Parallels Virtual Automation 4.6

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CHAPTER 1

Introduction

This section contains introductory notes and important information about documentation conventions used in this document

In This Chapter

About Parallels Virtual Automation

Parallels Virtual Automation is a flexible and easy-to-use administration tool designed for managing groups of physical servers hosting Parallels Virtuozzo Containers and/or Parallels Server software. With Parallels Virtual Automation, you can manage both the available physical servers and the virtual environments they host, using a standard web browser running on any platform.

Getting Help

Parallels Virtual Automation offers several options for accessing necessary information:

Parallels Virtual Automation documentation

- Parallels Virtual Automation Administrator's Guide. This document contains extensive information about the product, its usage and troubleshooting. To access the PDF version of the document, go to the Support link in the left pane and then click the Downloads pane. You can download any document of the Parallels Virtual Automation documentation bundle from the Parallels website.
- Parallels Virtual Automation Installation Guides for Linux/Bare Metal, Windows, and Mac OS X. These documents contain extensive information on system requirements for physical computers and instructions how to install Parallels Virtual Automation components on them.
- Getting Started With Parallels Virtual Automation. This document contains the basic information how to install, launch and manage Parallels Virtual Automation.
- Parallels Power Panel User's Guide. This document contains extensive information about the Power Panel application.

- Parallels Virtual Automation Upgrade Guide. This document contains instructions on how to upgrade from Parallels Infrastructure Manager 4.0 to Parallels Virtual Automation 4.6.
- Parallels Virtual Automation 4.6 Agent XML API Reference. This document is a complete reference on all Parallels Virtual Automation configuration files and physical server command-line utilities.
- Parallels Virtual Automation Agent Programmer's Guide. This is a task-oriented guide that provides information on all Parallels Virtual Automation configuration files and physical server command-line utilities.

The documentation is available for download from the Parallels official web-site http://www.parallels.com/products/pva45/resources/.

Context-sensitive help

You can open a help page for the current screen by clicking the Help link in the right upper corner.

Parallels Web Site

Parallels web site http://www.parallels.com. Explore the Support web page that includes product help files and the FAQ section.

Parallels Knowledge Base

Parallels Knowledge Base http://kb.parallels.com. This online resource comprises valuable articles about using the Parallels Virtual Automation, Parallels Virtuozzo Containers, Parallels Server Bare Metal, and Parallels Server for Mac products.

Feedback

If you spot a typo in this guide, or if you have thought of a way to make this guide better, we would love to hear from you!

The ideal place for your comments and suggestions is the Parallels documentation feedback page (http://www.parallels.com/en/support/usersdoc/).

CHAPTER 2

Managing Parallels Server Virtualization Technology

In comparison to Parallels Virtual Automation 4.5, the PVA 4.6 version supports new Parallels virtualization software - *Parallels Server for Mac* (*PSfM*). Now you can enjoy creating and managing virtual machines on Mac OS physical servers. The resulting virtual machines can have a vast variety of guest operating systems, including the Mac OS. Mac OS virtual machines can also be created on physical servers with the Parallels Server 4.0 for Mac Bare Metal edition installed.

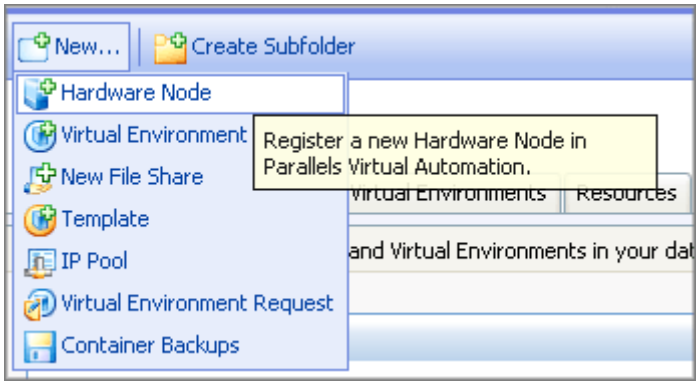
In This Chapter

Registering Mac OS Servers in PVA Infrastructure

Physical servers running Parallels Server for Mac can be easily detected and registered in Parallels Virtual Automation 4.6.

To this effect, go to the standard New Hardware Node page and initiate the connection by specifying the physical servers IP address/hostname and connection credentials. To be detected, the physical server should have PVA Agent for Parallels Server installed. This procedure is described in the *PVA Installation Guide for Mac OS* and should be performed before the registration.

To open New Hardware Node page, click the New button in the upper menu and choose the Hardware Node option from the drop-down list.



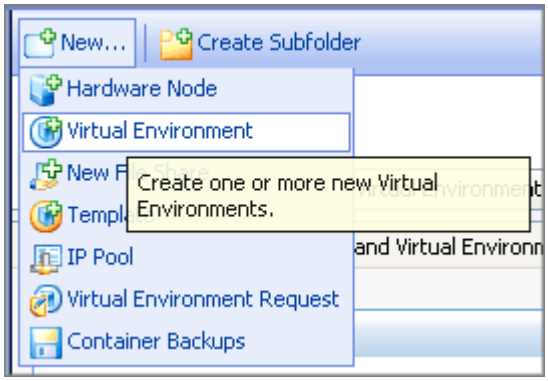
The registration procedure is described in details in the *Parallels Virtual Automation Administrator's Guide*, see Managing Physical Servers section --> Registering Physical Servers in Parallels Virtual Automation.

Creating Virtual Machines With Guest Mac OS

After you have registered PSfM physical server in the PVA 4.6 infrastructure, you can create and manage virtual machines with Mac guest operating system. PVA 4.6 allows you to perform the following actions with a Mac OS virtual machine:

- adjust software and hardware configuration of the Mac OS virtual machine according to your needs;
- create Mac OS backups and templates;
- migrate a Mac OS virtual machine between Parallels Server physical servers;
- manipulate the virtual machine by means of Power Panel, etc.

To create a virtual machine, from the upper menu, choose New --> Virtual Environment to open the New Virtual Environment page, where you can select the virtualization technology (Parallels Server virtual machine) and the physical server that will host the virtual environment. This should be a Parallels Server for Mac physical server. The creation wizard will allow you to choose the guest OS type and version from the drop-down list.



Parallels Virtual Automation supports the following Mac OS versions for installing in a virtual machine:

- Mac OS X Server v10.5;
- Mac OS X Server v10.6.

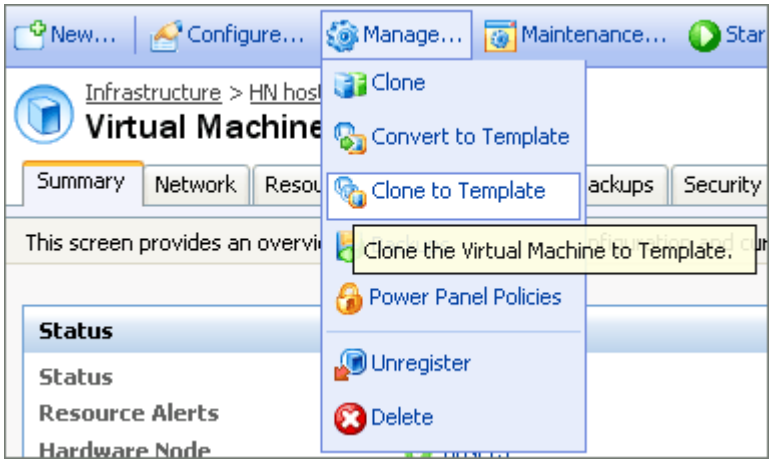
The creation procedure is described in details in the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Virtual Machines --> Creating Virtual Machine.

Managing Templates on Mac OS Servers

Parallels Virtual Automation 4.6 allows you to create virtual machine templates on Mac OS physical servers.

A template of a virtual machine is an exact copy of the virtual machine, with the same hardware and software configuration. The only difference is that it cannot be started like an ordinary virtual machine though it may have an OS preinstalled and a set of various software programs.

The created template can be stored in the global library or locally on the hosting physical server. The library template is placed to the Resource Library -> Templates section. Such a template is accessible from every physical server in the infrastructure, and virtual machines based on this template will be able to reside on any PSBM or PSfM registered physical server. The local template is created locally on the same PSfM physical server where the virtual machine resides. Such a template is visible from the hosting server only, and the virtual machines based on this template will be always placed on this physical server. You can view these templates by clicking Manage --> Virtual Machine Templates.



You can read more detailed information in the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Parallels Virtual Machines --> Cloning virtual Machine.

Managing Backups on Mac OS Servers

The Parallels Virtual Automation 4.6 backup technology allows you to manage virtual machine backups on PSfM physical servers and perform the following actions:

- specify the backup settings on several levels: the global, infrastructure, physical server, and virtual environment level; The higher the level, the more influential and compound these settings are.
- back up any virtual machine on any PSfM physical server;
- place the virtual machine backup on any PSfM or PSBM physical server irrespective of the VM's hosting server;
- set up an automatic backup process, by scheduling a special job;
- choose between the two backup types: full or incremental;

Note: For PSBM virtual machines, also a *differential* backup type is supported.

- back up any virtual machine manually at once.

Backup Types Available for Virtual Machines on Mac OS Physical Servers

Full backup. This type is recommended when doing a backup job for the first time and contains all the data selected for the backup. A full backup storage space and completion time requirements are the highest.

Incremental backup affects only those files and data which have changed since the last backup and takes less storage space and creation time.

For the detailed information on creating virtual machine backups, refer to the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments Backups --> Managing Backups on Virtual Environment Level.

Running Power Panel on Snow Leopard OS

A virtual machine can be managed with the help of Parallels Power Panel application from a Mac computer that has a Leopard Snow OS installed. Using a standard Web browser on this platform, you can start working with an online or offline virtual machine and perform a wide range of actions. The range of actions you can perform with the virtual machine is the same as when managing Containers via Parallels Power Panel.

To enable the offline service management, several preconditions should be met:

- The Offline service management option should be turned on. You can do it in the virtual machine configuration section while creating a virtual machine or any time later when changing the configuration.
- The virtual machine configuration should include the Bridged network adapter enabled.
- The virtual machine should have Parallels Tools installed if you plan to connect to a virtual machine with an installed operating system.

For the detailed information on setting the virtual machine configuration, refer to the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Parallels Virtual Machines.

To open the Parallels Power Panel application, choose the virtual machine from the left menu tree. From the upper menu bar, click Log in --> Open Power Panel.

Migrating Physical Servers to Virtual Machine

Parallels Virtual Automation 4.6 allows you to migrate a Windows or a Linux physical server into a virtual machine residing on a Parallels Server for Mac or Parallels Server Bare Metal physical server.

The migration procedure is rendered easily and smoothly with the help of Parallels Transporter utility. Parallels Transport connects to the physical server and migrates it into a virtual machine retaining the same configuration parameters. The resulting virtual machine will have the same operating system, the same number and parameters of partitions, etc. After the migration, you can view and adjust the virtual machine configuration according to your needs.

The utility can be started by following the PSfM or PSBM physical server dashboard by clicking the Migrate Server to Virtual Machine link.

You can read more detailed information in the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Virtual Machines --> Migrating Physical Server to virtual Machine.

Migrating Virtual Machines Between Physical Servers

Parallels Virtual Automation 4.6 allows you to migrate a virtual machine between physical servers with the Parallels Server virtualization technology installed.

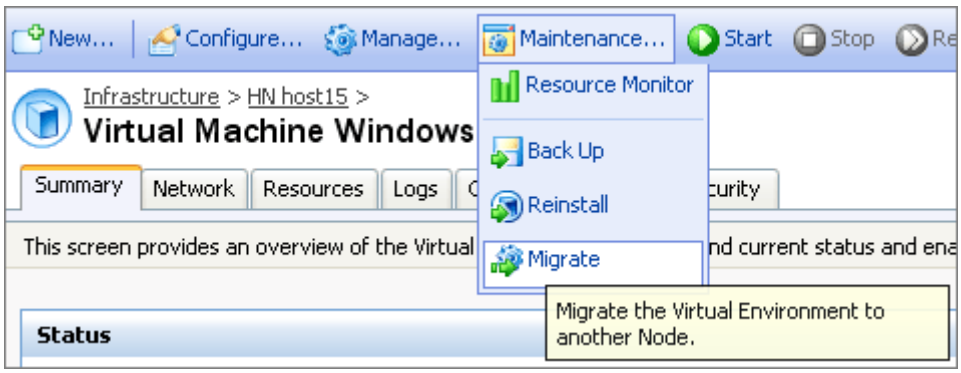
The physical servers should be registered in Parallels Virtual Automation as Slave servers and have one of the following software products installed:

- Parallels Server 4.0 Bare Metal;
- Parallels Server 4.0 for Mac Bare Metal edition;
- Parallels Server for Mac.

To migrate a virtual machine, you can choose one of the following migration types:

- Warm migration. The virtual machine is paused for the whole migration period. For the successful warm migration, the CPU architecture of the hosting and receiving physical servers should coincide.
- Cold migration. The virtual machine is stopped for the whole migration period. It can be started right after the migration, if you choose this option.

To initiate the migration, choose the virtual machine from the left menu tree. In the upper button menu, choose Maintenance --> Migrate. Or you can use the Migrate link on the virtual machine dashboard, in the Maintenance group.

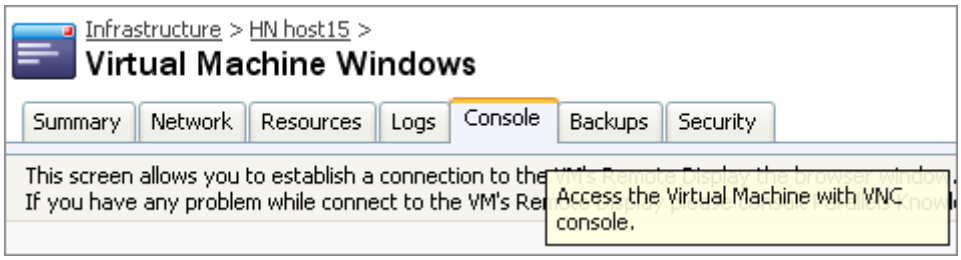


You can read more detailed information in the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Parallels Virtual Machines --> Migrating Virtual Machines.

Accessing Virtual Machines via Integrated VNC Console

Parallels Virtual Automation 4.6 allows you to operate the virtual machines, residing on Parallels Server for Mac physical servers, via Virtual Network Computing (VNC). It is a graphical desktop sharing system that remotely controls another computer. With an integrated VNC console, you can perform basic actions with a single virtual machine without switching to a stand-alone control application, such as install Parallels Tools and freely work inside the virtual machine.

To open the VNC Console, choose the virtual machine from the left menu tree and click the Console tab.



To use this graphical desktop sharing system to remotely control a virtual machine, the client computer should have Sun Java(TM) plugin/JRE installed.

You can read more detailed information in the *Parallels Virtual Automation Administrator's Guide*, see Managing Virtual Environments --> Managing Parallels Virtual Machines --> VNC Connection to Virtual Machines.

CHAPTER 3

Managing PVA Infrastructure

Parallels Virtual Automation 4.6 has a set of additional features serving for convenient, efficient work.

In This Chapter

Working With Windows 2008 R2 Physical Servers

Microsoft Windows 2008 R2 has been added to the list of supported operating systems.

- It is supported on physical servers to be used as Slave servers. Such servers necessarily have Parallels Virtuozzo Containers software installed.

For the detailed information on system requirements, refer to the *Parallels® Virtual Automation 4.6 Installation Guide for Windows* and *Parallels® Containers for Windows User Guide*.

New Upgrade Automation Tool

Parallels Virtual Automation 4.6 has been extensively developed since the Parallels Infrastructure Manager 4.0. As a result, it has a number of major differences that prevent the 4.0 physical servers from participating in the 4.6 infrastructure. Such servers should be upgraded.

The upgrading operation can be performed manually or with the help of Upgrade Automation Tool. The aim of the tool is to automate the process of register 4.0 Slave servers in the 4.6 infrastructure and convert them into 4.6 version.

For the detailed instructions on upgrading both in manual and automatic mode, refer to the *Parallels virtual Automation 4.0 to 4.6 Upgrade Guide*.

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