

Dell Server PRO Management
Pack 2.1 for Microsoft
System Center
Virtual Machine Manager
Installation Guide



Notes and Cautions



NOTE: A NOTE indicates important information that helps you make better use of your computer.



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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Overview

This guide provides information on software prerequisites and requirements to install and uninstall Dell Server Performance and Resource Optimization Management Pack (PRO Pack) 2.1. Dell PRO Pack is a tool to monitor Dell systems and take remedial action when an inefficient system is identified.

The Dell PRO Pack 2.1 integrates with the following:

- Microsoft System Center Operations Manager (SCOM) 2007 SP1
- SCOM 2007 R2
- System Center Essentials (SCE) 2007 SP1
- SCE 2010
- System Center Virtual Machine Manager (SCVMM) 2008
- SCVMM 2008 R2
- SCVMM 2008 R2 with SP1

This integration enables you to proactively manage virtual environments and ensure high availability of your Dell systems.



CAUTION: Due to the possibility of data corruption and/or data loss, it is recommended that the procedures in this document should be performed only by personnel with knowledge and experience of using the Microsoft Windows operating system and SCOM 2007/SCE 2007 SP1/SCE 2010.



NOTE: The readme file, `DellMPv21_PROPack_Readme.txt`, contains information about the software and management station requirements, and known issues of Dell Pro Pack 2.1. It is also available at support.dell.com/manuals. The readme file is also packaged in the self-extracting executable file `Dell_PROPack_v2.1.0_A00.exe`.

Minimum Requirements

To install and implement the Dell PRO Pack 2.1, you must ensure that the minimum execution environment exists on the following components:

- Management station:
 - SCOM 2007 SP1/SCOM 2007 R2 or SCE 2007 SP1/SCE 2010 installed on supported hardware and operating system
 - SCVMM 2008/SCVMM R2/SCVMM R2 with SP1 installed on supported hardware and operating system
 - Integration of SCOM and SCVMM
 - Managed system:
 - Microsoft Hyper-V hosts on any Dell PowerEdge systems ranging from x9xx to xx1x (both inclusive)
 - Dell OpenManage Server Administrator (OMSA) (including the OpenManage Server Administrator Storage Management Service.)
 - It is recommended that you install the latest version of OMSA 6.5
 - Minimum supported version of OMSA is 6.1
 - Live Migration:
 - SCVMM R2 with Windows Server 2008 R2 or Hyper-V Server 2008 R2
- You can download the latest version of OMSA from support.dell.com.
- OMSA version 6.5



NOTE: For the list of supported operating systems for your version of Operations Manager and SCVMM, see the **Microsoft TechNet Library** at [technet.microsoft.com/hi-in/library/default\(en-us\).aspx](http://technet.microsoft.com/hi-in/library/default(en-us).aspx).

Supported Operating Systems

For information on the supported operating systems for Dell Pro Pack 2.1, see the Dell PRO Pack readme file, `DellMPv21_PROPack_Readme.txt`. You can find the readme packaged in the self-extracting executable file `Dell_PROPack_v2.1.0_A00.exe`. It is also available at support.dell.com/manuals.

Installing SCOM/SCE and SCVMM Agents

When you use the setup to monitor your infrastructure, SCOM/SCE (Operations Manager) agents installed on the managed hosts enable data transfer between the managed system and management stations. Agents of both SCVMM and Operations Manager are installed manually or automatically during the discovery process on all Hyper-V hosts.

Integrating Operations Manager With SCVMM

For the setup to support Dell PRO Pack, Operations Manager must be integrated with SCVMM. For more information, see the Microsoft TechNet Library.

For SCOM & SCVMM 2008 integration, see [technet.microsoft.com/hi-in/library/cc956099\(en-us\).aspx](http://technet.microsoft.com/hi-in/library/cc956099(en-us).aspx).

For SCE 2007& SCVMM 2008 integration, see go.microsoft.com/fwlink/?LinkId=148206.

For SCOM & SCVMM R2 integration, see [technet.microsoft.com/hi-in/library/ee236463\(en-us\).aspx](http://technet.microsoft.com/hi-in/library/ee236463(en-us).aspx).

For SCE 2010 & SCVMM 2008 integration, see technet.microsoft.com/en-us/library/ff603627.aspx.

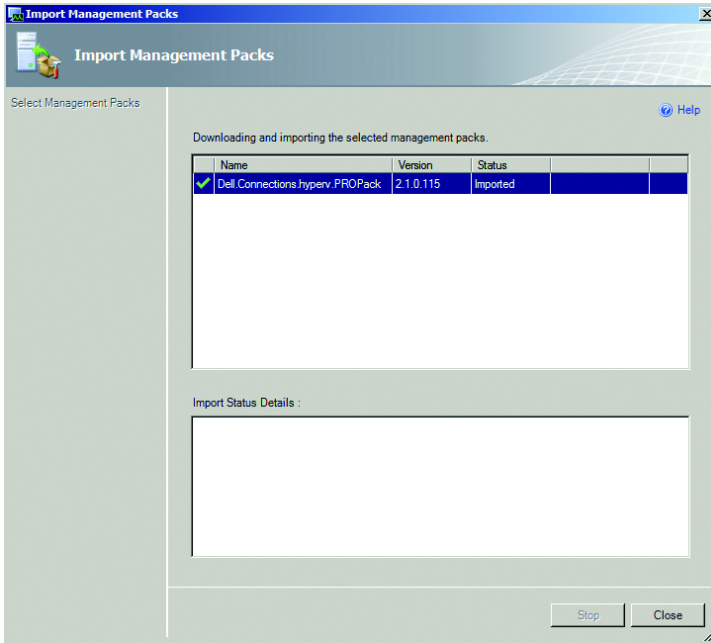
Importing Dell PRO Pack

Dell PRO Pack 2.1 is provided as a .mp file. To import Dell PRO Pack:

- 1 Download the **Dell_PROPack_v2.1.0_A00.exe** file from support.dell.com to a removable media or a local repository.
- 2 Extract the contents of the file to a folder on your system.
- 3 Launch the Operations Manager console.
- 4 On the **Administration** tab, right-click **Management Packs**.
The **Select Management Pack to import** window is displayed.
- 5 Browse the location where you extracted the **Dell_PROPack_v2.1.0_A00.exe** file and select the **Dell.Connections.hyperv.PROPack.mp** file.
- 6 Click **Open**.

The **Import Management Packs** window is displayed with a warning message in the **Management Pack Details** section, as shown in Figure 1-1. When you manually install a management pack, Operations Manager displays this generic warning as a part of the security process. For more information, see the [Microsoft TechNet Library](#).

Figure 1-1. Security Warning Message



- 7 Click **Close** to close the warning message window.
- 8 Click **Install**.
A confirmation dialog box is displayed.
- 9 Click **Yes**.

For alerts and PRO Tips, ensure that SCVMM discovers the managed objects and displays them in the **State View**.

Configuring PRO Tips

The Dell systems and virtual infrastructure are monitored for either Critical alerts, or for both Critical and Warning alerts.

- A **Warning** alert is generated when the reading of a component is above or below the acceptable level. For example, the component may still be functioning, but it may be functioning in a critical state, or the component may be functioning in an impaired state.

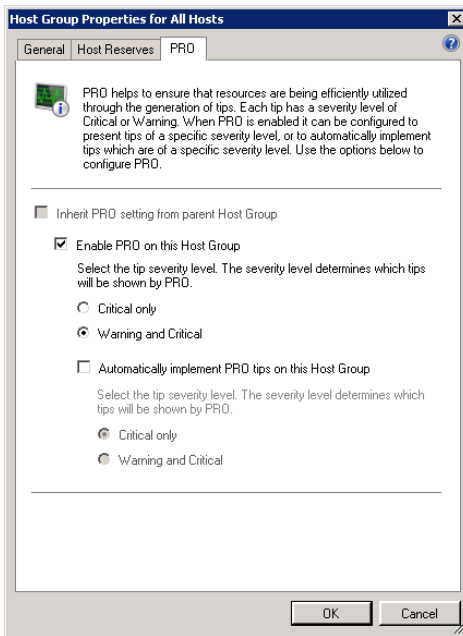
- A **Critical** alert is generated when a component has either failed or failure is imminent.

To enable PRO Tips for both **Warning** and **Critical** alerts and automatically implement PRO Tips:

- 1 Launch the SCVMM console.
- 2 In the **Host Groups** section, right-click **All Hosts** and select **Properties**.

The **Host Groups Properties** for **All Hosts** window is displayed, as shown in Figure 1-2.

Figure 1-2. Configuring PRO Tips Properties



- 3 Click the **PRO** tab and select the **Enable PRO on this Host Group** check box.

By default, the monitoring level is set to **Warning and Critical**, which means that the application displays PRO Tips generated for both **Warning** and **Critical** alerts. To restrict the PRO Tips to **Critical** alerts only, select the **Critical only** option.

- 4 Select the **Automatically implement PRO tips on this Host Group** check box.

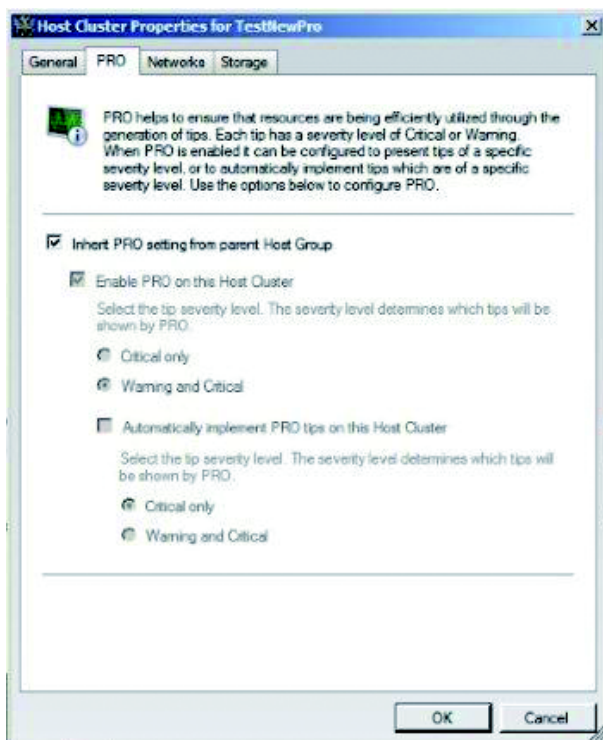
By default, the automation level is set to **Critical** only, which means that PRO Tips with a Critical severity level are automatically implemented.

To implement all PRO Tips automatically, select the **Warning and Critical** option.

- 5 Click **OK** to save your settings.
- 6 In the **Host Groups** section, right-click your host cluster and select **Properties**.

The **Host Cluster Properties** for your host cluster window is displayed, as shown in Figure 1-3

Figure 1-3. Configuring PRO Tips Properties



- 7 Click the **PRO** tab and select the **Inherit PRO** setting from parent Host Group check box.
- 8 Click **OK** to save your settings.

Testing the Setup Using Scenarios

To confirm that the imported Dell PRO Pack is fully functional, create the scenarios listed in the Table 1-1 and check if the activities listed under Expected System Response column are carried out.

Scenario - The Ambient System Temperature exceeds its warning threshold value on a managed system.



CAUTION: Run this test on a server which does not run any Workloads.

Table 1-1. Checking Recovery Action for Warning Alert Conditions


Your Actions	Expected System Response
<p>Using OMSA, generate a temperature-alert warning on the managed system by configuring the Maximum Warning Threshold value to be lesser than the current System Board Ambient Temperature. For more information, see the <i>Dell OpenManage Server Administrator User's Guide</i>.</p> <p> CAUTION: Ensure to restore the temperature sensors to default value after the test is complete.</p>	<ul style="list-style-type: none"> • The state of the server changes appropriately. In this case, it changes to Warning. • Dell PRO Pack generates the corresponding alert in Operations Manager. • Operations Manager passes an alert associated with the PRO Tip to SCVMM. • PRO Tip is displayed in the SCVMM PRO Tip window. In this case it is a Warning.
<p>Select the Implement option in the PRO Tip window.</p>	<p>Places the host in Restrict mode.</p>
<p>Verify that the host is placed in the Restrict mode and the PRO Tip has resolved the alert.</p>	<ul style="list-style-type: none"> • After successful implementation of the PRO Tip, the status changes to Resolved and the PRO Tip entry moves out of the PRO Tip window. • Corresponding alert disappears in the Operations Manager Alert View.

Table 1-1. Checking Recovery Action for Warning Alert Conditions (continued)

Your Actions	Expected System Response
Select the Dismiss option instead of the Implement option in the PRO Tip window.	Dismisses the PRO Tip . No recovery task is performed. The corresponding PRO Tip entry moves out of the PRO Tip window.

Upgrading to Dell PRO Pack 2.1

Importing the **PRO Pack 2.1.mp** file will replace any older version of Dell **PRO Pack**. For more information see, [Importing Dell PRO Pack](#).

NOTE: Implement or Clear all the **PRO Tips** before you upgrade the version of Dell **PRO Pack** as **SCOM** automatically closes any existing alerts.

You can also uninstall any old version of the Dell **PRO Pack** and then install Dell **PRO Pack 2.1**. For more information on uninstalling Dell **PRO Pack**, see [Uninstalling Dell PRO Pack](#).

Uninstalling Dell PRO Pack

You can uninstall Dell **PRO Pack** by deleting it in the **Operations Manager** console. When you delete Dell **PRO Pack**, all the settings and thresholds associated with it are removed from **Operations Manager**.

To uninstall Dell **PRO Pack**:

- 1 Launch the **Operations Manager** console.
- 2 Click **Administration**→**Management Packs**.
- 3 In the **Management Packs** pane, right-click **Dell PRO-enabled Management Pack** and click **Delete**.

Security Considerations

Operations Console access privileges are handled internally by **SCOM/SCE**. This can be setup using the **User Roles** option under **Administration**→**Security** feature on the **SCOM/SCE** console. The profile of the role assigned to you determines what actions you can perform and which objects you are able to manage. For more information on security considerations see the *Microsoft System Center Operations Manager SP1/R2 and Microsoft Systems Centre Essentials 2007/2010 online help*.

