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Rocky Enterprise Linux 9.2 Manual Pages on command 'sg_get_lba_status.8'

$ man sg_get_lba_status.8

SG_GET_LBA_STATUS(8)   SG3_UTILS   SG_GET_LBA_STATUS(8)

NAME

   sg_get_lba_status - send SCSI GET LBA STATUS(16 or 32) command

SYNOPSIS

   sg_get_lba_status [--16] [--32] [--brief] [--element-id=EI] [--help]

   [--hex] [--inhex=FN] [--lba=LBA] [--maxlen=LEN] [--raw] [--readonly]

   [--report-type=RT] [--scan-len=SL] [--verbose] [--version] DEVICE

DESCRIPTION

   Send the SCSI GET LBA STATUS(16) or GET LBA STATUS(32) command to the

   DEVICE and output the response. The 16 byte command variant was intro?

   duced in (draft) SBC-3 revision 20 and devices that support logical

   block provisioning should support this command. The GET LBA STATUS(32)

   command was added in (draft) SBC-4 revision 14.

   The default action is to decode the response into one LBA status de?

   scriptor per line then output a header and the status descriptors to

   stdout. The descriptor LBA is output in hex (prefixed by '0x') and the

   number of blocks is output in decimal followed by the provisioning sta?

   tus and additional status in decimal. The provisioning status can be in

the range 0 to 15 of which only 0 (mapped or unknown), 1 (unmapped), 2
(anchored), 3 (mapped) and 4 (unknown) are used currently. The amount
of output can be reduced by the --brief option.

Rather than send this SCSI command to DEVICE, if the --inhex=FN option
is given, then the contents of the file named FN are decoded as ASCII
hex and then processed if it was the response of this command.

OPTIONS

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

-S, --16

send SCSI GET LBA STATUS(16) command which is the 16 byte vari?
ant. In the absence of the --16 or the --32 options the SCSI GET
LBA STATUS(16) command is sent. If both --16 and the --32 op?
tions are given then the GET LBA STATUS(16) command is sent.

-T, --32

send SCSI GET LBA STATUS(32) command which is the 32 byte vari?
ant. When given together with the --16 option then this option
is ignored (so the GET LBA STATUS(16) command is sent).

-b, --brief

when use once then one LBA status descriptor per line is output
to stdout.   Each line has this format: "0x<descriptor_LBA>
0x<blocks> <provisioning_status> <additional_status>". So the
descriptor's starting LBA and number of blocks are output in hex
while the provisioning status and additional status are in deci?
mal. When used twice (e.g. '-bb' or '--brief --brief') then the
provisioning status of the given LBA (or LBA 0 if the --lba op?
tion is not given) is output to stdout. A check is made that the
given LBA lies in the range of the first returned LBA status de?
scriptor (as it should according to SBC-3 revision 20) and warn?
ings are sent to stderr if it doesn't.

-e, --element-id=EI

where EI is the element identifier of the physical element for
which the LBAs shall be reported based on the value in the re?
port type field (i.e. RT). This option is only active with the

SCSI GET LBA STATUS(32) command (i.e. it is ignored if the GET LBA STATUS(16) command is sent).

Valid element identifiers are non-zero. The default value of EI is 0 which means in the context that no element identifier is specified.

-h, --help

output the usage message then exit.

-H, --hex

output response to this command in ASCII hex.

-i, --inhex=FN

where FN is a filename whose contents are assumed to be ASCII hexadecimal bytes. See the "FORMAT OF FILES CONTAINING ASCII HEX" section in the sg3_utils manpage for more information. If DEVICE is also given then it is ignored. If the --raw option is also given then the contents of FN are treated as binary.

-l, --lba=LBA

where LBA is the starting Logical Block Address (LBA) to check the provisioning status for. Note that the DEVICE chooses how many following blocks that it will return provisioning status for.

-m, --maxlen=LEN

where LEN is the (maximum) response length in bytes. It is placed in the cdb's "allocation length" field. If not given then 24 is used. 24 is enough space for the response header and one LBA status descriptor. LEN should be 8 plus a multiple of 16 (e.g. 24, 40, and 56 are suitable).

-r, --raw

output response in binary (to stdout) unless the --inhex=FN op? tion is also given. In that case the input file name (FN) is de? coded as binary (and the output is _not_ in binary).

-R, --readonly

open the DEVICE read-only (e.g. in Unix with the O_RDONLY flag). The default is to open it read-write.

-t, --report-type=RT

 where RT is 0 for report all LBAs; 1 for report LBAs using

 non-zero provisioning status; 2 for report LBAs that are mapped;

 3 for report LBAs that are de-allocated; 4 for report LBAs that

 are anchored; 16 for report LBAs that may return an unrecovered

 error. The REPORT TYPE field was added to the GET LBA STATUS cdb

 in sbc4r12.

 Since the REPORT TYPE field is newer than the command, the re?

 sponse contains the RTP bit to indicate whether or not the DE?

 VICE acts on the REPORT TYE field (set when it does act on it,

 clear otherwise).

-s, --scan-len=SL

 where SL is the scan length which is the maximum number of con?

 tiguous logical blocks to be scanned for logical blocks that

 meet the given report type (i.e. RT). This option is only active

 with the SCSI GET LBA STATUS(32) command (i.e. it is ignored if

 the GET LBA STATUS(16) command is sent).

 The default value of SL is 0 which should be interpreted by the

 DEVICE as there is no limits to the number of LBAs that shall be

 scanned.

-v, --verbose

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

 output caused by this option is sent to stderr.

-V, --version

 print the version string and then exit.

NOTES

 In SBC-3 revision 25 the calculation associated with the Parameter Data

 Length field in the response was modified. Prior to that the byte off?

 set was 8 and in revision 25 it was changed to 4.

 For a discussion of logical block provisioning see section 4.7 of

 sbc4r14.pdf at https://www.t10.org (or the corresponding section of a

 later draft).

EXIT STATUS

The exit status of sg_get_lba_status is 0 when it is successful. Other‐

wise see the sg3_utils(8) man page.

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REPORTING BUGS

Report bugs to <dgilbert at interlog dot com>.

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SEE ALSO

sg_write_same(8), sg_unmap(8), sg3_utils(8)

sg3_utils-1.45   August 2019   SG_GET_LBA_STATUS(8)