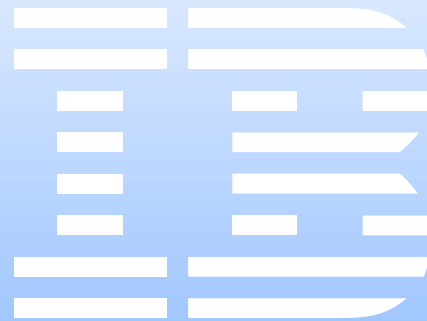


Director
version 3.1



Quick Beginnings Guide



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version 3.1



Quick Beginnings Guide

Second Edition (January 2002)

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Chapter 1. Quick beginnings

The *Quick Beginnings Guide* for Director guides you through the installation process for Director 3.1 (Server, Console and Agent) and the IBM Director Extensions tools. The IBM Director Extensions tools contain a set of system-management tools that extends the Director platform.

System requirements for Director

Director 3.1 requires administrator authority and the following hardware components and platforms.

Hardware requirements

- Intel® Pentium® class microprocessor, 266 MHz or faster.
- Director Console with all IBM Director Extensions: 128 MB RAM, 160 MB disk space.
- Director Console, Server and Agent with all IBM Director Extensions: 256 MB RAM, 300 MB disk space.
- Director Agent with all IBM Director Extensions: 128 MB RAM.
- Director Agent with base components require 100 MB disk space. Additional disk space is required for these Director and IBM Director Extensions tools installed on the server:
 - Software Distribution: 100 MB
 - Capacity Manager: 28 MB
 - Management Processor Assistant: 12 MB
 - ServeRAID: 55 MB
 - Cluster Manager: 12 MB
 - Rack Manager: 8 MB
 - System Availability: 8 MB
 - Software Rejuvenation: 9 MB
- A network adapter that supports TCP/IP. The adapter must also support NetBIOS, IPX, or SNA, if the transport is needed to communicate with the managed systems.

Notes:

1. If insufficient disk space is available, a message box is displayed and the setup is stopped.

2. For Director installation, msvcrt.dll version 6.0 or later is required. This requirement primarily affects systems running Windows NT and Windows 98 that have not had Microsoft software installed or updates to Internet Explorer. Microsoft provides a package with the necessary update to the msvcrt.dll. The package is named vcredist.exe. can be found at the following url:
<http://support.microsoft.com/support/kb/articles/Q259/4/03.ASP>
 You must restart your system after the update has been applied.

Supported platforms

The following table shows the operating-system platforms supported by the three main components of Director.

Note: This table applies only to Version 3.1 levels of Director components. If you are upgrading from an earlier version of Director, refer to Chapter 2, "Upgrading Director and IBM Director Extensions," on page 27 to determine which combinations of component versions are supported.

Operating System	Server	Console	Agent
Windows NT [®] 4.0 Server	Yes	Yes	Yes
Windows NT 4.0 Enterprise	Yes	Yes	Yes
Windows NT 4.0 Workstation	No	Yes	Yes
Windows NT Terminal Server	No	Yes	Yes
Windows NT Metaframe	No	Yes	Yes
Windows 2000 Metaframe	No	Yes	Yes
Windows 98	No	Yes	Yes
Windows 98 SE	No	Yes	Yes
Windows Millennium Edition (Me)	No	No	Yes
Windows XP Professional	No	Yes	Yes
Windows 2000 Server	Yes	Yes	Yes
Windows 2000 Professional	No	Yes	Yes
Windows 2000 Advanced Server	Yes	Yes	Yes
Windows 2000 DataCenter	No	No	Yes
Netware 5.0 (Service Pack 1 or later), 5.1, 6.0	No	No	Yes
Warp Server for ebusiness with Convience Pack 1 and 2	No	No	Yes

Operating System	Server	Console	Agent
SCO UnixWare 7.1.1	No	No	Yes
Caldera OpenUnix 8.0	No	No	Yes
RedHat Linux 6.2, 7.1	No	No	Yes
SuSe Linux 7.1,7.2	No	No	Yes
Caldera Linux 2.3.1, 3.1	No	No	Yes
Turbo Linux 6.0.5, 6.5	No	No	Yes

Installing Director

To install the Director components (Console, Agent, and Server), use the following procedure:

1. Place the *IBM Director CD* in the CD-ROM drive of the system to which you will be installing. If autorun is enabled, the Director Agent with IBM Director Extensions window opens.

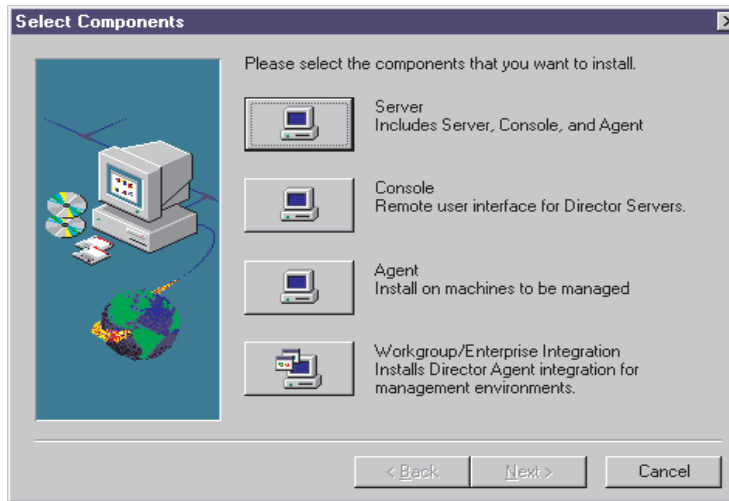
Note: If your system is not configured for autorun:

- a. Click **Start** → **Run**.
- b. In the **Open:** field, type

`e:setup.exe`

where *e* is the location of the CD-ROM drive.
(The Welcome window opens.)

2. Select **Install Director**.
The Welcome window opens.
3. Click Next through the Welcome window and accept the License Agreement.
The Select Components window opens.



The four choices from the Select Components window are:

Server Select this choice to install the server, console, and agent.

Console Select this choice to install the remote user interface for the Director Servers.

Agent Select this choice to install the agent on the systems to be managed.

Workgroup/Enterprise Integration

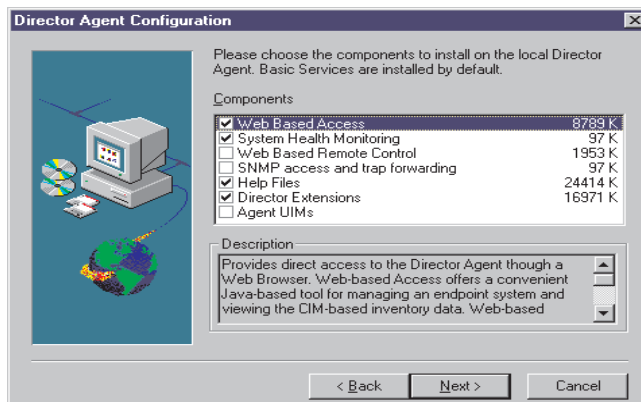
Select this choice to install IBM Director Agent integration for management environments.

Installing the Server

Selecting **Server** from the Select Components window installs the Server, Agent, and Console. Use the following procedure:

1. Click the **Server** button from the Select Components window.

The Director Agent Configuration window opens.



The following optional components are available.

Web Based Access

Web Based Access offers a convenient Java-based tool for managing an agent system and for viewing the CIM-based inventory data. If you install Web Based Access, a hypertext transport protocol (HTTP) daemon is installed and requires that a user name and password be entered during the installation. The user name and password are used to limit access to the HTTP daemon. With Web-based Access installed on the agent system, the agent can be managed from any remote computer with a supported Web browser. No software other than a Web browser is needed on the remote system.

System Health Monitoring

System Health Monitoring provides active monitoring of critical system functions, such as disk space available, system temperature, fan functionality, power supply voltage, and system cover removal. System Health Monitoring enables you to detect system problems early, before system failures occur. System administrators are notified of a system problem by a CIM event, SNMP trap (SNMP traps are available only if SNMP access and trap forwarding is also selected), or SMS Status Message (Microsoft SMS 2.0 only). Critical problems also result in a pop-up message appearing on the display of the agent and a status change in System Health GUI.

Web Based Remote Control

Web Based Remote Control enables a remote systems administrator using a Web browser or MMC console to take control of the agent system desktop, enhancing the administrator's ability to diagnose system problems and troubleshoot the system.

Note: You must install the Web Based Access component to install the Web Based Remote Control component.

SNMP access and trap forwarding

This feature enables CIM information to be accessed from a system using the Simple Network Management Protocol (SNMP). If System Health Monitoring is enabled, this option also enables System Health to forward CIM events as SNMP traps. This component requires that you have the SNMP service (provided with the operating system) installed on the endpoint.

Help Files

This component installs online documentation. Do not select this option if you are concerned about disk space or do not need online documentation installed on every agent.

IBM Director Extensions

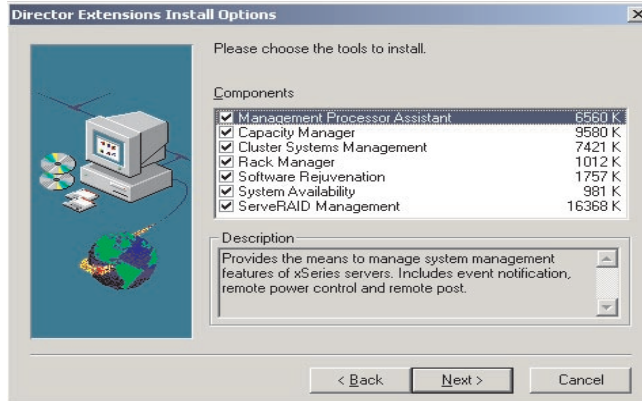
These tools are used to expand the flexibility and management capabilities of IBM Director.

Agent UIMs

Select this feature to install LANDesk Management Suite Integration and Tivoli Management Agent.

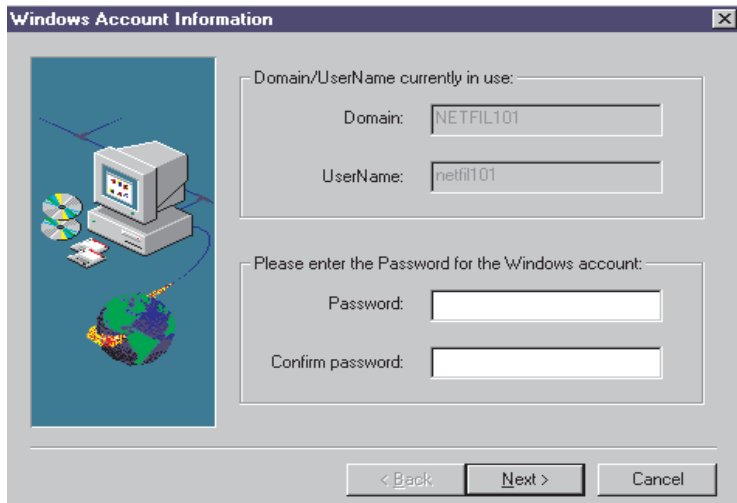
2. Select the check box beside any component that you want to install.

3. Click **Next**.
If you selected Director Extensions as an install option, then the Director Extensions Install Options window opens.

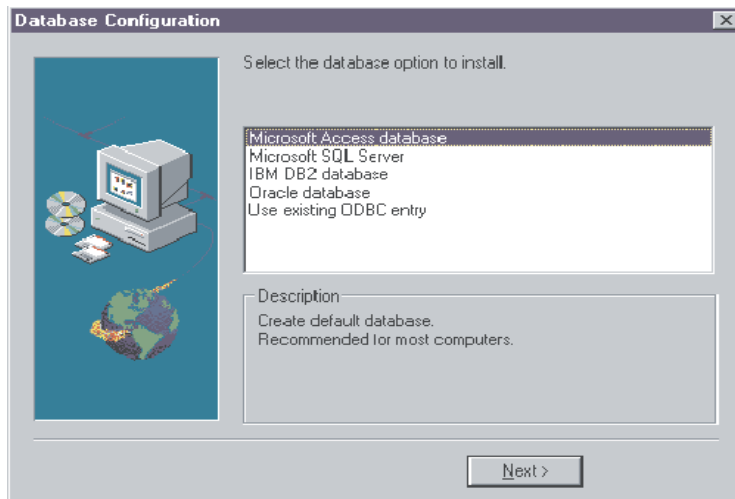


4. Select the check box beside any component that you want to install.
5. Click **Next**.
If you selected Agent UIM components as an install option, then the Agent UIM Install Options window opens.
6. Select the check box beside any component that you want to install.
7. Click **Next**.
8. Select an IP port number for the Apache Web server.
9. Click **Next**.
The Add icons for IBM Director Agent window opens.
10. Select **Yes** or **No** to place IBM Director Agent icons on the start menu.
The Choose Destination Location window opens for the location of the IBM Director files.
11. Click **Next** to accept the default directory (**C:\Program Files\Director**), or click **Browse** to choose a different directory.
The **Choose Destination Location** window opens again. This time a directory needs to be specified for a Software Distribution packages creation directory.
12. Click **Next** to accept the default directory (**C:\Program Files\Director\SwDistPk**), or click **Browse** to choose a different directory.
After creating the Software Distribution packages directory, another **Choose Destination Location** window opens. This directory will be the location for Software Distribution packages that are installed on this system.
13. Click **Next** to accept the default directory (**C:\Program Files\Director\SwDistPkInst**), or click **Browse** to choose a different directory.

14. Select **Yes** or **No** to enable this agent for Remote Control.
Selecting Yes will install additional software to enable Director to perform remote control operations on this system.
15. Click **Next**.
The system begins installing the necessary files. The Windows Account information window opens. The Domain and User Name for the system you are using is displayed.



16. Type your Windows account password in the **Password** field and type it again in the **Confirm Password** field.
17. Click **Next** to continue.
The Director Database Configuration window opens.



18. Highlight the appropriate database and click **Next**.
The options are:

Microsoft Access

Creates a default database. This option is recommended for most users. (In order to use Microsoft Access with Windows NT, install the mdac_typ.exe located on the CD if the Microsoft data is not already installed. The mdac_typ file is located in director\win32\install\files\nfd\server\windows\files. Start this install and follow the directions.)

MS SQL

Creates a link to the MS SQL Server database. A Microsoft SQL Server database must be installed and configured for the network.

IBM DB2

Creates a link to the DB2 database. DB2 agent for server must be installed and configured in the network.

Oracle

Oracle database must be installed and configured.

Use Existing Database

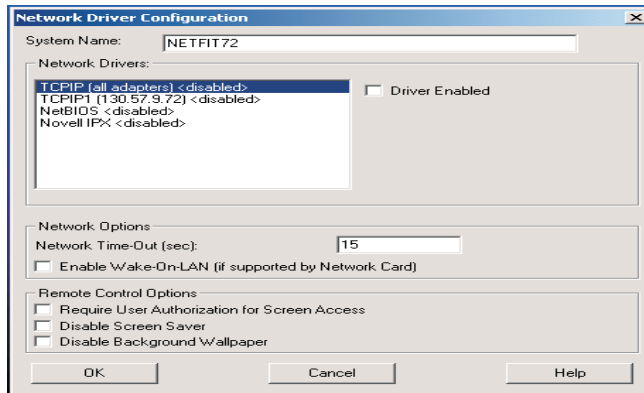
Uses a Director database from a list of existing data sources.

Note: If you already have a database installed, the system allows you to use that database. The supported database configurations are:

- Microsoft Access (Jet)
- Microsoft SQL Server 6.5 with Service Pack 5A and 7.0 with Service Pack 3
- Microsoft SQL 2000, Service Pack 1
- IBM DB2 database 6.1, 7.1, 7.2

- Oracle database 7.3.4 through 8.1.7, 9i

The Network Driver Configuration window opens.



The window defines the network transport options for an IBM Director Server. The options are:

- **System Name** - The name of the IBM Director Server.
 - **Network Drivers** - The box lists all network transport protocols defined in the system protocol list. They appear as either enabled or disabled. To enable a network transport for use with IBM Director, click on the driver name and check the **Driver Enabled** box.
 - **Network Time-out (sec)** - 15 seconds is the default time-out.
 - **Enable Wake On-LAN** - Check this box if the network card supports Wake On-LAN.
 - **Disable Screen Saver** - Select this box to disable the screen saver during a remote control session.
 - **Disable Background Wallpaper** - Select this box to disable desktop wallpaper while the system is being remote controlled.
19. Enable the appropriate network drivers by selecting the driver from the **Network Drivers** list and check the **Driver Enabled** checkbox.
 20. You may change the Network Timeout if desired.
 21. Select the **Enable Wake On-LAN** checkbox if the agent system has Wake On-LAN capability.
 22. Select the **Require User Authorization for Screen Access** checkbox if you want to give agent users the authority to deny the system administrator remote control access to their machines. This option allows users to control who accesses their machines.
 23. Select **OK** to continue.
- The file transfer and the Director Extensions tool installation process begins. When the installation process is complete, the Director Setup is Complete window opens.

24. Restart the computer now or Restart later. If you choose **Restart Now**, the system shuts down and restarts immediately. If you choose **Restart Later**, the installation program closes. However, you must restart and log in to the system to begin using Director.
25. Click **Finish**.

Installing the Console

Select the **Console** button from the Select Components window to install the Console files only. When the Director Extensions Install Options Window opens, complete the following steps:

1. Select the check box beside any Director Extensions component that you want to install.
2. Click **Next**.
The Choose Destination Location window opens.
3. Click **Next** to accept the default directory (**C:\Program Files\Director**), or click **Browse** to choose a different directory.
The IBM Director Extensions files are installed on the system.
The Setup is Complete window opens.
4. Restart the computer now or Restart later. If you choose **Restart Now**, the system shuts down and restarts immediately. If you choose **Restart Later**, the installation program closes. However, you must restart and log into the system to begin using IBM Director.
5. Click **Finish**.

Installing the Agent

Select the Agent button from the Select Components window to install the Agent files only. Complete the following steps:

1. Click **Next**.
The **Choose Destination Location** window opens.
2. Click **Next** to accept the default directory (**C:\Program Files\UMS**) or click **Browse** to choose a different directory.
The Director Agent Configuration window opens.
3. Select the checkbox beside any component that you want to install on the agent system. All of the components, except Director Support, are described under "Installing the Server" on page 4.
Director support is an additional configuration option for the agent installation process only. Selecting this feature enables the system to be managed in a Director environment by installing a Director Agent on this system.
4. Click **Next**.
5. Select an IP port number for the Apache Web server. Click **Next**.
(On systems running Windows 98 and Window Millennium, the User ID

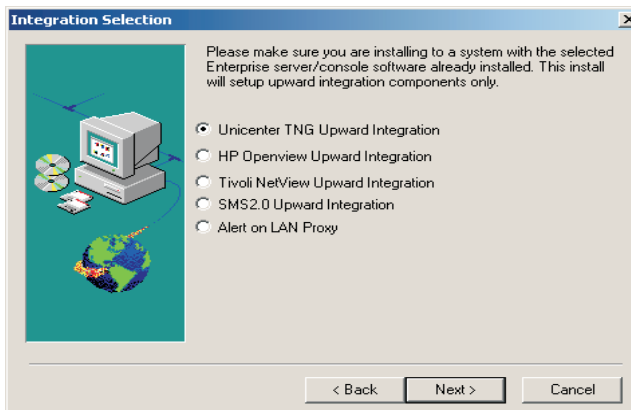
window opens. Enter the Administrator's user ID and password for web access to IBM Director Agent.)

The Add icons for Director Agent window opens.

6. Select **Yes** or **No** to add IBM Director Agent icons to your start menu. The Director Remote Control Question window opens.
7. Select **Yes** or **No** to install files for remote control. The file transfer and the Director Extensions tool installation process begins. The Director setup is Complete window opens.
8. Restart the computer now or restart it later. If you choose **Restart Now**, the system shuts down and restarts immediately. If you choose **Restart Later**, the IBM Director Agent installation program closes. However, you must restart and log into the system to begin using Director.
9. Click **Finish**.

Installing Workgroup/Enterprise Integration

Select the **Workgroup Enterprise Integration** button from the Select Components window to install the IBM Director Agent integration for management environments. The Integration Selection window opens.



The following integration modules are provided:

- Unicenter TNG Upward Integration
- HP Openview Upward Integration
- Tivoli Netview Upward Integration
- SMS 2.0 Upward Integration
- Alert on LanTM Proxy

An Alert on Lan Proxy is provided in the Workgroup/Enterprise Intergration section. The Alert on Lan Proxy application allows the user to set up a system to catch Alert on Lan alerts and send SMNP traps. You can install the proxy on any system on the network. Alert on Lan agents must be configured to send their

alerts to the proxy, which can then forward those alerts to other management applications.

For information on the Workgroup/Enterprise Integration options, refer to Upward Integration Modules chapter of the *Director User's Guide*.

Installing Director Agents on non-Windows platforms

Director, as a highly integrated workgroup hardware manager, allows the management of a heterogeneous environment through the use of the Director Agent.

The Agent is installed on a Microsoft Windows system as part of the Director installation process. For OS/2, Netware, Linux and SCO UNIX[®] systems that are managed by Director, use the *IBM Director CD* to install the Agent.

Installing Director Agents on a system running OS/2

To install the Director Agent software on a system running OS/2, use the following procedure:

1. Insert the *IBM Director CD* into the CD-ROM drive of the system.
2. Change the directory to the *D:\Director\OS2* subdirectory, where *d* is the drive letter of the CD-ROM drive.
3. Run **setup.cmd** to start the installation utility.
4. The default location of the Director Agent files are displayed in the **Directory to Install** from field. Unless you have moved the files to another location, simply accept the default. Otherwise, enter the drive letter and file path location where the agent files are located.

A subdirectory, *\SwPkInst* is automatically created in the selected directory, where software distribution packages will be placed on the system for installation.

5. The default target location for the agent files is *c:\TivoliWg*. If you want to install the files in another location, replace the default drive and file path with the alternative location.
6. Select the **remote control agent** option if you want to enable the desktop of the local system to be taken over from a remote location.
7. Select **Install**. The files are installed in the specified directory. You can cancel the installation at any point by selecting **Cancel**.
8. You should then see the Network Driver Configuration dialog. Enter a name for the system in the System Name field. The Director administrator will use the system name to identify this system on the network.
9. Select one of the available network drivers that the managed system will use to communicate with the Director management server.

When you select **NetBIOS**, a default network address is assigned. You can change this address, but ensure that the name you specify is 1 to 12

characters in length and unique on the network; otherwise, the managed system cannot start properly. Note that this address is case sensitive.

10. Select **Driver Enabled** to activate the network driver when the system starts. If the system has multiple network drivers available, you can select another driver at this point and repeat the steps for this dialog.
11. The Network Time-Out value specifies the number of seconds the Director management server attempts to establish communication with this system if it is not responding. You may not need to change the default setting.
12. The Require User Authorization for Screen Access option enables you to specify whether a remote user can access, and take over control of, the local system without the permission of the local user. If this option is enabled and a Director administrator attempts to use remote control to access the local system, a message window is displayed on the local system indicating that a remote user is attempting remote control access. You can then allow or disallow access.
13. When you have finished, click **OK** to save the settings.
14. The installation utility displays the changes that must be made to the config.sys and config.rps files. Select **Yes** if you want the installation utility to automatically include the configuration entries in these files. Select **No** to store the changes in config.new.
Note: The changes must be included in config.sys and config.rps for the Director managed system to run correctly. If you select **No**, you must add the entries manually.
15. When Installation is complete, click **OK** to save the settings.

Unattended Installation of the Director Agents on OS/2

Director supports unattended installations on OS/2. You do not have to be present to provide responses to the various prompts during the installation process. Instead, a response file is automatically read, and the installation process proceeds normally.

The response files for the unattended installation for OS/2 are included in the OS/2 language subdirectory. For example, the sample English language response file, Diragent.rsp, is located in the `e:\director\win32\install\files\nfd\agent\os2\en` subdirectory, where *e* is the drive letter of the CD-ROM drive.

Comments within the response files begin with a semicolon in the first column. All entries can be changed. The response file contains comments detailing the usage of each entry.

To launch an unattended installation of the OS/2 agent, do the following:

1. Copy and modify the sample response file (**DirAgent.rsp**).
2. Change the directory to the `e:\director\win32\install\files\nfd\agent\os2` subdirectory, where *e* is the drive letter of the CD-ROM drive.

3. Execute the unattended install with the following command:
`install.exe/R:filename`
(where *filename* is the fully-qualified response file)

Installing Director Agents on a system running NetWare

Notes:

1. Director Agent is supported only on NetWare 5.0, 5.1 and 6.0.
2. On a Windows 2000 or Window NT 4.0 system that is logged into the NetWare Server, you must map a drive to the SYS volume on the NetWare agent to which you are installing.

To install the Director Agent software on a Novell NetWare system:

1. Insert the *IBM Director* CD into the CD-ROM drive of the windows system.
2. Change the directory to the `e:\Director\Netware` subdirectory, where *e* is the drive letter of the CD-ROM drive.
3. Run `setup.bat`.
4. Select the appropriate drive that is mapped to the sys volume of the targeted Novell server.

The target location for the agent files is the `\tivoliwg` directory.
The required files are copied and the following lines are added to the `Autoexec.ncf` file:

```
;*****Director Agent*****  
Search add sys:tivoliwg  
load twgipc  
;*****Director Agent*****
```

5. The final window is displayed, listing several manual tasks that you must perform on the Netware server before using this application:
 - Type the following:
`Search add sys:tivoliwg`
 - Configure the IT Director agent by loading `twgipccf`
 - Start the agent by loading `twgipc`

Installation is now complete. The agent automatically runs on the next Novell server restart.

Installing Director on a system running Linux

The `dirinstallscript`, which can be found in the `director/linux` directory, installs the agent code and all of the IBM Director Extensions by default. In order to use this script, you will need to mount the CD-ROM using the following command:

```
# mount -t iso9660 -o map=off /dev/cdrom /mnt/cdrom
```

The required RPM's are ITDAgent-3.10-3.i386.rpm, DirAgent-3.10.i386.rpm, and lincimom-1.0-1.i386.rpm. These RPM's install the agent portion of Director. For more information, please see "Installing IBM Director Extensions on a system running Linux" on page 22.

Installing Director on a system running SCO UNIX

The IBM Director CD contains a file called `director/sco/ITDAgent.pkg`. This file complies with the UnixWare package format. The package resides in the SCO folder on the source media. For information on how to install the UnixWare package, see your operating-system user's guide. These packages must be run manually. Install the ITDAgent package first. ITDAgent.pkg installs the IBM Director Agent, and is required before installing the agent portion of any IBM Director Extensions Tools. For more information, please see "Installing IBM Director Extensions on a system running SCO UnixWare" on page 23.

To install the Director Agent on a system running SCO UNIX, use the following procedure:

1. Insert the CD into the CD-ROM drive.
2. Mount the CD-ROM drive.
3. Type:

```
pkgadd -d /CD-ROM_1/Director/sco/ITDAgent.pkg
```

where CD-ROM_1 is the mount point of the device file created in step 2.

4. When the installation is complete, unmount the CD-ROM drive.
5. Remove the CD from the drive.

Note: The following patches must be applied to SCO Unixware 7.1.1 before Director can be installed: ptf7045, ptf7410, ptf7441, ptf7602, ptf7603, ptf7631, freefont-2.0, udkrtfs. These patches are available from the Caldera website.

Uninstalling Director on a system running Windows

To remove Director, use the following procedure:

1. Click **Start** → **Settings** → **Control Panel** → **Add/Remove Programs**. Select **Director** from the list of installed programs. Click the **Change/Remove** button. The message "Are you sure you want to uninstall?" is presented. Click **Yes** to uninstall, or click **No** to quit. The uninstall begins by stopping the server and removing components. If you have installed the Director server or agent with Director support, the system displays a second message which verifies that you want to delete the configuration data and the database contents. The uninstallation program is automated and prompts you when the process is finished.
2. Restart the computer now or restart it later. If you click **Restart Now**, the system shuts down and restarts immediately.

Uninstalling Director on a system running OS/2

To uninstall Director components from a system running OS/2 :

1. Change to the Director management agent directory. Typically this is c:\tivoliwg.
2. From a command prompt, type `bmuninst` and Press **Enter**.
3. When prompted, click **Yes**, confirming that you wish to uninstall the agent.
4. When the uninstall completes, reboot your system.
5. After the system is restarted, remove the c:\tivoliwg directory and all of its contents. (Substitute the appropriate directory where you installed the Director management agent.)

Uninstalling Director on a system running NetWare

To uninstall Director components from a Novell NetWare system:

1. Unload Director by entering `unload twgipc`.
2. From a Windows NT 4.0 or Windows 2000 system that is logged into the Netware server, map a drive to the sys volume and delete the tivoliwg directory.
3. Edit the `autoexec.ncf` file on the Novell server and remove the IBM Director section.

Uninstalling Director on a system running Linux

To uninstall Director on a system running Linux, use the `diruninst` script. This script may be found in the `director\linux` folder. It executes the `uninstall` command for the various installed RPM's. You may customize this script to uninstall one or more RPM's .

Uninstalling Director on a system running SCO UnixWare

To uninstall Director on a system running SCO UNIX, run the following command:

```
pkgrm TivITDA
```

Installing IBM Director Extensions on non-Windows platforms

Installation of IBM Director Extensions on NetWare, OS/2 and UnixWare is performed remotely on a system running Windows. Installation of Linux and SCO is performed on a local system.

For NetWare, OS/2, Linux and SCO UnixWare installations, the tools are selectable and any combination of IBM Director Extensions tools can be installed. At least one IBM Director Extensions tool must be selected or an error message will be displayed. After you select the target directory, the installation program ensures that the target drive is the correct operating system.

The IBM Director Extensions tools for a system running NetWare are:

- Capacity Manager
- ServerRAID Manager
- Management Processor Assistant

See “Installing IBM Director Extensions on a system running NetWare”.

The IBM Director Extensions tools for a system running OS/2 are:

- Capacity Manager
- Management Processor Assistant

See “Installing IBM Director Extensions on a system running OS/2” on page 20.

The IBM Director Extensions tools for a system running Linux are:

- ServeRAID
- Software Rejuvenation
- Capacity Manager
- System Availability
- Management Processor Assistant

See “Installing IBM Director Extensions on a system running Linux” on page 22.

The IBM Director Extensions tools for a system running SCO UnixWare are:

- Management Processor Assistant
- ServeRAID

See “Installing IBM Director Extensions on a system running SCO UnixWare” on page 23.

To uninstall IBM Director Extensions on OS/2, NetWare, Linux, and SCO UnixWare, see the *Director 3.1 User's Guide*.

Installing IBM Director Extensions on a system running NetWare

To install the IBM Director Extensions tools on a system running NetWare, you must run IBM Director Extensions Installer remotely from a system running Windows NT or Windows 2000. From the Windows system, you must map a drive to the sys volume of the Netware system before you start the Extensions Installer program.

The best method of mapping the drive is to use the Net Use command in a DOS window. The installation program displays windows that are intended to enable you to map the drive, but using the window method will not work for you in all remote installation situations.

For instructions on using the Net Use command to map a drive, refer to “Mapping the Drive for a Remote Installation” on page 20.

To install IBM Director Extensions tools on a system running NetWare, use the following procedure:

1. From the NetWare console, type `unload twgipc` to shut down IBM Director.
2. From the Windows Start menu, click **Run**.
3. In the Run field, type:

`d:\umse\os2netw\xssetup.exe`

where *d* and *umse* are the drive and the temporary directory in which the IBM Director Extensions tools files are located. The *os2netw* directory contains the installation files for an OS/2 or NetWare installation.

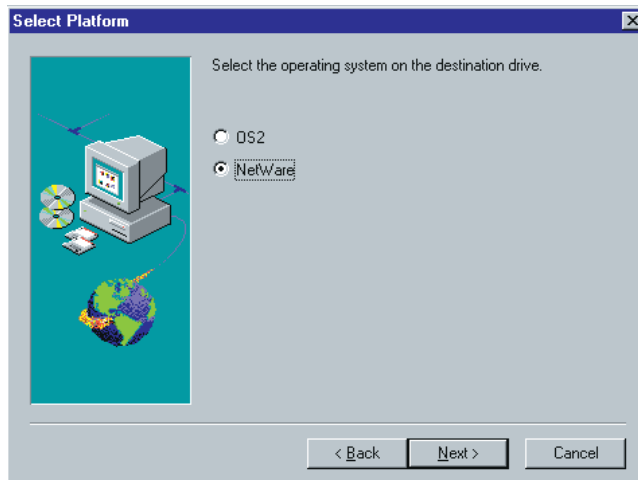
4. Click **OK**.

The installation program displays two Welcome windows.

5. Click **Next** through both Welcome windows.

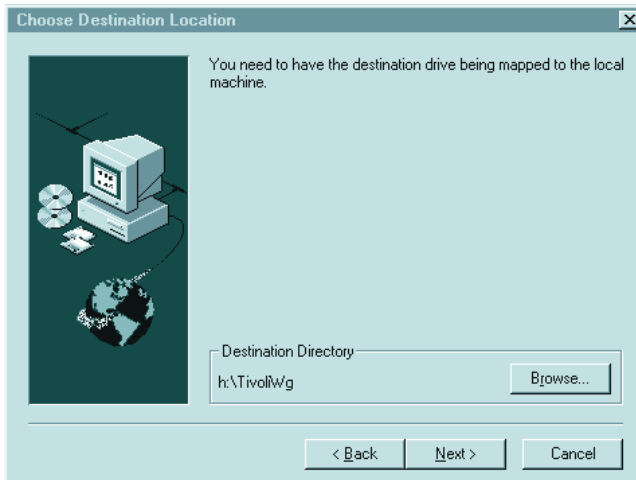
The system displays the Select Platform window.

6. Select the **NetWare** button.



7. Click **Next**.

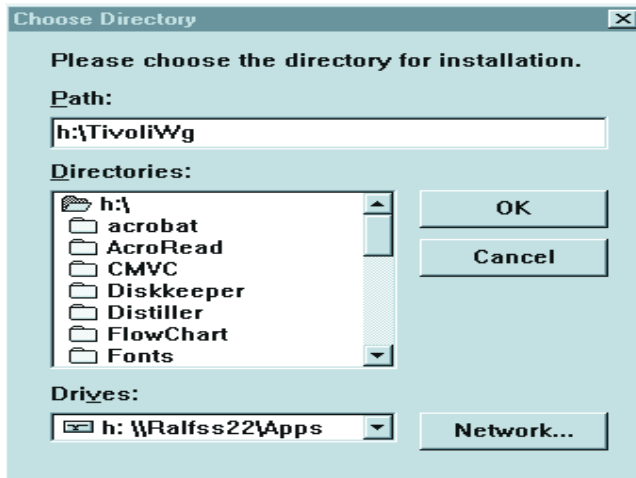
The Choose Destination Location window opens, reminding you that you must first map a drive for the NetWare installation.



8. Click **Next** if you are using the default destination directory. Skip to step 11 on page 20.

Click **Browse** if you want to change the default destination directory.

The installation program displays the Choose Directory window.



9. Click the down arrow beside the Drives field, and select the drive that you mapped for the NetWare installation.

You cannot use the Network button to find an available drive to map, because with a NetWare installation, you must map the drive before you start the Extensions Installer program.

10. From the Directories list, select the directory where IBM Director is installed. The default is `d:\TivoliWg\` where *d* is the mapped drive, and TivoliWg is the default directory.
11. Click **OK**.
IBM Director Extensions Installer installs the following tools:
 - Management Processor Assistant
 - Capacity Manager
 - ServerRAID Manager
12. When the installation is complete, from the NetWare system console, type `twgipc` to restart IBM Director.

Installing IBM Director Extensions on a system running OS/2

To install the IBM Director Extensions tools on an OS/2 platform, you must run IBM Director Extensions Installer remotely from the system running Windows NT. Systems running Windows 98 do not work for this purpose.

You must map a drive from the Windows system to the OS/2 system. The best method of mapping the drive is to use the Net Use command in a DOS window. The installation program displays windows that enable you to map the drive. Using the window method does not work in all remote installation situations.

Mapping the drive for a remote installation

To map a drive from a DOS window, type the Net Use command as follows:

```
Net Use[d|*] [\computername\sharename]
```

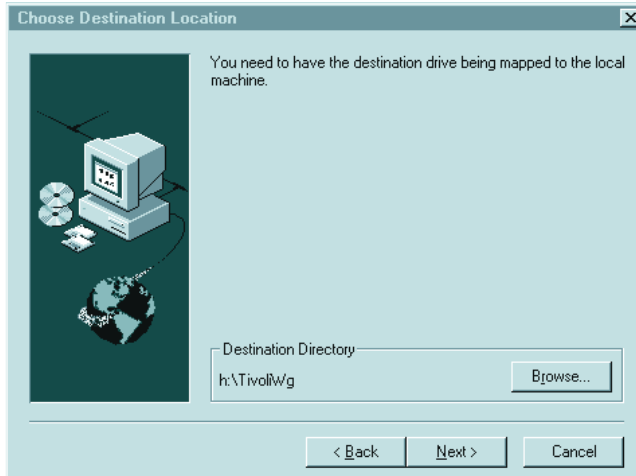
where *d* represents any available drive letter on the system running Windows NT, and *computername* is the name of the OS/2 system and *sharename* is the name that the shared directory on the OS/2 system is shared as.

Installation instructions for a system running OS/2

Perform the following steps to install the IBM Director Extensions tools on a system running OS/2:

1. On the target system, run the following command: `twgipc shutdown`. This will stop Director and enable the installation to proceed.
2. In the **Run** field, type:
`d:\umse\os2netw\xssetup.exe`
where *d* and *umse* are the drive and the temporary directory where the IBM Director Extensions tools files are located. The *os2netw* directory contains the installation files for an OS/2 or NetWare installation.
3. Click **OK**.
Two Welcome windows open.

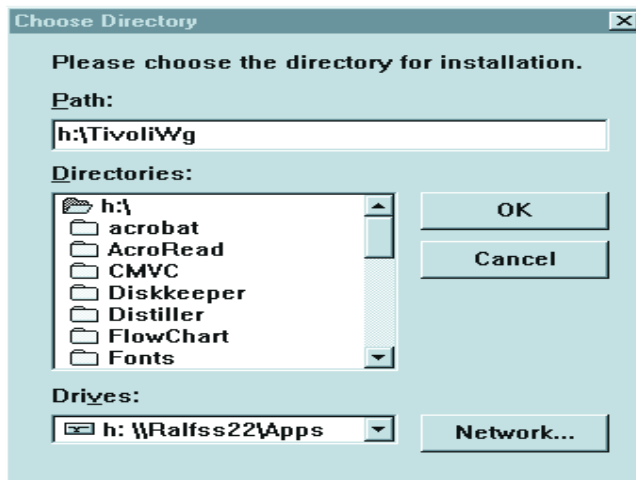
4. Click **Next** through both Welcome windows. The Select Uplifters window opens.
5. Select the **OS/2** button.
6. Click **Next**. The Choose Destination Location window opens, reminding you that you must first map a drive for the OS/2 installation.



7. Click **Next** if you are using the default destination directory. Skip to step 10 on page 22.

Click **Browse** if you want to change the destination directory.

The installation program displays the Choose Directory window.



8. Click the down arrow beside the **Drives** field, and select the drive that you mapped for the OS/2 installation.

You can click the **Network** button to find an available drive to map; however, for this installation, it is best to map the drive before you start the Extensions Installer program.

Refer to “Mapping the Drive for a Remote Installation” on page 20.
9. From the Directories list, select the directory where Director is installed. The default is *d:\TivoliWg* where *d* is the mapped drive and TivoliWg is the default directory.
10. Click **OK**.

IBM Director Extensions Installer installs the following Extensions tools:
 - Management Processor Assistant
 - Capacity Manager
11. When the installation is complete, from the console of the OS/2 system, type `twgipc` to restart IBM Director.

Using command lines to install IBM Director Extensions

You install IBM Director Extensions on non-Windows systems using Red Hat Package Manager (RPMs) for Linux and packages for SCO UnixWare. See “Installing IBM Director Extensions on a system running Linux” and “Installing IBM Director Extensions on a system running SCO UnixWare” on page 23 for examples of the installation procedure.

Installing IBM Director Extensions on a system running Linux

To install IBM Director Extensions on a system running Linux, use the `dirinstall` script which can be found in the `Director\Linux` directory. The `dirinstall` script by default installs all of the IBM Director Extensions tools. You can modify the script to prevent installs of one or more IBM Director Extensions tools. For more information refer to the comments in the `dirinstall` file in the `Director\linux` directory.

The available IBM Director Extensions tools for linux are:

- ServeRAID
- Management Processor Assistant
- Software Rejuvenation
- Capacity Manager
- System Availability

Installing IBM Director Extensions on a system running SCO UnixWare

The available IBM Director Extensions tools for SCO UnixWare are:

- ServeRAID
- Management Processor Assistant

The Director UnixWare ASM Agent provides the Management Processor Assistant support for IBM Director on UnixWare 7.1.1. For installation, removal, and setup, use the following procedure:

1. Insert the CD into the CD-ROM drive.
2. Mount the CD-ROM drive.
3. Press **Enter** and type:

```
pkgadd -d /CD-ROM_1/umse/unix/asmuwag.ds
```

where `CD-ROM_1` is the mount point of the device file created in step 2.
4. Press **Enter**.
5. When the installation is complete, unmount the CD-ROM drive.
6. Press **Enter** and remove the CD from the drive.

To install from the Web, use the following procedure:

1. Download the Director UnixWare ASM Agent from the following location:
http://www.ibm.com/pc/ww/eserver/xseries/systems_management/nfdir/serverext.html
2. Select the `asmuwag.ds` file and download it to a temporary directory.
3. To install this package, type the following:

```
pkgadd -d /tmp/asmuwag.ds
```

where `tmp` is the temporary directory specified in step 2.
Note: To install or remove the ASM package, you must have root privileges. To remove this application, type:

```
pkgrm asmuwag
```

The Director UnixWare RAID Agent provides the ServeRAID support for the Director on UnixWare 7.1.1. This package requires that the Director UnixWare Agent be installed. For installation, removal and setup, use the following procedure:

1. Insert the CD into the CD-ROM drive.
2. Mount the CD-ROM drive.
3. Press **Enter**, and then type:

```
pkgadd -d /CD-ROM_1/umse/unix/RAIDUwAg.pkg
```

where `CD-ROM_1` is the mount point of the device file created in step 2.
4. Press **Enter**.

5. When the installation is complete, unmount the CD-ROM drive.
6. Press Enter and remove the CD from the drive.

The Director UnixWare RAID Agent can be downloaded. Use the following procedure:

1. Download from the following location:
http://www.ibm.com/pc/ww/eserver/xseries/systems_management/nfdir/serverext.html
2. Select the RAIDUwAg.pkg file and download it to a temporary directory.
3. To install this package, type the following:

```
pkgadd -d /tmp/RAIDUwAg.pkg
```

where *tmp* is the temporary directory specified in step 2.

Note: To install or remove the ServeRAID Manager package, you must have root privileges. To remove this application, type:

```
pkgrm RAIDUwAg
```

Uninstalling IBM Director Extensions tools

There are two uninstallation procedures for IBM Director Extensions tools. The procedure that you use will depend on whether you installed IBM Director Extensions tools locally or remotely.

Uninstalling IBM Director Extensions on a system running Windows

To uninstall IBM Director Extensions tools on a system running Windows, you must either uninstall Director or reinstall Director and uncheck the IBM Director Extensions tools which you wish to uninstall.

Uninstalling IBM Director Extensions on a system running OS/2

To uninstall IBM Director Extensions from a system running OS/2, please refer to "Uninstalling Director on a system running OS/2" on page 16.

Uninstalling IBM Director Extensions on a system running NetWare

To uninstall IBM Director Extensions on a system running NetWare, please refer to "Uninstalling Director on a system running NetWare" on page 16.

Uninstalling IBM Director Extensions on a system running Linux

To uninstall IBM Director Extensions on a system running Linux, use the `diruninst` script. This script may be found in the `director/linux` folder. It executes the `uninstall` command for the various installed RPM's. You may customize this script to uninstall one or more RPM's. Please refer to the comments located in the `diruninst` file for information on modifying the script.

Uninstalling IBM Director Extensions on a system running SCO UnixWare

To uninstall IBM Director Extensions on a system running SCO UNIX, run the following commands:

ServeRAID

```
pkgrm RAIDUwAg
```

Management Processor Assistant

```
pkgrm asmuwag
```

After you uninstall the Director Agent Extensions, use the following command to uninstall the Director Agent:

```
pkgrm TivITDA
```

Chapter 2. Upgrading Director and IBM Director Extensions

This chapter contains detailed information for upgrading Director 3.1 and IBM Director Extensions from a previous release. The installation program checks for the previous version of Director and IBM Director Extensions. Based on the type of installation, the program upgrades the necessary Director and IBM Director Extensions components.

Upgrading to Director 3.1

The supported upgrade paths for Director versions are:

- IBM Director 2.2.1 to 3.1
- IBM Director 2.2 to 3.1
- IBM Director 2.2 to 2.2.1 to Director 3.1

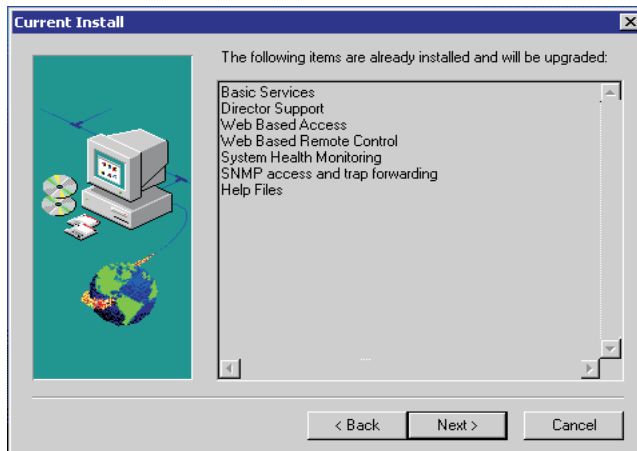
Note: A Director 3.1 server requires a Director 3.1 console. Also, 3.1 agents require a 3.1 or above server.

Upgrading the Director Server

Follow the same steps for upgrading Director Server as you would to install it. Insert the *IBM Director* CD into the CD-ROM drive of the Director system that you are upgrading. Follow steps 1 through 3 of the installation section, see “Installing the Server” on page 4.

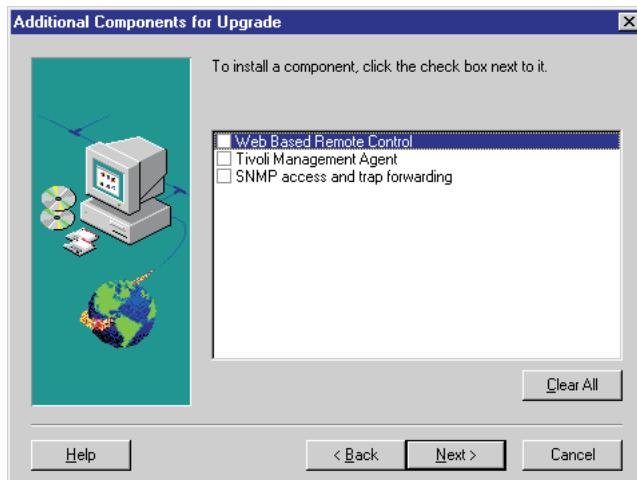
To upgrade the Director server to version 3.1, use the following procedure:

1. Select **Server** from the Select Components window.
Installation detects a previous installation. A Question window opens.
2. Click **Yes** from the Question window to proceed with the upgrade.
The Current Install window opens.



Items that were installed with the previous version are listed in this window. These items are upgraded with the new version.

3. Click **Next**.
The Additional Components for Upgrade window opens.



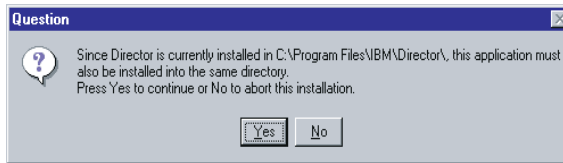
Features that are either new to Director or were not installed in the previous version are listed in this window. Select the check box beside each feature you want to add.

4. Click **Next**.
The Director Extensions Install Options window opens.
5. Select the check box beside any component that you want to install.

6. Click **Next**.
If you did not select any agent UIM components in the previous install, the Agent UIM Install Options window opens.
7. Select the check box beside any component that you want to install.
8. Click **Next**.
9. Select an IP port number for the Apache Web server.
10. Click **Next**.
11. Click **Yes** in the Add IBM Director Agent Icons window for the additional menu choices provided with the upgrade.
12. The upgrade program detects the previous installation path. Click **Yes** to continue.
13. Click **Next** to accept the default directory (**C:\Program Files\Director\SwDistPk**), or click **Browse** to choose a different directory. The upgrade program detects the current Director database. Click **Yes** to use the current database with the upgrade.
14. Click **Next**.
The system begins installing the necessary files. The Windows Account information window opens. The Domain and User Name for the system that you are using is displayed.
15. Type your Windows account password in the Password field and type it again in the Confirm Password field.
16. Click **Next**.
A Question window opens.
17. Select **No** to install a new database. The Database Configuration window opens. Highlight the appropriate database. Select **Yes** to use the current database. The Network Configuration window opens.
18. Click **Next**.
19. Complete steps 20 through 23 of “Installing the Server” on page 4.
20. Select **OK** to continue.
When the installation is complete, the Setup is Complete window opens.
21. Restart the computer now or Restart it later. If you choose **Restart Now**, the system shuts down and restarts immediately. If you choose **Restart Later**, the installation program closes. However, you must restart and log into the system to begin using IBM Director.

Upgrading the Director Console

After the Welcome and End User License Agreement windows open, select **Console** from the **Select Components** window. Installation detects the previous version of the Director Console, and the following prompt appears.



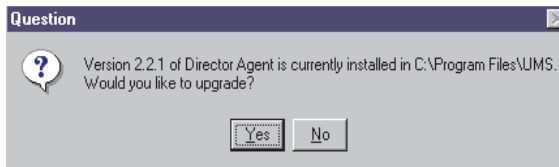
Click **Yes** to upgrade the console. The upgrade follows the previous installation path upgrading existing software, removing obsolete files and directories, and installing the new console components.

Restart the computer now or later. If you click **Restart Now**, the system shuts down and restarts immediately. If you click **Restart Later**, the Director Agent installation program closes. However, you must restart and login to the system to begin using IBM Director.

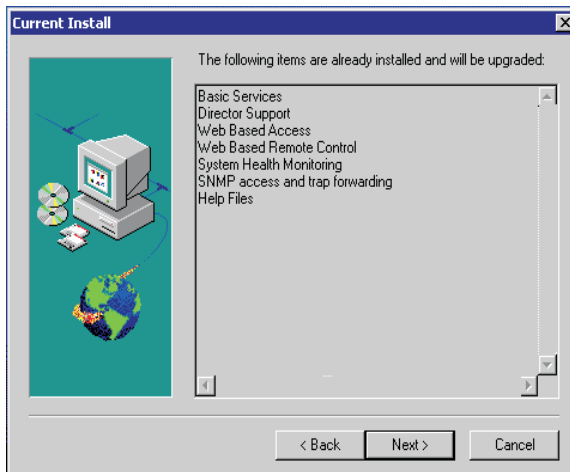
Upgrading the Director Agent

To upgrade the Director Agent for a selected system, do the following:

1. After the Welcome and End User License Agreement windows open, select **Agent** from the **Select Components** window. Installation detects the previous version of the Director Agent and the upgrade prompt appears.

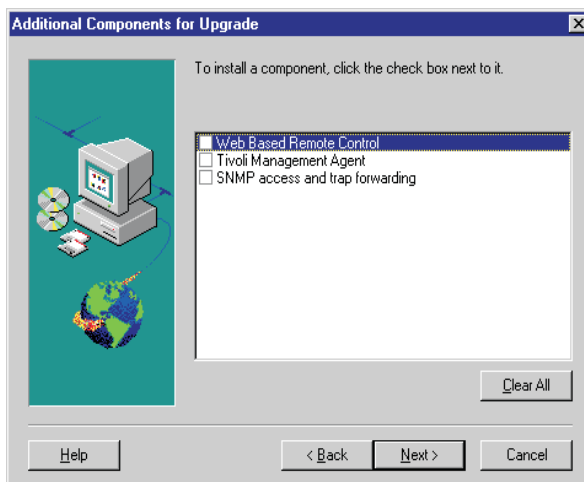


2. Click **Yes** to begin. The installation program detects the agent components from the previous version of the installed IBM Director Agent. The Current Install window opens.



The installation program upgrades the agent components listed in this window.

3. Click **Next** to continue.
The Additional Components for Upgrade window opens.



Select additional components to add to the upgraded components of the IBM Director Agent. Click **Next**. The Director Extensions Install Options window opens.

4. Select Director Extensions components.
5. Click **Next**.
If you did not select any agent UIM components in the previous install, the Agent UIM Install Options window opens.
6. Select the check box beside any component that you wish to install.

7. Click **Next**.
Select an IP port number for the Apache Web server.
8. Click **Next**.
9. A prompt to add IBM Director Agent icons appears. If you have icons from the previous version, clicking **No** will not remove the icons. Clicking **Yes** will not add icons to those that were previously installed.
10. The program upgrades the existing components and installs the selected new components. Restart the computer now or later. If you click **Restart Now**, the system shuts down and restarts immediately. If you click **Restart Later**, the IBM Director Agent upgrade program closes. However, you must restart and log into the system to begin using Director.

Upgrading IBM Director Extensions

An upgrade installation is available for the agent and console portion of IBM Director Extensions. If a previous version of Director Extensions is on the system, the installation will upgrade it to IBM Director Extension 3.1. All options previously installed will be upgraded, and a list of additional options will be displayed. You can add any options that have not been previously installed or just update the current configuration without adding any additional functionality.

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