Add the NetWare Application Launcher to the NetWare Client Workstation

Purpose

The executable and DLLs for the NetWare* Application Launcher* should be installed in an accessible directory on the network server, such as SYS: PUBLIC. Each NetWare Client workstation should have a Windows program item pointing to the NetWare Application Launcher executable on the server.

Prerequisites

The NetWare Application Launcher help files, executables, and DLLs must reside in a network directory (typically PUBLIC).

Make the NetWare Application Launcher available in Windows

1. Choose or create a program group for the NetWare Application Launcher.

2. Create a program item for the NetWare Application Launcher.

3. Type or browse the path to NAL.EXE. (Alternatively, drag the NAL.EXE icon from the File Manager to a Program Manager group, such as NetWare Utilities or StartUp.)

   A dialog box will appear, informing you that the application may not be available in other sessions. Choose **OK**.

4. Choose the desired icon.

5. Choose **OK**.

To add the NetWare Application Launcher to a Windows 95 StartUp folder

1. Browse to NAL.EXE.

2. In a separate window, open the Windows** StartUp folder (typically C:\WINDOWS\Start Menu\Programs\StartUp).

3. Drag NAL.EXE to the Windows StartUp folder.

To create Windows 95 shortcut to the NetWare Application Launcher

1. From the **File** menu, choose **New**, then choose **Shortcut**.

2. For the command line, enter the path to NAL.EXE, then choose **Next**.

3. Enter any name you want for the shortcut, then choose **Finish**.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Topic Outline

Related Topics

See also 🔢

🔳 Administrating Desktops Using the NetWare Application Manager and NetWare Application Launcher

The situation

A NetWare* administrator of a company with 100 employees wants to distribute an application to the employees who need it. The application is a calculator which performs specific business functions unique to the company. About half the employees have duties which could be simplified by using the calculator.

The calculator application requires no special drive mappings, printer ports, environment variables, or user configuration files.

Solution #1 Using local computer resources

The administrator installs the calculator application on each user's hard drive. This is the most time-intensive option; it requires the administrator to install, upgrade, and support the application and computer hardware at each user's location.

Solution #2 Using the network

The administrator installs the calculator on a NetWare server called PRODUCTS in the SYS:\ APPS\CALC\V1.0 directory. Using the NetWare Administrator*, the administrator creates a Group object called CALC GROUP. File system rights are granted to CALC GROUP in the directory where the application is installed. Users requiring access to the calculator application are made members of CALC GROUP.

Though the application is now available, since no calculator icons appear on the desktop, the users are not aware that the calculator application is available. The administrator may communicate that the calculator is available and explain where the application is located and how to set it up, or must physically visit each desktop.

Some problems that still exist:

1. Even though the calculator icon appears on the user's workstation, the application resides on the network.   If the user is not logged in when the application icon is double-clicked on the icon, an error message comes up stating that the path is invalid. Users may be confused by the error and require support.

2. The user may delete the icon, then need help by the administrator to restore it.

3. The icon references the executable file (CALC1.EXE) in the \\PRODUCTS\SYS\APPS\CALC\ V1.0 directory. To move or rename the executable, or upgrade to version 2.0 without removing version 1.0, the path must be changed at each workstation.

Solution #3 Using the NetWare Application Manager and NetWare Application Launcher

The administrator installs the calculator application on server PRODUCTS in the SYS\APPS\ CALC\V1.0 directory, creates CALC GROUP, and adds to the group users who need the application.

Using NetWare Administrator, the administrator creates an Application object called CALC1. The CALC1 object contains the path to the program file and other information such as command-line parameters, the working directory, and a description of what the application does.   The administrator associates CALC1 Application object with CALC GROUP.

Using the NetWare Application Launcher*, the CALC1 application icon appears on each user's workstation. No setup is required at the user's workstation. The user can launch the application by double-clicking the icon.

Benefits of the NetWare Application Manager and NetWare Application Launcher:

1. Simplifies administration of network applications. The user cannot delete the application icon or change any of its information.

2. Eliminates the need for login scripts. The administrator can associate working directories, paths to executables, or other information with the Application object.

3. Simplifies user access to network applications. The users can log in to the network using any workstation and can still access all their applications.

4. Dynamically updates user desktops. The users are unaware of any changes if the administrator wants to move or rename the executable file. Only the object itself must be modified.

5. Eases installation and upgrades. Users can run installation programs from the NetWare Application Launcher, allowing them to install software such as NetWare Client* software, productivity software, and operating systems over the network. An application can be upgraded by modifying the path to the new application executable, which can be installed anywhere on the network.

6. Easy to install and use. Steps for installing the NetWare Application Manager are easy to follow and to complete. Launching the NetWare Application Launcher is as easy as double-clicking an icon.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Application objects can be one of the following classes:

DOS**

Windows 3.x**

Windows 95**

Windows NT**

Choose the type of class that corresponds with the application.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Related Topics

What is an Application object
Why would I use Application objects
Examples of using Application objects

Related Topics

NetWare Application Manager

NetWare Application Manager Overview

Assign An Application to Multiple Users or Groups

Purpose
Application objects assigned to the NetWare* Application Launcher** will appear on the user's desktop.

To assign an application to multiple users or groups

1. Using the NetWare Administrator*, choose the Application object from the NetWare Directory Services* tree.
2. Choose **Details** from the **Object** pull-down menu item.
3. Choose **Associations**.
4. Choose **Add** or **Delete.**

Note: Using this procedure, the administrator can only assign Application objects that will appear as icons for the user. An application cannot be assigned to automatically launch. See Assign multiple applications to a user, group, or container.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Assign Application Objects to a Launcher Overview

Application objects assigned to the NetWare* Application Launcher** will appear on the user's desktop. Applications can be assigned to users, groups, or containers.

If the application is associated with a user, the user can view and launch the application. If the application is associated with a group, each user in the group can view and launch the application. If the application is associated with a container, each user or group in the container can view and launch the application.

Note: Application objects may not be accessible unless they are added to the **Launched by User** list.

Applications can also be designated to automatically launch when the user accesses the NetWare Application Launcher.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Assign Application Objects to Launch

Assign Application objects to launch

[Overview](#)
[Assign multiple applications to a user, group, or container](#)
[Assign an application to multiple users or groups](#)
[View Application objects assigned to a user, group, or container](#)

Assign Multiple Applications to a User, Group, Or Container

Purpose

Application objects assigned to the NetWare* Application Launcher* will appear on the user's desktop.

To assign applications to launch

1. Using the NetWare Administrator*, choose a user, group, or container object from the NetWare Directory Services* tree.
2. From the **Object** menu, choose **Details**.
3. Choose **Applications**.
4. Choose **Add**.
5. Choose the desired application to launch.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

The **Browse** button allows you to walk the Directory tree to find the appropriate file or directory.

Configure the NetWare Application Launcher

Purpose

The NetWare* Application Launcher* can be configured for an organization or a User object. The NetWare Application Manager allows the network administrator to specify how each user views the NetWare Application Launcher.

To configure the NetWare Application Launcher

1. From NetWare Administrator, choose the User or container object.
2. From the **Object** menu, choose **Details**.
3. Choose **Launcher Configuration** from the button bar.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Create the Application Object

Purpose
Using the NetWare* Administrator, any Windows or DOS executable can be created as a NetWare Directory Service* Application object. Application objects can be managed by the network administrator, and made available to users running the NetWare Application Launcher*.

Create the Application object

1. Using the NetWare Administrator, choose a container object from the NetWare Directory Services tree.

2. From the **Object** menu, choose **Create**.

3. Choose the Application class.

4. Choose **OK**.

5. Type the **Application Object name**.

6. Type or browse the **Path to executable file**.

7. Choose **Define Additional Properties**.

8. Choose **Create**.

(Optional) Choose **Environment** to specify drive mappings or print captures that the application may require.

(Optional) Set up a contact for the application.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Create and Define Application Object Properties

Create and Define Application Objects

[Create the Application object](#)
[Set Application object identification properties](#)
[Set up application support contacts](#)
[Set up the application environment](#)
[Manage setup and post-termination scripts](#)

Dynamically Updates User Desktops

With the NetWare* Application Manager, network applications delivered to Windows** desktops are dynamic and can be refreshed automatically. This ensures that any changes the administrator makes are quickly reflected on users' desktops.

For example, if a new version of a network application is installed, the administrator can quickly move the appropriate users to that new version using the NetWare Application Manager. The administrator simply modifies the properties in the Application object defined in NetWare Directory Services* to point to the new version of the application. The NetWare Application Manager then updates that network application on the appropriate user desktops. The next time a user double-clicks on the icon for that application, the updated version is launched automatically.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Electronic mail correspondence is available from the NetWare Application Launcher. If the end user chooses the **E-mail** button, the contact's address is placed in an electronic mail message and a mail message is sent to the contact.

Eases Installation and Upgrades

The NetWare* Application Manager makes it easy to install new applications and migrate users to new versions of applications without requiring the administrator to travel to each user's workstation. An application can be upgraded by modifying the path to the new application executable, which can be installed anywhere on the network.

The NetWare Application Launcher* makes it easy for users to install and/or upgrade their own NetWare Client* software, productivity software, and operating systems over the network.

Easy to Install and Use

The NetWare Application Manager consists of both an administrator component and a user component. The administrator component is a Windows** DLL that snaps into the NetWare* Administrator utility and adds new property buttons to the **Details** listing of the appropriate NetWare Directory Services* objects. This allows administrators to work from a familiar and consistent interface. The user component is an executable file that is run in each user's Windows Startup or other program group as desired.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Eliminates the Need for Login Scripts

Because the Application objects are linked to the location of network applications, users no longer need drive mappings established through login scripts. Each Application object can also store scripts that can map additional drives and capture printers as users launch applications. This saves considerable administration time and costs since administrators are no longer required to create and manage individual network login scripts.

Enable NetWare Client 32 Installation from the Network

Purpose
Follow these instructions to enable NetWare* Application Launcher* users to upgrade to and/or install NetWare Client 32* without assistance from the network administrator.

Prerequisites

You must have already installed the NetWare Application Launcher on a network server.

You must have access to an image of NetWare Client 32 on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

Deliver NetWare Client 32 Setup over the network using the NetWare Application Launcher (Windows 95)
Use the procedure to enable users to launch NetWare Client 32 Setup as a NetWare-delivered application.

1. Create an Application object (Windows 95**).

2. Set the **Path to executable file** for NetWare Client 32 Setup to the location of SETUP.EXE on the network server, such as \\GT\CLIENT 32\WIN95\SETUP.EXE.

3. (Optional) Enter a description and/or contact information.

4. Associate the Application object with a container, Group, or User object.

Deliver NetWare Client 32 Setup over the network using the NetWare Application Launcher (Windows 3.x)
Use the procedure to enable users to launch NetWare Client 32 Setup as a NetWare-delivered application.

1. Create an Application object (Windows 3.x**).

2. Set the **Path to executable file** for NetWare Client 32 Setup to the location of SETUP.EXE on the network server, such as \\GT\CLIENT 32\WIN3X\SETUP.EXE.

3. (Optional) Enter a description and/or contact information.

4. Associate the Application object with a container, Group, or User object.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Enable Lotus Notes installation from the network

Purpose

Follow these instructions to enable NetWare* Application Launcher users to install and run Lotus Notes without assistance from the network administrator.

Prerequisites

You must have already installed the NetWare Application Launcher on a network server.

You must have access to an image of Lotus Notes** on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

Deliver Lotus Notes Installation over the network using the NetWare Application Launcher

Use the procedure to enable users to launch Lotus Notes Installation as a NetWare-delivered application.

1. Create an Application object (Windows 3.x).

2. Set the **Drive mappings** as a root mapping to the location of instwin.exe on the application server, such as P:=\\PRV-IS-SRVS\SYS\STATAPP\LOTUS\NOTES\NOTES.33\ WORKSTA\WINDOWS.

3. Set the **Path to executable file** for Lotus Notes Installation to the location of instwin.exe on the network server, such as P:\INSTWIN.EXE.

4. Set the **Working directory** to the same directory that instwin.exe is located in, such as p:.

5. Set **Clean up resources** to OFF.

6. (Optional) Enter a description and/or contact information.

7. Associate the Application object with a container, Group, or User object.

Deliver Lotus Notes over the network using the NetWare Application Launcher

Use the procedure to deliver Lotus Notes.

1. Create an Application object (Windows 3.x).

2. Set the **Path to executable file** to the location of the application executable on the network server, such as P:/NOTES.EXE.

3. Set the **Working directory** to the same directory that instwin.exe is located in, such as P:.

4. (Optional) Enter a description and/or contact information.

5. Associate the Application object with a container, Group, or User object.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Enable NetWare Client 32 installation from the network

Purpose
Follow these instructions to enable NetWare* Application Launcher* users to upgrade to and/or install NetWare Client 32* without assistance from the network administrator.

Prerequisites

You must have already installed NetWare Application Launcher on a network server.

You must   have access to an image of Client 32 on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

Deliver Client32 Setup over the Network using NetWare Application Launcher (Windows 95)
Use the procedure to enable users to launch Client 32 Setup as a NetWare-delivered application.

1. Create an Application object (Windows 95**).

2.__Set the **Path to executable file** for Client 32 Setup to the location of SETUP.EXE on the network server, such as \\ATM\CLIENT32\WIN95\SETUP.EXE.

3. (Optional) Enter a description and/or contact info.

4. Associate the Application object with a container, Group, or User.

Deliver Client32 Setup over the Network using NetWare Application Launcher (Windows 3.x)
Use the procedure to enable users to launch Client32 Setup as a NetWare-delivered application.

1. Create an Application object (Windows 3.x**).

2.__Set the **Path to executable file** for Client32 Setup to the location of SETUP.EXE on the network server, such as \\ATM\CLIENT32\WIN3X\SETUP.EXE.

3. (Optional) Enter a description and/or contact info.

4. Associate the Application object with a container, Group, or User.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also ◪ Enable PerfectOffice Installation from the Network

Purpose
Follow these instructions to enable NetWare* Application Launcher* users to run PerfectOffice* Setup and install PerfectOffice* applications without assistance from the network administrator.

Prerequisites

You must have already installed the NetWare Application Launcher on a network server.

You must have access to an image of PerfectOffice on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

Deliver PerfectOffice Setup over the network using the NetWare Application Launcher
Use the procedure to enable users to launch PerfectOffice Setup as a NetWare-delivered application.

1. Create an Application object (Windows 3.x).

2. Set the **Path to executable file** for PerfectOffice Setup to the location of SETUP.EXE on the network server, such as \\NAL\APPS\WIN\OFFICE\SHARED\SETUP.EXE.

3. Set the **Working directory** to the same directory that SETUP.EXE is located in, such as \\NAL\APPS\WIN\OFFICE\SHARED\SETUP.EXE.

4. (Optional) Enter a description and/or contact information.

5. Associate the Application object with a container, Group, or User object.

Deliver PerfectOffice Applications over the network using the NetWare Application Launcher
Use the procedure to deliver PerfectOffice applications such as Envoy* (ENVOY.EXE), InfoCentral* (WPIC.EXE), Presentations* (PRWIN.EXE), Quattro Pro* (QPW.EXE), and WordPerfect* (WPWIN.EXE).

1. Create an Application object (Windows 3.x**).

2. Set the **Path to executable file** to the location of the application executable on the network server.

    \\NAL\APPS\WIN\OFFICE\WPIC\WPIC.EXE
    \\NAL\APPS\WIN\OFFICE\PRWIN\PRWIN.EXE
    \\NAL\APPS\WIN\OFFICE\QPW\QPW.EXE
    \\NAL\APPS\WIN\OFFICE\WPWIN\WPWIN.EXE

3. Set the **Working directory** for Envoy to \\NAL\APPS\WIN\OFFICE\ENVOY\ENDOCS and for InfoCentral to \\NAL\APPS\WIN\OFFICE\WPIC\LOCAL.

4. (Optional) Enter a description and/or contact information.

5. Associate the Application object with a container, Group, or User object.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also ⬛ **Enable GroupWise Installation from the Network**

Purpose
Follow these instructions to enable NetWare* Application Launcher* users to run GroupWise* Setup and install and run GroupWise without assistance from the network administrator.

Prerequisites

You must have already installed the NetWare Application Launcher on a network server.

You must have access to an image of GroupWise on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

Deliver GroupWise Setup over the network using the NetWare Application Launcher
Use the procedure to enable users to launch GroupWise Setup as a NetWare-delivered application.

1. Create an Application object (Windows 3.x**).

2. Set the **Path to executable file** for GroupWise Setup to the location of SETUP.EXE on the network server, such as \\MAILSERVER\SYS\PO\SETUPWIN.EXE.

3. Set the **Working directory** to the same directory that SETUP.EXE is located in, such as \\NAL\APPS\WIN\OFFICE\SHARED\SETUP.EXE.

4. (Optional) Enter a description and/or contact information.

5. Associate the Application object with a container, Group, or User object.

Deliver GroupWise over the network using the NetWare Application Launcher
Use the procedure to deliver GroupWise. The procedure uses the PerfectOffice* shared code located on an application server.

1. Create an Application object (Windows 3.x).

2. Set the **Path to executable file** to the location of the application executable on the network server, such as \\MAILSERVER\SYS\PO\OFWIN40\OFWIN.EXE.

3. Set the **Command Line** properties to include a shell variable for the username, as well as to the location of the PerfectOffice Shared code on the network, such as   /@U-'%FULL NAME%' /WPC-W:\WIN\OFFICE\SHARED\WPC20 /PH-X:\PO.

4. Set the **Working directory** to the directory in which the GroupWise post office resides, such as \\MAILSERVER\SYS\PO\OFWIN40.

5. Set the **Drive mappings** to the NetWare volumes where the GroupWise application and post office reside, such as W:=APPSERVER/APPS: and X:=MAILSERVER/SYS:\PO.

6. (Optional) Enter a description and/or contact information.

7. Associate the Application object with a container, Group, or User object.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also ▣ **Enable MS Office Installation over the Network**

Purpose

Follow these instructions to enable NetWare* Application Launcher* users to install and run MS Office** without assistance from the network administrator.

Prerequisites

You must have already installed the NetWare Application Launcher on a network server.

In NetWare Administrator, change context to the container in which the object will appear.

You must have already installed MS Office on a network server. MS Office Setup installs utilities on the workstation hard drive, and the NetWare Application Launcher prohibits the network administrator   from creating an Application object without access to the Application object's executable.
Note: The procedures have been verified using the following MS Office options:

user's access by server name
user's choice for shared files.

Deliver MS Office Setup over the network using the NetWare Application Launcher
Use the procedure to enable users to launch MS Office Setup as a NetWare-delivered application.

1. Create an Application object (Windows 3.x**).

2.__Set the **Path to executable file** for MS Office Setup to the location of SETUP.EXE on the network server, such as \\NAL\APPS\WIN\MSOFFICE\SETUP.EXE.

3. (Optional) Enter a description and/or contact information.

4. Associate the Application object with a container, Group, or User object.

Deliver MS Office utilities icons over the network using the NetWare Application Launcher
Use the procedures to deliver icons for MS Office utilities Binder (BINDER.EXE), File New), File Open (MSOW.EXE), and Shortcut Bar** (MSOFFICE.EXE).
Note: MS Office requires the utilities to reside in a directory on the workstation hard drive. This procedure creates NetWare Application Launcher icons that reference utilities on the user's workstation.

1. Create an Application object (Windows 3.x).

2. Set the **Path to executable file** to the location of the application executables on the local workstation.
    C:\MSOFFICE\OFFICE\BINDER.EXE
    C:\MSOFFICE\OFFICE\MSOW.EXE
    C:\MSOFFICE\OFFICE\MSOW.EXE
    C:\MSOFFICE\OFFICE\MSOFFICE.EXE

3. Set the **Command line** options for File New to -N and File Open to -F.

4. (Optional) Enter a description and/or contact information.

5. Associate the Application object with a container, Group, or User object.

Deliver MS Office applications over the Network using the NetWare Application Launcher
Use the procedure to deliver MS Office applications Excel** (EXCEL.EXE), PowerPoint**

(POWERPNT.EXE), Schedule+** (SCHDPL32.EXE), and Word** (WINWORD.EXE).

1. Create an Application object (Windows 3.x).

2. Set the **Path to executable file** to the location of the application executables on the network server.

    \\NAL\APPS\WIN\MSOFFICE\EXCEL\EXCEL.EXE
    \\NAL\APPS\WIN\MSOFFICE\POWERPNT\POWERPNT.EXE
    \\NAL\APPS\WIN\MSOFFICE\SCHEDULE\SCHDPL32.EXE
    \\NAL\APPS\WIN\MSOFFICE\WINWORD\WINWORD.EXE

3. (Optional) Enter a description and/or contact information.

4. Associate the Application object with a container, Group, or User object.

Note: MS PowerPoint produces an error that it can not find an INI file. The error message indicates that you must run MS PowerPoint setup. PowerPoint still runs without the INI file.

Note: MS Word requires SDM.DLL in WINDOWS\SYSTEM. Copy this file or use the startup script to do this function.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Enable Windows 95 Installation from the Network

Purpose
Using the NetWare* Application Launcher*, you can upgrade every workstation to Windows 95**.

To install Windows 95 from the network:

1. Create an Application object of type Application (Windows 3.x**).

2. Set the **Path to executable file** to SETUP.EXE in the root of Windows 95.

    For example, mount the Windows 95 CD as a volume on the server GT.   Enter the path \\ GT\WINDOWS95\SETUP.EXE.   If you copied the CD to a server, rather than mounted it as a volume, change the path to point to SETUP.EXE.

3. Set the **Working directory** to the same directory that SETUP.EXE is located in (\\GT\ WINDOWS95).

4. (Optional) Enter a description and/or contact information.

Note: Windows 95 needs access to the install CD if the user changes configuration and/or installs NetWare Client 32*.   Users can be told where the install CD is on the network, so if they are prompted for it, they can enter the path.   (You could put this info in the long description.)

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also ⬛ **For More Information**

In the United States and Canada, call 1-800-NETWARE (1-800-638-9273). In all other locations, call

1-801-429-5588.

See also **Frequently Asked Questions and Answers**

Listed below are the most commonly asked questions about the NetWare* Application Launcher* and the NetWare Application Manager.

Q: What does the NetWare Application Launcher do when a drive it needs to map is already mapped?
A: If an application needs a drive that is already mapped and that drive is mapped to the correct place, it will use the existing drive mapping.   If the drive is not already mapped to the right place, the launch will fail, and the NetWare Application Launcher will display an error message that describes the resource conflict. The user can manually unmap the needed drive and relaunch the application. The NetWare Application Launcher will not override an existing mapping.   Most applications will crash, hang, or malfunction if drive mappings that they are dependent on change.   Because of this, the NetWare Application Launcher will not override an existing drive mapping.

Q: How does the NetWare Application Launcher handle local configuration files like INI files and registry settings?
A: The NetWare Application Launcher provides a mechanism called the prelaunch script. This prelaunch script is where you enter any workstation configuration commands that need to take place.   There is also a post-termination script. This post-termination script is run after the NetWare Application Launcher detects that the application has terminated.   Like the prelaunch script, this script follows the login script language syntax.   Commands for cleaning up the changes made by the prelaunch script should be placed in the post-termination script.

Q: What workstation software is needed in order to run the NetWare Application Launcher?
A: You must use a NetWare client that supports NetWare Directory Services.   On DOS/Windows** 3.x, use VLM* files or NetWare Client 32.   On Windows 95**, use NetWare Client 32.

Q: What files are needed in order to run the NetWare Application Launcher?
A: A Windows 3.x user should use NAL.EXE, NALW31.EXE, NALRES.DLL, NALBMP.DLL, and NAL.HLP.   A Windows 95 user should use NAL.EXE, NALW95.EXE, NALRES32.DLL, NALBMP32.DLL, and NAL.HLP. A Windows 3.x or Windows 95 administrator should use APPSNAP.DLL and APPSNAP.HLP, in addition to the Windows 3.x files specified in Install the NetWare Application Launcher--Overview.

Q: When will there be OS/2 and Windows NT versions of the NetWare Application Launcher?
A: A Windows NT** version of the NetWare Application Launcher is currently in development.   An OS/2** version of the NetWare Application Launcher is being investigated.

Q: What is the syntax for drive mappings in the NetWare Application Launcher?
A: Syntax for mapping a drive:
SERVER\VOLUME:PATH
\\SERVER\VOLUME\PATH
VOLUME_OBJECT_NAME:PATH
DIRECTORY_MAP_OBJECT_NAME:PATH
Syntax for capturing a port:
SERVER\DS_QUEUE_NAME:
\\SERVER\DS_QUEUE_NAME
DS_QUEUE_NAME

\\\DS_QUEUE_NAME

Q: Does the NetWare Application Launcher support bindery servers?
A: No. Since the NetWare Application Launcher relies on NetWare Directory Services for its functionality, it does not support bindery servers.

Q: Do I have to use Novell's NetWare Client 32 in Windows 95?
A: The NetWare Application Launcher for Windows 95 requires NetWare Client 32. NetWare Application Launcher for Windows 95 is a Win32 application that uses the NetWare 32-bit libraries that require NetWare Client 32.   You can use NetWare Application Launcher for Windows 3.1x in Windows 95.   It is a 16-bit application that can make 16-bit calls through VLMs or NetWare Client 32.

Q: Does the NetWare Application Launcher support 16-bit Directory Map objects?
A: The NetWare Application Launcher supports directory map objects, as well as aliases to them in the EXE path, working directory, and drive mapping strings.

Q: How does the NetWare Application Launcher figure out what icons to show?
A: The NetWare Application Launcher builds a view of icons based on Application object associations in NetWare Directory Services.   First, the NetWare Application Launcher checks the current User object for any Application objects associated with that user and adds them to the list.   Next, the NetWare Application Launcher checks every Group object of which the user is a member for Application object associations, then adds them to the list.   Finally, the NetWare Application Launcher checks parent containers, depending on the 'container levels' setting for Application object associations and adds them to the list.   Once the list is built, the NetWare Application Launcher filters all duplicates and filters Application objects it cannot run.   For instance, the NetWare Application Launcher for Windows 3.1x will filter out all Windows 95 Application objects.   Once the list has been filtered, the icons are displayed to the user.

Q: Right now, I can only choose icons from the EXE file defined with the Application object. Is there a way to choose icons from a file other than the EXE like in Program Manager?
A: Currently, you can only choose from the icons in the EXE the Application object points to.   In the future this feature will be added.

Q: I have too many icons in my main view and would like a way of filtering them.   Will the NetWare Application Launcher support a group or folder view in the future?
A: Yes.   In the future the NetWare Application Launcher will support folder or group types of views.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

The **Full Path** to the executable may be typed in either as a UNC path or a file directory path. You can also use the browse button to walk through the file directory structure to find the desired executable.

Syntax for Mapping a Drive

\\SERVER\VOLUME:PATH

\\SERVER\VOLUME\PATH

VOLUME_OBJECT_NAME:PATH

DIRECTORY_MAP_OBJECT_NAME:PATH

Syntax for Capturing a Port

SERVER\DS_QUEUE_NAME:

\\SERVER\DS_QUEUE_NAME

DS_QUEUE_NAME

\\\DS_QUEUE_NAME

See also 🔲 **Help--Application Associations**

Purpose
Displays User, Group, or container objects that can launch the Application object.

Screen options
Add a User, Group or container object to provide access to the Application object.
Delete a User, Group or container object to remove access to the Application object.

See also 🔲 **Help--Application Contacts**

Purpose
Assigns support contacts to specific Application objects. This assignment appears in the NetWare* Application Launcher* in **Properties**.

Screen options
A list of people displays all users assigned as support contacts.

Add an additional User object as a support contact.

Delete a User object as a support contact.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Help--Application Description

Purpose
Describes to users unfamiliar with an Application object the services it provides.

Help--Application Drives/Ports

Purpose
Allows the network administrator to map drives and capture ports and network printers for Application objects.

Drive options
Option sets the type of drive mapping for the application. A drive mapping can be a standard drive letter, a root drive, or the next available drive letter.

Path is the UNC path for the application.

Drive sets the drive letter for the application.

Drive mappings are required for some applications that look for files on predetermined drives. Example

Port options
Capture Flags allow the network administrator to set the port capture flags of an Application object.

Port is the printer port on the client workstation that the Application object captures.

Queue is the NetWare* printer queue for the application. The queue can be redirected for applications and users who prefer to print to a specific printer. Example

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🔢
See also 🔢 **Help--Application Environment**

Purpose
Identifies the environment that may be required for an Application object.

Screen options
Command line parameters are required to run some applications in a desired mode or view.

The **Working directory** can be designated for any Application object.

Run minimized minimizes the application window when launched.

Clean up network resources removes the drive mappings and printer ports associated with the last launched application. (If this checkbox is not checked, then drive mappings and port captures established earlier remain in effect.)

Note: If the application does not have available mappings after launching, you may be running a wrapper. Unchecking Clean up network resources may eliminate this problem.

See also
See also **Help--Application Identification**

Purpose
Identifies the specific properties of an Application object.

Screen options
Application Icon title appears under the icon in the NetWare* Application Launcher* and defaults to the **Application Object name**. The description can be different than the Application Object name. It can contain periods and other special characters.

The **Path to executable file** may be typed in, either as a UNC path or a file directory path, or use the browse button to browse the file directory structure to find the desired executable.

Change Icon allows an icon to be assigned to the Application object. The icon appears in the NetWare Application Launcher.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also ⬛ **Help--Application Objects**

Purpose

Displays Application objects available to a user. These objects are assigned explicitly to the user and/or inherited from the user's container object, and are displayed using the context of the Application objects.

Applications assigned explicitly to the user are displayed with the User object icon.

Applications inherited from a group are displayed with the Group object icon.

Applications inherited from the user's container are displayed with the Container object icon.

See also 🔲 **Help--Application Scripts**

Purpose
Scripts enable network administrators to set the network conditions under which an application launches and/or exits. With scripts, the administrator can map a drive or set a queue that an application may need.

Screen options
Run before launching
Run after termination

See also **🅸 Help--Create Application Object**

Purpose
Windows 95**, Windows**, and DOS** executables can be created as an NetWare* Directory Services* Application object.

Screen options

The **Application object name** will display in the NetWare Directory Services tree. The name is limited to 64 characters and cannot contain periods or other special characters.

The **Path to executable file** can be typed in either as a UNC path or file directory path. Also, you can use the browse button to walk through the file directory structure to find the desired executable.

Define Additional Properties allows you to define the identification, contacts, environments, options, scripts, and view associations of the Application object. You may later define additional properties by selecting the Application object and choosing **Details** from the **Object** menu.

Create Another Application allows you to create several Application objects. After specifying the name and the path of the Application object, you will return to the **Create Application** dialog box. Later, you can define additional properties of applications by choosing the **Details** of the Application object in the Directory tree.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Related Topics
Create the Application object
NetWare Application Manager

See also 🔳 **Help--Desktop Application List**

Purpose
Displays Application objects associated with the chosen User object.

Screen options
Applications in **Launched by user** are available in the NetWare* Application Launcher* and will launch when double-clicked.

Applications in **Launched automatically** will be run when launching the NetWare Application Launcher.

Add associates an Application object with the chosen user.

Delete removes an association of an Application object with the chosen user.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

Related Topics

Set up the application environment

Related Topics
    NetWare Application Manager

See also 🔲 **Help--Launcher Configuration**

Purpose
The NetWare* Application Manager allows the network administrator to specify how each user   views the NetWare Application Launcher*. The NetWare Application Launcher can be customized for an organization or a User object.

Container Options
Use default settings displays the default settings of the NetWare Application Launcher configuration.

Note: When User parent container settings are chosen, the grayed-out current settings do not necessarily reflect the actual values of the NetWare Application Launcher configuration.

Exit the launcher enables the user to exit the NetWare Application Launcher.

Log in/log out enables the user to login to the network from the NetWare Application Launcher.

Refresh icons enables the user to refresh the NetWare Application Launcher window manually. This displays any Application objects that were delivered since the NetWare Application Launcher window was last refreshed.

Move icons to the desktop (Windows 3.1x** only).

Save window size and position on local drive.

Enable timed refresh allows the network administrator   to set the number of seconds between automatic refreshes of the NetWare Application Launcher window.

Inherit container applications causes the User object to inherit the Application objects of its parent, up to a level in the directory tree chosen by the administrator.

User Object Options
Use parent container settings uses the options set for its Container object. Unchecking this checkbox will enable the Administrator to customize a User object's NetWare Application Launcher settings.

Display application launched **By User...** displays NetWare-delivered Application objects that the user can launch from the NetWare Application Launcher window.

Display application launched **Automatically...** displays Application objects that launch automatically when the NetWare Application Launcher launches

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See also 🔷 **Help--Set Capture Flags**

Purpose
Allows the network administrator to set the port capture flags of an Application object.

Setting capture flags
To set Capture flags for an Application object:

1. Browse the Application object.

2. Choose **Drives/Ports**.

3. Choose a port and assign it an LPT and a queue.

4. Choose **Set...** This will bring up the Set Capture Flags dialog box.

5. In the **Set Capture Flags** dialog box, check the **Override workstation setting** column for the corresponding **Capture setting** you wish to override. Once you have done this, the corresponding **Capture setting** will become active.

   For example, if you check the **Override workstation setting** flag for Notify and also check the **Capture setting** checkbox for Notify, when the user prints a document using that Application object, NetWare will display a Notify alert panel to indicate the completion of the print job. NetWare will do this no matter which Capture settings are on the user's workstation.

   However, if you check the **Override workstation setting** flag for Notify but do not check the **Capture setting** checkbox for Notify, then when the user prints a document using that Application object, NetWare will not display a Notify alert panel to indicate the completion of the print job. NetWare will do this no matter which Capture settings are on the user's workstation.

Note: The default capture flags of an Application object are those of the user's workstation.

Override workstation setting
Notify overrides the Notify capture flag using the corresponding Capture setting. When checked, the Notify capture flag becomes active.
Banner overrides the Banner capture flag using the corresponding Capture setting. When checked, the Banner capture flag becomes active.
Form Feed overrides the Form Feed capture flag using the corresponding Capture setting. When checked, the Form Feed capture flag becomes active.

Capture setting
Notify toggles the Notify capture flag.
Banner toggles the Banner capture flag.
Form Feed toggles the Form Feed capture flag.

See also **Set Application Object Identification Properties**

Purpose
Application objects are identified by description, name, path, and icon.

View or change the Identification properties of an Application object
1. Using the NetWare* Administrator, choose the Application object from the NetWare Directory Services* tree.
2. From the **Object** menu, choose **Details.**
3. Choose **Identification**.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🛈 **Install the Application Object Software**

Get started

Install the NetWare Application Launcher Software

Purpose
Install NetWare* Application Launcher* on the network to make Application objects available to users.

Install the NetWare Application Launcher software (Windows 95)**

1. Copy NAL.EXE and NALW95.EXE to a directory that is accessible by all users (such as the PUBLIC directory).

2. Copy NALRES32.DLL, NALBMP32.DLL, and NAL.HLP to a directory accessible by all users (such as the PUBLIC directory).
   Note: NALRES32.DLL, NALBMP32.DLL, and NAL.HLP can be either in the NAL.EXE directory, or in the NLS\<language> directory.

3. (Optional) Add NAL.EXE to the Windows Startup folder.

Install the NetWare Application Launcher software (Windows 3.1x)

1. Copy NAL.EXE and NALW31.EXE to a directory that is accessible by all users (such as the PUBLIC directory).

2. Copy NALRES.DLL, NALBMP.DLL, and NAL.HLP to a directory that is accessible by all users (such as the PUBLIC directory).
   Note: NALRES.DLL NALBMP.DLL, and NAL.HLP can be either in the NAL.EXE directory or in the NLS\<language> directory.

3. Copy the ???WIN16.DLL files to a directory called NALLIB below NAL.EXE. For example, if NAL.EXE is in PUBLIC, copy ???WIN16.DLL to PUBLIC\NALLIB.

4. (Optional) Add NAL.EXE to the Windows** Startup group.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🔲 **Install the NetWare Application Manager--Overview**

The following files make up the NetWare* Application Launcher*:

    APPSNAP.DLL

    APPRES16.DLL

    APPSNAP.HLP

    NAL.EXE

    NALW95.EXE   (Windows 95 only**)

    NALW31.EXE   (Windows 3.1 only**)

    NALRES32.DLL   (Windows 95 only)

    NALRES.DLL   (Window 3.1 only)

    NALBMP32.DLL   (Windows 95 only)

    NALBMP.DLL   (Windows 3.1 only)

    NAL.HLP

(Administrators use NetWare Administrator and the APPSNAP.DLL snap-in. Users run NAL.EXE on all platforms.)

The NetWare Application Launcher requires the following files to run on Windows 3.1:

    CALWIN16.DLL

    CLNWIN16.DLL

    CLXWIN16.DLL

    LOCWIN16.DLL

    NCPWIN16.DLL

    NETWIN16.DLL

    AUDWIN16.DLL (not part of NetWare Client 32* install)

Manual installation is done in two parts:

PART 1--Administrator Installing APPSNAP.DLL

1. Copy APPSNAP.DLL to any directory on the network or local drive that the network administrator has access to. This file is typically copied to a server into the SYS:PUBLIC directory.

2. Copy APPRES16.DLL and APPSNAP.HLP to a directory that is accessible by the administrator (such as the PUBLIC directory). Note that these files can either be in the APPSNAP.DLL directory, or in the NLS\<language> directory below APPSNAP.DLL.

3. Edit NWADMIN.INI (found in the Windows directory). Under the "[Snapin Object DLLs]," add the following line:

    <snapin name>=<path>

where <snapin name> is a unique identifying name (like "SNAPIN1"), and <path> is the path where the APPSNAP.DLL is located (like "\\GT\SYS\PUBLIC\APPSNAP.DLL").

For example:

[Snapin Object DLLs] SNAPIN1 = \\GT\SYS\PUBLIC\APPSNAP.DLL

4. Run NetWare Administrator. If the tree doesn't have the necessary extensions already, you will be prompted to modify the tree's schema.

PART 2--Installing the NetWare Application Launcher
Windows 95

1. Copy NAL.EXE and NALW95.EXE to a directory that is accessible by all users (such as the PUBLIC directory).

2. Copy NALRES32.DLL, NALBMP32.DLL, and NAL.HLP to a directory that is accessible by all users (such as the PUBLIC directory). Note that NALRES32.DLL NALBMP32.DLL, and NAL.HLP can be either in the NAL.EXE directory, or in the NLS\<language> directory.

3. (Optional) Add the NAL.EXE application to the Windows Startup folder

Windows 3.1

1. Copy NAL.EXE and NALW31.EXE to a directory that is accessible by all users (such as the PUBLIC directory).

2. Copy NALRES.DLL, NALBMP.DLL, and NAL.HLP to a directory that is accessible by all users (such as the PUBLIC directory). Note that NALRES.DLL NALBMP.DLL, and NAL.HLP can be either in the NAL.EXE directory, or in the NLS\<language> directory.

3. Copy the WIN16.DLL files to a directory called NALLIB below NAL.EXE. For example, if NAL.EXE is in PUBLIC, copy ???WIN16.DLL to PUBLIC\NALLIB.

4. (Optional) Add the NAL.EXE application to the Windows Startup group.

Adding the NetWare Application Launcher to Startup folder (Windows 95)

1. Browse to the StartUp folder. Starting with My Computer, browse to the directory where Windows 95 was installed, usually C:\WINDOWS. Continue browsing to Start Menu\ Programs\StartUp.

2. Create a shortcut to NAL.EXE. From the **File** menu, choose **New**, then choose the **Shortcut** menu item. For the command line enter the path to NAL.EXE, then choose **Next**. Enter any name you want for the shortcut, then choose **Finish**.

Adding the NetWare Application Launcher to Startup group (Windows 3.1)

1. Choose **StartUp** group in Program Manager.

2. Create a program item for NAL.EXE. From the **File** menu, choose **New**, then **Program Item**. For the command line enter the path to NAL.EXE. Enter any description if wanted. Choose OK.

Replacing Program Manager with the NetWare Application Launcher (Running the NetWare Application Launcher as the shell in Windows 3.1)

1. Copy the ???WIN16.DLL files to the WINDOWS\SYSTEM directory.

2. Copy the following files to a directory on the local drive:

NALW31.EXE

NALRES.DLL

NALBMP.DLL

NAL.HLP

3. Edit SYSTEM.INI to set NAL as the shell. Find the line in the [boot] section that starts with shell=, such as

    SHELL=PROGMAN.EXE

   Replace the current setting with

    SHELL=C:\NAL\NALW31.EXE

   (if you placed the NAL files in C:\NAL). Save the changes and start Windows.

See also 🔳 **Install the Application object software**

Purpose
Extends the NetWare* Directory Services* schema to include Application objects. Once extended, the network administrator can create and manage Application objects.

To install the Application object software

1. Copy APPSNAP.DLL to an accessible network or local directory.
    Hint: Copy the file on the network to SYS:PUBLIC.

2. Copy APPRES16.DLL and APPSNAP.HLP to an accessible network or local directory.
    Hint: Copy the files to the directory where you placed APPSNAP.DLL, or in the NLS\ (language) directory below APPSNAP.DLL.

3. Edit NWADMIN.INI (found in the Windows directory on the local workstation). Under the [Snapin Object DLLs] add the following line:
    <snapin name>=**<path>**

    where <snapin name> is a unique identifying name (like "SNAPIN1"), and <path> is the path where the APPSNAP.DLL is located (like "\\GT\SYS\PUBLIC\APPSNAP.DLL").

    For example:

    [Snapin Object DLLs]

    SNAPIN1 = \\GT\SYS\PUBLIC\APPSNAP.DLL

    Note: The NWADMIN.INI needs to be modified on each machine that will run the NetWare Administrator.

4. Run NWADMIN.EXE. If the tree doesn't have the necessary extensions already, you will be prompted to modify the schema.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🔢 **Manage Prelaunch and Post-termination Scripts**

Purpose
Scripts can automatically be executed each time the application is launched and closed. Unlike the environment parameters, the setup and exit scripts can overwrite existing drive mappings and printer ports.

> **Prelaunch scripts** are executed after the environment is set and before the application is launched.

> **Post-termination scripts** are executed before the network resources are cleaned up and after the application is closed.

Manage setup and post-termination scripts
1. Using the NetWare* Administrator, choose the Application object from the NetWare Directory Services* tree.
2. From the **Object** menu, choose **Details**, then choose **Scripts**.

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See also ⬛ Modify Directory Schema to Include Application Objects

Purpose
The <u>schema</u> that shipped with NetWare* 4.1 must be modified to include the attributes required to create and manage Application objects.

Modify the schema
Prerequisite: You must have administrative rights at the root of the NetWare Directory Services* tree.

1. <u>Install the Application object software</u> (**APPSNAP.DLL**) into the directory with the NetWare Administrator.

2. Start the NetWare Administrator.

3. Choose **OK** when asked if you want to modify the schema to accept Application objects.

The additional attributes are now available for creating and using Application objects.

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See also 🔵 NetWare Application Launcher Overview

The NetWare* Application Launcher* allows users to run applications that were previously configured by a system administrator, and whose setup information is stored as an Application object in the NetWare Directory Services* tree.   Network Application Launcher displays icons for all available applications in a window, and lets the user double-click an icon to launch an application.

Users don't need to worry about drive mappings, paths, or rights.   The administrator can manage the application launcher by container, Group, or User object.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Related Topics
[NetWare Application Manager](#)

See also 🔳 **NetWare Application Manager**

Overview
Overview of NetWare Application Manager
Suggested reading

Get started
Prerequisites
Set up and use the NetWare Application Manager

Set up Application objects
Overview
Install the Application object software
Create and define Application object properties
Assign Application objects to launch

Set up the NetWare Application Launcher
Overview
Install the NetWare Application Launcher software
Configure the NetWare Application Launcher
Add the NetWare Application Launcher to the NetWare Client Workstation

Use the NetWare Application Launcher
Overview
Enable NetWare Client 32 installation from the network
Enable PerfectOffice installation from the network
Enable GroupWise installation from the network
Enable Lotus Notes installation from the network
Enable MS Office installation from the network
Enable Windows 95 installation from the network

Reference
Frequently asked questions & answers
Glossary
View README file
Trademarks and disclaimer

An application requires a drive mapped to drive S: and uses a specific printer on the network. The user needs no prior mappings or capture statements. When the Application object is launched, the launcher configures the application requirements by transparently mapping drive S: to the desired directory and capturing the desired printer. When exiting the application, the printer and S: are returned to their pre-launch configuration.

Note: If S: is already mapped to a resource prior to launching the application, drive S: will not be mapped. An error will be returned stating that the resource is already in use.

See also ⓘ **Overview of NetWare Application Manager**

Overview

What is the NetWare Application Launcher?
What is the NetWare Application Manager?
Examples of NetWare Application Management
Software and hardware requirements
For more information

Benefits

Simplifies administration of network applications
Eliminates the need for login scripts
Simplifies user access to network applications
Dynamically updates user desktops
Eases installation and upgrades
Easy to install and use

See also ⓘ **Overview of Creating an Application Object**

Install the software
The Application object software should be copied to an accessible network or local directory. The [Snapin DLLs] section of NWADMIN.INI must be edited to include the name and path of APPSNAP.DLL.

Modify the schema
After the Application object software has been installed, you will be prompted to modify the schema. Modifying the schema to include the working directory, printer ports, drive mappings, and other attributes will allow creation and use of Application objects.

Create the Application object
Application objects are created using NetWare* Administrator.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also 🔳 **Overview of using the NetWare Application Launcher**

Overview
The NetWare* Application Launcher* allows users to install and run software, including NetWare Client 32*, PerfectOffice*, Lotus Notes**, Microsoft Office*, and Windows 95*. The network administrator can configure SETUP.EXE or INSTALL.EXE as an Application object. Also, once installed, the network administrator can configure any required properties for the application to run normally, such as working directories and command line properties.

Prerequisites
APPSNAP.DLL must be installed in the directory with NWADMIN.EXE.

NWADMIN.INI must include the path to the APPSNAP.DLL. See <u>Install the Application object software</u>.

Set up an application or installation program
1. Create an Application object for the appropriate operating system.

2. Set any properties for the Application object, such as a specific path to the executable file, drive mapping, or working directory.

3. (Optional) Enter description and/or contact information.

4. Associate the Application object with a container, Group, or User object.

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See also 🔷 **Prerequisites**

Creating Application objects that use the NetWare* Application Launcher* requires the following:

NetWare 4.x with a NetWare Directory Services* tree

NetWare Administrator 4.10.2

Windows 3.1x** or Windows 95**

Administrative rights

Modification rights at the root of your tree if your schema has not been modified.

NetWare Client 32 or VLM files (NETX is not supported)

Note: The NetWare Application Launcher and Application objects will not work with a bindery attachment.

NetWare Application Launcher needs the following files to run with Windows 3.1:

CALWIN16.DLL

CLNWIN16.DLL

CLXWIN16.DLL

LOCWIN16.DLL

NCPWIN16.DLL

NETWIN16.DLL

AUDWIN16.DLL

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See also 🔲 **Process to Set Up Application Objects**

Install the software
After installing APPSNAP.DLL, the <u>schema</u> is modified to allow the NetWare* Administrator to create and define Application objects.

Create and define the Application object
An Application object is defined by its unique properties. Properties such as name, location of executable, and support contacts are assigned to each Application object.

An application may require unique drive mappings, printer ports, or environment variables. These specific variables must be specified in the application environment.

Assign Application objects to launch
Application objects may be assigned to users, groups, or containers.

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Login script commands like If member of group=ACCT, then MAP F:=SYS/ACCT can be removed and configured when the application is launched.

The schema is a list of attributes that define an object and its relationship with other NetWare Directory Services objects. The schema exists at the root of the NetWare Directory Services tree. The NetWare Directory Services schema can be modified and expanded to suit the specific needs of your organization.

See also ▣ **Set Up and Use Application Objects--Overview**

Overview
    [What is an Application object](#)
    [Why would I use Application objects](#)
    [Setting up Application objects](#)

See also **ⓘ Set Up the NetWare Application Launcher--Overview**

Overview
The NetWare* Application Launcher* allows users to run applications that were previously configured by a network administrator, and whose setup information is stored as an Application object in the NetWare Directory Services* tree.   NetWare Application Launcher displays icons for all available applications in a window, and lets the user double-click an icon to launch an application.

Users don't need to worry about drive mappings, paths, or rights--these are all managed by the network administrator. The administrator can manage the Application Launcher by container, Group, or User object.

Prerequisites
APPSNAP.DLL must be installed in the directory with NWADMIN.EXE.

The NetWare Administrator's NWADMIN.INI must include the path to the APPSNAP.DLL. See Install the Application object software.

Set up the NetWare Application Launcher
1. Install the software to the appropriate directories.
2. Configure the NetWare Application Launcher.
3. Assign Application objects to launch.
4. Make the NetWare Application Launcher available on the NetWare client workstation.

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See also 🔳 **Set up the NetWare Application Manager--Overview**

The NetWare* Application Manager consists of the following components.

1. Application objects

    Application object software allows the NetWare Administrator to create and define Application objects. The following files are installed and used with NetWare Administrator:

    > APPSNAP.DLL
    > APPRES16.DLL
    > APPSNAP.HLP

2. The NetWare Application Launcher

    The NetWare Application Launcher software allows the user to launch applications. Although NAL.EXE is run by all client platforms, the following files are copied to an accessible directory on the network:

    > NAL.EXE (Administrators use NetWare Administrator and the snap-in (APPSNAP.DLL); users run NAL.EXE on all platforms).
    > NALW95.EXE (Windows 95** only)
    > NALW31.EXE (Windows 3.1** only)
    > NALRES32.DLL (Windows 95 only)
    > NALRES.DLL (Windows 3.1 only)
    > NALBMP32.DLL (Windows 95 only)
    > NALBMP.DLL (Windows 3.1 only)
    > NAL.HLP

    The following files are needed for the NetWare Application Launcher to run on Windows 3.1:

    > AUDWIN16.DLL
    > CALWIN16.DLL
    > CLNWIN16.DLL
    > CLXWIN16.DLL
    > LOCWIN16.DLL
    > NCPWIN16.DLL
    > NETWIN16.DLL

The NetWare Application Launcher files should be installed in a network directory available to all network users. For example, you could install the files in the network directory SYS\ PUBLIC.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also 🔳 **Set Up the Application Environment**

Purpose
Some applications require custom configuration parameters to function properly. Before launching the application, the NetWare* Application Launcher* will configure the workstation to properly run the application. The parameters, directories, mappings, and printer ports associated with the application will automatically execute. Upon exiting the application, the application post-termination script will remove any drive mappings or port captures it created upon execution.These mappings and captures don't actually happen until the user launches the application.

The user can view (but not change) environment settings in the NetWare Application Launcher by choosing from the **File** menu **Properties**, then **Resources**.

Set up the application environment
1. Using the NetWare Administrator, choose the Application object from the NetWare Directory Services* tree.
2. From the **Object** menu, choose **Details**, then **Environment**.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also 🔲 Simplifies Administration of Network Applications

The NetWare* Application Manager works together with NetWare Directory Services* to simplify management of network applications by allowing administrators to centrally control Windows** desktops. Using NetWare Administrator, the NetWare Application Manager gives administrators the ability to create NetWare Directory Services objects that represent network-based applications.

Uses NetWare Directory Services to store information about the network applications
These objects contain information about where the network applications are physically located on the network and which users are authorized to use those applications. Network administrators can then use these objects to create a custom Windows program group for each Windows 3.x**, Windows 95**, or Windows NT** user on the network.

Uses NetWare Directory Services to install and maintain network applications
Without leaving their workstation, administrators can deploy applications, managed through NetWare Directory Services, to user desktops across the network. This eliminates time-consuming effort and significantly reduces installation costs of new network applications. Network administrators no longer have to travel to each user's desktop to create a standard Windows program item for each application on the network. Instead, they use NetWare Directory Services to centrally administer and deploy network applications from the convenience of their own workstation.

Uses NetWare Directory Services to ensure security of network applications
Using the NetWare Application Manager, administrators can assign network applications by user, group, container, or any combination of the three. This makes setting up network applications on users' Windows desktops quick and easy. Access to files and directories is handled through NetWare Directory Services file system security, ensuring that network security is maintained.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also **Simplifies User Access to Network Applications**

Centralized graphical presentation of network applications
To access network applications, users run the NetWare* Application Launcher* from their Windows** Startup group or other Windows program group. This will present users with an NetWare Directory Services*-delivered set of network applications the administrator has assigned to them. To launch an application, a user simply double-clicks the appropriate icon in the group. The NetWare Application Manager does the rest, taking care of drive mappings and paths automatically. When using the NetWare Application Manager, standard Windows program items that represent network applications are no longer required and should be deleted from Windows desktops.

Access to network applications independent of login location
The NetWare Directory Services-delivered network applications are associated with a user's network login ID, so they follow the user around the network. Regardless of the login location, the user always sees the same set of network applications. This ensures that people who work from multiple locations or physical workstations always have a consistent set of network applications.

Easy access to support information
For each NetWare Directory Services-delivered network application, the administrator can include a support number and e-mail address to use if help is required. This information is displayed in the properties of each application icon on the user's desktop. The help information can be tailored so each user is directed to the support group for his or her location. The administrator can also specify that some network applications are to be launched automatically when the user runs the NetWare Application Manager.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also Software and hardware requirements

Software requirements

Windows for Workgroups 3.11**, Windows 3.1**, Windows 95** or Windows NT**

NetWare* 4.1

NetWare Client* for DOS/Windows 1.2 (included with NetWare 4.1) or the new Client 32*-based clients

Hardware requirements
There are no additional hardware requirements associated with running this program in a Windows environment.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🔲 **Set up application support contacts**

Purpose
The User objects designated as **Application Contacts** appear in the NetWare* Application Launcher** as resources for support. The end user may contact the assigned contact in person, phone, or use the Application Launcher to send an email.

Choose a user as an application contact
1. Using the NetWare Administrator, choose the Application object from the NetWare Directory Services* tree.
2. From the **Object** menu, choose **Details**.
3. Choose **Contacts**.
4. Choose **Add** or **Delete**.
5. Type or choose one or more User objects from the browser.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also 🔲 **Suggested Reading**

Here is an overview of what you can find in this help file:

To get an introduction of what the NetWare* Application Manager can do for you, following the Overview of NetWare Application Manager links.

Before you do anything, read Prerequisites. Make sure you get a brief overview of the installation process and the files required in Setup and use the NetWare Application Manager.

When you are ready to create and define Application objects, read the links in the **Set up Application objects** section. Don't forget to read the Overview.

Read the Overview in the **Set up the NetWare Application Launcher*** section before installing and configuring the NetWare Application Launcher. It will give you the big picture of the tasks required to manage and launch your applications.

Read up on how to use NetWare Application Launcher with many popular applications. Check out the **Use the NetWare Application Launcher** section.

Finally, read through the Frequently asked questions & answers and View README file. These sections may be just the thing you are looking for.

If you have any suggestions about how to improve the documentation, please fax it to (801) 429-3002. Sorry, technical support is not available at this number.

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See also 🔲 **Trademarks**

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NetWare* supports the use of Universal Naming Convention (UNC) redirection for path statements in dialog boxes. UNC provides

   The ability to use a network resource without setting up a drive mapping to it

   The use of applications and programs within Windows** to access network volumes and directories

   The ability to assign network applications, volumes, and directories to icons within Windows

An example of a valid UNC path is \\SERVER1\SYS\APPS\SOLITAIRE\SOL.EXE\.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

Readme for NetWare Application Launcher 1.0
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Overview
The NetWare* Application Launcher** allows users to run applications that were previously configured by a system administrator, and whose setup information is stored as an Application object in the NetWare Directory Services* tree.   NetWare Application Launcher displays icons for all available applications in a window, and lets the user double-click on an icon to launch an application.   Users don't need to worry about drive mappings, paths, or rights.   The administrator can manage the NetWare Application Launcher by container, Group, or User object.

Limitations and caveats
These limitations and caveats apply only to this release.

> If a drive mapping exists, applications that need the drive letter with a different mapping will not execute.

> File system rights are not automatically granted when the Application object is assigned to a user, group, or container. These file system rights must be explicitly granted by the administrator.

> Caution should be used when setting the timed refresh setting. Frequent refreshes of large numbers of users can adversely impact network traffic. The default is timed refresh = OFF.

> Changes to user configurations don't actually take place until the user closes the Application Launcher, and reruns it.

> The DLL that processes login scripts may not be available if a script is used with an Application object. You may need to move or copy the DLL to the WINDOWS\SYSTEM directory if it is not in the PATH. The DLL is LGNW9532.DLL on Windows 95** and LGNW3116.DLL on Windows 3.x**.

Creating application objects
To create an Application object in NetWare Directory Services, complete the following steps:

1. Run NetWare Administrator. (The Application Launcher snap-in should be installed and initialized.)

2. From the **Object** menu, choose **Create**.

3. Choose **Application (Windows 95)**, **Application (Windows 3.x)** or **Application (DOS)** from the object list.

4. Specify the path of the application, using UNC or drive-letter syntax, in the application dialog box.

5. Choose **Create** to create the Application object.

6. (Optional) Choose the Environment page to specify any drive mappings or print captures that are needed for this application.
   These mappings and captures don't actually happen until the user launches the application. When the user closes the application, the mappings and captures are removed. The user can view environment settings in the NetWare Application Launcher (but not change them) by choosing from the **File** menu **Properties**, then **Resources**.

7. (Optional) Specify a contact for the application.

Contact telephone numbers and e-mail names are available to users in the NetWare Application Launcher. The phone number and e-mail name are retrieved from the User object data in the tree.

Once the Application objects are created, you can associate them with User, Group, or container objects by doing the following:

1. In NetWare Administrator, view details on the Container, Group, or User object you want to associate the Application object with.

2. Choose the **Applications** button. (This button is one of two new property buttons that appear at the bottom of the NetWare Administrator buttons after you have installed and initialized the Application Launcher snap-in.)

3. Add an Application object to the **Applications to launch when the user selects** list and the **Applications to launch automatically** list.

    Applications in **Applications to launch automatically** are launched when the NAL.EXE file is executed. To launch applications in the **Applications to launch when the user selects** list, the user must double-click the icon.

4. Save the changes to the object.

    The NetWare Application Launcher is updated as specified by the refresh rate. The default is no refresh. To change this refresh rate, in NetWare Administrator choose the **Launcher Configuration** page for that object and modify **Refresh seconds**.

ASSOCIATING APPLICATION OBJECTS WITH USERS

When the Application Launcher loads, it determines which applications to display for the user using the following algorithm:

Display all applications associated with the User object

Display all applications associated with groups that the user belongs to

Display all applications associated with containers the user is part of (the number of containers to search is configured in the **Launcher Configuration** page of User objects and container objects)

Here are three scenarios and how they affect which applications the user sees:

Scenario #1

Associations: WordPerfect* and Quattro Pro* are associated with the User object.

User sees: WordPerfect and Quattro Pro.

Scenario #2

Associations: User belongs to a group named PerfectOffice*. The PerfectOffice group has three applications associated with it: WordPerfect, Quattro Pro, and Presentations*.

User sees: WordPerfect, Quattro Pro, and Presentations.

Scenario #3

Associations: The context of the user is .CPT.NPD.NOVELL. The CPT container has an application named Schema Manager associated with it, NPD has GroupWise associated with it, and NOVELL has PhoneW associated with it. **Container Levels** in the **Launcher Configuration** page for the user is set to 2.

User sees: Schema Manager and GroupWise*. User does not see PhoneW.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also 🔲 View Application Objects Assigned to a User, Group, or Container

Purpose

Application objects assigned to a User, Group, or container object can be viewed using NetWare *Administrator. The Application objects can be assigned to launch when the user double-clicks the application icon, or can launch automatically when the NetWare Application Launcher* is accessed.

To view the Application objects assigned to a user, group, or container

1. From NetWare Administrator, choose the User, Group, or container object.
2. From the **Object** menu, choose **Details.**
3. Choose **Applications** from the button bar.

* Novell trademark.   ** Third-party trademark.   For more information, see <u>Trademarks</u>.

See also 🔳 **What Is the NetWare Application Launcher?**

The NetWare* Application Launcher* displays icons for available network applications in a window, and lets the user double-click an icon to launch an application.

Users don't need to worry about drive mappings, paths, or rights; these are managed by the network administrator.

* Novell trademark.   ** Third-party trademark.   For more information, see Trademarks.

See also **What Is an Application Object?**

An Application object is an extension to the NetWare* schema that allows network administrators to manage applications like other objects.

An Application object can only be used with NetWare Directory Services*.

Any DOS*, Windows*, Windows 95*, or Windows NT* executable can be designated as an Application object. Application object icons appear in the NetWare Directory Services tree and belong to a specific application class.

Application class
DOS
Windows 3.*x***
Windows 95
Windows NT

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See also **What is the NetWare Application Manager?**

The NetWare* Application Manager allows network administrators to manage network applications as Application objects in the NetWare Directory Services* tree.

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Topic outline

See also ⓘ

See also ⓘ **Why Would I Use Application Objects?**

With Application objects, you manage the network more efficiently, saving time and headaches administering applications. Application objects simplify administrative tasks such as assigning rights, customizing login scripts, and supporting applications.

Application management

Using NetWare* Administrator, applications for an entire organization, group, or user can be centrally administered. By configuring executables as Application objects, you can perform upgrades and control versions of applications on the network more effectively.

Application access and rights

Assigning an Application object to a container, Group, or User object makes the application available to users who are trustees or members of those objects. Using the NetWare Application Launcher, the user can authenticate to the network anywhere and still access the same applications, regardless of the drive mappings and port captures of the local workstation.

Reduce drive mapping requirements in login scripts   example

When launching the application, network drive mappings, printer ports, and additional parameters can be automatically configured, reducing the need to add mappings in user login scripts to run network applications.

Reduce login time   example

Because Application objects configure their required resources when launched, maintenance of system and user login scripts, as well as login execution times, can be reduced.

Provide application information and support contacts

Application parameters and support contacts can be assigned to each Application object. The application information is available to users on their desktops. Users can e-mail support contacts using the contact info associated with the application.

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These mappings and captures don't actually happen until the user launches the application. When the user closes the application, the mappings and captures are removed by default. The user can view (but not change) environment settings in the NetWare Application Launcher by choosing **File**, choosing **Properties**, and then choosing **Drives/Ports**.

Note: The default setting of an Application object is to clean up network resources when the application has finished executing. This means successful mappings or captures are removed after the program closes, resulting in no mappings or captures for that port after execution.

Warning: If a drive mapping already exists, the NetWare Application Launcher mapping or port capture will fail.

Syntax for mapping a drive

SERVER\VOLUME:PATH

\\SERVER\VOLUME\PATH

VOLUME_OBJECT_NAME:PATH

DIRECTORY_MAP_OBJECT_NAME:PATH

Syntax for capturing a port

SERVER\DS_QUEUE_NAME:

\\SERVER\DS_QUEUE_NAME

DS_QUEUE_NAME

\\\DS_QUEUE_NAME

Glossary

application class

browse button

email

full path

schema

UNC path