

# Digital UNIX

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## DECevent Translation and Reporting Utility

Order Number: AA-QTLSA-TE

<b>Date:</b>	March 1996
<b>Product Version:</b>	Digital UNIX Version 4.0 or higher
<b>Software Version:</b>	DECevent Version 2.1

This manual is intended for users of the translation and reporting features of the DECEvent event management utility on Digital UNIX® operating systems. The information in this manual has not changed since DECEvent Version 2.0.

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**1996**

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## Preface

This manual contains all DECEvent command features related to the translation and reporting of events on Digital UNIX® systems. The information in this manual has not changed since DECEvent Version 2.0.

### Command Symbols

Various symbols are used in command expressions to indicate what information is optional and when a value or parameter is required. Symbols such as brackets ([ ]) and parenthesis ( ) are used extensively. These symbols are used only for informational purposes and should never be typed in the command line. In general, the command expressions use the symbols shown in Table 1.

**Table 1 Conventions**

Symbols	Purpose
{ }	In format command descriptions, braces indicate required elements. You must include one of the elements.
( )	In format descriptions, parentheses indicate that if you choose more than one option, you must enclose the choices in parentheses.
[ ]	In format descriptions, brackets indicate that whatever is enclosed within the brackets is optional; you can select one, none, or all of the choices. (Brackets are not optional, however, in the syntax of a directory name in a file specification or in the syntax of a substring specification in an assignment statement.)
[ ... ]	Square brackets containing a space and three ellipses indicate a list of optional values separated by spaces.
. . .	Vertical ellipsis points indicate the omission of information from an example or command format. The information has been omitted because it is not critical to the topic being discussed.

(continued on next page)

**Table 1 (Cont.) Conventions**

<b>Symbols</b>	<b>Purpose</b>
<i>italic type</i>	Italic type emphasizes important information and indicates variables, complete titles of manuals, and parameters for system information.
Ctrl/ <i>x</i>	Hold down the key labeled Ctrl (Control) and the specified key simultaneously (such as Ctrl/Z).



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Audience	Icon	Color Code
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System and network administrators	S	Red
Programmers	P	Purple
Device driver writers	D	Orange
Reference page users	R	Green

Some books in the documentation set help meet the needs of several audiences. For example, the information in some system books is also used by programmers. Keep this in mind when searching for information on specific topics.

The *Documentation Overview, Glossary, and Master Index* provides information on all of the books in the Digital UNIX documentation set.

### Associated DECEvent Documentation

The following documents are associated with the DECEvent documentation set.

**Table 2 Associated Documents**

Document	Order No.
<i>DECEvent Event Management Utility for Digital UNIX Installation Guide</i>	AA-QAA5B-TE
<i>DECEvent Analysis and Notification Utility for Digital UNIX User and Reference Guide</i>	AA-QAA4B-TE
<i>The DECEvent Graphical User Interface User's Guide</i>	AA-QE26A-TE

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# The DECEvent Event Management Utility Overview

## 1.1 Introduction

The DECEvent event management utility provides the interface between a system user and the operating system's event logger. DECEvent provides the following two main functions:

- Translation—DECEvent allows a user to translate events into ASCII reports derived from system event entries (bit-to-text translations).
- Analysis and Notification—DECEvent constantly monitors system events in an effort to isolate failing device components through analysis and notifies the proper individuals of a potential problem if necessary. Analysis and notification information can be found in the *DECEvent Analysis and Notification Utility for Digital UNIX User and Reference Guide*.

An overview of these two main functions is contained in this chapter.

## 1.2 DECEvent and the Translation of Events

Users can request the translation of events from specific event entries into a variety of ASCII reports. The format and contents of the ASCII reports is determined by flags and parameters entered on the command line interface (CLI). The maximum length of the command line is limited to 255 characters.

The DECEvent utility allows the user the following features related to the translation of events:

- Translating event log entries into readable reports
- Specifying input and output sources
- Filtering and selecting input events
- Selecting alternate report types
- Translating events as they occur

## The DECEvent Event Management Utility Overview

### 1.2 DECEvent and the Translation of Events

- Maintaining and customizing the user environment with the interactive shell commands

#### **Necessary Privileges**

Digital UNIX users need superuser privileges to use the translation and reporting features of DECEvent, unless the event log file protection has been changed to allow all users to access the event log files.

### 1.3 DECEvent Analysis and Notification

The added value function of DECEvent provides constant monitoring of a system's event logger. When a significant number of events have occurred so that a DECEvent threshold has been crossed, automatic analysis of the event is performed. Automatic analysis results in the generation of Digital specific theory codes which enables Multivendor Customer Services to identify one or more failing field replaceable units (FRU).

Depending upon the theory codes generated from analysis, repair actions may be initiated. Also, depending upon the results of analysis, the proper individuals are notified of the event.

The analysis and notification flags allow the following features:

- Event analysis
- Event notification
- Customization of the DECEvent environment

In addition to automatic analysis and notification, DECEvent allows you to perform manual analysis on a user supplied event log. Manual analysis also results in the generation of Digital-specific theory codes which enables Multivendor Customer Services to determine a failing FRU.

#### **Necessary Privileges**

Digital UNIX users need superuser privileges to use the analysis and notification features of DECEvent.

---

## The Help Command

### 2.1 Overview

Help is provided for DECEvent commands both through an internal DECEvent help utility and through the Digital UNIX man utility.

### 2.2 DECEvent Help

The DECEvent `hlp` flag provides you with help, based on a topic string, passed to the help utility. If the help utility contains information for that topic string, the information is presented to you. If no information is available for that topic string, a warning message is displayed and you are prompted to enter another topic string. Once help has been presented, you are prompted to enter another topic string. Each help topic can have zero or more subtopics that provide more information on the main topic.

#### Syntax

The following syntax is used for the DECEvent `hlp` flag:

```
dia hlp [help_req]
```

#### Help\_req Parameter

The `help_req` parameter is a topic string for which help has been requested.

#### Example

```
% dia hlp -b
```

This example provides help on the `-b` flag.

#### 2.2.1 Exiting DECEvent Help

There are two ways to exit from DECEvent help. Either enter `Ctrl/C` followed by a carriage return, or type nothing at the topic prompt and enter a carriage return.

## The Help Command

### 2.3 Digital UNIX Help

### 2.3 Digital UNIX Help

Help for the DECEvent commands also is available through the Digital UNIX man utility. The following command shows how to obtain DECEvent help using man:

```
% man dia
```

The man utility then displays a description of all DECEvent commands.

---

## The DECEvent Bit-to-Text Translation Feature

### 3.1 Introduction

The DECEvent utility allows you to produce bit-to-text ASCII reports derived from system event entries or user supplied event logs. The format of the ASCII report is determined by commands with flags, parameters, and selection keywords appended, entered on the command line interface (CLI). The maximum command line allowed is 255 characters.

The DECEvent bit-to-text feature performs the following:

- Translating event log files into readable reports
- Selecting input and output sources
- Filtering input events
- Selecting alternate reports
- Translating events as they occur
- Maintaining and customizing your environment with the interactive shell commands

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**Note**

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Refer to Appendix A for a list of all DECEvent utility independent directory files.

---

### 3.2 Necessary Privileges

Digital UNIX users need superuser privileges to use the translation and reporting features of DECEvent, unless the event log file protection privileges have been changed to allow all users to read the event log file.

## The DECEvent Bit-to-Text Translation Feature

### 3.3 Command Verb

### 3.3 Command Verb

The DECEvent utility command verb that allows the translation of system event entries for Digital UNIX operating systems is the following:

```
% dia -a
```

The `-a` flag is the default translation flag and does not need to be typed on the command line. Simply typing `dia` performs the same function as typing `dia -a` on the command line.

### 3.4 Translating Event Files

The DECEvent utility uses the system event log file as the default input file. For Digital UNIX systems, the file is `/usr/adm/binary.errlog`.

To produce a translated event report using the built-in defaults, use the following command:

```
% dia
```

This command produces by default, a full report directed to the terminal screen, from the input event log file `/usr/adm/binary.errlog`. The `-a` flag is understood on the command line and does not need to be entered.

See Example 3-1 for an example of a full report.

#### 3.4.1 Selecting an Alternate Input File

To select an alternate input file for translation other than the default system event log file, use the following command:

```
% dia -f errlog.sys
```

In the above example, `errlog.sys` has been selected as the alternate file to be translated. You must precede the name of the input file with the `-f` flag.

The file must be a valid Digital UNIX file name.

#### 3.4.2 Translating Multiple Input Files

DECEvent can translate multiple input files, as shown in the following example:

```
% dia -f errlog.sys,my_error.sys
```



## The DECEvent Bit-to-Text Translation Feature

### 3.4 Translating Event Files

#### 3.4.3 Using Wildcard Characters

You may use asterisks (\*) as wildcards to specify multiple input files. For example, if you wish to translate all event log files located in the directory `errlog`, you could translate `errlog_1.sys`, `errlog_2.sys`, and `errlog_3.sys` with one file name, `err*.sys`, as shown in the following example:

```
% dia -f err*.sys
```

You may also use the wildcards to translate multiple event log files in multiple directories, as shown in the following example:

```
% dia -f errlog.sys my_error*.sys
```

#### 3.4.4 Redirecting the Report to an Output File

To redirect the translated output to a file rather than to a terminal, enter the following command.

```
% dia > errlog_old.rpt
```

In the above example, `errlog_old.rpt` is the output file into which the translated event information is written.

#### 3.4.5 Reversing the Order of Input Events

To reverse the order of the input event log file being read by the DECEvent utility, use the following command:

```
% dia -R
```

This command allows events contained in the default system event log file to be displayed in reverse chronological order, with the most recent events displayed first. The default is to display events in forward chronological order. Note that when the `-R` command is used the entry numbers in the report are listed 1-N.

Use the following command to display events contained in the event log file `errorlog.sys` in reverse chronological order:

```
% dia -R -f errorlog.sys
```

#### 3.4.6 Creating a Binary Output File

The following command creates a binary output file:

```
% dia -b error_sublog.bin
```

With this command the binary file `error_sublog.bin` is created from the default input system event log file. No text report output is generated.

## The DECEvent Bit-to-Text Translation Feature

### 3.5 Filtering Input Events

## 3.5 Filtering Input Events

There will be times when you will not want all the information contained in the input event log file. The include (-i) and exclude (-x) flags allow you to filter input event log files to include or exclude event information.

### 3.5.1 Filtering Events by Event Types

To include only certain event types in the output report, use the -i flag, as shown in the following example:

```
% dia -i disk=rz disk=ra92 cpu
```

In the above example, only the RZ™ disks, RA92™ disks, and CPU entries are included in the output report.

To exclude certain event types in the output report, use the -x flag, as shown in the following example:

```
% dia -x mem
```

In the above example, memory entries are excluded from the output report.

Appendix D shows complete listings of all selection criteria for these flags.

### 3.5.2 Filtering Events by Date and Time

Date and time flags allow you to filter events by date and time occurrences.

The date and time value is specified in the following format and defined in Table 3-1.

```
dd-mmm-yyyy[ ,hh:mm:ss]
```

**Table 3-1 Date and Time Code Definitions**

Time Code	Meaning	Example	Required
dd	Day of month	01	yes
mmm	Month	Jan	yes
yyyy	Year	1994	yes
hh	Hours	06	no
mm	Minutes	35	no
ss	Seconds	08	no

To select events between a certain time period on Digital UNIX systems, use the -t flag with the s and e parameters. Both the s and e parameters are

## The DECEvent Bit-to-Text Translation Feature

### 3.5 Filtering Input Events

needed on the command line to select events between certain time periods, as shown in the following example:

```
% dia -t s:15-jan-1993 e:20-jan-1993
```

To include events starting at a certain time for Digital UNIX systems, enter:

```
% dia -t s:15-jan-1993 10:00
```

In the above example, the output report will include all events that occurred after the date and time indicated.

To include events before a certain time, enter the following command:

```
% dia -t e:15-jan-1993 10:00
```

If no time is specified with a date, the default start time is midnight (00:00), and the default end time is 23:59:59.

#### 3.5.3 Filtering Events by Entry Number

If the entry position within the event log file is known, a range of entries can be specified. In the following example, only entries 20 through 60 inclusive are translated.

```
% dia -e s:20 e:60
```

Either the *s* or *e* parameter can be omitted, but not both. If the *e* parameter is omitted, all entries from the starting entry indicated to the end of file are processed. If the *s* parameter is omitted, all events from the beginning through the end entry are processed.

## 3.6 Selecting Alternative Reports

The following sections describe different ways to produce reports.

### 3.6.1 Producing a Full Report

To produce a full report, use the `-o` flag with the full report type, as shown in the following example:

```
% dia -o full
```

The full report format provides a translation of all available information for each entry in the event log. The full report is the default report type and the flag does not need to be typed on the command line.

## The DECEvent Bit-to-Text Translation Feature

### 3.6 Selecting Alternative Reports

Example 3-1 shows the format of a full report.

#### Example 3-1 Full Report Format

```
***** ENTRY 1 *****
Logging OS                2. Digital UNIX
System Architecture       2. Alpha
Event sequence number     838.
Timestamp of occurrence   19-OCT-1993 23:30:47
Host name                 alpha

System type register      x00000003 DEC 7000
Number of CPUs (mpnum)    x00000001
CPU logging event (mperr) x00000000

Event validity            1. O/S claims event is valid
Event severity            3. High Priority
Entry type                103. Tape Type Errors

---- Device Profile ----
Unit                      30
Product Name              TA81 DSA Tape

---- MSCP Logged Msg ----
Logged Message Type Code  2. Tape Message

Command Reference number  x00000000
Unit Number               30.
MSCP Sequence number      7.
Logged Message Format      7. STI Drive Error
MSCP Flags                x41 Sequence Number Reset
                           Operation Continuing

MSCP Unique Controller-ID x000000000000FE01
MSCP Controller Model     1. HSC50
MSCP Controller Class     1. Mass Storage Controller class
Controller SW version     40.
Controller HW version     0.

MSCP Unique Unit-ID      x00000000000000C7B
MSCP Unit Model          4. TA81
MSCP Unit Class          3. Tape class
Unit SW version          0.
Unit HW version          0.

HSC Tape Event Code      xFF6B Tape Drive Requested Error Log

Multiunit code           x0022
Gap count                 1.
Formatter SW version      17.
Formatter HW version      3.
```

(continued on next page)

## The DECEvent Bit-to-Text Translation Feature 3.6 Selecting Alternative Reports

### Example 3-1 (Cont.) Full Report Format

```

TA81 SUB-SYSTEM
-----
SPEED (IPS)                25.
DENSITY                    x04  GCR-6250
MSCP UNIT NUMBER          30.
GAP COUNT                  0.
TRANSFER DESC BYTE 1      x07  Write error
TRANSFER DESC BYTE 2      x00
TRANSFER DESC BYTE 3      x00
TRANSFER DESC BYTE 4      x00
DRIVE EXT SENSE BYTE 1    x0A  Unit check
                             Data check
DRIVE EXT SENSE BYTE 2    x00
DRIVE EXT SENSE BYTE 3    x01  Device interrupt check
DRIVE EXT SENSE BYTE 4    x05  Tape moved
                             Unrecoverable
DRIVE EXT SENSE BYTE 5    x89  Formatter command code
DRIVE EXT SENSE BYTE 6    xA4  Start/stop mode
                             Auto speed mode
                             GCR mode
DRIVE EXT SENSE BYTE 7    x00
DRIVE EXT SENSE BYTE 8    x00
DRIVE EXT SENSE BYTE 9    x00
DRIVE EXT SENSE BYTE 10   x00
DRIVE EXT SENSE BYTE 11   x00
DRIVE EXT SENSE BYTE 12   xC2  BOT
                             Online
                             Ready
DRIVE EXT SENSE BYTE 13   x14  S/S mode
                             GCR
DRIVE EXT SENSE BYTE 14   x00
DRIVE EXT SENSE BYTE 15   x00  Device command code
DRIVE EXT SENSE BYTE 16   xFA  Device marginal condition code
DRIVE EXT SENSE BYTE 17   x00  Device flt/test completion code
DRIVE EXT SENSE BYTE 18   x00  Device sub-flt/test completion code
DRIVE EXT SENSE BYTE 19   x00

```

### 3.6.2 Producing a Brief Report

To produce a brief report, use the `-o` flag with the brief report type, as shown in the following example:

```
% dia -o brief
```

The brief report format provides translation of key information for each entry in the event log.

## The DECEvent Bit-to-Text Translation Feature

### 3.6 Selecting Alternative Reports

Example 3-2 shows the format for a brief report.

#### Example 3-2 Brief Report Format

```
***** ENTRY      1 *****
Logging OS                2. Digital UNIX
System Architecture       2. Alpha
Event sequence number     838.
Timestamp of occurrence   19-OCT-1993 23:30:47
Host name                 alpha

System type register      x00000003 DEC 7000
Number of CPUs (mpnum)    x00000001
CPU logging event (mperr) x00000000

Event validity            1. O/S claims event is valid
Event severity            3. High Priority

---- Device Profile ----
Unit                      30
Product Name              TA81 DSA Tape

Logged Message Type Code  2. Tape Message

MSCP Flags                x41 Sequence Number Reset
                          Operation Continuing

HSC Tape Event Code      xFF6B Tape Drive Requested Error Log
```

## The DECEvent Bit-to-Text Translation Feature

### 3.6 Selecting Alternative Reports

#### 3.6.3 Producing a Terse Report

To produce a terse report, use the `-o` flag with the terse report type, as shown in the following example:

```
% dia -o terse
```

The terse report format provides binary event information and displays register values and other ASCII messages in a condensed format.

Example 3-3 shows the format for a terse report.

#### Example 3-3 Terse Report Format

```
***** ENTRY 1 *****
Logging OS 2.
System Architecture 2.
Event sequence number 838.
Timestamp of occurrence 1993101923304700
Host name alpha
System type register x00000003
Number of CPUs (mpnum) x00000001
CPU logging event (mperr) x00000000
Event validity 1.
Event severity 3.
Entry type 103.
---- Device Profile ----
Unit 30
Product Name TA81 DSA Tape
---- MSCP Logged Msg ----
Logged Message Type Code 2.
Command Reference number x00000000
Unit Number 30.
MSCP Sequence number 7.
Logged Message Format 7.
MSCP Flags x41
MSCP Unique Controller-ID x00
MSCP Controller Model 1.
MSCP Controller Class 1.
Controller SW version 40.
Controller HW version 0.
```

(continued on next page)

## The DECEvent Bit-to-Text Translation Feature

### 3.6 Selecting Alternative Reports

#### Example 3-3 (Cont.) Terse Report Format

```
MSCP Unique Unit-ID      x00
MSCP Unit Model          4.
MSCP Unit Class          3.
Unit SW version          0.
Unit HW version          0.

HSC Tape Event Code      xFF6B

Multiunit code           x0022
Gap count                1.
Formatter SW version     17.
Formatter HW version     3.
```

#### TA81 SUB-SYSTEM

```
-----
SPEED (IPS)              25.
DENSITY                  x04
MSCP UNIT NUMBER         30.
GAP COUNT                0.
TRANSFER DESC BYTE 1    x07
TRANSFER DESC BYTE 2    x00
TRANSFER DESC BYTE 3    x00
TRANSFER DESC BYTE 4    x00
DRIVE EXT SENSE BYTE 1  x0A
DRIVE EXT SENSE BYTE 2  x00
DRIVE EXT SENSE BYTE 3  x01
DRIVE EXT SENSE BYTE 4  x05
DRIVE EXT SENSE BYTE 5  x89
DRIVE EXT SENSE BYTE 6  xA4
DRIVE EXT SENSE BYTE 7  x00
DRIVE EXT SENSE BYTE 8  x00
DRIVE EXT SENSE BYTE 9  x00
DRIVE EXT SENSE BYTE 10 x00
DRIVE EXT SENSE BYTE 11 x00
DRIVE EXT SENSE BYTE 12 xC2
DRIVE EXT SENSE BYTE 13 x14
DRIVE EXT SENSE BYTE 14 x00
DRIVE EXT SENSE BYTE 15 x00
DRIVE EXT SENSE BYTE 16 xFA
DRIVE EXT SENSE BYTE 17 x00
DRIVE EXT SENSE BYTE 18 x00
DRIVE EXT SENSE BYTE 19 x00
```



## The DECEvent Bit-to-Text Translation Feature

### 3.6 Selecting Alternative Reports

#### 3.6.4 Producing a Summary Report

To produce a summary report, use the `-o` flag with the summary report type, as shown in the following example:

```
% dia -o summary
```

The summary report format provides a statistical summary of the event entries in the event log.

Example 3-4 shows the format for a summary report.

#### Example 3-4 Summary Report Format

```
SUMMARY OF ALL ENTRIES LOGGED ON NODE alpha
unknown major class
MSCP                               46.
SCSI                                4.
```

### 3.7 Translating Events as They Occur

The `-c` flag allows events to be monitored as they occur in real time. The `-c` flag sets up the operating system's event logging facility as the input to the DECEvent utility. This enables you to see the translated events immediately on the terminal, or to send translated events to an output file.

To monitor the event logger on Digital UNIX systems, enter the following command:

```
% dia -c
```

If you wish to send translated events to an output file instead of viewing the events on a terminal screen, enter the following command:

```
% dia -c -o brief > brief.rpt
```

The above command creates a brief report called `brief.rpt`.

Using the `-o brief` report type with the `-c` flag is strongly recommended. Using the `-o summary` report type with the `-c` flag is not allowed.

#### 3.7.1 Halting the Continuous Display of Events

To halt the continuous display of events as they occur, enter `Ctrl/C`. This stops the display, and the system prompt appears on the screen.



---

## The Interactive Command Shell—An Added Feature

### 4.1 Introduction

An added feature available in the DECEvent utility allows you to enter the DECEvent interactive command shell. From within the DECEvent utility interactive command shell, you can issue commands to customize the user and system environments. DECEvent commands valid from the CLI are also valid within the interactive command shell. For a complete description of the interactive command shell, refer to Chapter 8.

#### 4.1.1 Entering the Interactive Command Shell

To enter the DECEvent utility interactive command shell, enter the following command:

```
% dia -int
```

The `dia>` prompt is displayed whenever you are in the DECEvent utility interactive command shell. Enter `exit` to exit from the interactive command shell.

### 4.2 CLI Commands from Within the Interactive Command Shell

All DECEvent commands work from within the interactive command shell without the need to precede them with the `dia` command verb. For example, if you want a binary output file, enter the following command:

```
dia> -b disk.bin
```

This command creates the binary output file `disk.bin` from the default system event log file.

## The Interactive Command Shell—An Added Feature

### 4.3 Commands to Customize Your Environments

## 4.3 Commands to Customize Your Environments

You can customize your system environment from within the interactive command shell. The customized settings must be saved before exiting the interactive command shell. Examples of setting and saving customized settings follow.

### 4.3.1 Customizing the Default Event Log File

To set the default event log file pointer for the DECEvent utility, enter the following command:

```
dia> set evt /error/error_log.old
```

### 4.3.2 Customizing the Locale Parameter

To set the default locale in the DECEvent utility, enter the following command:

```
dia> set loc AMERICAN_ENGLISH
```

---

**Note**

---

Only the AMERICAN\_ENGLISH locale file is supported by DECEvent utility.

---

### 4.3.3 Saving Customized Settings

To save your custom settings, enter the following command:

```
dia> sav
```

---

**Note**

---

You must save the customized settings before exiting the interactive command shell or the system default settings become valid again.

---

### 4.3.4 Restoring Customized Settings

To restore the customized settings in the DECEvent utility, enter the following command:

```
dia> res
```

## The Interactive Command Shell—An Added Feature

### 4.3 Commands to Customize Your Environments

#### 4.3.4.1 Restoring Default System Settings

To restore default system settings in the DECEvent utility enter the following command:

```
dia> res sys
```

Refer to Appendix B for a list of all default system settings.



---

## The DECEvent dia Command Verb

### 5.1 Introduction

The DECEvent command verb that allows the translation of an event file residing on a Digital UNIX system is **dia**. DECEvent allows you to append four main flags to the dia command verb, each accomplishing different functions on an input event file. The four main flags are shown and described in Table 5-1.

**Table 5-1 DECEvent Main Flags**

Main Flag	Description
-a	The default qualifier for the dia command allowing the translation of events into a report.
-b	Outputs a binary event file, containing specified events, from a binary input file.
-c	Specifies events are formatted as they are logged by the operating system event logger.
-d	Specifies the output be in brief format followed by a dump of information from the input event log file.

Each main flag is discussed in this chapter.

#### 5.1.1 The dia -a Command

The dia -a command option performs a bit-to-text translation on the default system event file or on a user specified file if the -f flag is used. The default system event log file on a Digital UNIX operating system is /usr/adm/binary.errlog.

The dia command defaults to the -a flag if no main flag is specified on the command line. The dia -a command is the equivalent of the dia command.

The following syntax is used for the dia -a command option:

```
dia [-a -f infile[ ...]]
```

## The DECEvent dia Command Verb

### 5.1 Introduction

#### 5.1.1.1 Flags and Parameters for the `-a` Flag

The following flags can be appended to the `dia -a` command to further expand the utility function. Refer to Appendix C for a definition of these flags.

```
-f infile [ ...]
-v
-R
-e [s:start_number][e:end_number]
-i keyword [=val] [ ...]
-x keyword [=val] [ ...]
-H hostname [ ...]
-t [s:time][e:time]
-o output_type
> outfile
```

#### The `infile` Parameter

The `dia -a` command allows you to use the optional `infile` parameter. This allows you to choose one or more alternative input event files for translation. Reporting is done in sequential order. If you do not supply a file name for this parameter, the default event file is used. The default event file is defined as either the default system event log for each operating system, or a file specified using the `set evt` command.

The default system event log file on a Digital UNIX system is `/usr/adm/binary.errlog`.

#### Examples

The following example results in the translation of events from the `binary_errlogold.sys` event file:

```
% dia -f /usr/adm/binary_errlogold.sys
```

#### 5.1.2 The `dia -b` Command

The `dia -b` command creates a binary event file, containing specified events, from the event log file. The `binfile` is the output file created from the `-b` command and is not optional.

The following syntax is used for the `dia -b` command option:

```
dia -b binfile [-f infile[ ...]]
```



## The DECEvent dia Command Verb

### 5.1 Introduction

#### 5.1.2.1 Flags and Parameters for the `-b` Flag

The following list presents the valid flags and parameters for the `dia -b` command. Refer to Appendix C for definitions of these flags.

```
-f infile [ ...]
-v
-R
-j [rejfile]
-e [s:start_number][e:end_number]
-i keyword [=val] [ ...]
-x keyword [=val] [ ...]
-H hostname [ ...]
-t [s:time][e:time]
```

#### The `binfile` Parameter

The `dia -b` command creates a binary output file with the `binfile` parameter. You must supply a name for the binary output file with the `.bin` extension, as shown in the following examples.

#### Examples

The following example selects disk entries from the input file `errlogold.sys` and creates the `disk.bin` file:

```
% dia -b disk.bin -f errlogold.sys -i disk
```

#### 5.1.3 The `dia -c` Command

The `dia -c` command reads and displays events as they occur directly from the system event logger. The output goes to the user terminal by default unless it is redirected to a file.

The following syntax is used for the `dia -c` command option:

```
dia -c
```

---

#### Note

---

A special file is created in the `/tmp` directory when you use the `dia -c` command.

DECEvent\_MbxYYYY, where YYYY is a four digit number assigned by the system.

Do not delete this file while DECEvent is running.

These files are deleted upon normal termination of the `dia -c` command.

---

## The DECEvent dia Command Verb

### 5.1 Introduction

#### 5.1.3.1 Flags and Parameters for the `-c` Flag

The following list presents the valid flags and parameters for the `dia -c` command. Refer to Appendix C for definitions of these flags.

```
-i keyword [=val] [ ...]
-x keyword [=val] [ ...]
-o output_type
> outfile
```

#### Examples

The following example reads events in real time and displays them on screen in the brief report format.

```
% dia -c -o brief
```

#### Halting Continuous Display Mode

To halt the continuous display of events as they occur, enter Ctrl/C. This stops the display, and the system prompt appears on the screen.

#### 5.1.4 The `dia -d` Command

The `dia -d` command provides a brief report type followed by a dump of a generic buffer.

The following syntax is used for the `dia -d` command option:

```
dia -d
```

#### 5.1.4.1 Flags and Parameters for the `-d` Flag

The following list presents the valid flags and parameters for the `dia -d` command. Refer to Appendix C for definitions of these flags.

```
-f infile [ ...]
-v
-R
-e [s:start_number][e:end_number]
-i keyword [=val] [ ...]
-x keyword [=val] [ ...]
-H hostname [ ...]
-t [s:time][e:time]
> outfile
```

## The DECEvent dia Command Verb 5.1 Introduction

### The infile Parameter

The `dia -d` command allows you to use the optional `[infile]` parameter. This allows you to choose one or more alternative input event files for translation. Reporting is done in sequential order. If you do not supply a file name for this parameter, the default event file is used. The default file is defined as either the default system event log for each operating system, or a file specified using the `set evt` command.

The default system event log file on a Digital UNIX system is `/user/adm/binary.errlog`.

### Examples

The following example provides an ASCII output file called `errlog.dmp` containing disk entries from the `errlogold.sys` input file.

```
% dia -d -f errlogold.sys -i disk > errlog.dmp
```



# 6

---

## The Is Commands

### 6.1 Description

The DECEvent *ls* commands allow you to display all requested rulesets listed in the specified knowledge library. Rulesets contain instructions necessary for the translation of events. A knowledge library contains the rulesets.

Table 6–1 lists each DECEvent *ls* command.

**Table 6–1 The Is Commands**

Command	Action
<i>ls evt</i>	Lists all event rulesets.
<i>ls can</i>	Lists all canonical rulesets.

#### 6.1.1 The Is evt Command

The DECEvent *ls evt* command lists all event rulesets necessary for translating events.

##### Syntax

The following syntax is used for the *ls evt* command:

```
dia ls evt
```

This command provides a directory listing of the rulesets in the event knowledge library similar to the one shown in shown in Example 6–1.

## The ls Commands

### 6.1 Description

#### Example 6–1 Event Knowledge Library List

Knowledge Library:

Ruleset Name	Path
ARCHCTRL	ROOT
HEADER_EV	ROOT
.	.
.	.
SCSI2_DISP	ROOT.ARCHCTRL
UNKNOWN_DEV_ERR_TIM_ATT	ROOT.ARCHCTRL
XMI_DISP	ROOT.ARCHCTRL

#### Example 6–2 Canonical Knowledge Library List

Knowledge Library:

Ruleset Name	Path
HEADER_CA	ROOT
MSCP_CA	ROOT
AXP_CA	ROOT
.	.
.	.
KZMSA_CA	ROOT.HEADER_CA.HD_EVT_CA.IO_SUBSYS.IO_SUBSYS_DISP.IO_XMI
DEFAA	ROOT.HEADER_CA.HD_EVT_CA.IO_SUBSYS.IO_SUBSYS_DISP.ADAPTER
DEFEA	ROOT.HEADER_CA.HD_EVT_CA.IO_SUBSYS.IO_SUBSYS_DISP.ADAPTER
DEFTA	ROOT.HEADER_CA.HD_EVT_CA.IO_SUBSYS.IO_SUBSYS_DISP.ADAPTER
DEFZA	ROOT.HEADER_CA.HD_EVT_CA.IO_SUBSYS.IO_SUBSYS_DISP.ADAPTER

### 6.1.2 The ls can Command

The DECEvent *ls can* command allows you to list all canonical rulesets necessary for formatting a report.

#### Syntax

The following syntax is used for the *ls can* command:

```
dia ls can
```

This command provides a directory listing of the rulesets in the canonical knowledge library similar to the example shown in Example 6–2.

---

## The shw Commands

### 7.1 Description

The DECEvent *shw* commands allow you to view a specific item, depending on the specific *shw* command issued.

### 7.2 The shw Commands

Table 7-1 lists each DECEvent *shw* command.

**Table 7-1 The shw Commands**

Flag	Action
<i>shw sel</i>	Shows all values associated with selection information for the <i>-i</i> and <i>-x</i> flags.
<i>shw sel [selection]</i>	Shows only the single entry for the selection chosen.
<i>shw set</i>	Shows all possible settings.
<i>shw set [setting]</i>	Shows only the single entry for the setting chosen.

#### 7.2.1 The shw sel Command

The DECEvent *shw sel* command shows all keywords associated with selection information for the *-i* and *-x* flags.

##### Syntax

The following syntax is used for the *shw sel* command:

```
dia shw sel
```

This command gives a list of selection information similar to the one in Example 7-1.

## The shw Commands

### 7.2 The shw Commands

#### Example 7-1 Selection Information List

Selection Information:

Key	Item-Name	Value
bugchecks	ca_EVT_swi_minor_sub_clas1	
cache	ca_EVT_cpu_minor_class	4
configurations	ca_EVT_swi_minor_class	3
control_entries	ca_EVT_swi_minor_sub_clas3	
cpus	ca_EVT_cpu_minor_class	
dates	ca_hd_gen_x_event_time	
device_errors	ca_EVT_ios_minor_class	
device_number	DEF_SEL_unit_number	
disks	DEF_SEL_disk	
environmental_entries	ca_EVT_swi_minor_class	1
hosts	ca_hd_gen_t_scs_name	
informationals	ca_EVT_swi_minor_class	9
ios	ca_EVT_ios_minor_class	
io_subsystems	ca_EVT_ios_minor_class	
mchks	ca_EVT_cpu_minor_class	1
machine_checks	ca_EVT_cpu_minor_class	1
memory	ca_EVT_mem_minor_class	
nodes	ca_hd_gen_t_scs_name	
os	ca_hd_gen_b_fm_os_id_code	
operating_systems	ca_hd_gen_b_fm_os_id_code	
pwr	ca_EVT_swi_minor_class	1
power	ca_EVT_swi_minor_class	1
sequence_numbers	ca_hd_gen_w_errseq	
swi	ca_EVT_swi_minor_class	
software_informationals	ca_EVT_swi_minor_class	
sync_communications	DEF_SEL_sync_comm	
tapes	DEF_SEL_tape	
unknown_entries	DEF_SEL_unknown	
osf_entry	ca_hd_evt_w_entry	

#### 7.2.2 The shw sel [selection] Command

When the shw sel command is issued with the [selection] parameter, the command shows only the single entry for the [selection] chosen. The [selection] must be spelled out in full and it must be a valid selection type.

##### Syntax

The following syntax is used for the shw sel command with a [selection] parameter:

```
dia shw sel [selection]
```



## The shw Commands

### 7.2 The shw Commands

#### The [selection] Parameter

The [selection] parameter must be one of the selection keys shown in Example 7-1. These keys are displayed when the `shw sel` command has been issued.

#### Example

The following is an example of the `shw sel` command with a specific [selection] parameter:

```
% dia shw sel operating_systems
```

Abbreviation of the [selection] parameter is not allowed.

This `shw sel` command gives the message shown in Example 7-2.

#### Example 7-2 A `shw sel environmental_entries` Command Example

```
Selection Information:
Key                               Item-Name                          Value
=====
environmental_entries    ca_EVT_swi_minor_class             1
```

### 7.2.3 The `shw set` Command

The DECEvent `shw set` command shows all possible setting parameters.

#### Syntax

The following syntax is used for the `shw set` command:

```
dia shw set
```

A partial output from this command is shown in Example 7-3.

## The shw Commands

### 7.2 The shw Commands

#### Example 7-3 Current Settings Information

```

Current Settings Information:
Name                               Value
=====
CTR__RUL_LIB                        CTR__DEF_RUL_LIB
CTR__SUM_LIB                        CTR__DEF_SUM_LIB
DEF_CTR_RULE                        ROOT.HEADER_CA
DEF_ETC_RULE                        ROOT.HEADER_EV.OSF_HEADER_EV
ETC__RUL_LIB                        ETC__DEF_RUL_LIB
ETC__SEL_LIB                        ETC__DEF_SEL_LIB
RPT__RUL_LIB                        RPT__DEF_RUL_LIB
HELP_FILE                           FMG_HELP_FILE
LOCALE                              AMERICAN_ENGLISH
KNL__LIB_PREFIX                     FMG_
KNL__LIB_SUFFIX                     .KNL
DEFAULT_REPORT                      FULL_RE
ANA__FAC_DB                         ANA__FAC_STATE_DB
ANA__PRM_DB                         ANA__PRM_STATE_DB
ANA__RUL_LIB                        ANA__DEF_RUL_LIB
ANA__TMP_DB                         ANA__TMP_STATE_DB
NOT__RUL_LIB                        NOT__DEF_RUL_LIB
NOT__MAIL_LIB                      NOT__DEF_MAIL_LIB
NOT__EXTERNAL_LIB                  NOT__DEF_EXTERNAL_LIB
FMG__CUST_PROFILE                   /usr/sbin/DIA121/FMGPROFILE
FMG_VERSION                         2.1
SICL_STATE                          OFF
SICL_PROTOCOL_VERS                 1
AUTO_COPY                          OFF
ANALYSIS_TRIGGER_AUTOMATIC         AUTOMATIC
ANALYSIS_TRIGGER_MANUAL            MANUAL
NOT__DEF_CSC_PHONE                 1-800-354-9000
NOT__MAX_DSNLNK_MSG               59
CMD_TRACE                          0
CTR_TRACE                          0
ETC_TRACE                          0
FMG__DEBUG_STATE                   0
FMG__TRACE_STATE                   0
RPT_TRACE                          0
TRACE_STATE                        0
CTR__DMP_RUL                      ROOT.DUMP_EVENT_CA
ETC__DMP_RUL                      ROOT.DUMP_EVENT_EV
CURRENT_CLI                        UNIX
VMS_DEFAULT                        /TRANSLATE
UNIX_DEFAULT                       -a
CHEROKEE_VMS_DEFAULT               /TRANSLATE
DEF_EVT_LOG                        /usr/adm/binary.errlog
PRINT_MESSAGES                     7

```

(continued on next page)

## The shw Commands

### 7.2 The shw Commands

#### Example 7-3 (Cont.) Current Settings Information

STREAM_SIZE	20
SYS_ACT_LOG_NAME	ERT_ACTIVITY.LOG
KNL_DEF_ENTRIES	32
KNL_LIB_DIRECTORY	DIA_LIBRARY
VAX_VMS_STACK_SIZE	10
VAX_VMS_GUARD_SIZE	3
RULE_MAX_BYTECNT	100000
ANA_TRACE	0
NOT_TRACE	0
MAIL_DEBUG	0
DEBUG_STATE	1
ALPHA_VMS_STACK_SIZE	70
ALPHA_VMS_GUARD_SIZE	40

#### 7.2.4 The shw set [setting] Command

When the *shw set* command is issued with a [setting] parameter, the command shows only the single entry for the setting chosen.

##### Syntax

The following syntax is used for the *shw set* command with a single [setting] parameter:

```
dia shw set [setting]
```

##### The [setting] Parameter

The [setting] parameter must be one of the valid setting names displayed when the *shw set* command was issued and must be entered in upper case.

##### Example

The following is an example of the *shw set [setting]* command:

```
% dia shw set DEFAULT_REPORT
```

This command displays the message shown in Example 7-4.

#### Example 7-4 A shw set default\_report Command Example

```
Selection Information:
Name                      Value
=====
DEFAULT_REPORT           FULL_RE
```



## 8.1 Description

The *-int* flag allows you to enter the DECEvent interactive command shell. When you are in the DECEvent interactive command shell, the **dia>** prompt is displayed on the screen.

Chapter 4 provides a basic overview of the interactive command shell.

---

### Note

---

All commands valid from the CLI also are valid from the interactive command shell without first entering the *dia* command verb. Some commands, such as the set commands, are valid only from within the interactive command shell and may not be entered from the CLI. If *-int* is specified on the command line, subsequent commands are ignored.

---

### 8.1.1 Entering the Interactive Command Shell

To enter the interactive command shell from a Digital UNIX system, at the system prompt, enter the following command:

```
% dia -int
```

The DECEvent interactive command shell prompt, *dia>*, appears. The format for entering a command at the *dia>* prompt is the following:

```
dia> aaa xxxx yyyy
```

Where:

- aaa* is the command valid from the DECEvent interactive command shell.
- xxxx* is the specific subject the command applies to.
- yyyy* is the parameter associated with the command.

Correct interactive command syntax is explained further in this chapter.

## The -int Flag

### 8.1 Description

#### 8.1.2 Exiting Interactive Mode

To exit from the interactive command shell, at the `dia>` prompt type `exit`, followed by a carriage return.

#### 8.1.3 Qualifiers and Parameters

Although there are no specific qualifiers or parameters for the `-int` flag, all commands valid from the CLI are valid from within the interactive command shell.

#### 8.1.4 Interactive Command Examples

The following examples show how to enter the interactive command shell, how to issue a command from within the interactive command shell, and how to exit the interactive command shell.

##### Example: Entering the Interactive Command Shell

To enter the interactive command shell, enter the following command at the system prompt:

```
% dia -int
```

The DECEvent interactive command shell prompt, `dia>`, then appears.

##### Example: Issuing a Command from the Interactive Command Shell

The following command shows how to issue a `set locale` command from the DECEvent interactive (`dia>`) prompt:

```
dia> set loc AMERICAN_ENGLISH
```

---

#### Note

---

All settings must be entered in uppercase letters.

---

The `set loc` command is described in detail in Section 8.2.2.

##### Example: Saving Settings from within the Interactive Command Shell

The results of all `set` commands must be saved before exiting the interactive command shell or the default settings once again become valid upon exiting the interactive command shell. To save settings, enter the following command at the `dia>` prompt:

```
dia> sav
```

**Example: Exiting the Interactive Command Shell**

To exit the interactive command shell, enter the following command at the interactive (dia>) prompt:

```
dia> exit
```

## 8.2 Set, sav, and res Command Descriptions

The *set*, *sav*, and *res* commands work only from within the interactive command shell. The *set* commands allow you to customize or change system settings. The *sav* command allows you to save these changed settings. The *res* command allows you to restore previously set customer settings.

Table 8-1 lists each set command as well as the *sav* and *res* commands. Underlined parameters imply required input.

**Table 8-1 The set, res, and sav Commands**

Command	Action
set evt <u>file</u>	Allows you to select an event log file from which event reports are formatted.
set loc <u>locale</u>	Allows you to change the locale file for internationalization reasons.
res	Allows you to cancel customizations previously set in the customer local settings file.
sav	Allows you to store the current customization settings in a default file.

### 8.2.1 The set evt Command

The *set evt* command allows you to select an event log file from which event reports are formatted. This allows you, in the interactive command shell, to use an event log other than the default system event log without specifying the file name on all subsequent commands. Before exiting the interactive command shell, you must save this setting or system default settings become valid once again.

**Syntax**

The following syntax is used for the *set evt* command:

```
set evt <file>
```

**The file Parameter**

The file parameter is the name and path of the event log file used for formatting the report. You must enter a file parameter with this command.

## The `-int` Flag

### 8.2 Set, sav, and res Command Descriptions

#### Example

The following is an example of a `set evt` command:

```
dia> set evt /usr/users/binlog/binlog_oscar
```

---

#### Note

---

Set commands should be saved with the `sav` command. Refer to Section 8.2.4 for information of saving set command functions.

---

### 8.2.2 The `set loc` Command

The `set loc` command allows you to override the locale file previously set for the current system. This is done for internationalization reasons so natural language conventions can be added in the future.

---

#### Note

---

Only the `AMERICAN_ENGLISH` locale file will be supported for `DECevent`. However, documentation will be provided describing how to create new locale files.

---

#### Syntax

The following syntax is used for the `set loc` command:

```
set loc <locale>
```

#### locale Parameter

The locale parameter is a string defining the local language preferences available. An example is `AMERICAN_ENGLISH`. You must provide a locale parameter with this command.

#### Example

The following is an example of a `set loc` command:

```
dia> set loc AMERICAN_ENGLISH
dia> sav
```

---

#### Note

---

All settings must be entered in uppercase letters.

---



### 8.2.3 The res Command

The *res* command allows you to restore previous settings in the local customization file. It cancels customizations set since the last time the customization file was saved.

**Syntax**

The following syntax is used for the *res* command:

```
res
```

**Example**

The following is an example of a *res* command.

```
dia> res
```

### 8.2.4 The sav Command

The *sav* command allows you to store current customized settings in a default file. DECEvent then uses these settings in subsequent sessions.

**Syntax**

The following syntax is used for the *sav* command:

```
sav
```

**Example**

The following is an example of the *sav* command:

```
dia> sav
```



# A

---

## DECevent Directories and Files

The following sections describe the necessary DECEvent directories and files. The directories must contain the files listed for DECEvent to perform correctly.

### A.1 Image File

The main Digital UNIX image, dia, is located in the `/usr/sbin/` directory.

### A.2 man page Help

Digital UNIX man pages reside in the `/usr/man/man8/dia.8` directory.

### A.3 Interactive Help

DECEvent interactive help physically resides in the `/usr/opt/DIA201/lib/DIA` directory and has a symbolic link to `/var/opt`.

### A.4 Necessary DECEvent Files

The files described in Table A-1 reside in the `/usr/opt/DIA201/lob/DIA` or `/var/opt/DIA201/DIA` directories and have symbolic links to `/var/DIA`. These files must be present in the directory for DECEvent to perform correctly.

## DECevent Directories and Files

### A.4 Necessary DECevent Files

**Table A-1 Necessary DECevent Files**

File Name	File Description
FMG_AMERICAN_ENGLISH_HELP_STRINGS.KNL	Internal help library file in American English.
FMG_AMERICAN_ENGLISH_MESSAGES.KNL	Internal error message library file in American English.
FMG_FACTORY_GLOBAL_PARAM_LIBRARY.KNL	Default settings library file provided for the main image.
FMG_GLOBAL_PARAM_LIBRARY.KNL	Present settings library file. Contains DECevent environmental settings.
FMG_DEF_SEL_RUL_LIB.KNL	Selection criteria library containing selection keys through which input events are filtered.
FMG_ETC_DEF_RUL_LIB.KNL	Operating system library file containing rules for converting the operating system specific events to the DECevent canonical form.
FMG_CTR_DEF_RUL_LIB.KNL	File containing rules to translate the DECevent canonical events into readable text.
FMG_RPT_DEF_RUL_LIB.KNL	Report format library file containing rules for outputting different reports.
FMG_UNIX_COMMAND.KNL	Command style library file containing rules to parse UNIX commands.

In addition to the files in the DECevent independent directory, a knowledge library file, `FMG_LOCAL_PARAM_LIBRARY.KNL`, is created in your home directory to be used when customized settings are saved. This library is created just by using DECevent. You need not be logged into your local directory for this library to be created.

Enter `ls $HOME/*.KNL` at the system prompt to see the library in your local directory.

### A.5 Documentation Directory

If, during the installation, you choose the option to install the DECevent documentation subsets, they will be installed in the `/usr/share/doclib/DIA200/xxx` directory; where `xxx` equates to either `.txt` for text versions, `.ps` for PostScript versions, or `.book` for Bookreader versions of the DECevent documentation.

# B

---

## System Settings

The following lists the system settings displayed with the *shw set* command and their default values for Digital UNIX.

Current Settings Information:

Name	Value
=====	=====
CMD_TRACE	0
CTR_TRACE	0
DEBUG_STATE	0
ETC_TRACE	0
FMG_DEBUG_STATE	0
FMG_TRACE_STATE	0
RPT_TRACE	0
TRACE_STATE	0
CTR_DMP_RUL	ROOT.DUMP_EVENT_CA
CTR_RUL_LIB	CTR_DEF_RUL_LIB
CTR_SUM_LIB	CTR_DEF_SUM_LIB
DEF_CTR_RULE	ROOT.HEADER_CA
DEF_ETC_RULE	ROOT.HEADER_EV.OSF_HEADER_EV
ETC_DMP_RUL	ROOT.DUMP_EVENT_EV
ETC_RUL_LIB	ETC_DEF_RUL_LIB
ETC_SEL_LIB	ETC_DEF_SEL_LIB
RPT_RUL_LIB	RPT_DEF_RUL_LIB
HELP_FILE	FMG_HELP_FILE
CURRENT_CLI	UNIX
VMS_DEFAULT	/TRANSLATE
UNIX_DEFAULT	-a
CHEROKEE_VMS_DEFAULT	/TRANSLATE
DEF_EVT_LOG	/usr/adm/binary.errlog
LOCALE	AMERICAN_ENGLISH
PRINT_MESSAGES	7
STREAM_SIZE	20
SYS_ACT_LOG_NAME	DIA_ACTIVITY.LOG
KNL_DEF_ENTRIES	32
KNL_LIB_DIRECTORY	DIA_LIBRARY
KNL_LIB_PREFIX	FMG_
KNL_LIB_SUFFIX	.KNL
VAX_VMS_STACK_SIZE	10

## System Settings

VAX_VMS_GUARD_SIZE	3
ALPHA_VMS_STACK_SIZE	50
ALPHA_VMS_GUARD_SIZE	30
RULE_MAX_BYTECNT	100000
DEFAULT_REPORT	FULL_RE
ANA_TRACE	0
NOT_TRACE	0
ANA__FAC_DB	ANA__FAC_STATE_DB
ANA__PRM_DB	ANA__PRM_STATE_DB
ANA__RUL_LIB	ANA__DEF_RUL_LIB
ANA__TMP_DB	ANA__TMP_STATE_DB
NOT__RUL_LIB	NOT__DEF_RUL_LIB
NOT__MAIL_LIB	NOT__DEF_MAIL_LIB
NOT__EXTERNAL_LIB	NOT__DEF_EXTERNAL_LIB
FMG_CUST_PROFILE	FMGPROFILE
FMG_VERSION	2.1
SICL_STATE	ON
SICL_PROTOCOL_VERS	1
AUTO_COPY	OFF
ANALYSIS_TRIGGER_AUTOMATIA	AUTOMATIC
ANALYSIS_TRIGGER_MANUAL	MANUAL
NOT__DEF_CSC_PHONE	1-800-354-9000
NOT__MAX_DSNLNK_MSG	59
MAIL_DEBUG	0

### User-Modifiable System Settings

Currently, the only user-modifiable system settings are the following:

- DEF\_EVT\_LOG
- LOCALE

Refer to Chapter 8 for instructions on how to change user modifiable settings and to Chapter 7 for information on how to show these settings.

# C

---

## Bit-to-Text Quick Reference

Table C-1 shows all the DECEvent flags and qualifiers that are available for the bit-to-text translation of events.

**Table C-1 DECEvent Flags**

Flag	Description
-a	Performs bit-to-text translation on event file.
-b binfile	Reads input file(s) and creates a single output file specified by binfile. Flag is mutually exclusive with -a, -c, and -d flags with -a being the default.
-c	Reads events directly from the error log daemon process. Flag is mutually exclusive with -a, -b, and -d flag with -a being the default.
-d	Produces output file in Hex format. Flag is mutually exclusive with -a, -b and -c flag with -a being the default.
-e [s:start_num][e:end_num]	Selects event file entries by the position within the event file.
-F infile[ ...]	Provides for alternate input event log file. This parameter can be a single Digital UNIX file specification or a list of file specifications. Wildcards (*) are allowed.
-H hostname[ ...]	Selects event file entries by node name.
-i keyword[=val][ ...]	Includes event entries to be processed. The selection is by device class, entry type and/or device names.
-int	Places DECEvent into interactive mode.

(continued on next page)

## Bit-to-Text Quick Reference

Table C-1 (Cont.) DECEvent Flags

Flag	Description
-j [rejfile]	Places all event entries failing selection criteria for a command into a specified file in binary format. Used only with the -b flag.
-o output_type	Output event in full, brief, terse, , or summary report format. The default is full. Summary output type is not valid when used in conjunction with -c flag.  full=All possible information. brief=Key information on each event entry. terse=Labeled information with no translations. summary=Statistical summary of event entries in the event file.
-R	Causes the event file to be read in reverse order.
-t [s:time][e:time]	Selects event file entries that have occurred in the time specified.
-v	Provides informational message about the number of entries selected and rejected while a file is being processed.
-x keyword=[val][ ...]	Excludes event entries from being processed. The selection is by device class, entry type, and or device names.
> outfile	Redirects the output from the default system output to the specified file (outfile).

All commands used at the command line interface also are valid within the interactive command shell. The following commands are valid only from within the interactive command shell:

```
set cmd
set evt
set loc
res
sav
exit
```



# D

---

## DECevent Selection Keywords for Bit-to-Text Translation

This appendix contains descriptions and examples of all selection keywords associated with bit-to-text translation of events.

### D.1 The **-i** (include) Qualifier

The **-i** qualifier allows you to include event entries meeting the selection criteria specified. Only event entries meeting the selection criteria are included in the output.

#### **Syntax**

Syntax for the **-i** command is the following:

```
dia -i keyword [= val] [ ...]
```

The **val** field is an optional field used to further define the selection keyword. For example, the keyword **disk** can be further defined with the value **RZ23**.

---

#### **Note**

All keyword values must be entered in upper case.

---

#### **Example**

```
%dia -i disk > filename.out
```

In the above example, all entries selected from the event log are **disk** entries. The output is directed to the **filename.out** file.

#### **Example**

```
%dia -i disk=RZ23 > filename.out
```

In the above example only **RZ23** entries are selected from the event log. The output is directed to a file named **filename.out**

## DECEvent Selection Keywords for Bit-to-Text Translation

### D.1 The -i (include) Qualifier

You may combine -x and -i qualifiers in the same command line to further narrow the selection scope. An -i -i combination or an -x -x combination will result in an error.

Refer to Section D.4 for examples of using different include commands, and Section D.3 for the definitions of the selection keywords.

### D.2 The -x (exclude) Qualifier

The -x qualifier allows you to exclude event entries meeting the criteria specified. Only event entries meeting the criteria are excluded from the output.

#### Syntax

Syntax for the -x command is the following:

```
dia -x keyword [= val] [ ...]
```

The val field is an optional field used to further define the selection keyword. For example, the keyword disk can be further defined with the value RZ23.

---

#### Note

---

All keyword values must be entered in upper case.

---

#### Example

```
%dia -x disk > filename.out
```

In the above example all entries in the log are selected except disk entries. The output is directed to the filename.out file.

#### Example

```
%dia -x disk=RZ23 > filename.out
```

In the above example only RZ23 disk entries are excluded from the log. The output is directed to the filename.out file.

You may combine -x and -i qualifiers in the same command line to further narrow the selection scope. An -i -i combination or an -x -x combination will result in an error.

Refer to Section D.4 for examples of using different exclude commands, and Section D.3 for the definitions of the selection keywords.

**DECevent Selection Keywords for Bit-to-Text Translation**  
**D.3 The Selection Keywords and Their Definitions**

### D.3 The Selection Keywords and Their Definitions

You can use all keywords to exclude or include information from the output. The keywords and their definitions are listed in this section. The abbreviated forms of the keywords, bolded in the table, also are acceptable. For example, you may exclude `environmental_entries` with the following command:

```
%dia -x env
```

**Table D-1 Keyword Definitions**

<b>Keyword</b>	<b>Event Type Definition</b>
<b>panic</b>	Crash Re-start, System Panic, or User Panic entries
<b>cache</b>	Cache entries
<b>configurations</b>	Configuration entries
<b>control_entries</b>	System startup, or new errorlog creation
<b>cpus</b>	Machine check (670, 660, 630) entries for AXP
<b>dates</b>	Select on the timestamps in the entries (Use the <code>-t</code> qualifier instead)
<b>device_errors</b>	Device errors, device attention, device timeouts, logged message (MSCP), logged status (MSCP), logged MSCP messages
<b>device_number</b>	Entries that contain device numbers
<b>disks</b>	Disk class entries
<b>environmental_entries</b>	Power entries
<b>hosts</b>	Event logs with a node name (Use the <code>-H</code> qualifier instead)
<b>informationals</b>	Contain only logged message entries with the MSCP flags set for informational
<b>io_subsystems</b> or <b>ios</b>	Device errors, device timeout, device attentions, logged status (MSCP), logged message (MSCP), logged MSCP message entries
<b>machine_checks</b> or <b>mchks</b>	Events with machine checking information
<b>memory</b>	Events with soft error (CRD), extended (CRD), and memscan entries

(continued on next page)

## DECevent Selection Keywords for Bit-to-Text Translation

### D.3 The Selection Keywords and Their Definitions

Table D–1 (Cont.) Keyword Definitions

Keyword	Event Type Definition
<b>nodes</b>	Event logs with a host name (Use the -H qualifier instead)
<b>operating_systems</b> or <b>os</b>	Event logs with an operating system type
<b>power</b> or <b>pwr</b>	DEC 7000 CPU power entries
<b>sequence_numbers</b>	Entries that contain an event sequence number
<b>software_informationals</b> or <b>swi</b>	Events with lastfail, system startup, system configuration, (volume mounts, volume dismounts, new errorlogs, timestamp entries)
<b>sync_communications</b>	Sync communication device entries
<b>tapes</b>	Event logs that contain all tape class entries
<b>unknown_entries</b>	Events with device types that have not been classified by the current set of rules
<b>osf_entry</b>	Events logged on a Digital UNIX operating system

## D.4 Examples of Using the -i and -x Qualifiers

### D.4.1 -i Qualifier Examples

The following example includes only power entries:

```
%dia -i power
```

The following example includes power, cpu, and tape entries:

```
%dia -i power cpu tape
```

The following example gives an error because two -i flags are not allowed:

```
%dia -i pwr -i cpu
```

### D.4.2 -x Qualifier Examples

The following example excludes power entries and places the output in a file called outfile:

```
%dia -x pwr > outfile
```

The following example excludes power, cache and cpu entries and places the output in a file called outfile:

```
%dia -x pwr cpu cache> outfile
```

## DECevent Selection Keywords for Bit-to-Text Translation

### D.4 Examples of Using the -i and -x Qualifiers

The following example gives an error because two -x flags are not allowed:

```
%dia -x pwr -x cpu
```

#### D.4.3 -x and -i Combinations

The following example includes all power entries that are not cpu entries:

```
%dia -i pwr -x cpu
```

The following example includes all power entries and excludes entries from node cxaiaag that are not cpu entries:

```
%dia -i pwr -x cpu -H cxaiaag
```

The following example includes all power and io\_subsystem entries that are not cpu entries:

```
%dia -i pwr io_subsystem -x cpu
```

The following example includes all power entries that are not cpu or software\_informational entries:

```
%dia -i power -x cpu swi
```

The following example includes all power entries and excludes from the node cxaiaag that are not cpu or software\_informational entries:

```
%dia -i power -x cpu swi -H cxaiaag
```



---

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