Intel® RAID Controller SRCU31 Installation

What you will need:

- SCSI hard disk drives
- Intel® RAID Controller SRCU31
- SDRAM DIMM memory
- Intel® Server Board with a PCI compatible slot
- Intel RAID Controller SRCU31 Software CD
- A blank formatted diskette
- Operating System (Windows† 2000 or Red Hat† Linux† 7.1) Installation Media

It is recommended that tested SDRAM DIMM memory is used. A list is available at: *http:support.intel.com/motherboards/#server_raid/*

This guide contains step-by-step instructions for installing Microsoft† Windows† 2000 or Red Hat† Linux† 7.1 on a single RAID volume using available disks. If you plan to use a different operating system, need a more advanced RAID configuration, or need safety and regulation information, you should refer to the User's Manual. This manual and other supporting documents (including a list of supported server boards and memory) are located on the web at http://support.intel.com/support/motherboards/server. You can also find the User's Manual on the CD that accompanied the Intel RAID Controller.

Step 1
Make an OS Installation Diskette

1. Boot from the Intel RAID Controller SRCU31 Software CD.
2. Select "Create Diskettes."
3. Create an operating system installation diskette.

Step 2
Install the SDRAM

2. Insert the DIMM into the DIMM connector. Make sure the DIMM clips snap to the close position. (Supported DIMMs are 64 MB to 128 MB ECC PCI33 unbuffered SDRAM memory).

Step 3
Install the Intel RAID Controller SRCU31 in the Intel Server Board

1. Power down the system, disconnect power cord(s), and remove the system cover.
2. Install the SRCU31 into an available PCI slot.

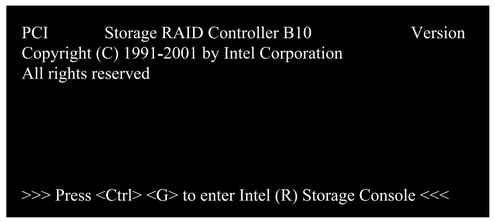
Step 4
Attach SCSI Cables

1. Connect one end of the SCSI cable to the internal or external SCSI connector located on the Intel RAID Controller SRCU31.
2. Connect the other end of the SCSI cable to the SCSI drives or drive enclosure.

Step 5
Use Storage Console to Create a RAID Volume

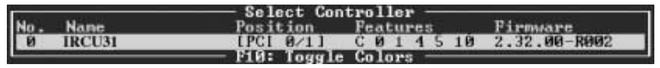
Note: As necessary, refer to the other side of this sheet "Choosing the Right RAID Level" for a brief description of RAID levels.

1. Power on the system and press <Ctrl> + <G> when the screen below appears.

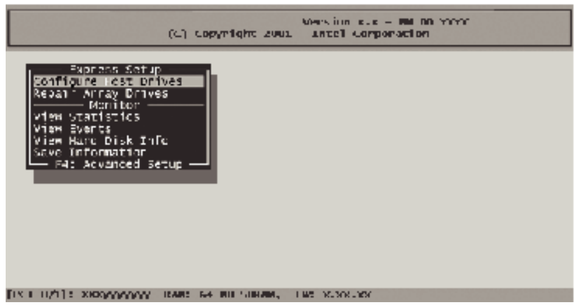


2. The following two messages will appear at the bottom of the screen:
"Intel (R) Storage Console to start after POST"
"Please wait to start Intel (R) Storage Console…"

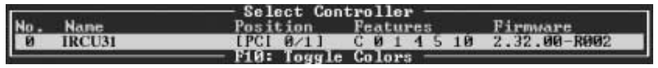
3. When Storage Console starts, it will display the Intel RAID Controller SRCU31 installed in the system. Press <Enter> to select this controller.



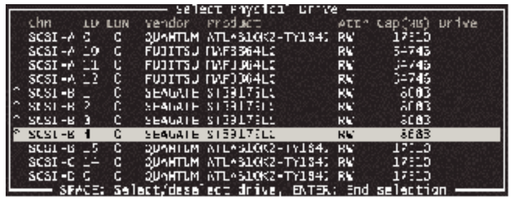
4. Select "Configure Host Drives" and press <Enter>.



5. After selecting "Create new Host Drive," Storage Console displays a list of "free" hard drives. These are drives that do not belong to a logical host drive and can be used for new host drives.



6. Use the arrow keys and the space bar to select the hard drives that you want to be part of the array (these hard drives become marked with an "*"). For this example, we used four hard drives. Press <Enter>. Move the selection bar with the arrow keys from one entry to another. To deselect a drive, highlight the drive with the selection bar and press the space bar.

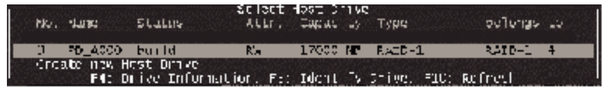


7. The "Choose Type" menu highlights the RAID types possible considering the number of drives selected. For this example we select "RAID 5 + Hot Fix" and press <Enter>.

8. For security reasons, you will be asked if you want to use the selected drive to create a host drive. Storage Console displays a warning that all data will be destroyed after confirmation. Confirm your choice by pressing <Y>. Storage Console creates a new host drive.

9. Enter the appropriate drive capacity and press <Enter>.

10. The new host drive is created. Press <F10> to refresh and begin the build process. The status indicates "build" and will not change to "ready" until the RAID 5 array has been built.



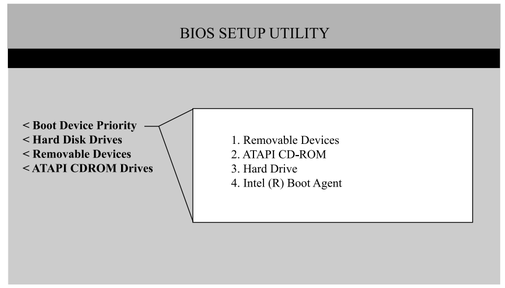
Note: The array build will continue as a background task. You can wait for the build to complete before exiting Storage Console or you can exit Storage Console and the array build will continue in the background after BIOS POST upon reboot. You can then proceed with OS installation while the array continues the build process in the background.

11. When leaving Storage Console (by pressing <ESC>), a progress window informs you about the estimated completion time for the build process.
12. Upon successful completion of the build process, the disk array changes to "ready" status.

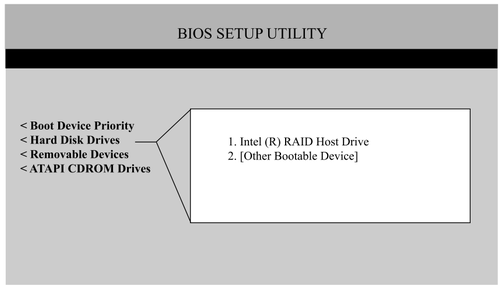
Step 6
Set the System BIOS Boot Order

This step requires entering your system BIOS and setting the proper boot priority. This step may differ from system to system. Refer to your system documentation for details. The example below refers to the Intel® server board STL2.

1. During POST, press <F2> to enter the BIOS Setup Utility.
2. Navigate to the "Boot" menu, then access the "Boot Device Priority" submenu and set the following order:
   - Removable Devices
   - ATAPI CD-ROM Drive
   - Hard Drive
   - Intel (R) Boot Agent



3. Press <Esc> to return to the previous screen.
4. Access the "Hard Disk Drives" submenu and make sure the "[Legacy SCSI Option ROM]" is on the top of the priority list.



5. Press <F10> to save your changes and exit. The system will reboot.

You have now completed the RAID array setup. Continue on to Step 7 (other side of this sheet) for OS installation. If your OS is not listed, please refer to the Intel RAID Controller SRCU31 User's Manual.

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