

# **PC-Xware Classic**

**Version 5.01**

**Release Notes**

The logo consists of a solid black square with the letters 'NCD' in a white, serif font centered within it.

**NCD**

NCD Software Corporation, formerly a wholly owned subsidiary of Network Computing Devices, Inc., consolidated with Network Computing Devices, Inc. in June 1996.

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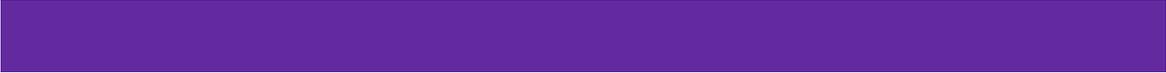
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# Chapter 1

## PC-Xware Installation Issues

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### Product Components

**For Windows NT 4.0, Windows NT 3.51, Windows 95, and Windows 3.1x:** the PC-Xware version 5.01 product packet contains:

- PC-Xware Classic 5.01 Multi-Platform CD-ROM
- *PC-Xware Installation and Configuration Guide* (for Windows 95 and NT 4.0, Windows NT 3.51, and Windows 3.1x)
- *PC-Xware User's Guide* (as an online manual)
- These release notes

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### Overview of PC-Xware Installation Process

PC-Xware 5.01 can be installed on Windows 3.1x, Windows 95, Windows NT 3.51, or Windows NT 4.0 from a single CD-ROM. This section presents generalized steps for installing PC-Xware on each of these operating systems.

You can install PC-Xware 5.01 on your computer for use directly on that computer (called a *single-user installation*), and you can install PC-Xware onto your computer for deployment over a network to other computers (called a *file server installation*). In general, when you perform a file server installation, you can install PC-Xware onto the file server for deployment to any combination of the four operating systems. When the operating system on your file server is Windows 3.1x, you can only deploy PC-Xware for Windows 3.1x. Otherwise, your file server can deploy PC-Xware for Windows 95, Windows NT 4.0, or Windows NT 3.51.

**Note** For detailed instructions on how to install PC-Xware for a specific operating system, see the appropriate version of the *PC-Xware Installation and Configuration Guide*.

For information about specific installation issues relevant to a specific operating system, see the following sections of these release notes:

- **For Windows 95 and Windows NT 4.0:** see “Installing PC-Xware” on page 17.
- **For Windows NT 3.51:** see “Installing PC-Xware” on page 26.
- **For Windows 3.1x:** see “Installing PC-Xware” on page 30.

**Note** The procedures in this section assume your CD-ROM drive is designated by d:.

**Note** If you are sharing a drive (the CD drive, for example) from which other users will be installing PC-Xware, the name of the shared drive must conform to the short filenaming conventions (8.3 format without spaces).

## For Windows 95 and Windows NT 4.0

You can install PC-Xware 5.01 either in a single-user configuration, or for deployment over the network by using your computer as a file server. This section presents a brief overview of both installation processes.

### Single-User Installation

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.

Typically, the installation process begins automatically. However, if for any reason the installation process does not automatically begin, you can start it by selecting **Start → Run**, and typing **d:\setup** in the Run dialog box.

2. When the operating system is detected, you can:
  - Click OK to continue the installation on the indicated operating system.
  - In case the installation program has not detected the correct operating system, select the appropriate operating system and click OK.

**Note** If you select an operating system other than that which is installed on your computer, PC-Xware may not operate as expected.

3. Select “Single Copy Installation” from the Installation Type dialog box and click OK.
4. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

### File Server Installation

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.

Typically, the installation process begins automatically. However, if for any reason the installation process does not automatically begin, you can start it by selecting **Start → Run**, and typing **d:\setup** in the Run dialog box.

2. When the operating system is detected, select the operating system that corresponds to the operating system running on the computer(s) of the end users of PC-Xware.

For example, if you are setting up for deployment of PC-Xware to Windows 95 computers, select Windows 95, even if your computer is running Windows NT 4.0.

Click OK to continue the installation on the indicated operating system.

3. Select "File Server Installation" from the Installation Type dialog box and click OK.
4. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

You can perform several File Server Installations on one file server. This is useful when your users work from more than one operating system.

**Note** When performing several File Server Installations, be sure to place each operating system installation into a different folder (directory) on the file server. Also, be sure the name of the shared drive on which you are installing PC-Xware conforms to the short filename conventions (8.3 format without spaces).

## For Windows NT 3.51

You can install PC-Xware 5.01 either in a single-user configuration, or for deployment over the network by using your computer as a file server. This section presents a brief overview of both installation processes.

### Single-User Installation

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.
2. Start the installation process by selecting **Program Manager** → **File** → **Run**, and typing **d:\setup** in the Run dialog box.

3. When the operating system is detected, you can:
  - Click OK to continue the installation on the indicated operating system.
  - In case the installation program has not detected the correct operating system, select the appropriate operating system and click OK.

**Note** If you select an operating system other than that which is installed on your computer, PC-Xware may not operate as expected.

4. Select “Single Copy Installation” from the Installation Type dialog box and click OK.
5. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

### File Server Installation

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.
2. Start the installation process by selecting **Program Manager → File → Run**, and typing **d:\setup** in the Run dialog box.
3. When the operating system is detected, select the operating system that corresponds to the operating system running on the computer(s) of the end users of PC-Xware.  
For example, if you are setting up for deployment of PC-Xware to Windows 95 computers, select Windows 95, even if your computer is running Windows NT 3.51.  
Click OK to continue the installation on the indicated operating system.
4. Select “File Server Installation” from the Installation Type dialog box and click OK.
5. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

You can perform several File Server Installations on one file server. This is useful when your users work from more than one operating system.

**Note** When performing several File Server Installations, be sure to place each operating system installation into a different folder on the file server. Also, be sure the name of the shared drive on which you are installing PC-Xware conforms to the short filenaming conventions (8.3 format without spaces).

## For Windows 3.1x

You can install PC-Xware 5.01 either in a single-user configuration, or for deployment over the network by using your computer as a file server. This section presents a brief overview of both installation processes.

### Single-User Installation

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.
2. Start the installation process by selecting **Program Manager** → **File** → **Run**, and typing **d:\setup** in the Run dialog box.
3. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

### File Server Installation

**Note** When the operating system on your file server is Windows 3.1x, you can only deploy PC-Xware for Windows 3.1x.

1. Insert the PC-Xware 5.01 CD into the CD-ROM drive of your computer.
2. Start the installation process by selecting **Program Manager** → **File** → **Run**, and typing **d:\win31x\site\setup.exe** in the Run dialog box.

3. Follow the on-screen instructions. See the *PC-Xware Installation and Configuration Guide* for details.

**Note** When performing a File Server Installation, be sure the name of the shared drive on which you are installing PC-Xware conforms to the short filenaming conventions (8.3 format without spaces).

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## Running PC-Xware

### X Applications with Incorrect Colors

If your X applications don't display the correct colors, follow these steps to reverse the order that PC-Xware allocates color cells:

- For Windows 95 and Windows NT 4.0:
  - a. Select **Start** → **Program** → **NCD PC-Xware** → **PC-Xware Configuration**.
  - b. On the General tab, click Advanced Settings.
  - c. Select *Allocate colormap entries from the top*, then click OK.
  - d. Click Apply and then OK on the General tab.
  - e. Restart your X application.
- For Windows NT 3.51:
  - a. Select **File** → **Run** in Program Manager. Enter "`<path>xncd.exe`" console, where `path` is the PC-Xware installation directory, then click OK.
  - b. Select **Setup** → **Change User Preferences** → **X and Graphics** → **Allocate Colormap Entries From The Top**.
  - c. Click the **Apply** button, located in the lower left corner.
  - d. Restart PC-Xware.
- For Windows 3.1x:

- a. Run **xwconsol.exe** from the PC-Xware directory by selecting the Program Manager's **File** → **Run** option.
- b. Select **Setup** → **Change User Preferences** → **X and Graphics** → **Allocate Colormap Entries From The Top**.
- c. Click the Apply button, located in the lower left corner.
- d. Restart PC-Xware.

### **rsh Support**

The ability to start applications via **rsh** (Remote Shell) is on by default. To turn off the **rsh** type connections, go to the DOS prompt and run the **norsh.exe** program in the PC-Xware directory.

### **MS Windows Color Palette and X Applications**

Some MS Windows applications (MS Excel, for example) redefine the entire Windows color palette. This may cause “color flashing” when changing focus from an X application back to the Windows application.

### **X11perf Benchmark Program**

- This program uses two Kanji/Kana fonts in eight of its tests. These fonts are installed as part of a typical installation of PC-Xware.
- If you see an error from X11perf similar to this, you need to increase the graphics resolution:

```
X Error of failed request: BadMatch
  (invalid parameter attributes)
Major opcode of failed request: 73
  (X_GetImage)
Serial number of failed request: 16
Current serial number in output stream: 16
```

X11perf creates a 600 x 600 window with a 1-pixel border, 2 pixels from the edge of the screen. Unless you have a screen taller than 603 pixels, part of the X11perf window is off the screen. This error displays when you try to run it on a smaller screen.

NCD recommends that you run the benchmark on a 1024 x 768 video adapter. Some X servers may misinform the program about screen size. In this case, the performance numbers are inaccurate as they have several pixels missing from the bottom of the window.

### **Serial Port and Device Conflicts**

PC-Xware opens all available serial ports on startup. This may prevent some devices, such as serial printers, from working correctly after starting PC-Xware. To prevent PC-Xware from opening a serial port, add this line for each serial port to the **changes.user** file (or specified configuration file) located in PC-Xware's **configs** directory:

```
serial-test-for-com1 = false
serial-test-for-com2 = false
serial-test-for-com3 = false
serial-test-for-com4 = false
```

---

## **Host-Specific Issues**

### **Common Desktop Environment**

If your **xdm** connection to a host running Common Desktop Environment (CDE) does not login correctly and if the PC-Xware diagnostics log shows the following errors:

```
OPEN-ATTEMPT  attempting to open font...
OPEN-UNMODIFIED...
```

then the **dtlogin** daemon can not locate the font(s) it needs to initialize the CDE environment (`dt-interface user-medium-r-normal-*-*-*-*-*-*...`).

To correct this problem configure a font server on the host to map the correct fonts for PC-Xware use.

To setup a font server:

1. Edit the **fontserver.cfg** file located in **/usr/lib/X11** directory (on Solaris this directory is **/usr/openwin/lib/X11**).
2. Add the directory for CDE's standard fonts to the catalogue **/usr/dt/config/xfonts**.

For example the **fontserver.cfg** file might look like this:

```
# font server configuration file

clone-self = on
use-syslog = on

catalogue = /usr/lib/X11/fonts/F3bitmaps/,
            /usr/lib/X11/fonts/Type1/,
            /usr/dt/config/xfonts/,
            /usr/lib/X11/fonts/Speedo/,
            /usr/lib/X11/fonts/misc/,
            /usr/lib/X11/fonts/75dpi/,
            /usr/X11/fonts/100dpi/,
            /usr/openwin/lib/X11/fonts/Xr+/

# in decipoints
default-point-size = 120
default-resolutions = 75,75,100,100
```

**Note** Make sure that the paths given in the catalogue are valid and contain valid font files (or fonts.ali files), otherwise the font server will not start.

3. After making these changes to the **fontserver.cfg** file, start the font server (see man pages for details).
4. Finally, configure PC-Xware to include the font server in its font search path.

For detailed information about configuring the PC-Xware font path, see the online *PC-Xware User's Guide*.

**PC-Xware and AIX 3.2.5**

If PC-Xware connects to an AIX 3.2.5 site and a user logs in via *x<sub>dm</sub>*, the screen may display characters you don't expect. This occurs because your PC keyboard is mapped as an IBM console by the IBM *x<sub>dm</sub>* session. To map a PC keyboard, use one of these methods:

- **On networks running only PCs with PC-Xware or NCD terminals:** Add this line to the beginning of the `/usr/lib/X11/xdm/Xsession` file:

```
XSTATION=1; export XSTATION
```

This line sets the XSTATION variable, causing the *x<sub>dm</sub>* script files to avoid remapping your keyboard.

- **On networks running IBM consoles and PCs:** Add a line similar to this to the `xdm.config` file:

```
DisplayManager.NCD-PCX.session: /usr/lib/X11/xdm/Xsession.ncd
```

where the `Xsession.ncd` script file is identical to the `/usr/lib/X11/xdm/Xsession` script file, except that it sets the XSTATION variable (as shown in the above example).

This sets display classes to detect whether the connecting machine is an IBM console or a PC running PC-Xware, then directs the machine to use a script file that results in the correct keyboard mapping.

For detailed information about configuring *x<sub>dm</sub>*, see the *PC-Xware User's Guide*.

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## Viewing the Online User's Guide

To view the online User's Guide:

- **From Windows 95 and Windows NT 4.0:** select **Start** → **Programs** → **NCD PC-Xware** → **Online Documentation** → **PC-Xware Online Documentation**. The Acrobat Reader (AcroRead) displays the online document.

- **From Windows 3.1x and Windows NT 3.51:** select **PC-Xware Documentation** in the PC-Xware product program group. The Acrobat Reader (AcroRead) displays the online document.

Here are some suggestions for viewing online documents with AcroRead.

#### **Finding information**

- **Finding topics:** select **View → Bookmarks and Page** to display a table of contents on the left side of the screen. Select the triangles in those entries to show or hide subtopics. Click a bookmark entry to jump to that topic in the online document.
- **Searching for words:** use the binoculars icon on the toolbar to search for any word in the document.

#### **Jumping to Topics**

- Online documents contain jumps that take you directly to the material they reference. Jumps occur in the index, the Table of Contents and wherever the document references page numbers or material on another page. The cursor changes to a pointing hand when over a jump, indicating that additional information is available. Click, and the referenced material is immediately displayed.
- Use the double left arrow  in the toolbar to return from topic jumps.

#### **Increasing the Size of the Page**

To make the online document larger, select **View → Zoom To**.

#### **Printing the Document**

If you need to print specific pages or even an entire section of a manual, select **File → Print**.

For additional information about using the Acrobat Reader, see the Help menu and Help topics in the Acrobat Reader.

The Acrobat Reader is also available in Dutch, French, German, Italian, Spanish, and Swedish from Adobe at <http://www.adobe.com> or <ftp://ftp.adobe.com>.

# Chapter 2

# PC-Xware Classic

for Windows 95 and Windows NT 4.0

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## Features in This Release

PC-Xware version 5.01 includes these features:

- **Support for Windows 95 and Windows NT 4.0:** PC-Xware supports both Microsoft operating systems using the same executable program.
- **Complete integration with the Windows 95/NT 4.0 desktop:** PC-Xware 5.01 consists of the following components integrated into the Windows desktop:
  - **PC-Xware Connection Wizard** — An assistant that uses minimal questions to create icons for starting host applications.
  - **PC-Xware Connections Folder** — A Windows folder containing the Connection Wizard icons.
  - **PC-Xware Configuration** — A series of tabs used to configure PC-Xware attributes.
  - **PC-Xware Services Icon** — A Windows Taskbar icon whose menu provides access to all the PC-Xware

components noted above plus access to other product functions.

**Note** See Chapter 1's "Navigating PC-Xware" section in the online *PC-Xware User's Guide* for further information about accessing PC-Xware 5.01.

- **All connections have icons:** In previous PC-Xware versions, you chose to attach icons to host application connections. Now all connections have icons and all connection icons reside in the **PC-Xware Connections Folder**.
- **Predefined commands for commonly used host applications:** PC-Xware's Connection Wizard contains a list of predefined applications for Sun, HP, AIX, SCO, DEC, and generic UNIX hosts.
- **Automated application startup for Telnet and Rlogin connections:** PC-Xware can automatically log you in and start your application even if you use Telnet or Rlogin to reach your host. Select *Execute application(s), command(s), or script(s) on a remote host* on the first Connection Wizard screen to build these automated connections.
- **Ability to save login passwords:** PC-Xware has the ability to save login passwords for connections. Users decide on a per connection basis, whether to retain their login password with the connection. See the topic "Password Support" in the "Running PC-Xware" on page 21 of these notes for further information.
- **NCD WinCenter Image Compression Extension:** This extension allows PC-Xware to run efficiently with NCD's WinCenter multi-user NT operating system.
- **Mouse Button Presses and Windows 95:** PC-Xware allows you to direct your mouse button presses on the desktop to Windows or to your X application. See "Enabling Windows to see your mouse presses" in these release notes and the same section in the online PC-Xware Help.

- **Windows 95 Logo Compliant:** PC-Xware has met the Microsoft requirements and earned the "Designed for Windows 95" logo.
- **Online User's Guide.** The *PC-Xware User's Guide* is an online Adobe Acrobat document. Select **Start → Programs → NCD PC-Xware → Online Documentation → PC-Xware Online Documentation**. For tips on using the Acrobat Reader, see the section, "Viewing the Online User's Guide" on page 13 in these release notes.

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## Installing PC-Xware

### Upgrading PC-Xware 4.x

You do not need to uninstall PC-Xware 4.x before installing PC-Xware 5.01. Please familiarize yourself with the following upgrade issues before you install.

- **Connections:** Only PC-Xware 4.x connections that had icons will be converted for use with PC-Xware 5.01.

**Note** Any connection that does not have an icon will be deleted when PC-Xware 5.01 installs.

Before you install PC-Xware 5.01, run PC-Xware 4.x and attach icons to connections that you want to use with PC-Xware 5.01.

- **Connection icons files:** PC-Xware 5.01 looks for connection icons in **.xcn** files residing in the default installation directory (...\**ncdsoft\pcxware\user**). The installation program preserves 4.x connection icons by copying and converting to **.xcn** format any **.xic** files it finds in the default installation directory. These connections then appear in the **PC-Xware Connections Folder**. If any 4.x connections icons are from **.xic** files that do *not* reside in the default installation directory, you must move or copy those **.xic** files to the default installation directory *before* you install PC-Xware.

- **The Start menu:** Installation replaces the PC-Xware 4.x Start menu sequence (**Start → Programs → NCD PC-Xware**) with the PC-Xware 5.01 menu items.

#### **Installation Diskettes**

If you need PC-Xware installation diskettes, see "Create Installation Diskettes" in Chapter 3 of the *PC-Xware Installation and Configuration Guide*.

#### **Virtual Drives**

Do not install PC-Xware on a virtual disk drive created with the DOS `subst` command.

#### **File Server Installation**

- **Diskette Installation:** If you use the File Server Installation from diskettes, the Client PC installation program must leave the files on the file server.
- **Class Manager:** Class Manager permits the creation of PC-Xware Connections using the Connection Wizard. This allows you to easily set up common application connections for your PC-Xware users.
- **Documents Directory:** File Server Installation requires that the directory named **doc** be writable. Windows creates **.gid** and **.fts** files in this directory when you use the online help.

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## **PC-Xware on Windows 95 and Windows NT 4.0**

### **Enabling Windows to See Your Mouse Presses**

Many X window managers, including PC-Xware's NCDwm and the Open Look window manager *olwm*, display a menu when you press a mouse button on the X window desktop. Because Windows displays a menu when the right mouse button is pressed, PC-Xware must decide whether you want the X or the Windows menu.

To decide between the X and the Windows menu, select **PC-Xware Configuration → Keyboard/Mouse → Special Settings**, and check or uncheck the box labeled *Send mouse events to X instead of Windows*.

If *Send mouse events to X instead of Windows* is checked (on) and you want to start an icon on the Windows desktop, you must hold down a modifier key, such as Control, while pressing the left mouse button to select the icon, and then press Enter.

If *Send mouse events to X instead of Windows* is unchecked (off), change your X application to also expect modified mouse button presses. For example, if left-click brings up a menu, change the application so that left-click or Shift+left-click brings up the menu. Do not use Control or Alt as the modifier key.

#### **PC-Xware Taskbar Entries**

If you run PC-Xware in single window mode (**PC-Xware Configuration** → **General** → **X Applications** → **Run** in a single window), the single Microsoft window where your X applications appear is labeled PC-Xware Screen in the Windows taskbar.

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## **PC-Xware on Windows NT 4.0**

#### **Uninstalling PC-Xware**

If you need to uninstall PC-Xware and later install it on the same PC, reboot Windows before you re-install.

#### **Panned Windows May Redraw Incorrectly**

In single window mode (**PC-Xware Configuration** → **General** → **X Applications** → **Run** in a single window), if the Window size is larger than the physical display, X applications that appear partially off screen may not redraw correctly when moved back on screen.

## Running PC-Xware

### Connections

- The connections you create are stored in the **PC-Xware Connections** folder. A shortcut to this folder is on your Windows desktop.
- Connections created by right-clicking the mouse on the windows desktop and selecting **New** → **PC-Xware Connection**, appear in the **Start** → **Documents** menu once the connection is used. These connections also appear in the PC-Xware Connections Folder.

### Connections that use Modems

- For optimum performance of XRemote on serial connections, turn off hardware compression in your modem. To do this, select **My Computer** → **Control Panel** → **Modems**. Select the modem and then click Properties. Select **Connection** → **Advanced**. Ensure that the *Compress data* item is unchecked (off).
- Windows may not write your modem initialization string to the registry properly. Check the initialization string to ensure that hardware compression is off. To check the modem initialization string, see the following Windows registry entry:

Windows 95 - Run "regedit.exe" and examine  
[HKEY\_LOCAL\_MACHINE\System\CurrentControlSet  
\Services\Class\Modem\#\Init

Windows NT 4.0 - Run "regedit32.exe" and examine  
[HKEY\_LOCAL\_MACHINE\System\CurrentControlSet  
\Control\Class\{modem entry}\#\Init

### Web Enabled X

- **PC-Xware 4.x or PC-Xware 5.01 for Windows NT 3.51 or 3.1x Web Enabled X Connections:** If you created Web Enabled X Connections with PC-Xware 4.x or PC-Xware 5.01 for Windows NT 3.51 or 3.1x, you'll need to modify the file name/type associated with the **.xic** file name extension in

your Web browser. Change the file name/type association to **xicstart.exe** located in the **ncdsoft\pcxware** installation subdirectory.

- **PC-Xware 5.01 Web Enabled X Connections:** If you create PC-Xware 5.01 Web Enabled X Connections, associate **constart.exe** as the file name/type for the connection.
- **PC-Xware 5.01 Web Enabled X Connections and MS Internet Explorer:** PC-Xware 5.01's connections are kept in **.xcn** files. Microsoft Internet Explorer already knows that PC-Xware 5.01 is associated with that file type. To use PC-Xware 5.01 connections with Internet Explorer, you'll need to rename the connections from **.xcn** to **.wex**. Then, in Internet Explorer's **View → Options → File Types → New Type**, associate the **.wex** extension with PC-Xware's **constart.exe**.

### X Backgrounds

Because Windows doesn't accept X bitmaps as backgrounds, X applications can't set the screen background on the Windows desktop. This limitation only applies when **PC-Xware Configuration → General → X Applications** is *Run on the desktop*.

### NCD Terminal Console

For NCD Network Computer users, you'll find the familiar NCD Console by running "**<path>xncd.exe console**" from **Start → Run**, where **path** is the PC-Xware installation directory.

### Password Support

The ability to save login passwords with connections is on by default. To turn this capability off:

1. Select Shutdown PC-Xware from the PC-Xware Services icon.
2. Select **Start → Programs → MS-DOS Prompt**.
3. Move to the PC-Xware installation directory.
4. Type `nopasswd.exe` in the MS-DOS window.
5. Type `exit` in the MS-DOS window.

### **MS Windows Color Palette and X Applications**

PC-Xware manages color with Windows palette manager. RGB pixel values are preset by Windows, 0 to black and 255 to white, and cannot be changed. X applications that require other color values for 0 and 255 will display colors incorrectly.

### **Performance**

- You can increase performance when moving and repainting windows by not displaying the contents of a window when you move or resize it. This capability is configurable in Windows. We recommend you right-click on the Windows desktop, select **Properties** → **Plus!** and turn off Show window contents while dragging.
- If your XDM broadcast connections take a long time to display the list of XDM capable hosts, check the name resolution settings of your TCP/IP software. If DNS is used but is incorrectly configured, lengthy XDM broadcasts can result.

### **Difficulty Running 16-Bit Applications**

PC-Xware can interfere with a few 16-bit applications, causing a General Protection Fault when any key is pressed. You can clear this problem by altering the **xware.ini** file located in the Windows System folder. Place the following code before the [NVRAM] statement in the **xware.ini** file:

```
[XWARE32]  
flags=1
```

As a result of this change to the **xware.ini** file, PC-Xware does not insert the “lower” command in the system/control menu of any Microsoft application window.

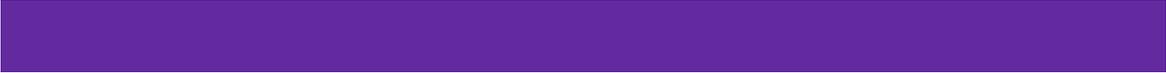
## Host-Specific Issues

### **PC-Xware and HP VUE, CDE, TriTeal TED Desktops**

These desktop X environments should be run with PC-Xware in single window mode (**PC-Xware Configuration → General → X Applications → Run** in a single window). In single window mode, you can get to your Windows taskbar and application shortcuts by iconifying or moving the PC-Xware screen. Because these environments use a remote window manager, set your local window manager to none.

If these applications are in *Run on the desktop* mode, you can only get to your Windows taskbar by pressing Ctrl+Esc.





# Chapter 3 PC-Xware Classic

for Windows NT 3.51

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## Features in This Release

PC-Xware version 5.01 for Windows NT 3.51 includes these features:

- **Support for Windows NT 3.51.** PC-Xware 5.01 supports Windows NT 3.5x.
- **Online User's Guide.** The *PC-Xware User's Guide* is an online Adobe Acrobat document. Select the PC-Xware Online Documentation icon in the NCD PC-Xware program group. For tips on using the Acrobat Reader, see "Viewing the Online User's Guide" on page 13 of these release notes.
- **Web-Enabled X.** PC-Xware provides the ability to start X applications by activating hot links or icons on your intranet Web pages. See Appendix C, "Web-Enabled X," in the online *PC-Xware User's Guide*. Connections created with PC-Xware

for Windows 95 or NT 4.0 are not supported on Windows NT 3.51.

- **XRemote over TCP/IP.** PC-Xware provides enhanced X application performance on serial networks (PPP and SLIP). See Appendix B, “Running XRemote,” in the online *PC-Xware User’s Guide*.
- **Use IP Address Instead of Name.** PC-Xware 5.01 enables you to refer to your PC by just its IP address. This is useful when your network is not configured with a DNS server or in DHCP or PPP Dialup Router environments, where a PC’s name may not match the dynamic address assigned to the PC. This feature is also helpful if you experience timeouts because your DNS host is a long distance away. By specifying the IP address, you prevent the DNS host from attempting to obtain the address by scanning all XDM broadcast hosts. See the explanation of the **Use IP Address Instead of Name** option in the section “Configuring PC-Xware Startup Options” in Chapter 3 of the online *PC-Xware User’s Guide*.
- **Key Mapper.** PC-Xware 5.01 uses a graphical, drag-and-drop keyboard mapper utility. Select the Key Mapper icon in the NCD PC-Xware program group. For instructions on using Key Mapper, see “Using Key Mapper” in Chapter 8, “Keyboard Mapping” of the online *PC-Xware User’s Guide*.

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## Installing PC-Xware

### Upgrading from a Previous Version of PC-Xware

1. Obtain the serial number and authorization code for your existing version of PC-Xware by doing one of the following:
  - See the registration card for your existing version of PC-Xware.
  - In PC-Xware, select **Configure → Authorization**.
  - Use a text editor to open the file **xware.ini** in your **windows** directory. The serial number is the value for the

**unit-serial-number** variable. The authorization code is the value for the **unit-authorization-code** variable.

2. Install PC-Xware 5.01. When prompted to enter a serial number and authorization code, specify the values you obtained in step 1.
3. Delete the old icons and PC-Xware program group.  
**Important:** Be careful not to delete the NCD PC-Xware program group, which is the new program group for version 5.01.

### Installing Over an Existing File Server Installation

You can avoid changing mount points on client PCs by keeping the 5.01 file server installation under the previous file server mount point. For example, if client PCs mount **j:** and access the existing file server installation from the directory **j:\xware3.0**, you can avoid changing mount points by installing into a directory one level above **j:\xware3.0** or in a subdirectory of **j:\xware3.0**. This allows client PCs to continue to access the file server installation on **j:**.

### File Server Installation

- **Diskette Installation:** If you use the File Server Installation from diskettes, the Client PC installation program must leave the files on the file server.
- **Using Class Manager:** We recommend that you do not modify the Standard Class—instead, use Class Manager to create a new class copied from the Standard Class.
- **Defaults for Client PC Installations:** Due to name length limits on Novell networks, **pcdefaults.exe** has been renamed to **pcdeflts.exe**.
- **Documents Directory:** File Server Installation requires that the directory named **doc** be writable. Windows creates **.gid** and **.fts** files in this directory when you use the online help.

### Installation Diskettes

If you need PC-Xware installation diskettes, see “Create Installation Diskettes” in Chapter 3 of the *PC-Xware Installation and Configuration Guide*.

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## Running PC-Xware

### **X Backgrounds**

Because Windows NT 3.51 doesn't accept X bitmaps as backgrounds, X applications can't set the screen background in **On the Desktop** mode (**Configure** → **Startup** → **Desktop**).

### **MS Windows Color Palette and X Applications**

PC-Xware manages color with Windows palette manager. RGB pixel values are preset by Windows—0 to black and 255 to white—and cannot be changed. X applications that require other color values for 0 and 255 will display colors incorrectly.

### **XDM Broadcast**

XDM Broadcast is now off by default. To turn XDM on, set **Configure** → **XDM** → **Type of Query at Startup** to **Broadcast** and restart PC-Xware.

### **Performance**

You can increase performance when moving and repainting windows by turning off **Control Panel** → **Desktop** → **Full Drag**.

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## Host-Specific Issues

### **DEC Pathworks Cterm and LAT Connections**

PC-Xware does not support Cterm (Command Terminal Protocol) or LAT connections. You cannot, therefore, build these connections to your host. The **Build** → **DECnet** → **Cterm** tab and **Build** → **DECnet** → **Lat** are grayed out.



# Chapter 4 PC-Xware Classic

for Windows 3.1x

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## Features in This Release

PC-Xware version 5.01 for Windows 3.1x includes these features:

- **XRemote Over TCP/IP.** PC-Xware provides enhanced X application performance on serial networks (PPP and SLIP).
- **Use IP Address Instead of Name.** PC-Xware 5.01 enables you to refer to your PC by just its IP address. This is useful when your network is not configured with a DNS server or in DHCP or PPP Dialup Router environments, where a PC's name may not match the dynamic address assigned to the PC. This feature is also helpful if you experience timeouts because your DNS host is a long distance away. By specifying the IP address, you prevent the DNS host from attempting to obtain the address by scanning all XDM broadcast hosts.

## Installing PC-Xware

### Installation Diskettes

If you need PC-Xware installation diskettes, contact the NCD Sales Department at 1-503-641-2200.

### Installing PC-Xware Over an Existing Version

If an earlier version of PC-Xware for Windows 3.1x is already installed on your system, the new version inherits application icons, serial number, installation directory, and configuration.

For detailed instructions about upgrading from a previous version of PC-Xware, see your *PC-Xware Installation and Configuration Guide*.

### Installing From a File Server

You can install PC-Xware on a file server, then install and run PC-Xware on individual PCs. This method is faster than installing from the CD or floppy disks. See “File Server Installation” on page 8.

### Re-Installing a Previous Version of PC-Xware

If a previous version of PC-Xware existed when you installed PC-Xware 5.01, you were given the opportunity to install 5.01 in a new directory, thus preserving your previous installation. If you chose to preserve the previous installation, backup copies of **XWARE.INI** and **PCXWARE.GRP** are in the Windows directory:

**XWARE.IN** → **XWARE.000** (or appropriate number)  
**PCXWARE.GRP** → **OLDPCX.GRP**  
**SYSTEM.INI** → **SYSTEM.000** (or appropriate number)

To use the previous version:

1. Exit Windows.
2. Copy **XWARE.000** to **XWARE.INI**.
3. Copy **OLDPCX.GRP** to **PCXWARE.GRP**.
4. Copy **SYSTEM.000** to **SYSTEM.INI**.
5. Restart Windows.

If you intend to return to PC-Xware 5.01, make backup copies of **XWARE.INI** and **PCXWARE.GRP**.

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## Configuring Networks

### Changing Network Software

PC-Xware installs only the network module needed for your selected network type. If you change network software, you must install a different PC-Xware network module. For more information, see the “Changing Network Software” section in Appendix A, “Troubleshooting Network Connections,” in your *PC-Xware Installation and Configuration Guide*.

### PC-Xware Configuration

The default PC-Xware configuration uses two TCP and one UDP network sockets. Ensure that your network software has additional sockets available for each X application. PC-Xware options such as **Network Audio** or **Remote Configuration** also reserve additional sockets.

### DEC Pathworks 4.1

When installing PC-Xware for DECnet 4.1, choose **DEC Pathworks DECnet**. Then add this line to the **WINSTART.BAT** file, or create that file, in the Windows directory:

```
C:\PCXWARE\IFDECNET.EXE
```

where C:\PCXWARE is the PC-Xware installation directory.

If you run DECnet and TCP/IP, choose **DEC Pathworks DECnet with TCP/IP**. Add this line to the **WINSTART.BAT** file in the Windows directory:

```
C:\PCXWARE\IFDNWTCP.EXE
```

### Frontier Technologies

If you experience problems when using Frontier Technologies SuperTCP v4.x with PC-Xware, add this line to the [kernel] section of the **supertcp.ini** file:

```
MemCompactBeforeAlloc=0
```

### Windows Sockets (WINSOCK)

Ensure that you have only one **WINSOCK.DLL** file in your DOS path. Some network installations may place this file in your Windows directory.

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## Running PC-Xware

### System Resources

PC-Xware 5.01 uses 13% less Microsoft Windows 3.1x system resources at startup than previous versions. If you run many resource-intensive Windows applications and need PC-Xware's resource usage reduced:

1. Run **xwconsol.exe** from the PC-Xware directory by selecting the Program Manager's **File** → **Run** option.
2. Select **Setup** → **Change Setup Parameters** → **X and Graphics** → **Minimize System Resource Usage**.
3. Click the Apply button, located in the lower left corner.
4. Restart PC-Xware.

**Note** Reducing PC-Xware's resource usage to this level may affect performance on some machines.

### Keyboard Mapping

If you use **ksymdef.h** to define keysyms, this file is now available for downloading from NCD's FTP site. (It was formerly available on the PC-Xware installation diskettes.) For access instructions to the FTP server, see Appendix C, "Product Support," in the *PC-Xware User's Guide* online manual.

### Keymap File for DEC Keyboards—**lk450.xkb**

PC-Xware provides a sample keymap file that redefines a US PC keyboard to a DEC lk450 keyboard. The **lk450.xkb** file is supplied in the same manner as the **lk401.xkb**. For instructions on installing **lk402.xkb**, see "Keymap File for DEC Keyboards," described in Chapter 8, "Utilities," of your *PC-Xware User's Guide* online manual.

**XDM Broadcast**

XDM Broadcast is now off by default. To turn XDM on, set **Configure → XDM → Type of Query at Startup** to **Broadcast** and restart PC-Xware.

**Font Server Port**

PC-Xware 5.01's default font server port is 7100. This is the default port for X11R6 font servers. If your font server is X11R5, use port 7000.

**Terminal Emulator Keyboard**

The *PC-Xware Installation and Configuration Guide* incorrectly shows the Terminal Emulator Keyboard as a configurable item. PC-Xware 5.01 does not include this item and you cannot configure it during installation.

**Memory Requirements**

This version of PC-Xware requires approximately 10K of low DOS memory in addition to the memory used by your underlying network software. For example, FTP v2.2 requires 85K of additional low DOS memory.

**Local X Resources**

In PC-Xware v1.03, you could specify the X resource file in the **CHANGES.USR** file by including this line:

```
xserver-initial-x-resources = `#include  
path\resources_file`
```

where *path* is the path to the X resource file and *resource\_file* is the file containing X resources for local X clients.

You can still specify the X resource file in PC-Xware v5.01, but you must first enable the local X resources file. Go to **Configure → Startup → Options → Local X Defaults** and check the *Enable Local X Defaults* box. Restart PC-Xware and, the next time the local X application runs, local X resources are used.

**PC-Xware Icons and PC-Tools for Windows**

You can't access icons created with PC-Xware while PC-Tools for Windows desktop software runs. NCD recommends that you create PC-Xware icons while PC-Tools for Windows is not running.

### **Pentium PCs Stop When PC-Xware Starts**

When running Windows for Workgroups v3.11, the serial driver on Pentium PCs can't open a COM port. Since PC-Xware opens all available serial ports on startup, your PC may stop running if you start PC-Xware.

If your PC has a 16550AF UART serial chip set, you can contact Gateway's BBS (800/846-7562) and download the SERIAL.386 file.

If your PC uses a different serial chip set:

- Manually edit the **CHANGES.USR** file in PC-Xware's **CONFIGS** directory.
- Add the `serial-test-for-com1 = false` parameter for COM ports 1 through 4.

### **ATI Graphics Ultra Display Driver Family**

If images incorrectly display (for example, xgif images), use one of these methods to correct the image display:

- Run **FLEXDESK**, the ATI driver configuration program, to configure the driver differently. Under the advanced options heading, change device bitmaps from 'on' to 'off'.
- Edit the appropriate file:
  - If your system contains an **ATI Mach32** board: Edit the **WIN.INI** file in the **WINDOWS** directory. In the [mach] section, change `DeviceBitmaps=ON` to `DeviceBitmaps=OFF`.
  - If your system contains an **ATI Mach64** board: Edit the **SYSTEM.INI** file in the **WINDOWS** directory. In the [mach] section, change `DeviceBitmaps=ON` to `DeviceBitmaps=OFF`.

You can download a later driver from the ATI BBS (905/764-9404).

**Hercules Graphics Station Video Adapter**

When using this adapter, PC-Xware may conflict with the video card. To prevent conflict, add this line to the PC-Xware configuration file (**CHANGES.USR** by default):

```
serial-test-for-com3 = false
```

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## Host-Specific Issues

PC-Xware 5.01 for Windows 3.1x does not have any host-specific issues other than those listed in the section “Host-Specific Issues” on page 11.

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