NAME

geom - universal control utility for GEOM classes

SYNOPSIS

geom *class* **help**
geom *class* **list** [**-a**] [*name ...*]
geom *class* **status** [**-ags**] [*name ...*]
geom *class* **load** [**-v**]
geom *class* **unload** [**-v**]
geom -p *provider-name*
geom -t

DESCRIPTION

The **geom** utility is used to control various GEOM classes. A class has to be aware of **geom** communication methods, but there are also some standard commands which can be used for existing **geom** unaware classes. Here is the list of standard commands:

help   List all available commands for the given class.

list   Print detailed information (within the given class) about all geoms (if no additional arguments were specified) or the given geoms. This command is only available if the given class exists in the kernel. Additional options include:

    -a
      Print information for geoms without providers.

status Print general information (within the given class) about all geoms (if no additional arguments were specified) or the given geoms. This command is only available if the given class exists in the kernel.

    Additional options include:

    -a
      When used with -g, print status for geoms without providers.

    -g
      Report statuses for geoms instead of providers.

    -s
      Produce script-friendly output.

load   Load the kernel module that implements the given class. This command is only available if the
class does not yet exist in the kernel and the file *geom_<class>.ko* can be found in one of the
directories specified in *kern.module_path* sysctl.

unload

Unload the kernel module which implements the given class. This command is only available if
the given class is loaded as a kernel module.

Additional options include:

-p *provider-name*
Print detailed information about the geom which provides *provider-name*.

-t   Display geoms hierarchy as a tree.

Class-specific commands are implemented as shared libraries which are stored in */lib/geom/* directory
and are loaded via dlopen(3) function when the class name is known. When a class-specific shared
library exists, a direct utility should also be available under the name of **g***class*.

Currently, classes aware of **geom** are:

- CACHE
- CONCAT
- ELI
- JOURNAL
- LABEL
- MIRROR
- MOUNTVER
- MULTIPATH
- NOP
- PART
- RAID
- RAID3
- SCHED
- SHSEC
- STRIPE
- UNION
- VINUM (deprecated)
- VIRSTOR

ENVIRONMENT

The following environment variables affect the execution of **geom**:

GEOM_LIBRARY_PATH   Specifies the path where shared libraries are stored instead of *lib/geom/*.
Multiple paths can be specified with a colon-separated list of paths.

EXIT STATUS

Exit status is 0 on success, and 1 if the command fails.

EXAMPLES

The following example shows how to set up a stripe on three disks for automatic configuration:

    geom stripe label -v -s 65536 data /dev/da0 /dev/da1 /dev/da2

or:

    gstripe label -v -s 65536 data /dev/da0 /dev/da1 /dev/da2

Print the list of all providers from the DISK class:

    geom disk list

Unload a kernel module which implements the MD class:

    geom md unload

SEE ALSO

libgeom(3), geom(4), gcache(8), gconcat(8), geli(8), gjournal(8), glabel(8), gmirror(8), gmountver(8), gmultipath(8), gnop(8), gpart(8), graid3(8), gsched(8), gshsec(8), gstripe(8), gunion(8), gvinum(8), gvirstor(8)

HISTORY

The **geom** utility appeared in FreeBSD 5.3.

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