



# Tech Info Library

## A/UX: Drive Corrupted when Copying Disk (8/94)

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TOPIC -----

I just copied an external HD80 SC (SCSI ID=2) loaded with A/UX onto an internal HD80 SC on a Macintosh IIX with the following command:

```
dd if=/dev/rdisk/c2d0s31 of=/dev/rdisk/c0d0s31 bs=24576
```

After approximately 15 minutes, the prompt returned with a message giving the number of blocks transferred. When I tried to restart the machine, I found the internal drive is corrupted. All I get on startup is the disk with the flashing question mark.

I tried to clear the internal drive with both HD Setup and Disk First Aid, and none worked. The returned messages are "Unable to read the required table from the selected", or "Fail to read the table".

If I start up the machine using the external A/UX drive, I'm able to mount the internal A/UX partition (SCSI-0) using the following command:

```
mount -v /dev/dsk/c0s0s31 /tmp
```

Can you help me fix the corrupted table on my internal A/UX drive?

DISCUSSION -----

To ensure disk integrity when copying from one disk to another, we suggest the following:

- 1) Do a "fsck" on the source disk to make sure the original disk file system is good.
- 2) Use bs= multiple of k (1024 bytes) or b (512 bytes block) rather than the number of bytes on the "dd" command. The bs=24576 is actually bs=24k or bs=48b, which is fine because it is a multiple of 512 bytes.

Are you sure you gave this number? If the number is not a multiple of 512, it could create a corrupted A/UX disk, because the A/UX file system requires a 512-byte block or 1024-byte boundary.

- 3) Do a "fsck" on the newly-created disk to ensure that the target disk file

system is good.

We don't think that there is a way you can correct the corrupted file system, if the created or "dd" file system's block size was not a multiple of 512 bytes.

It is not clear how the error messages "Unable to read the required table from the selected" or "Fail to read the table" was generated. Which step of HD Setup ("Initialization", "Update", or "Partition") encountered these messages?

It is unusual to mount the entire disk /dev/dsk/cXd0s31 on a directory. If you do a "mount -v /dev/dsk/c0d0s31 /tmp", you will get the error message:

```
mount: /dev/dsk/c0d0s31 on /tmp: Invalid file system
```

Just a reminder, by default:

```
/dev/[r]dsk/cXd0s0  is for Root&Usr file system
/dev/[r]dsk/cXd0s1  is for Swap file system
/dev/[r]dsk/cXd0s2  is for Usr file system
/dev/[r]dsk/cXd0s31 is for entire disk
```

We don't mount Swap file system and entire disk.

Can you see the internal disk partition map using "dp" under A/UX?

Last, we suggest that you use HD Setup to "Initialize" the internal hard disk, and follow the above suggestions to clone the disk.

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