NAME

gstripe - control utility for striped devices

SYNOPSIS

gstripe create [**-v**] [**-s** *stripesize*] *name prov prov ...*
gstripe destroy [**-fv**] *name ...*
gstripe label [**-hv**] [**-s** *stripesize*] *name prov prov ...*
gstripe stop [**-fv**] *name ...*
gstripe clear [**-v**] *prov ...*
gstripe dump *prov ...*
gstripe list
gstripe status
gstripe load
gstripe unload

DESCRIPTION

The **gstripe** utility is used for setting up a stripe on two or more disks. The striped device can be configured using two different methods: "manual" or "automatic". When using the "manual" method, no metadata are stored on the devices, so the striped device has to be configured by hand every time it is needed. The "automatic" method uses on-disk metadata to detect devices. Once devices are labeled, they will be automatically detected and configured.

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

create   Set up a striped device from the given devices with specified *name*. This is the "manual" method and the stripe will not exist after a reboot (see *DESCRIPTION* above). The kernel module *geom_stripe.ko* will be loaded if it is not loaded already.

label   Set up a striped device from the given devices with the specified *name*. This is the "automatic" method, where metadata are stored in every device's last sector. The kernel module *geom_stripe.ko* will be loaded if it is not loaded already.

stop   Turn off an existing striped device 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.

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 striped device.

-h   Hardcode providers' names in metadata.

-s *stripesize*   Specifies size of stripe block in bytes. The *stripesize* must be a multiple of the largest
                    sector size of all the providers.

-v   Be more verbose.

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

kern.geom.stripe.debug: 0
        Debug level of the **STRIPE** GEOM class. This can be set to a number between 0 and 3 inclusive.
        If set to 0 minimal debug information is printed, and if set to 3 the maximum amount of debug
        information is printed.

kern.geom.stripe.fast: 0
        If set to a non-zero value enable "fast mode" instead of the normal "economic mode". Compared
        to "economic mode", "fast mode" uses more memory, but it is much faster for smaller stripe
        sizes. If enough memory cannot be allocated, **STRIPE** will fall back to "economic mode".

kern.geom.stripe.maxmem: 13107200
        Maximum amount of memory that can be consumed by "fast mode" (in bytes). This sysctl(8)
        variable is read-only and can only be set as a tunable in loader.conf(5).

kern.geom.stripe.fast_failed
        A count of how many times "fast mode" has failed due to an insufficient amount of memory. If
        this value is large, you should consider increasing the *kern.geom.stripe.maxmem* value.

EXIT STATUS

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

EXAMPLES

The following example shows how to set up a striped device from four disks with a 128KB stripe size for automatic configuration, create a file system on it, and mount it:

    gstripe label -v -s 131072 data /dev/da0 /dev/da1 /dev/da2 /dev/da3
    newfs /dev/stripe/data
    mount /dev/stripe/data /mnt
    [...]
    umount /mnt
    gstripe stop data
    gstripe unload

COMPATIBILITY

The **gstripe** interleave is in number of bytes, unlike ccdconfig(8) which use the number of sectors. A ccdconfig(8) *ileave* of '128' is 64 KB (128 512B sectors). The same stripe interleave would be specified as '65536' for **gstripe**.

SEE ALSO

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

HISTORY

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

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