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Contents

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Chapter 6 Commands

Chapter 7 OPTIONS Command

Chapter 8 REPORT Command

Chapter 9 TITLES Command

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1

Report Writing Guide Overview

Introduction

The Entrée Report Writer provides comprehensive report writing capabilities and generates reports from data in the Entrée access log file.

This document describes how to use the Entrée Report Writer (ENTRREP).

Included are descriptions of the following:

- Installation requirements, see Chapter 2, ‘‘Installation.’’
- Available and required commands, see Chapter 3, ‘‘Input,’’ and Chapter 6, ‘‘Commands,’’ through Chapter 13, ‘‘RUN Command.’’
- Entrée Report Writer processing, see Chapter 3, ‘‘Input,’’ and Chapter 4, ‘‘Processing.’’
- Report components, see Chapter 5, ‘‘Output Reports.’’
- Sample JCL for producing reports, see Chapter 14, ‘‘Access Log Report Introduction,’’ through Chapter 16, ‘‘Access Log Report Samples.’’

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2

Installation

Introduction

The Entrée Report Writer installs as part of the normal installation procedure.

Install the CSI HFS product separately.

Execution

ENTRREP is the driver program that executes to generate reports with the Entrée Report Writer.

Figure 2-1 on page 2-1 provides a sample JCL that can be customized to execute one or more reports from a batch job:

Figure 2-1.Sample JCL

```
// JOB ENTRREP   ENTRÉE REPORT WRITER
// LIBDEF PHASE,SEARCH=(CSILIB.ENTRÉE,CSILIB.HFS)
// EXEC CSIHLABL,SIZE=AUTO
  OPTION MAKEDLBL
  HLBL DISKINP '/ENTREE/LOG/*' 0 SD HFS=HFS01
/*
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC          /* Report Entrée Access Log records */
OPTIONS DATEFORM(DD,/,MMM,/,YYYY)
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK)
TITLE 'ENTREE ACCESS LOG REPORT'
FIELDS DATE TIME IPADDRES STATCODE
FIELD REQUEST LENGTH(50) JUSTIFY(L)
RUN
/*
/&

Sample JCL is provided in library member ENTRACC.Z in the Entrée
installation library.
```


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Line Explanation

Table 2-1 on page 2-2 provides an explanation of the statements for the sample JCL:

Table 2-1. Sample JCL Line Explanation

Statement	Meaning
// JOB ENTRREP	Standard VSE job card. Required. Job name can be any name acceptable to VSE.
// LIBDEF PHASE	VSE sublibrary information. Omit if library containing Entrée Report Writer phases is defined in the partition's permanent search chain.
// EXEC CSIHLABL,SIZE=CSIHLABL	INTERCEPTOR makes Entrée HFS access log accessible to Entrée Report Writer
// EXEC ENTRREP,SIZE=ENTRREP	VSE EXEC statement and SIZE= parameter. Both are required. ENTRREP is: ■ the driver for the Entrée Report Writer, and ■ runs in a partition of at least 768K.

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3

Input

Introduction

A series of commands, keywords, and keyword values that follow the `// EXEC ENTRREP,SIZE=ENTRREP` statement provides input to the Entrée Report Writer.

Available Commands

Table 3-1 on page 3-1 provides a list and description of available program commands:

Table 3-1. Available Program Commands

Command	Description
OPTIONS	Specifies program execution options.
REPORT	Defines report type to execute and specifies report formatting options.
TITLES	Defines report titles.
FIELDS	Defines one or more fields to include in the report.
FIELD	Specifies formatting or sort parameter options relating to a single data field to include in the report.
SELECT IF	Defines selection criteria for the purpose of restricting report output.
RUN	Specifies all input for this report has been processed and begins report execution.

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Required Commands

Using required commands allow the user to generate a single report. Table 3-2 on page 3-2 provides the required commands and their explanations:

Table 3-2. Required Commands

Command	Explanation
REPORT	Must specify to identify type of report to execute. OPTIONS and TITLES commands are not required. However if they are specified, they remain in effect for all the following REPORTs or until reset by another OPTIONS or TITLES command.
FIELD or **FIELDS**	Tells the report writer which data fields to extract from the input dataset for report. At least one FIELD or FIELDS command: ■ Must follow the REPORT command statement, and ■ Specify one or more valid *fieldnames*.
RUN	Initiates report generation. Must follow the REPORT and FIELD commands.

Generating Multiple Reports

Produce multiple reports in a single job step by repeating the **RUN** command statement. Direct each report to a separate output dataset or printer using the OUTFILE keyword on the **REPORT** command statement.

Titles, field names, and selection criteria can be modified between **RUN** commands.

Example

Figure 3-1 on page 3-2 provides an example of input commands for a report. The example provides the commands in their proper order.

The **TITLES** command provides a meaningful label for the report.

Figure 3-1.Sample Input

```
// EXEC ENTRREP,SIZE=ENTRREP
 TITLES 'Access Log File Report'
 REPORT ENTRACC
 FIELDS DATE TIME IPADDRES
 RUN
/*
```

Additional Information

For more information and a list of the types of reports that can be generated, see set link to commands/REPORTfm.

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4

Processing

Introduction

This section describes the various types of processing provided by the Entrée Report Writer.

The Entrée Report Writer program first reads all commands and keywords provided as input from SYSIPT, until it encounters the special characters, `/*` beginning in column one (1).

Input Processing

Input syntax and keyword values are edited and validated until a **RUN** command is encountered.

The Entrée Report Writer then generates one of the following:

- The report.
- A report definition analysis if **OPTIONS** TEST was specified.

Sorting

The installed sort program performs the sorting operation if field sorting is specified on any **FIELD** command statement (by specifying the SORTPRTY keyword).

No sorting is performed unless sorting is specified.

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I/O to Input Files

All I/O to input files is performed in a standard E15 sort exit routine.

The E15 routine performs the following:

- Extracts the data fields specified in the **FIELD** or **FIELDS** command statements from the physical input records
- Assembles the data fields into a logical record
- Applies any specified selection criteria
- Passes the selected records to the sort routine

Output Formatting

Report output is formatted in a standard E35 sort exit routine.

Each field is moved from the logical (sorted) record and reformatted according to default or user-specified formatting options on the report output detail line.

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5

Output Reports

Introduction

This section describes the various components of the output reports

Components

Reports produced by the Entrée Report Writer are comprised of four kinds of pages, arranged in the following order:

- Commands page
- Header page
- One or more detail pages
- Trailer page

Commands Page

The first page of every report is the commands page.

The commands pages lists the user's report writer commands and diagnostic messages for any errors detected in those commands.

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Figure 5-1 on page 5-2 provides a sample report commands page for an ENTRACC report:

Figure 5-1.Sample Report Commands Page

```
                                                        05/05/2006 19:14
************************************************************
                        ENTRÉE REORT WRITER
************************************************************
============================INPUT STATEMENTS=================
STMT 0001 ===>  OPTIONS DATEFORM(DD,/,MMM,/YYYY)
STMT 0002 ===>  REPORT ENTRACC INFILE (DISKINP) FILETYPE (DISK)
STMT 0003 ===>  TITLE 'ENTRÉE ACCESS LOG REPORT'
STMT 0004 ===>  FIELDS  DATE  TIME  IPADDRES
STMT 0005 ===>  FIELD REQUEST LENGTH(50) JUSTIFY (L)
STMT 0006 ===>  FIELD STATCODE
STMT 0007 ===>  RUN
============================DIAGNOSTIC MESSAGES==============
******** OPTIONS  DATEFORM:  DD,/,MMM,/,YYYY
******** REPORT ENTRACC
                    INFILE: DISKINP
                  FILETYPE: DISK
******** TITLE 'ENTRÉE ACCESS LOG REPORT'
******** FIELDS DATE
               TIME
               IPADDRESS
******** FIELD REQUEST
                   LENGTH: 50
                  JUSTIFY: L
******** FIELD STATCODE
******** RUN
ENT0204I NO DIAGNOSTIC ERRORS DETECTED
```

Header Page

The second page of the report is the header page. It consists of:

- An optional LOGO segment and
- An information box containing report definition specifications, including:
  - — Report title.
  - — Date and time the report was generated.

Note:
Use the NOHDRPAGE keyword of the **REPORT** command to suppress the header page.

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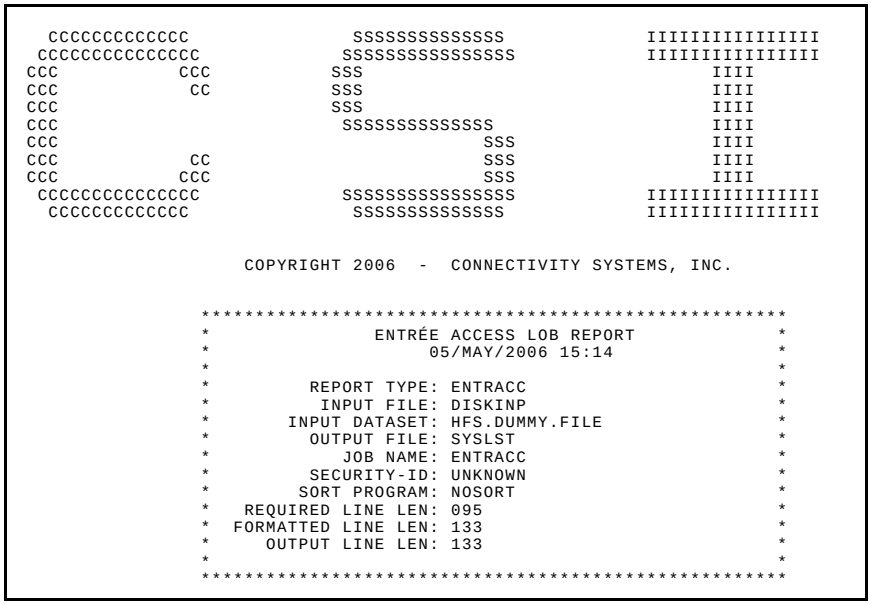
Figure 5-2 on page 5-3 provides an example of a header page using the default CSI logo:

Figure 5-2.Sample Report Header Page



Detail Pages

The detail pages of a report follow the header page.

Each detail page ;includes an optional detail page header segment that contains:

- The report date
- Page number
- Titles
- Field column labels

The segment prints at the top of every detail page in the body of the report

Note:
Specify keywords on the **REPORT** command statement and omit **TITLES** command statements to suppress the detail page.

Figure 5-3 on page 5-4 displays an example of a typical report detail page header:

Figure 5-3.Sample Detail Page Header

```
DATE 05/MAY/2006 15:14                                          PAGE: 000001

                              ENTREE ACCESS LOG REPORT
                                                                      STATUS
  DATE       TIME        IP ADDRESS                REQUEST LINE      CODE
-------    ------     ---------------            ----------------   -----
```

The actual report detail lines follows the detail page header lines. These lines are comprised of the data fields specified on the **FIELD** and **FIELDS** command statements.

Each fieldname specified on the **FIELD** and **FIELDS** command statements is associated with a column of output on the detail page.

The columns are positioned from left to right on the output page in the order the fieldnames are specified in the input command statements.

Report column width is determined by whichever is greater of the following:

- The longest of three column labels, which have a maximum length of 16, or
- The field output length.

Each fieldname is defined with default labels and output length.

Note:
Specify new values on a **FIELD** command statement using the LENGTH and LABEL keywords to override default length and label values associated with any fieldname.

Trailer Page

The trailer page is written after all records are processed and written to the report output file.

The trailer page contains and *End of Report* heading and various messages detailing statistical information gathered during the report generation process.

Note:
Use the NOTRAILER keyword of the **REPORT** command to suppress the trailer page.

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Figure 5-4 on page 5-5 displays an example trailer page containing typical information:

Figure 5-4.Sample Trailer Page

```
  ******** END OF REPORT *******
INPUT RECORDS READ.............00000542
DETAIL RECORDS GENERATED......00000542
DETAIL RECORDS SELECTED.......00000542
  000643 RECORDS WRITTEN TO SYSLST
```

Additional Information

For more information about logos and logo suppression, see Chapter 8, ‘‘REPORT Command.’’

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6

Commands

Introduction

Input to the Entrée Report Writer is provided as a series of command statements from SYSIPT. This section describes information about the various commands available, including:

- Command conventions, see ‘‘Conventions’’ on page 6-2.
- Syntax rules, see ‘‘Syntax Rules’’ on page 6-2.

Following this chapter is a description of each command that can be used as input to the Entrée Report Writer (ENTRREP). The commands are presented in their recommended order:

- **OPTIONS**, see Chapter 7, ‘‘OPTIONS Command.’’
- **REPORT**, see Chapter 8, ‘‘REPORT Command.’’
- **TITLES**, see Chapter 9, ‘‘TITLES Command.’’
- **FIELDS**, see Chapter 10, ‘‘FIELDS Command.’’
- **FIELD**, see Chapter 11, ‘‘FIELD Command.’’
- **SELECT IF**, see Chapter 12, ‘‘SELECT IF Command.’’
- **RUN**, see Chapter 13, ‘‘RUN Command.’’

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Ordering Restrictions

The following restrictions apply to the order in which commands are specified:

- The **REPORT** command must precede the commands that extract data from the input dataset; the commands are:
  - **FIELD**
  - **FIELDS**
  - **SELECT IF**
- The **RUN** command must be the last command specified.

Conventions

For this document, the following conventions are followed in order to distinguish commands, keywords, and keywords values:

- **COMMAND**—Uppercase bold.
- KEYWORDS—Uppercase.
- *Keyword values* and *fieldnames*—Italics
- `Examples`—Displays shown in courier type; includes how to enter a command and examples.

Optional Input

Parts of a command that are optional are enclosed in square brackets; [].

Parentheses

When shown, parentheses are required input characters.

All keyword values for a given keyword must be enclosed in parentheses.

Repeated Input

Parts of a command that can be included more than once, or repeated, are followed by ellipsis (...).

The description of the command indicates which items can be repeated.

Conventions Example

Below is an example illustrating the conventions:

COMMAND KEYWORD [(*keyword value)* ...]

Syntax Rules

The remaining of this section discusses the syntax rules.

Input Columns

Place commands, keywords, and keyword values in any input column from 1 to 72.

Column positions 73 to 80 are ignored.

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Leading and Trailing Blanks

Leading and trailing blanks are ignored.

The first non-blank character string encountered is assumed to be the first program command.

Parameters

Follow commands with one or more keywords.

The keywords can be further defined by keyword values:

- Enclose in parentheses all keyword values for a given keyword.
- Enclose in single quotes any keyword or keyword value that contains a special character.
- Separate multiple keywords or keyword values from each other using blanks or commas.
- Separate a set of keyword values from its keyword using blanks or commas.

Special Characters

Enclose in single quotes any literal character string provided as input to the Entrée Report Writer that contains one or more characters listed in Table 6-1 on page 6-3:

Table 6-1. Special Character Meaning

Character	Meaning
	Blank
,	Comma
–	Hyphen
(	Left parenthesis
)	Right parenthesis
@	At sign
+	Plus sign
*	Asterisk
/	Forward slash
=	Equal sign
¬	Logical not
<	Less-than sign
>	Greater-than sign
.	Period
:	Colon

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Table 6-1. Special Character Meaning

Character	Meaning
;	Semi-colon
‘	Single quote
“	Double quote

Reserved Character

The single quote character (‘) is reserved as a string delimiter. Literal character strings provided as input to the Entrée Report Writer, whether or not they are delimited by single quotes, may *not* include any single quotes.

The double quote character (“) may be included in literal character strings.

Command Statement Continuation

Continue a command statement to a subsequent line by ending the partial statement with a hyphen (–) and one or more blanks.

A command statement is broken only at the beginning or end of a whole keyword or keyword value.

Table 6-2 on page 6-4 provides examples of valid and invalid continuation:

Table 6-2. Example of Valid and Invalid Continuation

Valid Continuation	Invalid Continuation
COMMAND1 KEYWORD1(value1-, value2	COMMAND1 KEYWORD1(value1, val -ue2
COMMAND2 KEYWORD2(value1)- KEYWORD 3 (value2)	COMMAND2 KEYWORD2(value1) KEY - WORD 3 (value2)
CMD3 KEYWORD3 (- ‘string value 1’)	COMMAND3 KEYWORD3 (‘string - value 1’)

Comments in Input

All characters following a continuation indicator are treated as comments and ignored by the program.

Insert bulk comment information at any point, but not beginning in column one. Signal the beginning of such comments with a slash followed by an asterisk (/*).

Signal the end of the comments with an asterisk followed by a slash (*/).

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This type of comment can extend over several input lines:

- All data following the initial /* is ignored until the closing */ is encountered.
- At that point, if a continuation character follows the */, the preceding command statement (if any) is resumed.
- If no continuation character follows the */, a new command statement is expected.

WARNING:
Do not attempt to begin a comment in column one. If the characters /* are encountered beginning in column one, they are treated as signaling end of input.

Example Proper Command Syntax

Figure 6-1 on page 6-5 provides an example of correct input syntax that includes:

- Two input commands
- Comment information
- Each command is followed by several keywords and keyword values

Figure 6-1.Sample of Correct Input Syntax

```
// EXEC ENTRREP,SIZE=ENTRREP
  COMMAND1 'KEYWORD1' KEYWORD2 ( VALUE1,VALUE2 ) -
       KEYWORD3 ( VALUE1 (  SUBVALUE  ) ) - Comments after continuation
       KEYWORD4 ( VALUE1 (SUBVALUE1,'SUB VALUE2') VALUE2)  -
               /* These comments continue over more than one line.  Note
                  that no continuation indicator is required between
                  comment lines.  The one that appears following the
                  block comment information is necessary only to
                  continue the COMMAND1 statement. */ -
       KEYWORD5 ( VALUE1 )
  COMMAND2 KEYWORD1,KEYWORD2,KEYWORD3(VALUE1)
/*
```


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7

OPTIONS Command

Introduction

Specifies global report formatting parameters.

Using the Command

Use the OPTIONS command to specify certain global report formatting parameters.

Command Syntax

Enter the **OPTIONS** command using the following format:

```
OPTIONS KEYWORD[, KEYWORD ...]
```

Keywords

Table 7-1 on page 7-1 provides a list of the keywords available for the **OPTIONS** command. Use one or more of the keywords:

Table 7-1. OPTIONS Command Keywords

Keywords	Explanation
UPPERCASE	Forces all output to uppercase format only. Default: NOUPPERCASE
NOUPPERCASE	Print all output as is, without translating to uppercase.
DATEFORM (*date-format*)	Print format. Default: MM,/,DD,/,YYYY
TIMEFORM (*time-format*)	Time values format. Default: HH,:,MM

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Table 7-1. OPTIONS Command Keywords

Keywords	Explanation
SORTNAME (*xxxxxxxx*)	Sort program name to use to drive the report generation process. Specified program must be located in one of the sublibraries in the partition's LIBDEF search chain. Default: SORT
PAGELEN (*nnn*)	Number of lines per page to use in formatting the report output. Valid values are 16 to 255. Default: 55
LINELEN (*nnn*)	Number of character positions used in formatting the report output. Valid values are 16 to 133. Must be large enough to contain all output field information as determined by the **FIELD** and **FIELDS** command statements. Default: 133
TEST	Specify during the design phase of a new report to cause all report commands to be processed, but no report to be generated. Instead, a sample report output page, formatted based on the command statements processed, will be produced. Default: NOTEST
NOTEST	Turns off a previously specified TEST option.

DATEFORM and TIMEFORM Values

Values for the DATEFORM and TIMEFORM keywords consist of any combination of character strings and keywords, but not to exceed 32 characters in length.

Note:
Add the number of characters in all specified string values and keywords to calculate length.

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Table 7-2 on page 7-3 provides valid values for the DATEFORM keyword date-format parameter:

Table 7-2. DATEFORM Values

Values	Description
MM	Two-character numeric month.
MMM	Three-character month name abbreviation.
DD	Two-character numeric day of the month.
DDD	Three-character day of the week abbreviation.
YY	Two-character year value.
YYYY	Four-character year value.
string	A string value up to eight (8) characters in length. Enclose the string in single quotes if it includes any special characters.

Table 7-3 on page 7-3 provides valid values for the TIMEFORM keyword time-format parameter:

Table 7-3. TIMEFORM Values

Values	Description
HH	Two-character numeric hour value in 24-hour clock.
MM	Two-character numeric minute value.
SS	Two-character numeric seconds value.
HH12	Two-character numeric hour value in 12-hour clock.
AMPM	Two-character string, either AM or PM.
string	A string value up to eight (8) characters in length. Enclose the string in single quotes if it includes any special characters.

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Example

Figure 7-1 on page 7-4 shows an example of the OPTIONS command.

Figure 7-1.Example OPTIONS Command

```
// EXEC ENTRREP,SIZE=ENTRREP
 OPTIONS TEST UPPERCASE -
         LINELEN (80) PAGELEN (75) -
         DATEFORM ( YYYY,/,MM,/,DD ) -
         TIMEFORM ( HH,:,MM,:,SS )
    .
    .
/*
```

This example does the following:

- Causes the report to execute in a test mode.
- Prints in uppercase format.
- Uses 75 lines per page for its page length.
- Uses an 80-column width format.
- Replaces the default date format (MM/DD/YYY) with an alternate format.
- Replaces the default time format (HH:SS) with an alternate format.

Additional Information

For more information about special characters, see *"Syntax Rules"* in Chapter 6, ‘‘Commands.’’

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8

REPORT Command

Introduction

The **REPORT** command identifies type of report and its various formatting options.

Using the Command

Use the **REPORT** command to do the following:

- Identify the type of report to generate
- Define various report formatting options to customize report output.

Command Syntax

Enter the **REPORT** command using the following format:

REPORT KEYWORD [*keyword* (*keyword-value*)] ...

where the first (and required) KEYWORD must be a report type. Currently, the only report type is ENTRACC.

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Keywords

Table 8-1 on page 8-2 provides a list of the keywords available for the **REPORT** command. Use one or more of the keywords.

Note:
Specifying these parameters on the **REPORT** command statement overrides the current report formatting and processing settings, whether they are default values or values specified on the **OPTIONS** command statement.

Table 8-1. REPORT Command Keywords

Keywords	Explanation
INFILE (*filename*)	The input dataset. Specify *filename* as a JCL statement in the ENTRREP jobstep.
FILETYPE (*type*)	The type of the input dataset. Specify: ■ FILETYPE(DISK)—If using a sequential disk or an HFS file as input, ■ FILETYPE(TAPE)—If using tape as input.
NOHDRPAGE	Suppress printing of the report header page.
NOSTMTS	Suppress printing of report writer input statements and diagnostic messages.
NOPAGENUM	Suppress printing of the page number on the first line of each report page.
NOLABELS	Suppress printing of all field column labels in the page header segment of each report detail page.
NOTRAILER	Suppress printing of the trailer page information following the last detail page of the report.
LOGO (*xxxxxxxx*)	Include the logo, if any, on the header page of the report. For valid values, see ‘‘LOGO Values’’ on page 8-3.
DATEFORM (*date-format*)	The print format for all dates in the report.
TIMEFORM (*time-format*)	The print format for all time values in the report.
PAGELEN (*xxx*)	The number of lines per page to use in formatting the report. Valid values are numbers from 16 to 255.

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Table 8-1. REPORT Command Keywords

Keywords	Explanation
NOCC	Suppress carriage control use in the report. ■ When using carriage control, the first print position in each output line is reserved for the ANSI carriage control character. ■ When suppressing carriage control, inserts blank lines between report detail lines to achieve the requested report formatting.
LINESPC (*x*)	Report detail line spacing. Valid values are: ■ 1—Single spaced; Default. ■ 2—Double spaced. ■ 3—Triple spaced.

LOGO Values

If no logo is specified, CSILOGO loads and is used.

If a logo is specified, it must be located in a library in the LIBDEF phase search string for the partition in which the Entrée Report Writer is running.

Table 8-2 on page 8-3 shows the valid values for the LOGO keyword:

Table 8-2. Valid LOGO Values

Values	Description
JOBNAME	Causes the batch job name to be printed in 12x12 banner format on the header page.
NONE	Causes the header page to be produced with no logo.
string	A character string, eight byte maximum, that is to be formatted as a log. If the string contains any special characters, it must be enclosed in single quotes.

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Example

Figure 8-1 on page 8-4 provides an example of the **REPORT** command:

Figure 8-1.Example REPORT Command

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
   .
   .
/*
```

The example illustrates using the **REPORT** command to do the following:

- Produce an Entrée access log report with:
  - header and trailer information
  - single-spaced detail lines using default ANSI carriage control
  - page length of 75
- Print default page header information at the top of each output page and including:
  - report execution date and time
  - page numbers
  - report titles
  - field column labels

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9

TITLES Command

Introduction

The **TITLES** command statement defines title information.

The **TITLES** command statement is optional.

If not specified, a default two-line title prints consisting of the following:

- Product identification on the first line
- Report type description on the second line

Using the Command

Use the **TITLES** command to define title information to be printed in the report header page and at the top of each detail page of the report.

Command Syntax

Enter the **TITLES** command using the following format:

```
TITLES STRING[, STRING...]
```


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String

The **TITLES** command requires specification of one or more literal strings to be printed in the report header page and at the top of each detail page.

Each title string is centered on a separate output line.

String values must conform to the following rules:

- Enclose in single quotes if the string includes any special characters.
- Specify up to a maximum of five lines of information, each line containing up to a maximum length of 64 characters.
- Separate multiple title strings by at least one blank or comma.

Example

Figure 9-1 on page 9-2 provides an example of the **TITLES** command:

Figure 9-1.Example TITLES Command

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
TITLES ('E N T R E E' -
        'ACCESS LOG MAY 2006')
   .
   .
/*
```

This example produces three lines of text at the top of every detail page of the report.

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10

FIELDS Command

Introduction

The **FIELDS** command identifies data elements.

Using the Command

Use the **FIELDS** command to identify data elements that are:

- Extracted from the input dataset
- Formatted using default options
- Printed on the report output detail line

The **FIELDS** command uses default formatting options for all *fieldnames* specified, including:

- Output format and length
- Report column labels
- Output justification

Customizing Report Output

Examples to customize report output are:

- Change or eliminate the column label printed for the field
- Change the column width assigned to the field data, or
- Change the justification within the report column of the data being printed

Use a **FIELD** command for each *fieldname* rather than a **FIELDS** command to customize a report output.

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Both **FIELD** and **FIELDS** command can be specified for the same report.

Command Syntax

Enter the **FIELDS** command using the following format:

```
FIELDS FIELDSNAME1 [, FIELDSNAME2 ...]
```

Fieldnames

Specify one or more valid *fieldnames* on the **FIELDS** command statement.

The *fieldnames* that can be specified are determined by the type of report specified on the preceding **REPORT** command statement. Refer to the fieldnames listed in the chapter for each report type, see Chapter 15, "Access Log Report Fields."

Specify at least one *fieldname*.

Separate multiple *fieldnames* with commas.

Example

Figure 10-1 on page 10-2 provides an example input of the **FIELDS** command statement:

Figure 10-1.Example FIELDS Command

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
TITLES ('E N T R E E' -
        'ACCESS LOG MAY 2006')
FIELDS IPADDRES DATE TIME REQUEST
  .
  .
/*
```

Additional Information

For more information about *fieldname* values, see Chapter 15, "Access Log Report Fields."

For information about customizing a report output, see Chapter 11, "FIELD Command."

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11

FIELD Command

Introduction

The **FIELD** command identifies a single data element.

Using the Command

Use the **FIELD** command to identify a single data element to be:

- Extracted from the input dataset,
- Formatted and,
- Printed on the output report detail line

The **FIELD** command allows the user to override default formatting options for the *fieldname* specified and thereby customize report output.

Command Syntax

Enter the **FIELD** command using the following format:

```
FIELD FIELDNAME [, option ...]
```

Fieldname

Table 11-1 on page 11-2 provides the valid values for the *fieldname* parameter; specify one value:

Table 11-1. Fieldname Parameter Values

Value	Description
fieldname	Data element to be: ■ extracted from the input dataset, ■ formatted, and ■ printed on the output report detail line Valid *fieldnames* are determined by the type of report specified on the preceding **REPORT** command statement. Refer to the *fieldnames* listed in the chapter for each report type, see Chapter 15, ''Access Log Report Fields.''
LITERAL (string)	A literal string to be included on each detail line. Although the string is not actually contained in any record, it can be useful for clarifying report data. The literal string specified will appear on each detail line relative to the position it is assigned in the **FIELD** command. The string can be no longer than 48 characters. If it includes any special characters, it must be enclosed in single quotes. No column headers will appear above any column of literal data. If a given **FIELD** command specifies LITERAL (string), it can not include the LABEL keyword to specify column headings.

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Options

Table 11-2 on page 11-3 provides optional options for the **FIELD** command statement:

Table 11-2. Options for FIELD Command Statement

Options	Description
FORMAT (*x*)	One of the three valid type of formatting for the report field. ■ C— Character. Data is moved directly from the input record to the page header detail line. Each non-displayable character is translated to a period (.). ■ X—Hexadecimal. Data is converted to displayable hexadecimal format. Two character positions on the output line are required for each character in the input field. ■ Z— Zoned-decimal. Up to four bytes of input data is converted to its displayable EBCDIC zoned-decimal equivalent and displayed on the output line. Zoned-decimal output fields are displayed in zero-suppressed format. If the input field is longer than four bytes, byte positions beyond the fourth are ignored. Data fields whose binary values are negative are displayed with a minus sign before the numeric value, except one-character fields, which display as their corresponding numeric values from 0 to 255.

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Table 11-2. Options for FIELD Command Statement

Options	Description
LABEL (*xxx*)	Use instead of the default column header labels associated with the *fieldname*. Field labels appear by default in the page header at the head of the report output column associated with the field. The value defines the label to appear in the page header at the head of the report output column associated with the field. Keyword values are: ■ F (or FIELD)—Replace default column headers with the *fieldname*. ■ N (or NO)—Eliminate column header labels for this *fieldname*. ■ 'label1'[,'label2','label3']—Literal strings for column header labels: ▪Maximum is three (3) literals per fieldname ▪Placed one above the other in the page header segment of the report detail page ▪Up to a maximum 16 characters in length per label ▪Enclose in single quotes if using any special characters ■ Default—Labels centered over report column. Use the greater-than (>) or less-than (<) as the first character in the label string to right- or left-justify labels, respectively. For example: `LABEL('<L-justified-Label','>R-justified-Label')`
LENGTH (*xxx*)	The number of character positions reserved for field data in the report page header line. Restrictions on the value are as follows: ■ The LENGTH specified can not exceed the LINELEN value specified on a preceding **OPTIONS** command statement. If LINELEN has not been specified, the maximum LENGTH value is 133. ■ If specifying a LENGTH that exceeds the amount of data to be displayed, the default fill character value of blanks will be printed following the data. To specify a different fillcharacter, use the FILLCHAR keyword. ■ If specifying a LENGTH that is less than the amount of character positions to be displayed, the data is truncated to the length specified.

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Table 11-2. Options for FIELD Command Statement

Options	Description
JUSTIFY (*x*)	A value to indicate the position in the output column of displayable data. Specify as: ■ **L**—Left ■ **C**—Centered; Default ■ **R**—Right **Note:** Exception to the default are fields defined as zoned-decimal display, FORMAT(Z), which are zero-suppressed and right-justified.
SORTPRTY (*nn*)	The priority of the data field in the sort process. The value specified is subject to the following restrictions: ■ Valid values are numbers from 1 to 99. The value 1 causes the field to be given the highest priority. ■ Fields assigned equal SORTPRTY values will be given priority relative to the order in which the fields are specified in the report.
SORTSEQ (*xx*)	The sequence in which the data field sorts. No effect on order output unless the SORTPRTY keyword is also specified. Specify as” ■ **AS** —Ascending ■ **DE**—Descending
FILLCHAR (‘*x*’)	A single filler character in the column reserved for the *fieldname* information on the detail line. *x* is any displayable character. Either the default field length or the value specified on the LENGTH keyword determines the amount of reserved space: Displays in all print positions to the left and to the right of displayable field information if the length is less than the report column width. Uses a blank if not specified.

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Table 11-2. Options for FIELD Command Statement

Options	Description
MISSCHAR (‘*x*’)	A printable character that appears in the output detail line when there is no data available to display. It positions in the report column, based on the value of the JUSTIFY keyword specified for the *fieldname*. *x* is any displayable character. Appears in the output column when either of the following occurs: ■ The displayable data *fieldname* is blank or ■ The *fieldname* is not contained in the record being printed. Uses a period (.) if not specified.
REPCHAR (‘*x*’)	A replacement character, where *x* is any displayable character: Appears in the output detail line when the *fieldname* output matches the data printed on the preceding detail line. Replacement character continues to print on each detail line until one of the following occurs: ■ Display value changes, ■ A control break occurs (see “CTLBREAK (x)” on page 11-6), or ■ A new page condition occurs. The replacement character is positioned in the report column based on the justification option designated for the *fieldname*, see “JUSTIFY (x)” on page 11-5.
CTLBREAK (*x*)	Cause a control break condition to be recognized and the specified action to be taken whenever the displayable information in the report column changes. *x* is any displayable character.
NOTRUNC	Suppress truncation of leading and trailing blanks when character format fields are displayed and cause leading zeroes to be printed in zoned-decimal fields.

Use one or more of the options to do the following:

- Override default field formatting options,
- Specify sorting requirements, and
- Define report column formatting, labeling, width, and justification specifications

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Example

Figure 11-1 on page 11-7 provides a sample use of various FIELD command statements and combines the FIELD and FIELDS commands:

Figure 11-1.Example of FIELD Command

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
TITLES ('E N T R E E' -
        'ACCESS LOG MAY 2006')
FIELD  IPADDRES JUSTIFY(L)
FIELDS DATE TIME
FIELD REQUEST LENGTH(50) JUSTIFY(L)
FIELDS STATCODE CONTLEN
  .
  .
/*
```


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12

SELECT IF Command

Introduction

The **SELECT IF** command limits the amount of displayed data.

Using the Command

Use the **SELECT IF** command to limit the amount of data displayed in the report output.

SELECT IF is not required to execute a report.

If specified, place the command in the command input after the **REPORT** command and before the **RUN** command.

Specify only one **SELECT IF** command statement per report.

The specified selection criteria are applied during the E15 sort exit processing, after the logical record has been assembled from the available field input data, and before the record is passed to the sort.

Command Syntax

Enter the **SELECT IF** command using the following format:

```
SELECT IF fieldname [(+dsp, len)] [comparator –
           operand2 [(+dsp,len)]] [connector ...]
```


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Parameters

Table 12-1 on page 12-2 provides the available parameters for the **SELECT IF** command:

Table 12-1. SELECT IF Command Parameters

Parameter	Description
fieldname	Requires; the first comparison operand. Valid entries determined by the report-type being executed. Refer to the chapter that details the specified report-type, see Chapter 15, "Access Log Report Fields."
(+dsp,len)	Optional displacement value and compare length, enclosed in parentheses, for the *fieldname* specified. This parameter is explained further through examples provided below. Default is +0, which is the first character position.
comparator	Optional comparison to be made between *fieldname* and *operand2*. The result determines which records to select. Valid entries are: ■ **EQ**—Equal ■ **LT**—Less than ■ **LE**—Less than or equal to ■ **NE**—Not equal ■ **GT**—Greater than ■ **GE**—Greater than or equal to For example, GT selects all records where *fieldname* is greater than *operand2*.
operand2	The second operand for the optional comparison.
connector	A *connector* value. Required if more than one comparison is to be made.

(+dsp,len) Parameter

Specify the following command to select output based on the second and third characters in the FIELD1 field being equal to AB:

```
SELECT IF FIELD1 (+1,2) EQ C'AB'
```

Use a command similar to the following to specify a length value with a default displacement value:

```
SELECT IF FIELD1 (2) EQ C'AB'
```

The command statement above requires the first two character positions of the FIELD1 field be equal to AB.

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Operand2 Values

Table 12-1 on page 12-2 provides the values for the *operand2* parameter, which can be either another *fieldname* or one of the several literal types:

Table 12-2. OPERAND2 Parameter Descriptions

Value	Description
fieldname	A fieldname to specify with displacement and length values (+dsp,len)
C’cccc’	Data in character format. Specify a string of up to 32 characters within the single quotes.
N’nnnn’	Numeric data. Automatically converts to the proper format for a valid compare (packed, binary, and so on). This format is governed by how the data is stored in the record. Specify a string of up to 16 numeric characters within the single quotes.
X’xxxx’	Hexadecimal value. The maximum string length enclosed in the single quotes is eight (8) bytes (representing four data bytes). Each string must be composed of an even number of hexadecimal characters values; 0–9, A–F.
T’tttt’	Transformed value. Transforms the input data represented by *fieldname* into its displayable form before the comparison is made. Specify a string of up to 32 characters in the single quotes. If the *fieldname* cannot be transformed, the comparison is made to the unmodified contents of the data represented by the *fieldname*.

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Table 12-2. OPERAND2 Parameter Descriptions

Value	Description
D'mm/dd/yyyy'	Date value. Compares *fieldname* to the literal value enclosed in the single quotes if *fieldname* contains date information. Each date value internally transforms to a binary value before performing comparisons: ■ This value represents a date in the range January 01, 1900 to December 31, 2041. ■ Dates that fall outside this range are assigned one of those extreme values; basically considered bad data. The format must match the date format assigned to the report, see *"DATEFORM and TIMEFORM Values"* in Chapter 7, "OPTIONS Command." Use the default MM/DD/YYYY format if DATEFORM not specified. *yy* values 42-99 represent the years 1942 to 1999. *yy* values 00-41 represent the years 2000 to 2041.
H'hh:mm'	Time value. Compares *fieldname* to the literal value enclosed in the single quotes if *fieldname* contains time information. Each time value internally transforms to a binary value before performing comparisons: ■ This value represents the number of seconds since the preceding midnight. ■ Literals based on a 24-hour clock time. The format must match the time format assigned to the report, see *"DATEFORM and TIMEFORM Values"* in Chapter 7, "OPTIONS Command." Use the default HH:MM format if TIMEFORM not specified. *yy* values 42-99 represent the years 1942 to 1999. *yy* values 00-41 represent the years 2000 to 2041

Connector Values

The two valid connector values are:

- AND—Select the record if the preceding *and* the following comparisons are true.
- OR—Select the record if either the preceding *or* the following comparison is true, or if both are true.

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Boolean syntax rules apply to all comparisons linked by *connector* values:

1. Expressions linked by *AND* are evaluated as a group before expressions link by *OR*.
2. Enclosing one or more expressions in parentheses allows the user to override this default priority .

   Expressions enclosed in parentheses are evaluated first.
3. Parentheses cannot be nested.

Examples

Table 12-3 on page 12-5 provides an example of Boolean comparisons, given the following data:

- FIELD1 C’1’
- FIELD2 C’2’
- FIELD3 C’A’

Table 12-3. Boolean Comparisons Example

Statement	Result and Explanation
`SELECT IF FIELD1 EQ C’1’ AND - FIELD2 EQ C’2’ AND - FIELD3 EQ C’Z’`	The record will not be selected because it is false that FIELD3=Z. All three comparisons must be true for the record to be selected.
`SELECT IF FIELD1 EQ C’1’ OR - FIELD2 EQ C’9’ OR - FIELD3 EQ C’Z’`	The record will be selected because at least one comparison is true; FIELD1=1.
`SELECT IF FIELD1 EQ C’1’ OR - (FIELD2 EQ C’9’ OR - FIELD3 EQ C’Z’)`	The record will be selected because at least one comparison is true; FIELD1=1. Although the parentheses cause the second OR to be evaluated first, it still remains that only one comparison needs to be true for the record to be selected.
`SELECT IF FIELD1 EQ C’1’ AND - FIELD2 EQ C’9’ OR FIELD3 EQ C’Z’`	The record will be selected because one comparison is true; FIELD3=A. Although it is false that FIELD1=9 AND FIELD2=9, it is true that FIELD3=A., thus the comparison is true.
`SELECT IF FIELD1 EQ C’9’ AND - (FIELD2 EQ C’9’ OR - FIELD3 EQ C’A’)`	The record will not be selected because FIELD1=9 is false. Even though it is true that either FIELD2=9 or FIELD3=A, it is false that FIELD1=9, thus the comparison is false.

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Figure 12-1 on page 12-6 provides an example using the **SELECT IF** command statement:

Figure 12-1.Example SELECT IF Command Statement

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
TITLES ('E N T R E E' -
        'ACCESS LOG MAY 2006')
FIELD  IPADDRES JUSTIFY(L)
FIELDS DATE TIME
FIELD REQUEST LENGTH(50) JUSTIFY(L)
FIELDS STATCODE CONTLEN
SELECT IF STATCODE GE C'400'
  .
  .
/*
```


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13

RUN Command

Introduction

The **RUN** command initiates the report generation process.

The **RUN** command is required.

Using the Command

Use the **RUN** command to initiate the report generation process.

Place the **RUN** command:

- On a line by itself with no accompanying keywords or keyword values
- After the **REPORT** command that identifies the report to execute
- After any **OPTIONS**, **TITLES**, **FIELD**, **FIELDS**, and **SELECT IF** commands that define and customize the report

  When a **RUN** command is encountered all information processed up to that point from these commands is combined to make up a report definition, which is then passed to the report generation program for execution.

If a user specifies **OPTIONS** TEST, report generation process does not invoke and no input dataset opens for processing. Instead, a detailed report definition analysis formats and displays as output along with a sample of how such a report might appear.

Multiple **RUN** command statements can be specified to generate more than one report. By placing **TITLES**, **FIELD**, **FIELDS**, or **SELECT IF** command statements between the **RUN** commands, some or all of the

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information relating to the preceding report can be replaced before the next report is generated.

Command Syntax

Enter the **RUN** command using the following format:

```
RUN
```

Examples

Figure 13-1 on page 13-2 provides an input example showing the generation of two similar reports by repeating the RUN command without re-specifying all command statements:

Figure 13-1.Example Input of the RUN Command

```
// EXEC ENTRREP,SIZE=ENTRREP
REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK) -
       PAGELEN(75) LOGO(JOBNAME)
TITLES ('UNAUTHORIZED REQUESTS')
FIELD  IPADDRES JUSTIFY(L)
FIELDS DATE TIME
FIELD REQUEST LENGTH(50) JUSTIFY(L)
FIELDS STATCODE CONTLEN
SELECT IF STATCODE EQ C’401’
RUN

TITLES ('NOT FOUND REQUESTS')
SELECT IF STATCODE EQ C’404’
RUN

/*
```

Figure 13-2 on page 13-2 provides an example output from the second report that would be generated from the input command sequence in Figure 13-1 on page 13-2:

Figure 13-2.Example Output of the RUN Command

```
                                NOT FOUND REQUESTS
                                                                    STATUS     CONTENT
 IP ADDRESS       DATE          TIME                 REQUEST LINE    CODE      LENGTH
--------------  -----------   --------          --------------      ------    --------
65.24.199.15     09/MAY/2006   14:10:56    GET /test1.html HTTP/1.1   404        108
65.24.199.15     09/MAY/2006   14:11:02    GET /test2.html HTTP/1.1   404        108
```


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14

Access Log Report Introduction

Introduction

This section describes the ENTRACC access log report (*ENT*ree *R*eport *ACC*ess).

Report Description

Use this report to select and display access information from the Entrée access log file.

Input Dataset

This report type requires the Entrée HFS access log file. The HFS File Interception Facility processes this report.

I/O Module Name

The Entrée Report Writer loads the phase ENTRACC when this report type is specified on a **REPORT** command statement. ENTRACC reads the input file and formats the data for the report.

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Sample JCL

Figure 14-1 on page 14-2 shows a sample JCL used to execute any ENTRACC report:

Figure 14-1.Sample JCL

```
// JOB ENTRACC
// LIBDEF PHASE,SEARCH=....
// EXEC CSIHLABL,SIZE=CSIHLABL
  OPTION MAKEDLBL
  HLBL DISKINP '/ENTREE/LOG/*' 0 SD HFS=HFSWEBT
/*
// EXEC ENTRREP,SIZE=ENTRREP
     .
     .
/*
/&
```

Input Record Description

Each Entrée access log record is variable length and matches that of a common log record with format:

host “–” username date:time request statuscode bytes referrer useragent

Figure 14-2 on page 14-2 shows an example of the populated fields with values in an Entrée access log record:

Figure 14-2.Example Access Log Record

```
125.125.125.125 - dsmith [10/Oct/1999:21:15:05 +0500]
"GET /index.html HTTP/1.0" 200 1043 "http://www.e-vse.com/"
"Mozilla/4.0 (compatible; MSIE"
```

Table 14-1 on page 14-2 provides a description of the fields:

Table 14-1. Example Access Log Record Fields Description

Example Field	Description
125.125.125.125	host The IP address or host/subdomain name of the HTTP client that made the HTTP resource request.
–	
dsmith	username Client username, or user ID, for authentication. Contains “–” if no value is present.

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Table 14-1. Example Access Log Record Fields Description

Example Field	Description
[10/Oct/1999:21:15:05 +0500]	date:time timezone The date and time stamp of the HTTP request. The fields are: **dd**—Day of the month **MMM**—Month **yyyy**—Year **:hh**—Hour **:mm**—Minute **:ss**—Seconds **+–hhmm**—Time zone
“GET /index.html HTTP/1.0”	request The HTTP request; contains three pieces of information: ■ Requested resource—`index.html` in the example; considered the main piece. ■ HTTP method—`GET` in the example. ■ HTTP protocol version—`1.0` in the example.
200	statuscode The numeric code indicating the success or failure of the HTTP request.
1043	bytes A numeric field containing the number of data bytes transferred as part of the HTTP request, not including the HTTP header.
“http://www.e-vse.com/”	referrer The URL that links the user to the user site; Optional.
“Mozilla/4.0 (compatible; MSIE”	user_agent The Web browser and platform used by the visitor to the user’s site; Optional

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15

Access Log Report Fields

Introduction

This section discusses information about the access log record fields.

Field Information

Report output is comprised of:

- One or more data fields extracted from an input dataset and
- Formatted according to default or user specifications.
- Each data field is selected from a pre-defined list of ENTRACC fieldnames.

At report generation time, each specified fieldname:

- Is assigned a report column, and
- Positioned left to right across the report page in the order in which the fieldnames were specified.

Data corresponding to each selected fieldname:

- Is located,
- Extracted from the physical input record by the ENTRACC I/O module, and
- Either moved to, or transformed into, the appropriate output report column.

  This is accomplished using either the default values described in the fieldname entries or those specified by the user in a **FIELD** command statement.

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Access Log Records Fields

Table 15-1 on page 15-2 lists fieldnames to include in any ENTRACC report **FIELD** or **FIELDS** command statement:

Table 15-1. Access Log Record Fieldnames

Field	Description
CONTLEN	Number of data bytes transferred as part of the HTTP request; does not include HTTP header. **Default label–1:** CONTENT **Default label–2:** LENGTH **Input data length:** 1–8 **Input data format:** Character (C) **Default output length:** 8 **Default output format:** Character (C)
DATE	Date of the HTTP request. **Default label–1:** DATE **Input data length:** 11 **Input data format:** Character (C) **Default output length:** 11 **Default output format:** Character (C)
IPADDRES	HTTP client IP address that made the HTTP resource request. **Default label–1:** IP ADDRESS **Input data length:** 7–15 **Input data format:** Character (C) **Default output length:** 15 **Default output format:** Character (C)
MBRNAME	Requested member name and type; excludes root directory if HTTP method is “GET”. **Default label–1:** MEMBER **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)
MBRROOT	Root directory of requested member if HTTP method is “GET”. **Default label–1:** MEMBER **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)

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Table 15-1. Access Log Record Fieldnames

Field	Description
MBRTYPE	Requested member type if HTTP method is “GET”. **Default label–1:** MEMBER **Input data length:** 8 **Input data format:** Character (C) **Default output length:** 8 **Default output format:** Character (C)
MEMBER	Complete requested member; includes root directory if HTTP method is “GET”. **Default label–1:** MEMBER **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)
METHOD	HTTP method. **Default label–1:** REQUEST LINE **Input data length:** 4 **Input data format:** Character (C) **Default output length:** 4 **Default output format:** Character (C)
REFERER	The URL that linked this HTTP request. **Note:** Entrée must be configured to log this item. **Default label–1:** REFERER **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)
REQUEST	The entire HTTP request line. **Default label–1:** REQUEST LINE **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)

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Table 15-1. Access Log Record Fieldnames

Field	Description
STATCODE	HTTP request status code. **Default label–1:** STATUS **Default label–2:** CODE **Input data length:** 3 **Input data format:** Character (C) **Default output length:** 3 **Default output format:** Character (C)
TIME	Time of the HTTP request. **Default label–1:** TIME **Input data length:** 8 **Input data format:** Character (C) **Default output length:** 8 **Default output format:** Character (C)
USERAGNT	The Web browser and platform used by the client. **Note:** Entrée must be configured to log this item. **Default label–1:** USER AGENT **Input data length:** 1–100 **Input data format:** Character (C) **Default output length:** 100 **Default output format:** Character (C)
USERID	The client user identification for authentication. Substitutes "–" if no value is present. **Default label–1:** USER ID **Input data length:** 1–10 **Input data format:** Character (C) **Default output length:** 10 **Default output format:** Character (C)
ZONE	HTTP request time zone. **Default label–1:** ZONE **Input data length:** 5 **Input data format:** Character (C) **Default output length:** 5 **Default output format:** Character (C)

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16

Access Log Report Samples

Introduction

The Entrée access log file produces various reports. It all depends on the types of changes a user wants to review.

This sections includes:

- Sample input commands and
- Resulting output for several reports.

The examples illustrated in this section are those from which further reports can be designed.

Note:
The examples are not intended to show all the reports that can be produced using the access log data.

Input statements of the sample ENTRACC reports are located in the Entrée installation library in member ENTRACC.Z.

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Access Log Report 1

Figure 16-1 on page 16-2 shows sample input that produces a report showing all access log records:

Figure 16-1.Example Report 1 Input

```
// EXEC ENTRREP,SIZE=ENTRREP
   OPTIONS DATEFORM(DD,/,MMM,/,YYYY)
   REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK,1000)
   TITLE 'ENTREE ACCESS LOG REPORT'
   FIELD IPADDRES JUSTIFY(L)
   FIELD USERID LENGTH(8) JUSTIFY(L)
   FIELD  DATE
   FIELDS TIME
   FIELD REQUEST LENGTH(60) JUSTIFY(L)
   FIELD STATCODE
   FIELD CONTLEN
   RUN
/*
```

Figure 16-2 on page 16-2 displays the report produced by Figure 16-1 on page 16-2.

Figure 16-2.Example Report 1 Output

```
DATE: 09/MAY/2006 17:18                                                    PAGE: 000001

                              ENTREE ACCESS LOG REPORT

                                                                          STATUS  CONTENT
    IP ADDRESS    USER ID     DATE       TIME        REQUEST LINE         CODE    LENGTH
--------------    -------  ----------- --------     ------------         ------ --------

65.24.199.15       dbp      09/MAY/2006 17:17:57 GET /entstyle.css HTTP/1.1    200       1692

65.24.199.15       dbp      09/MAY/2006 17:17:57 GET /entree.js HTTP/1.1       200       1129

65.24.199.15       dbp      09/MAY/2006 17:17:57 GET /csilogo1.gif HTTP/1.1    200        879

65.24.199.15       dbp      09/MAY/2006 17:17:57 GET /botline.gif HTTP/1.1     200        949

65.24.199.15       dbp      09/MAY/2006 17:17:57 GET /welcome.gif HTTP/1.1     200       5538

65.24.199.15       dbp      09/MAY/2006 17:17:58 GET /powervse.gif HTTP/1.1    200       4937

65.24.199.15       dbp      09/MAY/2006 17:17:58 GET /csilogo2.gif HTTP/1.1    200        881
```


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Access Log Report 2

Figure 16-3 on page 16-3 shows sample input that produces a report showing all requests for member *logohead.gif*:

Figure 16-3.Example Report 1 Input

```
// EXEC ENTRREP,SIZE=ENTRREP
   OPTIONS DATEFORM(DD,/,MMM,/,YYYY)
   REPORT ENTRACC INFILE(DISKINP) FILETYPE(DISK,1000)
   TITLE 'ENTREE ACCESS LOG REPORT'
   FIELD IPADDRES JUSTIFY(L)
   FIELD USERID LENGTH(8) JUSTIFY(L)
   FIELD  DATE
   FIELDS TIME
   FIELD MEMBER LENGTH(20) JUSTIFY(L)
   FIELD STATCODE
   FIELD CONTLEN
   SELECT IF MEMBER EQ C'logohead.gif'
   RUN

/*
```

Figure 16-4 on page 16-3 displays the report produced by Figure 16-3 on page 16-3.

Figure 16-4.Example Report 1 Output

```
DATE: 10/MAY/2006 16:16                                                PAGE: 000001

                              ENTREE ACCESS LOG REPORT

                                                                      STATUS  CONTENT
     IP ADDRESS      USER ID     DATE         TIME         MEMBER       CODE    LENGTH
   --------------    -------  -----------   --------     ------------ ------ --------

    65.24.199.15       dbp      09/MAY/2006   15:44:09     logohead.gif   200       5055

    65.24.199.15       dbp      09/MAY/2006   16:35:05     logohead.gif   200       5055
```


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Index

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