A P P E N D I X **D**

Using the Download Utilities

This appendix describes how you use the download_flash and network_download utilities to update the firmware on the SBus adapter. You must run one of these utilities on every workstation that has a SBus adapter.

SunOS Download Utilities

You must be logged in as root to use the download utilities. Use the following command to copy the utilities from the floppy disk to the workstation's hard disk:

```
cd /opt/SBUSfddi
tar -xvf /dev/diskette
```

The format of the **download_flash** command is:

```
download_flash [-f fddinum] filename
```

where:
fddinum is the FDDI interface number. The default is 0. Interface 0 is the first SBus adapter in the machine. Interface 1 is the second adapter, and so on. You only need to use the -f option if you want to download firmware to any adapter other than interface 0.

filename is the name of the file (in S-record format) containing the SBus firmware. A typical filename is sbus44.rom. This parameter is always required. The number indicates the revision level of the Flash software.

The following example downloads firmware in the sbus44.rom file to FDDI interface 0:

```
download_flash sbus44.rom
```

The following example downloads firmware in the sbus44.rom file to FDDI interface 1:

```
download_flash -f 1 sbus44.rom
```

Network Downloading

Normally, download_flash is used to download firmware to an SBus adapter in a local system. However, you can use the network_download script to download firmware to an SBus adapter on a remote system. This script copies the download_flash utility and firmware file to the remote system, and then remotely starts the download_flash utility.

The format of the **network_download** command is:

```
network_download sbus44.rom remote_machine_name
```

You can pass download_flash parameters with the network_download script. The following example downloads firmware from the sbus44.rom file to the FDDI adapter interface 1 in the remote machine simon:

```
network_download sbus44.rom simon
```