

# **Virtuozzo**

## **Virtuozzo Automator 6.1**

Readme

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# About This Document

This document provides the first-priority information on Virtuozzo Automator and supplements the included documentation.

## More Resources

In addition to this readme, there are a number of other resources shipped with Virtuozzo Automator which can help you use the product more effectively. These resources include:

- *Virtuozzo Automator Administrator's Guide*. Introduces you to the main features of Virtuozzo Automator. It contains comprehensive information on all the necessary theoretical conceptions and all practical aspects of working with Virtuozzo Automator functionality, physical servers and virtual environments.
- *Getting Started with Virtuozzo Automator*. Provides brief instructions on how to install and run Virtuozzo Automator on your server. It also explains the basics of working with physical servers, Containers and virtual machines: how to register a server, to create and manage a virtual environment, and the like.
- *Virtuozzo Power Panel Guide*. Introduces you to the Power Panel working principles. Power Panel is a means for administering individual Containers and virtual machines through a Web browser on any platform.
- *Virtuozzo Automator Installation Guide for Windows*. Provides extensive information on how to install Virtuozzo Automator components. It also helps you plan the structure of the Virtuozzo Automator network and explains the interconnections between all components.
- *VA Agent XML API Reference*. A complete reference on all Virtuozzo Automator configuration files and physical server command-line utilities.

## Distribution Contents

The following components are included in the Virtuozzo Automator distribution:

- **VA Management Server**. This component ensures communication between slave physical servers and their virtual environments.
- **VA Agent**. This component ensures interaction between the physical server it is installed on, the Master Server, and your client physical computer. Without this component a physical server cannot be registered in the system.
- **Virtuozzo Power Panel**. An auxiliary tool for managing single virtual machines or single Containers via a standard Web browser. It can be installed only along with the VA Agent component.
- **Documentation**. The Virtuozzo Automator 6.1 documentation.

## Licensing

Virtuozzo Automator is a management tool for Virtuozzo virtualization products and is distributed without a license. Nevertheless, a valid license is needed for the Virtuozzo product being managed. Servers running Containers for Windows require a license to create and work with Containers.

## Hardware Requirements

If a Windows-based computer serves as a Master Server, there are no special requirements for it. However, below is the list of the basic hardware requirements you can use as a checklist:

- Intel Celeron, Pentium III, Pentium 4, Xeon, or AMD Athlon CPU
- at least 1 GB of RAM
- hard drive with at least 15 GB of free disk space
- network card

If a Windows-based computer serves as a Slave Server where virtual environments will be stored and managed, then Virtuozzo Automator will call for more complex hardware. The general considerations regarding the configuration of your physical servers could be as follows:

- CPUs. The more virtual environments you plan to run simultaneously, the more CPUs you need.
- Memory. The more memory you have, the more virtual environments you can run. The exact figure depends on the number and nature of applications you are planning to run in your virtual environments.
- Disk space. Each virtual environment occupies 40-150 MB of hard disk space for system files in addition to the user data inside the virtual environment (for example, web site content). You should consider it when planning disk partitioning and the number of virtual environments to run.
- Virtualization support. Intel VT-x or AMD-V hardware virtualization technology support.

For detailed information on the requirements, see the *Containers for Windows 6.0 Installation Guide*.

## Software Requirements

Before deploying Virtuozzo Automator, make sure your servers and clients meet the requirements below.

### Supported Web Browsers

A Client computer needs a supported Web browser:

- Internet Explorer 9.x, 10.x or 11.x,
- Firefox 26 or newer,
- Safari 5.x or newer,
- Chrome 31.x or newer.

Although other browsers will most likely work, only those listed above have been extensively tested for compatibility with Virtuozzo Automator 6.1.

If a Windows-based computer serves as a Slave Server where virtual environments will be stored and managed, then Virtuozzo Automator will call for more complex requirements, as the creation and management of Containers and virtual machines demand more complex software resources. So, in choosing an appropriate Windows-based computer, you should be guided by the Containers for Windows system requirements. For detailed information on the requirements, see the Containers for Windows 6.0 Installation Guide.

### **Supported Virtualization Products (Virtuozzo Automator 6.1 GA)**

- The VA Management Server component can be used to manage servers running Virtuozzo Containers for Linux 4.6 and 4.7, Virtuozzo Containers for Windows 4.6, Containers for Windows 6.0, Server Bare Metal 5.0, and Virtuozzo 6.0.
- The VA Agent component can be installed on Virtuozzo Containers for Windows 4.6, Virtuozzo Containers for Windows 6.0.

### **Supported Virtualization Products (Virtuozzo Automator 6.1 Update 1 and Update 2)**

- The VA Management Server component can be used to manage servers running Virtuozzo Containers for Linux 4.6 and 4.7, Virtuozzo Containers for Windows 4.6, Containers for Windows 6.0, Server Bare Metal 5.0, and Virtuozzo 6.0.
- The VA Agent component can be installed on Virtuozzo Containers for Linux 4.7, Server Bare Metal 5.0, and Virtuozzo 6.0.

**Note:** For more information on Virtuozzo Automator versions and builds, see <http://kb.virtuozzo.com/en/112297>.

### **Supported Operating Systems for Master Servers**

A Master Server should be free of any software virtualization technology and have one of the following operating systems installed:

- CentOS 6 x86/x64,
- Red Hat Enterprise Linux 6 x86/x64,
- Windows Server 2008 R2 SP1,
- Windows Server 2012.

**Note:** A Master Server can also run in a Container created with Virtuozzo Containers for Linux, Server Bare Metal, Virtuozzo or Containers for Windows. To set up such a Master Server, create a Container and install the VA Management Server component in it.

## Installing Virtuozzo Automator

To install Virtuozzo Automator on your server:

- 1 Download the product distribution to a local directory on your server.
- 2 From the directory with the distribution, launch the Virtuozzo Automator installer.
- 3 Select the components of Virtuozzo Automator to install and start the installation.

For complete installation instructions, see the Virtuozzo Automator installation guide for the appropriate OS included in the distribution.

## Removing Virtuozzo Automator

To uninstall Virtuozzo Automator from your server, launch the installer from the directory with the Virtuozzo Automator distribution and follow the instructions.

## Changelog

### Virtuozzo Automator 6.1 GA

#### What's New

- Support for Windows Server 2012 as a host operating system for Virtuozzo Automator master servers and Containers for Windows 6.0 slave servers.
- Support for Internet Explorer 10.x and 11.x.
- A new `--quiet/--no-progress` option for the `vzmigrate`, `vzabackup`, and `vzarestore` utilities.

#### Known Issues and Restrictions

- The selective restoration of cached files fails if a parent directory is missing. (#PVA-33085)
- Virtuozzo Automator only installs the latest update for Containers for Windows of all currently available. (#PVA-33296)
- Cannot set custom DNS to Containers with DHCP bridged interface. (#PVA-33513)
- Cannot restore backups containing excluded files. (#PVA-33699)

- Virtuozzo Containers for Windows 4.6 Hardware Nodes may lose offline services after registration in Odin Business Automation Standard. (#PVA-33784)
- Attempts to create VE requests result in system error #cp1100. (#PVA-33857)
- Containers with assigned IPv6 addresses cannot be accessed via Virtuozzo Power Panel in Firefox or Safari Web browsers. Redirects from Virtuozzo Automator or Virtuozzo Power Panel to Plesk do not work for Containers with only IPv6 networking configured. (#PVA-34086)
- VA Agent for Windows will not work if port 4435 is closed by the firewall. (#PVA-34093)
- Cannot install application templates to Container after p2c migration in VA; Also, incorrect OS template version is shown for such Containers (#PVA-34114). As a workaround, try removing the line `P2VType="w2k3"` from the Container configuration file and restarting the VA Agent.
- Cannot update Virtuozzo Containers for Windows 4.6 licenses from Virtuozzo Automator. (#PVA-34146)
- Container offline management cannot be set to **Enabled** with default settings. (#PVA-33391)
- Only Containers for Windows 6.0 and Virtuozzo Containers for Windows 4.6 are supported for slave servers.
- Creating new Windows-based Containers may fail if there are no free IPv4 addresses left in IP pools and the **DHCPv6** checkbox is not selected. As a workaround, you can select the **DHCPv6** checkbox manually.

## Virtuozzo Automator 6.1 Update 1

### What's New

- `vzabackup/vzarestore` support for Containers with multiple virtual hard disks.

### Bug Fixes

- Agent now automatically generates unique default VNC passwords for new virtual machines. (#PVA-24999)
- Containers could freeze forever during backup due to the lack of timeouts for remote communications. (#PVA-33520)
- Could not list the contents of `/` inside backups of ploop-based Containers if `/` contained many files. (#PVA-33591)
- Wrong permissions on `/var/opt/pva` if a restrictive `umask` was set during installation. (#PVA-33622)
- `vz1p1` could freeze on `stat()` of an NFS share from another Container. (#PVA-33866)
- Could not add HDDs to virtual machines in Virtuozzo Automator without rebooting said virtual machines. (#PVA-33904)
- Could not backup Containers with private areas stored on RAID. (#PVA-33996)
- Under certain circumstances, selective restoration of a VZFS Container could fail. (#PVA-34016)



- Failure of the `vzarestore` utility due to a layout conversion error resulted in the original Container being overwritten. (#PVA-34023)
- Containers were not accessible via API immediately after `vzarelocator/move` calls. (#PVA-34031)
- Under certain circumstances, a `vzarelocator/move` call could result in Container EID change. (#PVA-34032)
- Could not delete the default gateway for a bridged adapter in Virtuozzo Automator (#PVA-34105)
- False alerts about `quotauidlimit` could be shown in Virtuozzo Automator for ploop-based Containers. (#PVA-34129)
- Upgrading to the version 6.0.2160 failed if there were custom roles in Virtuozzo Automator before the upgrade. (#PVA-34147)
- Could not browse Windows Container backups stored on Linux servers. (#PVA-34150)
- Could not browse directories with special characters in names inside backups. (#PVA-34201)
- `vzsnmpd` worked incorrectly with `net-snmp-5.5`, resulting in the failure to parse `SWSOFT-VIRTUOZZO-MIB::ipAddrEntAddress`. (#PVA-34237)
- ID in `VZAUp2date.voc` could contain non-UTF characters due to localization. (#PVA-34260)
- The `IoPriority`, `IoLimitValue`, and `IopsLimit` properties could be reset to 0 after changing virtual machine hardware settings from Virtuozzo Automator. (#PVA-34263)

## Known Issues and Restrictions

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- Cannot set custom DNS to Containers with DHCP bridged interface. (#PVA-33513)
- Cannot restore backups containing excluded files. (#PVA-33699)
- Virtuozzo Containers for Windows 4.6 Hardware Nodes may lose offline services after registration in Odin Business Automation Standard. (#PVA-33784)
- Attempts to create VE requests result in system error `#cp1100`. (#PVA-33857)
- Container offline management cannot be set to **Enabled** with default settings. (#PVA-33391)
- Containers with assigned IPv6 addresses cannot be accessed via Virtuozzo Power Panel in Firefox or Safari Web browsers. Redirects from Virtuozzo Automator or Virtuozzo Power Panel to Plesk do not work for Containers with only IPv6 networking configured. (#PVA-34086)
- VA Agent for Windows will not work if port 4435 is closed by the firewall. (#PVA-34093)
- Cannot install application templates to Container after p2c migration in VA; Also, incorrect OS template version is shown for such Containers (#PVA-34114). As a workaround, try removing the line `P2VType="w2k3"` from the Container configuration file and restarting the VA Agent.

- Cannot update Virtuozzo Containers for Windows 4.6 licenses from Virtuozzo Automator. (#PVA-34146)
- Selective restore does not work for the second virtual hard disk. (#PVA-34273)
- Creating new Windows-based Containers may fail if there are no free IPv4 addresses left in IP pools and the **DHCPv6** checkbox is not selected. As a workaround, you can select the **DHCPv6** checkbox manually.

## Virtuozzo Automator 6.1 Update 2

### What's New

- **Email notifications.** Notifications are sent about changes to user accounts (passwords, usernames), statuses of pending requests to create virtual environments, and failure of VE/node backup and VE restart tasks.
- **Support for VirtIO network adapter.** VirtIO NIC was added to the list of virtual machine network adapters. Note that VirtIO is supported on Virtuozzo 6 Update 9 and newer and not available on earlier products.
- **New memory counter.** The new virtual machine memory counter `counter_memory_mem_cached` contains the amount of memory used for disk caches.
- **Custom SSL certificates now persist after VA updates.**

### Bug Fixes

- Hidden **Open Console** links for VEs on slaves that did not support VNC console for this type of VE. (#PVA-33138)
- Containers with the old layout could not be backed up with VA Agent version 6.0.2695 and newer. (#PVA-34375)
- Could not browse contents of Windows container backups remotely placed on Linux nodes. (#PVA-34465)
- Details of scheduled tasks involving multiple Container backup did not indicate backup failures. (#PVA-33631)
- `counter_iops_used` was not cleared on Container stop and could show nonzero values for a stopped Container. (#PVA-34571)
- In certain circumstances, Containers could not be created from templates. (#PVA-34664)
- Network adapter order could change after adding new network adapters. (#PVA-34699)
- Not stopping the `pvappd` daemon properly could lead to a crash. (#PVA-34742)
- A number of other issues (#PVA-33887, #PVA-33996, #PVA-34199, #PVA-34426, #PVA-34467, #PVA-34652, #PVA-34740).

### Known Issues and Restrictions

- The selective restoration of cached files fails if a parent directory is missing. (#PVA-33085)

- Virtuozzo Automator only installs the latest update for Containers for Windows of all currently available. (#PVA-33296)
- Cannot set custom DNS to Containers with DHCP bridged interface. (#PVA-33513)
- Cannot restore backups containing excluded files. (#PVA-33699)
- Virtuozzo Containers for Windows 4.6 Hardware Nodes may lose offline services after registration in Odin Business Automation Standard. (#PVA-33784)
- Attempts to create VE requests result in system error #cp1100. (#PVA-33857)
- Container offline management cannot be set to **Enabled** with default settings. (#PVA-33391)
- Containers with assigned IPv6 addresses cannot be accessed via Virtuozzo Power Panel in Firefox or Safari Web browsers. Redirects from Virtuozzo Automator or Virtuozzo Power Panel to Plesk do not work for Containers with only IPv6 networking configured. (#PVA-34086)
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- Cannot update Virtuozzo Containers for Windows 4.6 licenses from Virtuozzo Automator. (#PVA-34146)
- Selective restore does not work for the second virtual hard disk. (#PVA-34273)
- Creating new Windows-based Containers may fail if there are no free IPv4 addresses left in IP pools and the **DHCPv6** checkbox is not selected. As a workaround, you can select the **DHCPv6** checkbox manually.

## Contact Information

Virtuozzo website: <http://www.virtuozzo.com>.