FreeBSD cheat sheet

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Working with disks and partitions

Command	Description
camcontrol devlist	Show list of attached storage devices
geom <disk/label/part/raid> list	Display detailed information for the given GEOM class `disk` - physical disk, `label` - device labels, `part` - partitions. Other classes are available, but not mentioned for irrelevance here.
mount	Show mounted in fact partitions and their properties (journaled or not, type).
glabel list	Show labels, same as `geom label list`.
gpart show	Show partitions, similar to `geom part list` minus labels information, so is shorter. Add `-r` to show GPT partition types, see for the complete list at https://en.wikipedia.org/wiki/GUID_Partition_Table .
gpart recover <device name>	Recover partition information, e.g. when increasing the size of already partitioned disk in Virtual Machine, the last sector holding the partition info is lost, so to put the needed info in the last sector of now increased disk: `gpart recover da0`.
swapoff <device name>	Turn off temporarily the swap file, e.g. to move its partition to the end of the increased virtual disk: `swapoff /dev/da0p3`
gpart delete -i <n> <device name>	Delete partition number `n` (as shown by `gpart show`) on the device `device name`. E.g. If the swap partition was number 3 on disk /dev/da0, to delete it: `gpart delete -i 3 /dev/da0`.
gpart create -s <partition scheme> <device name>	Set type of partition to be added on device `device name`. E.g. to set up device *da1* for GPT partitioning: `gpart create -s gpt da1`.
sysctl kern.geom.debugflags=16	Resizing a live partition may require turning off this protection.

Command	Description
gpart resize -i \<n\> [-s \<new size K/M/G\>] [-a \<alignment size\>] \<device name\>	Resize existing partition number `n` to `new size`, optionally setting alighnment, on device `device name`. If `-s` size is not given, use up all available *free* space. E.g. to increase the *2nd* partition on device *da0* to 47 Gigabyte with 4k alignment: `gpart resize -i 2 -s 47G -a 4k da0`.
growfs \<partition name\>	After resizing a partition, grow the existing file system on it to encompass the new free space. E.g.`growfs /dev/da0p2`.
gpart add -t \<partition type\> [-a \<alignment\>] [-l \<label name\>] \<dev name\>	Add a new partition to the disk `dev name`, setting its type and optionally alignment and label. E.g. to add *freebsd-ufs* type partition to disk *da1* aligned on 4k border setting the label to *data*: `gpart add -t freebsd-ufs -a 4k -l data da1`. After that, this partition will be available as */dev/gpt/data*
newfs [-U] [-j] \<partition name/label\>	Add filesystem to the named partition. Switches depend on the filesystem type, here `-U` is for **freebsd-ufs** with soft updates but without journaling, while `-j` adds journaling. E.g. to create UFS filesystem with soft updates but without the journaling on partition labeled */data* of type GPT: `newfs -U /dev/gpt/data`.