

# Restoring an Image through Site Manager

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## Introduction

Site Manager allows image backups to be restored to the managed computer they were taken from without leaving the Site Manager interface. This process is designed for simple restore activity with the following features:

- Non-system partitions will be restored without restarting the client computer.
- System partitions will be restored by restarting the client computer in Windows RE (if available) or Windows PE.  
**Note:** If required, the Windows PE component files will first be automatically copied to the agent PC and the recovery boot menu added. The restore will then automatically be continued in the PE rescue environment.
- Full progress of the restore is shown in the dashboard '**Activity**' widget. This includes restores running in Windows PE.
- A configurable restore alert message dialog can optionally be shown on the agent computer.
- Users logged on to the client computer can optionally cancel the restore operation.

## Advanced Restores

To restore a computer that is not online in Site Manager or requires options not available in the Site Manager restore, see the [Restoring an Image Through Macrium Reflect](#).

Site Manager will copy user-supplied drivers from the server to the target agent immediately before the restore so that the recovery environment supports agent hardware. Drivers to be copied should be placed in the rescue media working directory drivers folder, under any subfolder scheme desired. The Site Manager server will analyze the drivers and inject only those drivers suitable for the version of Windows PE that is used for generating the rescue media.

For example, network card drivers to be used during restores of certain servers should be placed in **workingDirectory\drivers\IT Servers\Network Cards** where **workingDirectory** is the rescue media working directory as specified in the rescue media settings. These folders will need to be created manually.

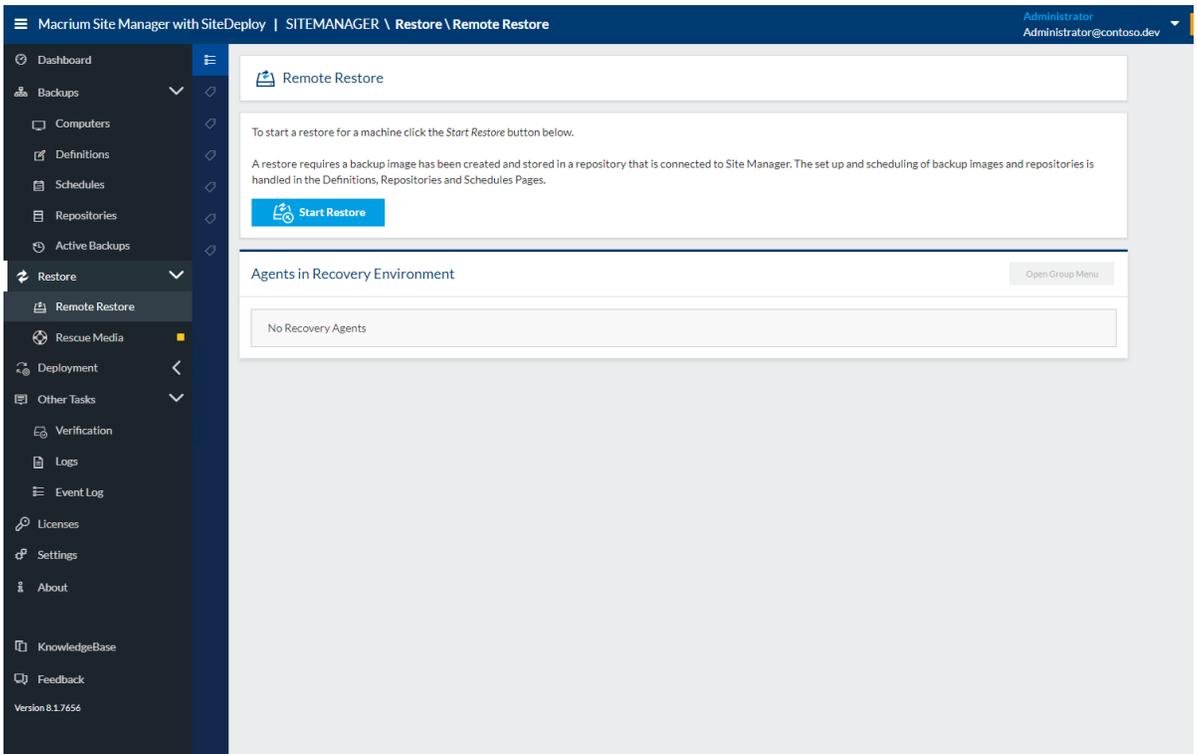
## Restoring an Image using Site Manager

The Site Manager restore process is a wizard-driven process with a number of stages. Restores using the Site Manager console can be initiated to managed computers that are booted into Windows or connected computers that have been booted using the rescue media. The way that computers are selected will depend on whether they are booted into Windows or the rescue media.

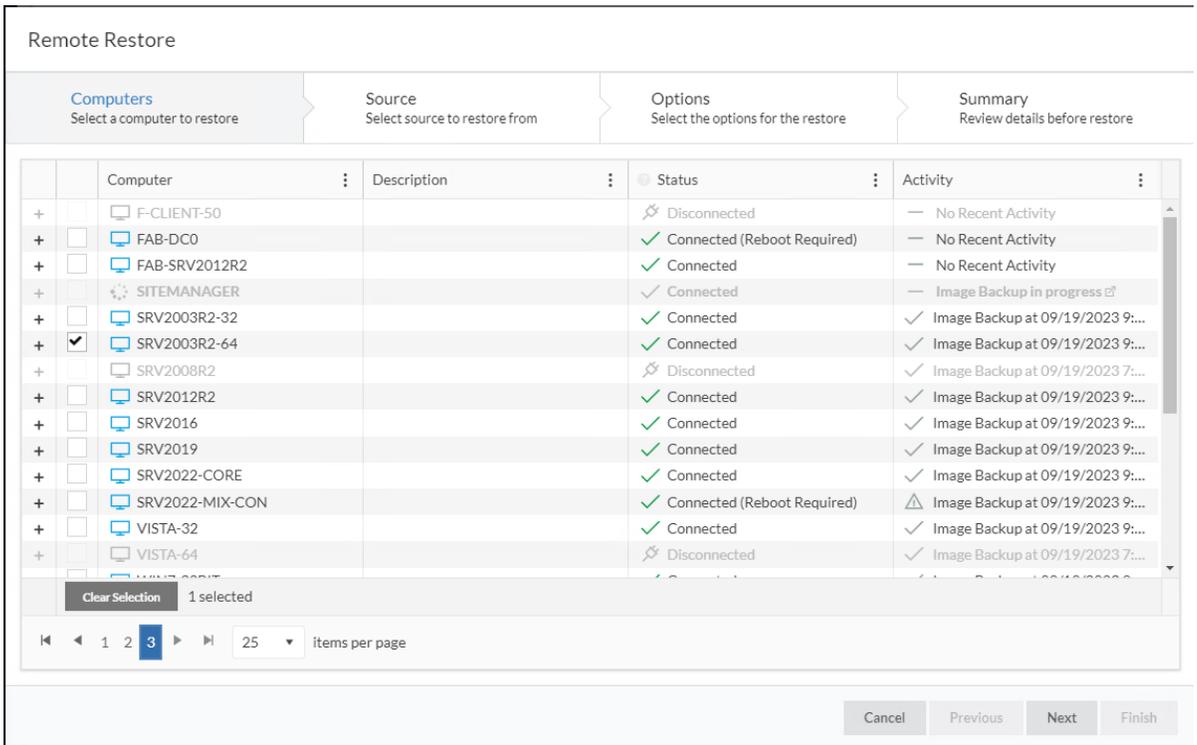
### Selecting a Computer Booted into Windows

Select the '**Restore**' side menu. Starting from Site Manager 8.1, restores can be initiated to computers that have been booted with the rescue media, for more information on this, see '**Using Site Manager to Restore a Computer Booted into the Rescue Media**' further down this page. To initiate a restore to a managed computer booted in Windows, select '**Start Restore**':

**Note:** Only one PC can be restored at a time



On the 'Computers' page of the remote restore wizard, select the computer that will be the target for this restore:



Click **'Next'** to display a list of images found in repositories for the selected computer. Selecting an image file will display the disk(s) and partition(s) in the image file.



### Selecting a Computer Booted into Rescue Media

From Site Manager 8.1, rescue media created by the Site Manager contains the boot media agent. This enables a restore to be initiated, using the Site Manager console, for managed computers that have been booted using the rescue media. See this article for more information about the boot media agent. This allows the physical boot of the machine to be performed by an on-site technician and the actual selection of the restore image and start of the backup to be performed from the central management UI.

Bare metal restores and restores to unmanaged computers will need to be performed manually since the computer is not managed by the Site Manager.

Computers that are managed by the Site Manager (have the Site Manager Agent installed on their operating system) will have their name displayed in the **'Agents in Recovery Environment'** section of the **'Restore'** page. Computers that do not have a Site Manager Agent installed will be shown as **'RECOVERY:X'**, and cannot be restored to using the Site Manager console. Computers can be selected using the checkbox shown next to each computer.

Remote Restore

To start a restore for a machine click the *Start Restore* button below.

A restore requires a backup image has been created and stored in a repository that is connected to Site Manager. The set up and scheduling of backup images and repositories is handled in the Definitions, Repositories and Schedules Pages.

Start Restore

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**Agents in Recovery Environment** Close Group Menu

Agents in the recovery environment can only be restored to if the agent is recognised by Site Manager. To be recognised an agent must have connected to Site Manager before entering the recovery environment. Hardware changes can prevent an agent from being recognised.

	Name	Status	Window PE Version	MAC Addresses	Logged In User
<input type="checkbox"/>	RECOVERY: 6	✗ Unrecognised Agent	Windows PE 10 (64-bit)	00:15:5D:B3:36:08	
<input type="checkbox"/>	CLIENT01	✓ Ready	Windows PE 10 (64-bit)	00:15:5D:B3:36:07	

1 25 items per page

Click **'Next'** to display a list of images found in repositories for the selected computer. Selecting an image file will display the disk(s) and partition(s) in the image file.



### Selecting an Image File to Restore

**Note:** Only one disk may be restored at a time, but multiple partitions on the same disk may be selected.

Remote Restore

Computers Select a computer to restore

**Source** Select source to restore from

Options Select the options for the restore

Summary Review details before restore

SRV2003R2-64 Refresh

	Filename	Repository	Schedule	Definition	Type	Backup Date	Size
+	E4975291AA108FBB-0...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Full	9:00 AM 09/04/2023	1.85
-	E4975291AA108FBB-3...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Differential	9:01 AM 09/11/2023	69.7

MBR Disk 1 - Virtual HD 1.1.0 <50.00 GB>

1 - (None) (C:) Active - NTFS

5.27 GB / 49.99 GB

+	E4975291AA108FBB-6...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Differential	9:00 AM 09/18/2023	74.1
+	E4975291AA108FBB-7...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Incremental	7:00 AM 09/19/2023	51.1
+	E4975291AA108FBB-7...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Incremental	7:15 AM 09/19/2023	6.61
+	E4975291AA108FBB-7...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Incremental	7:31 AM 09/19/2023	340.
+	E4975291AA108FBB-7...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Incremental	7:45 AM 09/19/2023	10.8
+	E4975291AA108FBB-7...	\\Sitemanager\Backups	Intra-Daily ...	Mix Server OS	Incremental	8:00 AM 09/19/2023	6.07

1 25 items per page

Cancel Previous Next Finish

Select the partition(s) to restore and click 'Next'.

Cancel Previous **Next** Start Restore

### Selecting Restore Options

On the 'Options' page of the wizard, additional options can be specified for the restore. The available options are:

Remote Restore

Computers Select a computer to restore

Source Select source to restore from

**Options** Select the options for the restore

Summary Review details before restore

**Restore Options**

Rapid Delta Restore

SSD TRIM

Verify Image before Restore

**Client Notification**

Display message

Allow user to cancel

**Message to display**

A partition restore operation is about to start. Please close all open applications and save your work

**Time to display**

20 seconds

**Network Share Authentication**

Use Repository Credentials

**Username**

Backupuser

**Password**

.....

**Domain**

CONTOSO.DEV

Cancel Previous Next Finish

Option	Description																														
Rapid Delta Restore	Only changed blocks are restored and the restore completes much faster with this option selected.																														
SSD TRIM	<p>Affects restore operations to SSD only.</p> <p>Reflect can flag all unused blocks using the TRIM operation. Writing to an unused block is much quicker than an in-use block operation and the read-modify-write cycle. This results in an increase in both the lifetime and the performance of the device. It is effective for all Windows operating systems, even those that support SSD trim as the file system driver can only TRIM TRIM blocks written by another process. It is also effective for USB-attached SSDs.</p>																														
Verify image before restore	<p>Perform a full image verification prior to starting the restore process. If any corruption is found in the source image file</p> <p><b>Note:</b> Selecting this option will increase the restore time considerably.</p>																														
Install /Update Agent after restore	When this option is selected, the Site Manager Agent will be installed the next time an administrator signs in to the restore operation settings will be configured using the settings that have been specified on the 'Server Connection Details' page of the settings. If the agent is not installed, the Site Manager Agent and connection details will be updated. This ensures that, when restoring an older disk image with connection details, that the agent can connect to the Site Manager post-restore.																														
Network Share Authentication	Enter any authentication details to enable the computer being restored to access the image file network location. Either the 'Default Credentials Setup' is selected, custom credentials can be used.																														
Display Message	<p>When enabled, a message dialog is displayed to inform the client user(s) that a restore operation is about to start. The partitions being restored together with the custom message text. (This option is not available when restoring to a computer using the rescue media).</p> <div data-bbox="548 993 1482 1717" style="border: 1px solid #ccc; padding: 10px;"> <p style="text-align: center;">Macrium</p> <div style="background-color: #333; color: white; padding: 5px; text-align: center; border-radius: 5px;">  <b>Macrium Reflect Restore</b> </div> <p style="text-align: center; color: #0070C0;">A partition restore operation is about to start. Please close all open applications and save your work</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8pt;"> <thead> <tr> <th>#</th> <th>Volume</th> <th>Type</th> <th>FS</th> <th>Used</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Recovery (None)</td> <td>Primary</td> <td>NTFS</td> <td>318.5 MB</td> <td>450.0 MB</td> </tr> <tr> <td>2</td> <td>NO NAME (None)</td> <td>Primary</td> <td>FAT32 (LBA)</td> <td>25.1 MB</td> <td>95.0 MB</td> </tr> <tr> <td>3</td> <td>(None)</td> <td>Primary</td> <td>Unformatted</td> <td>16.0 MB</td> <td>16.0 MB</td> </tr> <tr> <td>4</td> <td>(C:)</td> <td>Primary</td> <td>NTFS</td> <td>47.36 GB</td> <td>99.45 GB</td> </tr> </tbody> </table> <p style="text-align: center; color: #0070C0;">The drives will be offline during the restore process. If you wish to cancel the restore process, please press the "Cancel" button below.</p> <div style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> <p style="font-size: 8pt; margin: 0;">11 sec remaining.</p> <div style="background-color: #008000; width: 60%; height: 10px; margin: 2px 0;"></div> <div style="border: 1px solid #ccc; width: 100%; height: 20px; margin: 2px 0;"></div> <div style="text-align: right; margin: 0;"> <input type="button" value="Cancel"/> </div> </div> </div>	#	Volume	Type	FS	Used	Total	1	Recovery (None)	Primary	NTFS	318.5 MB	450.0 MB	2	NO NAME (None)	Primary	FAT32 (LBA)	25.1 MB	95.0 MB	3	(None)	Primary	Unformatted	16.0 MB	16.0 MB	4	(C:)	Primary	NTFS	47.36 GB	99.45 GB
#	Volume	Type	FS	Used	Total																										
1	Recovery (None)	Primary	NTFS	318.5 MB	450.0 MB																										
2	NO NAME (None)	Primary	FAT32 (LBA)	25.1 MB	95.0 MB																										
3	(None)	Primary	Unformatted	16.0 MB	16.0 MB																										
4	(C:)	Primary	NTFS	47.36 GB	99.45 GB																										
Allow user to cancel	When enabled, the restore can be canceled by the user logged in to the client computer. (This option is not available when restoring to a computer booted using the rescue media).																														
Message to display	The text that will be displayed in the message dialog. (This option is not available when restoring to a computer that has been booted using the rescue media).																														
Seconds to display	The number of seconds to display the client message dialog. (This option is not available when restoring to a computer that has been booted using the rescue media).																														

Enter/select the restore options and click **'Next'**.



## Reviewing the Restore and Finishing

A summary of the restore selections and options is displayed. Confirm everything is OK and click **'Finish'**.

Remote Restore

Computers Select a computer to restore	Source Select source to restore from	Options Select the options for the restore	Summary Review details before restore
-------------------------------------------	-----------------------------------------	-----------------------------------------------	------------------------------------------

Image

Computer	SRV2003R2-64
File	E4975291AA108FBB-335-335.MRIMG
Repository	SM Share
Type	Differential
Path	\\Sitemanager\Backups\SRV2003R2-64\{4476DFFD-5E48-49F2-A578-28F8A59D2AEF}
Date	09/11/2023 9:01 AM

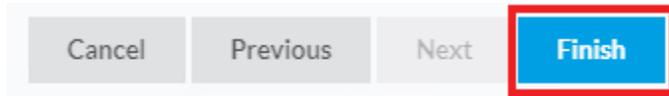
Options

Rapid Delta Restore	<input checked="" type="checkbox"/>
SSD TRIM	<input checked="" type="checkbox"/>
Verify Image	<input type="checkbox"/>
Displayed Message	A partition restore operation is about to start. Please close all open applications and save your work
Allow user to cancel	<input checked="" type="checkbox"/>
Auto start	After 20 seconds

Partitions to Restore

 MBR Disk 1 - Virtual HD 1.1.0 <50.00 GB>
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Cancel Previous Next **Finish**



## Viewing a Restore Progress

The restore starts and a message dialog is displayed on the client computer (if the **'Display Message'** option has been selected).

Macrium

## Macrium Reflect Restore

A partiton restore operation is about to start. Please close all open applications and save your work

 GPT Disk 1 [5ACEF863-CC14-4257-9089-89C9FDB86D9C2] - Msft Virtual Disk 1.0 <100.00 GB> 100.00 GB

#	Volume	Type	FS	Used	Total
	1 Recovery (None)	Primary	NTFS	318.5 MB	450.0 ME
	2 NO NAME (None)	Primary	FAT32 (LBA)	25.1 MB	95.0 ME
	3 (None)	Primary	Unformatted	16.0 MB	16.0 ME
	4 (C:)	Primary	NTFS	47.36 GB	99.45 GE

The drives will be offline during the restore process. If you wish to cancel the restore process, please press the "Cancel" button below.

11 sec remaining.



In Site Manager, notifications indicate the success of the restore request and initialization.

**Image Restore Started** 

16:32 - Computer: RESTORE-DEMO

 **Image Restore Succeeded** 

16:45 - Computer: RESTORE-DEMO

The message countdown and restore can be monitored in the dashboard 'Activity' widget.