

Nways Manager for Windows NT

Installation Guide

Version 2.0



Nways Manager for Windows NT

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Note

Before using this information and the product it supports, be sure to read the general information under "Appendix. Notices" on page 23

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This edition applies to the IBM Nways Manager for Windows NT, Version 2.0.

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About This Book

This manual provides information that is needed to install IBM Nways Manager for Windows NT (Nways Manager).

Who Should Read This Book

This manual is intended for the person responsible for installing and configuring Nways Manager.

How to Use This Book

This manual contains the following sections:

- Chapter 1, "Introduction" describes Nways Manager's components, identifies IBM hardware that is supported by Nways Manager, and identifies the hardware and software requirements for using Nways Manager.
- Chapter 2, "Migrating to Nways Manager Version 2.0" describes important precautions when upgrading the product.
- Chapter 3, "Starting the Installation" describes the main install program, which allows you to install the different product components.
- Chapter 4, "Installing and Configuring Nways Manager" describes the steps for installing Nways Manager.
- Chapter 5, "Uninstalling Nways Manager" describes the steps for uninstalling Nways Manager.

Related Publications

The following publications are closely related to or referred to the Nways Manager library:

• Nways Remote Monitor for Windows Installation Guide, Part Number 4229492

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- Nways Manager for Windows NT User's Guide, SA27-4194
- Nways Remote Monitor for Windows User's Guide, SA27-4195

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Chapter 1. Introduction

This chapter provides a brief description of Nways Manager, lists the IBM hardware components that it supports, and provides references to locate information on hardware and software requirements for using Nways Manager.

The Nways Manager package consists of the following components:

- · Adobe Acrobat Reader, Version 3.01 (needed to view the online books)
- Nways Remote Monitor for Windows NT
- · Nways Manager, which includes Java-based Distributed Intelligent Agent
- The Enterprise Edition of IBM DB2 Universal Database, Version 5.2, for use only with Nways Manager for Windows NT, Version 2.0
- Tivoli NetView IT Director Edition Version 5.1

For the latest technical information, including prerequisites and supported web browsers, go to the Nways Management web page: http://www.networking.ibm.com/netmgt

Important

If you are migrating to Nways Manager Version 2.0 from previous versions of Nways Workgroup Manager or from Nways Manager for Windows, you must *uninstall* the previous version and install Nways Manager Version 2.0.

Demonstration Version

Demonstration versions of Nways Manager and Remote Monitor allow you to try the products free for 60 days. *If you are installing the demonstration versions of these products, then they will become inoperative after 60 days.*

Once installed, the demonstration versions can be upgraded to the fully licensed versions at any time without losing the accumulated data, *even after the trial period is over*. For more information, contact your IBM representative.

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Income a set as			
The follow	nt ving list shows the IBM Nways Manager product offerings and the nts they contain.		
Nways M	anager		
	Demonstration version of Nways Manager for Windows NT		
	Demonstration version of Nways Remote Monitor for Windows NT		
	IBM DB2 Universal Database Enterprise Edition Version 5.2, on a separate CD-ROM		
	Adobe Acrobat Reader		
	Tivoli NetView IT Director Edition Version 5.1		
Nways Remote Monitor			
	Nways Remote Monitor for Windows NT		
	Demonstration version of Nways Manager for Windows NT		
	Adobe Acrobat Reader		

About Nways Manager

IBM Nways Manager for Windows NT Version 2.0 is a Simple Network Management Protocol (SNMP) management platform with a suite of graphical device management applications that brings integrated, heterogeneous SNMP management to the Microsoft Windows NT Version 4.0 environment. It works using HP OpenView or Tivoli NetView as a platform to provide fault, performance, configuration, accounting, and security management for SNMP-enabled workstations, hubs, routers, bridges, switches, and adapters, and provides easy-to-use graphical network and device displays. Nways Manager functions from anywhere in your enterprise.

The Java-based management support provided in Nways Manager enables you to manage your devices from your intranet, the Internet, and from your local NT workstation. You can use your Java-Soft JDK-1.1.6–enabled Web browser to access the Nways Manager functions from anywhere in your enterprise.

When you purchase both Nways Manager and Nways Remote Monitor (ReMon), you will have the added bonus of RMON coupling for most devices that support RMON. RMON coupling allows the graphical management applications for these devices to seamlessly access and display the RMON, RMON2, and ECAM data provided for these devices by Nways Remote Monitor.

For a complete list of supported hardware, please visit our Website at: http://www.networking.ibm.com/netmgt

Nways Manager collects network information via Java-enabled Distributed Intelligent Agents (DIAs). By default, one DIA is installed on the network management station. When distributed across the network, these agents enable you to offload the polling of

information from the manager workstation, thus freeing up the processor on the manager. It also places the polling close to the devices being polled, freeing up bandwidth across WAN links. These agents can be configured to notify Nways Manager when exceptions (threshold exceeded) occur. The agents can be placed in any Java-enabled (Java virtual machine) workstations in the network.

One DIA Registered Agent Access is included in the Nways Manager package. Additional DIAs can be attached only with additional Registered Agent Accesses, which are available in quantities of 1 (part number: 4300381), 5 (part number: 4300382), and 10, (part number: 4300383). Contact your IBM representative, IBM business partner, or the IBM North America Sales Centers at 1–800–IBM-CALL, Reference: SE001, to purchase these items.

Performance management of these devices also requires a Java Database Connectivity (JDBC)-compliant database to store the performance information. The Enterprise Edition of the IBM DB2 Universal Database Version 5.2, which is JDBC-compliant, is provided with Nways Manager on a separate CD-ROM. You may use this copy of DB2 only in association with your licensed use of the IBM Nways Manager for Windows NT.

Hardware and Software Requirements

Nways Manager for Windows NT Version 2.0 requires either HP OpenView Network Node Manager on Windows NT Version 5.0.1 or higher, or Tivoli NetView-IT Director Edition Version 5.1 or higher, which serves as its platform.

Note: If you are using HP OpenView Network Node Manager on Windows NT Version 5.0.1, then you will need to install all patches that are currently available at the HP OpenView Web site prior to installing Nways Manager Version 2.0.
If neither of these is installed on your machine, then you can install the included CD of Tivoli NetView-IT Director Edition Version 5.1 for use with this program.

For a complete list of hardware and software requirements, please visit our Website at: http://www.networking.ibm.com/netmgt.

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Chapter 2. Migrating to Nways Manager Version 2.0

In order to upgrade to Nways Manager Version 2.0, you must uninstall any previous versions of the program, and install version 2.0.

- Note!

You will lose any stored configurations you have saved using a previous version when you uninstall it.

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Chapter 3. Starting the Installation

The installation process for Nways Manager is highly automated. This chapter describes important preparation information and how to start the installation. For the most current information on installing Nways Manager, visit our Website at: http://www.networking.ibm.com/netmgt.

Before Installing Nways Manager

You should consider the following points before installing Nways Manager:

- Ensure that the Windows NT user ID you are using is a member of the Administrators group. The install program will exit if you do not have Administrator privileges.
- · You must exit all active applications prior to installing or upgrading Nways Manager.
- Verify that all the dependent software you need is installed prior to installing Nways Manager. This will allow the installation program to determine that the software is present and follow the appropriate installation steps.
- · Verify that you have sufficient disk space available to install the product.
- · See the product README file for important notes on installation.

Before you install Nways Manager, you must install the License Use Runtime from the Nways Manager CD. To install the License Use Runtime:

1. Run the command:

f:\ifornt\setup.exe

where *f* is the drive where the Nways Manager CD is located.

- 2. Install the Communications component and the Runtime component.
- 3. Reboot the system before installing Nways Manager.

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Important

Shut down all Windows NT applications before installing Nways Manager. If any application is running that uses the contents or the existence of any file that is used during the install process, the installation may fail.

Versions 2 and earlier of the IBM AntiVirus for Windows NT application are incompatible with this installation program. These versions of IBM AntiVirus must be uninstalled before installing Nways Manager. After installation completes, you can reinstall IBM AntiVirus and activate it. *Deactivating these versions of IBM AntiVirus is not sufficient; you must uninstall them.*

If you do not remove IBM AntiVirus, the installation program does not create any product icons or folders in the Windows NT Start Menu.

If you experience problems when the installation attempts to create product icons, ensure that you do not have any anti-virus applications installed.

Nways Manager is provided on a CD-ROM. If you have not already done so, insert the disk into your CD-ROM drive.

If you have Autorun set ON in your Windows NT system, then, after the CD-ROM is inserted, it will be scanned automatically. The main install program will be started.

If you have Autorun set OFF in your Windows NT system:

- 1. From the Windows NT Start Menu, select Run....
- 2. Click OK
- 3. To start the main install program, type *f*\setup.exe, where *f* is the drive in which you inserted the CD-ROM. Press **Enter**.

Note: For more information about Autorun, see the Microsoft Windows NT documentation.

The installation will begin with a Welcome window. Click **Next** to start the installation process.

The next window offers you the list of components that can be installed. Select the components that you want to install.

Tivoli NetView-IT Director Edition Version 5.1

IBM DB2 Universal Database Enterprise Edition V5.2 is another component on a separate CD-ROM. Installing DB2 is described in Chapter 4, "Installing and Configuring Nways Manager" on page 11.

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Chapter 4. Installing and Configuring Nways Manager

The main install program will start the Nways Manager install if the Nways Manager check box is checked on the main install dialog. You can also run the Nways Manager install program directly, as follows:

- 1. From the Windows NT Start Menu, Select Run....
- 2. Type f:\nwayswg\setup.exe, where f is the drive in which you inserted the CD-ROM.
- 3. Press Enter

On most install panels, pressing the F1 key will display the appropriate help. Follow the directions on each panel to install the product. The remainder of this chapter describes common problems to avoid and special considerations to be aware of when installing Nways Manager.

Upgrading to Nways Manager Version 2.0

In order to upgrade to Nways Manager Version 2.0 from an earlier version, you will have to uninstall the older version and then install the new version.

Installing the Products

When you install any of the products available in the Nways Manager package, a demonstration version of all products on the CD-ROM is installed, even if you did not purchase a license for the other programs. Any of those demonstration versions can be upgraded to the fully licensed version at any time. See "Demonstration Version" on page 1 for more information.

Deployment Manager

To start Nways Deployment Manager from the NetView main menu, select **Tools...→IBM** Nways Java...→Open Deployment Manager.

Managing Licenses

As part of the installation process, you are asked whether or not you want to install a licensed product or a trial version of Nways Manager. If you elect to install a trial version of the product, all Nways Manager components will be installed with a demonstration license good for 60 days following installation. You can upgrade to a licensed version of Nways Manager at any time without losing your accumulated data.

If you select a licensed product, you will be prompted to enter your customer number and license key number, and then the number of nodes for which you have purchased a license.

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Enter this information and click **OK** to continue the installation.

Upgrading Licenses

To upgrade from the demonstration version to the licensed version of Nways Manager, you must restart the installation program to install the license.

Note: No new code will be installed and your existing configuration will be preserved.

Increasing the Number of Licensed Nodes

If you have purchased a license to allow you to manage additional nodes, then use the following procedure to upgrade your license:

- 1. Start the installation process.
- 2. Select the radio button for Update number of nodes.
- In the Update Licenses window, enter the total number of licensed nodes available. This is the number of pre-existing licensed nodes added to the new number of licensed nodes.
- 4. Click **OK** to save your changes.

Determining What Nodes to Monitor

Nways Manager determines what nodes to monitor by the contents of the file nwaysjma.ini. To remove nodes that you do not want to monitor and thus increase the number of other nodes you can monitor with your current license, you can edit this file and remove their entries. To edit the file, access the IBM Nways Manager for NT group and select *Edit nwaysjma.ini*.

To add nodes that you do want to monitor, edit the file and create entries for them. To do this, you must know their System Object Identifier (SYSOID).

A copy of this file is created in the c:*nways*/bin directory, where c: is the target drive of the installation. The file is created with the installation and is given the filename original.nwaysjma.ini. To revert to your original configuration, rename this file nwaysjma.ini.

Installing Java-based Distributed Intelligent Agent

The Java-based Distributed Intelligent Agent (DIA) is installed on remote workstations in your network to reduce the performance impact of performance polling. The DIA code is contained in the *nways*\java\dia subdirectory, where the *nways* is the directory where Nways Manager is installed. Refer to the README.TXT file in that directory for more information on installing the DIAs on PC and Unix-based workstations on your network.

DB2 Universal Database

Performance management for the Java-based device managers uses a Java Database Connectivity (JDBC)-compliant database. For your convenience, the Enterprise Edition of DB2 Universal database is provided.

You will need to create a database instance that can be accessed using JDBC by the device managers. The following steps show how to do this using DB2 (the concept is the same if you are using another JDBC-compliant database, but you will need to refer to that database's instructions):

Note: If you use IBM DB2 Universal Database V5, you need to retrieve and apply the Authorized Program Analysis Report (APAR) to avoid running out of virtual memory in the server process.

In the United States and Canada, telephone 1–800–237–5511 to request the DB2 APAR. Outside the country, contact your country support representative.

You will need to install the memory leak patch available at: http://www.software.ibm.com/data/db2/db2tech/indexsvc.html.

To install IBM DB2:

- Insert the CD-ROM into the CD-ROM drive. The installation procedure begins automatically. If for any reason the automatic installation procedure does not start, go to the root directory on the CD-ROM and type setup.exe. Then follow the directions given in the installation procedure.
- 2. Unzip the JDBC drivers (found in *DB2inst*\sqllib\java\db2java.zip where *DB2inst* is the directory onto which DB2 was installed) into *nways*\java\websvr\code where *nways* is the directory into which Nways Manager was installed. You may have to retrieve an unzip program from the Internet to perform this task.
- 3. If when you installed the product you did not choose to automatically start DB2 on startup, start the server now by typing: db2start
- 4. Change to the directory *nways*\bin and run the command:

db2cmd CreateDatabase.bat -create

By default, a database will be created on the same disk that DB2 was installed. It is advised that this disk partition have at least 60 to 100 MB of free disk space. If you intend to store historical statistics for more than 20 devices over a period several weeks or longer, then you will need approximately 1 GB or more of available disk space.

To use DB2:

- 1. Start Nways Manager. (Start...Programs...IBM Nways Manager...Nways Manager).
- 2. Start the performance management configuration applet (Performance Configuration) and click on the tab labeled "**Database**."

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- The performance management configuration applet can be launched by changing to *nways*\bin and executing the following command: dpadmin
- If you already have a JMA started, you can start the performance management configuration applet by selecting **Performance Configuration** from the navigation tree instead (**Configuration** » **System** » **General** » **Performance** » **Configuration**).
- 3. Click on the StartCollection button.

Clearing out the DB2 Database

After a period of use, it may be necessary to clear out the DB2 database. To clean out the database, change to the directory *nways*/bin, where *nways* is the directory into which Nways Manager was installed, and run the command: db2cmd CreateDatabase.bat -create

Potential Problems Connecting to a JDBC-enabled Database

If you encounter problems connecting to the JDBC-enabled database from Nways Manager, try the following solutions.

Message: Action:	Could not find JDBC driver classes. Closing connection. Install or reinstall the JDBC drivers.			
	• For DB2, unzip the JDBC drivers (found in <i>DB2inst</i> \sqllib\java\db2java.zip where <i>DB2inst</i> is the directory into which DB2 was installed) into <i>nways</i> \java\websvr\code, where <i>nways</i> is the directory into which Nways Manager was installed. You may have to retrieve an unzip program from the Internet to perform this task.			
Message:	 For other databases, refer to the documentation for those databases. The JDBC drivers must exist in the Nways classpath (<i>nways</i>)java\websvr\code, where <i>nways</i> is the directory into which Nways Manager was installed) to allow connection to the database. JDBC connect error. Check database URL and make sure your username and password are correct. Closing connection. 			

Action:	 Check to make sure your database system and JDBC drivers are JDBC-compliant. The database must support ANSI-92 SQL.
	 Check the JDBC URL and make sure it is the one that the database manufacturer suggests you use. This can usually be found in the database documentation under a section dealing with running Java applications. If you are using a third-party driver, then the URL and driver name should be included with that driver. the default URL is given for the DB2 running locally.
	 Make sure you have created a database called IBMNMPDB.
	 If you are not using DB2, read your database documentation on how to do this.
	 If you are using DB2, change to the directory <i>nways</i>\bin, where <i>nways</i> is the directory into which Nways Manager was installed, and run the command: db2cmd CreateDatabase.bat -create
	 Make sure that the disk on which you have created the database has at least 60 to 100MB of space. The exact amount of space required depends on how much historical information will be stored
	 The following databases and JDBC drivers are known to be incompatible with Nways Manager and are not recommended:
	 Microsoft Access, JDBC-ODBC Bridge.

Accessing Java-based Management Applications from a Web Browser

There are three components involved in Web browser-based access to the Java-based management applications:

The Nways Manager Workstation

The Nways Manager maintains the Nways Manager web pages that are sent from the web server to the web browser clients.

The Web Server

The Web server provides the Nways Manager web pages to the web browser clients when requested. The web server does not need Java support, it sees the Nways Manager web pages as data files. It is recommended that the web server be located on the same workstation as the Nways Manager workstation.

The JDK 1.1.6-compliant Web Browser Client

The web browser client requests the Nways Manager web pages from the Web servers.

In order to utilize all the functions of Nways Nways Manager, you will need a JDK 1.1.6–compliant browser. However, to view the JMA help or the reports generated by the Java Performance Manager, you can use any web browser.

The Web Server

In order to make the Nways Manager web pages available to the web browser clients, you will need to associate the Nways Manager web pages with a logical directory name

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in your web server. Most web servers allow you to specify the logical directory name (for example, *Nways*) using its administration program. The Nways Manager web pages are located in *nways*)java\websvr on the Nways Manager, where *nways* is the directory in which you installed Nways Manager.

Settings

All Web Servers must be configured to communicate with the client on port 80, which is the default port in most Servers. The following sections define the required settings for some common Web Servers.

Apache Web Server: Add the following lines, in this order, to the file \Server_root\conf\srm.conf:

Alias \nways "\Nways_root\java\websvr" Alias \cgi\code "\Nways_root\java\websvr\code" ScriptAlias \cgi "\Nways_root\java\websvr"

Where *Server_root* is the directory in which Apache Websvr is installed, and *Nways_root* is the directory where the Nways product is installed.

Netscape Web Server:

- 1. Go to the server main page to verify that the server is on.
- 2. Select the Programs menu from the menu bar.
- 3. Select CGI File Type.
- 4. Select Yes to activate CGI as a file type.
- 5. Select Content Management from the menu bar.
- Select Additional Document Directories, and add the following lines: URL prefix: nways

Map To Directory: \Nways_root\java\websvr

URL prefix: cgi Map To Directory: \Nways root\java\websvr

Domino Web Server:

- Go to http://Machine/Frntpage.html, where Machine is the directory in which you
 installed the Domino Web Server.
- Select Configuration and Administration Forms, which will take you to http://Machine/admin-bin/Cfgin/initial.
- Select Request Routing, which will take you to http://Machine /admin-bin/Cfgin/mpfrule.
- 4. Add the following lines in this order:

Action	Request Template	Replacement File Path
Pass	\nways*	\Nways root\java\websvr*
Exec	\cgi\CgiLauncher*	\Nways root\java\websvr\CgiLauncher*
Pass	\cgi*	\Nways_root\java\websvr*

The JDK 1.1.6–Compliant Web Browser

Java support comes with your browser.

Note: If you are using Microsoft Internet Explorer Version 4.x or 5.x, then you must update the Java Virtual Machine by selecting *other options* at the Web site: http://www.microsoft.com/windows/ie/download/default.asp.

For information on configuring your browser for use with Nways Manager, detailed instructions are contained in the file:

nways/java\websvr\help\ibm.nways.subsys.webtoc.html. *Nways* is the directory where Nways Manager is installed.

After configuring your browser, you can access the Java-based management applications for your devices by specifying the URL for the Nways Manager HTML pages to the web browser.

Using Nways Manager with Dynamic IP Addresses

Java communications uses the IP host name and not the IP address, therefore both the client and server need the correct host names to which they are communicating. If the client is assigned an IP address dynamically, then you need to ensure that this IP address is associated with the client's IP host name. This process works correctly with NetView for NT using Dynamic Host Configuration Protocol (DHCP).

Note: HP OpenView Network Node Manager on Windows NT does not currently support DHCP.

If your client uses the PPP protocol to connect to the server, then the client will be dynamically assigned both an IP address and an IP host name. In this situation, Windows NT clients do not provide the correct IP host name to the Java applications running in the client. Hence, the Java-based applications will not provide the correct IP host name to the server, and the server will be unable to send asynchronous (unsolicited) events to the client. To correct this problem, change the IP host name on the client to the value "localhost" for the PPP connection's TCP/IP protocol. The Java code in the Windows NT client will then provide the server with the correct (dynamically assigned) IP host name.

To change your host's name to "localhost" for the TCP/IP protocol, perform the following steps:

For Windows NT 4.0

- 1. Select the **Network Neighborhood** icon on your desktop and click with the right mouse button.
- 2. In the popup menu that appears, select Properties at the bottom of the list.
- 3. Select the **Protocols** tab that appears at the top of the dialog.

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- 4. Select the TCP/IP protocol in the list that is displayed, and click on the **Properties...** button at the bottom of the list.
- 5. Click on the **DNS** tab at the top of the next dialog that appears.
- 6. In the text entry field labeled "Host:," enter "localhost" (without quotes, all lowercase, with no spaces) as the new name of your machine.
- 7. Click on the **OK** button at the bottom of the two dialogs, and reboot the machine when instructed to do so.

Note that changing your host name in this manner will not modify the name of the computer in the Identification section of the Network Neighborhood properties, and will not change the name of the computer across dedicated LAN connections.

Accessing the Java-based Management Application Helps

The Java-based management applications use a Web browser to display their HTML help panels. The Nways Manager install program will attempt to locate your default browser by looking in the NT registry. If it finds one it recognizes, it will tell Nways Manager to use it.

If it cannot locate a browser it recognizes, then it will issue a warning message requiring you to specify the path in the *nways*\java\websvr\properties\BrowserApplet.txt. Specify the fully qualified name for the web browser on the "webBrowser.path=" line, where *nways* is the directory in which Nways Manager is installed.

About Device Configuration Programs

Some IBM networking devices include a configuration program. Nways Manager allows you to launch these configuration programs from the device's JMA.

In order to launch the configuration program from the JMA, Nways Manager must know the location of the configuration tool on the Nways Management Workstation. For configuration tools shipped after July 1998, this information is added to the program registry when the configuration tool is installed.

To locate older versions of configuration tools, Nways Manager includes the Config Tool Locator, which locates existing versions of configuration tools already installed on the Nways Management Workstation. You should run the Config Tool Locator when you install Nways Manager, and again after each installation of a configuration tool that originally shipped prior to July 1998.

To run the Config Tool Locator from the Start menu, select **Programs** » **IBM Nways Manager** » **Config Tool Locator**.

If the Config Tool Locator is unable to find a configuration tool that is loaded on the Nways Management workstation, you can add the location of the program to the registry using the following procedure:

- 1. Locate the correct configuration tool (cfg.exe or cfg.app file) on the path *nways*/java/fixcfg, and note the file size.
- 2. Check the Config Tool Locator's FixCfg.properties file to ensure that the file size of this configuration tool is unique.
- 3. Add a new entry to the FixCfg.properties file, using existing entries as models.
- 4. Rerun the Config Tool Locator.
- 5. Restart the JMA.

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Chapter 5. Uninstalling Nways Manager

This chapter describes how to uninstall the application and describes special considerations for reinstalling the application.

Uninstalling Nways Manager

You can uninstall Nways Manager for Windows NT by selecting the Add-Remove Programs icon on the Windows NT Control Panel. The Add/Remove Programs Properties dialog includes a list of the applications installed on your system. Select **IBM Nways Manager** and click **Add/Remove...** to remove the application from your system.

The uninstallation process will remove all files that were created during the install. It will also undo all registry changes and changes made to files of type .ini during the install. It will neither remove files that were created during the execution of the program, nor will it remove the full product directory tree.

After the uninstallation completes, you will need to perform the following steps to fully remove the application data files and directories:

- 1. Refer to the Nways Manager README file for additional instructions required to completely remove Nways Manager from your system
- 2. Execute the configuration program for your Web Server application. Remove the *nways*/java/websvr directory from the list of directories.
- 3. Delete the nways directory.

Nways Manager for Windows NT is now fully removed from your system.

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Appendix. Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area.

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