



How Do I Debug a Tape Drive Read/Write Problem?

Question:

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Answer:

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The UNIX system contains special files in order to help control the hardware devices attached to the system. For the HP3070, the tape drive should be connected to the file /dev/update.src. This file is known as a "character special" file, and has some special characteristics. Occasionally this file is overwritten or removed, and the tape drive is no longer accessible. You could have problems with this file, or you may have hardware problems that aren't obvious.

Checking your hardware

The tape drive on a 3070 system should typically be set to address 3. However, in some cases, there may be a reason that your tape drive is not set to address 3 on your SCSI bus, or you may have some other hardware problem. In order to find where your tape drive is set, log in as "root", and type:

```
/etc/ioscan
```

at the UNIX prompt. You should get output similar to the following:

H/W Path	Description	Status
1.0.0	graphics	ok(0x785)
2.0.1	scsi	ok(0x7082)
2.0.1.3.0	tape_drive	ok(0x1800202)
2.0.1.6.	disk	ok(0x202)
2.0.2	lan	ok(0x708a)
2.0.4	serial	ok(0x708c)
2.0.6	parallel	ok(0x7074)
2.0.8	audio	ok(0x707b)
2.0.11	ps2	ok(0x7084)
2.0.12	ps2	ok(0x7084)
6.0.2	lan	ok(0x708a)
6.0.4	serial	ok(0x708c)

2.0.1 indicates the SCSI bus. The first number following the address of the SCSI bus indicates the SCSI address of a particular device. In the example shown above, the tape drive is at address 3 (standard for a 3070 system), and the disk drive is at address 6 (typical for most root drives). If no tape drive address


```
0x201 3 0 6
^   ^ ^ ^
|   | | |
|   | | 6 - no rewind, 7 rewind (we want no rewind) |   | |
|   | can't set: leave alone
|   |
|   scsi logical address - see below. standard for 700 series scsi busses.
```

Set the third digit from the right to match your SCSI address shown in your `/etc/ioscan` output. Therefore, you should use a `mknod` command that looks like this:

```
/etc/mknod /dev/update.src c 121 0x201n06
```

Replacing the "n" with the scsi bus address from your `/etc/ioscan` output.