

Making a System Disk to Disk Image Copy on an Alpha

Following is a short summary of the steps needed to save the contents of your existing system disk to a spare hard drive. In this example, the spare hard drive is at SCSI Address 1 (DKA100), and the existing system disk is strapped as DKA0. Our example system also has a CD-ROM at DKA400 (another common address would be DQB0). *See the section entitled Disk Addressing for more information.*

1.1 Disk Addressing

Somewhere on any SCSI disk, there is a bank of three (3) address jumpers labelled **E2**, **E1**, and **E0**. On a wide SCSI disk, there will be four (4) jumpers marked **E3**, **E2**, **E1**, and **E0**. These jumpers constitute a binary address. If no jumpers are strapped, the address is **0**; if only **E0** is strapped, the address is **1**; if **E2** and **E0** are strapped, the address is **5**, etc. An AlphaStation designates a SCSI disk as device **DKxn[nn]**, where **x** is the SCSI bus (usually **A** or **B**), **n** is the address strapped into the disk, and **[nn]** is a logical unit number. For our purposes, a SCSI disk strapped **0** is **DKA0**, a SCSI disk strapped **1** is **DKA100**, a SCSI disk strapped **2** is **DKA200**, etc.

1.2 Copying Disk to Disk

1. Log in as SYSTEM, get a DECterm and do the commands:

```
TOOLS
STOP_MISER
SHUTDOWN
```

Press the RETURN button ten times. When the computer presents the console prompt (>>>), turn the computer off.

2. Disconnect all Ethernet and serial cables from the computer, to prevent trouble when you boot your new disk for testing purposes later.
3. Open the system unit and add the replacement disk (DKA100) onto a spare SCSI connector and power connector. Place the disk on a pad of paper or something to prevent the disk from contacting a metallic surface.

4. Power on the system unit and go to the console (>>>) prompt. If the system does not stop at the prompt (it automatically boots), be sure to press CONTROL-C immediately after the self-test completes and before the bootstrap message appears. If you do not do this in time, press the halt button on the front of the unit while the system is booting, and it will return to the console prompt.
5. Once at the >>> prompt, type SHOW DEVICE. You should see all SCSI devices that are attached to the SCSI bus. The new disk is DKA100. The old disk will be DKA0.

6. Boot from the CD-ROM:

```
>>>boot dka400
```

7. The system will boot up (it will take several minutes), and you will be presented with a menu of options involved with installing VMS. Take the option to **Run DCL Commands and Procedures** (usually Option #7). After a few more seconds, you will get the prompt: \$\$\$

8. Type

```
SHOW DEVICE D
```

to ensure the system sees both drives.

9. Initialize the replacement drive with the command:

```
INIT DKA100: AXPVMSYS
```

10. Mount the replacement drive with the command

```
MOUNT /FOREIGN DKA100:
```

11. Now, do an image backup. Issue the command

```
BACKUP /IMAGE DKA300: DKA100:
```

12. When you get the \$\$\$ prompt back, shut the system down with the command:

```
LOGOUT
```

13. When you get the >>> prompt back, enter:

```
boot dka100
```

...and the system should boot from the spare disk.

14. Shut the computer down as in Step 1. The backup is now complete.