

Command Logging

Command logging is used to capture information about all Adabas commands issued by users. The information contained in the logs includes

- the user identification;
- the time of day;
- the command issued;
- the file that was accessed;
- the record that was accessed;
- the Adabas response code received; and
- the amount of time it took for the command to complete.

Command logging may be performed by Adabas or Adabas Review

This chapter covers the following topics:

- Logging Option Parameters
 - Required Parameters
 - Recommended Parameters
 - Command Logging Guidelines
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Logging Option Parameters

Logging options determine whether command logging is performed, what information is logged, and where the command log is written.

The following describes the Logging option parameters for Adabas Review reports.

LOG Parameter

Parameter	Use	Possible Values	Default
LOG	Determine whether Adabas Review will write command logs for a particular report (Y), or whether command logging and all other logging options will be ignored (N).	Y N	N

FILE and NUM OF LOGS Parameters

Parameter	Use	Possible Values	Default
FILE	Specify the DD/file name prefix to identify the file to which Adabas Review will write the command log data. Each report that specifies command logging must have its own file name prefix.	5-byte name	RVLOG
NUM OF LOGS	Specify the number of command log files to be used by a report.	1-99*	2

For every command log file specified in the NUM OF LOGS parameter, a file name is created by appending a number to the end of the file name prefix specified in the FILE parameter. Each log file name must be coded in the Adabas startup.

For example, if FILE=RVLOG and NUM OF LOGS=2, command log data will be written to files RVLOG01 and RVLOG02.

* Up to 99 command log datasets can exist for each report under z/OS; 9 under VSE/ESA.

USER EXIT Parameter

Parameter	Use	Possible Values	Default
USER EXIT	Specify the name of the user exit that is called when a command log is filled.	<i>name</i>	none

Adabas Review writes to the command log files in sequential order. When a command log file is filled, the following actions occur: the file is closed; the exit specified in the USER EXIT parameter is called; and the next command log file is opened to receive data.

The user exit is provided so that the data contained in the command log file may be copied to another device before the file is overwritten with new command log data. Sample code is provided for this exit in the Adabas Review source library member LOGUEXIT. Also provided is the command log copy job, source library member REVCLCOP.

If an exit is not specified, Adabas Review closes the filled command log file and opens the next file; no provision is made for copying the data.

LOG SIZE Parameter

Parameter	Use	Possible Values	Default
LOG SIZE	Specify the number of blocks to be allocated to each command log file.	<i>nnnnn</i>	99999

Because command log records vary in length, it is important to carefully determine the LOG SIZE parameter value. The maximum length of a command log record written by Adabas Review is 8 kilobytes.

Log size is determined using the following formula:

$$\text{number of tracks} * ((\text{bytes per track} / 9996) - 1)$$

For Adabas Review command logs, the blocking factor is 10,000 bytes per block.

The following table provides approximate values for tracks per cylinder and bytes per track for 3350, 3380, and 3390 devices:

Device Type	Tracks per Cylinder	Bytes per Track
3380	15	47,000
3390	15	57,000

Example

The log size for 10 cylinders of a 3380 device is determined as follows:

- Number of tracks is 15x10, or 150 tracks;
- Bytes per track/blocking factor is 47,000/10,000 = 4.7, or 4 blocks;
- Log size is 150x4, or 600 blocks.

Required Parameters

The following report option parameters are required and must be set as indicated for reports that will log commands:

Option	Setting	Explanation
Detail/Sum	D	Detailed report; command logging is performed only for detailed reports.
Log	Y	Yes indicates that the report performs command logging.
File	name	The five-character prefix of the DD/file name.
Num of Logs	number	The total number of command log files allocated for the report.
Log Size	number	Number of blocks per dataset. Datasets for a particular report must be the same size.

Recommended Parameters

The following report option parameters and settings are suggested for efficient command logging operation:

Option	Setting	Explanation
AutoStart	Y	Starts the command logging report when the database is initialized.
Print	N	Prevents each detail data line from being printed; eliminates redundant recording of data and waste of spool space.
User Exit	exit name	Filled command logs are copied to another device before they are overwritten with new command log data.

Command Logging Guidelines

- A command log report must be a detailed report so that it produces a straight recording of each command processed by Adabas. Detailed reports cannot be viewed online.
- By using the report option parameter `PRINT=N`, the printed detail report may be suppressed for a command logging report.
- Processing rules may be used to restrict the collection of data to certain values; e.g., all commands that return a nonzero response code.
- Before starting a report that performs command logging, command log datasets must be allocated and the corresponding job control statements must be added to the Adabas startup JCL.
- If you use the user exit to copy a filled command log to another device, refer to the sample user exit code in the source library member `LOGUEXIT`. The command log copy job is provided in source library member `REVCLCOP`.