



Quest[®]
Recovery Manager 7.10
for Active Directory



What's New

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Intended Audience

This document has been prepared to assist you in becoming familiar with Recovery Manager for Active Directory. The What's New contains the information required to install and use Recovery Manager for Active Directory. It is intended for network administrators, consultants, analysts, and any other IT professionals using the product.

Conventions

In order to help you get the most out of this guide, we have used specific formatting conventions. These conventions apply to procedures, icons, keystrokes and cross-references.

ELEMENT	CONVENTION
Select	This word refers to actions such as choosing or highlighting various interface elements, such as files and radio buttons.
Bolded text	Interface elements that appear in Quest Software products, such as menus and commands.
<i>Italic text</i>	Used for comments.
<i>Bold Italic text</i>	Used for emphasis.
Blue text	Indicates a cross-reference. When viewed in Adobe® Reader®, this format can be used as a hyperlink.
	Used to highlight additional information pertinent to the process being described.
	Used to provide Best Practice information. A best practice details the recommended course of action for the best result.
	Used to highlight processes that should be performed with care.
+	A plus sign between two keystrokes means that you must press them at the same time.
	A pipe sign between elements means that you must select the elements in that particular sequence.

About Quest Software, Inc.

Quest Software, Inc., a two-time winner of Microsoft's Global Independent Software Vendor Partner of the Year award, delivers innovative products that help organizations get more performance and productivity from their applications, databases Windows infrastructure and virtual environments. Through a deep expertise in IT operations and a continued focus on what works best, Quest helps more than 100,000 customers worldwide meet higher expectations for enterprise IT. Quest's Windows management solutions simplify, automate secure and extend Active Directory, Exchange Server, SharePoint, SQL Server, .NET and Windows Server as well as integrating Unix, Linux and Java into the managed environment. Quest Software can be found in offices around the globe and at www.quest.com.

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Contacting Quest Support

Quest Support is available to customers who have a trial version of a Quest product or who have purchased a commercial version and have a valid maintenance contract. Quest Support provides around the clock coverage with SupportLink, our web self-service. Visit SupportLink at <http://support.quest.com/>

From SupportLink, you can do the following:

- Quickly find thousands of solutions (Knowledgebase articles/documents).
- Download patches and upgrades.
- Seek help from a Support engineer.
- Log and update your case, and check its status.

View the **Global Support Guide** for a detailed explanation of support programs, online services, contact information, and policy and procedures. The guide is available at: [http://support.quest.com/pdfs/Global Support Guide.pdf](http://support.quest.com/pdfs/Global%20Support%20Guide.pdf).

Note: This document is only available in English.

What's New in Recovery Manager for Active Directory 7.10

As a result of ongoing research and development, and in response to customer feedback, this version of Recovery Manager for Active Directory provides support for Windows Server 2008 R2 and offers improved management of deleted directory objects. The next sections provide more information on these new features.

Support for Windows Server 2008 R2

This release of Recovery Manager fully supports Windows Server 2008 R2, a new version of the Windows operating system.

The Windows Server 2008 R2 support enables you to

- Install and use Recovery Manager on a computer running any edition of Windows Server 2008 R2.
- Back up and restore Active Directory data in a domain or forest whose functional level is Windows Server 2008 R2.
- Perform a number of tasks based on Microsoft's Active Directory Recycle Bin, a new feature in the Active Directory version supplied with Windows Server 2008 R2. For more information, see ["Perform Tasks Based on Microsoft's Active Directory Recycle Bin Feature" on page 8.](#)

Improved Management of Deleted Objects

This version of Recovery Manager offers improved management of deleted directory objects, allowing you to

- More easily locate and recover specific objects in the **Deleted Objects** container provided by Recovery Manager.
- Perform a number of tasks based on Microsoft's Active Directory Recycle Bin feature.
- Recover deleted objects along with their parents.

More Easily Locate and Recover Specific Deleted Objects

To locate and recover specific deleted objects with Recovery Manager, you can use the **Deleted Objects** container that is provided for each domain displayed in the Recovery Manager console and Active Directory Users and Computers tool (ADUC) on the Recovery Manager computer. Regardless of where you access that container (in the Recovery Manager console or ADUC), it provides you with uniform functionality to locate and selectively undelete particular objects or restore them from a backup created with Recovery Manager.

The new functionality implemented in the **Deleted Objects** container helps you to more easily locate specific deleted objects in a domain. When viewing the contents of the **Deleted Objects** container, you can now use the Recovery Manager console and ADUC to sort, group, or filter the objects by such criteria as name, type, deletion date, tombstone lifetime, or deleted object lifetime if Microsoft's Active Directory Recycle Bin feature is enabled.

When viewing the contents of the **Deleted Objects** container, you can now use the Recovery Manager console and ADUC to sort, group, or filter the objects by such criteria as name, type, deletion date, and lifetime end (when the object's tombstone lifetime expires or when the object's deleted object lifetime expires, if the object is deleted in a Windows Server 2008 R2 environment with Microsoft's Active Directory Recycle Bin feature enabled).

You can now select how you want the contents of the **Deleted Objects** container to be presented: in hierarchy or as a flat list.

The hierarchical view shows deleted objects and containers (organizational units or OUs) and existing containers that include deleted objects. In this view, each deleted object is shown in the organizational structure level where it resided right before deletion. While using the hierarchical view, you can select and recover specific deleted items or recover all deleted items in a particular existing container (OU) at once by performing the **Recover Deleted Objects** command on that container.

The flat list view presents the contents of the **Deleted Objects** container as a plain, one-level list of deleted items. This view hides existing containers, allowing you to concentrate on the deleted items you may need to undelete or restore from backup.

Perform Tasks Based on Microsoft's Active Directory Recycle Bin Feature

The Active Directory version supplied with Windows Server 2008 R2 operating system introduces a new feature—Microsoft's Active Directory Recycle Bin. Recovery Manager integrates with this Microsoft's Active Directory Recycle Bin feature to

- Selectively undelete objects.
- Transfer a deleted object's state to "recycled".
- Display a list of recycled objects in a domain.

When enabled in your forest, Microsoft's Active Directory Recycle Bin feature significantly changes the deleted object lifecycle: deleting a directory object results in the object going through the following successive states:

- State 1: Deleted
- State 2: Recycled

Upon its deletion, the object's state is changed to "deleted" and the object appears in the **Deleted Objects** container provided by Recovery Manager. The deleted object, however, retains all its attributes, links, and group memberships that existed at the moment of deletion (unlike in pre-Windows Server 2008 R2 versions of Active Directory, where each deleted object retained only a partial set of its attributes). The object remains in the deleted state for a specified configurable period of time that is called *deleted object lifetime*. When the applicable deleted object lifetime period expires, the object is transferred to the next state—"recycled".

While a deleted object remains in the "deleted" state, you can use the **Deleted Objects** container provided by Recovery Manager to undelete the object with all its attributes, links, and group memberships that existed immediately before deletion. Alternatively, you can use a backup created with Recovery Manager to restore the object to a specific backed-up state.

In an environment where Microsoft's Active Directory Recycle Bin feature is enabled, you can use Recovery Manager to override the applicable deleted object lifetime setting and manually change a deleted object's state from "deleted" to "recycled".

After a deleted object is transferred to the "recycled" state, most of the object's attributes are purged (stripped away), and the object retains only those few attributes that are essential to replicate the object's new state to other domain controllers in the forest. The object remains in the recycled state for a specified configurable period of time that is called *recycled object lifetime*. You can use the **Deleted Objects** container provided by Recovery Manager to view a list of recycled objects in a domain.

Recover Deleted Objects Along with Their Parents

This new version of Recovery Manager makes it possible to recover a deleted Active Directory object even if its parent container is also deleted. When recovering such an object, Recovery Manager identifies the object's last known parent by retrieving the value of the object's LastKnownParent attribute. If the last known parent is deleted, Recovery Manager recovers the deleted object along with its parent.

What's New in Recovery Manager for Active Directory 7.9

As a result of ongoing research and development, and in response to customer feedback, this version of Recovery Manager for Active Directory includes the major new features described in the following subsections.

Reporting on Users Who Modified AD Objects

The Recovery Manager comparison reports on Active Directory objects now can include information about who (which user account) modified the objects being reported. This functionality is based on the auditing capability provided by ChangeAuditor for Active Directory, an award-winning Quest Software product that helps to proactively track, audit, report, and alert on vital Active Directory changes—in real-time and without the overhead of native auditing.

In order to benefit from this new functionality, you must install ChangeAuditor in Recovery Manager's home forest, so that Recovery Manager can integrate with ChangeAuditor to obtain info on who modified the objects.

For more information about using this feature and the versions of ChangeAuditor with which Recovery Manager can integrate, please refer to the *User Guide* supplied with this release.

You can find out more about ChangeAuditor for Active Directory on the Quest Software Web site at www.quest.com.

Granular Backup Retention Policies

A backup retention policy allows you to specify the maximum number of backups you want to retain in backup repositories (or storages) for a Computer Collection. Old backups outside of the number you specify in the retention policy will be permanently deleted to free space for new backups.

In previous versions of Recovery Manager, you could only set one retention policy for all Recovery Manager backup repositories that include the Recovery Manager computer, backed-up domain controllers, or network shares accessible from these computers. In this new release, you can use Computer Collection properties to set an individual backup retention policy for each of these repositories:

- **The Recovery Manager computer repository.** This repository, also known as the console storage, includes the Recovery Manager computer and network shares accessible from that computer.
- **The domain controller repository.** This repository, also known as the DC storage, includes the backed-up domain controllers and network shares accessible from those domain controllers.

Sorting, Grouping, and Filtering of Deleted Objects

When using the Active Directory Users and Computers (ADUC) tool on the Recovery Manager computer to view and reanimate deleted objects, you can now benefit from sorting, grouping, and filtering the objects by a number of criteria. This new functionality helps you to more easily locate and reanimate specific deleted objects among those many held in the **Deleted Objects** container provided by Recovery Manager in the ADUC tool.

For example, you can sort, group, or filter deleted objects by their names, date when they were deleted, tombstone lifetime expiry date, object type, or GUID.

Ability to Select Default Method for Compare and Restore Operations

The Recovery Manager settings have been expanded to include a new option that allows you to set a preferred default method for compare and restore operations performed in the Online Restore Wizard. You can select either the agentless method or the agent-based method. When using the Online Restore Wizard, you can always change the default method set in the Recovery Manager settings.

For in-depth information about the advantages and downsides of each of these methods, please refer to the *User Guide* supplied with this release.

Support for Internet Protocol Version 6 (IPv6)

This release of Recovery Manager fully supports IPv6, the new more secure version of the Internet Protocol, which is installed and enabled by default on domain controllers running the Windows Server 2008 or Windows Vista operating system. Now Recovery Manager runs equally smoothly both in mixed (IPv4 and IPv6) and in native IPv6 environments.

What's New in Recovery Manager for Active Directory 7.8

As a result of ongoing research and development, and in response to customer feedback, this version of Recovery Manager for Active Directory includes the major new features described in the following subsections.

Support for Windows Server 2008

Recovery Manager can now be installed and used on a computer running a 32-bit or a 64-bit version of Windows Server 2008. The Active Directory version supplied with Windows Server 2008 is also fully supported—you can use Recovery Manager to manage the objects that reside in Microsoft Windows 2008 Active Directory.

As compared to Recovery Manager version 7.7, the Support for Windows Server 2008 feature implemented in this new release of Recovery Manager has been extended with an option to automatically configure Windows Firewall on Windows Server 2008-based domain controllers. When this new option is enabled, Recovery Manager automatically configures a set of Windows Firewall settings on target Windows Server 2008-based domain controllers to allow Backup Agent traffic, thus helping you save time and resources maintaining a high level of protection from malicious applications.

Improved Windows Administrative Tools Extension

Now when backing up, comparing, or restoring Active Directory objects from within the Active Directory Users and Computers (ADUC) tool, you are presented with a wizard that guides you step-by-step through the restore, compare, or backup operation.

Besides providing a better user experience, the Backup Wizard, Compare Wizard, and Restore Wizard accessible from within the ADUC tool allow you to

- View the restore, backup, or compare operation status.
- Select a method you want to use to access target domain controller: the agent method or the agentless method.
- Specify the child object types to be restored or compared.
- Access password-protected Active Directory backups created with Recovery Manager.
- Generate reports about the operation results and select whether or not to include information about unchanged Active Directory objects and/or object attributes into these reports.

Improved Management Shell

The Recovery Manager Management Shell feature, built on Microsoft Windows PowerShell technology, is improved to include more parameters for the existing command-line tools (cmdlets). Cmdlet Help is also updated to reflect the addition of the new parameters. For more information about the Management Shell and how to get Help for the Management Shell cmdlets, please refer to the *User Guide* supplied with this release of Recovery Manager for Active Directory.

Filters for Active Directory Objects to Be Restored

Selecting objects for an online restore operation has become easier: when viewing a list of objects whose state in backup differs from their state in Active Directory, you can now apply a filter to that list. Depending on what objects you chose to display, the list includes only deleted objects, only changed objects, or both deleted and changed objects.