# Installing Sun Fire™ 880 FC-AL Backplane Firmware

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# Installing Sun Fire 880 FC-AL Backplane Firmware

A backup image of the Sun Fire™ 880 FC-AL backplane firmware is provided on the Computer Systems Supplement CD for your specific Solaris™ release. In the unlikely event that the firmware on a Sun Fire 880 FC-AL backplane becomes corrupted, you can use the backup image to flash update the backplane with its original firmware. The flash update procedure is performed with the Solaris `luxadm` utility and is described below.

Before you can flash update the backplane, the firmware image must be copied from the Supplement CD to the Sun Fire 880 system disk. If you use Solaris Web Start to install the Supplement CD software, the Sun Fire 880 FC-AL Backplane Firmware is not included in the default installation. To install the backup firmware on the system disk, choose the Custom Install option and select the Sun Fire 880 FC-AL Backplane Firmware. For more information, see "Installing Supplement CD Software" in the *Solaris on Sun Hardware Platform Guide*.

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**Note –** The latest version of the backplane firmware is always available on the SunSolve Online℠ web site at `sunsolve.sun.com`. Whenever possible, you should download and install the firmware from the SunSolve site instead of the Supplement CD. The firmware on the Supplement CD is provided for emergency situations only, when it is not possible to access the SunSolve site. Depending on the specific Solaris release, the Supplement CD firmware may be older than the firmware available from SunSolve. To install the firmware from the SunSolve web site, see the instructions in the README file provided with the firmware image.

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Whether installed from the Supplement CD or downloaded from the SunSolve web site, the firmware image is installed in the following default location on the Sun Fire 880 system disk:

```
/usr/platform/SUNW,Sun-Fire-880/lib/images/int_fcbpl_fw
```

Once the image is installed in this location, perform the flash update procedure as follows.

1. **As superuser, type the following command to bring the system to single-user mode:**

```
# init -s
```

2. **Type the following `luxadm` subcommand to begin the flash update process:**

```
# luxadm download -f firmware_path  enclosure_name
```

Where:

- *firmware_path* is the location of the firmware image on the system disk—in this case, `/usr/platform/SUNW,Sun-Fire-880/lib/images/int_fcbpl_fw`.
- *enclosure_name* is the enclosure name assigned to the Sun Fire 880 internal storage array—by default, `FCloop`. If you need to verify the enclosure name first, use the `luxadm probe` subcommand.

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**Note –** For more information about the `luxadm` utility, see *Platform Notes: Using luxadm Software*, part of the Solaris on Sun Hardware AnswerBook2 set on the Supplement CD.

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3. **When the superuser prompt reappears, wait at least 15 more minutes before continuing with this procedure.**

This minimum wait time is required for the flash update process to propagate the firmware code to all SSC100 processors in the system. Do not attempt any other operations during this time.

4. **After the required waiting period, reboot the system to single-user mode. Type the following:**

```
# reboot -- -s
```

5. **To verify that the flash update process has successfully completed, type the following `luxadm` subcommand:**

```
# luxadm display enclosure_name
```

Where *enclosure_name* is the enclosure name assigned to the Sun Fire 880 internal storage array.

The command output shows the status of each SSC100 in the system. The following is an excerpt of sample output for a dual-backplane system.

```
SSC100's - 0=Base Bkpln, 1=Base LoopB, 2=Exp Bkpln, 3=Exp LoopB
    SSC100 #0:    O.K.(9222/ 120A)
    SSC100 #1:    O.K.(9222/ 120A)
    SSC100 #2:    O.K.(9222/ 120A)
    SSC100 #3:    O.K.(9222/ 120A)
```

Verify that each SSC100 displays an "O.K." status and that each displays the same firmware version in parentheses. If so, the flash update process has successfully completed. Otherwise, wait another two minutes or so and repeat this step.

6. **Once the flash update process is complete, restore the system to multiuser mode using the `init` command.**

For example, type:

```
# init 2
```

The system can now resume normal operation.