

## **Microsoft IPX Upgrade Utility**

The Microsoft IPX Upgrade Utility (NEWIPX.EXE) is designed to help network administrators who need to update the version of Novell NetWare on their client workstations in order to run Windows 3.1.

The Windows 3.1 components provided by Novell require the workstation to be running recent versions of the NetWare client software: the NetWare shell, IPX, and (if you are running ODI model) LSL. Updated versions of these components are included with Windows 3.1 and copied to the user's Windows System directory when Setup detects NetWare. They are also copied to a shared Windows directory when an installed using Administrative Setup (SETUP /A).

Instructions for upgrading a workstation are provided in the Windows NETWORKS.WRI on-line document. The NetWare shell and the ODI-model IPXODI.COM and LSL.COM are quite easy to install. However, to upgrade a dedicated-model IPX.COM requires the administrator to use a whole set of NetWare utilities to link a new version of IPX.COM and manually configure its hardware options.

The Microsoft IPX Upgrade Utility is designed to automate this time-consuming process, allowing new versions of IPX.COM to be built and properly configured without human intervention.

The utility can be run from a shared network drive or from a floppy disk. It can be run by the end user, by an administrator, or from of the user's login script or AUTOEXEC.BAT file. When run in an automated fashion, the batch file or login script can determine what action was taken and perform any appropriate action.

## **Using the Upgrade Utility**

Before people run the upgrade utility, the system admin must set up a directory from which users will run the utility. This directory can be on a server or on a floppy diskette, although we recommend it be the server's PUBLIC directory. The administrator must copy into this directory the following files:

1. the Microsoft IPX Upgrade Utility
2. the version of IPX.OBJ provided with Windows 3.1 (also in the IPX directory on the Windows Resource Kit disk)
3. the NetWare NLINK utility (NLINK.EXE)
4. the network card driver .OBJ files required for their workstations

In order to upgrade a workstation, the user or technician will:

1. start the network and log in, giving them access to the PUBLIC directory. (Or, alternatively, insert a floppy containing the utility and other required files.)
2. start the utility, specifying the location of their IPX.COM file.

## **Functional Overview**

The utility is invoked with the location of the user's current IPX.COM. All other files are expected to be in the same location as the utility itself.

It will first compare the version of the user's current IPX.COM with the IPX.OBJ provided. If the IPX.OBJ is newer, it will upgrade the user's workstations. It will automatically locate the proper NIC driver .OBJ file and link it with the updated IPX.OBJ to form a new IPX.COM. It will then copy any hardware configuration options from the original file to the new one. There is no need to run the Novell SHGEN, WSGEN, DCONFIG, ECONFIG, or JUMPERS utilities.

Finally, it will rename the original IPX.COM to a unique backup filename (such as IPX.BAK) and rename the new version to IPX.COM. If for any reason you need to revert back to the original version, you can simply rename the files once again.

## **Command Line Syntax**

Syntax: NEWIPX NetWare-Dir [/?]

The NetWare-Dir parameter specifies the location of the workstation's current IPX.COM

The /? switch displays a brief description of the utility and its syntax.

For example, if the utility and other required files are located in the PUBLIC directory which is on the user's PATH, and the workstation's IPX.COM is located in the NOVELL directory on the C: drive, the user would enter the following command:

```
NEWIPX C:\NOVELL
```

Or, if the utility is being run from a NetWare login script, you would use a line such as the following:

```
#Z:\NEWIPX C:\NOVELL
```

**Note:** If you are running NEWIPX from a NetWare Login Script, you must specify its location using a fully-qualified path. This is required because of the way the NetWare Login utility starts applications under some circumstances. If you do not use the fully-qualified pathname, and the utility is located on a network drive, you may receive incorrect error messages or files may not get updated when they should.

## **Handling success and failure cases**

The upgrade utility will always exit with an MS-DOS status code indicating whether or not it attempted to upgrade the workstation, and whether that operation was successful.

<u>Value</u>	<u>Meaning</u>
0	The IPX.COM does not need to be upgraded.
1	The IPX.COM has been successfully upgraded.
2 or higher	An error occurred that prevented the IPX.COM from being upgraded.

These status codes can be used in both batch files and in login scripts. Here is a sample fragment which demonstrates how a login script could handle these status codes:

```
#z:\newipx c:\novell
if "%ERROR_LEVEL">"1" then begin
    fire phasers
    write "Warning: your workstation software could not be upgraded."
    write "Please report this to your system administrator."
    pause
end
if "%ERROR_LEVEL"="1" then begin
    fire phasers
    write "Your workstation software has been modified."
    write "You should restart your workstation before continuing."
    pause
end if
```

The following sample fragment which demonstrates how an AUTOEXEC.BAT file could handle these status codes:

```
z:\newipx c:\novell
if errorlevel 2 goto ipx_err
if errorlevel 1 goto ipx_new
goto ipx_ok

:ipx_err
echo Warning: your workstation software could not be upgraded.
echo Please inform your system administrator.
pause
got ipx_ok

:ipx_new
echo Your workstation software has been modified.
echo You should restart your workstation before continuing.
pause
goto ipx_ok

:ipx_ok
```