

DELL(TM) OPENMANAGE(TM) DEPLOYMENT TOOLKIT FOR MICROSOFT(R)
WINDOWS(R) PREINSTALLATION ENVIRONMENT (WINDOWS PE)
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Version 3.2
Release Date: January 2010

This file contains updated information for your "Dell OpenManage
Deployment Toolkit User's Guide" and any other technical
documentation included with the Deployment Toolkit (DTK) for Windows
PE.

The Deployment Toolkit documentation includes the "Command Line
Interface Reference Guide" and the "User's Guide." See the Dell
Support website at "support.dell.com" for the most current
information.

CONTENTS
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- * Criticality
- * Compatibility/Minimum Requirements
- * Release Highlights
- * Installation
- * Upgrading
- * User Notes
- * Known Issues

CRITICALITY
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3 - Optional

Dell recommends that you review the specifics about the update to
determine if it applies to your system. The update contains changes
that may impact only certain configurations, or provides new features
that may or may not apply to your environment.

COMPATIBILITY/MINIMUM REQUIREMENTS
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The following subsections lists supported systems that are
compatible with the Deployment Toolkit version 3.2.

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Supported Systems
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The Deployment Toolkit version 3.2 supports the following Dell PowerEdge(TM) systems:

800, 830, 840, 850, 860, 1800, 1850, 1855, 2800, 2850, 6800, 6850, 1900, 1950, 1955, 2900, 2970, 6950, 2950, T105, R200, R900, R805, M600, M605, T605, R300, T300, R805, R905, M805, M905, R610, R710, T610, M610, M710, T310, T410 and R410.

NOTE: Other systems may be supported with this release. See the Dell Support website at "support.dell.com" to verify the supported systems and to download the latest version of the toolkit.

* The sample scripts included with Deployment Toolkit have been tested with the deployment of the following operating systems:

- Microsoft Windows Server (R) 2003 with SP1 (32-bit and 64-bit)
- Windows Server 2003 with SP2 (32-bit and 64-bit)
- Windows Server 2008 (32-bit and 64-bit)

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Installation Prerequisites
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Before installing Deployment Toolkit components, ensure that you have:

- * The Deployment Toolkit self-extracting installation file ("dtk-3.Xwinpe-AXX.exe"), which contains the utilities, sample scripts, sample configuration files, and documentation you need to deploy your Dell system.
- * A Windows workstation that has at least 500 MB of free hard-drive space.

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Deployment Prerequisites
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Before beginning the deployment process, ensure that you have the following tools, software, and information ready to use or consult:

- * Advanced knowledge of Windows.
- * OEM Preinstallation kit (OPK) and Windows PE and Windows Server 2003 (SP1) to build Windows PE 2005.
- * Windows Automated Installation Kit (AIK) to build Windows PE 2.0.
- * An unzip utility.
- * Working knowledge to build Windows PE 2005 (See the Microsoft documentation for customizing Windows PE 2005).

- * Working knowledge of Microsoft Remote Installation Services (RIS) and Automated Deployment Services (ADS) (including setting up of RIS and ADS environments), or any other third party deployment system or tool.
- * Working knowledge of Windows Deployment Services (WDS) or any other third party deployment system or tool for Windows PE 2.0
- * A workstation with the following capabilities:
 - A writable CD drive and CD writing software
 - Network access
- * A target system with a CD drive if you are performing a local deployment or network access if you are performing a network deployment.
- * All Deployment Toolkit utilities, sample scripts, and sample configuration files.
- * All required Windows PE drivers, operating system drivers, and the Dell utility partition image file.
- * A minimum BIOS version is recommended on some of the platforms for all the DTK options to work correctly. In general, it is good practice to use the latest ("n") version of BIOS firmware or the "n-1" version that is available on "support.dell.com."

 RELEASE HIGHLIGHTS
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Deployment Toolkit version 3.2 adds the following features:

- * Support for WinPE 64-bit
- * Support for new Dell systems
- * Support for solid state drives
- * Support for Series 7 PERC controllers
- * Support for S100 and S300 software RAID controllers

 INSTALLATION
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For complete installation instructions, see the "Dell OpenManage Deployment Toolkit User's Guide."

 UPGRADING
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When upgrading from a previous release (1.x) of the DTK, ensure that you create the new DTK version 3.x environment separately from your previous version of DTK. This step is necessary because the environments and requirements for DTK version 3.x are completely different.

USER NOTES
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This section provides information that can help enhance your experience with the Deployment Toolkit.

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SCRIPT NOTES
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- * The sample scripts are provided as examples for customers who want to develop their own deployment process. Some customers may find that the scripts work well in their environment, while some customers may need to develop their own scripts entirely from scratch. Customers deploying multiple systems need to provide unique information for each server when appropriate. For example, system host names, IP addresses, and BIOS asset tags need to be unique for each system. The batch scripts and configuration files need to be modified to reflect the unique information for each system being deployed. Many options are available to optimize this process.
- * In the previous releases, you could use a system profile generated on a specific Dell system to deploy only that same system model. Beginning this release, you can use a system BIOS configuration profile generated for all systems belonging to the same generation.
For example, "syscfg_x8xx.ini" for x8xx systems, "syscfg_x9xx.ini" for x9xx systems, and so on.
- * It is recommended that you use Windows PE 2.0 during Windows Server 2008 installation.
- * Windows PE 2.0 does not support installation of Dell utility partition.

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TOOLS NOTES
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- * SYSCFG:
 - Some options may not be present on all systems, which may be due to the BIOS version or hardware feature set. The usage information generated by running SYSCFG without arguments shows only those options that are valid for your system.

- The "--devseq" option is present only if you have an available, bootable hard-disk partition. If this option is present in the configuration file, but not present on your system, you will receive a usage error.
- Some options need warm reboot for requested settings, the recommended method is "exit" command on command prompt.
- If you perform operations that change the "--redmem" option, reboot your system immediately. This is applicable to both command-line and "--infile" usage.

NOTE: Additionally, the "--redmem" option should not be issued with any other command and should be immediately followed by a system reboot. This note is important when you develop scripts that can alter the "--redmem" setting.

- For options that use text strings such as username, password, hostname, and community string, using characters such as <space>, "<," ">," "|," "=" on the command line can be misinterpreted by the command line parser and may cause errors. Use only alphanumeric characters to avoid these errors.
- If you set the username using the syscfg "username" option, SOL access for the corresponding user will be enabled by default. You can disable SOL access for a user using the "syscfg solaction --userid=<userid> --action=disable" command.
- The maximum reliably supported baud rates (--solbitrate) are:
 - 19200 for PowerEdge x8xx systems.
 - 57600 for PowerEdge x9xx systems without Dell Remote Access Controller 5 (DRAC 5).
 - 115200 for PowerEdge x9xx systems with DRAC 5.
 If you enter an unsupported baud rate, you may receive an error, "Parameter out of range."

* RAIDCFG:

- When creating virtual disks, the chunk (stripe) size is always in KBs. Do not specify any units of measure for the chunk size.
- When providing multiple physical disks for the "create virtual disk" command, do not separate the disks with spaces. For example, "-ad=1:4, 1:5" causes an error. The correct way to display multiple physical disks is "-ad=1:4,1:5,1:6."
- If you change the controller mode from SCSI mode to RAID mode, data loss may occur. Back up any data you require

before changing the modes.

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KNOWN ISSUES  
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RAIDCFG Issues:

- * If you delete a virtual disk on PERC 4I/M on Windows PE, you need to reboot the system for the changes to take effect.
- * You cannot delete a virtual disk on CERC SATA 2S when RAID 1 is created with the "--clear" option. The virtual disk can be cleared from the controller BIOS.
- * Perform copy operations using the "XCOPY" command, because the DOS "COPY" command may fail when copying across a network share. The message "invalid file handle" may be displayed. This issue is specific to R805 and R900 systems and is an intermittent error that is usually caused by the network connection. If the problem persists, check your network settings.
- * You can assign upto 10 Global Hotspares using Raidcfg. Use The Dell(TM) OpenManage(TM) Server Administrator Storage Management for assigning more than 10 Global Hot spares.
- * SW RAID controllers S100 and S300 will not be detected in the Microsoft Windows Server 2003 with SP1 (32-bit).
- * DTK does not support Non RAID (Volume) mode on s100/s300 controller.
- * S300 controller Cachepolicy setting is "Not Applicable". Hence VD created with different cachepolicy settings from OROM utility will be displayed as "Not Applicable".

SYSCFG Issues:

- * The Demand-based Power Management (DBPM) option does not work on PowerEdge 1855 systems with BIOS versions earlier than A05.
- * The option for "powerctl," which is "softshutdown," does not work in Windows PE.
- * The "--solbitrate" option in "solcfgparams" and the "--mgscmmbitrate" option in "serialcfgparams" accept a baud rate of 57600, but tools such as "ipmish" and "solproxy" do not function at that baud rate for PowerEdge systems.
- * On PowerEdge 1950, 2950 and PowerVault NX 1950 systems with internal USB, BIOS setting configuration for internal USB Port is possible only if User Accessible/external (UA) USB ports are set to

"All Ports On." If UA USB ports are not set to "All Ports On" and you try to configure the BIOS setting for the internal USB port using SYSCFG, the configuration will appear to be successful but the changes will not take effect after the next reboot. If UA USB ports settings are changed from "All Ports On" to "All Ports Off" or "Only Back Ports On," the USB port will be automatically Set to "Off" during the next reboot.

RACADM Issues:

- * If you use virtual media to boot into Windows PE, executing certain RACADM commands may cause Windows PE to crash.
- * After generating the rac configuration file using the "racadm getconfig -f <file_name>" command, comment out the following properties in the configuration file before you update a configuration using the "racadm config -f <file_name>" command:

```
#cfgRacTuneCtrlEConfigDisable=0  
#cfgRacTuneLocalConfigDisable=0
```

Windows PE Installation Issues:

- * If virtual flash is enabled and does not contain a valid image (for example, if the virtual flash contains a corrupt or random image), you may not be able to install Windows 2000 or Windows 2003, locally or remotely. To fix this issue, install a valid image on virtual flash or disable virtual flash if it will not be used during the installation procedure.
- * Running partcfg.bat may fail when virtual media is enabled. For the hard disk, partcfg.bat uses the driver letter "c:". When virtual media is enabled, sometimes, the virtual device gets assigned with the drive letter "c:" And, partcfg.bat execution fails. To run partcfg.bat successfully, either disable the virtual media or use the diskpart command to assign a free driver letter for partcfg.bat.

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