

**NAME**

`sg_stpg` – send SCSI SET TARGET PORT GROUPS command

**SYNOPSIS**

**sg\_stpg** [*--active*] [*--help*] [*--hex*] [*--offline*] [*--optimized*] [*--raw*] [*--standby*] [*--state=S,S...*]  
 [*--tp=P,P...*] [*--unavailable*] [*--verbose*] [*--version*] *DEVICE*

**DESCRIPTION**

Send a SCSI SET TARGET PORT GROUPS command to *DEVICE*. This utility has different modes depending on whether the *--tp=* option is given.

If *--tp=* is given then the SET TARGET PORT GROUPS command parameter block is built with a descriptor for each element in the list given to *--tp=*. The corresponding asymmetric access state value is either taken from the *--state=* list or, if that is not given, from one of the explicit state options (e.g. *--unavailable*), used repeatedly if required.

If *--tp=* is not given then a sequence of SCSI commands are sent to the *DEVICE* leading up to the SET TARGET PORT GROUPS command. First an INQUIRY is sent to fetch the device identification VPD page to find the (primary) target port group associated with *DEVICE*. Then a REPORT TARGET PORT GROUPS command is issued to find the current state and whether a transition to the requested state is supported. If so the SET TARGET PORT GROUPS command is sent.

Target port group access is described in SPC-4 found at [www.t10.org](http://www.t10.org) in sections 5.8 and 5.16 (in rev 36e dated 2012/8/24). The SET TARGET PORT GROUPS command is also described in section 6.45 of that document.

**OPTIONS**

Arguments to long options are mandatory for short options as well. The options are arranged in alphabetical order based on the long option name.

**-a, --active**

set active/non-optimized state.

**-h, --help**

output the usage message then exit.

**-H, --hex**

output response to the REPORT TARGET PORT GROUPS command in hex then exit.

**-O, -l, --offline**

set offline state. This is the appropriate state to set a target port to prior to removing the device. Note that a relative target port identifier should be given with this state (rather than a target port group identifier that all other states take).

**-o, --optimized**

set active/optimized state. If no other state options or *--tp=* option are given then active/optimized is the default state.

**-r, --raw**

output response to the REPORT TARGET PORT GROUPS command in binary to stdout then exit.

**-s, --standby**

set standby state. Port group shall accept those commands listed for "unavailable" state plus LOG SELECT/SENSE, MODE SELECT/SENSE, RECEIVE DIAGNOSTIC RESULTS, SEND DIAGNOSTIC, PERSISTENT RESERVE IN/OUT commands.

**-S, --state=S,S...**

specifies a comma separated list (one element or more) of states. Either a number or an abbreviation can be given. A number is assumed to be a decimal number unless it is prefixed by "0x" or has a trailing "h" in which case a hexadecimal value is assumed. Only the values 0, 1, 2, 3 or 14 are accepted. The accepted abbreviations are "an", "ao", "o", "s" or "u"; which represent active/non-optimized(1), active/optimized(0), offline(14), standby(2) or unavailable(3) respectively.

**-t, --tp=P,P..**

specifies a comma separated list (one element or more). Each element is either a target port group identifier (when the corresponding state is other than "offline") or a relative target port identifier (when the corresponding state is "offline"). Each element is assumed to be a decimal number unless it is prefixed by "0x" or has a trailing "h" in which case a hexadecimal value is assumed.

**-u, --unavailable**

set unavailable state. Port group shall only accept INQUIRY, REPORT LUNS, REPORT/SET TARGET PORT GROUPS, REQUEST SENSE and READ/WRITE BUFFER commands.

**-v, --verbose**

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

**-V, --version**

print the version string and then exit.

## NOTES

The SET TARGET PORT GROUPS command should be supported whenever the TPGS value in a standard INQUIRY response is 2 or 3. [View with `sg_inq` utility.]

Notice that the offline state is termed as a "secondary target port asymmetric access state" and takes a relative target port identifier (i.e. acts on a single target port). All the other states are termed as "primary target port asymmetric access states" and each takes a target port group identifier (i.e. acts on one or more target ports).

When `--tp=` is given then the same number of elements should be given to the `--state=` option. If more than one list element is given to `--tp=` and an equal number of elements is `_not_` given to the `--state=` option, then if only one state is specified then it is repeated.

## EXIT STATUS

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

## AUTHORS

Written by Douglas Gilbert.

## REPORTING BUGS

Report bugs to <dgilbert at interlog dot com>.

## COPYRIGHT

Copyright © 2007–2014 Hannes Reinecke, Christophe Varoqui and Douglas Gilbert

This software is distributed under a FreeBSD license. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

## SEE ALSO

`sg_inq`, `sg_rtpg` (`sg3_utils`)