

Quest[®] GPOADmin[®] 5.11

Release Notes

March 2017

These release notes provide information about the Quest[®] GPOADmin[®] release.

- [About this release](#)
- [New features](#)
- [Resolved issues](#)
- [Known issues](#)
- [System requirements](#)
- [Product licensing](#)
- [Getting started with GPOADmin 5.11](#)
- [About us](#)

About this release

GPOADmin gives organizations control of Group Policy Objects (GPOs) across the enterprise. Built to augment the Microsoft[®] GPMC, GPOADmin provides comprehensive GPO management with additional features such as offline editing, reporting, archival and restoration, version control, test framework, change notification and approval, and quick rollback in the event that an object change has unexpected results.

New features

New features in GPOADmin 5.11:

- [Desired State Configuration scripts within Version Control](#)
- [Group Policy Analysis Report](#)
- [Custom Search Folders](#)
- [Restrict GPO management for specific domains](#)
- [Disabled workflow for SOMs and WMI Filters](#)
- [Additional PowerShell commands](#)
- [Updated Settings and Difference Reports](#)
- [Group Policy Object Settings Search Report](#)
- [Prevent approval requester from approving their own changes](#)
- [Watcher service supports sub folders in the SYSVOL scripts folder](#)
- [Updated support](#)

- [Miscellaneous Enhancements](#)

Desired State Configuration scripts within Version Control

Desired State Configuration (DSC) extends Microsoft PowerShell to facilitate environment configuration — including your GPO deployment. Users with the appropriate permission can propose the creation of a script that does not currently exist in the enterprise environment and have it placed within the Version Control system.

i | **NOTE:** Only DSC PowerShell scripts are supported.

Before you can register DSC scripts, you must enable DSC support in the Server options and specify a DSC root directory for each domain that supports DSC scripts. This root directory serves as the starting point for the DSC script enumeration and deployment location.

The right to Create Desired State Configuration Scripts must be applied to users and groups that are assigned the Domain Read right in the selected domain. The Edit right on the Version Control container is also required.

Export GPOs as Desired State Configuration scripts

You can also export GPO's user and computer registry settings to a resource file to take advantage of Desired State Configuration scripts.

i | **NOTE:** You can also use the `Select-ExportAsDSCResource` PowerShell command to export the settings. You cannot register the resources using this command.

Group Policy Analysis Report

This Policy Analysis report displays the registry settings for GPOs within a selected Scope of Management. You can use this report to help to manage your deployment by comparing GPOs to identify information such as duplicate settings, inconsistencies, or how many times a value has been changed.

You can run the report by either:

- Right-clicking a registered Scope of Management and selecting **Reports | Policy Analysis**.
- Right-clicking an unregistered Scope of Management and selecting **Policy Analysis**.
- Using the Report Wizard.

The report details include:

- The registry key, the key name, and the value. (Hovering your mouse over any bold names or the information icon provides more registry information.)
- The GPO name. (Hovering your mouse over the GPO name, displays the distinguished name for the SOM the policy is linked to.)
- A gray background signifies that the setting is not set in the GPO.
- A white background signifies that the setting is set in the GPO.
- A yellow background signifies that the setting has changed in the GPO.

i | **NOTE:** Required rights

- To run the report on the live environment, you must have the domain Read and domain Report rights.
- To run the report by right-clicking an SOM, you must have the **Run Contextual Report right**.
- To run the report from the report wizard, you must have the Run Reports, domain Read, and domain Report rights.

GPOAnalyzer Utility

The Policy Analysis report does not check the security or validate the WMI filters. To analyze whether users have access to a GPO and how WMI filtering has been set to apply group policy objects, we have provided the GPOAdmin.GPOAnalyzer.exe command-line utility.

To run the utility, start a command prompt and specify GPOAdmin.GPOAnalyzer.exe with the appropriate parameters.

Table 1. Available parameters

| Parameter | Required or optional | Description |
|-----------|----------------------|---|
| /Domain | Required | Scope of Management fully qualified domain name. |
| /SOMDN | Required | Scope of Management distinguished name. |
| /Output | Required | File name for the saved report. |
| /x | Optional | Force the output to be in XML. (The default is HTML) |
| /DC | Optional | Domain controller to communicate with. (The default is the PDCe) |
| /S | Optional | Process security filters. This checks to see if the current user can access the GPO. (The default is set to not check security.) |
| /F | Optional | Validate GPO WMI filters. (The default is set to not check WMI filters to see determine if a GPO should be processed.) |
| /L | Optional | Use the locally stored GPO definition. (The default is to use the central store, if configured. If not, the local policy definition is used.) |
| /V | Optional | Log progress to the screen. |
| /U | Optional | Process only the user configuration. (The default is user and computer.) |
| /C | Optional | Process only the computer configuration. (The default is user and computer.) |

Custom Search Folders

Custom search folders allow you to combine many variations to augment the ability to view the status of the objects within your Version Control system deployment. Custom searches you can:

- Create a search to return results based on one or more of the following properties:
 - Cloaked
 - Compliant
 - Deleted
 - Domain Name
 - Unique ID
 - Locked
 - Name
 - Status
 - Pending Action
 - Type
 - GPOAdmin ID
 - Workflow Enabled
 - Keywords

- If the search only returns GPOs, you can further filter the based on GPO search contents through the **Apply settings to results** option and entering a specific value.

Restrict GPO management for specific domains

If necessary, you can restrict access to domains to ensure that only specified individuals or groups can view, register, create, and report on items in a domain. You can fine-tune the level of available management based on the level of security.

By default, the Domain Users group is assigned all domain rights to their corresponding domain. To take advantage of the new level of security, you must remove Domain Users and assign rights as appropriate.

- **IMPORTANT:** These rights refer to domain access and work with the existing GPOAdmin delegated user rights that are in place; they do not replace them.

Disabled workflow for SOMs and WMI Filters

If you have the Enable/Disable right, you can now enable and disable the workflow for Scopes of Management and WMI filters.

Additional PowerShell commands

The following new commands have been added to help you deploy and manage GPOAdmin's new functionality:

- New-Trustee
- Get-SecurityFilter
- Set-SecurityFilter
- Get-DSCRootPath
- Get-EnableDSCSupport
- Select-ExportAsDSCResource
- Set-DSCRootPath
- Set-EnableDSCSupport
- Get-RootContainerAssignment
- Add-RootContainerAssignment
- Remove-RootContainerAssignment
- Clear-RootContainerAssignment
- GetWorkflowDisabledSOMs
- GetWorkflowDisabledWMIFilters
- GetWorkflowEnabledSOMs
- GetWorkflowEnabledWMIFilters

Updated Settings and Difference Reports

The Settings and Difference reports now indicate which deny right is applied to users and groups on specific GPOs. This corresponds to the deny rights that are set on the Advanced Security tab for GPOs. Administrators can use this information to help determine why specific users are unable to access a GPO.

Group Policy Object Settings Search Report

This report runs a text search against Group Policy Object settings for names and values. The most recent version of the GPO is searched for any details containing the text string you have submitted. This report also includes Authentication Services settings.

- i** | **NOTE:** If you want to include Authentication Services in the Settings, Difference, or Group Policy Settings Search reports, you must make a change in the registry settings due to product rebranding. For detailed instructions, see the Release Notes.

Notification updates

You can attach read and delivery receipts to notification messages to help you to stay informed of the latest changes to objects under version control. Once enabled, the email specified in the “From” address can confirm that notifications are received and/or read after they are sent.

Prevent approval requester from approving their own changes

You can configure the server options to ensure that a user cannot approve their own changes, even if they are in the approver's list for the object.

Watcher service supports sub folders in the SYSVOL scripts folder

Scripts contained in the SYSVOL Scripts folder (and its sub folders) can be registered and will be detected by the Watcher Service and reported as non-compliant. DSC scripts are not monitored by the Watcher Service.

Updated support

- SQL 2016
- Windows Server 2016
- TLS/SSL connection. When connecting to Office 365 for standard SMTP notifications, the From account must have access to the mailbox of the authentication account

Miscellaneous Enhancements

- System variables are supported in custom workflow actions.
- The service account can be authenticated by systems other than just NTLM authentication during installation.
- WMI Filter assignments are part of GPO synchronization.
- Comments added to actions in Windows Event logs.

Resolved issues

The following is a list of resolved issues in this release.

Table 2. Resolved issues

| Issue | Issue ID |
|---|----------|
| The Group Policy Object Settings Search Report does not report on policy settings from Quest Authentication Services. | 108289 |
| GPO Difference Report does not report name changes as a difference. | 463093 |
| Restore option is missing from the context menu for WMI Filters in the console. | 463000 |
| Unable to export a GPO as a protected settings policy to the Protected Settings Root container using PowerShell. | 462676 |
| During an upgrade, GPOAdmin will overwrite any custom port number with the default value. To continue using the custom value, you must manually reassign the value and restart the service. | 64307 |
| Selecting a new service to connect to through the Dashboard's Connections view or the drop-down option does not switch to the desired service. | 612961 |
| Operating-specific settings for versions later than Windows XP are not returned in the GPO Settings Search report. | 488100 |

Known issues

ⓘ | **NOTE:** Defects with leading zeros (0) are from the Clarify system.

The following is a list of issues, including those attributed to third-party products, known to exist at the time of release.

Table 3. Installation

| Known issue | Issue ID |
|---|----------|
| Upgrading removes Authentication Services integration settings. See Upgrade and compatibility on page 11 for details. | 613018 |
| The Remote Registry service must be running on the targeted GPOAdmin service when installing the Watcher service standalone. Workaround: Use the silent install instructions found in the GPOAdmin User Guide. | 613030 |
| When installing the GPMC Extension standalone or the Watcher service feature only, the installer does not write the selected GPOAdmin service to the registry. Workaround: GPMC Extension – Change the ServerName value under HKEY_LOCAL_MACHINE\SOFTWARE\Quest\GPOAdmin\GPMCExtension Watcher Service – Change the ServerName value under HKEY_LOCAL_MACHINE\SOFTWARE\Quest\GPOAdmin\WatcherConfig | 613019 |
| The SMTP setting is disabled after an upgrade from GPOAdmin version 5.9 or 5.10 to 5.11. Workaround: After the upgrade, re-enable the SMTP notifications through the server Options. (Right-click the forest, and select Options Notifications SMTP to modify the global SMTP notification options.) | 606101 |
| If you are running GPMC during an upgrade, you must close and re-open it before the GPO Management tab will display. | N/A |

Table 3. Installation

| Known issue | Issue ID |
|--|-----------------|
| If you set a custom report folder path in a previous version, you must change the reports folder path in the User Preferences to point to the existing folder. | N/A |
| GPOADmin may log you in as the previous user if you do not log in with new credentials. | 194197 |

Table 4. Cross-forest support

| Known issue | Issue ID |
|---|-----------------|
| If you create a SOM backup in one forest and import it to another, the links will appear as deleted GPOs if those GPOs cannot be accessed from the second forest. | 0228454 |

Table 5. Error messages

| Known issue | Issue ID |
|---|-----------------|
| If the system time is not synchronized between client and server, it can cause misleading error messages. | 0228332 |

Table 6. Version Control system

| Known issue | Issue ID |
|--|-----------------|
| Unable to run GPOADmin from ActiveRoles. GPOADmin has been rebranded and the latest version of ActiveRoles is unable to detect it. | 683514 |
| The context menu on the Linked Group Policy Objects page of the Group Policy Modeling Wizard results in the wizard losing focus when launched via Citrix XenDesktop. | 611801 |
| Backups will not be removed for unregistered objects when running the Remove-Backups PowerShell command. | 591669 |
| Rolling back a moved OU does not move the OU back to its original location. | 458939 |
| Using SQL as a backup store will not allow you to export historical versions of GPOs as Protected Settings Policies. | 370605 |
| When adding or removing an account from the Access tab in the GPOADmin Properties, the display may not function properly and hide accounts. | 445238 |
| Due to the caching of connection credentials, it is possible for a user to gain elevated access if multiple connections to the same Version Control system are opened from the same instance without restarting the client. | 445252 |
| Each time that you change the Enable workflow approval through email option, you must restart the service for the change to take effect. | 360005 |
| Compliance actions may result in an unhandled exception in the GPMC Extension. Workaround: To avoid this issue, you can either perform the compliance actions in the client or by running the Check compliance wizard. | 322839 |
| If users do not have the User role assigned on the Version Control root, they may not have the required rights to successfully execute the User Activity report. | 238909 |
| If an object is renamed or deleted within Active Directory®, the Approvals tab does not reflect the change. | 246579 |
| Some GPO settings are not backwards compatible between operating systems. For example, you can't import GPO settings from a Microsoft® Windows® Server 2012 version control system into a GPO in a Microsoft® Windows® Server 2008 version control system. | 122825 |
| When you edit GPOs, you are notified of persistent registry values through a flashing icon on the Registry Cleanup button in the GPO Editor. For this notification to display, you must first close and then open the GPO Settings property page by selecting the Edit menu. | 240689 |
| The Watcher Service needs to be restarted after changing Configuration Stores. | 65408 |

Table 6. Version Control system

| Known issue | Issue ID |
|---|-----------------|
| Deploying a GPO containing existing Software Installation packages may cause each of those packages to be reinstalled on target workstations. | 0222515 |
| MMC snap-in may become unresponsive when rolling back changes on 15 or more GPOs in the Check Compliance wizard. | 108919 |
| Times displayed in GPOAdmin reports will be in the local time zone of the client machine. Any times displayed in the GPMC settings reports will appear in the time zone of the GPOAdmin server. | 0135484 |
| When checking for compliance, GPOAdmin will not perform a backup if the unauthorized changes result in an object in the same state as the currently stored version. | 106505 |
| If you do not have the appropriate language packs installed, GPOs created using Japanese characters on a Japanese OS will not display on an English OS. | 0229308 |
| After changing storage locations, the individual version information is not transferred from the old storage location to the new. You must keep the old storage server online if you want to still access those individual versions. | 0229309 |
| When using the SeizeVCRole.exe utility, if a port is specified with the new server name, the utility assumes that the new server is ADAM. When using an Active Directory® Version Control server, the default port of 389 does not need to be specified. | 0229311 |
| GPOAdmin will not delete the information stored in the directory when it is uninstalled. The Version Control information may be deleted manually if it is no longer required. GPOAdmin uses "working copies" of objects for editing purposes. If the Version Control information is deleted from the server, while objects are still pending creation or in a minor version, these working copies may be seen as "Unregistered" if a new instance of the version control information is instantiated. | 0229312 |
| Working with large (3-5MB) GPOs in the GPMC Extension has the potential for the GPOAdmin Service or Watcher Service to become unresponsive. | 108921 |
| When you are editing a GPO with both the GPOAdmin console and the GPMC Extension open, closing the Group Policy Object Editor may not return you to the expected interface. | 91914 |

Table 7. Reports

| Known issue | Issue ID |
|---|---------------------|
| For GPO difference reports to run properly when they contain Authentication Services settings, Quest Authentication Services must be installed on the GPOAdmin client and the GPOAdmin server. | 284883 |
| In the Difference Report, filters are not supported for GPO Preference settings. | 151065 |
| When running the Difference Report for a GPO that contains Scheduled Task Preference settings, the date and time options displayed in the report may not be as expected. | 151232, 151435 |
| If the Service Account does not have the correct access to generate Group Policy Results reports, you may receive miscellaneous errors throughout the Report Wizard. To properly generate Group Policy Results reports for a user or computer, the Service Account must have Read Group Policy Results data permission on the domain or OU that contains the user or computer, or the Service Account must be a member of a local Administrator's group on the targeted computer. | 0104882, 0106937 |
| The MMC snap-in may become unresponsive when running the Group Policy Object Consistency Report with 5000 or more GPOs. | 108930 |
| In the Group Policy Settings and Resultant Set of Policies reports, some dates (for example, Created, Modified and Applied date) will display with the time zone of the GPOAdmin Server. | 102486 |
| Pre-existing GPO settings are being displayed in the Change Auditor Working Copies report. | 194922 |
| When viewing Preference settings in the Difference Report, the values displayed for text entries may have a capital letter when the actual value is a lower-case letter. This may cause some date settings to be incorrect. | 150634 |

Table 8. User Account Control

| Known issue | Issue ID |
|--|-----------------|
| When installing the GPOAdmin service on a system with User Account Control turned on, the installer must be launched using elevated privileges. To do this, run the 'Quest GPOAdmin.msi' file from an elevated command prompt. | 41286 |

Table 9. Third Party

| Known issue | Issue ID |
|--|---|
| Information about new Group Policy preferences in Windows® Server 2008. | http://support.microsoft.com/kb/943729 |
| "Object reference not set to an instance of an object" error message when you view the GPO backup settings in the Group Policy Management Console. | http://support.microsoft.com/kb/2379592 |
| You cannot read the GPO in the SYSVOL directory in Windows® 7 or in Windows® Server 2008 R2 if you enable the "Deny write" permission of the GPO. | http://support.microsoft.com/kb/2275315 |

System requirements

Before installing GPOADmin 5.11, ensure that your system meets the following hardware and software requirements.

Table 10. Hardware requirements

| Requirement | Details |
|-------------------|--|
| Processor | 2Ghz CPU |
| Memory | 8Gb RAM |
| Hard disk space | 1 Gb (prefer 50Gb if backups and reports stored on the same drive) hard disk space |
| Operating systems | Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows Server 2016 NOTE: Nano Server is not supported. NOTE: For Windows Server 2008, see https://support.microsoft.com/en-us/kb/2763674 . Quest provides the SHA-2 certificate with the understanding that even with this update, there may still be situations where certificate cannot be verified. NOTE: For Windows 7 or Windows Sever 2008 R2 see https://support.microsoft.com/en-us/kb/3033929 . |

GPOADmin requirements

- .NET Framework 4.5 and 4.6
- GPMC Extension compatible for the system where you are installing GPOADmin.
- Microsoft® Group Policy Management Console with Service Pack 1 or Remote Server Administration Tools

Configuration store requirements

- Active Directory® or AD LDS

Backup store requirements

- Network Share (recommended)
- Active Directory® (not recommended)
- AD LDS

- SQL Server

Watcher service

Same system requirements as GPOAdmin.

Upgrade and compatibility

Note the following when upgrading to GPOAdmin version 5.11:

- In previous versions of GPOAdmin ownership and delegation information was not collected as part of the backup process. Since this data is now included in the GPO backup, when upgrading from versions 5.9, 5.10, or 5.10.1 to version 5.11 the service account will be added as the owner. This is to ensure all GPOs will be in a compliant state post upgrade and will not have to be re-registered. Until the GPO is checked in with the newly upgraded version of GPOAdmin, GPO delegation may report incorrectly as compliant.
- In a minimum permissions environment, Group Policy Objects with a version of 0.x may fail to deploy correctly. To solve this, make a copy of the GPO and deploy the copy. Once this has been verified as successful, delete the original.
- After upgrading to version 5.11 ensure the “Ensure service account has access prior to deployment” service option is checked in the Options dialog.
- When you upgrade the Server, you must also upgrade the Client, GPMC Extension, and Watcher Service to version 5.11.
- GPOAdmin runs under the security context of a privileged service account that must have full access to GPOs in the managed forest. If you plan to change this account, you must unlock all GPOs before making the change.
- The supported upgrade paths are from versions 5.9 and 5.10.
- The live environment will only be visible for GPOAdmin Administrators and users who have been explicitly granted access.

As a GPOAdmin administrator, however, you may want to allow users to see the live environment from within the GPOAdmin console. This will, for example, enable you to delegate GPO, OU, or SOM object registration (and recursive registration) to specific users in your organization.

To permit a user to see the live environment:

- 1 Login to GPOAdmin as a GPOAdmin administrator.
- 2 Right-click the **Live Environment** node and select **Properties**.
- 3 On the **Security** tab, add one or more users who require access to the live environment.
- 4 Click **OK**.

Authentication Services integration

- To view Unix settings in GPOAdmin, Authentication Services must be installed after GPOAdmin is installed. See Support Knowledge Article 82383.

i **NOTE: Authentication Services and GPOAdmin version 5.11 integration**

Due to rebranding, changes are required in the registry setting for the integration to function correctly. Authentication Services installs to the following registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Quest Software\Quest Group Policy Manager\Extensions\vgp

GPOAdmin version 5.11 and above requires the settings to be installed under this registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Quest\GPOAdmin\Extensions\vgp

To import the settings into the registry at the correct location:

- 1 Export the key to a file, and change the key path (the bolded line) to the new path.

Old path:

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\Quest Software\Quest Group Policy Manager\Extensions\vgp]

"CLSID"="{F0648064-537A-45AF-98A4-74D2AABE867C}"

"ReportingDLL"="C:\\Program Files (x86)\\Quest Software\\Authentication Services\\x64\\SettingsProvider.dll"

"DisplayName"="QAS Group Policy for Unix"

"NamespaceUri"="urn:schemas-quest-com:vgp"

The new path:

Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\Quest\GPOAdmin\Extensions\vgp]

"CLSID"="{F0648064-537A-45AF-98A4-74D2AABE867C}"

"ReportingDLL"="C:\\Program Files (x86)\\Quest Software\\Authentication Services\\x64\\SettingsProvider.dll"

"DisplayName"="QAS Group Policy for Unix"

"NamespaceUri"="urn:schemas-quest-com:vgp"

- 2 Save the file.
- 3 Right-click the file, and select Merge. (You can also double-click it and select Yes on the warning dialog.)

This settings will now be in the correct location required for the integration to function.

Compatible Products

GPOAdmin 5.11 is compatible with the following software:

- Change Auditor 6.9.2
- Authentication Services version 4.1 (Note: Older versions will not work with Protected Settings.)

Product licensing

To activate a new installation

- 1 Launch the GPOAdmin client.
- 2 Right-click the GPOAdmin node and select Connect To.

- 3 Select an existing connection or create a new one using the “New” button.
- 4 Click Connect.
- 5 When the Invalid License dialog box displays, browse to and select your GPOADmin license file and click OK.

To update your existing license for a given server

- 1 Launch the GPOADmin client and connect to the server where you want to update the license.
- 2 Right-click the forest for that connection and select **Options**.
- 3 In the Options dialog expand **License | Current License**.
- 4 Check the **Update License** check box and browse to and select your updated license.
- 5 Click **OK**.

Getting started with GPOADmin 5.11

- [Installation instructions and notes](#)
- [Additional resources](#)

Installation instructions and notes

Refer to the Quest GPOADmin Quick Start Guide for installation instructions.

Consider the following before installing GPOAdmin:

i NOTE: Group policy modeling report

The Group policy modeling report displays the resultant set of policies based on the selected simulation options within the modeling session. An application partition is created during the simulation to house the report. It contains a temporary staging container that will be deleted once the report has been generated. The service account must have permissions to create an Application Partition in Active Directory.

If required, you can create or delete the staging application directory partition:

- 1 Open Command Prompt.
- 2 Type:
ntdsutil
- 3 At the ntdsutil command prompt, type:
domain management or partition management
- 4 At the domain management command prompt, type:
connection
- 5 At the server connections command prompt, type:
connect to server ServerName
- 6 At the server connections command prompt, type:
quit
- 7 At the domain management command prompt, do one of the following:
 - To create an application directory partition, type:
create nc dc=staging,dc=gpoadmin DomainController
For every domain controller which might be used to run the Group policy modeling report on, type the following:
add nc replica "dc=staging,dc=gpoadmin" DomainControllerName
 - To delete an application directory partition, type:
delete nc dc=staging,dc=gpoadmin

Additional resources

Additional information is available from the following:

- Online product documentation <https://support.quest.com/technical-documents>.
- Quest community <https://www.quest.com/Community#>.

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. It supports simultaneous operation with multilingual data. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

About us

We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation.

Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece—you—to the community, to the new Quest.

Contacting Quest

For sales or other inquiries, visit <https://quest.com/company/contact-us.aspx> or call +1-949-754-8000.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.

© 2017 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 Software 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 Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE 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 SOFTWARE 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 SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software 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 Software 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 Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our website (www.quest.com) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at www.quest.com/legal.

Trademarks

Quest, the Quest logo, GPOADmin, and Change Auditor are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit <https://www.quest.com/legal/trademark-information.aspx>. All other trademarks and registered trademarks are property of their respective owners.

Legend

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

 **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

 **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.