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A/UX: Missing /dev/cXd0s3 File (9/94)

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TOPIC -----

After loading A/UX, I needed to mount the slice 3 partition onto "/users." For some reason, when A/UX loaded, the /dev/dsk/cXd0s3 and /dev/rdisk/cXd0s3 drivers did not load (where "X" is the SCSI ID of the disk being loaded). I had to shutdown and change the SCSI ID before creating and mounting a file system on slice 3 for "/users." Why is this?

This leads to another problem: when installing, the Installer automatically modifies "/etc/fstab" to include an entry for "/usr" on slice 2 of the drive. Since I had to change the SCSI ID of the drive, the fstab entry was now incorrect. When I started up the system after changing the SCSI address, I got the message, "The file system on /dev/dsk/cXd0s2 is damaged. Do I want to repair?" When you say yes, it says it can't make the repairs, since of course it can't find the SCSI ID in "/etc/fstab". I went into "/etc/fstab" and changed the entry to match the new drive ID, which of course solved the problem.

Why doesn't the installer automatically create a "fs" on slice 3 and permanently mount it? Why weren't the "/dev/dsk/cXd0s3" and "/dev/rdisk/cXd0s3" files loaded?

DISCUSSION -----

Did you follow a nonstandard or standard procedure when installing A/UX? For instance, if you follow a nonstandard procedure and create a separate "Usr" partition, the slice 2 is automatically assigned to that partition. From the error message above, it seems that the "Usr" on slice 2 was created by the installation process, but we're not positive what originally partitioned.

An output of "dp /dev/rdisk/cXd0s31" would help identify what partitions have been partitioned and what associated slices have been assigned.

In general, if a particular device driver entry was missing from the /dev/[r]disk directory, you don't have to shutdown the system and change the SCSI ID. The entry is easily re-created by either entering the "mknod" or "pname" command. For example,

```
mknod /dev/dsk/c6d0s3 b 24 3
chmod 600 /dev/dsk/c6d0s3
```

```
chown bin /dev/dsk/c6d0s3
chgrp bin /dev/dsk/c6d0s3
```

Note that 24 is the major device number and 3 is the minor device number for /dev/dsk/c6d0s3. b is indicated as a block device type.

```
pname -c6 -s3 "/users"
```

The /dev/[r]dsk/c6d0s3 files will be automatically created in the /dev/[r]dsk directory. Note that "/users" is the partition name in dpme (disk partition map entries). Use "dp /dev/rds/c6d0s31" to see its exact spelling.

When using HD Setup for A/UX, the predefined A/UX partitioning schemes include three partition assignments. The partition named "A/UX Root" is assigned with slice 0, partition named "Swap" is assigned with slice 1 and a 4 MB Macintosh partition is defined. Remaining space is used for free UNIX slice 3. If the "custom" button is selected, other partitions and associated slice numbers can also be selected. For example, A/UX Usr partition will have slice 2, Free UNIX partition will have slice 3 through 6, and so on.

The reason that the installation process doesn't make a file system and permanently mount on these partitions is because the pre-assigned partition/slice may not be big enough to make a real file system (either SVFS or UFS).

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