NAME

glabel - disk labelization control utility

SYNOPSIS

glabel create [**-v**] *name dev*
glabel destroy [**-fv**] *name ...*
glabel label [**-v**] *name dev*
glabel stop [**-fv**] *name ...*
glabel clear [**-v**] *dev ...*
glabel dump *dev ...*
glabel refresh *dev ...*
glabel list
glabel status
glabel load
glabel unload

DESCRIPTION

The **glabel** utility is used for GEOM provider labelization. A label can be set up on a GEOM provider in two ways: "manual" or "automatic". When using the "manual" method, no metadata are stored on the devices, so a label has to be configured by hand every time it is needed. The "automatic" method uses on-disk metadata to store the label and detect it automatically in the future.

This GEOM class also provides volume label detection for file systems. Those labels cannot be set with **glabel**, but must be set with the appropriate file system utility, e.g. for UFS the file system label is set with tunefs(8). Currently supported file systems are:

- UFS1 volume names (directory */dev/ufs/*).
- UFS2 volume names (directory */dev/ufs/*).
- UFS1 file system IDs (directory */dev/ufsid/*).
- UFS2 file system IDs (directory */dev/ufsid/*).
- MSDOSFS (FAT12, FAT16, FAT32) (directory */dev/msdosfs/*).
- CD ISO9660 (directory */dev/iso9660/*).
- EXT2FS (directory */dev/ext2fs/*).
- REISERFS (directory */dev/reiserfs/*).
- NTFS (directory */dev/ntfs/*).

Support for partition metadata is implemented for:

- GPT labels (directory */dev/gpt/*).
- GPT UUIDs (directory */dev/gptid/*).

Generic disk ID strings are exported as labels in the format */dev/diskid/GEOM_CLASS-ident* e.g. */dev/diskid/DISK-6QG3Z026*.

Generic labels created and managed solely by glabel(8) are created in the */dev/label/* directory.

Note that for all label types, nested GEOM classes will cause additional device nodes to be created, with context-specific data appended to their names. E.g. for every node like */dev/label/bigdisk* there will be additional entries for any partitions which the device contains, like */dev/label/bigdiskp1* and */dev/label/bigdiskp1a*.

The first argument to **glabel** indicates an action to be performed:

create Create temporary label *name* for the given provider. This is the "manual" method. The kernel module *geom_label.ko* will be loaded if it is not loaded already.

label Set up a label *name* for the given provider. This is the "automatic" method, where metadata is stored in a provider's last sector. The kernel module *geom_label.ko* will be loaded if it is not loaded already.

stop Turn off the given label by its *name*. This command does not touch on-disk metadata!

destroy Same as **stop**.

clear Clear metadata on the given devices.

dump Dump metadata stored on the given devices.

refresh Refresh / rediscover metadata from the given devices.

list See geom(8).

status See geom(8).

load See geom(8).

unload See geom(8).

Additional options:

-f Force the removal of the specified labels.

-v Be more verbose.

SYSCTL VARIABLES

The following sysctl(8) variables can be used to control the behavior of the **LABEL** GEOM class. The default value is shown next to each variable.

kern.geom.label.debug: 0

Debug level of the **LABEL** GEOM class. This can be set to a number between 0 and 2 inclusive. If set to 0 minimal debug information is printed, and if set to 2 the maximum amount of debug information is printed.

kern.geom.label..enable*: 1

Most **LABEL** providers implement a sysctl(8) flag and a tunable variable named in the above format. This flag controls if the label provider will be active, tasting devices and creating label nodes in the devfs(5) tree. It is sometimes desirable to disable certain label types if they conflict with other classes in complex GEOM topologies.

EXIT STATUS

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

EXAMPLES

The following example shows how to set up a label for disk "da2", create a file system on it, and mount it:

```
glabel label -v usr /dev/da2
newfs /dev/label/usr
mount /dev/label/usr /usr
[...]
umount /usr
glabel stop usr
glabel unload
```

The next example shows how to set up a label for a UFS file system:

```
tunefs -L data /dev/da4s1a
mount /dev/ufs/data /mnt/data
```

SEE ALSO

geom(4), loader.conf(5), geom(8), mount(8), newfs(8), sysctl(8), tunefs(8), umount(8)

HISTORY

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

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