intel®

Intel® Matrix Storage Technology

Purpose
Provide necessary steps to build a system using Intel® Matrix Storage Technology with one of two configurations.

Setting Up a RAID System
The following steps outline how to build a RAID 0 system with Microsoft* Windows* XP installed on a RAID 0 or RAID 1 Volume using two SATA hard drives.

1. Assemble the system using a motherboard that supports Intel Matrix Storage Technology and attach <u>two</u> SATA hard drives.
2. Enter System BIOS Setup; ensure that Intel Matrix Storage Technology is enabled. This setting may be different for each motherboard manufacturer. Consult your user manual if necessary. When done, exit Setup.
3. Upon re-boot you will see the Intel® Application Accelerator RAID option ROM status message on the screen – press CTRL-I to enter the RAID option ROM user interface. Within this UI select option #1 'Create RAID Volume'. Enter a volume name, press enter, use the arrow keys to select RAID 0 or RAID 1, press enter, select the drives to be used by the RAID volume (only if there are more that two available), select the strip size (only for RAID 0), press enter, enter the size of the volume (default is the maximum size, you can make it smaller if you would like to enable create a second volume on the array later, see Intel® Matrix RAID Technology for more information), press enter again, then press 'Y' to confirm. Once this is done, exit the option ROM user interface.
4. Begin Windows XP Setup by booting from the installation CD.
5. At the beginning of Windows XP Setup, press F6 to install a third-party SCSI or RAID driver. When prompted, insert a floppy disk containing the Intel® Application Accelerator driver. After reading the floppy disk, the 'Intel® 82801FR SATA RAID Controller' will be presented -- select this driver to install.
6. Finish the Windows XP installation and install all necessary drivers.
7. Install the latest Intel Application Accelerator software via the CD-ROM included with your motherboard or after downloading it from the Internet. This will add the Intel® Storage Utility which can be used to manage the RAID configuration.

Setting Up a "RAID Ready" System
The following steps outline how to build an Intel "RAID Ready" system with Microsoft Windows XP installed on a single SATA hard drive. A "RAID Ready" system can be seamlessly upgraded to RAID 0 or RAID 1 at a later date using the RAID migration feature built into Intel Application Accelerator. This technology enables you to install a second SATA hard drive and then migrate to a RAID 0 or RAID 1 volume without reinstalling of the OS.

1. Assemble the system using a motherboard that supports Intel Matrix Storage Technology and attach <u>one</u> SATA hard drive.
2. Enter System BIOS Setup; ensure that Intel Matrix Storage Technology is enabled. This setting may be different for each motherboard manufacturer. Consult your user manual if necessary. When done, exit Setup.
3. Begin Windows XP Setup by booting from the installation CD.
4. At the beginning of Windows XP Setup, press F6 to install a third-party SCSI or RAID driver. When prompted, insert a floppy disk containing the Intel Application Accelerator driver. After reading the floppy disk, the 'Intel® 82801FR SATA RAID Controller' will be presented -- select this driver to install.
5. Finish the Windows XP installation and install all necessary drivers.
6. Install the latest Intel Application Accelerator software via the CD-ROM included with your motherboard or after downloading it from the Internet. This will add the Intel® Storage Utility which can be used to manage the RAID configuration.

Post Migration Note: After completing a migration from a "RAID Ready" configuration to a RAID 0 configuration (see user's manual for instructions), you will notice that the RAID 0 Volume is now the combined capacity of the two SATA hard drives, but the migrated partition(s) remained the same size. This results in empty, unformatted space at the end of the RAID 0 Volume. To utilize this space, you will need to use Microsoft Windows XP Disk Management to create another partition on the remaining empty space in the RAID 0 Volume or use a third-party application to expand the migrated partition(s) to span the entire RAID 0 Volume.