Tech Info Library

A/UX: Copy File System From One Partition to Another (9/94)

```
Revised:        9/14/94
Security:       Everyone
```

A/UX: Copy File System From One Partition to Another (9/94)

===

Article Created: 14 September 1994

TOPIC ---

How can I copy a complete file system from one disk partition to another?

DISCUSSION --

You have three options: dd, dump.bsd and cpio (pax MAY work but tar won't since
it won't handle special-type files). If the two partitions are the same size,
you can use 'dd' (to copy c0d0s0 to c5d0s3, e.g.):

```
$ dd < /dev/rdsk/c0d0s0 > /dev/rdsk/c5d0s3
```

To use dump.bsd, you can use the following command (this assumes that the
destination disk in mounted on /mnt and you want to copy the root file system
which is on SCSI 0... of course, you must be root and it would be MUCH better to
do this in single-user mode):

```
$ dump.bsd 0f - /dev/rdsk/c0d0s0 | (cd /mnt; restore xf -)
```

To use cpio, you must use it in a pipe with find. For example, to copy /usr
(let's assume it's on it's own file system) to another disk|partition (assume
it's mounted on /mnt) then you can use (you can add the "-depth" flag to 'find'
if you want):

```
$ cd /usr
$ find . -print | cpio -pdmuva /mnt
```

The problem with this is that if the mount point of the destination disk falls
under the file system's directory you're trying to copy, you'll load up your
destination disk. For example, the following would NOT work:

```
$ cd /
$ find . -print | cpio -pdmuva /mnt
```

because 'find' would see the stuff in /mnt (which you just put in there) and try
to copy in back to /mnt! To way to avoid this is by adding a little filter:

```
$ cd /
$ find . -print | grep -v '^./mnt*' | cpio -pdmuva /mnt
```

If you have GNU find, then you can use it with it's '-xdev' option, which
prevents find from walking through other file systems:

```
$ cd /
$ find . -xdev -print | cpio -pdmuva /mnt
```

dump.bsd creates a "truer" copy of your file system (the access and modification
dates aren't mucked with... with the find/cpio pipe, at the least the directory
dates are touched) but pre-3.1 versions of restore couldn't restore named pipes.
These are easy to creat though using 'mknod'. The only named pipes included in
the default A/UX distribution are:

```
/usr/lib/cron/FIFO
    prw-------   1 root      sys             0 Oct 18 16:08

/usr/spool/lpd/AppleTalk/pipe
    prw-rw----   1 daemon    daemon          0 Oct 19 06:11
```

Support Information Services

Copyright 1994, Apple Computer, Inc

Tech Info Library Article Number:16276