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## FreeBSD Move /usr or /var File System To Another Hard Disk

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My current /usr file system was full, so I ended up adding a new disk to my FreeBSD server. I've created a new partition at /dev/ad6s1 (size is 250G). How do I move my /usr file system over to my huge new disk at /dev/ad6s1?

First, you need to partition and label the new disk with either sysinstall, or fdisk and disklabel. The procedure to add a new hard disk under [FreeBSD is discussed here](#) <sup>[2]</sup>.

Once new disk added, create a temporary mount point to mount your /dev/ad6s1, enter:

```
# mkdir /newuser
```

Reboot and drop system to a single user mode to migrate to a new disk:

```
# reboot
```

At boot prompt type:

```
# boot -s
```

Mount all file systems:

```
# mount -a -t ufs
```

Mount new /newuser file system:

```
# mount /dev/ad6s1 /newuser
```

Copy old /usr to /newuser:

```
# cd /newuser
# dump 0af - /usr | restore rf -
```

Sample outputs:

```
#
#
# cd /usr0
# df -H
Filesystem      Size   Used  Avail Capacity  Mounted on
/dev/da0s1a     442M   265M   141M    65%      /
devfs           1.0k   1.0k    0B   100%    /dev
/dev/da0s1e     402M    27k   370M     0%    /tmp
/dev/da0s1f     6.4G   5.1G   752M    87%    /usr
/dev/da0s1d     761M   122M   570M    17%    /var
/tmp/VMwareDnD  402M    27k   370M     0% /var/run/vmblock
/dev/da1s1d      42G    4.1k   38G     0%    /usr0
# dump 0af - /usr ! restore -rf -
DUMP: WARNING: should use -L when dumping live read-write filesystems!
DUMP: Date of this level 0 dump: Sat Nov  7 22:22:40 2009
DUMP: Date of last level 0 dump: the epoch
DUMP: Dumping /dev/da0s1f (/usr) to standard output
DUMP: mapping (Pass I) [regular files]
DUMP: mapping (Pass II) [directories]
DUMP: estimated 5026890 tape blocks.
DUMP: dumping (Pass III) [directories]
DUMP: dumping (Pass IV) [regular files]
Warning: ./snap: File exists
DUMP: 27.08% done, finished in 0:13 at Sat Nov  7 22:41:15 2009
```

Fig.01: FreeBSD Copy /usr To New Disk Using dump Command

Open /etc/fstab, enter:

```
# vi /etc/fstab
```

Modify /usr entry to point to a new location:

```
/dev/ad6s1    /usr    ufs    rw    2    2
```

Save and close the file. Reboot the server:

```
# reboot
```

Make sure everything is working fine after reboot:

```
# df -H
# tail -f /var/log/messages
```

### Recommend readings:

- man pages dump, fstab, mount, restore

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URLs in this post:

[1] Image: <http://www.cyberciti.biz/faq/category/freebsd/>

[2] FreeBSD is discussed here: <http://www.cyberciti.biz/faq/freebsd-adding-second-hard-disk-howto/>

[3] Image: [http://www.cyberciti.biz/faq/freebsd-move-usr-filesystem-to-new-disk/freebsd\\_format-hard-disk/](http://www.cyberciti.biz/faq/freebsd-move-usr-filesystem-to-new-disk/freebsd_format-hard-disk/)