

1. #####	2
2. ##### #####	3
3. # ##### #####	4
4. # #####	7

5. #####	10
6. #####	13

1.

```
### ## ##### ##### ##### ##### ##### ## #####
##### #####, ##### ## ##### #####
##### ##### ## #####, # ##### ##
##### ## ##### #####, ##### # ##### ##
##### #####. # ## ##### #####
##### ##### ## #####, ## ##### # #####
##### ##### ##### ## ## ##. #####
## #####, ##### # #####
##### ##### ## #####
```

```
# ##### ## ##### ## #####
#####, ## #####
### ##### # #####
#####.
```

```
##### # ##### ## #####, #####
#####
##### (#####, ##### ## #####
##### #). # #####
#####, ## #####, #####
#####.
```

```
# #####:
```

- # ##### # ##### # ##### # ##### # #####;
- ##### ## ## ##### # geom_journal ##### (##### ## ##
#####);
- ##### ## # ## #####, ## /etc/
fstab ##### # #####;
- ##### ## # (####) #####;
- ##### ## # #####

```
# #####:
```

- # #####® ## # #####;
- # ##### # # #####.

#####

#####, ## ## #####
#####. #####
#####, ## ##### ##,
biztonsági mentést #####
#####. ##### ##### #####
#####, ##### ##
#####.

- # gjournal ##### /dev/ad0s1f.gjournal #####, ##### # /dev/ad0s1f ##### ## ##### ## # /dev/ad0s1g ##### # #####. ##### ## ## ##### #####.



```

# #####
#####, #####
##### (#####
#####, #####, #####
#####) #####
##### # #####
##### #, #
##### # #
#####: #
##### # #
##### #
#####. ##### 1 #
#####, ##### 3,3 #
#####. (#####: # # #
#####, # ##### 3,3####.)

```

3. # #####

```
# # #####  
##### ##  
# #####  
#####:  
/var #####, /usr #####  
#
```

4

```
#####  
#####
```

```
##### # #####. ##### # /usr ##### # #####, #####  
##### ##### ##### # #####.
```

```
# ##### # 80 ## #####. ## ##### # #####  
##### # #####
```

```
FreeBSD Disklabel Editor  
Disk: ad0 Partition name: ad0s1 Free: 0 blocks (0MB)  
  
Part Mount Size Newfs Part Mount Size Newfs  
----  
ad0s1a / 512MB UFS2 Y  
ad0s1b swap 478MB SWAP  
ad0s1d /var 1263MB UFS2+S Y  
ad0s1e /tmp 512MB UFS2+S Y  
ad0s1f /usr 79151MB UFS2+S Y  
  
The following commands are valid here (upper or lower case):  
C = Create D = Delete M = Mount pt.  
N = Newfs Opts Q = Finish S = Toggle SoftUpdates Z = Custom Newfs  
T = Toggle Newfs U = Undo A = Auto Defaults R = Delete+Merge  
  
Use F1 or ? to get more help, arrow keys to select.
```

```
##### # #####, #####  
##### # #####. ##### # /usr #####  
## # #
```

```
##### # # ##### # #####, ##### #  
##### # /usr #####. ##  
### 1 ##### (## # /usr #####) ### 2 ##### (##  
##### # /usr ## /var #####) #####. #  
## # /usr #####  
#####.
```



```
#####
```

```
##### # /var #####? #  
#####  
### #####. #####  
##### # /var #####, #####  
### ##### ##  
##### (##  
#####), #####  
#####.
```

#####

```
# ##### # /usr ## /var ##### # #####
#####.##### # ##### #
#####.
```

#####, ##### # #####

#####. # ##### # #####
#####, ##### # #####.
#####, ##, *egyáltalán nem is kell.* ##### #
#####.

#####, ## #

#####, ## # ##### # #####
#####. # ##### # ##### # ##### #
/etc/fstab ##### # # #####
#####.

#####. ##### # # # #####, #####
(1024M) ## # ##### # ##### #
(#####) #####. ##### # # ##### #
#####. # ##### # # ##### # /usr, ## # # # /
var #####. # ##### # ##### # #####:

```
FreeBSD Disklabel Editor

Disk: ad0      Partition name: ad0s1  Free: 0 blocks (0MB)

Part      Mount      Size Newfs  Part      Mount      Size Newfs
----      -
ad0s1a    /              512MB UFS2    Y
ad0s1b    swap          478MB SWAP
ad0s1d    /var          1263MB UFS2+S Y
ad0s1e    /tmp          512MB UFS2+S Y
ad0s1f    /usr          77103MB UFS2+S Y
ad0s1g    swap          1024MB SWAP
ad0s1h    swap          1024MB SWAP

The following commands are valid here (upper or lower case):
C = Create      D = Delete    M = Mount pt.
N = Newfs Opts  Q = Finish    S = Toggle SoftUpdates  Z = Custom Newfs
T = Toggle Newfs  U = Undo      A = Auto Defaults      R = Delete+Merge

Use F1 or ? to get more help, arrow keys to select.
```

#####, ##### # #####, ##### # #
#####, ## #

```
#####  
#####
```

```
#####. ##  
#####  
#####:
```

1. #####

#####	#####	#####
##0#1#	/###	##0#1#
##0#1#	/###	##0#1#

```
#####  
#####  
#####
```

3.2.

```
#  
#####  
#####  
fstab  
#####  
#####  
#####
```

```
#####
```

4.

4.1. # gjournal

```
#  
#####  
#####  
## root
```

```
# shutdown now
```

```
#####  
#####  
#####
```

```
# umount -/usr -/var
```

```
#####:
```

```
# gjournal load
```

```
#####  
#####
```

```
# gjournal #####
```

```
ad0s1f #####, ## ##### # ##### ## ad0s1g #####, ##### # /var
##### ## ad0s1d #####, ## ## ad0s1h #####. #####
##### # ##### #: 
```

```
# gjournal label ad0s1f ad0s1g
```

```
GEOM_JOURNAL: Journal 2948326772: ad0s1f contains data.
GEOM_JOURNAL: Journal 2948326772: ad0s1g contains journal.
```

```
# gjournal label ad0s1d ad0s1h
```

```
GEOM_JOURNAL: Journal 3193218002: ad0s1d contains data.
GEOM_JOURNAL: Journal 3193218002: ad0s1h contains journal.
```



```
#####
```

```
# gjournal #####, ## #####
##### ##. ##### -f
##### #: 
```

```
# gjournal label --f ad0s1d ad0s1h
```

```
##### #, ##### #
#####, ##### #: 
```

```
##### ##, ## ##### ## ad0s1d.journal ## ## ad0s1f.journal.
##### # /var ## /usr #####, #####
##### #. ##### #:
##### #: 
```

```
# tune2fs -J enable -n disable ad0s1d.journal
```

```
tune2fs: gjournal set
tune2fs: soft updates cleared
```

```
# tune2fs -J enable -n disable ad0s1f.journal
```

```
tune2fs: gjournal set
tune2fs: soft updates cleared
```

```
##### # # #
##### (### ## ## async #####): 
```

```
# mount -o async -/dev/ad0s1d.journal -/var
# mount -o async -/dev/ad0s1f.journal -/usr
```



```
#####  
#####
```

```
#####  
##### /etc/fstab #####, ## ## ##### ##### ## # /usr ## # /var  
#####:
```

/dev/ad0s1f.journal	~/usr	ufs	rw,async	2	2
/dev/ad0s1d.journal	~/var	ufs	rw,async	2	2



```
#####
```

```
#####  
#####  
#####  
#####
```

```
#####  
#####  
#####  
#####
```

```
geom_journal_load="YES"
```

```
#####  
## exit #####  
#####  
#####
```

```
ad0: 76293MB XEC XE800JD-00HBC0 08.02D08 at ata0-master SATA150  
GEOM_JOURNAL: Journal 2948326772: ad0s1g contains journal.  
GEOM_JOURNAL: Journal 3193218002: ad0s1h contains journal.  
GEOM_JOURNAL: Journal 3193218002: ad0s1d contains data.  
GEOM_JOURNAL: Journal ad0s1d clean.  
GEOM_JOURNAL: Journal 2948326772: ad0s1f contains data.  
GEOM_JOURNAL: Journal ad0s1f clean.
```

```
#####  
#####
```

```
GEOM_JOURNAL: Journal ad0s1d consistent.
```

```
#####  
#####
```

4.2.

```
#####  
#####  
#####  
#####
```

```
# #####  
#####  
###, ###  
### ## /dev/ad1s1d #####. # #####
```

gjournal label ad1s1d

```
# ##### 1 ## ###, ##### # -s #####  
#####. ## #####  
##### # K, M, ##### G #####,  
##### ##. ##### # gjournal ##  
#####  
##### 2 ## #####
```

gjournal label --s 2G ad1s1d

```
##### # -J #####  
#####
```

newfs -J -/dev/ad1s1d.journal

4.3.

```
##### # geom_journal #####,  
##### # #####  
##### (#####) #####  
#####, ## #####
```

```
options UFS_GJOURNAL # Megjegyzés: Ez része a GENERIC rendszermagnak  
options GEOM_JOURNAL # Ezt se felejtjük ki
```

```
# #####  
##  
## #####  
## #####, #####  
##### # /boot/loader.conf #####
```

5.

```
#####  
#####  
#: # #####. ##  
#####?  
#: # #####,  
# #####
```

```
#####  
#####
```

```
#####  
#####  
#####  
#####  
#####
```

```
#: #####  
#####
```

```
#: #####  
#####  
#####  
#####  
#####  
#####
```

```
# cat ~/boot/loader.conf
```

```
#####  
#####  
#####  
#####
```

```
# gjournal load
```

```
GEOM_JOURNAL: Journal 2948326772: ad0s1g contains journal.  
GEOM_JOURNAL: Journal 3193218002: ad0s1h contains journal.  
GEOM_JOURNAL: Journal 3193218002: ad0s1d contains data.  
GEOM_JOURNAL: Journal ad0s1d clean.  
GEOM_JOURNAL: Journal 2948326772: ad0s1f contains data.  
GEOM_JOURNAL: Journal ad0s1f clean.
```

```
# mount -a
```

```
# exit
```

```
(a rendszerindítás folytatódik)
```

```
#####  
#####  
#####  
#####  
#####
```

```
#: #####  
#####
```

```
#: #####  
#####  
#####  
#####
```

```
##### root #####
```

```

# #####
#####

# shutdown now

##### ## # #####:

# umount -usr -/var

##### ## ##### # #####:

# gjournal sync

##### ## # #####:

# gjournal stop ad0s1d.journal
# gjournal stop ad0s1f.journal

##### ## ## #####:

# gjournal clear ad0s1d
# gjournal clear ad0s1f
# gjournal clear ad0s1g
# gjournal clear ad0s1h

##### ## ## ##### ## ##### # #####
#####:

# tune2fs -J disable --n enable ad0s1d

tune2fs: gjournal cleared
tune2fs: soft updates set

# tune2fs -J disable --n enable ad0s1f

tune2fs: gjournal cleared
tune2fs: soft updates set

##### ## ## #:

# mount -o rw /dev/ad0s1d /var
# mount -o rw /dev/ad0s1f /usr

## /etc/fstab ##### #:

/dev/ad0s1f  /usr      ufs      rw      2      2
/dev/ad0s1d  /var      ufs      rw      2      2

##### # /boot/loader.conf ##### # geom_journal #####
#####:

```


#####

6.

#####, #####
#####. #####
#####:

- # #####.
- #####(8) # #####
#####.
- #####.
- #####(8) ## #####(8) #####.

