#### **NAME**

sudoreplay - replay sudo session logs

# **SYNOPSIS**

```
sudoreplay [-h] [-d dir] [-f filter] [-m num] [-s num] ID
sudoreplay [-h] [-d dir] -l [search expression]
```

### DESCRIPTION

**sudoreplay** plays back or lists the output logs created by **sudo**. When replaying, **sudoreplay** can play the session back in real-time, or the playback speed may be adjusted (faster or slower) based on the command line options.

The *ID* should either be a six character sequence of digits and upper case letters, e.g. 0100A5, or a pattern matching the *iolog\_file* option in the *sudoers* file. When a command is run via **sudo** with *log\_output* enabled in the *sudoers* file, a TSID=ID string is logged via syslog or to the **sudo** log file. The *ID* may also be determined using **sudoreplay**'s list mode.

In list mode, **sudoreplay** can be used to find the ID of a session based on a number of criteria such as the user, tty or command run.

In replay mode, if the standard output has not been redirected, sudoreplay will act on the following keys:

'\n' or '\r' Skip to the next replay event; useful for long pauses.

'' (space) Pause output; press any key to resume.

'<' Reduce the playback speed by one half.

'>' Double the playback speed.

The options are as follows:

### -d dir, --directory=dir

Store session logs in *dir* instead of the default, /var/log/sudo-io.

# -f filter, --filter=filter

Select which I/O type(s) to display. By default, **sudoreplay** will display the command's standard output, standard error and tty output. The *filter* argument is a comma-separated list, consisting of one or more of following: *stdout*, *stderr*, and *ttyout*.

# **-h, --help** Display a short help message to the standard output and exit.

# -l, --list [search expression]

Enable "list mode". In this mode, **sudoreplay** will list available sessions in a format similar to the **sudo** log file format, sorted by file name (or sequence number). If a *search expression* is specified, it will be used to restrict the IDs that are displayed. An expression is composed of the following predicates:

### command pattern

Evaluates to true if the command run matches the POSIX extended regular expression *pattern*.

### cwd directory

Evaluates to true if the command was run with the specified current working directory.

### fromdate date

Evaluates to true if the command was run on or after *date*. See *Date and time format* for a description of supported date and time formats.

### group runas\_group

Evaluates to true if the command was run with the specified *runas\_group*. Note that unless a *runas\_group* was explicitly specified when **sudo** was run this field will be empty in the log.

#### runas runas\_user

Evaluates to true if the command was run as the specified *runas\_user*. Note that **sudo** runs commands as user *root* by default.

### todate date

Evaluates to true if the command was run on or prior to *date*. See *Date and time format* for a description of supported date and time formats.

### tty tty name

Evaluates to true if the command was run on the specified terminal device. The *tty name* should be specified without the */dev/* prefix, e.g. *tty01* instead of */dev/tty01*.

### user user name

Evaluates to true if the ID matches a command run by *user name*.

Predicates may be abbreviated to the shortest unique string (currently all predicates may be shortened to a single character).

Predicates may be combined using *and*, *or* and ! operators as well as '(' and ')' grouping (note that parentheses must generally be escaped from the shell). The *and* operator is optional, adjacent predicates have an implied *and* unless separated by an *or*.

### -m, --max-wait max\_wait

Specify an upper bound on how long to wait between key presses or output data. By default, **sudoreplay** will accurately reproduce the delays between key presses or program output. However, this can be tedious when the session includes long pauses. When the **-m** option is specified, **sudoreplay** will limit these pauses to at most *max\_wait* seconds. The value may be specified as a floating point number, e.g. 2.5.

# -s, --speed speed\_factor

This option causes **sudoreplay** to adjust the number of seconds it will wait between key presses or program output. This can be used to slow down or speed up the display. For example, a *speed\_factor* of 2 would make the output twice as fast whereas a *speed\_factor* of .5 would make the output twice as slow.

#### -V. --version

Print the **sudoreplay** versions version number and exit.

### Date and time format

The time and date may be specified multiple ways, common formats include:

# HH:MM:SS am MM/DD/CCYY timezone

24 hour time may be used in place of am/pm.

# HH:MM:SS am Month, Day Year timezone

24 hour time may be used in place of am/pm, and month and day names may be abbreviated. Note that month and day of the week names must be specified in English.

### CCYY-MM-DD HH:MM:SS

ISO time format

### DD Month CCYY HH:MM:SS

The month name may be abbreviated.

Either time or date may be omitted, the am/pm and timezone are optional. If no date is specified, the

current day is assumed; if no time is specified, the first second of the specified date is used. The less significant parts of both time and date may also be omitted, in which case zero is assumed.

The following are all valid time and date specifications:

now The current time and date.

tomorrow

Exactly one day from now.

yesterday

24 hours ago.

2 hours ago

2 hours ago.

next Friday

The first second of the Friday in the next (upcoming) week. Not to be confused with "this friday" which would match the friday of the current week.

last week

The current time but 7 days ago. This is equivalent to "a week ago".

a fortnight ago

The current time but 14 days ago.

10:01 am 9/17/2009

10:01 am, September 17, 2009.

10:01 am

10:01 am on the current day.

10 10:00 am on the current day.

9/17/2009

00:00 am, September 17, 2009.

10:01 am Sep 17, 2009

10:01 am, September 17, 2009.

Note that relative time specifications do not always work as expected. For example, the "next" qualifier is intended to be used in conjunction with a day such as "next Monday". When used with units of weeks, months, years, etc the result will be one more than expected. For example, "next week" will result in a time exactly two weeks from now, which is probably not what was intended. This will be addressed in a future version of **sudoreplay**.

### **Debugging sudoreplay**

**sudoreplay** versions 1.8.4 and higher support a flexible debugging framework that is configured via Debug lines in the sudo.conf(5) file.

For more information on configuring sudo.conf(5), please refer to its manual.

### **FILES**

/etc/sudo.conf Debugging framework configuration

/var/log/sudo-io The default I/O log directory.

/var/log/sudo-io/00/00/01/log Example session log info.

/var/log/sudo-io/00/00/01/stdin

Example session standard input log.

/var/log/sudo-io/00/00/01/stdout

Example session standard output log.

/var/log/sudo-io/00/00/01/stderr

Example session standard error log.

/var/log/sudo-io/00/00/01/ttyin

Example session tty input file.

/var/log/sudo-io/00/00/01/ttyout

Example session tty output file.

/var/log/sudo-io/00/00/01/timing

Example session timing file.

Note that the *stdin*, *stdout* and *stderr* files will be empty unless **sudo** was used as part of a pipeline for a particular command.

### **EXAMPLES**

List sessions run by user millert:

```
# sudoreplay -l user millert
```

List sessions run by user bob with a command containing the string vi:

```
# sudoreplay -l user bob command vi
```

List sessions run by user *jeff* that match a regular expression:

```
# sudoreplay -l user jeff command '/bin/[a-z]*sh'
```

List sessions run by jeff or bob on the console:

```
# sudoreplay -l ( user jeff or user bob ) tty console
```

#### SEE ALSO

```
script(1), sudo.conf(5), sudo(8)
```

### **AUTHORS**

Many people have worked on **sudo** over the years; this version consists of code written primarily by:

```
Todd C. Miller
```

See the CONTRIBUTORS file in the **sudo** distribution (https://www.sudo.ws/contributors.html) for an exhaustive list of people who have contributed to **sudo**.

# **BUGS**

If you feel you have found a bug in **sudoreplay**, please submit a bug report at https://bugzilla.sudo.ws/

### **SUPPORT**

Limited free support is available via the sudo-users mailing list, see https://www.sudo.ws/mailman/listinfo/sudo-users to subscribe or search the archives.

### **DISCLAIMER**

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