```
##############################################################################
DELL(TM) OPENMANAGE(TM) DEPLOYMENT TOOLKIT FOR MICROSOFT(R)
WINDOWS(R) PREINSTALLATION ENVIRONMENT (WINDOWS PE)
##############################################################################
```

Version 2.3
Release Date: April 2007

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
##############################################################################
```

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

```
##############################################################################
CRITICALITY
##############################################################################
```

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/may not apply to your environment.

```
##############################################################################
COMPATIBILITY/MINIMUM REQUIREMENTS
##############################################################################
```

The following subsections lists supported systems that are
compatible with the Deployment Tookit version 2.3.

```
============================================================================
Supported Systems
============================================================================
```

The Deployment Toolkit version 2.3 supports the following Dell
PowerEdge(TM) systems:

650, 1600SC, 1650, 1655MC, 2600, 2650, 4600, 6600, 6650, 700, 750,
1750, 800, 830, 840, 850, 860, 1800, 1850, 1855, 2800, 2850, 6800,
6850, 1900, 1950, 1955, 2900, 2970, 6950, and SC1435.

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.

NOTE: x8xx series systems with dual-core processors are supported.

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

     - Microsoft Windows 2000 with SP4
     - Microsoft Windows Server(R) 2003 with SP1
     - Microsoft Windows Server 2003 with SP2

===
Installation Prerequisites
===

Before installing Deployment Toolkit components, ensure that you
have:

* The Deployment Toolkit self-extracting installation file
  ("dtk-2.X-WINPE-AXX.exe"), which contains the utilities, sample
  scripts, sample configuration files, and documentation you need to
  deploy your Dell system.

* A workstation that has at least 500 MB of free hard-drive space.

===
Deployment Prerequisites
===

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.

* 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.

* 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
##

Deployment Toolkit version 2.3 adds the following features:

* Support for Dell PowerEdge 2970 systems.

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

* Support for RAID replication feature that enables you to capture
  and replicate RAID settings on PowerEdge systems with similar
  configuration.

* A new utility partition image that can be installed on all supported
  PowerEdge systems has been included with the DTK tools. The utility
  partition image carries hardware diagnostics for PowerEdge systems
  and can be installed on a partition of the hard disk.

##
INSTALLATION
##

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

##
UPGRADING
##

When upgrading from a previous release (1.x) of the DTK, ensure that you create the new DTK version 2.x environment separately from your previous version of DTK. This step is necessary because the environments and requirements for DTK version 2.x are completely different.

```
###########################################################################
```
USER NOTES
```
###########################################################################
```

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

```
===========================================================================
```
SCRIPT NOTES
```
===========================================================================
```

* 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.

* A system profile generated on a specific Dell PowerEdge system can be used to deploy only similar system models. For example, a system BIOS configuration profile generated for an optimally configured PowerEdge 1850 system can be used to deploy only similarly configured PowerEdge 1850 systems.

```
===========================================================================
```
TOOLS NOTES
```
===========================================================================
```

* 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.

  - If you perform operations that change the "--redmem" option, you should immediately reboot the system. This note applies to command-line usage as well as "--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.

- An option for Demand-based power management has been added.
  Valid arguments are "enable" and "disable."

- A "--solaction" option has been added for PowerEdge x9xx
  systems. This option enables or disables Serial-Over-LAN
  (SOL) access for a particular user.

  Suboptions   Valid Arguments

  --userid   Userid(2-16)
  --action   enable,disable

- A "--memintleave" option has been added which can enable or
  disable memory interleave mode. Valid arguments are
  <enable,disable>.

- 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.

- Three additional filters have been added for PEFCFGPARAMS
  (PCP) for PowerEdge x9xx series systems. These filters are
  for battery warning ("batterywarn"), battery failure
  ("batteryfail"), and a filter for the presence of the
  power supply in the system ("powerabsent").

* 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,

expect data loss to occur. Back up any data you want to save
before changing the modes.

##
KNOWN ISSUES
##

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.

* Perform copy operations using "XCOPY" because the DOS "COPY"
  command may fail when copying across a network share. The message
  "invalid file handle" may be displayed. This issue is an
  intermittent error that is usually caused by the network connection.
  If the problem persists, check your network settings.

SYSCFG Issues:

* The Demand-based Power Management (DBPM) option does not work on
  PowerEdge 1855 with BIOS versions earlier than A05.

* The suboption for "powerctl," which is "softshutdown," does not
  work in Windows PE.

* On PowerEdge 700 systems, the console redirection option in the
  BIOS has the arguments "off," "serial port 1," and "RAC;"
  the equivalent arguments in DTK are "off," "serial port 1,"
  and "serial port 2."

  When the argument is set to "serial port 2" in DTK, the option
  corresponds to "RAC" in the BIOS setup.

* The "--solbitrate" option in "solcfgparams" and the
  "--mgscommbitrate" 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.

RACADM Issues:

* If you use virtual media to boot into Windows PE, executing
  certain RACADM commands may cause Windows PE to crash.

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.

##

Information in this document is subject to change without notice.
(C) 2007 Dell Inc. All rights reserved.

Reproduction in any manner whatsoever without the written permission
of Dell is strictly forbidden.

Trademarks used in this text: "Dell," "PowerEdge," and
"OpenManage" are trademarks of Dell Inc.; "Microsoft," "Windows,"
and "Windows Server" are either trademarks or registered trademarks
of Microsoft Corporation in the United States and/or other countries.

Other trademarks and trade names may be used in this document to refer
to either the entities claiming the marks and names or their products.
Dell Inc. disclaims any proprietary interest in trademarks and trade
names other than its own.

The sample scripts provided with the Dell OpenManage Deployment
Toolkit are provided "as is." Dell disclaims any and all warranties,
express, implied or statutory, with respect to the sample scripts,
including, but not limited to, the implied warranties of
merchantability, fitness for a particular purpose, title and any
warranty of non-infringement. Use the sample scripts at your own risk.
Dell shall not be liable for any direct or indirect damages incurred
in using the sample scripts. In no event shall Dell or its suppliers
be responsible for any direct or indirect damages whatsoever
(including, without limitation, damages for loss of profits, loss of
use, loss of data, business interruption, or other pecuniary loss, nor
for punitive, incidental, consequential, or special damages of any
kind, under any part of this agreement, even if advised or aware of
the possibility of such damage.

March 2007