# **MSI Installer**

# **Installation Guide**

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# About This Product

The MSI Installer is a program for installing software distributed in ".msi" file format. Our company normally distributes its software in exe file format, but some of our software is distributed in msi file format instead. By using the MSI Installer, automatic distribution and automatic installation of software from a server to a client computer is possible in an Active Directory environment.

#### About This Document

This installation guide explains how to automatically distribute software to a client computer using the MSI file installer and Active Directory, and install this software automatically without the user needing to do anything. This document is meant for Active Directory administrators. For information on how to install other software, refer to that software's user guide.

### **Usage Environment**

The following system environments are used for the explanations in this document.

- Server: Computers with "Microsoft Windows Server 2008 R2"
- Client Computer: Computers with "Microsoft Windows 7"

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#### **Dialog boxes**

The dialog boxes shown in this manual are those that appear in Windows 7 and Windows Server 2008 R2.



#### Detail

The dialog boxes that appear in this document may differ from those that appear on your PC, depending on the installed devices, specified settings, and PC that you are using.

#### Note

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# 1 Overview

# 1.1 About the MSI Installer

By linking the MSI file installer and Active Directory server, software can be automatically distributed from the server to a client computer and installed. Because installation/uninstallation is done automatically when the client computer is started up, no installation/uninstallation operations are required.

By configuring the distribution settings for multiple programs, the total amount of administration time needed to install the software can be reduced.

MSI files can also be installed directly using a client computer.

# 1.2 Required System Environment

Server

OS	Windows Server 2003 Standard Edition Windows Server 2003 Enterprise Edition Windows Server 2003 R2 Standard Edition Windows Server 2008 R2 Enterprise Edition Windows Server 2008 Standard Windows Server 2008 R2 Standard Windows Server 2008 R2 Enterprise Windows Server 2018 R2 Enterprise Windows Server 2012 Standard Windows Server 2012 R2 Standard
Software	The MSI file of the distributed software
System Environment	A server on which Active Directory is installed

#### Client Computer

OS	Windows Vista Business Windows Vista Enterprise Windows Vista Ultimate Windows 7 Professional Windows 7 Enterprise Windows 7 Ultimate
	Windows 8 Pro / Windows 8.1 Pro Windows 8 Enterprise / Windows 8.1 Enterprise
Software	Microsoft Visual C++ 2005 SP1 (x64) <sup>*1</sup>
System Environment	A computer managed with Active Directory*2

<sup>\*1</sup> Required for distributing some MSI files.

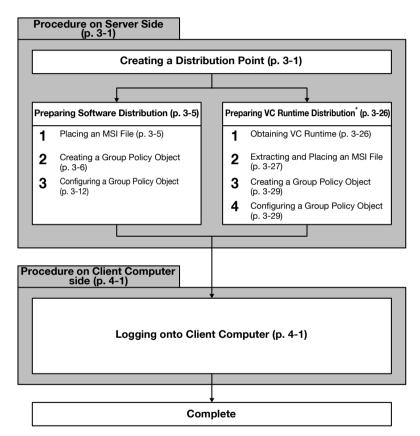
<sup>\*2</sup> The client computer must be on an Active Directory server domain.

Refer to the Readme file for the latest information about the operating environment.

# 2 Workflow

This section will explain the workflow up to software installation.

Operations are broadly categorized into server procedures and client computer procedures.



\*VC Runtime must be installed in order to distribute some MSI files. When distributing and installing VC Runtime, follow the procedure in Preparing VC Runtime Distribution. Refer to "Preparing VC Runtime Distribution" on page 3-26 for details on software that requires VC Runtime.

# 3 Preparing the Server

This section will explain how to prepare the server.

The MSI file of the distributed software must be placed and configured.

# 3.1 Creating a Distribution Point

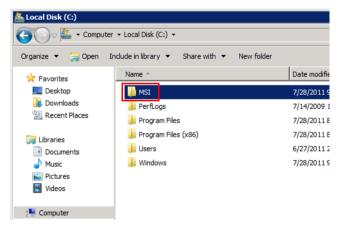
In order to install the software, the MSI file must be distributed to the client computer.

The file is distributed over a network, so a shared network folder that can be accessed from the client computer must be created on the server.

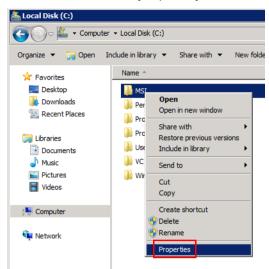
This shared network folder is called a "distribution point".

Procedure

- 1 Create a folder with whatever name you like.
  - In this example, the folder is called "MSI" and is created on the C drive.
  - Do not use double-byte characters in the folder name.



2 Right-click the folder and select [Properties].



3 Under the [Sharing] tab, click [Share].

📙 MSI Properties	×
Genera Sharing Security Previous Versions Cust	omize
General Sharing Security Previous Versions Cust Network File and Folder Sharing MSI Shared Network Path: VHV-ads/mai Security Previous Versions (Versions) Advanced Sharing Set custom permissions, create multiple shares, and s advanced sharing options. @ Advanced Sharing	
OK Cancel	Apply

3

- 4 Add the following groups to the list of people to share with, and click [Share].
  - Domain Computers
  - Domain Controllers
  - Domain Users

Add and change the groups as necessary for your usage environment.

🧾 File	e Sharing					X
$\bigcirc$	38 File Sharing					
	Choose people on your network to share with					
	Type a name and then click Add, or click the arrow to find someone					
	<u></u>		•	∆dd		
	Name	Permi	ission	Level		
	Report Domain Computers	Read	▼			
	A Domain Controllers	Read	•			
	🍇 Domain Users	Read	•			
	🤱 en	Owne	r			
	I'm having trouble sharing					
	In noring rouse sharing					
			_	- 1		
			_	😌 S <u>h</u> are	Cancel	

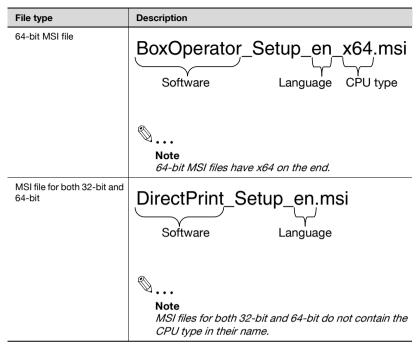
#### How to View an MSI File

This section will explain MSI filenames.

Make sure that the file you obtain matches the bit version and the language of the OS on the client computer.

File type	Description
32-bit MSI file	BoxOperator_Setup_en_x86.msi Software Language CPU type
	Note 32-bit MSI files have x86 on the end.

3



#### List of Languages

Text	Language	Text	Language	Text	Language
de	German	fr	French	ko	Korean
en	English	it	Italian	zh-CN	Simplified Chinese
es	Spanish	ja	Japanese	zh-TW	Traditional Chinese

# 3.2 Preparing Software Distribution

This section will explain how to place distributed MSI files, as well as create and configure group policy objects that determine the distribution rules.

## 3.2.1 Placing an MSI File

This section will explain how to place the MSI file of the distributed software.

Procedure

- 1 Place the MSI file of the distributed software in all of the shared folder distribution points.
  - Create a new folder distribution point into which the MSI file can be placed.
  - If MSI files of multiple languages are being placed in the distribution point, the software of the language used in the OS on the client computer will be installed. If the OS language on the client computer does not exist in the placed MSI file, the English version of the software will be installed.
  - If both 32-bit and 64-bit client computers are used, place both the 32-bit and the 64-bit MSI files in the distribution point. Either the 32bit or the 64-bit version of the software will be installed, depending on the bit version of the OS on the client computer.
  - The 64-bit version of VC Runtime is required for distributing some MSI files. Make sure that the MSI file is placed when also distributing VC Runtime. All related files must be placed when placing files with VC Runtime, not only the MSI file. For information on how to obtain VC Runtime, refer to "Preparing VC Runtime Distribution" on page 3-26.



## 3.2.2 Creating a Group Policy Object

This section will explain how to create a template in which a policy for the account and group is defined.

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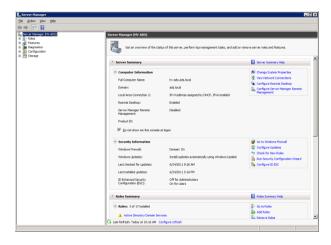
#### Note

When distributing VC Runtime, create a new group policy object for VC Runtime separate from the software.

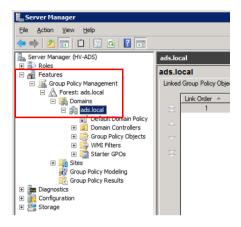
If a client computer is shared by multiple users, MSI files will be distributed to the computer instead of the users.

#### Procedure

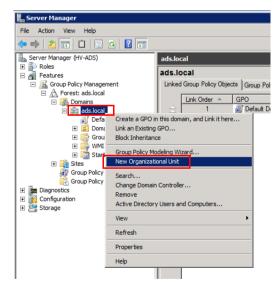
1 Launch the Server Manager.



- 2 In the tree, expand [Features] [Group Policy Management] [Forest] -[Domains] - [ads.local (or the default domain)], in that order.
  - The "ads.local" domain is used as the example in this explanation.



3 Right-click [ads.local] and select [New Organizational Unit].



2

- 4 Enter the name, and click [OK].
  - In this example, an organizational unit (OU) with the name "MSI" is created.

New Organizational Unit				
<u>N</u> ame:	MSI			
		ОК	Cancel	

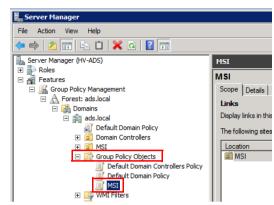
5 Right-click the created organizational unit (OU) and select [Create a GPO in this domain, and Link it here].

📕 Server Manager				
File Action View Help				
🗢 🔿 🙍 🛅 📋	0			
	It Domain Policy in Controllers	this doma sPO	bocal d Group Policy Objects Link Order * 1 1 ain, and Link it here	GPO
-				

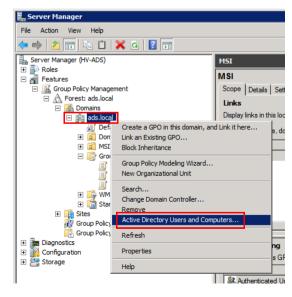
- 6 Enter the name, and click [OK].
  - In this example, a group policy object (GPO) with the name "MSI" is created.

New GPO	×
Name:	
MSI	
Source Starter GPO:	
(none)	•
	OK Cancel

7 Check to make sure the group policy object (GPO) was created in [Group Policy Objects].

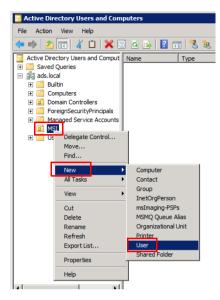


- 8 Create an Active Directory user for the group policy object (GPO) in the organizational unit (OU) or transfer an existing user to the OU.
  - In Box Operator, you must create an applicable Active Directory Computer or transfer an existing computer beforehand.
  - Right-click [ads.local (or the default domain)] and select [Active Directory User and Computers].



**MSI** Installer

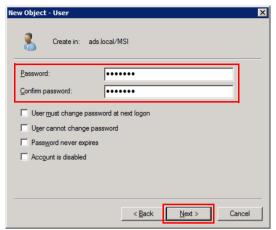
9 Right-click the organizational unit (OU) and select [New] - [User].



10 Enter the information of the user for the distribution, and click [Next].

Ne	ew Object - User		×
	🧏 Create in	: ads.local/MSI	
	<u>F</u> irst name:	MSI Initials:	
	Last name:	User	
	Full name:	MSI User	
	User logon name:		
	MSI_User	@ads.local 💌	
	User logon name (pr	e- <u>W</u> indows 2000):	
	ADS\	MSI_User	
		< Back Next > Car	icel

11 Enter the password, and click [Next].

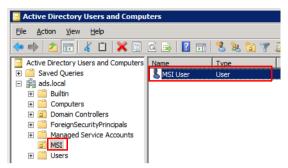


# 12 Click [Finish].

New Object - User	×
🙎 Create in: ads.local/MSI	
When you click Finish, the following object will be created:	
Full name: MSI User	<u></u>
User logon name: MSI_User@ads.local	
	7
< <u>B</u> ack	Cancel

2

 The software will be distributed to the created users, so add users as necessary.



# 3.2.3 Configuring a Group Policy Object

This section will explain how to configure MSI file distribution rules.

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#### Note

Administrator privileges for the client computer must be given to the Active Directory user in order to properly distribute some MSI files. If the administrator privileges were not given to the Active Directory user, add them. Refer to "Adding Administrator Privileges" on page 4-3 for information on how to add the administrator privileges.



#### Note

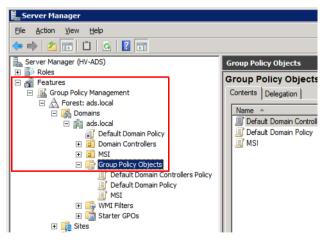
When upgrading a previous version of the software that has already been distributed, refer to "Configuring a Group Policy Object (Upgrade)" on page 3-19.

#### Procedure

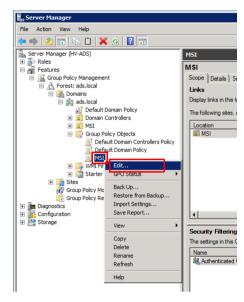
1 Launch the Server Manager.

ver Manager (HV-ADS)	Server Manager (HV-ADS)		
E Roles E al Pestures E al Diagnostics Configuration E Storage	Get an overview of the sta	atus of this server, perform top management tasks, and add or re	move server roles and features.
	Server Summary		Server Summary Help
	Computer Information		🙀 Change System Properties
	Full Computer Name:	hv-ads.ads.local	😤 Wew Network Connections
	Domain:	ads.local	Configure Remote Desktop
	Local Area Connection 2:	IPv4 address assigned by DHCP, IPv6 enabled	Management
	Remote Desktop:	Enabled	
	Server Manager Remote Management:	Disabled	
	Product ID:		
	Do not show me this console	at logon	
	Security Information		😭 Go to Windows Firewall
	Windows Firewall:	Domain: On	Configure Updates
	Windows Updates:	Install updates automatically using Windows Update	Check for New Roles     Run Security Configuration Wizard
			Configure IE ESC
	Last checked for updates:	6/24/2011 9:26 AM	
	Last checked for updates: Last installed updates:	6/24/2011 9:26 AM 6/24/2011 5:16 PM	
	Last installed updates: IE Enhanced Security	6/24/2011 5:16 PM Off for Administrators	Roles Summary Help
	Last installed updates: IE Enhanced Security Configuration (ESC):	6/24/2011 5:16 PM Off for Administrators	Roles Summary Help     So to Roles     Add Roles

2 In the tree, expand [Features] - [Group Policy Management] - [Forest] -[Domains] - [ads.local (or the default domain)] - [Group Policy Objects], in that order.



**3** Under [Group Policy Objects], right-click [MSI (or the default group policy object)], and select [Edit].

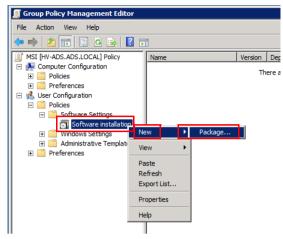


4 In the tree in the Group Policy Management Editor, expand [User Configuration] - [Policies] - [Software Settings] - [Software installation], in that order.

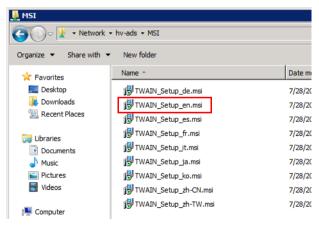
ī							
	🗾 Group Policy Management Editor						
	<u>File Action View H</u> elp						
	🗢 🔿 🙋 📅 🖾 🧟 🛃						
	MSI [HV-ADS.ADS.LOCAL] Policy	1	Name	Version			
	🖃 👰 Computer Configuration	I					
	🕀 🚞 Policies	I		The			
	🕀 🚞 Preferences	I					
	🖃 🕵 User Configuration	I					
	🖃 🧮 Policies	I					
	🖃 🧮 Software Settings	I					
	Software installation	I					
	Windows Settings	I					
	🕀 🚞 Administrative Templates: Po	c					
	🕀 🧮 Preferences	I					

3

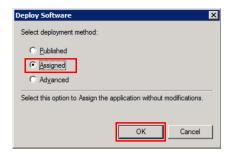
5 Right-click [Software installation] and select [New] - [Package].



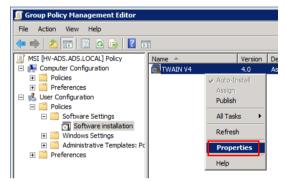
- 6 Select the MSI file placed in the shared folder distribution point, and click [Open].
  - Designate the path to the MSI file using a network path (\\<Name of server>\<Name of shared folder>\<Name of MSI file>). Files cannot be obtained on a client computer with a local path.



7 Select [Assigned] and click [OK].



8 Right-click the created package and select [Properties].



- 9 Select the [Deployment] tab and check [Install this application at logon].
  - If it is a VC Runtime MSI file, do not check [Install this application at logon].

TWAIN V4 Properties ? 🗙						
General Deployment Upgrades Categories Modifications Security						
Deployment type						
C Published						
<ul> <li>Assigned</li> </ul>						
Deployment options						
Auto-install this application by file extension activation						
Lininstall this application when it falls out of the scope of management						
Do not display this package in the Add/Remove Programs control panel						
Install this application at logon						
Installation user interface options						
C Basic						
Adyanced						
OK Cancel Apply						

10 Click [Advanced].

- **11** Check [Make this 32-bit X86 application available to Win64 machines] if appropriate for the MSI file, and click [OK].
  - It does not need to be checked if both 32-bit and 64-bit MSI files are separately arranged, but does need to be checked if it is a shared MSI file for both 32-bit and 64-bit.
  - It does not need to be checked if it is a VC Runtime 64-bit MSI file.

Advanced Deployment Options						
	Advanced deployment options:					
Make this 32	bit X86 application available to Win64 machines.					
☐ Include <u>O</u> LE	class and product information.					
Advanced diagno	stic information:					
Product code:	{A37EDCEE-8A40-4004-8E8F-1EBEF958F2FA}					
Deployment Cour	nt: 0					
Script name: \\ads.local\SysVol\ads.local\Policies \{7C5BE075-9872-4997-BFE4-B5075A342EE6} \User\Applications \{F98EF298-78C2-4A0D-B841-66C39EEED3C9}						
OK Cancel						

12 Repeat steps 5 to 11 for all distributed software.

## 3.2.4 Configuring a Group Policy Object (Upgrade)

This section will explain how to distribute a new version of the software in order to upgrade a previous version of the software. As a precondition, the distribution settings must already be configured for the previous version of the software.

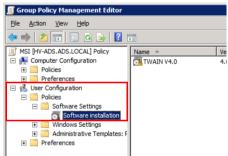


#### Note

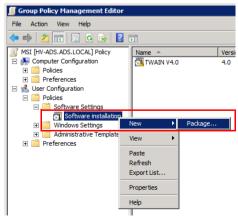
If the software was installed using a setup file in exe file format, Active Directory cannot be used to distribute software in order to upgrade a previous version of the software.

The software can be upgraded only if the previous version of the software was distributed in MSI file format.

1 In the tree in the Group Policy Management Editor, expand [User Configuration] - [Policies] - [Software Settings] - [Software installation], in that order.



2 Right-click [Software installation] and select [New] - [Package].



**3** Select the upgrade MSI file placed in the shared folder distribution point, and click [Open].

Open					_
) 🜔 📙 🗕 Networ	k ▼ hv-ads ▼ MSI ▼ RTD_v4.1		<ul> <li>Search RTD_v4.</li> </ul>	1	
Organize 👻 New folder				98 · 🗈	0
🔆 Favorites	Name *	Date modified	Туре	Size	
🥅 Desktop	TWAIN Setup de	7/28/2010 6:25 PM	Windows Installer P	14,809 KB	
Downloads	🚏 TWAIN_Setup_en	7/28/2010 6:25 PM	Windows Installer P	14,828 KB	
🔢 Recent Places	TWAIN_Setup_es	7/28/2010 6:25 PM	Windows Installer P	14,805 KB	
词 Libraries	TWAIN_Setup_fr	7/28/2010 6:25 PM	Windows Installer P	14,808 KB	
Documents	10 TWAIN_Setup_it	7/28/2010 6:25 PM	Windows Installer P	14,806 KB	
J Music	1 TWAIN_Setup_ja	7/28/2010 6:25 PM	Windows Installer P	14,801 KB	
E Pictures	TWAIN_Setup_ko	7/28/2010 6:25 PM	Windows Installer P	14,795 KB	
😸 Videos	TWAIN_Setup_zh-CN	7/28/2010 6:25 PM	Windows Installer P	14,758 KB	
🖳 Computer	🔐 TWAIN_Setup_zh-TW	7/28/2010 6:25 PM	Windows Installer P	14,783 KB	
🙀 Network					
Fil	e name: TWAIN_Setup_en		Vindows Instal	er packages (*.r	
	- Terre I a Coccabiler		<u>O</u> pen	Cancel	

4 Select [Advanced] and click [OK].

Deploy Software X
Select deployment method:
C Published
O Assigned
• Advanced
Select this option to configure the Published or Assigned options, and to apply modifications to a package.
OK Cancel

- 5 Select the [Deployment] tab, select [Assigned], and check [Install this application at logon].
  - For the settings in [Advanced], use the same settings as when installing the package as a new package.

AIN V	1.1 Properties	5			?
eneral	Deployment	Upgrades	Categories	Modifications	Security
- Depl	oyment type				
0	Published				
۲	Assigned				
Depl	oyment options				
V	Auto-install this	application I	by file extens	ion activation	
	<u>U</u> ninstall this ap management	plication wh	en it falls out	of the scope of	F
	Do <u>n</u> ot display tl panel	nis package	in the Add/	Remove Progra	ms control
-	Install this applic	ation at log	on		
Insta	llation user inter	face options			
	Basic				
œ	- Maximum				
	<u></u>				
Ad <u>v</u> a	nced				

6 Select the [Upgrades] tab and check [Required upgrade for existing packages].

TWAIN V4.1 Properties ? 🗙						
General Deployment Upgrades Categories Modifications Security						
Packages that this package will upgrade:						
Add						
Required upgrade for existing packages						
Packages in the current GPO that will upgrade this package:						
OK Cancel Apply	j					

7 Click [Add].

- 8 In the "Package to upgrade" list, select the previous version of the package.
  - If the distribution settings have been configured for multiple previous versions of the package, add all of the existing previous versions of the package, not just the most recent previous package.

Add Upgrade Package
Choose a package from  Current Group Policy Object (GPO)  Agpecific GPO:  Browse  Browse
Package to ypgrade
$\bigcirc$ Uninstall the existing package, then install the upgrade package $\bigcirc$ Package can upgrade over the existing package
Cancel

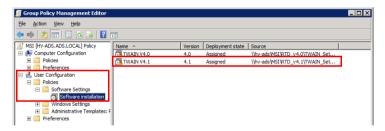
9 Select [Package can upgrade over the existing package] and click [OK].

Add Upgrade Package
Choose a package from C Qurrent Group Policy Object (GPO) C A specific GPO: Browse
Package to upgrade
TWAIN V4.0
C Uninstall the existing package, then install the upgrade package A package can upgrade over the existing package
OK Cancel

10 Confirm that the upgrade target package has been added to the "Packages that this package will upgrade" list, and click [OK].

TWAIN V4.1 Properties	? ×
General Deployment Upgrades Categories Modifications Security	
Packages that this package will upgrade:	-
Add Bernove	_
Pagkages in the current GPO that will upgrade this package:	
OK Cancel Apply	

11 Confirm that the software upgrade package has been set.



3

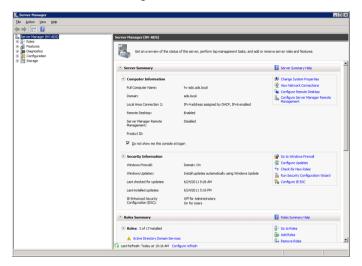


#### 3.2.5 Checking the Group Policy Object Settings

This section will explain how to check the settings of the distributed software.

Procedure

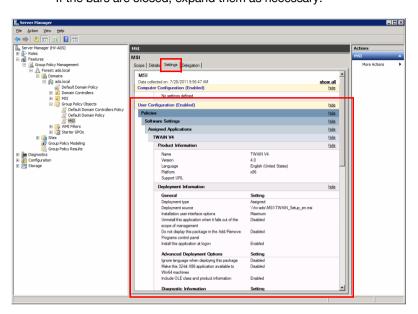
1 Launch the Server Manager.



2 In the tree, expand [Features] - [Group Policy Management] - [Forest] -[Domains] - [<The default domain>] - [Group Policy Objects], in that order, and select the group policy object you wish to check.

📕 Server Manager							
Eile <u>A</u> ction <u>V</u> iew <u>H</u> elp							
🗢 🔿 🖄 📰 🕒 🖬 🖉 🗖	1						
Server Manager (HV-ADS)	MSI						
Roles     R		MSI Scope Details Settings Delegation Links Display links in this location: a The following sites, domains, and OUs are Location A MSI					
」 Default Domain Polic 」 MSI 	у						

- **3** Select the [Settings] tab.
  - You can check the settings from here.
  - If the bars are closed, expand them as necessary.



3

# 3.3 Preparing VC Runtime Distribution

VC Runtime must be installed in order to distribute some MSI files. VC Runtime automatically distributes and installs MSI files, like other software. This section will explain how to obtain VC Runtime and extract MSI files.

Software required for VC Runtime:

- 64-bit Box Operator (versions earlier than version 3.2.08000)
- 64-bit Direct Print (all versions)

```
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```

#### Note

For 64-bit Box Operator version 3.2.08000 and later, the procedure in "Preparing VC Runtime Distribution" is not necessary.

#### 3.3.1 Obtaining VC Runtime

If installing VC Runtime, you must obtain the Microsoft Visual C++ 2005 SP1 redistributable package (x64) from the Microsoft website beforehand.

Source: Microsoft Download Center

http://www.microsoft.com/download/en/default.aspx



#### Note

If the above URL no longer works, search for the package from the home page of the "Microsoft Download Center".

Procedure

- 1 Create a folder with whatever name you like directly on the C drive, and download "vcredist\_x64.exe" into it.
  - In this example, a folder with the name "VC" is created.
  - Do not use double-byte characters in the folder name.



## 3.3.2 Extracting and Placing an MSI File

The downloaded VC Runtime file is in exe format, so it cannot be used as-is. You must retrieve the MSI file from the exe file.

Procedure

1 Launch the Command Prompt on the server. Type in "C:\VC\vcredist\_x64.exe /c" and press Enter.

👞 Command Prompt	
Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved.	<b>_</b>
C:\Users\en) <mark>C:\UC\vcredist_x64.exe /c_</mark>	

2 The License Agreement will be displayed. Click [Yes].

	st of the agreeme			
MICROSOF These licens (or based or them. They	T SOFTWARE L T VISUAL C++ 20 se terms are an ap where you live, a apply to the softw nich you received	005 RUNTIM greement betw one of its affilia ware named a	E LIBRARIES veen Microsoft ates) and you. bove, which in	Please read cludes the
* supplemen	nts, ased services, and	ł		
* support set for this softw those terms	vare, unless other	terms accom	pany those iten	ns. Hfso,
By using the	e software, you ac	cept these te	rms. If you do	not accept

- 3 Designate the location where the file will be expanded and click [OK].
  - Designate the VC folder.

Microsoft Visual C++ 2005 SP1 Redistributable	Pack 🔳 🔲 🗙					
Please type the location where you want to place the extracted files.						
C:\VC	Browse					
ОК	Cancel					

The file named "VCREDI~2.EXE" will be expanded in the designated folder.



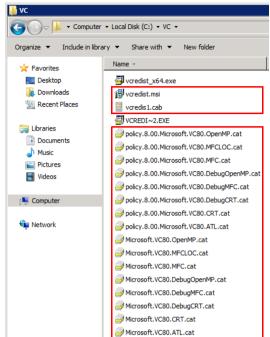
4 Launch the Command Prompt. Type in "C:\VC\VCREDI~2.EXE /c" and press Enter.

📾 Command Prompt	
Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved.	<b>_</b>
C:\Users\en <mark>&gt;C:\UC\UCREDI~2.EXE /c_</mark>	

- 5 The User Account Control dialog box will be displayed. Click [OK].
  - It may not be displayed, depending on the server environment.
- 6 Designate the location where the expanded file will be saved and click [OK].
  - Designate the "VC" folder.



- 7 The designated save location will open.
  - The files in the red frame are the files related to the VC Runtime MSI file.



# 3.3.3 Creating and Configuring a Group Policy Object

Refer to "Preparing Software Distribution" on page 3-5 for information on how to create and configure a group policy object through VC Runtime distribution.

## 4 Preparing a Client Computer

The software is installed automatically when the user logs into the client computer, according to the configured group policy object.

No user operations are required during the installation, but it may take some time until the logon finishes.



#### Note

The client computer must be on an Active Directory domain for the automatic installation to work. Refer to the Active Directory manual for information on how to join a domain.

In addition, administrator privileges for the client computer must be added to the Active Directory user for some software. Refer to "Adding Administrator Privileges" on page 4-3 for information on how to add the administrator privileges.

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#### Note

Some software requires the system to be restarted during the initial login, after which the installation will finish during the second login.



#### Note

After the software has been distributed, it will not install when you are logged in. You must restart the client computer and log in again.



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#### Note

To install My Print Manager Port or My Print Notifier on a client computer, carry out the following preparations in advance.

- If the client computer is running Windows Vista, Windows 7, Windows 8 or Windows 8.1, select [Control Panel] - [Programs and Features] - [Turn Windows features on or off], then select the [Microsoft .NET Framework 3.\*.\*] check box ("\*.\*" is different depending on operating systems).

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#### Reminder

Installation-related messages are not normally displayed during the installation. However, messages may be displayed if the group policy settings are changed on the server. Refer to "Displaying Group Policy Messages" on page 5-11 for details.

### 4.1 Adding Administrator Privileges

This section will explain how to add administrator privileges for the client computer to an Active Directory user.

Software that requires administrator privileges: 32-bit/64-bit Box Operator versions earlier than version 3.2.08000

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#### Note

For 32-bit/64-bit Box Operator version 3.2.08000 and later, the procedure in "Adding Administrator Privileges" is not necessary.

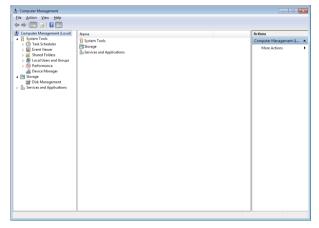
Ø...

#### Note

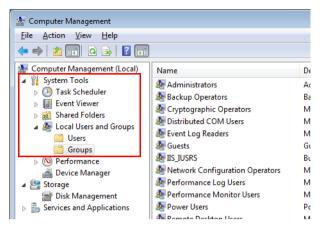
The client computer must be on an Active Directory domain before you add administrator privileges.

Procedure

- 1 Log on to the client computer using a local user account that has administrator privileges.
  - Do not log on using an Active Directory user account. Be sure to log on to the client computer using a local user account that has administrator privileges.
- 2 Click [Start] [Control Panel] [Administrative Tools] [Computer Management].



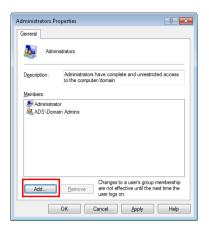
3 In the tree, expand [System Tools] - [Local Users and Groups] - [Groups] in that order.



4 Click [Administrators] to open the Administrators Privileges dialog box.

Computer Management       Eile     Action       View     Help       Image: Second S		
Computer Management (Local)  System Tools  Carlot System Tools  Carlot System Tools  Carlot System Tools  Carlot System Tools  S	Name Administrators Backup Operators Cryptographic Operators Distributed COM Users Event Log Readers Guests IS_IUSRS Network Configuration Operators Performance Log Users Performance Monitor Users Performance Decision Power Users	De Ac Ba M M Gu Bu Bu M M M

5 Click [Add].



- 6 In the "Enter the object names to select" box, enter the name of the Active Directory user to add the administrator privileges to, and click [Check Names].
  - The "aduser01" Active Directory user is used as the example in this explanation.

Select Users, Computers, Service Accounts, or Groups	? 🔀
Select this object type:	
Users, Service Accounts, or Groups	Object Types
From this location:	
ads.local	Locations
Enter the object names to select (examples):	
aduser01	Check Names
Advanced	OK Cancel

Δ

7 In the network password dialog box, enter the Active Directory user name and password, and click [OK].

Windows Security
Enter Network Password Enter the name and password of an account with permissions for ads.local.
For example user, user@example.microsoft.com, or domain\user name aduser01 Domain: ADS
OK Cancel

8 Confirm the Active Directory user name in the "Enter the object names to select" box, and click [OK].

Select Users, Computers, Service Accounts, or Groups	? 💌
Select this object type:	
Users, Service Accounts, or Groups	Object Types
From this location:	
ads.local	Locations
Enter the object names to select ( <u>examples</u> ):	
ads\aduser01 (aduser01@ads.local)	Check Names
Advanced OK	Cancel

9 Confirm that the Active Directory user has been added to the Administrators Properties dialog box, and click [OK].

Administrators Pro	operties 🔹 😨
General	
Admin	istrators
Description:	Administrators have complete and unrestricted access to the computer/domain
Members:	
	r01 (aduser01@ads.local)
ADS\Doma	in Admins
A <u>d</u> d	Changes to a user's group membership are not effective until the next time the user logs on.
	OK Cancel Apply Help

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## 5 Other Operations

This section will explain how to uninstall software, manually update group policies, and output event logs.

### 5.1 Uninstalling Software

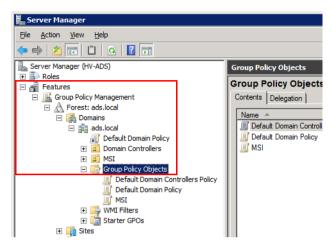
Software installed on a client computer is uninstalled on the server.

Procedure

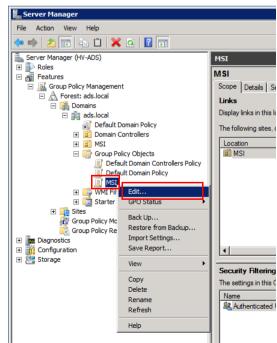
1 Launch the Server Manager.

* 🖬 🛛			
erver Manager (HV-ADS) © Roles	Server Manager (HV-ADS)		
P S Features     P M Dispositio     Configuration     P S Storage	Get an overview of the sta	tus of this server, perform top management tasks, and add or n	emove server roles and features.
	Server Summary		Server Summary Help
	<ul> <li>Computer Information</li> </ul>		🚱 Change System Properties
	Full Computer Name:	hv-ads.ads.local	😤 View Network Connections
	Domain:	ads.local	Configure Remote Desktop
	Local Area Connection 2:	IPv4 address assigned by DHCP, IPv6 enabled	Management
	Remote Desktop:	Enabled	
	Server Manager Remote Management:	Disabled	
	Product ID:		
	Do not show me this console	at logon	
	© Do not show me this console	at logon	Go to Windows Pinewall
		at logon Domain: On	Configure Updates
	<ul> <li>Security Information</li> </ul>		Configure Updates +7 Check for New Roles
	Security Information Windows Frewall:	Domain: On	Configure Updates
	Security Information     Windows Firewall:     Windows Updates:	- Domain: On Install updates automatically using Windows Update	Configure Updates + Check for New Roles Mun Security Configuration Wizard
	Security Information     Windows Frewall:     Windows Updates:     Lest checked for updates:	Domain: On Trictall jupdates automatically using Windows Update 6/24/2011 9:26 AM	Configure Updates + Check for New Roles Mun Security Configuration Wizard
	Security Information     Wedows Prevail:     Windows Updates:     Last checked for updates:     Last trained updates:     El: Environd Security	Demain: On Install updates automatically using Windows Lipdate (6/24/2011 5: 50: AM (6/24/2011 5: 16 PM (7) Madiwardantas	Configure Updates + Check for New Roles Mun Security Configuration Wizard
	Security Information Windows Prevail: Windows Updates: Last checked for updates: Last matibility dockers: List matibility dockers: El Enhanced Security Centifyuration (ECC):	Demain: On Install updates automatically using Windows Lipdate (6/24/2011 5: 50: AM (6/24/2011 5: 16 PM (7) Madiwardantas	Configure Updates Chack for New Kales In Security Configuration Waard Configure III: ESC

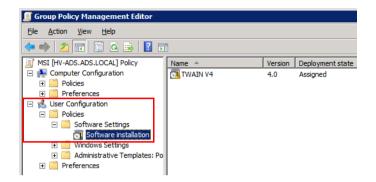
2 In the tree, expand [Features] - [Group Policy Management] - [Forest] - [Domains] - [ads.local (or the default domain)] - [Group Policy Objects], in that order.



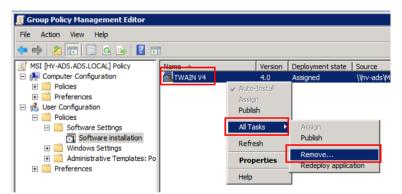
**3** Under [Group Policy Objects], right-click [MSI (or the default group policy object)], and select [Edit].



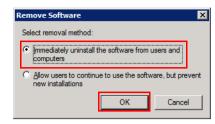
4 In the tree in the Group Policy Management Editor, expand [User Configuration] - [Policies] - [Software Settings] - [Software installation], in that order.



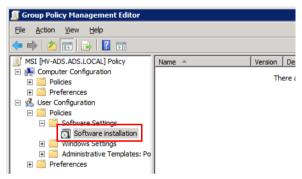
5 Right-click the software package you wish to uninstall, and select [All Tasks] - [Remove].



6 Select [Immediately uninstall the software from users and computers] and click [OK].



- The package will be removed from the list, and the software will be uninstalled from the client computer the next time you log on.
- No user operations are required during the uninstallation, but it may take some time until the logon finishes.



### 5.2 Manually Updating Group Policies

This section will explain how to manually update group policies on a client computer using the Command Prompt.

Group policies on a client computer are normally updated regularly (default: every 90 minutes). A group policy alteration is randomly applied to the client computer between 0 and 30 minutes after the update.

Manual updates are done on the client computer.

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Y	•	

#### Note

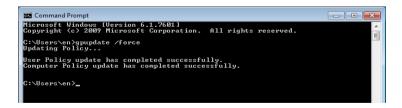
The server will be overloaded if all client computers are updated at the same time. As a general rule, apply the group policy alteration at an update interval set in the Active Directory.

#### Procedure

- 1 Launch the Command Prompt on the client computer.
- 2 Enter "gpupdate /force" and press Enter.

Command Prompt	
Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporatio	n.
C:\Users\en <mark>&gt;gpupdate /force_</mark>	

A message indicating that the update has finished will be displayed.



### 5.3 Outputting Event Logs

An event log can be output to the client computer when software is installed or uninstalled.

This log can be used to determine the cause of any problem that occurred during the installation/uninstallation.

### 5.3.1 Enabling Log Output

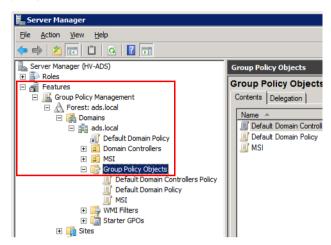
This section will explain how to configure the server to output event logs.

Procedure

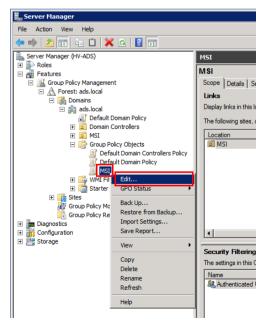
1 Launch the Server Manager.

Action View Help				
⇒ [m]				
Server Manager (HV-ADS)  Colles  Colles  Colles  Colles  Colles  Colles  Configuration  Colles  Colles Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles  Colles	Server Humager (HI ADS) Cet an overview of the status of this server, perform top nanagement tools, and add or renove server roles and features.			
	Computer Information		💭 Change System Properties	
	Full Computer Name:	hv-ads.ads.local	😤 View Network Connections	
	Domain:	ads.local	Configure Remote Desktop     Configure Server Manager Remote	
	Local Area Connection 2:	IPv4 address assigned by DHCP, IPv6 enabled	Management	
	Remote Desktop:	Enabled		
	Server Manager Remote Management:	Disabled		
	Product ID:			
	Do not show me this console a	t legon		
	Security Information		😭 Go to Windows Pinewall	
	Windows Firewall:	Domain: On	Configure Updates	
	Windows Updates:	Install updates automatically using Windows Update	47 Check for New Roles	
	Last checked for updates:	6/24/2011 9:26 AM	Tonfgure IE ESC	
	Last installed updates:	6/24/2011 5:16 PM		
	IE Enhanced Security Configuration (ESC):	Off for Administrators On for Users		
	Roles Summary		Roles Summary Help	
	Roles: 3 of 17 installed		Go to Roles	
	Active Directory Domain Serv		Add Roles	

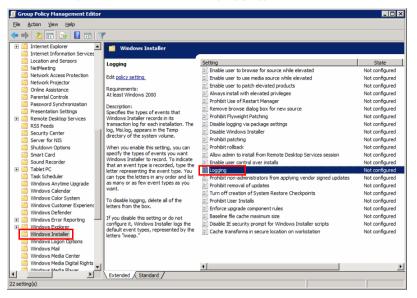
2 In the tree, expand [Features] - [Group Policy Management] - [Forest] -[Domains] - [MSI (or the default group policy object)] - [Group Policy Objects], in that order.



**3** Under [Group Policy Objects], right-click [MSI (or the default group policy object)], and select [Edit].



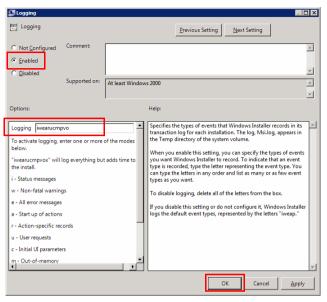
4 In the tree, expand [Computer Configuration] - [Policies] -[Administrative Templates] - [Windows Components] - [Windows Installer], in that order, and select [Logging].



### 5 Right-click [Logging] and select [Edit].

Group Policy Management Editor			
File Action View Help			
🗢 🔿 🙍 📷 🕞 😰 📷 🕓	7		
Internet Explorer     Internet Information Services	📔 Windows Installer		
Location and Sensors	Logging	Setting	State
Network Access Protection     Network Access Protection     Network Projector     Online Assistance     Parental Controls     Parental Controls     Parental Controls     Parental Controls     Parental Controls     Rende Desktop Services     RSS Feeds     Security Center     Server for NIS     Shutdown Options     Smart Card     Sound Recorder     Hondows Calendar     Windows Defender     Windows Explorer     Windows Installer     Windows Insperiene     Windows Logon Options	Edit <u>policy setting</u> . Requirements: At least Windows 2000 Description: Specifies the types of events that transaction log for each installation. The directory of the system volume. When you enable this setting, you can specify the types of events you want windows installed to record. For the letter expresenting the event types are window installed to record. For direct that an event type is recorded, type the letters in any order and lat- letter expresenting the event types are want. To disable logging, delete all of the letters from the lox. If you disable the setting or do not configure it, Windows Installer logs the defuilt event types, represented by the letters "lowap."		Not configured Not configured
<ul> <li>Windows Mail</li> <li>Windows Media Center</li> <li>Windows Media Digital Rights</li> <li>Windows Media Digital Rights</li> </ul>		x	Þ
Edit Administrative Templates policy setting	Extended Standard		

6 After selecting [Enabled] in [Options:] [Logging], enter "iwearucmpvo" and click [OK].



### 5.3.2 Checking an Event Log

This section will explain how to check an output log. Event logs are generated on the client computer.

Procedure

- 1 Event log files are generated in "C:\Windows\Temp" on the client computer.
  - The filenames of the log files are random numbers, so you must identify them using the time and date of the update, as well as the contents.

Organize 🔻 🦳 Ope				833 <b>•</b> 🚺	(
👉 Favorites	Name	Date modified	Туре	Size	
Desktop	Ipksetup-20110728-174519-0.log	7/28/2011 5:45 PM	Text Document	16 KB	
Downloads	Ipksetup-20110818-084938-0.log	8/18/2011 8:49 AM	Text Document	16 KB	
* Recent Places	MpCmdRun.log	3/3/2011 5:16 PM	Text Document	5 KB	
A Recent Places	MpSigStub.log	3/3/2011 4:10 PM	Text Document	4 KB	
词 Libraries	MSI9d1bb.LOG	4/6/2011 4:21 PM	Text Document	16 KB	
Documents	MSI9d1bd.LOG	3/4/2011 8:35 AM	Text Document	352 KB	1
Music	MSI9d1be.LOG	3/31/2011 9:25 AM	Text Document	16 KB	
Pictures	MSI9d1c0.LOG	3/3/2011 4:10 PM	Text Document	4 KB	
Videos	MSI9d1c2.LOG	3/4/2011 8:35 AM	Text Document	96 KB	
La Hacos	MSI50a48.LOG	3/17/2011 3:31 PM	Text Document	1 KB	
💻 Computer	TS_2CBD.tmp	3/4/2011 8:35 AM	TMP File	96 KB	
12. computer	TS_3AB9.tmp	3/4/2011 8:35 AM	TMP File	112 KB	
轴 Network	TS_3E35.tmp	3/4/2011 8:35 AM	TMP File	624 KB	
- Herrore	TS_23C1.tmp	3/4/2011 8:35 AM	TMP File	176 KB	
	TS_29BF.tmp	3/4/2011 8:35 AM	TMP File	352 KB	
	TS_50F4.tmp	3/4/2011 8:35 AM	TMP File	176 KB	
	TS_447F.tmp	3/4/2011 8:35 AM	TMP File	96 KB	
	TS_2876.tmp	3/4/2011 8:35 AM	TMP File	192 KB	
	TS_3152.tmp	3/4/2011 8:35 AM	TMP File	400 KB	
	TS B3F0.tmp	3/3/2011 5:48 PM	TMP File	208 KB	

### 5.4 Displaying Group Policy Messages

When a group policy for the installation of software and so on is applicable to a client computer, a message containing the details can be displayed on the client computer.

By displaying the group policy message, the user can understand why it is taking time to log in.

The applicable group policy messages are displayed when the client computer is started up and shut down, and when the user logs in and logs off.

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#### Note

These messages will not be displayed if [Remove Boot/Shutdown /Logon/Logoff status messages] is enabled for the group policy.

### 5.4.1 Enabling Messages

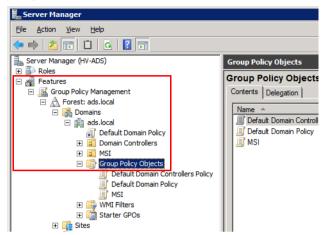
This section will explain how to configure the server to display messages.

Procedure

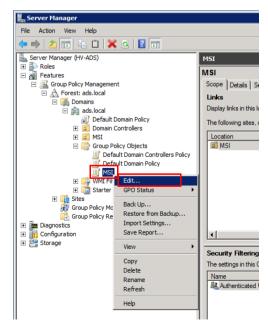
1 Launch the Server Manager.

sver Manager (HV-ADS)	Server Manager (IIV-ADS)	
Coles     Coles     Coles     Conformation     Conformation     Conformation     Conformation	Cet an overview of the status of this server, perform too management tasks, and add	or remove server roles and features.
	Server Summary	Server Summary Help
	Computer Information     Full Computer Name: Invaduaduloal     Donaire: adu local     Local Area Connecton 2: IPv4 detess assigned by DHCP, IPv6 enabled	Change System Properties     Wew Network Connections     Configure Remote Desktop     Configure Server Manager Remote     Management
	Remote Cedatoria Eroletet Serve Hongoe Remote  Debaled Menagement: Produkt ID:	
	Security Information     Windows Prevail: Donan: On     Windows Updates: Prevail updates automatically using Windows Updates     Lat related or updates: 4/24/2011 5/36 MM     Lat installed updates: 4/24/2011 5/36 MM     Enforced Security Of for Advantation     Configuration (BSC): On for Later	Cot S Windows Frenal Configure Lipidate Configure Lipidate Configure Lipidate Accounts Configure Lipidate Accounts Configure Lipidate Configure Conf
	Roles Summary	Roles Summary Help
	Roles: 3 of 17 installed     Active Directory Domain Services	Go to Roles

2 In the tree, expand [Features] - [Group Policy Management] - [Forest] -[Domains] - [MSI (or the default group policy object)] - [Group Policy Objects], in that order.



**3** Under [Group Policy Objects], right-click [MSI (or the default group policy object)], and select [Edit].



4 In the tree, expand [Computer Configuration] - [Policies] -[Administrative Templates] - [System], in that order, and select [Verbose vs normal status messages].

• 🔿 🙍 📷 🔒 🛛 🖬 🔻						
MSI [HV-ADS.ADS.LOCAL] Polcy System	📋 System					
Al Settings     Al Settings     Al Settings     All	L C C C C C C C C C C C C C	terring	State Not configured Not configured			

5 Right-click [Verbose vs normal status messages] and select [Edit].

Setting	State
Recovery	
Remote Assistance	
Remote Procedure Call	
Removable Storage Access	
Scripts	
Server Manager	
Shutdown Options	
System Restore	
Troubleshooting and Diagnostics	
Trusted Platform Module Services	
User Profiles	
Windows File Protection	
Windows HotStart	
Windows Time Service	
Download missing COM components	Not configured
Allow Distributed Link Tracking clients to use domain resources	Not configured
Do not automatically encrypt files moved to encrypted folders	Not configured
Do not turn off system power after a Windows system shutdown	Not configured
Enable Persistent Time Stamp	Not configured
Activate Shutdown Event Tracker System State Data feature	Not configured
Display Shutdown Event Tracker	Not configured
Do not display Manage Your Server page at logon	Not configured
Turn off Data Execution Prevention for HTML Help Executible	Not configured
Restrict potentially unsafe HTML Help functions to specified folders	Not configured
Restrict these programs from being launched from Help	Not configured
Remove Boot / Shutdown / Logon / Logoff status messages	Not configured
Verbose vs normal status messages	Not configured
Specify Windows Service Pack installation file loc	pt configured
Specify Windows installation file location Filter On	pt configured
Filter Options Re-Apply Efter	

### 6 Select [Enabled] and click [OK].

🔙 Verbose vs norma	l status message	5			_ 🗆 🗡
Verbose vs norma	l status messages		Previous Setting	<u>N</u> ext Setting	
<ul> <li>○ Not <u>C</u>onfigured</li> <li>○ <u>E</u>nabled</li> <li>○ Disabled</li> </ul>	Comment:				×
o <u>Disabled</u>	Supported on:	At least Windows 2000			 ▼
Options:		Help:			
		If you e reflect e on, or la This set informa Note: T	the system to display hi nable this setting, the sy ach step in the process ygging off the system. ting is designed for sop tion. his setting is ignored if i 'Logoff status message	ystem displays status r of starting, shutting d histicated users that ro the "Remove Boot / Sh	nessages that lown, logging equire this
				OK Cancel	Apply