



vRanger[®]

Version 5.2

System Requirements Guide

**© 2011 Quest Software, Inc.
ALL RIGHTS RESERVED.**

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software, Inc.

The information in this document is provided in connection with Quest products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest products. EXCEPT AS SET FORTH IN QUEST'S TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

Quest Software World Headquarters

LEGAL Dept

5 Polaris Way

Aliso Viejo, CA 92656

www.quest.com

email: legal@quest.com

Refer to our Web site for regional and international office information.

Patents

This product includes patent pending technology.

Trademarks

Quest, Quest Software, the Quest Software logo, AccessManager, ActiveRoles, Aelita, Akonix, Benchmark Factory, Big Brother, BridgeAccess, BridgeAutoEscalate, BridgeSearch, BridgeTrak, BusinessInsight, ChangeAuditor, CI Discovery, Defender, DeployDirector, Desktop Authority, Directory Analyzer, Directory Troubleshooter, DS Analyzer, DS Expert, Foglight, GPOAdmin, Help Desk Authority, Imceda, IntelliProfile, InTrust, Invirtus, iToken, JClass, JProbe, LeccoTech, LiteSpeed, LiveReorg, LogAdmin, MessageStats, Monosphere, NBSpool, NetBase, NetControl, Npulse, NetPro, PassGo, PerformaSure, Point, Click, Done!, Quest vToolkit, Quest vWorkSpace, ReportAdmin, RestoreAdmin, ScriptLogic, SelfServiceAdmin, SharePlex, Sitraka, SmartAlarm, Spotlight, SQL Navigator, SQL Watch, SQLab, Stat, StealthCollect, Storage Horizon, Tag and Follow, Toad, T.O.A.D., Toad World, vAutomator, vConverter, vEcoShell, VESI, vFoglight, vPackager, vRanger, vSpotlight, vStream, vToad, Vintela, Virtual DBA, VizionCore, Vizioncore vAutomation Suite, Vizioncore vEssentials, Vizioncore vWorkflow, WebDefender, Webthority, Xaffire, and XRT are trademarks and registered trademarks of Quest Software, Inc in the United States of America and other countries. Other trademarks and registered trademarks are property of their respective owners.

System Requirements Guide August 2011 Version 5.2

Table of Contents

Introduction to this Guide	4
About vRanger	5
About this Guide	5
vRanger Documentation Suite	6
Core Documentation Set	6
Text Conventions	6
About Quest Software, Inc.	7
Contacting Quest Software	7
Contacting Quest Support	8
System Requirements	9
Installation Requirements	10
Hardware Requirements	10
Software Requirements	10
Supported Platforms	11
Supported Guest OSs	12
* These file systems are supported for Linux FLR:	12
Supported Disk Types	12
Password Security Setting Policy	13
Source and Destination Requirements	13
Port Requirements	13
LAN-Free and Hot Add Operation Notes	14
Replication Notes	15
Index	16

Introduction to this Guide

This chapter provides information about what is contained in *System Requirements Guide*. It also provides information about the vRanger[®] documentation suite and Vizioncore.

This chapter contains the following sections:

About vRanger	5
About this Guide	5
vRanger Documentation Suite	6
Text Conventions	6
About Quest Software, Inc.	7

About vRanger

vRanger 5.2 is the market-leading backup, recovery and backup management solution for virtual environments. Featuring a new platform technology, vRanger 5.2 reduces the backup window, provides smarter backup options, and offers more scalability features while using fewer resources. Additionally, available vReplicator functionality offers the ability to replicate a virtual machine to more than one destination, allowing you to accomplish multiple HA and DR objectives based on your specific needs.

vRanger 5.2 Capabilities:

- Performs incremental, differential or full image backups of virtual machines.
- Quickly restores the entire virtual machine or just specific files.
- Manages disaster recovery strategies and protects critical data in virtual environments.
- Offers the ability to replicate virtual machines to more than one destination, thus allowing users to accomplish multiple High Availability and Disaster Recovery objectives based on their specific needs.

About this Guide

The *System Requirements Guide* contains information about the hardware and software requirements for vRanger. Please review the information in this guide before installing vRanger.

The *System Requirements Guide* is organized as follows:

Chapter 1, System Requirements — This chapter outlines the hardware and software requirements for installing vRanger. It also includes information regarding the virtual infrastructure components supported by vRanger.

vRanger Documentation Suite

The documentation suite is made up of the core documentation set plus documents set for advanced configurations. Documentation is provided in a combination of online help and PDF.

- **Online Help:** You can open online help by selecting Help Content in the Help menu.
- **PDF:** The *Getting Started Guide*, *What's New Guide*, *System Requirements Guide*, *Installation and Setup Guide*, and *User Guide*, are provided as PDF files. The PDF guides are included in the zip file downloaded from Vizioncore. Adobe® Reader® is required.

Core Documentation Set

The core documentation set consists of the following:

- *Release Notes* (PDF)
- *Getting Started Guide* (PDF)
- *What's New Guide* (PDF)
- *System Requirements Guide* (PDF)
- *Installation and Setup Guide* set (PDF):
- *User Guide* (PDF and online help)

Text Conventions

The following table summarizes how text styles are used in this guide:

Convention	Description
Code	Monospace text represents code, code objects, and command-line input. This includes: <ul style="list-style-type: none">• Java language source code and examples of file contents• Classes, objects, methods, properties, constants, and events• HTML documents, tags, and attributes

Convention	Description
<i>Variables</i>	Monospace-plus-italic text represents variable code or command-line objects that are replaced by an actual value or parameter.
Interface	Bold text is used for interface options that you select (such as menu items) as well as keyboard commands.
<i>Files, components, and documents</i>	Italic text is used to highlight the following items: <ul style="list-style-type: none">• Pathnames, file names, and programs• Figure captions• The names of other documents referenced in this guide

About Quest Software, Inc.

Quest Software simplifies and reduces the cost of managing IT for more than 100,000 customers worldwide. Our innovative solutions make solving the toughest IT management problems easier, enabling customers to save time and money across physical, virtual and cloud environments. For more information about Quest go to www.quest.com.

Contacting Quest Software

Email	info@quest.com
Mail	Quest Software, Inc. World Headquarters 5 Polaris Way Aliso Viejo, CA 92656 USA
Web site	www.quest.com

Refer to our web site for regional and international office information.

Contacting Quest Support

Quest Support is available to customers who have a trial version of a Quest product or who have purchased a Quest product and have a valid maintenance contract. Quest Support provides unlimited 24x7 access to SupportLink, our self-service portal. Visit SupportLink at <http://support.quest.com>.

From SupportLink, you can do the following:

- Retrieve thousands of solutions from our online Knowledgebase
- Download the latest releases and service packs
- Create, update and review Support cases

View the Global Support Guide for a detailed explanation of support programs, online services, contact information, policies and procedures. The guide is available at: <http://support.quest.com>.

System Requirements

This chapter outlines the hardware and software requirements for installing vRanger.

This chapter contains the following sections:

Installation Requirements	10
Hardware Requirements	10
Software Requirements	10
Supported Platforms	11
Supported Guest OSs	12
Supported Disk Types	12
LAN-Free and Hot Add Operation Notes	14

Installation Requirements

At a minimum, you will need a physical or virtual machine matching the specifications below. Since network latency can compromise performance, vRanger should not be installed on a network drive.

Note Refer to [LAN-Free and Hot Add Operation Notes](#) for LAN-Free and Hot Add installation requirements.

Hardware Requirements

The hardware requirements to run vRanger can vary widely based on a number of factors. Therefore, you should not do a large scale implementation without first completing a scoping and sizing exercise. vRanger is a standalone application that requires no external database or infrastructure. The hardware requirements for installation are:

- **CPU:** Dual Core, 2 minimum
- **RAM:** 2GB minimum
- **Storage:** At least 4 GB free hard disk space

Note If you intend to install vRanger database manually (not recommended), you will first need to manually install SQL Express 2005 or 2008 and SQL Server Management Studio Express 2005. Manual installation of the Database is also not recommended.

Software Requirements

vRanger requires a physical or virtual machine running one of the following OSs.

Note vRanger requires Microsoft .NET Framework 3.5 SP1. The vRanger installer will install it if necessary.

- Microsoft Windows 2003 Server SP2 (x86 or x64)
- Microsoft Windows 2003 R2 (x86 or x 64)
- Microsoft Vista Business or Ultimate (x86 or x64)
- Windows Server 2008 SP2 (x86 or x64)
- Windows 7 (x86 or x64)
- Windows 2008 R2 (x64)

Multiple vRanger Versions

vRanger is available in three versions: vRanger SE, vRanger Pro, and vReplicator. Due to licensing restrictions, only one version of vRanger can be installed on a machine at any one time. For example, you cannot install vRanger SE and vReplicator on the same machine.

Supported Platforms

vRanger supports backup, restore, and replication operations against the following versions of VMware Infrastructure:

ESX(i) Server*	vCenter	VCB
<ul style="list-style-type: none">• 3.5 Update 5• 4.0• 4.0 Update 1• 4.1• 4.1 Update 1	<ul style="list-style-type: none">• 2.5 Update 6• 4.0• 4.0 Update 1• 4.1• 4.1 Update 1	VCB integration is not supported in this release.

Note: ESXi replication requires the use of the vRanger virtual appliance.

Caution vRanger only supports VMware ESX Servers running in English. No other language packs are supported.

* See the important notes below regarding support for VMware ESXi

- Both ESX and ESXi Servers are supported.
- Support for ESXi requires VMware's vStorage API. The vStorage API is not available with the free version of ESXi Server. Please be sure to have the appropriate platform licensing level before attempting ESXi backups.
- ESXi replication requires the use of the vRanger virtual appliance.

Supported Guest OSs

Function	Guest OS
Standard backup and restore	vRanger supports any Guest OS that is supported by VMware. For a complete list, see VMware's <i>Guest Operating System Installation Guide</i> .
File-Level Recovery	File Level Recovery for both Windows and Linux based VMs is supported. Linux FLR requires the vRanger virtual appliance.*
VSS Backups	vRanger uses VMware Tools for VSS backups. To use VSS, you must be running ESX 3.5 Update 2 (or later) with updated VMware Tools and one of these OSs: <ul style="list-style-type: none">• MS Windows Server 2003• MS Windows Server 2003 SP1• MS Windows Server 2003 SP2• MS Windows Server 2003 R2• MS Windows Server 2003 R2 SP1• MS Windows Server 2003 R2 SP2

* These file systems are supported for Linux FLR:

- ETX 2, 3 and 4
- ReiserFS
- JFS
- XFS

Note Logical Volume Manager (LVM) is NOT supported.

Supported Disk Types

For image-level backup and restore, any partition or disk type supported by VMware is supported. For file-level restore capability, the following limitations apply:

- Dynamic disks are not supported
- GPT partitions are not supported

Password Security Setting Policy

Weak passwords compromise system security. When you create and update passwords in vRanger, follow as many of these guidelines as your environment allows:

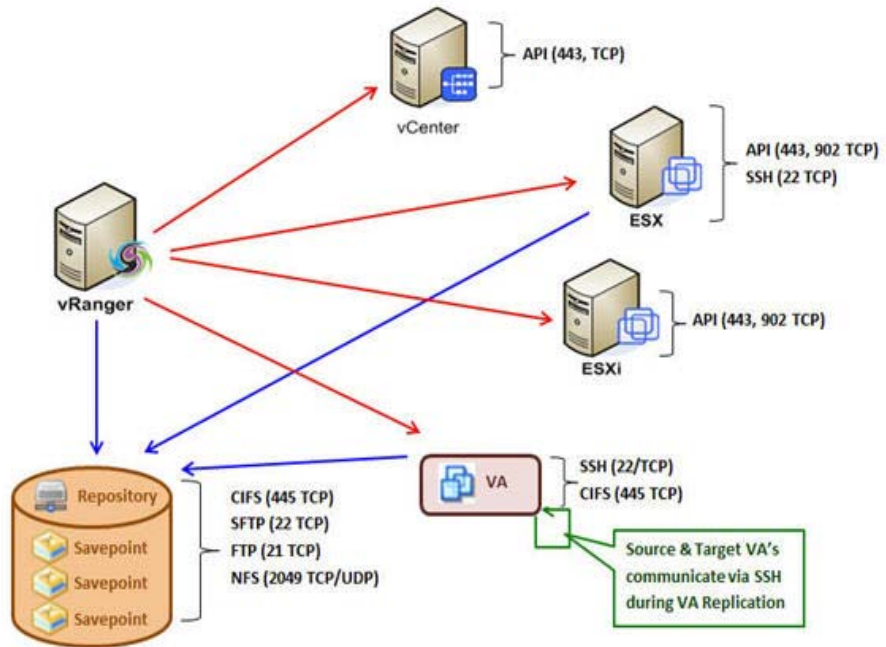
- A password should not include a significant portion of a user or account name.
- A password should be at least six characters long and should contain several characters from these categories:
 - Uppercase letters in English (A-Z)
 - Lowercase letters in English (a-z)
 - Digits (0-9)
 - Non-alphabetic characters (for example, \$, !, #, %)

Source and Destination Requirements

To access the VMs that you add, back them up and restore them, you must assign vRanger a login with appropriate permissions on each machine. That is, each VM must have a user account with full permissions to read and write to the disks where archives are stored. Make sure that the passwords that correspond to the logins do not expire.

Port Requirements

The diagram below depicts the ports used by each of the vRanger components.



LAN-Free and Hot Add Operation Notes

Backup/Restore tasks over SAN are supported if vRanger is installed on a physical machine.

Conversely, Backup/Restore tasks using Hot-Add, vRanger must be installed on a virtual machine. Additionally:

- hot-add only works on SCSI disks, not IDE disks
- any virtual machine being acted upon using vRanger (on a virtual machine) must be on a datastore that is visible to vRanger.
- if the virtual machine is within a datacenter, then only virtual machines located on hosts within that datacenter can be acted upon.

Replication Notes

vReplicator will not operate with servers that are behind a NAT firewall.

In order to properly Replicate through an NAT firewall, you must have an IP tunnel in place between two NAT'ed subnets. Contact your ISP provider to see if this option is available to you.

Note Hybrid replication is not supported fro ESXi, nor for ESX when using the Virtual Appliance.

Index

A

About vRanger 5

D

documentation

core 6

P

ports 13

R

Replication Notes 15

Requirements

hardware 10

port 13

software 10

S

support 8

Supported

Guest OS 12

platforms 11

Supported Disk Types 12

T

technical support 8

text conventions 6