OpenHMI Workstation Setup and Startup Guide

P/N 350010(C)

Printed in the United States of America

Revision Record

Revision	*Description*	*Date*
A	Preliminary	5/99
B	Revision	11/03
C	Name change. correct where applicable with document	4/07

Trademark Information

United States FCC Part 15, Subpart B, Class A EMI Compliance Statement:

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For European Users - WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

INSTALLATION: Electromagnetic Compatibility WARNING

The connection of non-shielded equipment interface cables to this equipment will invalidate FCC EMI and European Union EMC compliance and may result in electromagnetic interference and/or susceptibility levels which are in violation of regulations which apply to the legal operation of this device. It is the responsibility of the system integrator and/or user to apply the following directions which relate to installation and configuration:

1. All interface cables must include shielded cables. Braid/foil type shields are recommended. Communication cable connectors must be metal, ideally zinc die-cast backshell types, and provide 360 degree protection about the interface wires. The cable shield braid must be terminated directly to the metal connector shell, ground drain wires alone are not adequate.

2. Protective measures for power and interface cables as described within this manual must be applied. Do not leave cables connected to unused interfaces or disconnected at one end. Changes or modifications to this device not expressly approved by the manufacturer could void the user's authority to operate the equipment.

3. EMC compliance is, in part, a function of PCB design. Third party add-on AT/XT peripheral PCB assemblies installed within this apparatus may void EMC compliance. FCC/CE compliant PCB assemblies should always be used where possible. Pro-face can accept no responsibility for the EMC performance of this apparatus after system integrator/user installation of PCB assemblies not manufactured and/or expressly tested and approved for compliance by Pro-face. It is the responsibility of the system integrator/user to ensure that installation and operation of such devices does not void EMC compliance.

Table of Contents

Chapter 1 – System Overview

Congratulations, you have just purchased an open automation solution for your HMI requirements. The OpenHMI™ workstation is based on PC architecture and powered by commercial HMI software. It combines widely used Windows-based HMI software, Ethernet connectivity, and preinstalled cards for the device network of your choice into one workstation, delivering an open and integrated operator interface.

The open architecture of the OpenHMI workstation consists of two parts: the configurator software and the runtime workstation. The OpenHMI™ configurator software, which can be installed on a desktop or industrial PC, is a Microsoft® Windows®-based, 32-bit object-oriented, graphic human-machine interface (HMI) application. It allows you to create and implement an open Windows-based operator interface application that you can integrate with Internet applications and off-the-shelf software.

A completed operator interface application is downloaded to an OpenHMI workstation with the runtime software. This runtime workstation processes scanned data from connected devices, according to parameters defined in the application, and displays the data on the graphic operator interface.

This manual, the *OpenHMI Workstation Setup and Startup Guide*, will instruct you on the use of the runtime software on your OpenHMI workstation. This manual is for both the 3400 series (3408, 3410, and 3412) and the 3500 series (3510, 3512, and 3515) of OpenHMI workstations. In this manual, 35xx refers to any 3500 series workstation, 34xx refers to any 3400 series workstation, and 3xxx refers to workstations of both series. Check boxes are included with the procedures for your convenience. *Note* boxes highlight additional material of interest and *Warning* boxes highlight safety concerns.

Unpacking the System

When you remove the system from its box, verify that you have the parts listed below. Save the box and inner wrapping in case you need to reship the unit. All software is already loaded on the workstation, but whenever possible copies of the workstation software are provided on floppy disk or CD as backups.

Read Me First (34xx)

OpenHMI Runtime License (floppy disk labeled *RT-500 Tag/50 WIN* or *RT-1000 Tag/100 WIN*)

OpenHMI Software (2 CDs labeled *OpenHMI, Productivity Pack* and *I/O Servers*)

Video drivers (floppy disk)

Keypad utility disk (floppy disk)

Microsoft CD-ROM setup boot disk (Windows 95 only)

Microsoft Windows NT or 95 operating system software and manual. The product ID number affixed to the manual is required for system startup.

3xxx Series System Guide

OpenHMI Workstation Setup and Startup Guide (this manual)

CPU board manual

Optional keypad insert (34xx)

Hardware bag with:

- Power connector
- Eight 8-32 hex nuts (3408)
- Twelve 10-32 hex nuts (3410, 3412, 3510, 3512)
- Fourteen 10-32 hex nuts (3512KPM, 3515)
- Cable clamp with screw for power cord strain relief (34xx, 3510, 3512)
- Angle bracket for power cord strain relief (3512KPM, 3515)
- Four standoffs and four 4-40 screws for mounting PC/104 expansion cards (3408, 3410)
- Blank floppy disk and *Emergency Recovery Disk (ERD)* label
- Ethernet Disk (floppy disk)

Quick Startup

This section provides the steps to get the system running without explaining system capabilities and options.

Note

Do not attach a PS/2 mouse to touchscreen units. The mouse port is not available on touchscreen units. If COM 2 is not being used (by the IrDA port or another serial device), you may connect a serial mouse to a serial port on the unit.

Note

OpenHMI workstations do not include power cords because the unit is generally hardwired into the panel. Refer to your workstation hardware documentation to create a power cord if you wish to run the workstation outside of the panel.

Warning

To avoid injury from electrical shock, disconnect the power cord before making any adjustments to the inside or outside of the computer.

You must perform the steps outlined on the next three pages before you can download a developed OpenHMI application to the workstation.

For All Workstations

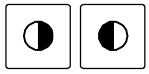
See your hardware documentation for additional details on equipment setup.

❒ Attach equipment:
- Keyboard
- Mouse (except for touchscreen models)
- External floppy drive (optional)
- Ethernet network connection (optional)

❒ Create a power cord, if necessary.

❒ Turn on power to the unit. The system should boot up in a few minutes.

❒ If you have a unit with an STN display (3406 and 3408 only), you may need to adjust the display 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 contrast keys located below the flat panel display. TFT displays don't require adjustment; the unit automatically adjusts the contrast.



Contrast Keys

F/A Key

For Windows 95 Workstations

❒ When booting the system up for the first time, the **Windows Setup Wizard** will appear before the Windows operating system starts. Enter your **Name** and **Company** in the first dialog box.

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

❒ When prompted for your Product ID, locate your Windows operating system manual and type in the Product ID that is on the package.

❒ Click **Next**.

❒ Click **Finish** to complete the load and installation.

❒ Enter your Windows username and password. (You can omit the password at this time and assign it later.)

❒ Click **OK**.

❒ New screens will appear:
- New Hardware Found
- Copying Files
- Version Conflicts (click **Yes** when prompted with version conflict dialog windows)

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

❒ Add the **Printer Wizard**:
- Ask your IS Department and follow instructions or consult your printer manual for additional information on installing your printer.
- Click **Next**. If no printer is attached, click **Cancel**.

❒ The **Welcome to Windows** screen appears. Either take the optional tour or click **Close**.

For Windows NT Workstations

❒ When booting up the system for the first time, the **Windows Setup Wizard** appears before the Windows operating system starts. The first dialog box displays the license agreement. Click **Accept** to agree to the terms and continue the load and installation. (If you select **Don't Accept**, the operating system will shut down and the installation will not be completed.) When you accept the agreement, the startup program initializes.

❒ Click **Next**, so that the startup program can begin.

❒ When prompted, enter your **Name** and **Organization**.

❒ When prompted for your Product ID, you must locate the Windows operating system backup kit and type in the Product ID on the package.

❒ When prompted for a computer name, enter a name (check with the system administrator) then click **Next**.

❒ When prompted for an administrator password, enter a password (check with the system administrator) then click **Next**.

> **Note**
>
> If you wish to configure the workstation to log on and start OpenHMI applications automatically after restarting the system, you should enter an administrator password. Otherwise it will be difficult to make administrator level changes to the Windows configuration. It is recommended that you write down your password for future reference.

❒ Click **Next** to continue the startup.

❒ As startup continues, new screens may appear:

- New Hardware Found
- Copying Files
- File Replacement (click **No** when prompted to replace new files with old source files)

❒ Enter the **Date** and **Time** when prompted.

❒ When startup is complete, click **Restart**.

❒ To login after the system restarts, press and hold CTRL and ALT, then press DELETE. At the prompt, enter your name and password and press ENTER. The screen should then show your Windows NT desktop.

Emergency Recovery Disk (ERD) Procedure

After you unpack and start up your OpenHMI workstation, it is highly recommended that you make an ERD. You must have an ERD to restore your system information if there are problems that prevent your system from booting normally.

- ❒ Locate the blank 3.5″ floppy disk provided with the OpenHMI workstation.
- ❒ Start the workstation.
- ❒ Double-click the **Create ERD** shortcut, located on the desktop.
- ❒ When SYS_ERU prompts you, insert the disk and press any key to continue.
- ❒ Click **Next** to when you see the **Emergency Recovery Utility** welcome screen.
- ❒ Click **Next** to accept the default **Select Drive** path.
- ❒ Remove the disk from the drive and apply the label marked *Emergency Recovery Disk*. You should also write the date on the label.
- ❒ Reinsert the labeled disk and click **OK**.
- ❒ Click **Next** to accept the default for **Under Files to Saved**.
- ❒ Click **OK** when the **Emergency Recovery Disk Utility** has finished.
- ❒ Remove the ERD disk and store it in a safe place with your system manuals.

Chapter 2 – Loading and Starting Applications

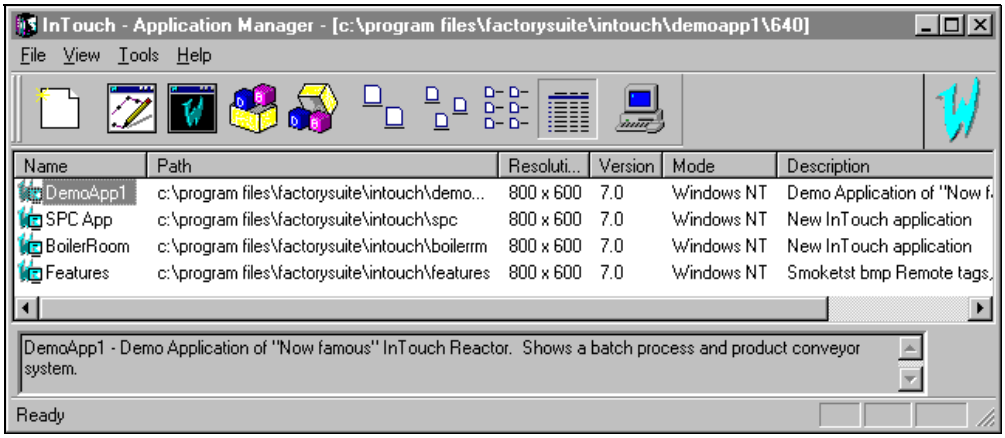
You should read this chapter for an overview of the application manager and the procedures for downloading applications to a workstation. In order to investigate all of the capabilities of OpenHMI, you should read the *OpenHMI User's Guide* which is installed with your program as a PDF file.

InTouch Application Manager

You may use the InTouch Application Manager to open and delete existing applications in WindowViewer. If you wish to configure applications on this unit, install the OpenHMI system configurator license and follow the directions in the *Getting Started* manual. After completing application development, reinstall the runtime version of OpenHMI so that your system can run without the time constraints of the configurator software.

Running the InTouch Application Manager

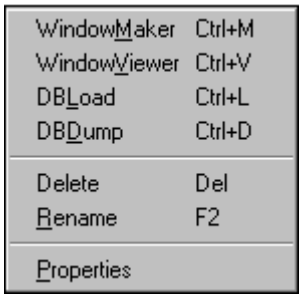
❒ Start the OpenHMI program (INTOUCH.EXE). This can be done by clicking **OpenHMI** in the **Start** menu's **Programs** folder or by double-clicking an **OpenHMI** desktop shortcut. The **InTouch - Application Manager** dialog box appears.



The **InTouch - Application Manager**'s drop-down menus and push buttons function just like those of any Windows application.

When you select an application in the list, its name and its 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** menu commands from the menu that appears when you click the right mouse button as you select an application (next page).



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

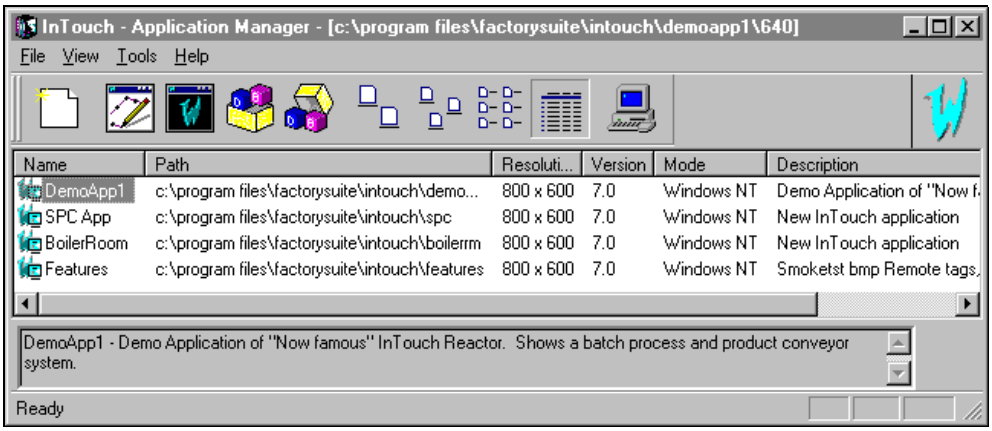
- To delete an application, right-click the application in the list and then click **Delete**. A message box will appear asking you to confirm the deletion. Click **Yes** to delete the application. Deleting an application only deletes it from the **InTouch - Application Manager**. The application is still present in its directory. To redisplay a deleted application, follow the next step (used to display a transferred application).

- After an application is transferred to your workstation (see page 2-9), it does not automatically appear in the **InTouch - Application Manager** window. You need to display it first. 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 appear, displaying icons for all applications found in that directory.

Note

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

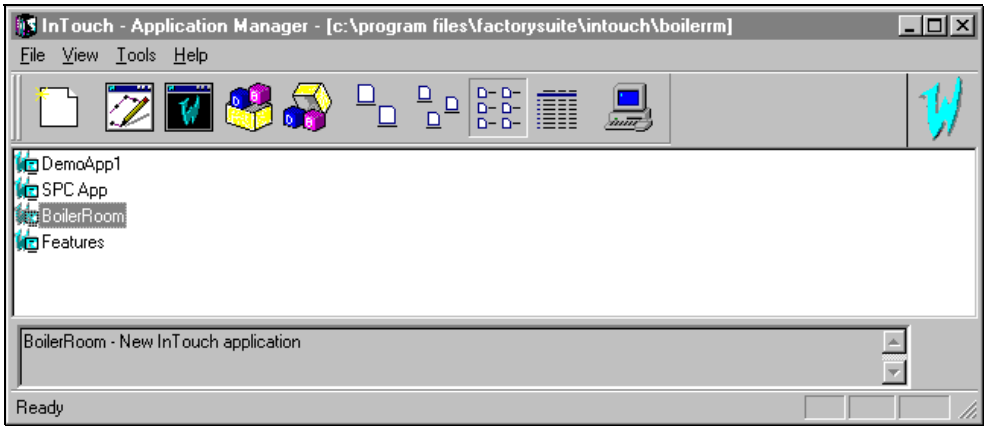


The InTouch - Application Manager Tools

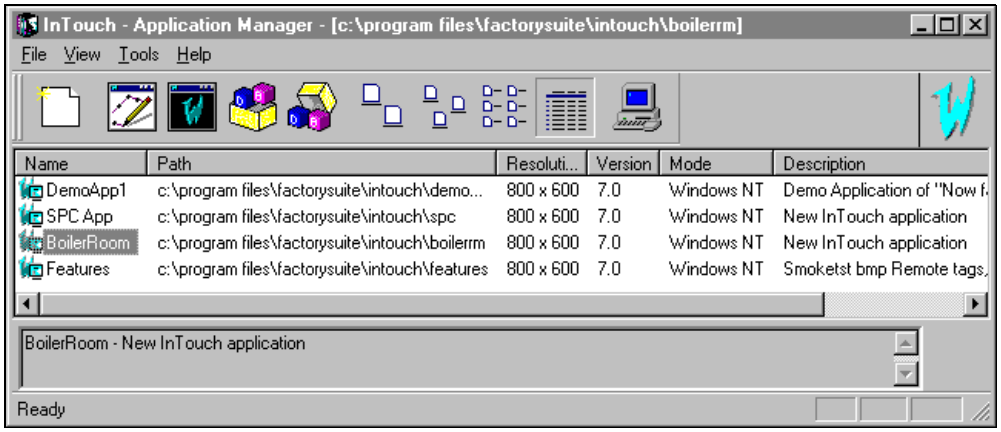
When OpenHMI is initially run, the **InTouch - Application Manager**'s toolbar and status bar are displayed by default. To hide the toolbar, select **Toolbar** on the **View** menu. To show it again, repeat this step. To hide the status bar, select **Status Bar** on the **View** menu. To show it again, repeat this step.

The following list briefly describes the **InTouch - Application Manager** toolbar buttons which function in the runtime version of OpenHMI:

Button	Description
	Executes the **WindowViewer** command on the **File** menu to open the selected application in WindowViewer.
	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:

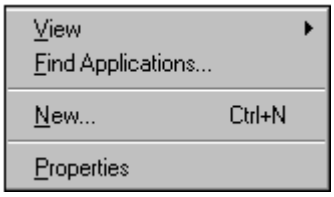


Executes the **Details** command on the **View** menu to change the dialog box to the details view mode. For example:

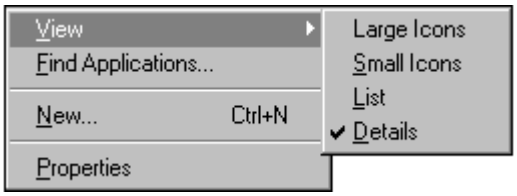


Double-clicking the right vertical separation bar of a column header will auto-size the column.

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:



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



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

Opens the **Node Properties** dialog box that you will use to set Dynamic Resolution Conversion (DRC). The use of this dialog box is covered in your developer documentation.

This dialog box can also be opened using **Node Properties** in the **Tools** menu.

Note

Other features and menu selections are not operational in the runtime version of OpenHMI's WindowViewer screen.

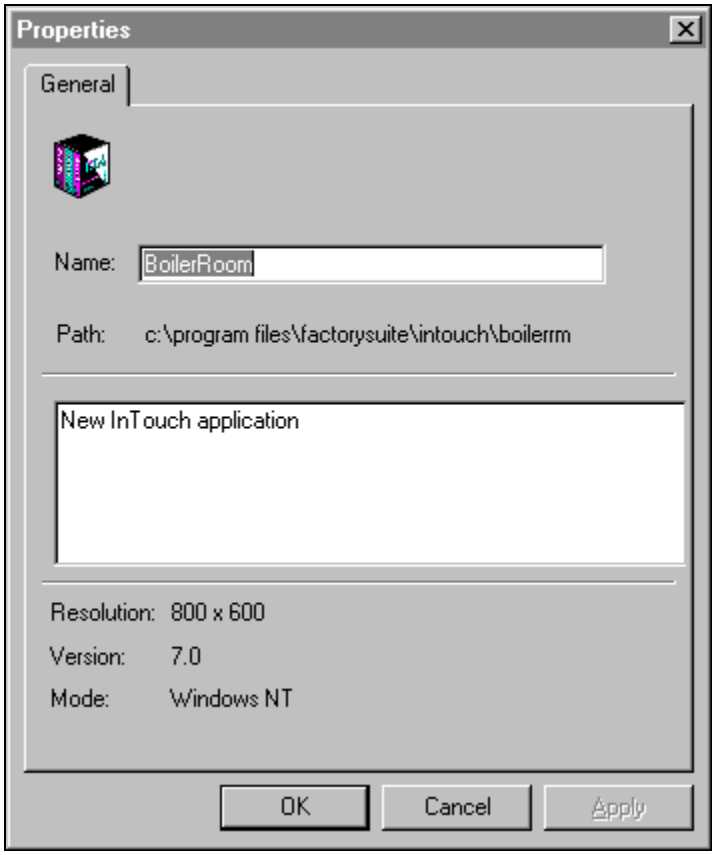
If you start **Windowmaker**, you will get a **Name for this Node…** dialog box and an underlying box explaining that the license does not enable you to open that particular function. Click **Cancel** on the dialog box, click **OK** on the underlying box, and restart OpenHMI.

If you start **DBLoad** or **DBDump**, click **No**, then **OK**, and then restart OpenHMI.

If you start **New InTouch Application**, click **Cancel** in the **Create New Application** wizard.

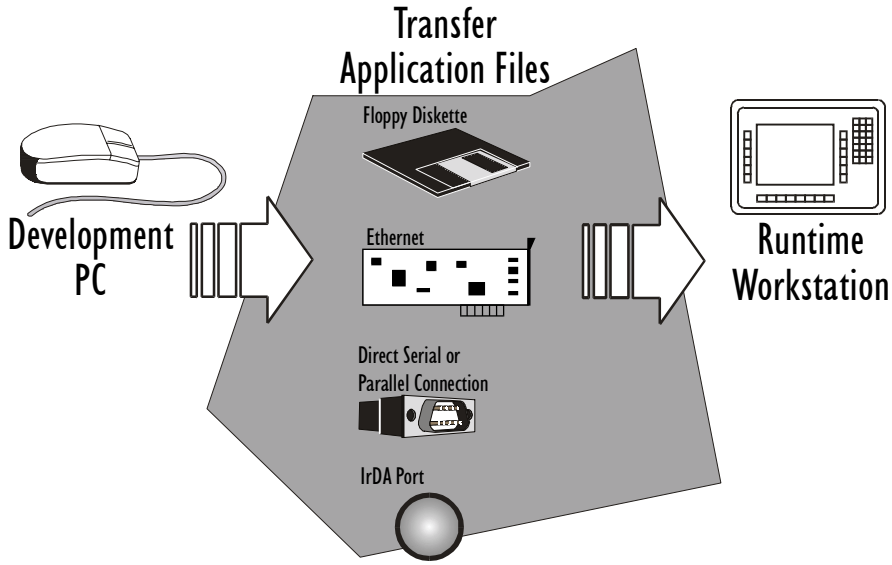
Note

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:



Downloading the Application

For a real world application, you need to download your application to a workstation before you can start communicating with I/O. As discussed in the introduction, a Pro-face 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 Disk

- ❒ Log onto your runtime system.
- ❒ From the **Start** menu's **Programs** 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, where *YourAppname* is your application name.
- ❒ 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 disk.
- ❒ 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 disk is in the drive. Doing this may corrupt the data on the disk.

Peer-to-Peer Direct Ethernet Connection

To download the application through a direct network connection, you will need an install and configure in the development system an Ethernet card 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

- ❒ Log onto your runtime system.
- ❒ From the **Start** menu's **Settings** folder, click **Control Panel**.
- ❒ Double-click the **Network** icon.
- ❒ In the **Network** dialog box 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 the 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

- ❒ Log onto your runtime system.
- ❒ From the **Start** menu's **Settings** folder, click **Control Panel**.
- ❒ Double-click 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.
- ❒ From the **Start** menu's **Programs** folder, click **Windows Explorer**.
- ❒ Find and select the folder that you want to copy your OpenHMI application files into.
- ❒ Select **File**, then select **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**, then select **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 work assuming that your network adapter on your runtime workstation is functioning properly and you can go out on the network.

Windows 95 Systems

- ❒ Log onto your runtime system.
- ❒ From the **Start** menu's **Settings** folder, click **Control Panel**.
- ❒ Double-click the **Network** icon.
- ❒ In the **Network** dialog box 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

❒ Log onto your runtime system.

❒ From the **Start** menu's **Settings** folder, click **Control Panel**.

❒ Double-click the **Network** icon.

❒ In the **Network** dialog box 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 box'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.
- ❒ From the **Start** menu's **Programs** folder, click **Windows Explorer**.
- ❒ Find and select the folder that you want to copy your OpenHMI application files into.
- ❒ Select **File**, then select **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**.
- ❒ From the **Start** menu's **Programs** folder, click **Windows Explorer**.
- ❒ Find and select the folder that you want to copy your OpenHMI application files into.
- ❒ Select **File**, then select **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 runtime system.
- ❒ From the **Start** menu's **Programs** folder, click **Windows Explorer**.
- ❒ Select the project directory that is to be transferred (usually under *c:\program files\ FactorySuite\Intouch*).
- ❒ Select **File**, then select **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, from the **Start** menu's **Settings** folder, click **Control Panel**.
- ❒ 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 that **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.

❒ Log onto the PC.

❒ From the **Start** menu's **Settings** folder, click **Control Panel**.

❒ 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.

❒ From the **Start** menu's **Programs** folder, click **Windows Explorer**.

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

❒ Select **File**, then select **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**.

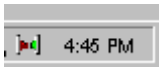
❒ Click on the **Change** button.

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

- ❒ Select **Serial Cable on COM4**, then click on **Next**.
- ❒ Click on **Finish**. The computer will now try to connect using the IrDA port. It may time out and post the 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 they are 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.

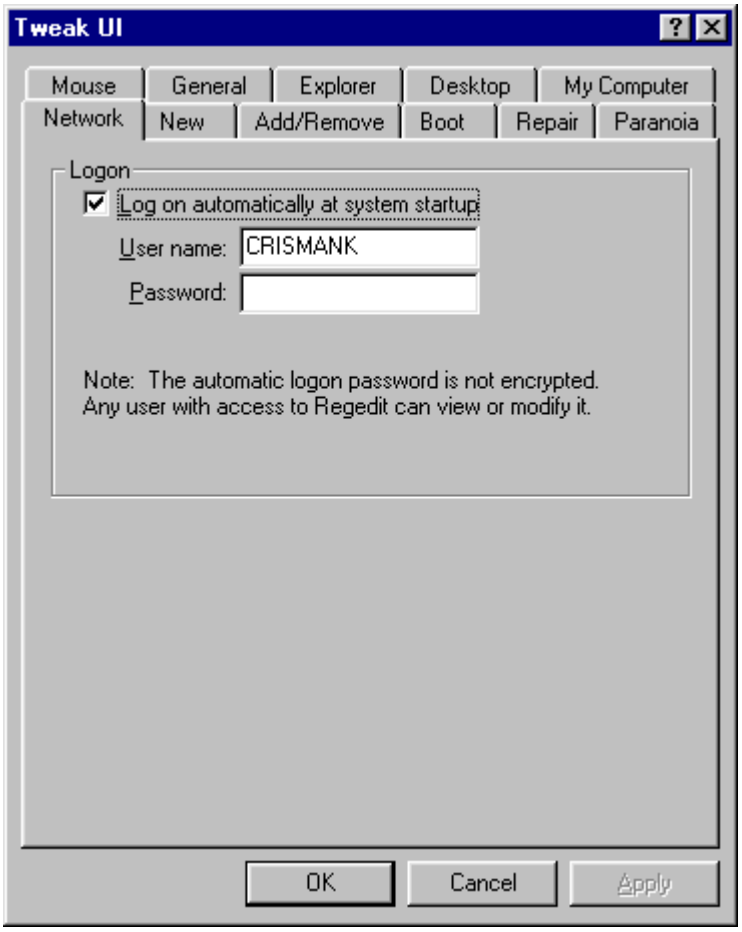
Note for Windows NT Workstation

Automatic login cannot be configured on a Windows NT workstation. When the workstation is restarted, an administrator must log onto 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 the Tweak UI icon.

❒ Select the **Network** tab.



❒ Check the **Log on automatically at system 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.

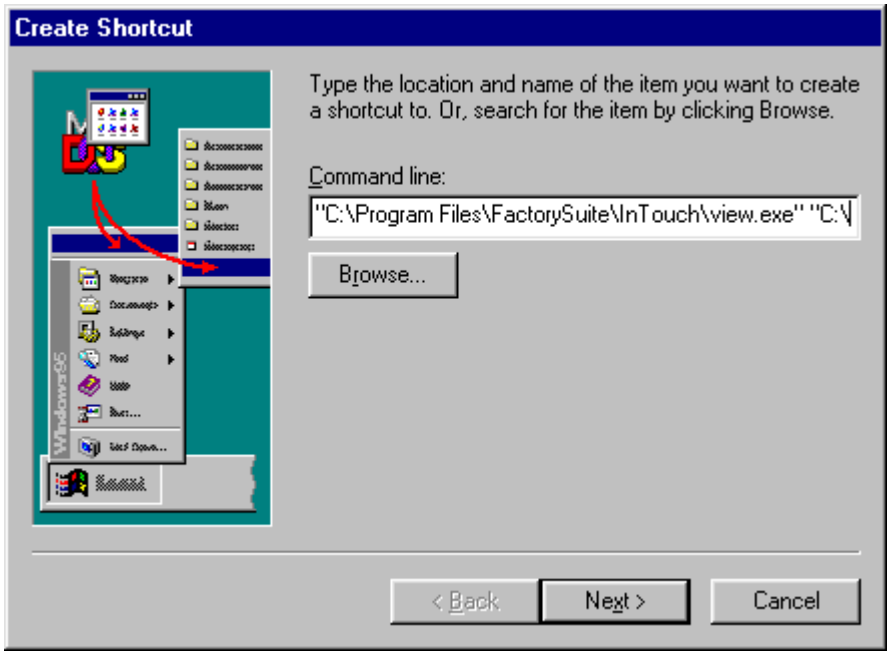
❒ Click **Add** to view the **Create Shortcut** window

❒ Load your I/O Server using the dialog's browse button. Locate the I/O Server (EXE) which should be located in a separate folder *C:\Servers* (versions

earlier than 7.0) and *C:\Program Files\FactorySuite\IOServer* (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



❒ 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, n*ote 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 S**tartup** 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.

Chapter 3 – OpenHMI Troubleshooting and Reinstallation

This chapter provides a list of OpenHMI application errors that may require reinstallation of the OpenHMI software. It also provides reinstallation instructions. Consult your workstation hardware documentation for general system troubleshooting information and installation, operation, and maintenance information.

> **Note**
>
> When replacing a particular unit or performing service procedures, remember that the unit may have been customized and options may have been installed. Make sure that you maintain a record of configuration changes that were made to support these customizations or options.

OpenHMI Application Errors

You may need to reinstall some or all of your OpenHMI software if you have any of the following application problems:

- OpenHMI application locks up
- File errors in WindowViewer
- Communication errors

Possible solutions for recovering from OpenHMI application errors are:

- Reload the application onto the OpenHMI workstation from your development PC or from a backup copy of the application.
- For communications errors, reinstall the I/O Server (see page 3-6).
- If application errors are not fixed by reloading the application or I/O Server, reinstall the OpenHMI software onto your workstation (see page 3-3).

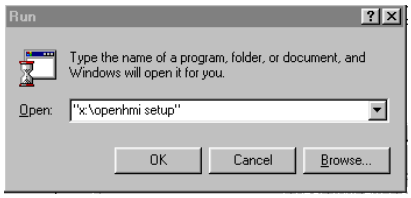
Reinstall OpenHMI Software

> **Note**
>
> If your workstation does not have a CD-ROM drive, you need a portable CD-ROM drive (with appropriate device drivers installed) attached to the printer port and powered on.

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

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

❒ The **Run** dialog box appears:



❒ Type **"*x*:\openhmi setup"** (where ***x*** is your CD-ROM drive) in the **Open** text box. You must type the quotes, or the installation program will not start.

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

❒ 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 (last step on this page) *before* you are asked to restart the operating system, you will have to follow the installation procedure again, from the beginning.

- ❒ 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.
- ❒ Enter your name and company to complete the user information screen and click **Next**.
- ❒ Click **OK** to verify the name and company.
- ❒ 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.
- ❒ If you get a **Version Conflict** message, click **Yes** to keep the existing file.
- ❒ When prompted to specify an **InTouch Destination** directory, click **Next** to keep the default.
- ❒ If you don't already have the Acrobat Reader installed on your system, it will be installed onto your system. This reader allows you to view the online documentation that the install program saves to your hard disk in PDF format. Click **Next** at each step of this sequence, then **OK** when the sequence is complete.
- ❒ Select components when prompted. Pro-face recommends:
  InTouch
  Demos that match your OpenHMI workstation's resolution (640 x 480, 800 x 600, or 1024 x 768)
  InTouch 7.0 Recipe Manager
  Online Manuals
  When you finish selecting components, Click **Next**.

Note

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

- ❒ 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.

- ❒ 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.

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

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

Reinstall I/O Server

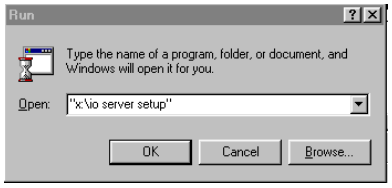
Version 7.0 Servers

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

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

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

❒ The **Run** dialog box appears:



❒ Type **"*x*:\io server setup"** (where ***x*** is your CD-ROM drive) in the **Open** text box. You must type the quotes, or the installation program will not start.

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

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

Note

The version of the server is indicated on the server list. If you select a server that is below version 7.0, the rest of the installation process will differ slightly from the version 7.0 driver installation. Refer to the next section to install an older driver.

- ❒ When prompted to verify setup information, click **Next**.
- ❒ When prompted to review the I/O server release notes, in the next installation dialog box, you may select **Yes** or **No**.
- ❒ Click **Yes** to continue the installation.
- ❒ When the **Welcome to the system files setup program** screen appears, click **Next,** then **Next** again at the second welcome screen.
- ❒ 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.
- ❒ Verify the name and company in the user information screen and click **Next**.
- ❒ Click **Yes** to confirm registration.
- ❒ 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.
- ❒ If you don't already have the Acrobat Reader installed on your system, it will be installed onto your system. This reader allows you to view the online documentation that the install program saves to your hard disk in PDF format. Click **Next** at each step of this sequence, then **OK** when the sequence is complete.
- ❒ When prompted again to specify an Intouch Destination directory, click **Next** to keep the default.
- ❒ You will be prompted to select the components to install. Click **Next** to accept the default of all components.
- ❒ 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.

- ❒ 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 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 the previous procedure.

- ❒ When prompted to verify setup information, click **Next**.
- ❒ When prompted to review the I/O server release notes, in the next installation dialog, you may select **Yes** or **No**.
- ❒ Click **Yes** to continue the installation.
- ❒ When the **Welcome to the system files setup program** screen appears, click **Next**.
- ❒ 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.
- ❒ When prompted to specify an **InTouch Destination** directory, click **Next** to keep the default.
- ❒ You will be prompted to select the components to install. Click **Next** to accept the default of all components.
- ❒ Click **Next** to verify setup information and complete I/O Server installation.
- ❒ When prompted to add icons to the Windows Start menu, click **Yes**.
- ❒ 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.

350010(C)

Xycom Automation, LLC
734-429-4971
Fax: 734-429-1010
http://www.profaceamerica.com

Canada Sales: 905-607-3400
Northern Europe Sales: +44-1604-790-767
Southern Europe Sales: +39-011-770-53-11