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README.TXT

Adaptec Storage Manager (ASM)
as of February 10, 2008
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Please review this file for important information about issues
and erratas that were discovered after completion of the standard
product documentation. In the case of conflict between various
parts of the documentation set, this file contains the most
current information.

The following information is available in this file:

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1. Software Versions and Documentation

    1.1. Adaptec Storage Manager Version 5.20

    1.2. Documentation on this CD

        PDF format*:

        -  Adaptec Storage Manager User's Guide for Direct Attached Storage
        -  Command Line Utility User's Guide for Direct Attached Storage

        *Requires Adobe Acrobat Reader 4.0 or later

        HTML and text format:

        -  Adaptec Storage Manager Online Help
        -  Adaptec Storage Manager README.TXT file
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2. Installation and Setup Notes

    - The Adaptec RAID Controllers Installation and User's Guide
      contains complete installation information for direct attached
      RAID controllers and drivers. The Adaptec Storage Manager User's
      Guide contains complete instructions for all utilities and
      Adaptec Storage Manager software for direct attached storage.

    2.1 Supported Operating Systems

      - Microsoft Windows 32-Bit:

        o Windows Server 2008 - All versions
        o Windows Vista - All versions
        o Windows Server 2003 Enterprise, Standard, and Web Edition*
        o Windows XP Professional

      - Microsoft Windows x64 Editions:

        o Windows Server 2008 - All versions
        o Windows Vista Ultimate and Business
        o Windows Server 2003 Enterprise, Standard, and Web Edition*
        o Windows XP Professional

      - Linux 32-Bit:

        o Red Hat
          o Red Hat EL 4.0 AS/ES/WS*
          o Red Hat EL 5.0 AS/ES/WS*

        o SuSE
          o SuSE Linux Enterprise Server 9*
          o SuSE Linux Enterprise Server 10*

        o VMware
          o VMware ESX Server 3.0.1, 3.0.2

      - Linux for EM64T and AMD-64:

        o Red Hat
          o Red Hat EL 4.0 AS/ES/WS*
          o Red Hat EL 5.0 AS/ES/WS*

        o SuSE
          o SuSE Linux Enterprise Server 9*
          o SuSE Linux Enterprise Server 10*

      - UnixWare:

        o SCO UnixWare 7.1.4

      - OpenServer:

        o SCO OpenServer 6.0
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    - Solaris:

      o Sun Solaris 10 Update 1

    - FreeBSD:

      o FreeBSD 5.4 (ARCCONF only, 32-bit)
      o FreeBSD 6.1, 6.2 (ARCCONF only, 32/64-bit)

*Out-of-box and current quarterly update or service pack

2.2 Minimum System Requirements

  o  Intel Pentium Compatible 1.2 GHz processor
  o  512 MB RAM
  o  135 MB hard disk drive space
  o  256 color video mode

2.3 General Setup Notes

- You can configure Adaptec Storage Manager settings on other
  servers exactly as they are configured on one server. To
  replicate the Adaptec Storage Manager Enterprise view tree
  and notification list, do the following:

  1.  Install Adaptec Storage Manager on one server.

  2.  Start Adaptec Storage Manager. Using the 'Add remote system'
      action, define the servers for your tree.

  3.  Open the Notification Manager. Using the 'Add system'
      action, define the notification list.

  4.  Exit Adaptec Storage Manager.

  5.  Copy the following files onto a diskette from the directory
      where the Adaptec Storage Manager is installed:

      RaidMSys.ser --> to replicate the tree
      RaidNLst.ser --> to replicate the notification list
      RaidSMTP.ser --> to replicate the SMTP e-mail notification list
      RaidJob.ser  --> to replicate the jobs in the Task Scheduler

  6.  Install Adaptec Storage Manager on the other servers.

  7.  Copy the files from the diskette into the directory where
      Adaptec Storage Manager is installed on the other servers.

2.4 Linux Setup Notes

- To run Adaptec Storage Manager under Red Hat Enterprise Linux for
  x64, the Standard installation with "Compatibility Arch Support"
  is required.

- To install Adaptec Storage Manager on Red Hat Enterprise Linux,
  you must install two packages from the Red Hat installation CD:
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      o   compat-libstdc7.3-2.96.122.i386.rpm
      o   compat-libstdc-devel-7.3-2.96.122.i386.rpm

      NOTE: The version string in the file name may be different
             than above. Be sure to check the version string on the
             Red Hat CD.

      For example, type:

      rpm --install /mnt/compat-libstdc7.3-2.96.122.i386.rpm

      where mnt is the mount point of the CD-ROM drive.

- To install Adaptec Storage Manager on Red Hat Enterprise Linux 4,
  you must install the following package from the Red Hat
  installation CD:

      o   xorg-x11-deprecated-libs-6.8.1-23.i386.rpm

      NOTE: The version string in the file name may be different
             than above. Be sure to check the version string on
             the Red Hat CD.

- To install Adaptec Storage Manager on Red Hat Enterprise Linux 5,
  you must install one of these packages from the Red Hat
  installation CD:

      o   libXp-1.0.0-8.i386.rpm   (32-Bit)
      o   libXp-1.0.0-8.x86.rpm   (64-Bit)

- To install Adaptec Storage Manager on Novell Linux Desktop 9
  Service Pack 1 for 64-bit systems, you must install two
  packages from the Novell Linux installation CD:

      - liblcms-devel-1.12-55.2.x86_64.rpm
      - compat-32bit-9-200502081830.x86_64.rpm

      NOTE: The version string in the file name may be different
             than above. Be sure to check the version string on the
             Novell Linux CD.

2.5 VMware Setup Notes

- To install Adaptec Storage Manager on the VMware ESX Server:

    1. Insert the Adaptec Storage Manager application CD into the
       CD-ROM drive.

    2. Type the following command to install the 32-bit Linux
       Adaptec Storage Manager on the VMware ESX Server:

       rpm -ivh RaidMan-8.40.i386.rpm

    3. Install Adaptec Storage Manager on a Windows or Linux machine.

    4. From the Windows or Linux client, connect to the Adaptec
       Storage Manager agent on the VMware ESX Server using the

ASM GUI.

   - The Adaptec Storage Manager agent on the VMware ESX Server cannot
     be monitored from a guest operating system.

   - The VMware ESX Server firewall must have specific ports enabled
     for incoming and outgoing traffic. The default ports Adaptec
     Storage Manager uses for connection are 34570 to 34580.

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3. Adaptec Storage Manager General Cautions and Notes

   3.1 General Cautions

   - While building or clearing a pool, do not remove and reinsert any
     drive from that pool. Doing so may cause unpredictable results.

   - Do not move drives containing a pool from one controller to
     another while the power is on. Doing so could cause the loss of
     the pool configuration or data, or both. Instead, power off both
     affected controllers, move the drives, and then restart.

   - When using Adaptec Storage Manager and the CLI concurrently,
     configuration changes may not appear in the Adaptec Storage
     Manager GUI until you refresh the display (by pressing F5).

   3.2 General Notes

   - Adaptec Storage Manager requires the following range of ports
     to be open for remote access: 34570-34580 (TCP), 34570 (UDP),
     34577-34580 (UDP).

   - Adaptec Storage Manager generates log files automatically to
     assist in tracking system activity. The log files are
     created in the directory where Adaptec Storage Manager is
     installed.

     o RaidEvt.log - Contains the information reported in
                      Adaptec Storage Manager event viewer for all
                      local and remote systems.

     o RaidEvtA.log - Contains the information reported in
                      Adaptec Storage Manager event viewer for the
                      local system.

     o RaidNot.log - Contains the information reported in the
                      Notification Manager event viewer.

     o RaidErr.log - Contains Java messages generated by
                      Adaptec Storage Manager.

     o RaidErrA.log - Contains Java messages generated by the
                      Adaptec Storage Manager agent.

     Information written to these files is appended to the existing
     files to maintain a history. However, when an error log file
     reaches a size of 5 Mbytes, it is copied to a new file with

the extension .1 and the original (that is, the .LOG file) is
deleted and recreated. For other log files, a .1 file is created
when the .LOG file reaches a size of 1 Mbyte. If a .1 file already
exists, the existing .1 file is destroyed.

- The blink LED feature is supported for management-processor-enabled
  enclosures only.

- In the Event viewer, Adaptec Storage Manager reports both the
  initial build task for a pool and a subsequent Verify/Fix
  as a "Build/Verify" task.

- Task priority is not retained after rebooting. If you change
  a priority to LOW or MEDIUM, and reboot, the controller resets
  the priority to the default (HIGH).

- When displaying information about a physical device, the device,
  vendor and model information may be displayed incorrectly.

- After using a hot spare to successfully rebuild a redundant
  pool, information about the hot spare drive may not display
  as expected. Adaptec Storage Manager may continue to display
  it as a global hot spare.

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4. Operating System-Specific Issues and Notes

   4.1 All

   - Adaptec Storage Manager will not start on a system that uses
     only 16 colors. Adaptec Storage Manager supports a minimum of 256
     colors. See section 4.2 for a special note about Windows color
     requirements.

   - If the Adaptec Storage Manager GUI does not repaint correctly,
     select the View->Refresh menu item to repaint the screen.

   4.2 Windows - All

   - The Java Virtual Machine has a problem with the 256-color
     palette. (The Adaptec Storage Manager display may be distorted
     or hard to read.) Set the Display Properties Settings to a
     color mode with greater than 256 colors.

   - When you shut down Windows, you might see the message
     "unexpected shutdown". Windows displays this message if the
     Adaptec Storage Manager Agent fails to exit within 3 seconds.
     It has no affect on file I/O or other system operations and can
     be ignored.

   4.3 Windows for EM64T and AMD-64

   - RAID controllers do not produce an audible alarm on the following
     64-bit Windows operating systems:

     o Windows XP Professional x64 Edition
     o Windows Server 2003 x64 Edition (all versions)

4.4 Windows Vista Business and Ultimate (64-bit versions)

- Flashing a RAID controller on Windows Vista 64-bit systems
  is not supported in this release of Adaptec Storage Manager.

  NOTE: Although you can run the image update wizard from
          Adaptec Storage Manager on a Windows Vista 64-bit
          system, the wizard does not run to completion.

4.5 Linux

- When you delete a pool, the operating system can no longer see
  the last pool. WORKAROUND: To allow Linux to see the last pool,
  restart your system.

- The controller does not support attached CD drives during OS
  installation.

- To remotely manage a Linux system from a Windows system, you must
  use the standalone GUI.

- If you cannot connect to a local or remote Adaptec Storage Manager
  installed on a Linux system, verify that the TCP/IP hosts file
  is configured properly.

  1. Open the /etc/hosts file.

      NOTE: The following is an example:

              127.0.0.1 localhost.localdomain localhost matrix

  2. If the hostname of the system is identified on the line
      with 127.0.0.1, you must create a new host line.

  3. Remove the hostname from the 127.0.0.1 line.

      NOTE: The following is an example:

              127.0.0.1 localhost.localdomain localhost

  4. On a new line, type the IP address of the system.

  5. Using the Tab key, tab to the second column and enter the
      fully qualified hostname.

  6. Using the Tab key, tab to the third column and enter the
      nickname for the system.

      NOTE: The following is an example of a completed line:

              1.1.1.1 matrix.localdomain matrix

              where 1.1.1.1 is the IP address of the server and
              matrix is the hostname of the server.

  7. Restart the server for changes to take effect.

- On certain versions of Linux, you may see messages concerning font
  conversion errors. Font configuration under X-Windows is a known
  JVM problem. It does not affect the proper operation of the
  Adaptec Storage Manager software. To suppress these messages,
  add the following line to your .Xdefaults file:

  stringConversionWarnings: False

- On rare occasions, the online help system may generate a Java
  exception. This is due to a known problem in the HTML rendering
  section of JFC/Swing.

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5. RAID Level-Specific Notes

   5.1 RAID 1 and RAID 5 Notes

   - During pool migration from a RAID 1 or RAID 5 to a RAID 0, if
     the original pool had a spare drive attached, the resulting
     RAID 0 retains the spare drive.

   5.2 RAID 10 Notes

   - You cannot change the priority of a RAID-10 verify. Setting
     the priority at the start of a verify has no effect. The
     priority is still shown as high. Changing the priority of
     a running verify on a RAID-10 changes the displayed priority
     until a rescan is done, then the priority shows as high again.

   - Performing a Verify or Verify/Fix on an RAID 10 displays the
     same message text in the event log, "Build/Verify started on
     second level pool of pool 'Pool_0.'" You may see the message
     three times for a Verify, but only once for a Verify/Fix.

   - During a migration from a RAID 0 to any redundant pool, like
     RAID 5 or 10, Adaptec Storage Manager shows the status as
     "Degraded Reconfiguring" for a moment, then the status changes
     to "Reconfiguring." The "Degraded" status does not appear in
     the event log.

   5.3 RAID x0 Notes

   - After building or verifying a leg of a second-level pool, the
     status of the second-level pool is displayed as a "Quick
     Initialized" pool.

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6. ARCCONF Notes

   - ARCCONF requires the latest drivers to operate properly. Failure
     to update the drivers may result in the console hanging after
     a command is issued.

   - With Linux kernel versions 2.4 and 2.6, the ARCCONF
     DELETE <logical_drive> command may fail with a Kernel Oops
     error message. Even though the drives are removed from the

Adaptec Storage Manager GUI, they may not really be deleted.
        Reboot the controller; then, issue the ARCCONF DELETE command
        again.

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7. Other Issues and Notes

    - While a drive is being cleared, do not try to include it in a
      new logical device. Doing so may cause unpredictable results.

    - If you initialize one or more drives in a snapshot source drive,
      the snapshot target cannot be deleted. To avoid creating a
      snapshot drive that cannot be deleted, you must delete the
      snapshot target first, before you initialize the drives in
      the snapshot source. Note that you can only delete a snapshot
      with the CLI.