n* FLOW CONTROL CTS SPEED 19200

DEFINE PORT *n* VERIFICATION ENABLED PARITY ODD

LOGOUT PORT *n*

where

n Port number or any number 2 through 8

NOTE: A dash () in VMS syntax, at the end of a command, determines the continuation of the command on the next line with a \$ prompt.

Repeat Step 9 for each port being configured.

10 Verify the characteristics of each printer port by typing the following at the *Local* prompt.

SHOW PORT *n*

where:

n Port number or any number 2 through 8

NETWORK CONFIGURATION

Information about all printer ports (except HP500 series printer ports) will be displayed as follows:

Port: *n*.

Character Size	8	Input Speed:	9600
Flow Control	XON	Output Speed:	9600
Parity:	None	Modem Control:	Disabled
Stop Bits:	Dynamic		

Access:	Remote	Local Switch:	None
Backwards Switch:	None	Name:	PORT <i>n</i>
Break:	Disabled	Session Limit:	4
Forwards Switch:	None	Type:	Soft
Default Protocol:	LAT		

Preferred Service: None

Authorized Groups: 0
 (Current) Groups: 0

Enabled Characteristics:

Input Flow Control, Output Flow Control, Signal Check, Verification

Information about HP500 series printer ports will be displayed as follows

Port: *n*.

Character Size:	8	Input Speed:	9600
Flow Control	DSR	Output Speed:	9600
Parity:	None	Modem Control:	Disabled
Stop Bits:	Dynamic		

Access:	Remote	Local Switch:	None
Backwards Switch:	None	Name:	PORT <i>n</i>
Break:	Local	Session Limit:	4
Forwards Switch:	None	Type:	Hard
Default Protocol:	LAT		

Preferred Service: None

Authorized Groups: 0
 (Current) Groups: 0

Enabled Characteristics:

Input Flow Control, Output Flow Control

Information about Plant Loop computer interface ports will be displayed as follows.

Port: *n*

NETWORK CONFIGURATION

Character Size:	8	Input Speed:	19200
Flow Control:	CTS	Output Speed:	19200
Parity:	Odd	Modem Control:	Disabled
Stop Bits:	1		

Access:	Remote	Local Switch:	None
Backwards Switch:	None	Name:	PORT n
Break:	Disabled	Session Limit:	4
Forwards Switch:	None	Type:	Hard
Default Protocol:	LAT		

Preferred Service: None

Authorized Groups: 0
(Current) Groups: 0

Enabled Characteristics:

Input Flow Control, Output Flow Control, Verification

11. Enter the port definitions by typing:

SET NOPRIV

LO

12. Press .

13. At the \$ prompt, type:

SET DEF [DECSEVER]

DSV

14. At the DSV> prompt, type:

ADD

NOTE: To obtain a complete listing of the available DSV commands, type HELP at the DSV> prompt

15. Answer the questions as shown below

Server Name:	node_name from Step 8 <input type="button" value="Return"/>
Ethernet Address:	Address from Step 2 <input type="button" value="Return"/>
Server Type:	DS200 <input type="button" value="Return"/> (DS300 if DECserver 300) (DS700 if DECserver 700)
Service Circuit [SVA 0]:	<input type="button" value="Return"/>
Maintenance Password [none]:	<input type="button" value="Return"/>

_DECnet Address DECnet address or *n m* (*n* is
[*next available*]; node area or number 1
 through 63 and *m* is node
 address or a number 1
 through 1023) **Return**

Dump File **Return**
[*MOM\$LOAD:DS300A.DMP*].

_Load Image [*MOM\$LOAD:* **Return**
SH1601ENG.SYS];

NOTE: Specify the *MOM\$_OAD WWENG1 SYS oad* image when using an older DECserver 700 that contains less than two megabytes of memory.

Repeat Steps 13 through 15 for each main console using the server port

16 At the DSV> prompt, type:

LIST * **Return**

A listing of the parameters for each main console using the server port is displayed.

17. Verify the parameters for each main console are correct.

18 At the DSV> prompt, type:

EXIT **Return**

19 Load the terminal server with the new configuration by powering down and then powering up the terminal server

OIS CONSOLE PERIPHERAL CONFIGURATION

This procedure defines the addresses for peripherals such as printers and keyboards

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

2. Type:

SET DEF SYSS\$MANAGER **Return**

DEFINEDEVICES **Return**

3 Enter **yes** at the prompt if the console is using an IIMCP02 module in SCSI mode and proceed to Step 4. Enter **no** and specify (when prompted) if the console is using the Plant Loop. If the Plant Loop is used, specify (when prompted) the server node name and port number of where the Plant Loop computer interface unit is to be located.

4 Enter the number (0 through 8) of keyboards (IIMKM02 modules) supported by the OIS console and all OIC consoles and press **Return**

5. For each keyboard enter the device port as either:

_TTXx:, **OIC41**, **OIC42**, or **OIC43**

NOTE. TTA0. is the default for keyboard number one on S43/ O S43conso es or TTA1 on the IS42/ O S42 conso es Keyboards 2 through 8 are for O C conso es

If an IIOIC41, IIOIC42, or IIOIC43 keyboard is specified, enter the *node name* of the OIC console when prompted.

6. Enter the number of logging printers (0 through 4) used by the console and press **Return**.

7 For each printer, enter the device port as either

IS42/IIOIS42 **LAT**, **OIC41**, **OIC42**, or **OIC43**

IS43/IIOIS43 **_TTXx:**, **_OPXx:**, **LAT**, **OIC41**, **OIC42**, or **OIC43**

If a **LAT** printer is specified, enter the server node name and port name where the printer will be connected Refer to Step 8 and 9 of **DECserver Configuration** in this section for the names

For example the default name of port number 2 is **PORT 2**.

If an IIOIC41, IIOIC42, or IIOIC43 printer is specified, enter the node name of the OIC console when prompted.

8. Enter the number of copy screen printers (0 through 4) used by the console and press **Return**

NOTE: Each copy screen printer must be connected to a server

9. For each printer, enter the server node name where the printer will be connected Refer to Step 8 of **DECserver Configuration** in this section for the name

10 For each printer, enter the port name where the printer will be connected. Refer to Step 9 of **DECserver Configuration** in this section for the name.

11 Type:

REBOOT **Return**

IIOIC41 CONSOLE PERIPHERAL CONFIGURATION

Each IIOIC41 console is associated with a single controlling OIS console. The controlling OIS console for an OIC console is the OIS console that will be affected by the pull down menu items on the OIC console. This procedure defines the startup and shutdown along with the node and port for the copy screen printer.

NOTE: The DECnet node name and address of the controlling OIS console must be defined in the OIC console DECnet database. For the OIC console pull-down menu items to function, the DECnet node name and address of the OIC console must be defined in the OIS console database. Refer to *Node Name and Address Assignment* in this section for more information.

1. Open a terminal window at the OIC console.
2. Type:

```
SET DEF SYS$MANAGER Return
```

```
DEFINDEVICES Return
```

3. Enter the node name of the controlling OIS console and press **Return**. This is the name of the node affected by start up, shutdown, and reset requests from the OIC console.
 4. Enter the number of copy screen printers (0 through 4) used by this OIC console and press **Return**.
 5. For each printer, enter the server node name where the copy screen printer will be connected. Refer to Step 8 of *DECserver Configuration* in this section for the name.
 6. For each printer, enter the port name where the copy screen printer will be connected. Refer to Step 9 of *DECserver Configuration* in this section for the name.
- For example: the name of port number 2 is PORT 2.
7. Type:

```
REBOOT Return
```

TCP/IP NETWORK

The transmission control protocol/Internet protocol (TCP/IP) network is supported on consoles using the Digital UCX software package. Common uses for TCP/IP are to send OIS windows between consoles, perform file transfers with FTP, copy the OIS font files to a UNIX® computer, remote terminal/telnet login, and share real time, historic, and event log data. Fea

NETWORK CONFIGURATION

tures of the operating software, such as @aGlance/IT, require that specific components of TCP/IP network be configured. The following discussion details how to configure the TCP/IP network environment.

DEC TCP/IP License Server Components

DEC requires that an additional TCP/IP software license, that is not supplied with the DECstation™ using the OpenVMS™ Alpha™ operating system, be acquired if any of the following TCP/IP server components are required: BIND, BOOTP, TFTP, NFS, PC NFS. The software license is acquired by contacting the local DEC representative and requesting the "TCP/IP Client Upgrade for OpenVMS Alpha."

DEC may require information on the current license configuration. To acquire this information.

1. Open a terminal window, logging into the SYSTEM account, at an OIS 40 series console.

2. At the \$ prompt, type:

```
SHOW LICENSE NET /FULL 
```

3. To exit, type:

```
LOGOUT 
```

Console Configuration

The host name and address of the console in the network need to be determined before configuring it on the network. Refer to the TCP/IP services for OpenVMS documentation for more information. This documentation is available in on-line format by selecting *Bookreader* from the session manager applications menu. Computer network personnel may also be able to provide the required information. There are three different methods to configure a console on the network:

- Run the **UCX\$CONFIG** utility to do the following:

Perform the initial configuration of console UCX data base by providing the: host name, internet address, internet network mask number, and broadcast mask number. This defines the console Ethernet device in the UCX database (i.e. the UCX Core Environment Interface option).

Define other UCX Core Environment options (generally not required).

Enable/disable individual UCX client or server services (i.e. FTP, PORTMAPPER)

Shutdown/startup/test UCX in order to enable configuration.

- Use the UCX command line interface (\$UCX) which becomes available after the initial UCX configuration is complete
- Use basic OIS commands (**ADD_HOST**, **SHOWHOST**, **REMOVEHOST**) to add/remove console network names and addresses

To configure the console to function on the TCP/IP network (initial UCX configuration).

1. Open a terminal window, logging into the SYSTEM account, at an OIS 40 series console
2. At the \$ prompt, type:

@UCX\$CONFIG Return

An introductory message appears on the screen. The UCX configuration procedure checks for the existence of the TCP/IP database. If the database does not exist, it will be created.

3. The procedure will prompt if access to the proxy database is to be unrestricted or accessible only through the SYSTEM account. Press Return to accept the default value of no access except through the SYSTEM account (privileged user)

NOTE. The proxy database is used to associate remote consoles with accounts. For example, for a remote console to use the remote shell utility to execute commands on the local console, an entry for the remote console must exist in the proxy database.

4. If the Ethernet device is already configured go to Step 7. If not, the procedure will prompt if the Ethernet device found is the internet device to be configured. Press Return to accept the default value (yes).
5. Enter the host name, internet address, internet network mask number (accept the default), and broadcast mask number (accept the default) followed by Return when prompted.

NOTES.

1. The host name is case sensitive. Enclose lowercase names in quotation marks.
2. For consoles residing in both DECnet and TCP/IP networks, the node name and host name should be the same.
6. The procedure will display the internet interface parameters and prompt if they are correct. Press Return to accept the default value (yes).

NETWORK CONFIGURATION

7 The *TCP/IP Services for OpenVMS Configuration Menu* will appear and display the following configuration options

- 1 *Core environment*
 - 2 *Client components*
 - 3 *Server components*
 - 4 *Optional components*
 - 5 *Shutdown TCP/IP Services for OpenVMS*
 - 6 *Startup TCP/IP Services for OpenVMS*
 - 7 *Run tests*
- A *Configure options 1 3*
 - E *Exit configuration procedure*

The desired menu command is performed by entering the number or letter to the left of the selection and responding to the prompts that appear on the screen

8 Select 1 *Core environment* from the menu by typing:

1 **Return**

9. The *TCP/IP Services for OpenVMS CORE ENVIRONMENT Configuration Menu* will appear and display the following configuration options

- 1 *BIND Resolver*
 - 2 *Domain*
 - 3 *Routing*
 - 4 *Interfaces*
 - 5 *Time Zone*
- A *Configure options 1 5*
 - E *Exit menu*

NOTES:

- 1 The items listed above should only be changed if the TCP/IP configuration is understood and there is a specific system requirement
- 2 Interfaces can also be configured by selecting the *Optional components* menu item on the *TCP/IP Services for OpenVMS Configuration menu*

10 Select 4 *Interfaces* from the menu by typing

4 **Return**

11 The internet parameters of the interface will be displayed. Verify the parameters are correct and accept them by typing

N **Return**

12 Select *E Exit menu* from the menu by typing:

E **Return**

13. The *TCP/IP Services for OpenVMS Configuration Menu* will appear. Select *3 Server components* by typing:

3 **Return**

14 The *TCP/IP Services for OpenVMS SERVER Components Configuration Menu* will appear and display the following options:

- 1 *BIND*
- 2 *BOOTP*
- 3 *TFTP*
- 4 *FTP*
- 5 *LPR/LPD*
- 6 *NFS*
- 7 *PC NFS*
- 8 *PORTMAPPER*
- 9 *TELNET/RLOGIN*
- 10 *SNMP*
- 11 *NTP*
- 12 *METRIC*

A Configure options 1 12

E Exit menu

NOTES:

1 FTP should only be enabled when the transfer of font files from one console to another or the transfer of files from the console to a personal computer system is required.

2 Enable PORTMAPPER when installing J11 software. This is required to run @aGlance/T.

3 The AAGADMIN utility must be run to specify the host name of the console as a server. Refer to *@aGlance/IT Server Configuration* in this section for more information.

4 The following TCP/IP server components require an add-on license from DEC: BIND, BOOTP, TFTP, NFS, PC NFS. Refer to *DEC TCP/IP License Server Components* in this section for more information.

15 Select *4 FTP* from the menu by typing.

4 **Return**

16. When prompted, enable the FTP server service on this node by typing:

1 **Return**

NETWORK CONFIGURATION

17 When prompted, specify that the FTP client service is to be configured by typing

Y

18. When prompted, enable the FTP client server service by typing.

1

19 Select *E Ext menu* from the menu by typing.

E

20. The *TCP/IP Services for OpenVMS Configuration Menu* will appear. Select *6 Startup DIGITAL TCP/IP Services for Open VMS* by typing:

6

21. When prompted, press

22 Select *E Ext configuration procedure* from the menu by typing

E

23 Add the host name and address for all remote consoles that will be accessed from the local console. To add a remote console, type the following at the \$ prompt

ADDHOST *console name aa bb cc dd*

NOTE This command also updates the I/O C42 host database configuration file. Refer to Section 6 for more information

where.

<i>console name</i>	Host name
<i>aa bb cc dd</i>	Host address

24 Display a list of all remote consoles recognized by the local console by typing

SHOWHOSTS

To remove a remote console name from the local console data base, type

REMOVEHOST *console name* **Return**

NOTES

- 1 Do not remove the LOCALHOST console from the local console database. It is required by the TCP/IP network.
- 2 This command also updates the OIC42 host database configuration file. Refer to Section 6 for more information.

@aGlance/IT Server Configuration

The @aGlance/IT feature provides the capability for @aGlance/IT clients to access configured @aGlance/IT server(s) on the network, so that the client can acquire real time, historic, and event log data. Follow these steps to:

- Perform the required initial setup to define the @aGlance/IT clients and servers for the console.
- Add new @aGlance/IT clients.

The console is initially configured with limited security restrictions for all @aGlance/IT clients. All clients are initially assigned to the SYSTEM account and are provided the following permissions: **AAG ListServers**, **AAG StopSession**, and **AAG StopServer**. These permissions allow all defined clients to perform read operations as well as the ability to list the OIS @aGlance/IT servers, stop a client session, and stop a server.

An additional permission, that provides the client the capability to write to a server, is also available. The **EBOIS-Write** permission can be granted to any client. The **AAG Admin** utility is used to change permission settings. Refer to the **Open Data Server/Client** instruction for more information (Table 1.2 lists instruction number).

@aGLANCE/IT NETWORK CONFIGURATION

@aGlance/IT requires that network connections for clients and servers be established. These network connections are established using the @aGlance/IT Administration utility program.

NOTE: Before the network connection(s) for the @aGlance/IT can be established the console has to be configured on the TCP/IP network with the PORTMAPPER feature enabled and the TCP/IP services started. Refer to **Console Configuration** in this section for more information.

To establish @aGlance/IT client/server network connections:

1. Open a terminal window, logging into the SYSTEM account, at an OIS 40 series console.
2. To verify that the network connection for the console has been established, type:

```
UCX PING console_name Return
```

where

```
console name Host name of the local console
```

3. If not already defined, add the host name and address for any remote client/server that will access the local console. To add a remote client/server, type the following at the \$ prompt:

```
ADDHOST client_name aa bb cc dd Return
```

NOTES

1. This command also updates the IO C42 host database configuration file. Refer to Section 6 for more information.
2. There is no need to re-enter host names of remote consoles that were previously entered when configuring the TCP/IP Network. Refer to **Console Configuration** in this section for more information.

where:

```
client name @aGlance/IT client name
```

```
aa bb cc dd @aGlance/IT client name
```

4. To display a list of all client/servers recognized by the local console, type

```
SHOWHOSTS Return
```

5. Define local console node in the local @aGlance/IT server host database. This allows the @aGlance/IT Administration utility program to list the servers running on this network node.

To define the local console network node, type the following at the \$ prompt.

```
RUN AAG$SYSTEM:AAG_ADMIN Return
```

The @aGlance/IT Administration menu will appear. Refer to the *@aGlance/IT System Manual* for information on how to use this utility.

6. Reboot the console. Type the following at the \$prompt.

REBOOT

After rebooting, the console will have a single @aGlance/IT server with the default name of EBOIS. This server will have the ability to provide access to one @aGlance/IT client at a time

ADDING ADDITIONAL @aGLANCE/IT CLIENTS

Additional @aGlance/IT clients can be added after the network has been configured. To add an additional @aGlance/IT client

1. On the local console, open a terminal window, logging into the SYSTEM account

2. To add the additional client type the following at the \$ prompt.

ADDDHST *client_name aa bb cc dd*

where:

client name @aGlance/IT client name.

aa bb.cc dd @aGlance/IT client address

3. To verify that the network connection for the client has been established, type:

UCX PING *console_name*

Using FTP to Transfer Font Files

OIS windows use custom fonts. These custom fonts must be copied to any work station that receives OIS windows. The font files need to be compiled.

The file transfer protocol (FTP) can be used to transfer the OIS font files (.**BDF** files) to work stations that support the FTP protocol. The font files reside in the following directory of the console

SYS\$COMMON [SYSFONT.DECW.USER 75DPI]

The font files are ASCII text files. Since the location of font files and how they are compiled varies from one work station to another, the following procedure is a guideline. It must be customized for each type of work station. To transfer the font files:

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

NETWORK CONFIGURATION

- 2 If not already defined, define the host name of the work station by typing the following at the \$ prompt

ADDHOST *workstation name aa bb cc dd* **Return**

NOTE. This command also updates the O C host database configuration file. Refer to Section 6 for more information.

where

workstation name Work station name
aa bb cc dd Work station address.

3. Set the default directory on the console to the directory where the font files reside by typing the following at the \$ prompt

SET DEFAULT SYS\$COMMON:-
[SYSFONT.DECW.USER_75DPI] **Return**

NOTE: A dash (-), in VMS syntax at the end of a command determines the continuation of the command on the next line with a \$ prompt

4. Start the FTP utility by typing

FTP **Return**

- 5 Log into the work station by typing the following at the FTP> prompt

CONNECT *workstation name* **Return**

where

workstation name Name of the work station. Enclose the name in double quotation marks if all characters are not uppercase

6. Set the default directory on the work station to the directory where the fonts will reside by typing the following at the FTP> prompt.

SET DEFAULT *directory* **Return**

where.

directory Name of the work station default directory Enclose the name in double quotation marks if all characters are not uppercase

7 Copy the font files to the work station by typing the following at the *FTP>* prompt

PUT *.BDF

8. Exit the *FTP* utility by typing:

EXIT

9 At the work station, log in and build the font files

NOTE. The work station may need to be restarted after building the font files to be able to use the fonts

03 17 38 04 10 07

SECTION 6 - IIOIC42 CONSOLE CONFIGURATION

INTRODUCTION

This section details how to start up and update the IIOIC42 console. These procedures are presented here because this console utilizes a different processor than the other OIC consoles and requires different operating procedures. In place of a hard disk drive, the IIOIC42 console has flash ROM memory. This ROM memory contains software and configuration information. By default this console boots up using information from the internal ROM memory. This provides for shorter boot up times and allows the console to operate even if the main console is shut down.

NOTE: Refer to the auxiliary consoles discussion in the *Operation* instruction for more information about the differences between IIOIC41 and IIOIC42 consoles.

The default network configuration parameters of the IIOIC42 console allow it to function properly with only a few network configuration changes.

There are two methods for updating the IIOIC42 console configuration:

1. Use a setup utility to manually update individual parameters at the OIC console. This method consumes less time if only a few parameters need to be changed.
2. Update the ROM memory of the OIC console with a copy of the parameters from the main console. This method consumes less time if many parameters need to be changed, allows configuration changes to be made only once, and insures consistency between main and IIOIC42 consoles. This is the recommended update method.

START-UP

To start up and operate the IIOIC42 console using the default network, workspace menu, background color, and window color parameters:

1. Open the front cabinet door to gain access to the main power circuit breaker.
2. Set the circuit breaker to the on position. The POWER ON lamp illuminates to verify power is being supplied to the console.

UPDATE CONFIGURATION USING SETUP UTILITY

To manually update the IIOIC42 console configuration in ROM memory with specific network parameters

1. Select *Local Clients* from the workspace menu, and select *TekSetup*. The Teksetup window appears. The workspace menu is displayed by pressing the right mouse button.

2. Select *Configuration Summaries* from the main menu and then *TDEnet*. The TDEnet configuration menu is displayed.

3. Enter the node name of the OIC console in the *TDEnet X NETSTATION* field.

NOTE: Press **Enter** after entering information in a field. Failure to do so will cause the field to return to the original value when another field is selected or the menu is exited.

4. Enter the node address of the OIC console in the *TDEnet Address* field.

5. To configure the Internet address, select *Configuration Summaries* from the TDEnet configuration menu and then *TCP/IP*. The TCP/IP configuration menu is displayed. If the Internet address is not to be configured, proceed to Step 7.

6. Enter the appropriate information in the fields.

7. Configure the node name and address of the IIOIC42 console in the network configuration of the corresponding main console.

8. Select *Network Tables and Utilities* from the TCP/IP configuration menu and then *TDEnet Host*. The TDEnet host table is displayed.

9. Add or delete DECnet nodes by entering the node name and address in the field above the *Add Table Entry* or *Delete Table Entry* button and click on the button.

NOTES:

1. The names and addresses of all main consoles from which the OIC console requests a session manager window must be listed in this table.

2. Only four nodes can be added using the TDEnet host table. Use the **ADDNODE** command to add any additional nodes.

10. Select *Network Tables and Utilities* from the TDEnet host table and then *Internet Host*. The Internet host table is displayed.

11. Add or delete Internet nodes by entering the node name and address in the field above the *Add Table Entry* or *Delete Table Entry* button and click on the button

NOTE. Only four internet hosts can be added using the internet host table. Use the **ADDDHST** command to add any additional hosts

12. Select *Configuration Summaries* from the Internet host table and then *X Environment*. The X environment configuration menu is displayed

13. Select *VMS* in the *Host Connect Method* field.

14. Select *TDEnet* in the *VMS Access Method* field

15. Enter the node name of the main console in the *Host* field.

16. Click the *Return to Main Menu* button.

17. Click the *Save Settings to NVRAM* button

18. Click the *Reboot Terminal* button.

19. When prompted, click the *Continue* button to confirm that rebooting the terminal is desired

Within a few minutes the session manager window appears and the console is ready for operation. This console will boot up from its internal ROM memory. If changes are made to the configuration of the main console, the ROM memory must be updated with the new configuration.

UPDATE CONSOLE BY IMPORTING CONFIGURATION

To update the internal ROM memory of the IIOIC42 console with a copy of the network, workspace menu, background color, and window color parameters of the main console

1. Select *Local Clients* from the workspace menu, and select *TekSetup*. The Teksetup window appears. The workspace menu is displayed by pressing the right mouse button

2. Select *Configuration Summaries* from the main menu and then *TDEnet*. The TDEnet menu is displayed.

3. Enter the node name of the OIC console in the *TDEnet X Terminal Name* field

NOTE: Press **[Enter]** after entering information in a field. Failure to do so will cause the field to return to the original value when another field is selected or the menu is exited

4. Enter the node address of the OIC console in the *TDEnet Address* field

IIOIC42 CONSOLE CONFIGURATION

5. To configure the internet address, select *Configuration Summaries* from the TDEnet menu and then *TCP/IP*. The TCP/IP configuration menu is displayed. If the Internet address is not to be configured, proceed to Step 8.

6. Enter the appropriate information in the fields.

7. Open a terminal window logging into the SYSTEM account at the corresponding main console.

8. Configure the node name and address of the IIOIC42 console in the network configuration of the main console.

9. At the \$ prompt, type

OIC42UPDATECONFIG

10. At the OIC console, select *Configuration Summaries* from the TCP/IP configuration menu and then *Boot*. The boot configuration menu is displayed.

11. Configure the OIC console to boot from the main console by selecting *MOP/DAP* as the primary boot method.

12. Configure the primary boot path by entering the following in the *Primary Boot Path* field:

TEK\$XPBOOT:nodename\$OIC42

where,

<i>nodename</i>	Node name of the designated main console. This main console must be operating with J 1 release software.
-----------------	--

13. Click the *Return to Main Menu* button.

14. Click the *Save Settings to NVRAM* button.

15. Click the *Reboot Terminal* button.

16. When prompted, click the *Continue* button to confirm that rebooting the terminal is desired.

Within a few minutes the session manager window appears and the console is ready for further configuration.

17. Select *Local Clients* from the workspace menu, and select *Setup*. The Teksetup window appears.

18. Select *Network Tables and Utilities* from the main menu and then *Console*.

- 19 Verify that the console window contains a message confirming the completion of the flash upgrade option. If the entry is not found, find an entry that indicates which file was not found and contact Elsas Bailey for assistance.
- 20 Close the console window by positioning the mouse pointer in the title bar, depressing the right mouse button, and selecting *Close*.
- 21 Select *Configuration Summaries* from the main menu and then *Boot*. The boot configuration menu is displayed.
22. Configure the OIC console to boot from internal ROM memory by selecting *ROM* in the *Primary Boot Method* field.
- 23 Select *Configuration Summaries* from the boot configuration menu and then *Host File Access*. The host file access configuration menu is displayed.
24. Select *OFF* as the primary file access.
- 25 Click the *Return to Main Menu* button.
26. Click the *Save Settings to NVRAM* button.
- 27 Click the *Reboot Terminal* button.
- 28 When prompted, click the *Continue* button to confirm that rebooting the terminal is desired.

Within a few minutes the session manager window appears and the console is ready for operation. The console will boot from internal ROM memory which has been updated to reflect changes made to the main console configuration.

NETWORK COMMANDS

There are several specific commands that can be used in the network configuration of IIOIC42 consoles. These commands are:

```

OIC42SHOWHOSTS
OIC42SHOWNODES
OIC42ADDHOST consolename address
OIC42ADDNODE nodename address
OIC42REMOVEHOST consolename
OIC42REMOVENODE nodename

```

IIOIC42 CONSOLE CONFIGURATION

They function similar to the corresponding network commands described in Section 5 except that they effect only the IIOIC42 node and host database files. Just like the corresponding network commands, these commands must be issued from the main console which must be logged into the SYSTEM account. For example, **SHOWNODES** and **OIC42SHOWNODES** perform similar functions.

A command used in the updating of IIOIC42 consoles is.

OIC42UPDATECONFIG [NOWORKSPACE]

This command, issued at the main console, assembles certain configuration information from the main console configuration into a set of files. The information in these files consists of

- DECnet node names.
- Internet node names
- Screen background colors (not updated if **NOWORKSPACE** option is specified).
- Window colors (not updated if **NOWORKSPACE** option is specified)
- Workspace options (not updated if **NOWORKSPACE** option is specified)

These files are used by any IIOIC42 console that boots up from the main console. The screen background colors and window colors are always set using these files found on the console that is sending the session manager window.

ADVANCED IIOIC42 CONSOLE OPERATIONS

If you are familiar with Tektronix® TekXpress™ X terminals and are planning to modify the configuration file directly, be aware that executing the UPDATECONFIG procedure overwrites the configuration file. Refer to the warnings in the generated version of the configuration file for more information.

SECTION 7 - DDT COMMANDS

INTRODUCTION

This section lists the commands available when the diagnostic/debug terminal (DDT) command is used. Access to DDT commands is determined by password security. To start the utility.

1. Verify a terminal window is opened and the OISENGR account is logged into. If at a terminal, verify the OISENGR account is logged into. Refer to **TERMINALS AND TERMINAL WINDOWS** in Section 2 for the procedures.

2. At the \$ prompt, type:

DDT

3. At the 0.00> prompt, enter the desired DDT command.

To exit the utility, type:

EXIT

COMMANDS

The DDT commands can be categorized into several groups. These groups are:

- File device and allocation commands.
- File operation commands.
- System utilities.
- Volume commands.

In commands that call for file specification (*file_spec*), use the following syntax:

device fusn-lusn volume,filename ex

where,

<i>device</i>	Device name, such as FD00, FD02, FD03, 0, 2 or 3.
<i>fusn</i>	First user number (USN) of a range
<i>lusn</i>	Last user number of a range
<i>volume</i>	Disk volume name
<i>filename</i>	Name of the file (eight character maximum)

ex File name extension (two characters)

A period (.) separates the device from the USN and the file name from the file extension

A colon (:) indicates a device or device and USN

A comma (,) indicates a volume name

Examples

- *.DT** All **.DT** files
- TEST?o DT** All files having a name beginning with TEST followed by any other character and end with 0 and have an extension of **.DT**
- 2** Drive FD02
- FD02:** Drive FD02 with default volume and USN area
- o.1** Drive FD00, [USN 01]
- o 04-0E:** Drive FD00, [USN 04] to [USN 0E]
- o.*:** Drive FD00, [USN 00] to [USN FF].

Table 7 1 provides a quick reference listing of the DDT commands

Table 7 1. Diagnostic/Debug Terminal Commands

Type	Command	Purpose
File device and location commands	ACF ASF DAF DEL FD IN	Create and delete files on specified or default file system devices They also allow changing to and reformatting devices
File operations commands	APF APN COPY CPF REN	Read, write rename append and copy files
Memory operations commands	DM FM MM	Allow viewing and modifying hexadecimal data structures and files
System utilities commands	ACT COFF CON CSUM CVER DR DOFF	Perform configuration and disk maintenance functions

Table 7 1. Diagnostic/Debug Terminal Commands (continued)

Type	Command	Purpose
System utilities commands (continued)	DON ELE EXIT FDS HELP NT TRND LOG N :LOGOUT MDIR MOFF MON NOT T ME USN VOFF VON WHO	Perform configuration and disk maintenance functions
Volume commands	DSM MNT VMNT	Used to mount a directory volume that is used for all operations until being dismounted

DDT COMMANDS

ACF

file device and allocation

PURPOSE: Allocates space when creating a contiguous file on the current file device at the current [USN] directory.

COMMAND **ACF** *volume filename ex sectors*

Parameter	Description
sectors	Number of sectors

DISCUSSION: Contiguous files allocate as continuous unbroken space on the disk. They cannot be extended. A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character.

Example **ACF . TESTFILE.TX 10**

ACT*system utility*

PURPOSE: Initiates a request for operator action during command file processing. Command file processing suspends at this line until responding to the request for action.

COMMAND: **ACT** *message*
ACTION: *message*

Example **ACTION:** **please insert next disk**

DDT COMMANDS

APF

file operations

PURPOSE. Appends a source file or files to a destination file. This is similar to the **APN** command.

COMMAND. **APF** *src-file_spec dst-file_spec* [*src1*] [*src2*] [*nr*]

Parameter	Description
<i>src1</i>	Source file starting record
<i>src2</i>	Destination file starting record
<i>nr</i>	Number of records

Examples **APF 0.2:ALMDESC.CF 2:ALMDESC1.CF 0 0 9C4**
APF 0.2:ALMDESC.CF 2:ALMDESC2.CF 9C4 0 9C5

The example takes the alarm descriptor file of a 5,000 tag console and breaks it in half, copying it to two separate files on magnetic tape.

To merge the second file, the source record should be 2.

Example **APF 2:ALMDESC2.CF 0.2:ALMDESC.CF 1 9C5 9C4**

For contiguous files, allocate space for total size, then append both parts. The first half of the file cannot be copied.

APN

file operations

PURPOSE: Appends a source file or files to a destination file. Other functions include use as a partial copy, and as a cut and paste function overlaying files on top of each other. **APN** is used in conjunction with the display generator and configuration loading and backup of the system.

NOTE: **APF** is the newer version of **APN**.

COMMAND: **APN** *srcdevice* *srcvolume* *srcfilename* *dstdevice* *dstvolume* *dstfilename* [*src1*] [*src2*] [*nr*]

Parameter	Description
<i>src1</i>	Source file starting record
<i>src2</i>	Destination file starting record
<i>nr</i>	Number of records

DISCUSSION: A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character. The *src1*, *src2* and *nr* are the copy parameters. They can be in combinations such as:

[.. empty] |
 [*src1*]
 [*src1*] [*src2*]
 [*src1*] [*src2*] [*nr*]

Examples

APN **FD02** . **FILE.EX** **FD00.99** . **PART1.EX** **0 0 100**
APN **FD02** . **FILE.EX** **FD00.99** . **PART2.EX** **100 0 100**

If file **FILE.EX** contains 220 records, the above commands split it into two files, **PART1.EX** and **PART2.EX**, each containing 100 records.

DDT COMMANDS

ASF

file device and allocation

PURPOSE: Allocates space when creating a sequential file on the current file device at the current [USN] directory

COMMAND **ASF** *volume filename ex size [seg] [fab] [wr prof] [rd prof]*

Parameter	Description
<i>size</i>	<i>Record size</i>

DISCUSSION: A single period () can be used instead of the four character volume name. It is recognized as a wild card character. The *seg*, *fab*, *wr prof*, and *rd prof* fields are for Elsag Bailey personnel usage only. These fields default to 4 4 0 0 if not specified. Sequential file segments are threaded throughout the current file device and are extensible.

Example **ASF . TESTFILE.TX 50**

COFF and CON*system utility*

PURPOSE: Allows checksums to be automatically created when copying files. The command **CON** is for checksum on, and **COFF** for off. Checksum off is the default.

COMMAND: **COFF**
CON

NOTE: Checksums can be created on hard and floppy disk only, not on magnetic tape or optical disk.

DDT COMMANDS

COPY*file operations*

PURPOSE. Copies files or groups of files. Two parameters are required. The source file specification (*src-file_spec*) and the destination file specification (*dst-file_spec*).

COMMAND: **COPY** *src-file_spec dst-file_spec* [+P]

DISCUSSION: If the destination [USN] directory is a wild card and **.DS**, **.DU**, or **.DL** files are being copied, they are automatically placed in the proper [USN] directory. This feature allows restoring display files with one wild card **COPY** command. The copy is placed in the current [USN] directory if the file being copied is not a **.DS**, **.DU**, or **.DL** file.

NOTE When copying with wild card options (file name or USN directory), the system prompts the user when a magnetic tape is full and requests another label magnetic tapes and number in the sequence in which they were saved.

The **+P** option causes the **COPY** command to pause and prompt before performing a file copy. The prompt allows confirming each copy before it takes place. A **Y** response causes the copy to occur. **N** skips the file to copy. This option allows for selective copying of files when using the wild card.

Examples	COPY 0.2 *.CF 2:	Back up all .CF files to magnetic tape
	COPY 0.04-0E: 2:	Back up all .DS and .DU files to magnetic tape
	COPY 2:*.DS 0:*	Restore all .DS files from magnetic tape to [USN 04] to [USN 0E]
	COPY 2:*.CN 0.FF:	Restore all command files from magnetic tape
	COPY 2:TEST*.DT 0.54:FRED*:	

Copy all **.DT** files with names starting with **TEST** from magnetic tape to hard disk directory [USN 54], and save under the names of **FRED*.DT**

CPF

file operations

PURPOSE: Copies a file from a source device and [USN] directory to a destination device and [USN] directory.

COMMAND: **CPF** *srcdevice srcvolume srcfilename dstdevice dstvolume [dstfilename]*

DISCUSSION: The destination file name is optional and defaults to the source file name if not specified. The file names can also include wild card characters. A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character. The question mark (?) is used as a single character wild card while the asterisk (*) is for multiple characters.

NOTE: COPY is the newer form of CPF

The following examples copy all files in the [USN 02] directory with extension .CF to the device FD02 (magnetic tape drive). Destination can be assumed

Examples

CPF FD00.2 . *.CF FD02 .
CPF FD00 . TEST?0.DT FD02

DDT COMMANDS

CSUM

system utility

PURPOSE Creates a checksum entry for files created or modified by means other than copying files. The command accepts wild card patterns

COMMAND **CSUM** *file_spec*

CVER*system utility*

PURPOSE: Verifies a file against its checksum entry. If no parameters are given, the DDT utility attempts to read the desired file names from the file **0.2:CVERFILS.CF**. The command accepts wild card patterns

COMMAND: **CVER** *file_spec*

DDT COMMANDS

DAF

file device and allocation

PURPOSE: Deallocates a file from the current file device at the current USN directory

COMMAND: **DAF** *volume filename ex*

DISCUSSION: The file name can contain wild card characters. The **DAF** command can also use a path. Examples are similar to those given with the **DIR** command

NOTE: **DEL** is the newer form of **DAF**

Example **DAF . TESTFILE.TX**

DEL*file device and allocation***PURPOSE:** Deletes a file or group of files.**COMMAND:** DEL *file_spec* [-P]**DISCUSSION:** The file specification of the files to be deleted is the only required parameter. The system prompts with *Are You Sure?* message before deleting each file. Adding the -P parameter turns off this message.

Examples	DEL 0.54:*.DT	Delete all .DT files
	DEL 0.54:*.DL	Delete all .DL files
	DEL 0.54:TEST*.DT	Delete all .DT files with name starting with TEST
	DEL 0.54:TEST*.DT -P	Delete all .DT files with names starting with TEST and do not prompt before deleting
	DEL 0.4-E:MYFILE.DS	Delete file name MYFILE.DS in [USN 04] to [USN 0E]

DDT COMMANDS

DIR

system utility

PURPOSE: Calls a directory listing to the screen showing the files in the current device and [USN] directory. If the file specification is not entered, the entire current device and [USN] directory displays.

COMMAND. DIR [*file_spec*] | P |

DISCUSSION: The file specification can be used to limit the directory display to a specific file or group of files using wild cards. For example, *.CF, *.DT, etc. Additionally, the file specification can select a device and USN directory other than the current

Through the use of [USN] ranges, global file searches are possible. The standard file specification allows a single [USN] directory or range of [USN] directories to be specified. The asterisk (*) wild card character may be entered for the [USN] parameter to specify the range of 00 to FF or all [USN] directories.

Examples	DIR FD00.4-E:.*	All files in [USN 04] to [USN 0E]
	DIR 0.4-E:	Same as previous; shortened version
	DIR 0.*:MYFILE.DS	All copies of MYFILE.DS in all [USN] directories.
	DIR 0.*:	All files on hard disk

The display shows the [USN] directory where files reside. The last update field is displayed as an ASCII date.

Adding a **-P** parameter following the file specification causes the **DIR** command to not stop after each page.

Examples	DIR 0.54:*.DT -P	All .DT files in [USN 54]
	DIR 0.*:* -P	All files in all [USN] directories

If using **DIR** to display the directory of an archival media, use the following command sequences

DIR 2.0-FFFF:* (magnetic tape)
DIR 3.0-FFFF:* (optical disk)

DOFF and DON

system utility

PURPOSE: This command serves no function except to allow compatibility with previous configurations that may use this command

COMMAND **DOFF**
 DON

DDT COMMANDS

DSM

volume

PURPOSE: Dismounts the volume installed on the current device.

COMMAND: **DSM** [*device*]

DISCUSSION: The **DSM** command supports an optional device parameter to dismount only one device at a time. This parameter can be a single digit, or be in the **FD0n** format. For example, to dismount only the hard disk, either of these commands can be used:

DSM FD00
DSM 0

If no parameters are supplied, the DDT utility attempts to dismount **all** devices. In all cases, the **DSM** command releases that device *from the host CPU* if it was previously reserved.

The **COPY** command dismounts the disk when complete.

When scanning directories on multiple removable disks, the **DSM** command must be used to dismount between disks.

ELE

system utility

PURPOSE: Provides line editing capabilities used to create user files. To access the elementary line editor.

COMMAND: ELE *volume filename ex*

DISCUSSION: Line editor commands include

Delete	.D <i>line number</i>
Edit line	.E <i>line number</i>
Insert	.I <i>line number</i>
List	.L <i>starting line number [number of lines]</i>
Save and eXit	.X

The .L command lists the number of lines requested. If a file containing 22 records is being edited and 30 lines are requested, only 22 lines up to line 22 display.

To enter line editing mode, type .E followed by the line number and **Return**. The following commands are available in edit mode:

Cntrl-H or **^** move cursor left one character.

Cntrl-L or **^E** - move cursor right one character.

Cntrl-K or **^I** move to previous line.

Cntrl-J or **^G** move to next line.

Cntrl-B move to beginning of line.

Cntrl-E - move to end of line.

Esc-W or **Delete** delete character and shift line to left.

Esc-Q or **Cntrl-I** insert space and shift line to right.

Return exit line editing mode.

Any other key overwrite character with this key and move cursor to right one space.

NOTE. .X must be used to save the file to hard disk before the display can be generated or before the command file can be run.

DDT COMMANDS

ELE (continued)

system utility

Example ELE session

This example creates a command file that displays the hard disk directory and system date and time. A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character. At the DDT utility prompt, type:

```
0.FF> ASF . TEST.CN 50 Return  
0.FF> ELE . TEST.CN Return  
00< TIME Return  
01< DIR Return  
02< X Return  
0.FF>
```

To call and run the command file, type

```
0.FF> INT . TEST.CN
```


EXIT*system utility*

PURPOSE: Causes the DDT utility to abort interpretation of a command file and return control to the DDT utility command line. When entered from the DDT utility command line, the DDT utility is exited.

COMMAND: EXIT

DDT COMMANDS

FD

file device and allocation

PURPOSE: Sets the current file device to either hard disk, magnetic tape or optical disk drive, and [USN] directory to a given or current number. An optional period (.) and [USN] parameter can follow the command to designate a specific [USN] directory.

COMMAND: **FD00**[USN] or **0**[USN] - hard disk
FD02[.USN] or **2**[USN] magnetic tape
FD03[USN] or **3**[USN] optical disk

DISCUSSION: The following examples all specify device 0, [USN 02] directory.

Examples **FD00 2**
FD00.2
0 2
0.2

Usage example **FD02.0** Set device 2, [USN 00]

FD00.54 Set device 0, [USN 54].

COPY FD00:* FD02: Copy from 0 54 to 2 0 (requires using previous two commands first).

Usage example **3.00> FD00** **Return**
0.00> FD00.02 **Return**
0.02> FD00.FF **Return**
0.FF> FD00.0 **Return**
0.00>

*FDS**system utility*

PURPOSE: Flushes dynamic symbol cache. Use only if the symbols have been copied from floppy disk and not run through the *Display Generator*, or run through the *Display Generator* using the wild card option.

COMMAND: **FDS**

DDT COMMANDS

HELP

system utility

PURPOSE. Displays a list of valid commands and their syntax.

COMMAND- HELP

NOTE: Do not use the DM, FM, MM, RDF and WRF commands

DISCUSSION Presents the following

DDT Terminal Help
 In the following: < > indicates a required parameter
 [] indicates an optional parameter
 * indicates available only off line
 file specification syntax FD0n.usn.vol.filename.ex
 ACF <vol><file><# sec> [wr prot] [rd prot]
 ACT <message>
 APF <file spec><file spec> [src rec #] [dst rec #] [# rec]
 APN <dev.USN><vol><file><dev USN><vol><file>[rec #][rec #]
 ASF <vol><file><rec size> [seg] [FAB] [wr prot] [rd prot]
 *CF [dev]
 CON set CREATE CHECKSUM option ON
 COFF set CREATE CHECKSUM option OFF
 COPY <src file spec><dst file spec> [+P]
 CPF <dev><vol><file><dev><vol><file> [+P]
 CSUM <file spec>
 CVER [file spec]
 DAF <vol><file spec> [P]
 DEL <file spec> [P]
 DIR [file spec] [P]
 DM [address] [# loc]
 DON set DISMOUNT option ON
 DOFF set DISMOUNT option OFF
 DSM
 ELE <vol><file>
 FD00 [USN]
 FD02 [USN]
 FD03 [USN]
 FDS <display name>
 FM <address><# bytes><pattern>
 HELP
 INI <dev><vol name>
 INT <vol><file cn>
 *TTRND [trend definition file spec]
 LOGIN Login to DDT terminal
 LOGOUT Logout of DDT terminal
 MDIR
 MM [address] [B W : L]
 MNT <vol>
 MON Redirect system error messages to DDT terminal
 MOFF Redirect system error messages to MON68K terminal
 NOT <message>
 REN <old file spec><new file spec> [+P]
 RDF <vol><file><address><# rec>

*HELP (continued)**system utility*

TIME [dd-mm-yy yy hh.mm.ss]
USN <file.DS file DU file.DL>
VMNT <dev><vol>[seq #]
VON set *VERIFY* option *ON*
VOFF set *VERIFY* option *OFF*
WHO show current logged in user
WRt <vol><file><address><# rec>

DDT COMMANDS

INI

file device and allocation

PURPOSE: Initializes the volume on the specified file device. This command **destroys all data** on the specified file device.

COMMAND: INI *device volume [sequence-number]*

DISCUSSION: The *sequence number* parameter is optional. The *volume* is a four character name. Its primary use is for access to archival media.

Example INI FD02 TEST

INT

system utility

PURPOSE. Interprets a command file found on the current file device. A command file can be created with the **ELE** command. A command file can contain all DDT utility commands.

COMMAND: **INT volume filename.CN**

DISCUSSION: If creating a command file that allocates files, it should explicitly set the default drive and [USN] directory, or must reside at and be invoked from the [USN] directory where the allocations are to occur.

If the **INT** command encounters a file system error, either exit the file or retry the failed operation. The **INT** command displays messages when entering and exiting nested command files. A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character.

Example **INT . CP01CFF1.CN**

DDT COMMANDS

ITRND

system utility

PURPOSE: Installs trends configured off line. This command takes the file name of the new trend definition file as a parameter. If no parameter is entered on the command line, the DDT utility attempts to open the file **TRENDEF.CF** in the current [USN] directory. The option to install all the trends defined in a new definition file or only specific trends selected by trend index ranges is available.

COMMAND: **ITRND [filename.CF]**

Parameter	Description
<i>filename</i>	Name of the trend definition file

DISCUSSION: This command updates the system trend definition and header files and deletes the trend data files for each trend installed. If the trend header file does not exist, the **ITRND** command will create it.

LOGIN and LOGOUT*system utility*

PURPOSE: Password security configuration limits access to certain DDT utility operations. The **LOGIN** command calls an enter password prompt to allow logging into the diagnostic/debug terminal by entering a password. The **LOGOUT** command logs the current user out of the diagnostic/debug terminal and logs in a default user.

COMMAND: **LOGIN**
LOGOUT

Example **LOGIN**
Enter Password: password
Hello (user ID)

LOGOUT

DDT COMMANDS

MDIR

system utility

PURPOSE: Calls a master listing of all file [USN] directory assignments.

COMMAND: MDIR

MNT*volume*

PURPOSE: Mounts a volume on the current file device.

COMMAND: MNT *volume* [*sequence-number*]

DISCUSSION: A single period (.) can be used instead of the four character volume name. It is recognized as a wild card character. The *sequence-number* parameter is optional. Its primary use is for access to archival media.

Examples MNT TEST
 MNT .

DDT COMMANDS

MOFF and MON

system utility

PURPOSE: This command serves no function except to allow compatibility with previous configurations that may use this command

COMMAND: **MOFF**
MON

NOT*system utility*

PURPOSE: Allows a one line message to be sent to the user during command file processing

COMMAND. **NOT** *message*

NOTE: *message*

DDT COMMANDS

REN*file operations*

PURPOSE: Renames a file or group of files

COMMAND: **REN** *old-filename* *ex* *new-filename* *ex* [+P]
REN *old-file_spec* *new-file_spec* [+P]

DISCUSSION: The old and new file specifications are required parameters. An optional +P parameter can be added causing the DDT utility to prompt before renaming each file

Examples

REN MYFILE.DT YOURFILE.*

Renames the file **MYFILE.DT** to **YOURFILE.DT**.

REN 0.54:*.dt *.DT

Renames the ***.dt** files to ***.DT** in [USN 54] of device 0 (hard disk).

TIME*system utility*

PURPOSE: Displays or sets current system date and time.

COMMAND: **TIME** Return
TIME *dd-mmm-yyyy hh mm ss*

DDT COMMANDS

USN

system utility

PURPOSE: Finds a possible [USN] directory assignment for a display file. The system returns the proper [USN] directory assignment for the specified file name. The console assigns system displays, user displays and user symbols to [USN] directories based on an encoding of the file name.

COMMAND: USN *filename ex*

Examples
USN display00.DU
USN display00.DL
USN display00.DT

VMNT*volume*

PURPOSE: Mounts a device and volume. It is used primarily for command files that back up or restore files to the console.

COMMAND: **VMNT** *device volume* [*sequence-number*]

DISCUSSION: This mount command does not allow the wild card character () as a volume label. If the proper volume is not installed in the drive, the DDT utility prompts to either escape or retry mounting the volume. There is no way to continue processing the command file without installing the proper volume.

The *sequence-number* is optional. Its primary use is for access to archival media.

DDT COMMANDS

VOFF and VON*system utility*

PURPOSE: A toggle for setting the verify option on (**VON**) and off (**VOFF**)
Controls whether or not the DDT utility verifies reads and
writes during file copy and append operations

COMMAND: **VOFF**
VON

*WHO**system utility*

PURPOSE: Identifies the user ID of the currently logged in users at both the DDT utility and each supported screen of the console.

COMMAND: **WHO**

Example **WHO**

DDT (user ID)
CRT #1 (user ID)
CRT #2 (user ID)
CRT #3 (user ID)
CRT #4 (user ID)
CRT #5 (user ID)
CRT #6 (user ID)
CRT #7 (user ID)
CRT #8 (user ID)

SECTION 8 - PAGE TYPE PRINTER SETUP

INTRODUCTION

This section explains how to set up page type printers such as the HP[®] Laser Jet series printers. The printers are used by the following functions:

- Alarm summary reports
- Event logs.
- Periodic logs.
- Sequence of event logs.
- Tag lists
- Trend lists.
- Trend logs
- Trip logs.

Refer to the **Configuration** and **Operation** instructions for explanations of these functions.

SETUP FILES

The setup files determine the formats of data printed on the page printers. There are three types of files:

- Printer definition file, defines the locations and names of the physical printer files and the printer definition files
- Printer configuration files, defines the characteristics of each physical printer from one to four
- Printer file list: one for each type of printer configured. Each physical printer file references a printer definition file

These files are simple ASCII text files, and can be read, printed, or edited with any of the text editing tools available on the console. The setup files can be edited at any time, however, the console must be reset to put the changes in effect.

Printer Definitions File

The purpose of the printer definition file is to associate a set of user defined codes with specific command strings to be sent to a printer. Printer command strings tend to vary from different vendors and between models. The printer definition files allow the user to define classes of commands such as fonts and commands in those classes such as Letter Gothic 10 pitch, and associate printer command strings with those items. The supported command strings are the Hewlett Packard Printer Command Language (PCL-5) and any printer that supports this

PAGE TYPE PRINTER SETUP

control language can be configured. Each code/command item defined in this file is called an attribute.

The scheme allows for an arbitrary number of printer class definitions on a single console, so that one could have HP Laser Jets and Epson printers on the same console. The physical printer files define what printer is assigned to a specific port.

ATTRIBUTES

An attribute consists of three items.

- Code, which is the mnemonic to be used to invoke the command
- Command string, which is either a literal command string, or a code sequence
- Attribute description.

FILE FORMAT

The text format of the file is:

- Any line beginning with a left bracket ([) is an attribute definition.
- A period (.) refers to the current attribute definition at each level.
- A phrase enclosed in double quotes (") is a literal.
- Any line beginning with a hyphen (-) is a subattribute of the previous attribute.
- Any other line is a comment.

Attribute codes are not case sensitive, although command strings are case sensitive.

Any text following a semi colon (;) in an attribute definition is comment text, and spaces and tabs at the beginning of a line are ignored.

The form of an attribute definition is

[Attribute description] code command string

or

-Attribute description code command string

An attribute must have a code and a descriptor. The command string is not required. The printer type name is the attribute defined at the first level.

In a command string, the character pair \e or \E will be translated to an ASCII escape code (decimal 33).

Examples Define printer type HP Laser Jet, code HPL4, with no command field

["HP Laser Jet"] HPL4 no command

Define an attribute initialize:

[.initialize] INIT "\eE"; HP PCL definition

Define an attribute orientation:

[.orientation] OR; ref. Portrait or Landscape.

Define attributes of OR:

[.portrait] P "\e&100"

For additional examples, refer to **TYPICAL PRINTER CONFIGURATION FILE** in this section.

A definition file can contain definitions for one or more printer types. However, all the attributes for a specific type must be listed under that type, and a type can be defined only once in a file. Also, all the definitions for one type must be stated in a single file. There can be as many separate definition files as needed. The names of these files are defined in the PFL (refer to **Printer File List** in this section).

FILE DIRECTORY/NAME

The name of the definition file and the directory in which it is located, can be chosen by the application, and is listed in the PFL (refer to **Printer File List** in this section).

TYPICAL PRINTER DEFINITION FILE

The following illustrates a typical definition file, in this case, for a Hewlett Packard LaserJet model 4MV printer.

18 Jan 96 TLW- rev sed for Project 08010V (Korea Elec)
 19 Feb 96 - TLW added XGRPH XCMP and CNCL

```
["HP LASER JET"] HPL4 Note definition for HP Laser Jet 4
  .nitia ze NIT "\eE"
  eject EJCT "\e&10H"
  "exit graph cs" XGRPH \eE"
```

PAGE TYPE PRINTER SETUP

```

- exit compr" XCMP "\eE"
-cancel CNCL "\e& 0H" same as eject page

[ or entat on]OR
Portra 1 P "\e& 0O"
Landscape L "\e&11O"

[ Font]F N
Counner12CN "\e(s0p10h0s0b4099T"
  Univers Med" UM "\e(s1p12v0s0b4148T"
  Univers Cond" UC "\e(s1p12v4s0b4148T"
- L ne Pr nter" LP "\e(s0p16 67h8 5v0s0b0T"
"Lltr Goth t" LGI "\e(s0p10h1s0b4102T"
"Lltr Goin c" LG "\e(s0p10h0s0b4 02T"

[ Tray] TR
-PCassette P "\e&11H"
Mu t purpose M "\e& 4H"
  Lower Cass " L "\e& 5H"

[ Paper size] PSZ
Letter LT "\e& 2A"
A4 A4 "\e&26A"
"11 X 17" B "\e& 11A"
-JISB4 J4 "\e& 46A"

```

Printer Configuration File

The purpose of the printer configuration file is to define the setup of each of the physical printers (up to four printers) assigned to a specific console. The item characteristics defined in the configuration file are:

- Printer type (as defined in the definition file) of the physical printer.
- Any unique commands not listed in, or different than, the printer definition file.
- Maximum event delay if the printer is used for event logging
- Number of lines per page if the printer is used for event logging

If not defined in the configuration file, the default event delay is 120 seconds, and the lines per page are 57. The maximum event delay function can be omitted by setting the delay time to zero.

FILE FORMAT

Any line beginning with a semicolon is a comment line. The printer type is defined in brackets [.] The code must be a printer type code defined in a definition file. For example,

[HPL4]

Optional attributes are INIT, DFLT, EJCT, ENDJ, and CNCL. The associated commands are defined between angled brackets (< , >) and can consist of any code defined in the definition file, or a literal enclosed in double quotes (" ") For example:

DFLT= < INIT OR.P FM.UM >

or, OR P could be replaced by a literal:

DFLT= < INIT "e&100" FM.UM >

If values are not provided for the standard commands, the print spooler will use the definition from the definition file, or a hard coded system default (based on HP PCL language.)

The event delay and lines parameters are stated by integer values

EV DELAY= nnn

LINES= nnn

NOTE: A printer configuration file can only refer to a single physical printer

FILE DIRECTORY/NAME

The name of the definition file and the directory in which it is located, can be chosen by the application, and is listed in the PFL file (refer to **Printer File List** in this section).

TYPICAL PRINTER CONFIGURATION FILE

This file defines the setup for a physical printer, and refers to the definition file (HPL4), refer to **TYPICAL PRINTER CONFIGURATION FILE** in this section

```
[HPL4]
,
,attributes
,
INIT= <INT OR P FN UM TR P>
DFLT= <N T OR P FN LG TR L PSZ B>
ENDJ= <EJCT>

LINES = 19
EV_DELAY= 37
,
```

Printer File List

The purpose of the printer file list (PFL) is to allow the names and locations of the definition and configuration files to be selected per each application. At start up, the console locates

PAGE TYPE PRINTER SETUP

the list file, then processes the files which are named. The name of the list file is **PRN DEF LIST.TXT** It can be located either in.

OIS\$DISK.[DATA USN02]

or

OIS\$CONFIG

The console first scans the OIS\$DISK [DATA USN02] directory, and if the list file is not found, it scans the directory OIS\$CONFIG

Within the file, any definition file must be declared before any configuration file which refers to that definition

LIST FILE FORMAT

A directory name must also be stated with the names of the various files Any line which does not contain a file name definition is treated as a comment line

Definition files are denoted by the equal sign (=) For example

= OIS\$DISK:[OIS.DATA]HP LSR 4.DFN

Configuration files are declared with the associated physical printer number from one to four, for example

2 = OIS\$CONFIG:LOG CONFIG.TXT

TYPICAL DEFINITION LIST FILE

This file lists the file specifications for the configuration and definition files to be used in an application The following defines HP LSR 4.DFN as a printer definition file and PHYS PRN TXT as the configuration file for printers one and three

Example Printer_Definition Listfile

```
- O S$CONFIG HP LSR 4 DFN
1= O S$CONFIG PHYS PRN TXT
3= O S$CONFIG PHYS PRN TXT
```

DEFAULT OPERATIONS

The default formats are defined in the physical printer and printer definition files under the explicit attribute DFLT This attribute defines the printer language command string which is prefixed to every log when sent to a page printer For example, the default can specify portrait orientation, courier 10

pitch font, and A paper size Since there are different setup files, each printer can have a unique setup

UNIQUE LOG FORMATS

In event and custom logs, the user can define unique printer control sequences for each log which supersede the default controls, using short format codes defined in the setup files.

For example, special logs can be printed in a custom font, or the title can be in one font, and the body of the page in a second font Or the log can be printed in landscape (sideways) format.

Page printer format sequences have the general form.

`%%< . . >`

They can be inserted in logs ASCII text, or the escape codes (time, date, color, compressed type, etc.) can be defined These format codes are translated to printer commands by the console, they do not occupy space on the printed page.

The standard console software contains some example setup files These can be modified to achieve any preferred alternative. The form of the codes is a category followed by one or more subitems separated by periods (.) Table 8.1 contains example control codes

Table 8.1. Example Control Codes

Command	Definition
OR.P	Portrait orientation
OR.L	Landscape (sideways) orientation
FN.CN	Courier font
FN.LP	Line printer font (16/66) chars per inch
FN.LG	Letter Gothic font
TR.P	PC paper tray
TR.L	Lower paper tray
PSZ.LT	Letter size paper
PSZ.B	B size (11x17)

The following will set up the printer for landscape, Letter Gothic, lower tray, B size paper:

`%%<OR.L FN.LG TR.L PSZ.B>`

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