Appendix B

Upgrading Flash Firmware Programming Utility

Since the RAID subsystem controller features flash firmware, it is not necessary to change the hardware flash chip in order to upgrade the RAID firmware. The user can simply re-program the old firmware through the RS-232 port. New releases of the firmware are available in the form of a DOS file at OEM's FTP. The file available at the FTP site is usually a self-extracting file that contains the following:

XXXXVVV.BIN Firmware Binary (where "XXXX" refers to the model name and "VVV" refers to the firmware version)

README.TXT It contains the history information of the firmware change. Read this file first before upgrading the firmware.
These files must be extracted from the compressed file and copied to one directory in drive A or C.

Establishing the Connection for the RS-232

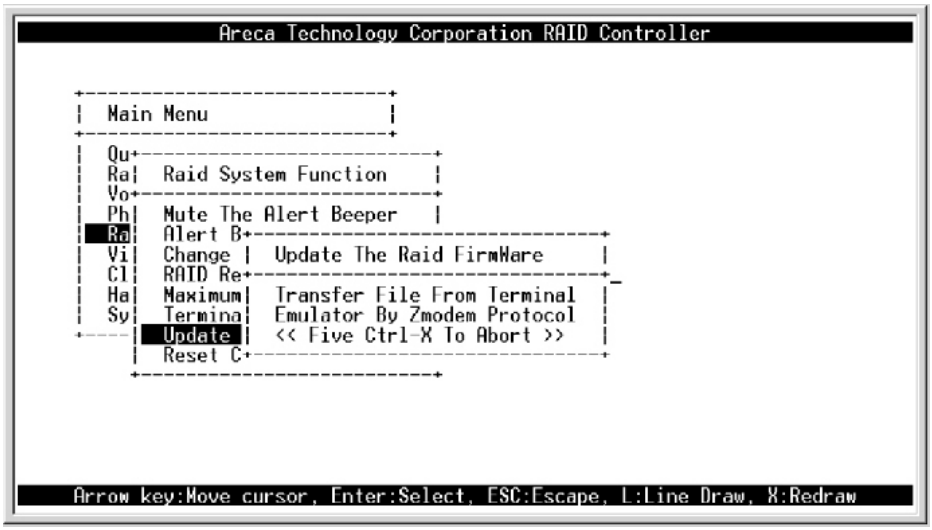
The firmware can be downloaded to the RAID subsystem controller by using an ANSI/VT-100 compatible terminal emulation program or HTTP web browser management. You must complete the appropriate installation procedure before proceeding with this firmware upgrade. Please refer to chapter 4.3, "VT100 terminal (Using the controller's serial port)" for details on establishing the connection. Whichever terminal emulation program is used must support the ZMODEM file transfer protocol. Configuration of the internal RAID subsystem web browser-based RAID management is an HTTP based application, which utilizes the browser installed on your operating system. Web browser-based RAID management can be used to update the firmware. You must complete the appropriate installation procedure before proceeding with this firmware upgrade. Please refer to chapter 6.1, "Web browser-based RAID management via HTTP Proxy (Using the controller's serial port)" for details on establishing the connection.

Note: CD-ROM bootable VT-100 utility cannot support the update firmware function.

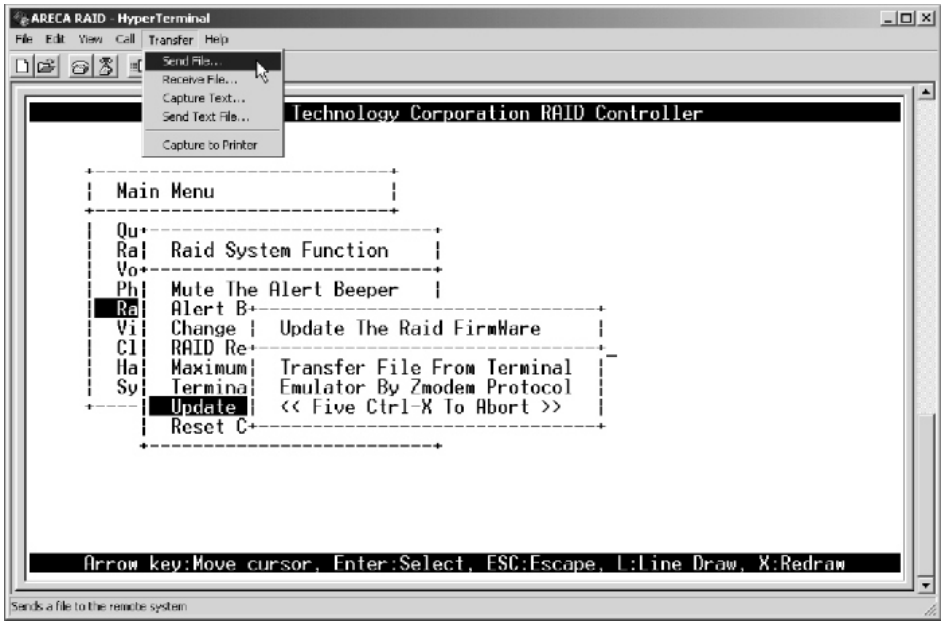
Upgrading Firmware Through ANSI/VT-100 Terminal Emulation

Get the new version firmware for your RAID subsystem controller. For Example, download the bin file from your OEM's web site onto the c:

1. From the Main Menu, scroll down to "Raid System Function"
2. Choose the "Update Firmware", The Update The Raid Firmware dialog box appears.

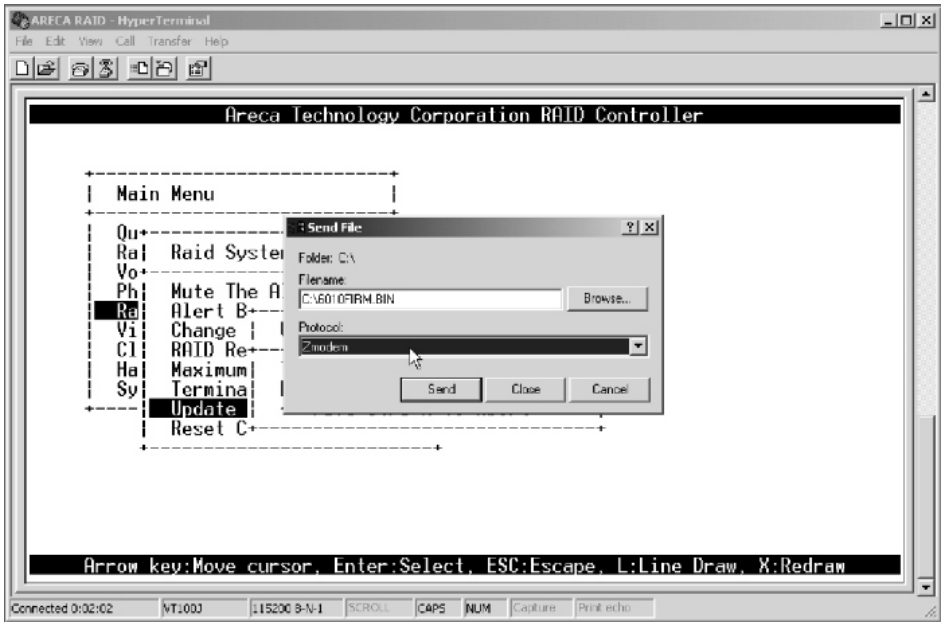


3. Go to the tool bar and select Transfer. Open Send File.

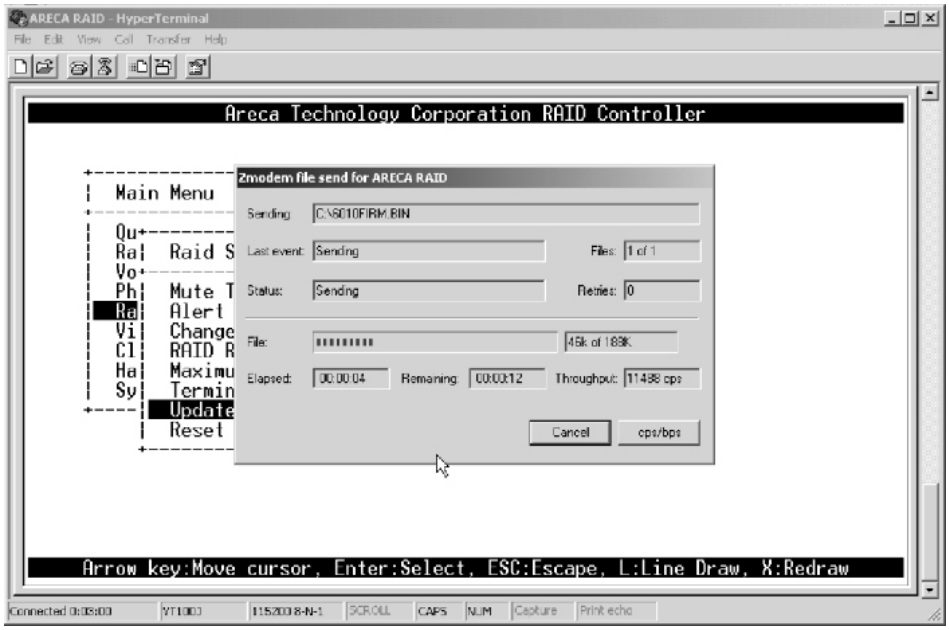


4. Select "ZMODEM modem" under Protocol. ZMODEM as the file transfer protocol of your terminal emulation software.

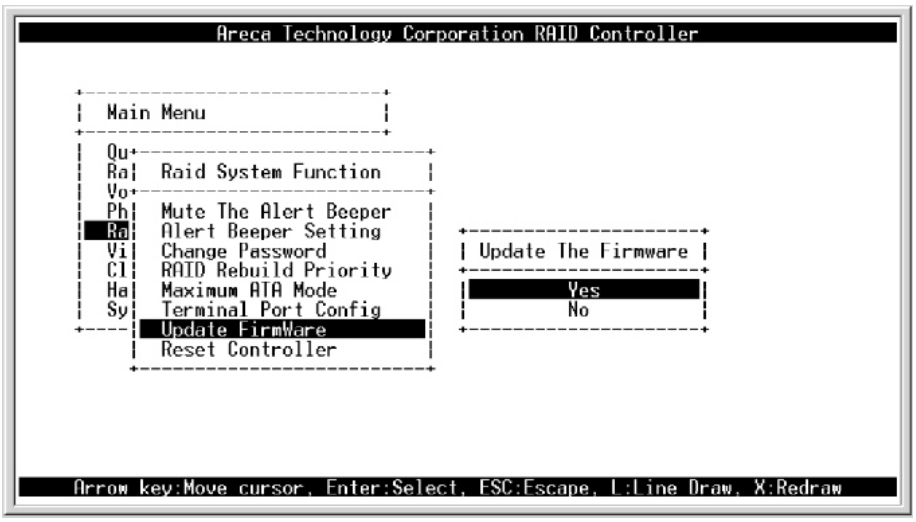
5. Click Browse. Look in the location where the Firmware upgrade software is located. Select the File name and click open.



6. Click Send. Send the Firmware Binary to the controller



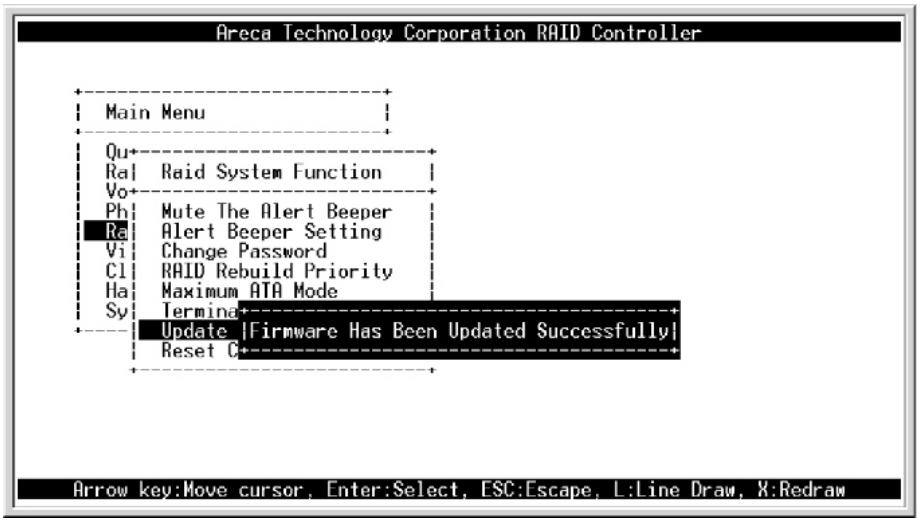
7. When the Firmware completes downloading, the confirmation screen appears. Press **Yes** to start program the flash ROM.



8. When the Flash programming starts, a bar indicator will show "Start Updating Firmware. Please Wait:".

9. The Firmware upgrade will take approximately thirty seconds to complete.

10. After the Firmware upgrade is complete, a bar indicator will show "Firmware Has Been Updated Successfully".



NOTE: The user has to reconfigure all of the settings after the firmware upgrade is complete, because all of the settings will default to the original default values.

Upgrading Firmware Through HTTP Proxy Web Browser Management

Get the new version firmware for your RAID subsystem controller. For Example, download the bin file from your OEM's web site onto the c:

1. To upgrade the RAID subsystem firmware, move the mouse cursor to **Upgrade Firmware** link. The **Upgrade The Raid System Firmware** screen appears.

2. Click Browse. Look in the location where the Firmware upgrade software is located. Select the File name and click open.