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

$ man sg_get_config.8

SG_GET_CONFIG(8) SG3_UTILS SG_GET_CONFIG(8)

NAME

sg_get_config - send SCSI GET CONFIGURATION command (MMC-4 +)

SYNOPSIS

sg_get_config [--brief] [--current] [--help] [--hex] [--inner-hex]

[--list] [--raw] [--readonly] [--rt=RT] [--starting=FC] [--verbose]

[--version] DEVICE

DESCRIPTION

Sends a SCSI GET CONFIGURATION command to DEVICE and decodes the re?

sponse. The response includes the features and profiles of the device.

Typically these devices are CD, DVD, HD-DVD and BD players that may

(but not necessarily) have media in them. These devices may well be

connected via ATAPI, USB or IEEE 1394 transports. In such cases they

are "SCSI" devices only in the sense that they use the "Multi-Media

command" set (MMC). MMC is a specialized SCSI command set whose defi?

nition can be found at https://www.t10.org .

This utility is based on the MMC-4 and later draft standards. See sec?

tion 5 on "Features and Profile for Multi_Media devices" for more in?

formation on specific feature parameters and profiles. The manufac?

turer's product manual may also be useful.

Since modern DVD and BD writers support many features and profiles, the

decoded output from this utility can be large. There are various ways

to cut down the output. If the --brief option is used only the feature

names are shown and the feature parameters are not decoded. Alterna?
tively if only one feature is of interest then this combination of op?
tions is appropriate: "--rt=2 --starting=FC". Another possibility is to
show only the features that are relevant to the media in the drive
(i.e. "current") with the "--rt=1" option.

OPTIONS

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

-b, --brief

show the feature names but don't decode the parameters of those features. When used with --list outputs known feature names but not known profile names.

-c, --current

output features marked as current. This option is equivalent to '--rt=1'.

-h, --help

output the usage message then exit.

-H, --hex

output the response in hex (don't decode response).

-i, --inner-hex

decode to the feature name level then output each feature's data in hex.

-l, --list

list all known feature and profile names. Ignore the device name (if given). Simply lists the feature names and profiles (fol? lowed by their hex values) that this utility knows about. If --brief is also given then only feature names are listed.

-q, --readonly

opens the DEVICE read-only rather than read-write which is the default. The Linux sg driver needs read-write access for the SCSI GET CONFIGURATION command but other access methods may re? quire read-only access.

-r, --rt=RT

where RT is the field of that name in the GET CONFIGURATION cdb.

Allowable values are 0, 1, 2, or 3 . The command's action also depends on the value given to the --starting=FC option. The de? fault value is 0. When RT is 0 then all features, regardless of currency, are returned (whose feature code is greater than or equal to FC given to --starting=). When RT is 1 then all current features are returned (whose feature code is greater than or equal to FC). When RT is 2 then the feature whose feature code is equal to FC, if any, is returned. When RT is 3 the response is reserved (probably yields an "illegal field in cdb" error).

To simplify the meanings of the RT values are:

0 : all features, current on not

1 : only current features

2 : only feature whose code is FC

3 : reserved

-R, --raw

output response in binary (to stdout). Note that the short form is -R unlike most other utilities in this package that use -r for this action.

-s, --starting=FC

where FC is the feature code value. This option works closely with the --rt=RT option. The FC value is in the range 0 to 65535 (0xffff) inclusive. Its default value is 0. A value prefixed with "0x" (or a trailing 'h') is interpreted as hexadecimal.

-v, --verbose

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

-V, --version

print the version string and then exit.

NOTES

There are multiple versions of the MMC (draft) standards: MMC [1997], MMC-2 [2000], MMC-3 [2002], MMC-4 and MMC-5. The first three are now ANSI INCITS standards with the year they became standards shown in brackets. The draft immediately prior to standardization can be found at https://www.t10.org . In the initial MMC standard there was no GET

CONFIGURATION command and the relevant information was obtained from the "CD capabilities and mechanical status mode page" (mode page 0x2a). It was later renamed the "MM capabilities and mechanical status mode page" and has been made obsolete in MMC-4 and MMC-5. The GET CONFIGURA? TION command was introduced in MMC-2 and has become a replacement for that mode page. New features such as support for "BD" (blue ray) media type can only be found by using the GET CONFIGURATION command. Hence older CD players may not support the GET CONFIGURATION command in which case the "MM capabilities ..." mode page can be checked with sd? parm(8), sginfo(8) or sg_modes(8).

In the 2.4 series of Linux kernels the DEVICE must be a SCSI generic (sg) device. In the 2.6 series block devices can also be specified. For example "sg_get_config /dev/hdc" will work in the 2.6 series kernels as long as /dev/hdc is an ATAPI device. In the 2.6 series external DVD writers attached via USB could be queried with "sg_get_config /dev/scd1" for example.

EXIT STATUS

The exit status of sg_get_config is 0 when it is successful. Otherwise 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

sginfo(8), sg_modes(8), sg_inq(8), sg_prevent(8), sg_start(8) [all in sg3_utils], sdparm(8)