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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sg_timestamp.8' command

$ man sg_timestamp.8

SG_TIMESTAMP(8) SG3_UTILS SG_TIMESTAMP(8)

NAME

sg_timestamp - report or set timestamp on SCSI device

SYNOPSIS

sg_timestamp [--elapsed] [--help] [--hex] [--milliseconds=MS]

[--no-timestamp] [--origin] [--raw] [--readonly] [--seconds=SECS]

[--srep] [--verbose] [--version] DEVICE

DESCRIPTION

Sends a SCSI REPORT TIMESTAMP or SET TIMESTAMP command to the DEVICE.

These commands are found in the SPC-5 draft standard revision 7

(spc5r07.pdf).

If either the --milliseconds=MS or --seconds=SECS option is given (and

both can't be given) then the SET TIMESTAMP command is sent; otherwise

the REPORT TIMESTAMP command is sent.

The timestamp is sent and received from the DEVICE as the number of

milliseconds since the epoch of 1970-01-01 00:00:00 UTC and is held in

a 48 bit unsigned integer. That same epoch is used by Unix machines,

but they usually hold the number of seconds since that epoch. The Unix

date command and especially its "+%s" format is useful in converting to

and from timestamps and more humanly readable forms. See the EXAMPLES

section below.

OPTIONS

Arguments to long options are mandatory for short options as well.

-e, --elapsed

assume the timestamp in the REPORT TIMESTAMP is an elapsed time from an event such as a power cycle or hard reset and format the output as '<n> days hh:mm:ss.xxx' where hh is hours (00 to 23 inclusive); mm is minutes (00 to 59 inclusive); ss is seconds (00 to 59 inclusive) and xxx is milliseconds (000 to 999 inclu? sive). If the number of days is 0 then '0 days' is not output unless this option is given two or more times.

-h, --help

output the usage message then exit.

-H, --hex

output the response to REPORT TIMESTAMP in ASCII hexadecimal on stderr. The response is not decoded.

-m, --milliseconds=MS

where MS is the number of milliseconds since 1970-01-01 00:00:00 UTC to set in the DEVICE with the SCSI SET TIMESTAMP command.

-N, --no-timestamp

when REPORT TIMESTAMP is called this option suppress the output of the timestamp value (in either seconds or milliseconds). This may be useful in uncluttering the output when trying to decode the timestamp origin (see the --origin option).

-o, --origin

the REPORT TIMESTAMP returned parameter data contains a "time? stamp origin" field. When this option is given, that field is decoded and printed out before the timestamp value is output. The default action (i.e. when the option is not given) is not to print out this decoded field.

T10 defines this field as "the most recent event that initial? ized the returned device clock". The value 0 indicates a power up of hard reset initialized the clock; 2 indicates a SET TIME? STAMP initialized the clock while 3 indicates some other method initialized the clock.

When used once a descriptive string is output (in a line before

the timestamp value). When used twice the value of the TIMESTAMP ORIGIN field is output (in decimal, a value between 0 and 7 in? clusive). When used thrice a line of the form 'TIMESTAMP_ORI? GIN=<value>' is output.

-r, --raw

output the SCSI REPORT TIMESTAMP response (i.e. the data-out buffer) in binary (to stdout). Note that the --origin and --srep options are ignored when this option is given. Also all error and verbose messages are output to stderr.

-R, --readonly

open the DEVICE read-only. The default action is to open the DE? VICE read-write.

-s, --seconds=SECS

where SECS is the number of seconds since 1970-01-01 00:00:00 UTC to set in the DEVICE with the SCSI SET TIMESTAMP command. SECS is multiplied by 1000 before being used in the SET TIME? STAMP command.

-S, --srep

report the number of seconds since 1970-01-01 00:00:00 UTC. This is done by dividing by 1000 the value returned by the SCSI RE? PORT TIMESTAMP command.

-v, --verbose

increase the level of verbosity, (i.e. debug output).

-V, --version

print the version string and then exit.

EXIT STATUS

The exit status of sg_timestamp is 0 when it is successful. Otherwise see the sg3_utils(8) man page.

NOTES

The TCMOS and the SCSIP bits in the Control extension mode page (see sdparm) modify the actions of the timestamp held by a DEVICE. Currently only the "Utilization usage rate based on date and time" pa? rameters within the Utilization log page (sbc4r09.pdf) use timestamps.

See the sg_logs utility. Vendor specific commands and pages may also be using timestamps.

EXAMPLES

On Unix machines (e.g. Linux, FreeBSD and Solaris) the date command is useful when working with timestamps.

To fetch the timestamp from a DEVICE and display it in a humanly read? able form the following could be used:

```
  # sg_timestamp -S /dev/sdb
1448993950
  # date --date=@1448993950
Tue Dec  1 13:19:10 EST 2015
  # date -R --date="@1448993950"
Tue, 01 Dec 2015 13:19:10 -0500
```

The latter two date commands show different forms of the same date (i.e. 1448993950 seconds since 1970-01-01 00:00:00 UTC). The sg_time? stamp and date commands can be combined using backquotes:

```
  # date -R --date=@`sg_timestamp -S /dev/sdc`
Wed, 16 Dec 2015 20:12:59 -0500
```

To set the timestamp on the DEVICE to now (approximately) the following could be used:

```
  # date +%s
1448993955
  # sg_timestamp --seconds=1448993955 /dev/sdb
```

Those two command lines could be combined into one by using backquotes:

```
  # sg_timestamp --seconds=`date +%s` /dev/sdb
```

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REPORTING BUGS

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POSE.

SEE ALSO

sdparm(sdparm), sg_logs(sg3_utils)