Xycom Automation™ OpenHMI™

Getting Started

Revision	Description	Date
A	Preliminary Manual	1/99
B	Manual Released	2/99
C	Revision	3/99
D	Revision	4/99

C H A P T E R   1

Welcome to OpenHMI™

Welcome to the quickest and easiest way to create human-machine interface (HMI) applications for the Microsoft® Windows™ operating systems. Using **OpenHMI**, the application developer can create powerful, full-featured applications that exploit the key features of Microsoft Windows, including Dynamic Data Exchange (DDE), Object Linking and Embedding (OLE), graphics, and more. **OpenHMI** can also be extended by adding custom wizards, generic objects, and script extensions.

The **OpenHMI**™ application software consists of two parts: the development system (software running on a desktop, laptop, or industrial PC) and the runtime workstation (an OpenHMI operator interface workstation). You install the OpenHMI software on the PC you would like to use for a development system. The runtime software is preloaded on the OpenHMI workstation. On the development PC you can use the **OpenHMI** software's **WindowMaker** to create animated operator interface display windows.

These operator interface display windows can connect to industrial I/O systems and other Windows applications in the OpenHMI runtime environment—an **OpenHMI workstation** with the **WindowViewer** runtime software. After you complete an HMI application in **WindowMaker**, you download the displays to the **OpenHMI** runtime workstation and run them with the OpenHMI software's **WindowViewer**. The **OpenHMI workstation** processes scanned data from the connected devices according to parameters defined in your application and displays the data in the graphic display windows.

Note: OpenHMI is a modified version of the popular commercial HMI software package, InTouch® by Wonderware® corporation. For this reason you will see references to InTouch on the software's dialogs and editors. For the purposes of developing your application with OpenHMI software supplied by Xycom Automation, you may consider references to InTouch and OpenHMI as references to the same software product.

Note: Applications built with **OpenHMI** software can only run on a Xycom Automation **OpenHMI** workstation.

Note: After you install the development software, you can access more comprehensive documentation on the OpenHMI WindowMaker by accessing the PDF documentation through the shortcut on your development PCs desktop.

System Requirements

To develop an OpenHMI application with the OpenHMI software, we recommend the following:

- Any IBM compatible machine with an 5x86 processor or higher

- At least 100MB of free hard disk space

- At least 16MB of random-access memory (RAM)

- SVGA display adapter

- Parallel printer port

- Pointing device (e.g., mouse, trackball, joystick)

- Windows 95 or Windows NT operating systems

To run a developed application, you must have an OpenHMI workstation with a runtime license.

Configuration Package Contents

In addition to this Getting Started guide, your configuration package should contain the following items:

- **OpenHMI Software (on two CDs labeled, "OpenHMI, Productivity Pack" and "I/O Servers")**

- **Configurator License (on floppy diskette labeled, "consign 1000 tag/100 window")**

- **Universal serial file transfer cable**

- **Registration card**

- **Read Me First sheet**

Installing the OpenHMI Software

OpenHMI software runs on Microsoft® Windows® 95 or Windows NT operating systems. The installation program creates directories as needed, copies files to your hard drive, and creates the **OpenHMI** icons in a desktop folder.

*To install* ***OpenHMI*** *on a Windows 95 or Windows NT operating system:*

Note: If your laptop or PC does not have a CD-ROM drive available, make sure that you have a portable CD-ROM drive (and appropriate device drivers installed) attached to the printer port and powered on.

1. Power up your development PC with Windows NT or 95.

2. Insert **OpenHMI CD#1** into your CD-ROM drive.

3. Click the **Start** button on the **Taskbar**, then click **Run**:

4. The **Run** dialog box appears:
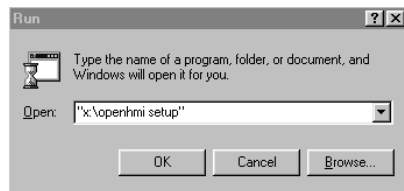
5. Type **"x:\openhmi setup"** (*x* your CD-ROM drive) in the **Open** text box. You must type the quotes, or the installation program will not start.

6. Click **OK**. Factory Suite 2000 will start to load. A percentage bar will display the installation's progress.

7. When the "Welcome to the system files setup program." screen appears, click **Next,** then **Next**, again, at the second welcome screen.

    Note: The installation program will update existing registry entries (for TCP/IP, user registration, DLLs, etc.). Depending on the existing entries on your development system, these registry updates may cause the Windows operating system to restart the workstation before the installation is complete. If you have not selected components (step 15) *before* you are asked to restart the operating system, you will have to follow the installation procedure, again, from the beginning.

8. When the license information screen appears, click **Yes**, if you agree with the terms of the license. You must select "Yes" to complete the setup.

9. Enter your name and company to complete the user information screen and click **Next**.

10. Click **OK** to verify the name and company.

11. When prompted to specify a directory for common components, click **Next** to accept the default. The installation program will display a progress bar as it loads some common program components.

12. If you get a "Version Conflict" message, click **Yes** to keep the existing file.

13. When prompted to specify an Intouch Destination directory, click **Next** to keep the default.

14. If you don't already have the Acrobat Reader installed on your system, a sequence will begin to install the Acrobat Reader onto your system. This reader allows you to view the online documentation that the install program saves to hard disk in PDF format. Click **Next** through each step of this sequence, then **OK** when the sequence is complete.

15. Select components when prompted. Xycom Automation recommends:
    Intouch
    Demos that match your OpenHMI workstation's resolution (640 x 480 or 800 x 600)
    Intouch 7.0 Recipe Manager
    Online Manuals
    When you finish selecting components, Click **Next**.

    Note: The SPC and SQL components are not supported by the OpenHMI runtime workstations.

16. When the configuration options screen appears, verify that **Development System** and **Help Files** *are checked* and that Factory

Focus and Runtime *are not checked*, then click **Next**. The installation program will copy the remaining files to the hard drive.

17. A screen will display the components that you have selected to install. Click **Next** to continue. The installation program will display a progress bar as it completes installation.

18. When installation is complete, you may select **OK** to review the release notes.

19. Before you can start the development software, you must click **OK** when prompted to restart the computer, so that the required settings may take effect.

Note: Setup can be run as many times as necessary to install optional program modules or I/O Servers.

Installing an I/O Server

The WindowViewer software, preloaded on your OpenHMI runtime workstation, acquires the data values from PLCs and other devices through I/O Servers that support the Windows DDE protocol. You must install an I/O server that corresponds to your I/O device onto your development system. Through I/O server configuration, you will specify the parameters that are required for communication between your I/O and workstation.

Note: This procedure is given for your information when developing a real-world application. The demo application covered by this Getting Started Guide uses a simulated server that is automatically installed with the development software.

Version 7.0 Servers

Follow these steps to install a version 7.0 I/O server.

1. Insert **OpenHMI CD#2** into your CD-ROM drive.

2. Click the **Start** button on the **Taskbar**, then click **Run**:
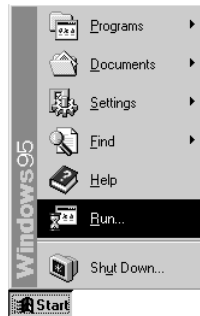
3. The **Run** dialog box appears:
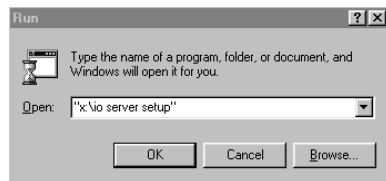
4. Type **"x:\io server setup"** (*x* is your CD-ROM drive) in the **Open** text box. You must type the quotes, or the installation program will not start.

5. Click **OK**. Factory Suite 2000 will start to load. A percentage bar will display the installation's progress.

6. When prompted with a list of I/O servers, *select a server* and click **Next**.

    Note: The versions of the servers are indicated on the server list. If you select a server that is below version 7.0, then the rest of the installation process will differ slightly from the installation of version 7.0 drivers. You may refer to the next section to complete installation of an older driver.

7. When prompted to verify setup information, click **Next**.

8. When prompted to review the I/O server release notes, in the next installation dialog, you may select **Yes** or **No**.

9. Click **Yes** to continue the installation.

10. When the "Welcome to the system files setup program." screen appears, click **Next,** then **Next**, again, at the second welcome screen.

11. When the license information screen appears, click **Yes**, if you agree with the terms of the license. You must select "Yes" to complete the setup.

12. Verify the name and company in the user information screen and click **Next**.

13. Click **Yes** to confirm registration.

14. When prompted to specify an Intouch Destination directory, click **Next** to keep the default. The I/O Server setup program will install the common components.

15. If you don't already have the Acrobat Reader installed on your system, a sequence will begin to install the Acrobat Reader onto your system. This reader allows you to view the online documentation that the install program saves to hard disk in PDF format. Click **Next** through each step of this sequence, then **OK** when the sequence is complete.

16. When prompted again to specify an Intouch Destination directory, click **Next** to keep the default.

17. You will be prompted to select the components to install. Click **Next** to accept the default of all components.

18. Click **Next** to verify setup information and complete I/O Server installation. The I/O Server setup program will install files for your specific server.

20. At the final prompt select **Yes** (then **Finish**) if you do not need to add more servers and **No** if you need to install more servers. The system will restart. If you selected "No", the system the installation program will close. After you have installed all required servers, you must restart the system, so that the required settings may take effect.

Installing Older I/O Servers (Versions below 7.0)

Note: These steps show how to complete I/O server installation if you selected an older driver in step 6 of the previous procedure.

1. When prompted to verify setup information, click **Next**.
2. When prompted to review the I/O server release notes, in the next installation dialog, you may select **Yes** or **No**.
3. Click **Yes** to continue the installation.
4. When the "Welcome to the system files setup program." screen appears, click **Next**.
5. When the license information screen appears, click **Yes**, if you agree with the terms of the license. You must select "Yes" to complete the setup.
6. When prompted to specify an Intouch Destination directory, click **Next** to keep the default.
7. You will be prompted to select the components to install. Click **Next** to accept the default of all components.
8. Click **Next** to verify setup information and complete I/O Server installation.
9. When prompted to add icons to the Windows Start menu, click **Yes**.
10. When installation is complete, click **OK** to exit the setup program.

Note: Depending on your system and other drivers that you have installed, you may have to restart the operating system.

Installing the Productivity Pack

Some advanced applications features will not function if the productivity pack is not installed.

1. Insert **OpenHMI CD#1** into your CD-ROM drive.

2. Click the **Start** button on the Taskbar, then click **Run**. The Run dialog box appears.

3. Type **"x:\productivity pack setup"** (x your CD-ROM drive) in the Open text box. You must type the quotes, or the installation program will not start. Click **OK**.

4. When the "Welcome to the system files setup program." screen appears, click **Next**.

5. When the license information screen appears, click **Yes**, if you agree with the terms of the license. You must select "Yes" to complete the setup.

6. Enter your name and company to complete the user information screen and click **Next**.

7. Click **Yes** to verify the name and company.

8. When prompted to specify a directory for common components, click **Next** to accept the default. The installation program will display a progress bar as it loads some common program components.

9. If you don't already have the Acrobat Reader installed on your system, a sequence will begin to install the Acrobat Reader onto your system. This reader allows you to view the online documentation that the install program saves to hard disk in PDF format. Click **Next** through each step of this sequence, then **OK** when the sequence is complete.

10. When prompted to specify an Intouch Destination directory, click **Next** to keep the default.

11. You will be prompted to select the components to install. Select the components you want to install, then click **Next**.

    Note: The SPC and SQL components are not supported by the OpenHMI runtime workstations.

12. Click **Next** to verify setup information and complete installation.

13. When installation is complete, the program will recommend that you read the release notes. Click **OK**.

14. At the final prompt click **OK**. The system will restart.

Enable Configurator License

Before you can run the installed **OpenHMI** software, you must run the program on the Open HMI Consignment license floppy diskette (labeled, "consign 1000 tag/100 window") that enables the program's software. (Runtime licenses for OpenHMI workstations are preloaded.) If you do not enable the license and attempt to run the software, the **OpenHMI** program displays a warning message and denies access.

Note: The configurator enables the WindowMaker software for a one-year period from date of manufacture.

Tag Database Size: The **OpenHMI** tag database supports up to 1,000 tags; however, the number of tags supported is dependent on the license information provided by the configurator (either 500 or 1000 tag license). The database may be limited to less than the maximum number of tags.

1. To open Windows Explorer, click the **Start** button on the Taskbar, and then select **Programs** and **Windows Explorer**.

2. Insert your Xycom Open HMI Consignment license disk into the A: drive of either your laptop or your PC.

3. Click on 3 ½ floppy (A:) icon in Windows Explorer.

4. Double-click on Install.bat. A license utility-Lic View screen will appear.
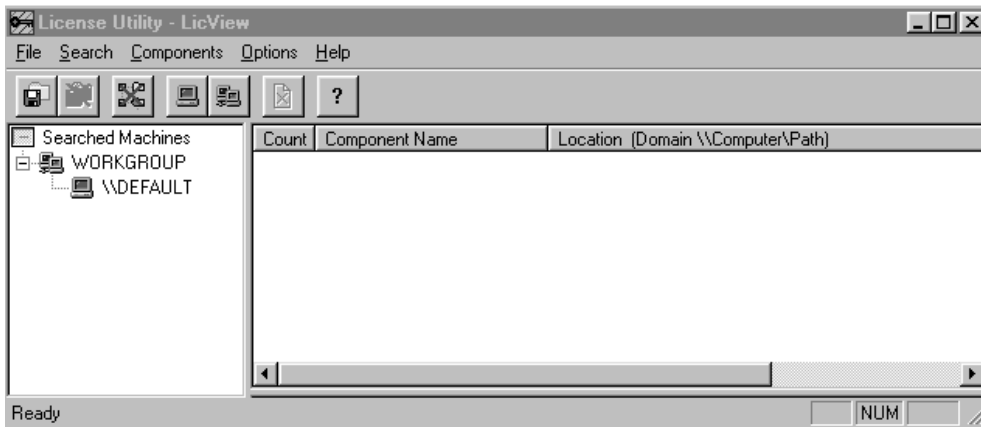
5. From the *File* menu, select *Install License File*.
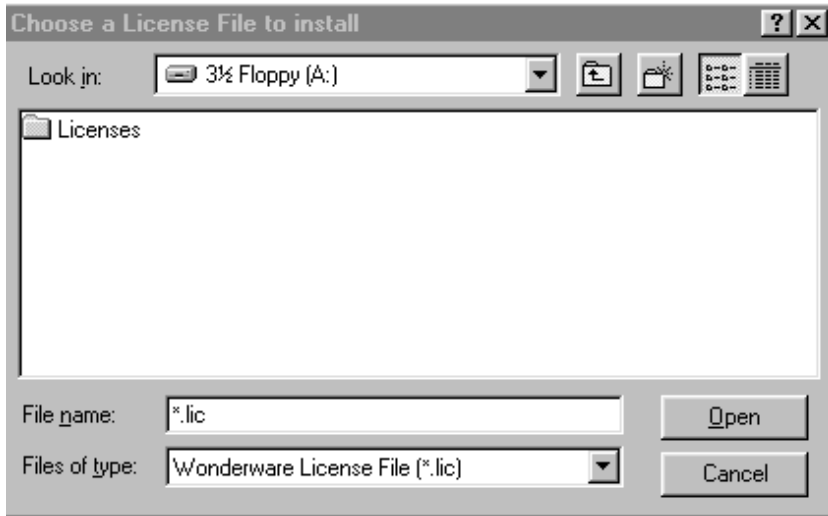
6. Select **3 ½ Floppy (A:)** from the **Look in** drop-down list.

7. Double-click on the license folder in the Window. You will see two files: IO Server.lic and Wwsuite.lic.

8. Select *only* the **Wwsuite.lic** file and click **Open**. Information about destination computer and domain computer will appear.
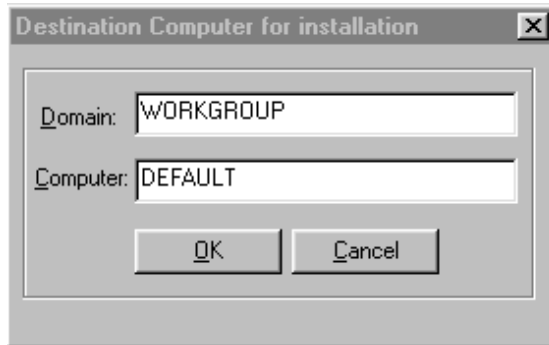
**Note:** If the Domain and Computer name do not appear, contact your system administrator for the correct information.

9. Click **OK**.

10. If a license already exists on the PC, you will be prompted to overwrite, append, or cancel the license. You should select Append (the default).

11. Click **OK**. The files have successfully loaded.

12. Close the License Viewer (licview.exe) program. You are finished.

Creating Your First Application
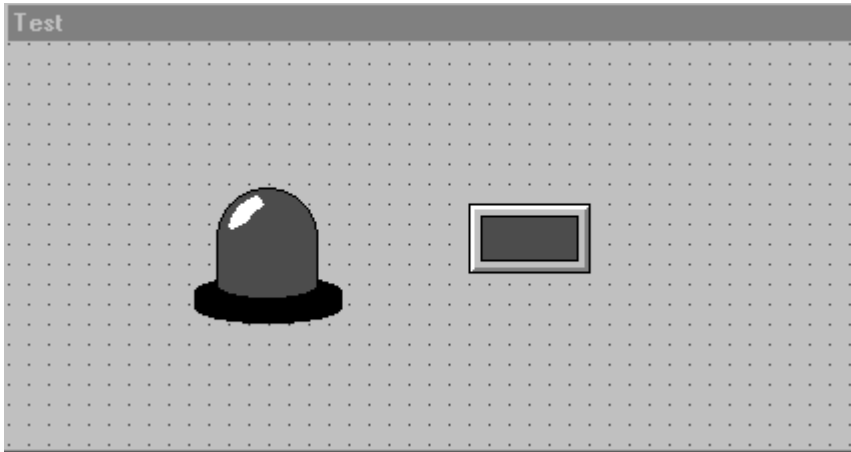
This *Getting Started with OpenHMI* guide is designed for **first time** users of **OpenHMI**. Its objective is to allow you, the user, to quickly familiarize yourself with the basic functions of **OpenHMI**. It acts as a step by step "workbook" in which you go through the process required to create your first working **OpenHMI** application. This tutorial will include creation of the application, the window/screen, graphic components, animation links and the database. For more detailed technical information refer to the **OpenHMI User's Guide**.

Throughout this guide you will see checkboxes (☐) followed by **bold text**. These checkboxes and text indicate the development steps required to complete this application. You can place a check mark in these boxes as you proceed so that no steps will be omitted. This allows you to complete the application at your leisure, taking time to read the text.

⏣**Hint** This symbol implies that the following text is a hint, useful in creating future applications.

If you are unfamiliar with Windows 95 or Windows NT, we suggest that you first select <u>Help</u> from the Windows Start menu before you continuing with this guide.

Let's Get Started

This is a simple application that quickly runs your through all the major steps to develop and run an HMI application. For more information on in-depth applications, take a look at the demo applications included with your **OpenHMI** software.

To create your first application:

☐ In Windows 95 or Windows NT, select the **OpenHMI** icon from the *Start/Programs/Wonderware Factorysuite/Intouch* folder.

The following dialog box appears:
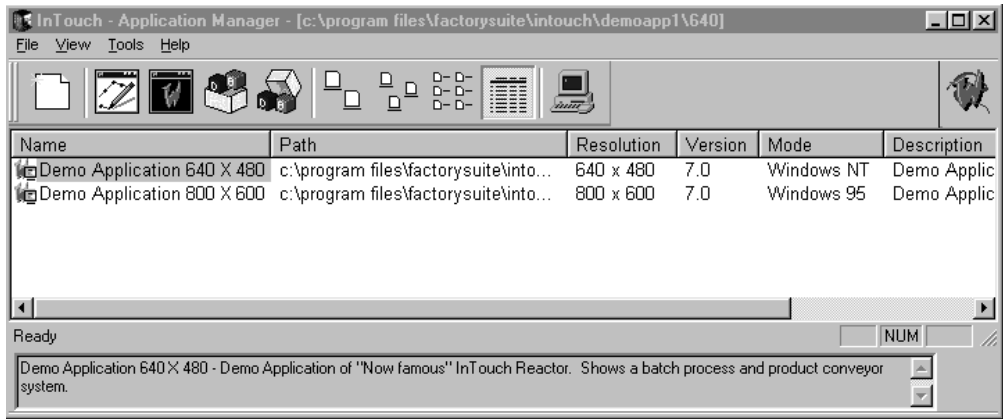
Note: For complete details on this dialog box, see the **InTouch Application Manager** section.

☐ Click the **New** button to create a new application directory.

☐ After a welcome screen (click **Next**), the manager will prompt you to specify a directory for the application's files. Click **Next** to accept the default.
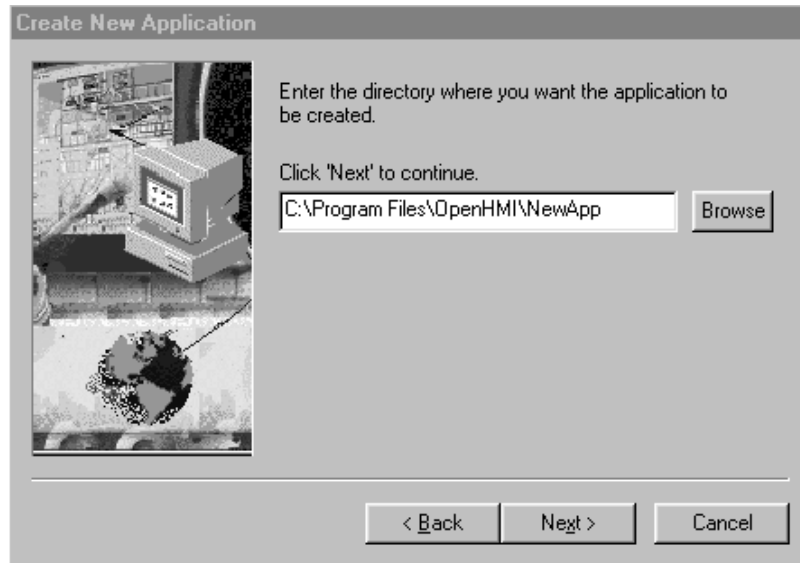
☐   The next dialog will prompt you to enter a **Name** and application description. For the name enter **NewApp**.

☐   Click **Finish**. NewApp will appear in the Application Manager list.

⌐ **Hint**   To avoid confusion when creating new applications, use the same application and directory name.

Build a Window

☐   Highlight **NewApp** in the Intouch Application Manager.

☐   Click on the **WindowMaker** button [icon] to run the **OpenHMI** development environment.

An **OpenHMI** application is built as a set of related windows or screens that are created in **WindowMaker**, the development environment. A window may occupy all or only a portion of the screen as required by the application. The number of windows that can be displayed at one time is governed by the size of the windows in relation to the space available on the screen. The runtime environment of **OpenHMI** is called **WindowViewer**. This is the environment that displays what was created in **WindowMaker** and maintains communication links.

☐   If prompted for Network Interface Selection, click **Done**. The WindowMaker will appear.
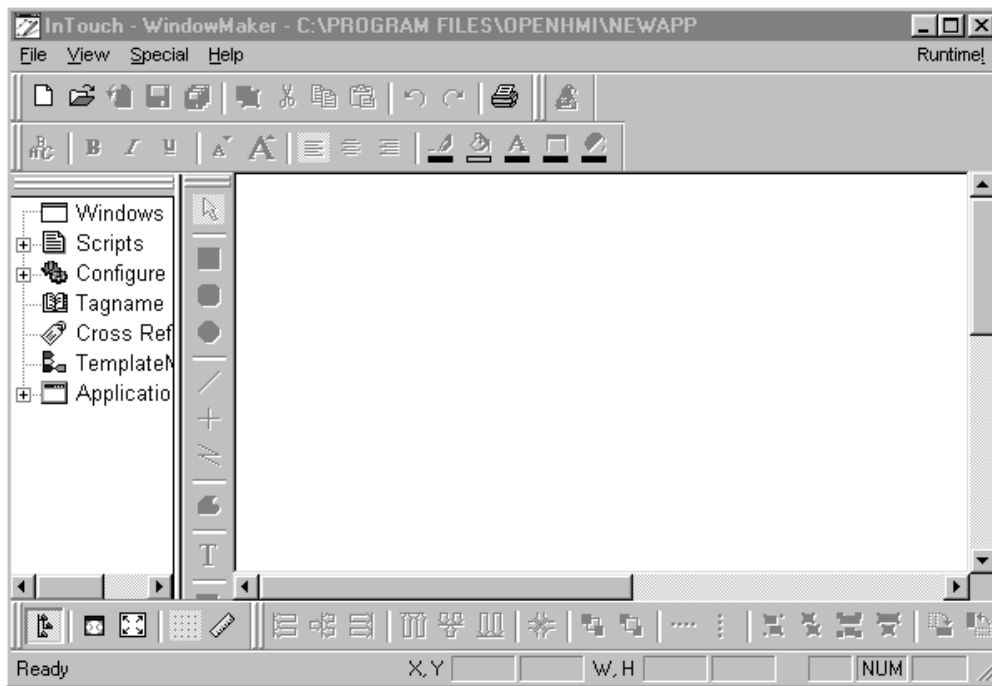
☐　　To create your first window, choose the *File/New Window* command to open the **Window Properties** dialog box:
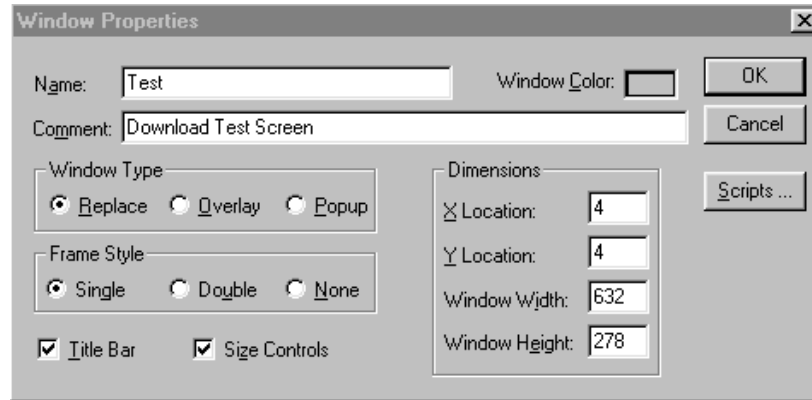
Note: You cannot select the **Double** or **None** Frame Styles radio button when **Title Bar** and **Size Controls** are checked.

☐　　Enter *Test* as the **Name** and *Download Test Screen* as the **Comment** that you want to appear in the title bar of the window. Click the **Window Color** box to select a background color for the window. The color palette appears. Click on the color you want to use.

All other fields/options can be left at the default values for this exercise. For detailed information concerning these window options, refer to the program's online help (accessed through the help menu) or the online PDF documentation (accessed through the shortcut on your desktop).

☐　　Select **OK** when finished with the selections.

⊕**Hint**　A window's type, logic and properties can be changed whenever it is open in **WindowMaker** by invoking the *Windows/Window Properties...* command.

What is a Window Type?

A **"Replace"** window replaces any window(s) (including popups) that it touches when it appears. Any intersected window is automatically removed from the screen and its associated "tags" are no longer polled.

An **"Overlay"** window appears on top of currently displayed window(s) (except pop-ups). When an overlay window is closed, the window(s) that were hidden by it reappear. Clicking on a visible portion of a window

beneath an overlay window will cause that window to be brought to the foreground as the active window.

A **"Popup"** window is similar to an overlay window except that it always stays on top of all other open windows, even if another window is clicked on. Popup windows usually require a response from the user in order to be removed (i.e., acknowledging alarms).

⌐**Hint** Whenever possible, use Replace type windows. Replace windows will remove any window(s) it touches, improving performance by not having to poll the "points" that were on the previous window(s) PLUS the "points" on the new window being shown.

Creating the Graphic Objects

Now that you have a window on the screen, the **WindowMaker** toolbox should be visible. If you do not want the grid to show, click on the **Snap to Grid Tool** ▦ in the **View** toolbar. (Default location of this toolbar is the lower left corner of the WindowMaker editor. The **Snap to Grid Tool** turns the visible grid off in addition to turning off the snap function.

⌐Hint The key combination, Shift+F1, will cause a question mark (?) to appear on the cursor. Click on any menu item or tool in the toolbox for quick, on-line help.

☐   To begin, select the Wizard icon 🔺 from the toolbar.
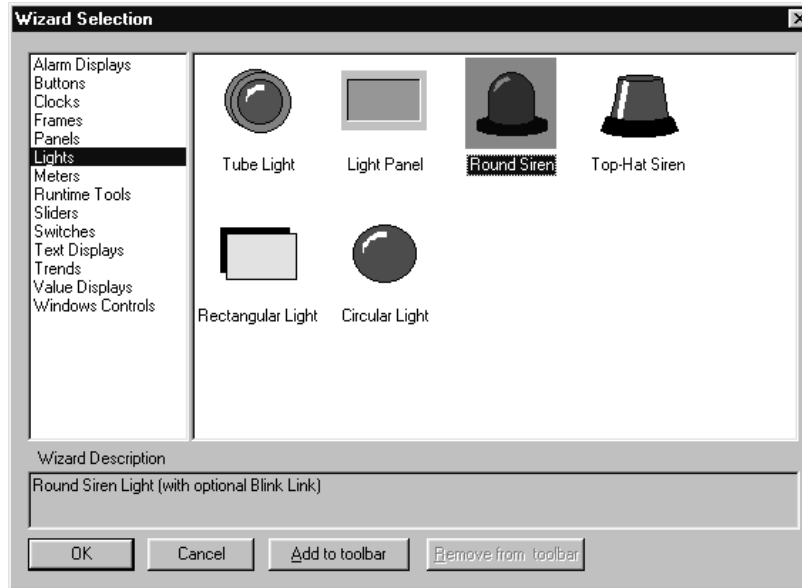
☐   In the Wizard Selection dialog that appears, select Lights in the left pane and then double-click on the Round Siren icon.

☐   The arrow cursor will change: ⌐ ᴡ. Move the cursor in the window area to select a position for the siren.

☐   Click the left mouse button to place the siren.
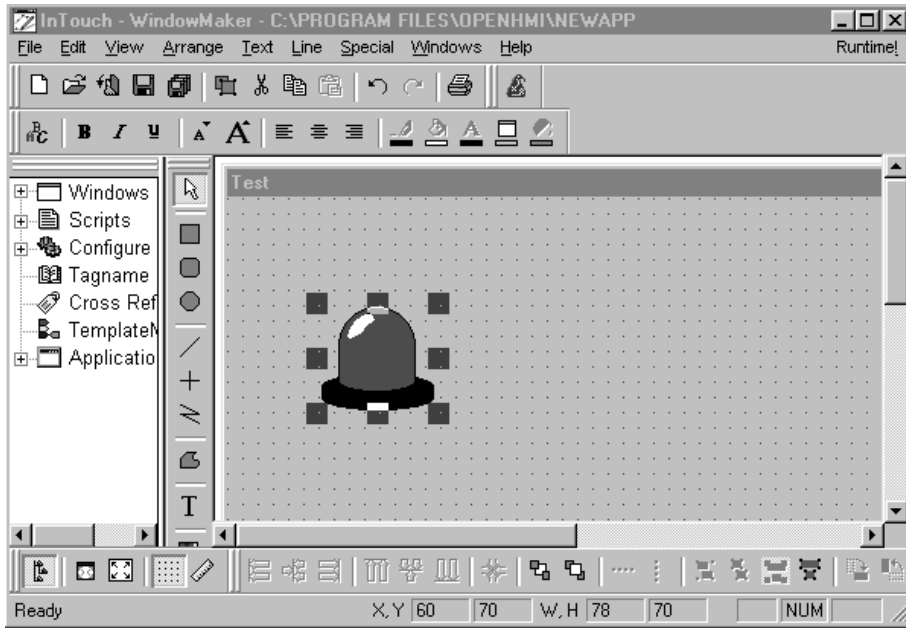
☐   Double-click on the Round Siren light. The Light Wizard dialog appears.

☐   To complete the Light Wizard dialog that appears, replace the default value in the **Expression** field with *Light*, then click **OK**.
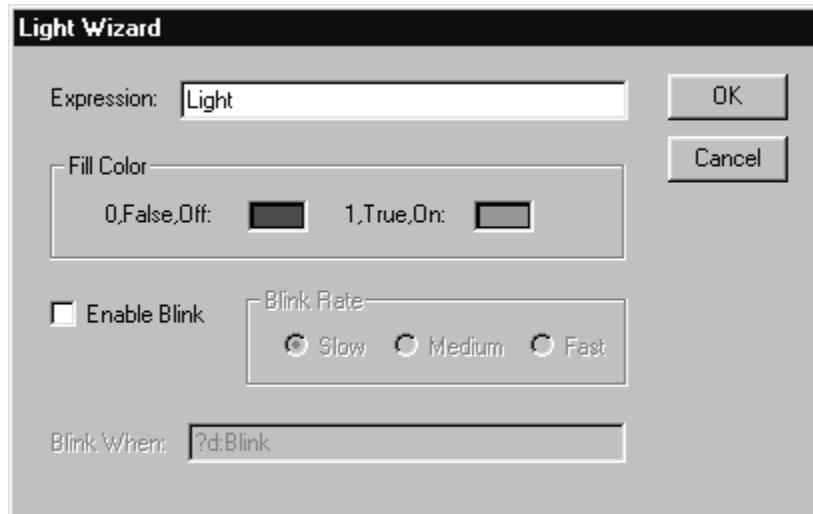
☐　When prompted, "Define Light 'Tagname Undefined'," click **OK** to open the Tagname Dictionary.
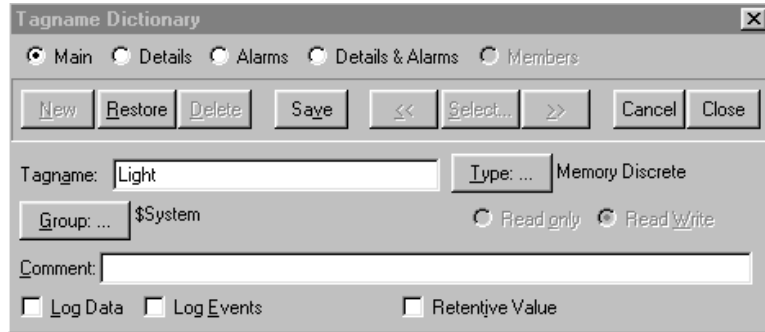
☐　Select **Close** to accept the default values for the tag, Light.

　　　✏**Hint**　Detailed information concerning the other fields in this dialog box may be found in the program's online help (accessed through the help menu) or the online PDF documentation (accessed through the shortcut on your desktop)..

☐　To add the second instrument, select the Wizard icon ▨ from the toolbar.
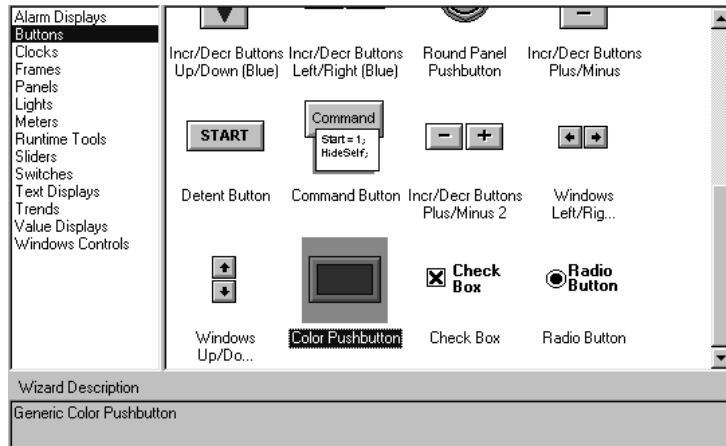
☐　In the Wizard Selection dialog that appears, select Buttons in the left pane and then double-click on the Color Pushbutton icon.

☐   Place the pushbutton, then double-click on it to open the Pushbutton Wizard dialog.

☐   Enter *Light* in the **Tagname** field.

☐   Under Action, select the **Toggle** radio button.

☐   Check the **Key equivalent** box and then click **Key...** and select *F7* as the key equivalent.
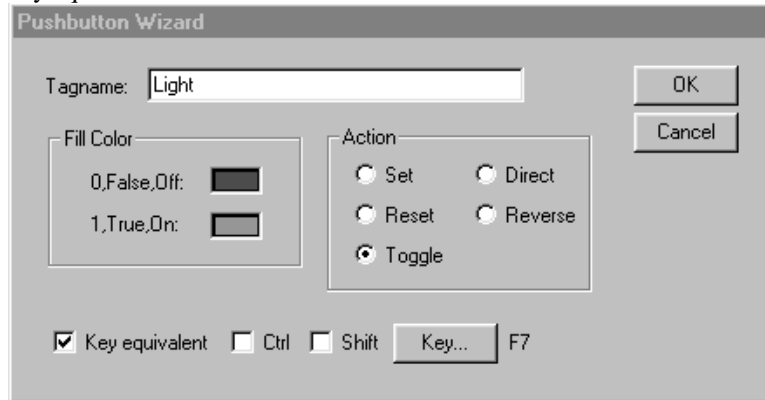
☐   Click **OK**.

☐   Select *Save Window* from the *File* menu.

☐   When prompted to save *Test*, click **OK**.

> **Optional:** To verify that NewApp functions correctly, select the **Runtime** menu item (in upper right corner of WindowMaker). This menu selection opens the application in the WindowViewer. If the application is configured correctly, you should be able to click on the pushbutton with the arrow cursor and see the siren and button change color. To exit the WindowViewer and return to the WindowMaker, select the **Development** menu item (in the upper right corner of the WindowViewer).

☐   **Establish Test as a home window (optional)**. Windows that you specify as home windows for you application will automatically open when you start the application. For this sample application this step is optional, but you may want to follow these short bulleted steps to become familiar with the process.

- In the left pane of the WindowMaker, expand the **Configure** item by double clicking on the **Configure** icon.

- Under the Configure item, double-click on the **WindowViewer** icon. The WindowViewer properties dialog appears.

• Click on the **Home Windows** tab.
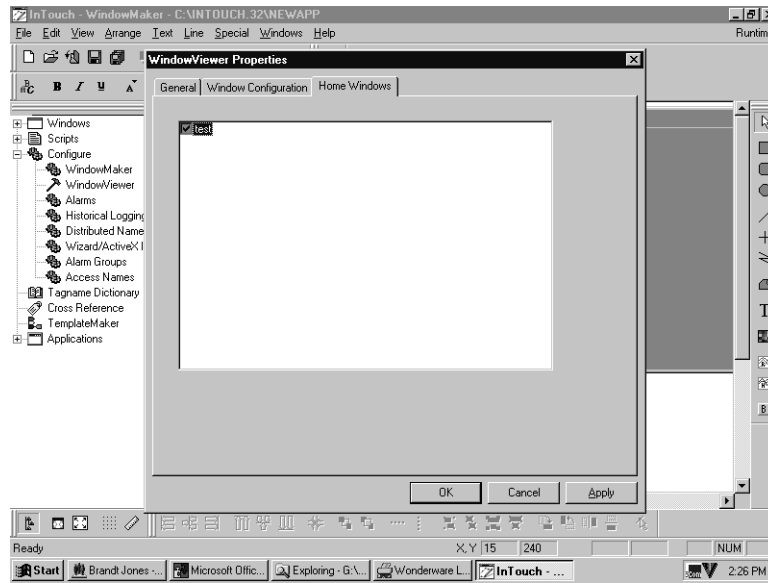
• Click on the **Test** checkbox, so that a check appears.

• Click **OK**.

☐   Select *Exit* from the *File* Menu.

You have now completed development of the test **OpenHMI** application.
Next, you will need to download the application to the runtime workstation.

Runtime Workstation Quick Start-up

Before you download applications to your runtime workstation, follow these steps to get the system running.

Note: Do not attach a PS/2 mouse to touchscreen units. The mouse port is not available on touchscreen units. If COM2 is not being used (by the IrDA port or another serial device) on a Windows 95 system, you may connect a serial mouse to the unit. COM2 will be disabled on touchscreen models with a Windows NT operating system.

Note: To meet compliance for hazardous locations ratings, OpenHMI workstations do not include powercords. You will need to follow the instructions to create a power cord in your OpenHMI System Guide.

Warning: Disconnect the powercord before making any adjustments to the inside or outside of the computer.

Perform the following steps before downloading a developed OpenHMI application to the workstation:

1. Attach optional equipment (a floppy drive is required to download the sample application in this manual, refer to the System Guide for more information):

2. Create a power cable (refer to System Guide).

3. Turn on power to the unit. The system will boot up.

4. If you have a unit with an STN display you will need to adjust the display contrast. (TFT displays don't require adjustment; the unit automatically adjusts the contrast.) On units with keypads, press and hold the F/A key, then press the left or right cursor keys to increase or decrease contrast. On units without keypads use the controls located below the flat panel display.

5. Before the Windows operating system will start, the Windows Setup Wizard appears. The first dialog prompts you to enter your Name and Company.

6. When the license agreement appears, click **Accept** to agree to the terms and continue the load and installation. (If select Don't Accept, the operating system will shut down.

7. When prompted for your Product ID, you must locate the Windows operating system backup kit (shipped with the unit) and type in the Product ID on the package.

8. Click **Next**.

9. Answer **Yes** to all prompts about keeping newer files.

10. Click **FINISH** to complete the load and installation.

11. Enter your Windows username and password:

Note: You can omit the password at this time and assign it later: click **OK**.

12. New screens will appear:
- New Hardware Found

- Copying Files

- Version Conflicts (click **Yes** when prompted with version conflict dialog windows)

13. Date and Time properties appear. To change the time zone, click on the drop down box and then choose the appropriate zone.

14. Add the Printer Wizard:
- Ask your IS Department and follow instructions or consult your printer manual.

- Click **Next**. If no printer is attached, click **CANCEL**.

15. The Welcome to windows screen appears. Either take the optional tour or click **CLOSE**.

Transferring the Application to the Workstation

Depending on your operating system and the networking options available to you, you can transfer your application through many different media. This sample application fits easily on a floppy diskette. Larger applications may require a compression program or alternate download method. For any application that you create, you should refer to the downloading instructions in chapter 3 and determine the best method for your application.

To load your test application, *NewApp*, onto the workstation, this section will cover a transfer with floppy diskette. First, you will copy the application from your development PC to a diskette, then you transfer the application to the workstation.

Copy Application from Development PC

☐ Insert a blank, formatted diskette into the development PC's floppy drive.

☐ Click the **Start** button, then select the **Windows Explorer** icon from the **Programs** folder.

☐ Under the **C-drive** (in the left pane of the Windows Explorer), expand the **Program Files** folder, then expand the **Factory Suite** folder, then select the **InTouch** folder.

☐ Select the folder **NewApp** (in the right pane of the Windows Explorer) and drag it to the A drive icon (in the left pane of the Windows Explorer).

☐ After the copying finishes, remove the diskette and label it, *NewApp*.

Transfer Application to Runtime Workstation

☐ Insert the diskette (with NewApp copied onto it) into the runtime workstation's floppy drive into the runtime workstation.

☐ Click the **Start** button, then select the **Windows Explorer** icon from the **Programs** folder.

☐ Under the **C-drive** (in the left pane of the Windows Explorer), expand the **Program Files** folder, then expand the **Factory Suite** folder.

☐ Select the **A-drive** icon.

☐ Select the folder **NewApp** (in the right pane of the Windows Explorer) and drag it to the **InTouch** folder (under *c:\program files\factory suite*, in the left pane of the Windows Explorer).

☐ After the copying finishes, you may close or minimize the Windows Explorer to return to the desktop.

Launch the Test Application on Runtime Workstation

☐   Double-click OpenHMI shortcut on the Windows desktop.

☐   On the **Tools** menu, click **Find Applications**. The Starting directory for search dialog box appears. Make sure that the **Look in** drop-down list specifies the *c:\Program Files\FactorySuite\Intouch* directory.

☐   Select the **NewApp** folder in the main window and click **OK**.

> **Note:** Although other icons will appear on the main toolbar, the WindowMaker is not licensed to run on an OpenHMI workstation.

☐   Click on the WindowViewer icon.

☐   You may be prompted to convert screen size. You should select **Yes** to answer this prompt.

☐   *If you are launching the application on a Windows 95 workstation*, a node screen appears. Click **Cancel**.

☐   When the **Windows to Show** dialog appears, select the **Test** check box and click **OK**. (This dialog will not appear if you have specified Test as a Home window.)

☐   The WindowViewer appears and displays the **Test** window. The pushbutton and siren will toggle between two colors when pressed through touchscreen input or an F7 keypress.

☐   Select *Exit* from the *File* menu to exit the application.

Creating and Maintaining More Complex Applications

You've created a simple **OpenHMI** application that involves only the most basic elements of the product. You should be aware that there is far more to **OpenHMI**. The sample application is intended simply to give you an introduction to **OpenHMI**.

Now that you've had a taste of what you can do with it, you may want to explore its other more advanced capabilities:

- Alarm and Event Monitoring
- Security
- Real-time Trending
- Logic Script Implementation
- Networking
- Recipe Management
- Application Bullet proofing
- Intelligent Wizard Objects, and more...

In addition to these **OpenHMI** application development features, Xycom Automation also offers:

- A complete line of I/O Servers that provide an I/O interface to all major manufacturers' PLCs and other control devices.
- Network interfaces to communicate with other hardware platforms.

Before you start to develop more complex applications, you should read this chapter for a fuller overview of the application manager and the procedures to download applications to a workstation. We also urge you to read through the **OpenHMI User's Guide**, which is installed with your program as a PDF file, to investigate *all* of the program's capabilities. For additional application samples, you can preview any of the demo applications (preloaded on your runtime workstation) by selecting and opening them in the application manager.

InTouch Application Manager

You will use the InTouch Application Manager to create new applications, open existing applications in either WindowMaker or WindowViewer, delete applications, and run the OpenHMI DBDump and DBLoad Tagname Dictionary utility programs.

➢ *To run the InTouch Application Manager:*

1. Start the OpenHMI program (INTOUCH.EXE). The **InTouch Application Manager** dialog box appears:
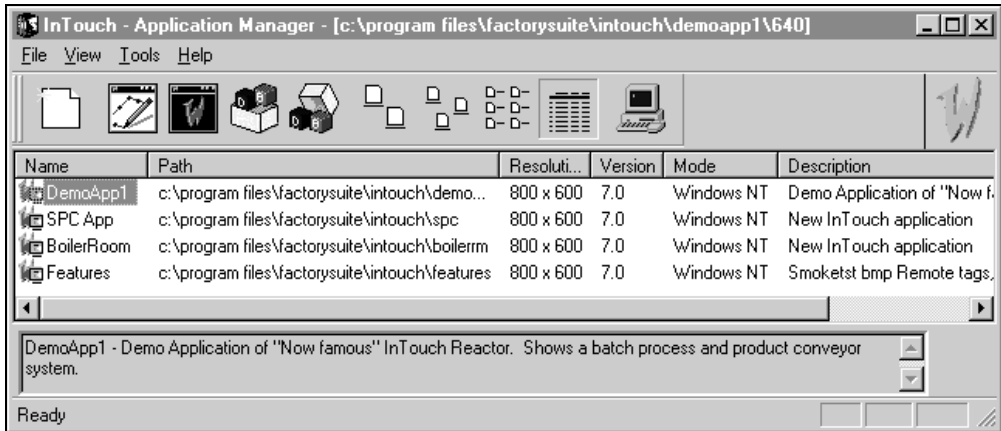
 ✎ When you select an application in the list, it's name and it's description will appear in the box at the bottom of the screen. If you right-click the description box, a menu appears displaying the commands that you can apply to the selected text.

 You can also execute several of the InTouch Application Manager's menu commands from the menu that appears when you click the right mouse button as you select an application. For example:

2. To rename an application's icon, right-click the application in the list, and then click **Rename**. Type the new name and press ENTER.

3. To delete an application's icon, right-click the application in the list, and then click **Delete**. A message box will appear asking you to confirm the deletion. Click **Yes** to delete the application from the window or click **No** to cancel the deletion.

    ⍟ If you delete an application from the list, it does not delete your files or directory. If you need to display it later, on the **Tools** menu, click **Find Applications**. The **Starting directory for search** dialog box appears:
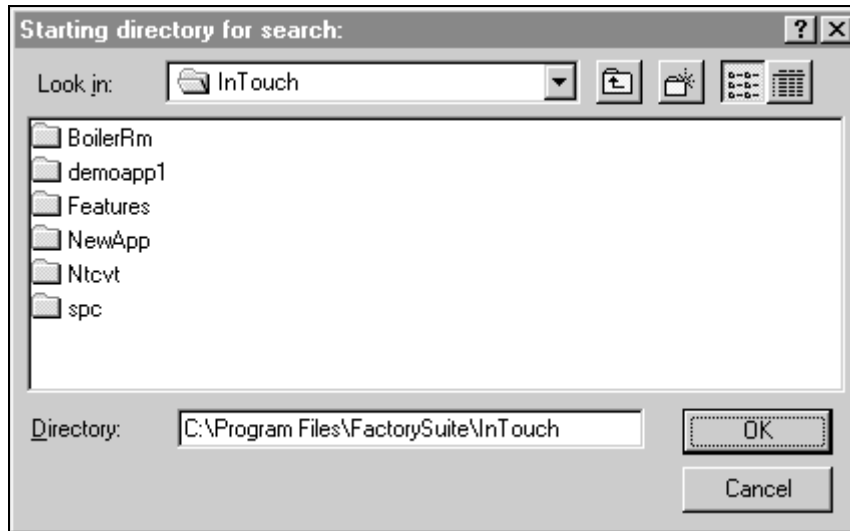
Locate the directory in which you want to search for applications, and then click **OK**. The InTouch Application Manager will reappear displaying icons for all applications that were found in the selected directory.

⍟ If you right-click in the window, a menu will appear displaying the commands that you can apply to a selected item.

➢   *To create a new application:*

1. On the **File** menu, click **New**, or click the **New** tool in the toolbar. The **Create New Application** wizard will appear.

2. Click **Next**. A second **Create New Application** wizard will appear.

    ↻ By default, the system will display the path to your OpenHMI directory followed by "**NewApp**."

3. In the input box, type the path to the directory in which you want your application to be created or click **Browse** to locate the directory.

4. Click **Next**.

    ↻ If the directory you specify does not exist, a message dialog box will appear asking if you want to create it. Click **OK**. A third **Create New Application** wizard dialog box will appear.

5. In the **Name** box, type a unique name for the new application's icon that appears when the application is listed in the **InTouch Application Manager** window.

Note: Filename and Application name can be different, but we recommend that you make them the same to simplify organization.

6. In the **Description** box, type a description of the application.

    ↻ The description is optional. However, if you do type a description, it can be a total of 255 characters.

7. Click **Finish**. The **OpenHMI - Application Manager** will reappear displaying an icon with the name you specified for the new application. For example:
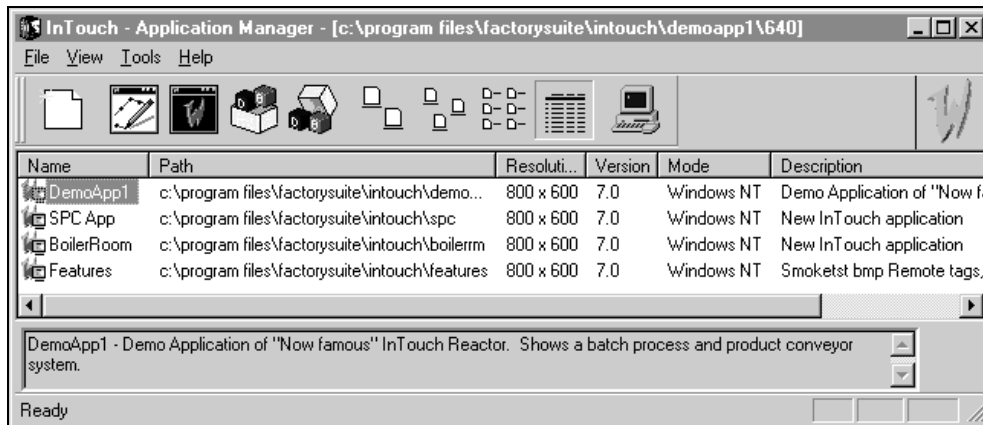
8. To open an application, click the right mouse button as you select it, and then click the name of the program you want to use for the application in the **File** menu, or select the application in the list, and then click the WindowMaker tool in the toolbar. (WindowViewer cannot be executed for a new application.)

To quickly open the application, double-click it's icon or select it, and then press ENTER.

The Application Manager's Tools

By default when OpenHMI is initially run, the Application Manager's toolbar and status bar are displayed.
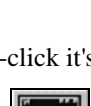
➢ *To hide the toolbar:*

On the **View** menu, select **Toolbar**. To show it again, repeat this step.

➢ *To hide the status bar:*

On the **View** menu select **Status Bar**. To show it again, repeat this step.

The following briefly describes each of the Application Manager's toolbar buttons:

Button	Description
	Executes the **New** command on the **File** menu to create a new application.
	Executes the **WindowMaker** command on the **File** menu to open the selected application in WindowMaker. ⍟ To quickly open an application in WindowMaker, double-click it's icon or select it, and then press ENTER.)
	Executes the **WindowViewer** command on the **File** menu to open the selected application in WindowViewer.
	Executes the **DBLoad** command on the **File** menu to run the DBLoad utility used to load a Tagname Dictionary input file.
	Executes the **DBDump** command on the **File** menu to run the DBDump utility program used to extract an application's Tagname Dictionary.
	Executes the **Large Icons** command on the **View** menu to display large icons for the listed applications.

Executes the **Small Icons** command on the **View** menu to display small icons for the listed applications.

Executes the **List** command on the **View** menu to change the dialog box to the list view mode. For example:

InTouch - Application Manager - [c:\program files\factorysuite\intouch\boilerrm]

File View Tools Help

DemoApp1
SPC App
BoilerRoom
Features

BoilerRoom - New InTouch application

Ready
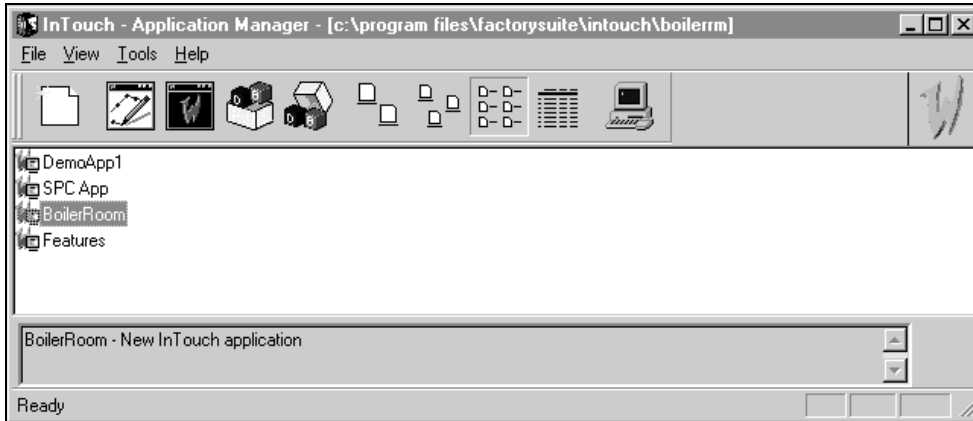
Executes the **Details** command on the **View** menu to change the dialog box to the details view mode. For example:

InTouch - Application Manager - [c:\program files\factorysuite\intouch\boilerrm]

File View Tools Help

Name	Path	Resoluti...	Version	Mode	Description
DemoApp1	c:\program files\factorysuite\intouch\demo...	800 x 600	7.0	Windows NT	Demo Application of "Now f.
SPC App	c:\program files\factorysuite\intouch\spc	800 x 600	7.0	Windows NT	New InTouch application
BoilerRoom	c:\program files\factorysuite\intouch\boilerrm	800 x 600	7.0	Windows NT	New InTouch application
Features	c:\program files\factorysuite\intouch\features	800 x 600	7.0	Windows NT	Smoketst bmp Remote tags,

BoilerRoom - New InTouch application

Ready

⌐ Double-clicking the right vertical separation bar of a column header will auto-size the column.

If you right-click any of the column headers, or click a blank area of the window, or click a detail (other than the application name) the following menu appears:

```
View                          ▶
Find Applications...

New...              Ctrl+N

Properties
```
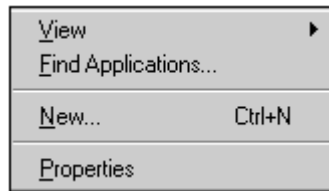
If you point to **View**, the following submenu appears:

```
View                    ▶    Large Icons
Find Applications...         Small Icons
                             List
New...           Ctrl+N    ✔ Details

Properties
```
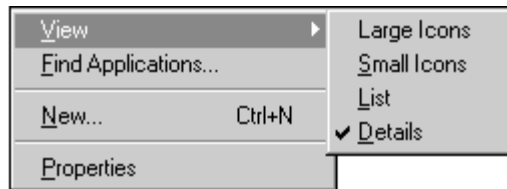
These commands are also found on the **View** menu. They control the display list in the InTouch Application Manager.

Opens the **Node Configuration** dialog box that you will use to set Dynamic Resolution Conversion (DRC).

Note: Other features and menu selections are not operational during the OpenHMI's WindowViewer runtime.

Note When an application is selected in the Application Manager display list, selecting the **Properties** command on the **File** menu will cause the **Properties** dialog box for that application to appear:

Properties   ☒

General

Name: BoilerRoom

Path: c:\program files\factorysuite\intouch\boilerrm

New InTouch application

Resolution: 800 x 600

Version: 7.0

Mode: Windows NT

OK   Cancel   Apply
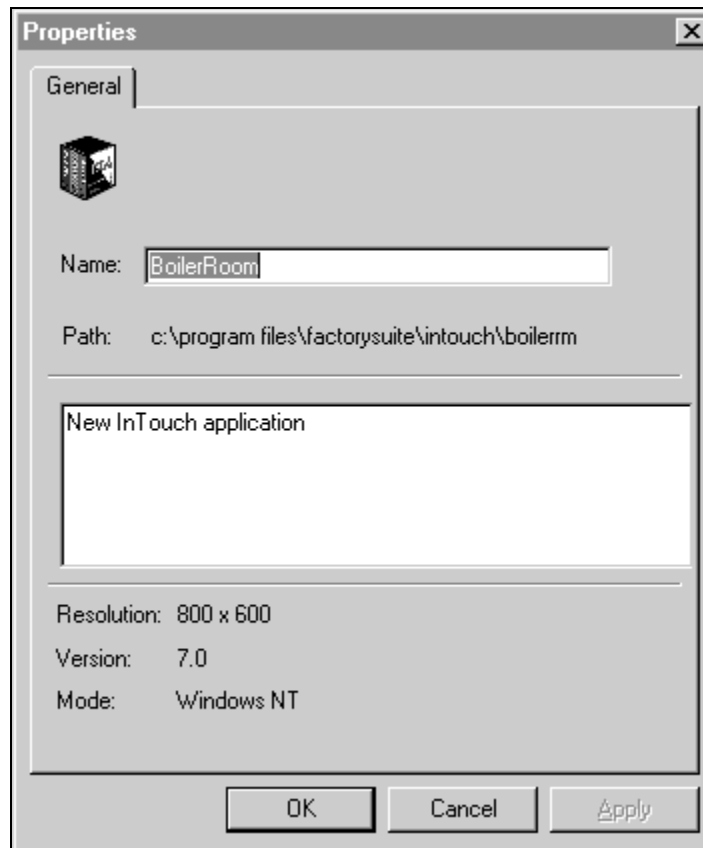
Downloading the Application

In a real world application, you would need to download your application to a workstation before you could start communicating with I/O. As discussed in the introduction of this guide, an Xycom Automation HMI application consists of two components: a development system (the **WindowMaker** configurator software installed on any PC) and the runtime environment (the **WindowView** runtime software on an **OpenHMI** workstation). When you complete your application, you can download the application through several different media.
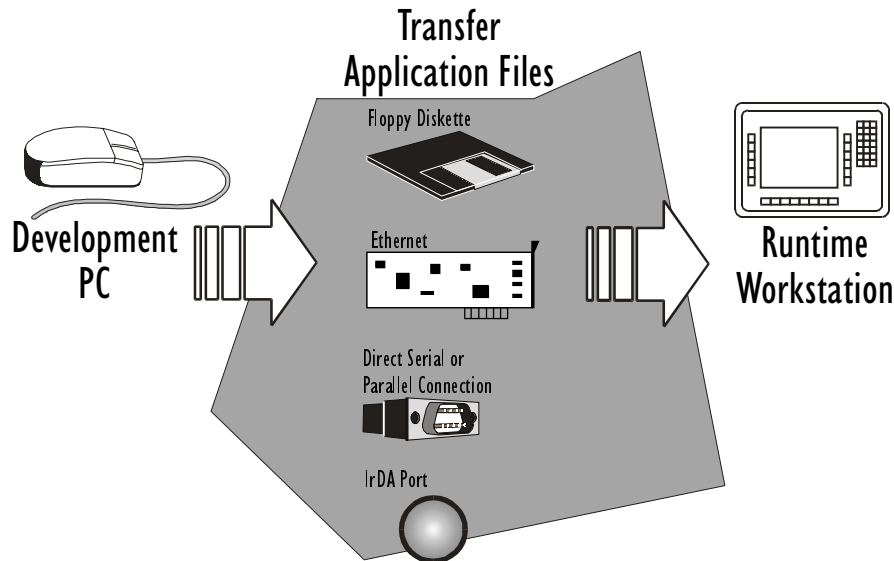
After you have downloaded an application, you can start it and begin I/O communications by running the **WindowView** program on the workstation.

Floppy Diskette

☐   Log onto your development system.

☐   From the **Start** menu's **Program** folder, click **Windows Explorer**.

☐   Select the project directory that is to be transferred (usually under c:\program files\FactorySuite\Intouch).

☐ Copy the entire folder to another directory location and rename the folder. We recommend using YourAppname_Backup as a naming convention.

☐ In the backup folder delete the files with the following extensions:

- .wbk

- .wvw

- .avl

☐ Compress the remaining files with a compression utility, such as WinZip®, and copy to a floppy diskette.

☐ Log onto your runtime system.

☐ Extract the compressed files to a file folder with the original project name.

Note: Don't plug in the floppy drive while the diskette is in the drive. You may corrupt the data on the diskette.

Peer-to-Peer Direct Ethernet Connection

To download the application through a direct network connection, you will need an install and configure an Ethernet card in the development system that connects to the runtime workstation's built-in Ethernet.

Configure Card and Connection

Follow these procedures to configure the Ethernet card on the development system and configure the network communications on both systems.

The Connecting Cable

Use only four of the eight pins. Pins 1 and 2 must be a pair, and pins 3 and 6 must be a pair. Wire the cable as follows:

Function	Pin#		Pin#	Function
TX+	1	<————>	3	RX+
TX-	2	<————>	6	RX-
RX+	3	<————>	1	TX+
RX-	6	<————>	2	TX-

Windows 95 Systems

☐ Open the **Control Panel** and double-click on the **Network** icon.

☐ In the **Network** dialog select the **Configuration** tab.

☐ Under the **Configuration** tab, click on the **Add** button

☐ Development PCs require a configured adapter. Follow these steps if the Ethernet adapter is not configured on your development PC:

1. Select **Adapter** and click on the **Add** button.
2. From the list box select the driver for your type of adapter or click on **Have Disk** if you have unlisted third party drivers. (You will need to specify a directory or drive to select unlisted third party drivers from.)
3. Click **OK**.
4. Select **Protocol** and click on the **Add** button.
5. From the list box select **Microsoft** from the Manufacturers list box and **Net BEUI** from the Network Protocols list box.
6. Click **OK**.

☐ Select **Client** and click on the **Add** button.

☐ From the list box select **Microsoft** from the Manufacturers list box and **Client for Microsoft Networks** from the Network Clients list box.

☐ Click **OK**.

☐ Under the **Configuration** tab, click on the **Add** button

☐ Click on the File and Print Sharing button.

☐ Check the I want to be able to give others access to my files item.

☐ Click **OK**.

☐ Select the **Identification** tab.

☐ Enter the computer name (different name for each computer) and workgroup (enter same workgroup name for each computer).

☐ Select the **Access Control** tab.

☐ Select the Share-level Access Control radio button.

☐ Click on the **Network** dialog's **OK** button.

☐ When prompted to restart the computer, select **Yes**.

Windows NT Systems

❑ Open the **Control Panel** and double-click on the **Network** icon.

❑ In the **Network** dialog select the **Configuration** tab.

❑ Under the **Configuration** tab, click on the **Add** button

❑ Development PCs require a configured adapter. Follow these steps if the Ethernet adapter is not configured on your development PC:

1. Select Adapter and click on the **Add** button.
2. From the list box select the driver for your type of adapter or click on **Have Disk** if you have unlisted third party drivers. (You will need to specify a directory or drive to select unlisted third party drivers from.)
3. Click **OK**.
4. Under the **Configuration** tab, click on the **Add** button
5. Select **Protocol** and click on the **Add** button.
6. From the list box select **Microsoft** from the Manufacturers list box and **Net BEUI** from the Network Protocols list box.
7. Click **OK**.

❑ Under the **Configuration** tab, click on the **Add** button

❑ Select the **Identification** tab.

❑ Enter the computer name (different name for each computer) and workgroup (enter same workgroup name for each computer).

❑ Click on the **Network** dialog's **OK** button.

❑ • When prompted to restart the computer, select Yes.

Transfer Application Files

To transfer your files you will first need to set up file sharing on your runtime PC. You will than access the shared folder from the development system and transfer the files to the runtime system.

File Sharing on a Windows 95 Runtime Workstation

❑ Log onto your runtime system.

❑ Open Windows Explorer.

❒ Find and select the folder that you want to copy your OpenHMI application files into.

❒ Select File/Properties.

❒ Select the **Sharing** tab, then select the **Shared As** radio button.

❒ Enter a share name.

❒ Set the access type to **Full**.

Note: After you set the sharing properties for the project folder, you can transfer files when needed to update the workstation with application changes.

❒ Click **OK**.

File Sharing on a Windows NT Runtime Workstation

❒ Log onto the runtime system as an administrator.

❒ From the Start menu open the **User Manager** (Programs/Administrative Tools (Common)/User Manager).

❒ Create a new user and enter the username and password of the development system that the application files will be transferred from.

❒ Unless your application requirements demand otherwise, select the **Password Never Expires** radio button.

❒ Click **OK** to save the new user.

❒ Close the User Manager.

❒ Open Windows Explorer.

❒ Find and select the folder that you want to copy your OpenHMI application files into.

❒ Select File/Properties.

❒ Select the **Sharing** tab, then select the **Shared As** radio button.

❒ Click on the **Permissions** button.

❑ *Access to the shared directory defaults to full access for everyone.* If more security is desired, click on the **Remove** button to remove the access.

❑ To add the new (development system) user from the **Sharing** tab:

1. Click on the **Add** button, then click on the **Show Users** button.
2. Select the new user from the list box.
3. Set the access type to **Full**.

Note: After you set the given permissions for the project folder, you can transfer files when needed to update the workstation with application changes.

Transfer Files to Shared Runtime Workstation Folder

❑ To transfer the files between two Windows NT systems, two Windows 95 systems, or from a Windows NT development system to a Windows 95 runtime system:

1. Log onto the runtime workstation.
2. Open the Windows **Explorer** and locate the runtime workstations name and shared folder under the **Network Neighborhood** icon.
3. Drag the development system's application files into the shared runtime folder.

❑ To transfer the files from a Windows 95 development system to a Windows NT runtime system:

1. Log onto the development workstation.
2. Open the Windows **Explorer** and select **Find Computer** from the **Tools** menu.
3. In the Find Computer dialog enter the name of the runtime workstation.
4. Click **Find Now**.
5. Double-click on the computer icon that appears.
6. Drag the development system's application files into the shared runtime folder.

Existing Ethernet Network Connection

You will need installed Ethernet cards in the development system and the runtime workstation that are physically connected to the Ethernet network.

Configuring your Ethernet Connection

These steps are assuming that your network adapter on your runtime workstation is functioning properly and you can go out on the network.

Windows 95 Systems

☐ Open the **Control Panel** and double-click on the **Network** icon.

☐ In the **Network** dialog select the **Configuration** tab.

☐ Under the **Configuration** tab, click on the **Add** button

☐ Select **Client** and click on the **Add** button.

☐ From the list box select **Microsoft** from the Manufacturers list box and **Client for Microsoft Networks** from the Network Clients list box.

☐ Click **OK**.

☐ Click on the File and Print Sharing button.

☐ Verify that both check boxes are checked to share folders.

☐ Click **OK**.

☐ Select the **Identification** tab.

☐ Enter the computer name (different name for each computer) and workgroup (*enter same workgroup name for development PC and runtime workstation*).

☐ Select the **Access Control** tab.

☐ Select the Share-level Access Control radio button.

☐ Click on the **Network** dialog's **OK** button.

☐ When prompted to restart the computer, select Yes.

Windows NT Systems

☐ Open the **Control Panel** and double-click on the **Network** icon.

☐ In the **Network** dialog select the **Configuration** tab.

☐   Under the **Configuration** tab, click on the **Add** button

☐   Select **Protocol** and click on the **Add** button.

☐   From the list box select **Microsoft** from the Manufacturers list box and **Net BEUI** from the Network Protocols list box.

☐   Click **OK**.

☐   Select the **Identification** tab.

☐   Enter the computer name (different name for each computer) and workgroup (***enter same workgroup name for development PC and runtime workstation***).

☐   Click on the **Network** dialog's **OK** button.

☐   • When prompted to restart the computer, select Yes.

Transfer Application Files

To transfer your files you will first need to set up file sharing on your runtime PC. You will than access the shared folder from the development system and transfer the files to the runtime system.

File Sharing on a Windows 95 Runtime Workstation

☐   Log onto your runtime system.

☐   Open Windows Explorer.

☐   Find and select the folder that you want to copy your OpenHMI application files into.

☐   Select File/Properties.

☐   Select the **Sharing** tab, then select the **Shared As** radio button.

☐   Enter a share name.

☐   Set the access type to **Full**.

Note: After you set the sharing properties for the project folder, you can transfer files when needed to update the workstation with application changes.

☐   Click **OK**.

File Sharing on a Windows NT Runtime Workstation

☐ Log onto the runtime system as an administrator.

☐ From the Start menu open the **User Manager** (Programs/Administrative Tools (Common)/User Manager).

☐ Create a new user and enter the username and password of the development system that the application files will be transferred from.

☐ Unless your application requirements demand otherwise, select the **Password Never Expires** radio button.

☐ Click **OK** to save the new user.

☐ Close the User Manager.

☐ Open Windows Explorer.

☐ Find and select the folder that you want to copy your OpenHMI application files into.

☐ Select File/Properties.

☐ Select the **Sharing** tab, then select the **Shared As** radio button.

☐ Click on the **Permissions** button.

☐ *Access to the shared directory defaults to full access for everyone.* If more security is desired, click on the **Remove** button to remove the access.

☐ To add the new (development system) user from the **Sharing** tab:
1. Click on the **Add** button, then click on the **Show Users** button.
2. Select the new user from the list box.
3. Set the access type to **Full**.

Note: After you set the given permissions for the project folder, you can transfer files when needed to update the workstation with application changes.

Transfer Files to Shared Runtime Workstation Folder

☐ To transfer the files between two Windows NT systems, two Windows 95 systems, or from a Windows NT development system to a Windows 95 runtime system:

1. Log onto the runtime workstation.
2. Open the Windows Explorer and locate the runtime computer and then the shared folder under the **Network Neighborhood** icon.
3. Drag the development system's application files into the shared runtime folder.

☐ To transfer the files from a Windows 95 development system to a Windows NT runtime system:

1. Log onto the development workstation.
2. Open the Windows **Explorer** and select **Find Computer** from the **Tools** menu.
3. In the Find Computer dialog enter the name of the runtime workstation.
4. Click **Find Now**.
5. Double-click on the computer icon that appears.
6. Drag the development system's application files into the shared runtime folder.

Serial Connection (For Windows 95)

☐ Plug serial cable from development system to runtime workstation's COM1 RS-232 port.

☐ Plug keyboard into runtime workstations with touchscreen.

☐ Power up both PCs.

☐ For both PCs add the **File and Print Sharing** service.

1. Log onto the PC.
2. Open the **Control Panel** and double-click on the **Network** icon.
3. In the **Network** dialog select the **Configuration** tab.
4. Under the **Configuration** tab, click on the **Add** button
5. Select **Services** and click on the **Add** button.
6. From the list box select **Microsoft** from the Manufacturers list box and **Print and File Sharing for Microsoft Networks** from the Services list box.
7. Click **OK**.

Transfer Application Files

You can initiate file transfers from the development PC/host (download) or the runtime workstation/guest (upload).

❑   Log onto your development system.

❑   Open Windows Explorer.

❑   Select the project directory that is to be transferred (usually under c:\program files\ FactorySuite\Intouch).

❑   Select File/Properties.

❑   Select the **Sharing** tab, then select the **Shared As** radio button.

❑   Enter a share name.

❑   Set the access type:

   •   To **Read-only** if you plan to download files from the runtime workstation.

   •   To **Full** if you plan to upload files from the development system.

Note: After you set the sharing properties for the project folder, you can transfer files when needed to update the workstation with application changes.

❑   Click **OK**.

❑   Log onto the runtime workstation to set it up as the guest computer.

❑   From the **Start** menu, *select Programs/Accessories/Direct Cable Connection*.

❑   Click on the **Change** button.

❑   Select **Guest**, then click on **Next**.

❑   Return to the development PC to set it up as the host computer.

❑   From the **Start** menu, select *Programs/Accessories/Direct Cable Connection*.

❑   Click on the **Change** button.

☐   Select **Host**, then click on **Next**.

☐   Select **Serial Cable on COM1**, then click on **Next**.

☐   Click on **Finish**. Leave the **User password protection** box unchecked.

☐   Return to the runtime workstation and click the **OK** button on the timeout prompt.

☐   The workstation will prompt you for the host computer name. Refer to the development PC to determine the computer name you should enter. (Double-click on the **Network** icon in the **Control Panel**, then select the **Identification** tab.)

☐   Click on the **OK** button.

☐   To transfer the files from one computer to another:
1.   Log onto the development system or runtime workstation.
2.   Open the **Windows Explorer** and locate the shared folder under **the Network Neighborhood** icon.
3.   Select the development system's project folder and drag it into the workstation's *c:\program files\FactorySuite\Intouch* folder.

IrDA Port (For Windows 95)

Configure the IrDA Port

If you choose to transfer files through the IrDA port you must first configure the port for the development PC and runtime workstation.

Note: These steps cover IrDA port configuration for the runtime workstation. If the development PC's IrDA port is not already configured, you should refer to the PC's documentation to configure the port.

☐   Press the F2 key while the system boots up to enter the CMOS setup of your OpenHMI workstation. (If you have trouble, please refer to the system manual.)

☐   Use the right arrow to select the **Advanced** menu.

☐   Press Enter to select the first item, **Integrated Peripherals**.

☐   Use the down arrow to select **UART 2 Mode**.

❑ Use the + key to change the **UART2 Mode** field to **IrDA**.

❑ Press the Esc key twice to exit the CMOS submenus.

❑ Press Enter to save changes, then again to confirm the changes and exit.

❑ Allow system to boot to Windows 95.

❑ After Windows 95 has started, open the **Control Panel** and double-click on the **Add New Hardware** icon.

❑ To complete the Add New Hardware wizard:

1. Click on **Next**.

2. When prompted if you want Windows to search for new hardware select the **No** radio button, then click on the **Next** button.

3. Click on **Next**.

4. Select **Infrared** from the list box of Hardware Types, then click on **Next**.

5. Click on **Next**.

6. Click on **Next** to accept the defaults of **Standard Infrared Devices** and **Built in Infrared Port** on laptop or desktop. (If needed change dialog fields to match these default values.)

7. From the **Available Ports** list box, select the port that this infrared device is physically connected to (COM2), then click on **Next**.

8. Click on **Next** to accept the default ports **COM4** and **LPT3**. (If needed change dialog fields to match these default values.) After this prompt, the wizard will begin to install and configure the necessary driver and other files. It may prompt you to insert your Windows 95 CD, so that it can copy files to the hard drive.

9. Select **Finish**.

❑ Double-click on the **Infrared** icon in the **Control Panel**. (If the icon does not appear in the window, press F5 to refresh the view.)

❑ Select the **Options** tab.

❑ Verify that **Enable infrared communication** on is set to **COM2** and "Providing application support on COM4 and LPT3" appears.

❑ Click on the **OK** button to run the driver.

File and Print Sharing

Before you can transfer application files through the configured IrDA port, you will need to add the File and Print Sharing service to the PC and runtime workstation.

☐ For both PCs add the **File and Print Sharing** service.

☐ Log onto the PC.

☐ Open the **Control Panel** and double-click on the **Network** icon.

☐ In the **Network** dialog select the **Configuration** tab.

☐ Under the **Configuration** tab, click on the **Add** button

☐ Select **Services** and click on the **Add** button.

☐ From the list box select **Microsoft** from the Manufacturers list box and **Print and File Sharing for Microsoft Networks** from the Services list box.

☐ Click **OK**. You may need to restart your system.

Transfer Application Files

You can initiate file transfers from the development PC/host (download) or the runtime workstation/guest (upload).

☐ Log onto your development system.

☐ Open Windows Explorer.

☐ Select the project directory that is to be transferred (usually under c:\program files\ FactorySuite\Intouch).

☐ Select File/Properties.

☐ Select the **Sharing** tab, then select the **Shared As** radio button.

☐ Enter a share name.

☐ Set the access type:

- To **Read-only** if you plan to download files from the runtime workstation.

- To **Full** if you plan to upload files from the development system.

Note: After you set the sharing properties for the project folder, you can transfer files when needed to update the workstation with application changes.

☐ Click **OK**.

☐ Log onto the runtime workstation to set it up as the guest computer.

☐ From the **Start** menu, *select Programs/Accessories/Direct Cable Connection*.

☐ Click on the **Change** button.

☐ Select **Guest**, then click on **Next**.

☐ Select **Serial Cable on COM4**, then click on **Next**.

☐ Click on **Finish**. The will now try to connect using the IrDA port. It may time out and post a message, "Wait here until the 'other' computer is ready to communicate."

☐ Return to the development PC to set it up as the host computer.

☐ From the **Start** menu, select *Programs/Accessories/Direct Cable Connection*.

☐ Click on the **Change** button.

☐ Select **Host**, then click on **Next**.

☐ Select **Serial Cable on COM4**, then click on **Next**.

☐ Click on **Finish**. They will now try to connect using the IrDA port. Leave the **User password protection** box unchecked.

☐ Return to the runtime workstation and click the **OK** button on the timeout prompt.

Note: Both PCs should now be able to see each other, if in range. The IrDA icon will appear on the Windows taskbar.
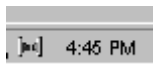
❑   The workstation will prompt you for the host computer name. Refer to the development PC to determine the computer name you should enter. (Double-click on the **Network** icon in the **Control Panel**, then select the **Identification** tab.)

❑   Click on the **OK** button.

❑   To transfer the files from one computer to another:

1.   Log onto the development system or runtime workstation.

2.   Open the Windows Explorer and locate the shared folder under the Network Neighborhood icon.

3.   Select the development system's project folder and drag it into the workstation's *c:\program files\FactorySuite\Intouch* folder.

Automatic Application Startup

You can automate some or all of the login and application startup process on an OpenHMI workstation.

Set Automatic Login

On a Windows 95 workstation you can bypass the login prompt that appears after the system boots up. We recommend the **Tweek UI** utility, which is preloaded on a Windows 95 OpenHMI workstation.

Note for Windows NT Workstation: Automatic login cannot be configured on a Windows NT workstation. When the workstation is restarted, an administrator must login to the workstation before it will start the OpenHMI application.

☐ From the desktop *Start* menu, select *Settings* then *Control Panel*, and choose the Start Menu Programs tab.

☐ Double-click on the Tweak UI icon.

☐   Select the **Network** tab.

```
┌─────────────────────────────────────────────────┐
│ Tweak UI                                  ? ✕   │
├─────────────────────────────────────────────────┤
│  ┌───────┬─────────┬──────────┬─────────┬────────────┐
│  │ Mouse │ General │ Explorer │ Desktop │ My Computer│
│ ┌────────┬──────┬────────────┬──────┬────────┬──────────┐
│ │ Network │ New │ Add/Remove │ Boot │ Repair │ Paranoia │
│                                                  │
│   ┌ Logon ──────────────────────────────────┐   │
│   │  ☑ Log on automatically at system startup│   │
│   │                                          │   │
│   │   User name:  [CRISMANK           ]      │   │
│   │                                          │   │
│   │   Password:   [                   ]      │   │
│   │                                          │   │
│   │                                          │   │
│   │  Note:  The automatic logon password is  │   │
│   │  not encrypted.  Any user with access to │   │
│   │  Regedit can view or modify it.          │   │
│   │                                          │   │
│   └──────────────────────────────────────────┘   │
│                                                  │
│          [   OK   ]   [ Cancel ]   [ Apply ]     │
└─────────────────────────────────────────────────┘
```

☐   Check the **Log on automatically at startup** checkbox.

☐   Enter your logon user name and password in the text boxes. If you have a password, you must enter it.

☐   Click **OK**.

☐   From the desktop *Start* menu, select *Shutdown.*

☐   In the **Shut Down Windows** dialog that appears, select the **Restart Windows** radio button and click **OK**.

❑   After the system restarts, you may be prompted with a welcome screen. If it appears, you should uncheck the **Show this welcome screen next time** checkbox, so the welcome screen will not appear when the system restarts and interfere with automatic OpenHMI application startup.

Set Application Startup

Note: The default setting for the OpenHMI workstation is to boot into the Windows desktop.
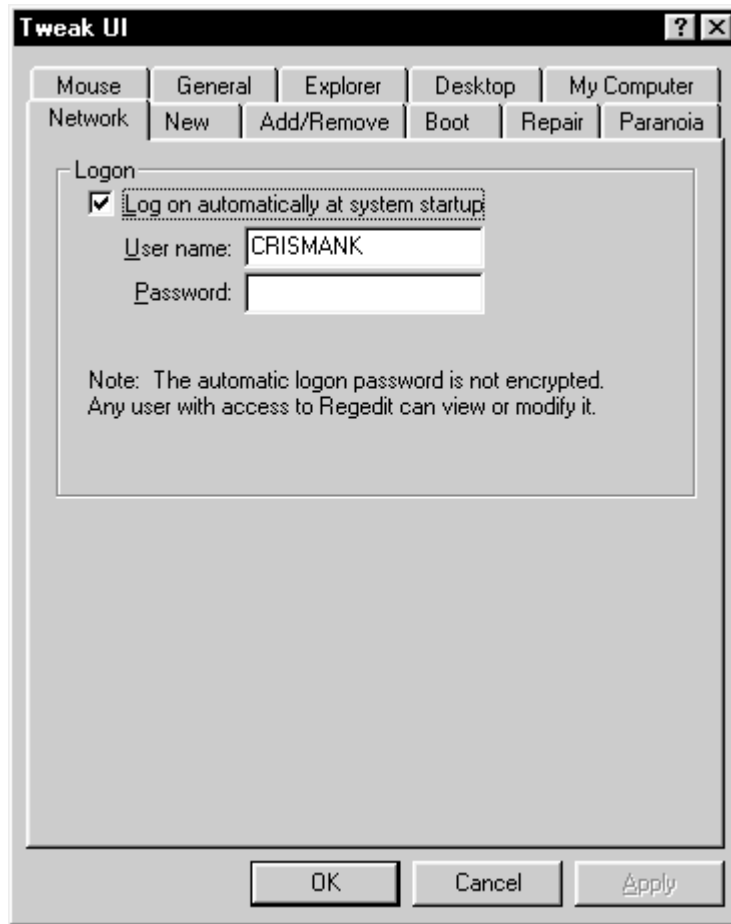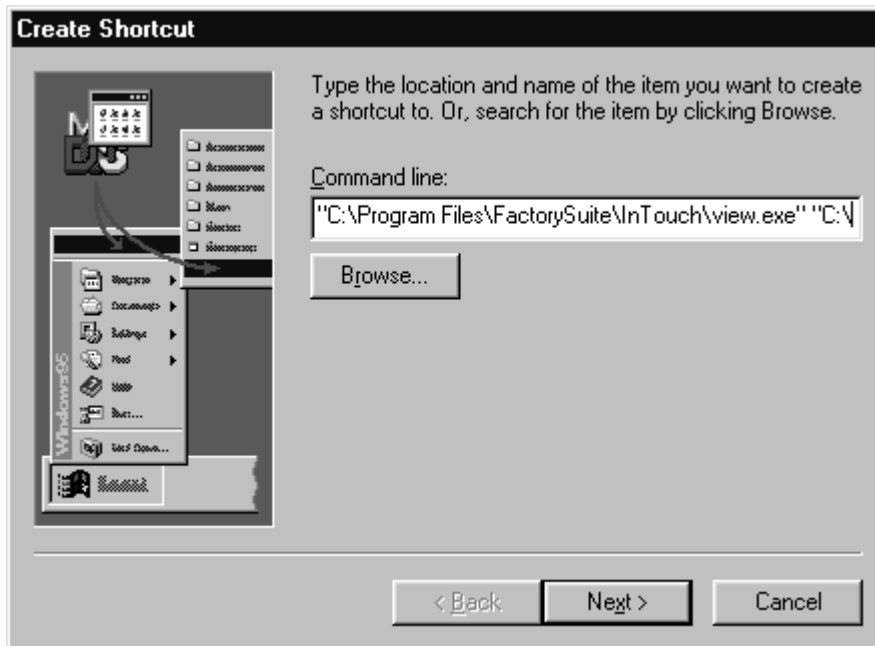
❑   From the desktop *Start* menu, select *Settings* then *Control Panel*, and choose the Start Menu Programs tab.

❑   Click **Add** to view the Create Shortcut window

☐   Load your I/O Server using the browse button on this dialog. Locate the I/O Server (EXE) which should be located in a separate folder C:\Servers (pre version 7.0 servers) and C:\Program Files\FactorySuite\IOServer (for version 7.0 and above)

☐   Select the I/O Server Program file then select Open. Click **Next**.

☐   Click **Add** again to view the Create Shortcut window

Create Shortcut

Type the location and name of the item you want to create a shortcut to. Or, search for the item by clicking Browse.

Command line:

"C:\Program Files\FactorySuite\InTouch\view.exe" "C:\

Browse...

< Back   Next >   Cancel

☐   Type **"C:\Program Files\FactorySuite\InTouch\view.exe" "C:\ Program Files\FactorySuite\InTouch*your application folder name*"** into the command line and select **Next**. *You must type the quotes. Also, note that there is a space between the items in quotes.* For example: **"C:\Program Files\FactorySuite\InTouch\view.exe" "C:\ Program Files\FactorySuite\InTouch\demoapp1\640\"**.

☐   In the select program folder window select the *startup* folder then click **Next**.

☐   The default name for the icon will be view.exe. You may select another name for the shortcut if you would like. Select Finish when complete.

☐   Click **OK** in the Taskbar Properties Window.

Special OpenHMI Features

OpenHMI software includes the following features:

- **Application Explorer**
  The hierarchical Application Explorer provides you with improved navigation capabilities. For example, it displays the names of all the windows you have created, and when you double-click a window name, the window opens. When you right-click a window name, a menu appears displaying the various commands that you can execute to open the window, save the window, open the window's QuickScripts, its properties dialog box, and so on.

- **Applications Run on Windows NT or 95 Operating System**
  The applications you create on the Windows 95 or the Windows NT operating systems are interchangeable. They can run on either operating system without requiring conversion.

- **ActiveX Container**
  OpenHMI is an ActiveX container. It allows you to install any third-party ActiveX control and use it in any application window. For easy access to your installed ActiveX controls, you can add them to your WindowMaker **Wizards/ActiveX Toolbar**. By using ActiveX controls, you can handle control events, control methods, and control properties all from QuickScripts. You can also associate the ActiveX control properties directly to tagnames.

- **Tag Browser**
  The Tag Browser allows you to select tagnames and tagname **.fields** from any tagname source that supports the OpenHMI Tagname Dictionary interface. It is your primary tool for editing your Tagname Dictionary.

- **Tagname Cross Referencing**
  The Tagname Cross Referencing utility allows you to determine in what window or QuickScript that a specific tagname is used. For convenience, the Tagname Cross Reference utility can remain open in WindowMaker while you perform other tasks. It also allows you to view any QuickScript where a tagname is found.

- **Local Variables**
  OpenHMI QuickScripts support the use of local variables to store temporary results and create complex calculations with intermediate scripting values. By using local variables in QuickScripts, you do not decrease your licensed tagname count.

● **WindowViewer as an NT Service**
Beginning with OpenHMI 7.0, WindowViewer can be run as an NT
service. This provides NT service capabilities for key OpenHMI
components such as providing alarms and I/O data. The service
capabilities allow continuous operation of WindowViewer through
operating system log ons and log offs such as, operator shift changes.
Another functionality is automatic start up of WindowViewer
following power failure or when the machine is turned off and on. This
provides unmanned station startup of WindowViewer without
compromising NT operating system security.

● **Dynamic Resolution Conversion**
You can now develop applications in one screen resolution and run
them at another, without affecting the original application. The
applications can also be run at a user-defined resolution, instead of the
display resolution.

● Other OpenHMI features and benefits include:

– Real-time application process viewing.

– Connectivity with many different I/O Servers.

– SuiteLink protocol. SuiteLink allows application commands
(reads, writes and updates) and their associated data to be passed
between client applications and server applications.

– Easily networked with NetDDE.

– Standard Windows 95/NT GUI format featured.

– Right-mouse click support throughout WindowMaker for quick
access to frequently used commands.

– Floating and docking toolbars

– Customizable color palette that provides 16.7 million color
support. (The color support is limited only by your video card
capability.)

– Windows 95 and Windows NT operating systems long filename
support.

Reaching Technical Support

Xycom Automation Technical Support offers a variety of support options to answer any questions on Xycom Automation products and their implementation.

In the USA (located in Saline, MI)	**(734) 429-4971**
In Canada (located in Oakville, Ontario)	**(905) 825-0281**
In Europe (located in Northampton, England)	**44-1604-790-767**
In Italy (located in Turin, Italy)	**39-011-3582-735**

Refer to the relevant chapter(s) in your **OpenHMI** documentation for a possible solution to any problem you may have with your **OpenHMI** system. If you find it necessary to contact **OpenHMI** Technical Support for assistance, please have the following information at your fingertips:

1. Software serial number and workstation model number.
2. The version of **OpenHMI** you are running.
3. The type and version of the operating system (i.e. Microsoft Windows NT version 4.0).
4. Exact wording of system error messages encountered.
5. Any relevant output listing from the Wonderware Logger, the Microsoft Diagnostic utility (MSD), or other diagnostic applications.
6. Details of attempts made to rectify the problem(s) and results.
7. The log number assigned from Xycom Automation Technical Support if this is an on going problem.
8. And, if known, the name of the Technical Support Engineer with whom you last spoke.

Internet Access

Xycom Automation provides both World Wide Web and e-mail access via the Internet. To access the Xycom Automation Home Page, use **http://www.xycom.com**. This page contains the newest product datasheets, **OpenHMI** references by industrial sector, and application notes.

E-mail

To reach Xycom Automation Technical Support via E-Mail:
Saline, MI   **support@xycom.com**
Europe   **support@xycom-europe.co.uk**

FAX

You can fax your questions to Xycom Automation Technical Support at:
Saline, MI   **(734) 429-1010**
Europe   **44-1604-790-722**

FAX-On-Demand System

You can request application notes and datasheets for a number of our products.

FAX-On-Demand   **(734) 429-4971 Ext. 455**