

# iTrax<sup>®</sup> Software Installation Guide

Customer Product Manual

Part 1606827-03

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# iTrax<sup>®</sup> Software Installation Guide

## Safety

Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to persons operating or servicing equipment.

## *Qualified Personnel*

Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

## *Intended Use*

Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include

- using incompatible materials
- making unauthorized modifications
- removing or bypassing safety guards or interlocks
- using incompatible or damaged parts
- using unapproved auxiliary equipment
- operating equipment in excess of maximum ratings

## *Regulations and Approvals*

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

## ***Personal Safety***

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment. Before adjusting or servicing moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.
- Relieve (bleed off) hydraulic and pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- While operating manual spray guns, make sure you are grounded. Wear electrically conductive gloves or a grounding strap connected to the gun handle or other true earth ground. Do not wear or carry metallic objects such as jewelry or tools.
- If you receive even a slight electrical shock, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.
- Obtain and read Material Safety Data Sheets (MSDS) for all materials used. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.
- Make sure the spray area is adequately ventilated.
- To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.

### **High-Pressure Fluids**

High-pressure fluids, unless they are safely contained, are extremely hazardous. Always relieve fluid pressure before adjusting or servicing high pressure equipment. A jet of high-pressure fluid can cut like a knife and cause serious bodily injury, amputation, or death. Fluids penetrating the skin can also cause toxic poisoning.

If you suffer a fluid injection injury, seek medical care immediately. If possible, provide a copy of the MSDS for the injected fluid to the health care provider.

The National Spray Equipment Manufacturers Association has created a wallet card that you should carry when you are operating high-pressure spray equipment. These cards are supplied with your equipment. The following is the text of this card:



**WARNING:** Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor that you suspect an injection injury.
- Show him this card
- Tell him what kind of material you were spraying

#### MEDICAL ALERT—AIRLESS SPRAY WOUNDS: NOTE TO PHYSICIAN

Injection in the skin is a serious traumatic injury. It is important to treat the injury surgically as soon as possible. Do not delay treatment to research toxicity. Toxicity is a concern with some exotic coatings injected directly into the bloodstream.

Consultation with a plastic surgeon or a reconstructive hand surgeon may be advisable.

The seriousness of the wound depends on where the injury is on the body, whether the substance hit something on its way in and deflected causing more damage, and many other variables including skin microflora residing in the paint or gun which are blasted into the wound. If the injected paint contains acrylic latex and titanium dioxide that damage the tissue's resistance to infection, bacterial growth will flourish. The treatment that doctors recommend for an injection injury to the hand includes immediate decompression of the closed vascular compartments of the hand to release the underlying tissue distended by the injected paint, judicious wound debridement, and immediate antibiotic treatment.

## ***Fire Safety***

To avoid a fire or explosion, follow these instructions.

- Ground all conductive equipment. Use only grounded air and fluid hoses. Check equipment and workpiece grounding devices regularly. Resistance to ground must not exceed one megohm.
- Shut down all equipment immediately if you notice static sparking or arcing. Do not restart the equipment until the cause has been identified and corrected.
- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored.
- Do not heat materials to temperatures above those recommended by the manufacturer. Make sure heat monitoring and limiting devices are working properly.

## **Fire Safety** (contd)

- Provide adequate ventilation to prevent dangerous concentrations of volatile particles or vapors. Refer to local codes or your material MSDS for guidance.
- Do not disconnect live electrical circuits when working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Shut off electrostatic power and ground the charging system before adjusting, cleaning, or repairing electrostatic equipment.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.

## **Halogenated Hydrocarbon Solvent Hazards**

Do not use halogenated hydrocarbon solvents in a pressurized system that contains aluminum components. Under pressure, these solvents can react with aluminum and explode, causing injury, death, or property damage. Halogenated hydrocarbon solvents contain one or more of the following elements:

<u>Element</u>	<u>Symbol</u>	<u>Prefix</u>
Fluorine	F	“Fluoro-”
Chlorine	Cl	“Chloro-”
Bromine	Br	“Bromo-”
Iodine	I	“Iodo-”

Check your material MSDS or contact your material supplier for more information. If you must use halogenated hydrocarbon solvents, contact your Nordson representative for information about compatible Nordson components.

## **Action in the Event of a Malfunction**

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out system electrical power. Close hydraulic and pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the system.

## **Disposal**

Dispose of equipment and materials used in operation and servicing according to local codes.

# Description

## Introduction

The Nordson iTrax Control System is a configurable spray control and monitoring system using a combination of modules that communicate over a CAN (Controller Area Network) network to an OPC (Open Platform Communications) server running on a Windows<sup>®</sup> computer.

This manual provides information on how to upgrade and newly install the iTrax Software Package. It also includes information on how to install the latest version of the Softing CanproUSB driver and CAN Programmer.

The flash drive included in the iTrax Software Installation Kit contains all of the necessary files and applications for setup.



Figure 1 iTrax Operator Interface

## ***iTrax Version Compatibility***

### **Software List**

Reference the table below for the iTrax software versions and corresponding part numbers.

<b>Software Version</b>	<b>Part Number</b>	<b>Notes</b>
<b>iTrax Server/Local</b>		
4.00	1046664	A, C
4.20	1088800	A, C
5.00	1091699	A, C
5.20	1107859	A, C
5.40	1601274	A, C
5.60	1605306	A
<b>iTrax Datalogger</b>		
3.00	1051822	B, C
4.20	1107933	B, C
4.20	1605307	B
<b>iTrax Remote</b>		
4.00	1051821	A, C
4.20	1088789	A, C
5.00	1091698	A, C
5.20	1107890	A, C
5.40	1601275	A, C
5.60	1605308	A
<p>NOTE A: Versions of the iTrax Remote must be used with the corresponding same version of iTrax Server/Local.</p> <p>B: The iTrax Datalogger Version 3.00 has no support for iTrax SC or PRx module variables. For iTrax SC and PRx support, use iTrax Datalogger version 4.20.</p> <p>C: Version is obsolete.</p>		

## Softing Drivers

Softing drivers 5.16 and 5.17.015 are located on the USB Flash Drive for the iTrax version 5.6 software. Legacy drivers can be downloaded by request through your Nordson account representative.

The iTrax Software Installation Kit version 5.6.0 (part number 1605306) includes the CANproUSB interface device (part number 1605578). The CANproUSB device will only run with the Softing driver version 5.17.015. This driver must be installed on a PC with Windows XP with SP3 (ServicePack3), Windows XP Professional, or Windows 7 Professional (or higher). Verify that the *DLL=* setting in the *system.ini* file enables the CANproUSB. To upgrade the Softing driver, follow the *Uninstalling the Current Softing Driver* and *New Softing Driver Installation* instruction sections on page 8 and page 13 of this manual.

CAN Interface Device	Part Number	Status	Windows Version	LegacySofting Drivers for Win XP Service Pack 2 or Lower	5.16 Driver	5.17.015 Driver	Notes
CANUSB	1046666	Obsolete	Win 7 (32 or 64 bit)	NO	YES	YES	A
CANUSB	1046666	Obsolete	Win XP with service pack 3	YES	YES	YES	A
CANUSB	1046666	Obsolete	Win XP with service pack 2 and earlier (including Win2000)	YES	NO	NO	
CANproUSB	1605578	Available	Win 7 (32 or 64 bit)	NO	NO	YES	
CANproUSB	1605578	Available	Win XP with service pack 3	NO	NO	YES	
CANproUSB	1605578	Available	Win XP with service pack 2 and earlier (including Win2000)	NOT SUPPORTED (Must update Windows on the PC)			

NOTE A: For this Softing driver version, the correct 32 bit or 64 bit driver must be installed.

# Installation

## Upgrading Current iTrax System

### Backing Up Previous iTrax Version

1. Click on New folder to create a new folder in the iTrax PC local C:\ drive
2. **Rename** the new folder Previous iTrax Version
3. **Copy** the C:\WdsnClient and C:\WdsnServer folders from the existing iTrax system into the new folder.

### Uninstalling the Current Softing Driver

See Figure 2.

1. **Go to** Control Panel → Programs & Features and **select** Softing CAN Drivers and Software from the list.
2. **Right click** on the selection and select Uninstall.
3. **Click** on Yes to allow the program to make changes to the computer.

The Softing program will disappear from the program files.

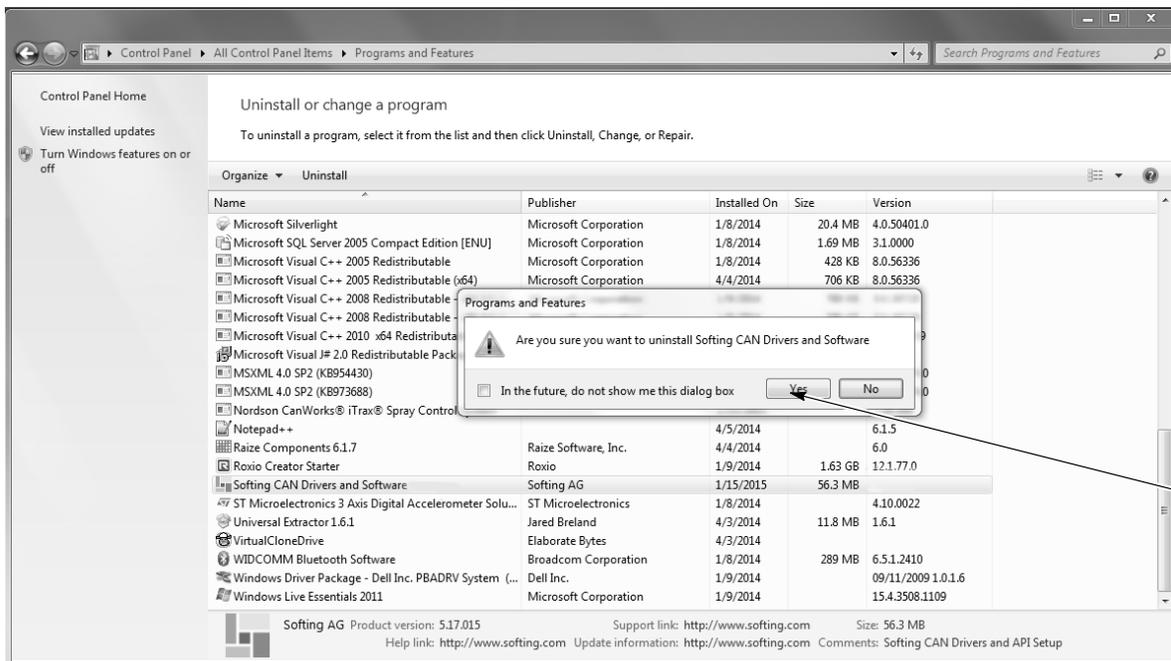


Figure 2 Softing CAN Drivers and Software Uninstall Screen

## Uninstalling the CAN Programmer

**NOTE:** Do not uninstall the current CAN Programmer if the iTrax PC is currently running version 2.3.0 or newer.

See Figure 4.

1. **Go to *Control Panel* → *Programs & Features*** and **select *CAN Programmer*** from the list.
2. **Right click** on the selection and select ***Uninstall***.

The *InstallShield Wizard* will appear.

3. **Click on *Remove***.
4. **Click on *Next***.
5. **Click on *Yes*** when the dialogue box appears.

The Nordson CAN Programmer icon will disappear from the desktop.

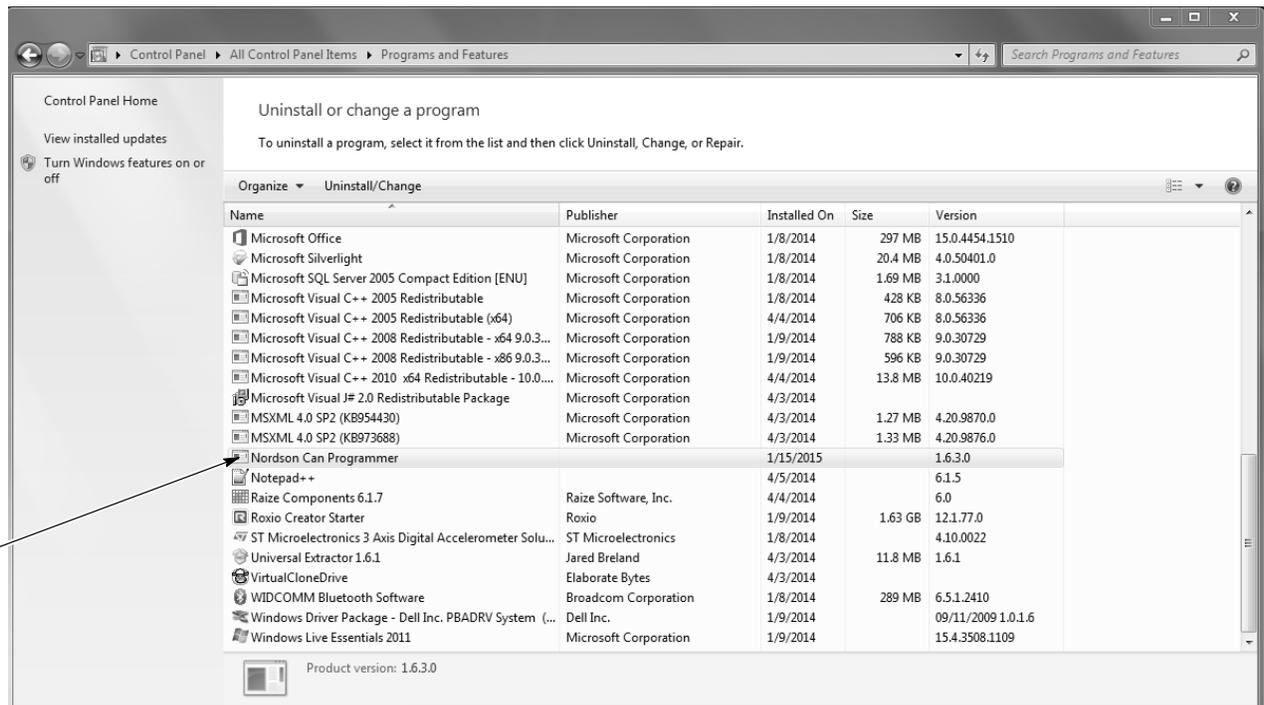


Figure 3 CAN Programmer Uninstall Screen

## Uninstall the Previous iTrax Version

See Figure 4.

1. Go to *Control Panel* → *Programs & Features* and select *Nordson iTraxSpray Control System* from the list.
2. Right click on the selection and select *Uninstall*.

The *InstallShield Wizard* will appear.

3. Click on *Remove*.
4. Click on *Next*.
5. Click on *Yes* when the dialogue box appears.
6. Click on *Finish*.

The icons will no longer appear on the desktop and the iTrax software will no longer appear in the program files.

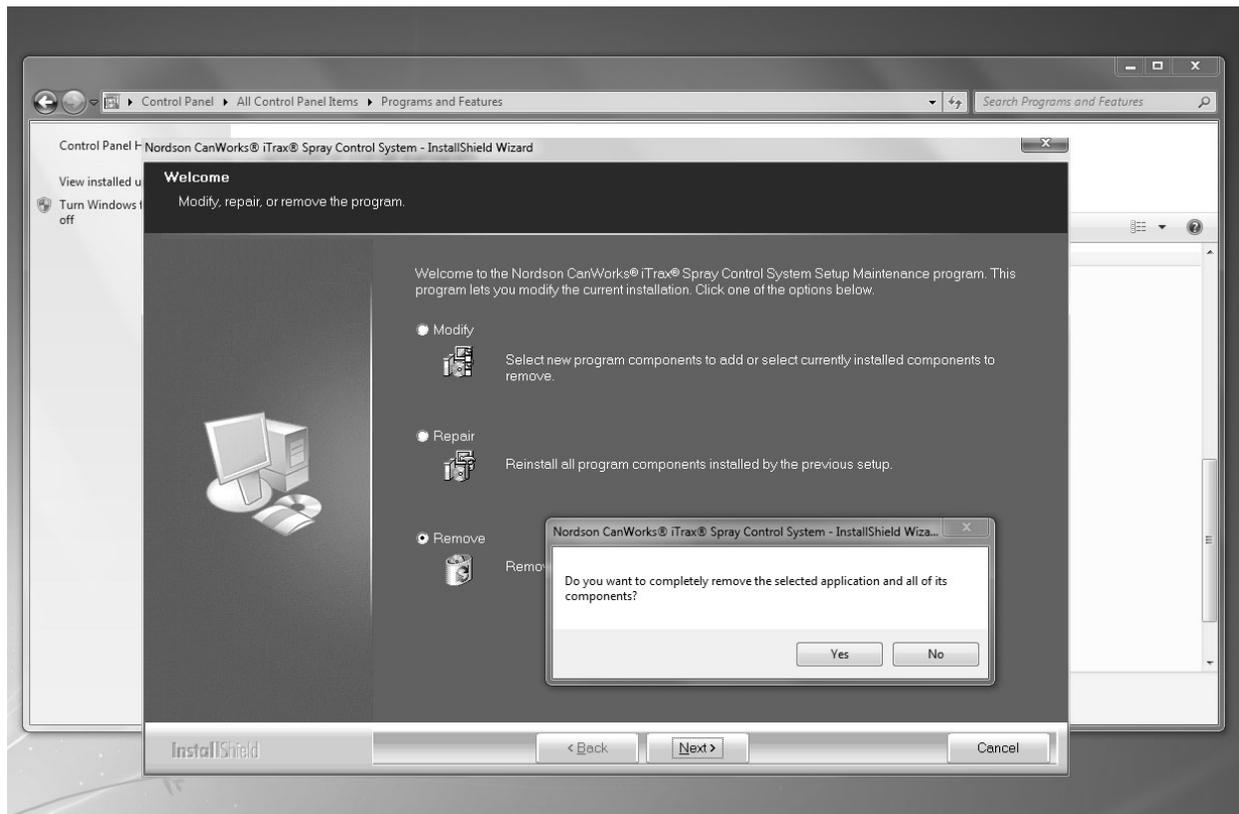


Figure 4 iTrax Software Removal Screen

7. See Figure 5. **Delete** the C:\NdsnClient and C:\NdsnServer folders from the local C:\ drive.
8. The previous iTrax version is now uninstalled. Follow the steps in the *New Installation* section on page 12 to install the latest software version and upgrade the iTrax system.

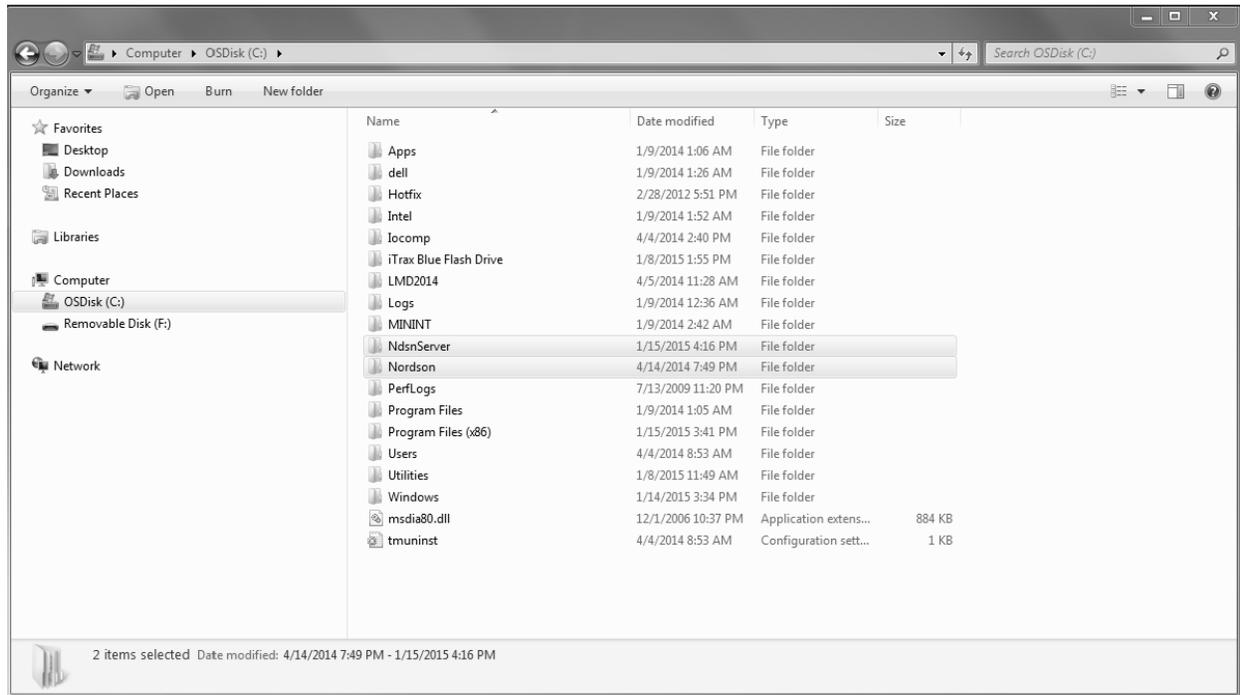


Figure 5 iTrax Folders to Delete

## New Installation

### Copy the Flash Drive Files

**NOTE:** Before installing iTrax firmware and software, copy all the programs from the blue flash drive onto the iTrax PC. The flash drive contains all of the software needed to operate the iTrax system and modules.

See Figure 6.

1. **Click** on New folder to create a new folder in the iTrax PC local C:\ drive.
2. **Rename** the new folder iTrax Blue Flash Drive.
3. **Plug** the flash drive into the USB port and open the file.
4. **Copy** the files from the flash drive folder into the iTrax Blue Flash Drive folder.
5. See Figure 7. **Verify** the contents of the newly created folder.

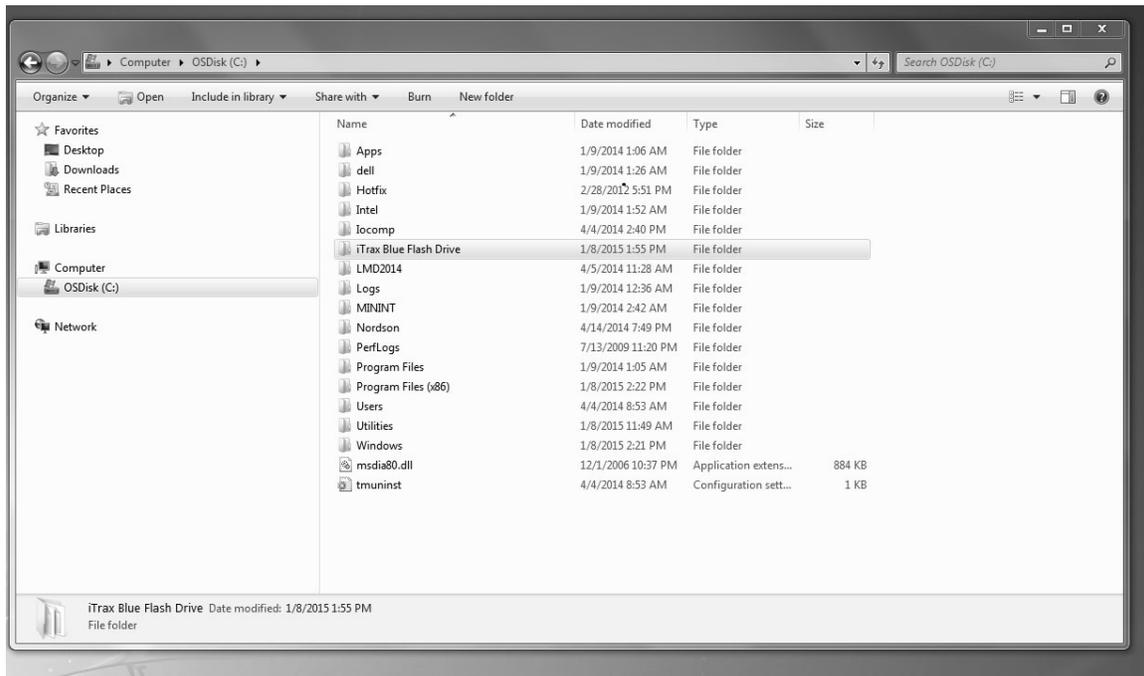


Figure 6 Creating the iTrax Blue Flash Drive Folder

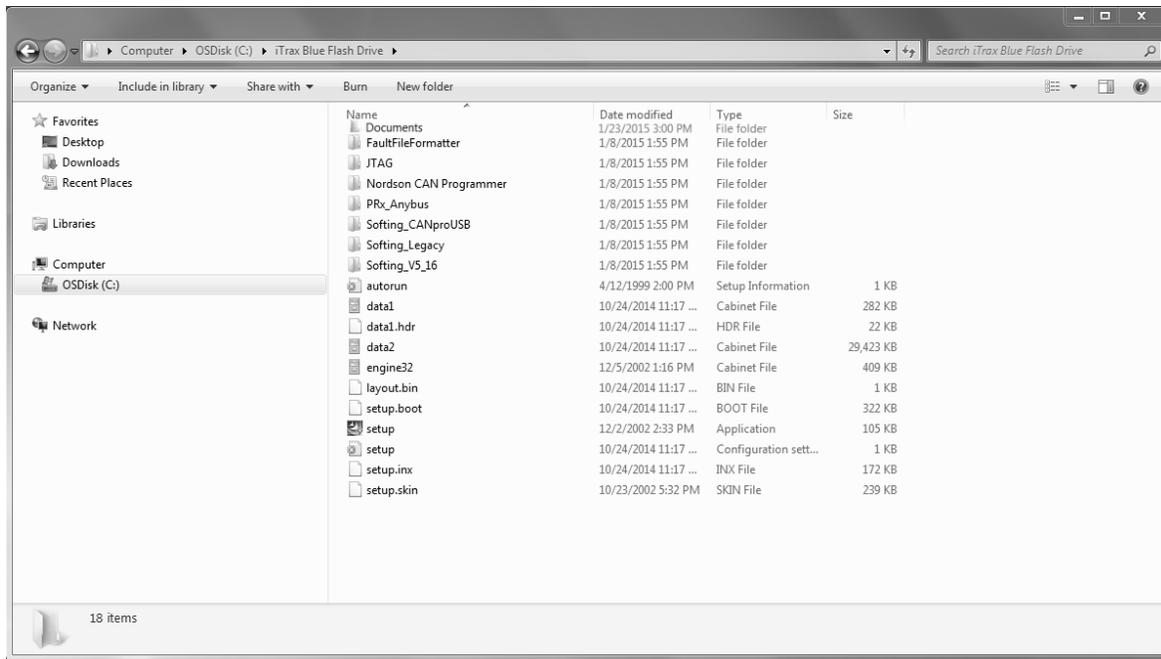


Figure 7 Contents of Blue Flash Drive

## Softing Driver Installation

**NOTE:** Complete the steps listed in the *Uninstalling the Current Softing Driver* section on page 8 of this manual prior to completing the below steps.

### *Windows Operating System Preparation*

Complete the steps below to prepare the iTrax PC for Softing driver installation.

**NOTE:** The installation procedure assumes the PC is running Windows XP (with Service Pack 3) or later. Earlier operating systems are not supported.

1. **Close** all Windows.
2. **Go to** (C:) Local Disk → Windows → regedit.
3. **Open** the regedit application.
4. **Navigate to** HKEY\_LOCAL\_MACHINE\SOFTWARE\Softing\CANDEVICES.
5. **Delete** all registry entries and subkeys under the DEVICES key.
6. **Exit** regedit.

The iTrax PC is now ready to install the Softing drivers.

### New Softing Driver Installation

**NOTE:** On iTrax systems with older Softing drivers previously installed, additional steps are required prior to loading the new Softing version 5.17.015 drivers. See *Installing the Softing Driver on iTrax Version 5.4.0 or Earlier* instructions on page 17 of this manual.

1. **Unplug** the Softing CANproUSB (or CANUSB) interface from the USB port of the iTrax PC.
2. From Windows Explorer, **select** Start → Run → Browse.
3. **Go to** C:\iTrax Blue Flash Drive\Softing\_CANproUSB\CANSetup.exe.
4. **Click on** Open.
5. **Click on** OK in the Run dialog box.

See Figure 8. The selected program contains version 5.17.015 of the Softing Drivers which must be used with the CANproUSB.

6. **Click on** Yes to allow the program to make changes to the computer.

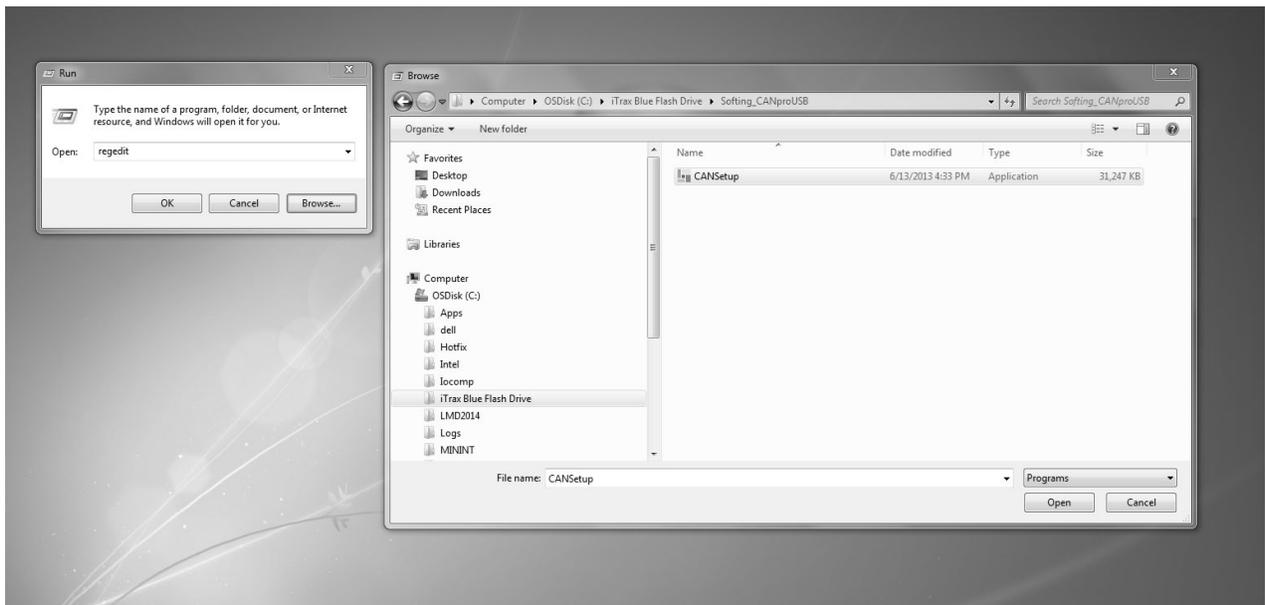


Figure 8 CANSetup Run Dialog Box

The *Softing CAN Drivers and Software V5.17 – InstallShield Wizard* will begin.

See Figure 9.

7. **Click** on *Next* and accept the license terms.
8. **Click** on *Next* until the program is fully installed.
9. **Click** on *Install*.
10. **Click** on *Finish*.
11. **Close** any installation windows that may still be opened. If there are any Windows errors during the installation process, see the *Windows Operating System Preparation* section on page 13 of this manual.



Figure 9 Softing CAN Drivers and Software V5.17 – InstallShield Wizard

### ***New Softing Driver Installation (contd)***

The *Softing CAN Interface Manager* screen will appear.

12. See Figure 10. **Connect** the USB cable from the PC to the CANproUSB interface.

Windows will respond with *New Device Found* and automatically open the wizard.

13. Complete the installation through the wizard using the recommended selections. When complete, Windows will respond with *New Device is Ready to Use*.

14. To verify that the Softing interface is installed correctly, navigate to the *Control Panel* on the PC and select *Programs and Features*. *Softing CAN Drivers and Software V5.17* should be listed.

The iTrax server should now start up properly. Verify all iTrax modules are listed in the server window.

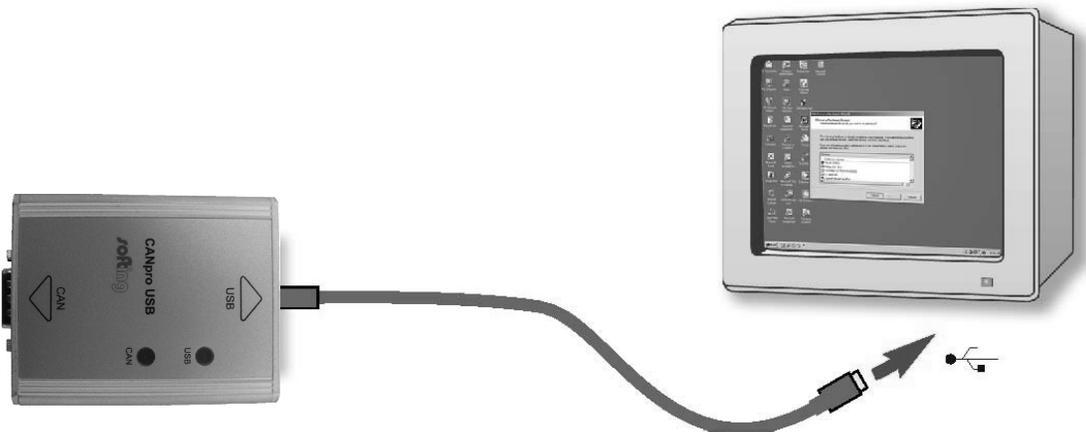


Figure 10 CANProUSB Interface Connection

**Installing the Softing Driver on iTrax Version 5.4.0 or Earlier**

Follow the steps below to install Softing CANproUSB on existing 5.4.0 (or earlier) iTrax systems.

1. **Go to** the C:\WDSNServer folder.
2. **Rename** the file CANACAPI.DLL to CANACAPI.OLD.
3. In folder C:\WDSNServer\ini, **open** the system.ini file in Notepad and edit the file as follows:
  - **Add** a semicolon – ;DLL = CANUSB
  - **Add** a new row – DLL = CANPROUSB
4. **Save** and **Exit** system.ini.
5. **Go to** C:\Program Files\Softing\CAN\CAN Layer2 V5.17\APIDLL.
6. **Copy** the files canL2.DLL and canV4generic.DLL.
7. **Paste** to the C:\WDSNServer folder.
8. In the C:\WDSNServer folder, **rename** the file canV4generic.DLL to canprousb.DLL.

## CAN Programmer Installation

1. From Windows Explorer, **select** *Start* → *Run* → *Browse*.
2. **Go to** *C:\jTrax Blue Flash Drive\Nordson CAN Programmer\setup.exe*.
3. **Click on** *Open*.
4. **Click on** *OK* on the Run dialog box.
5. **Click on** *Yes* to allow the program to make changes to the computer.

The *Nordson Can Programmer – InstallShield Wizard* will begin.

See Figure 11.

6. **Click on** *Next* and accept the license terms.
7. **Click on** *Next* until the program is fully installed.
8. **Click on** *Install*.
9. **Click on** *Finish*.
10. **Close** any installation windows that may still be opened. If there are any Windows errors during the installation process, see the *Windows Operating System Preparation* on page 13 of this manual.

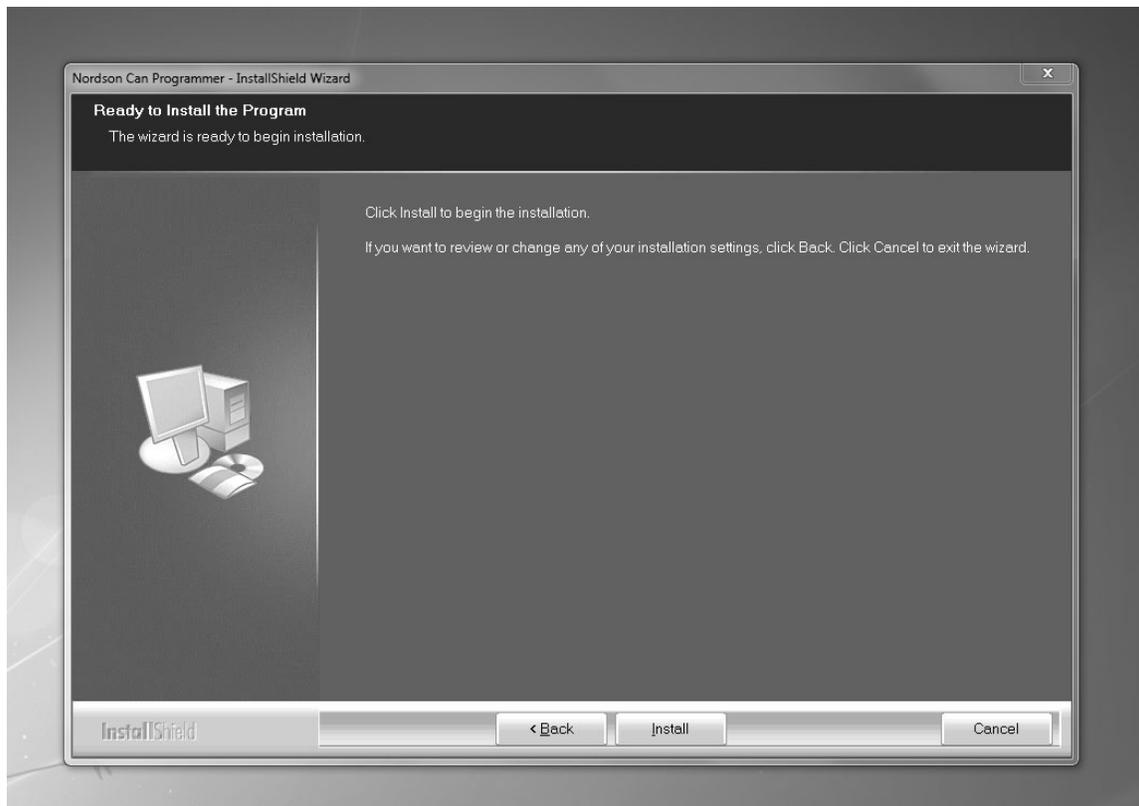


Figure 11 Nordson Can Programmer – InstallShield Wizard

See Figure 12. The *Nordson Can Programmer* icon will appear on the desktop.



Figure 12 Nordson CAN Programmer Icon

## iTrax Software Installation

See Figure 13.

1. From Windows Explorer, **select** *Start → Run → Browse*.
2. **Go to** *C:\iTrax Blue Flash Drive\setup.exe*. The iTrax software is located in the main folder.
3. **Click** on *Open*.
4. **Click** on *OK* on the Run dialog box.
5. **Click** on *Yes* to allow the program to make changes to the computer.

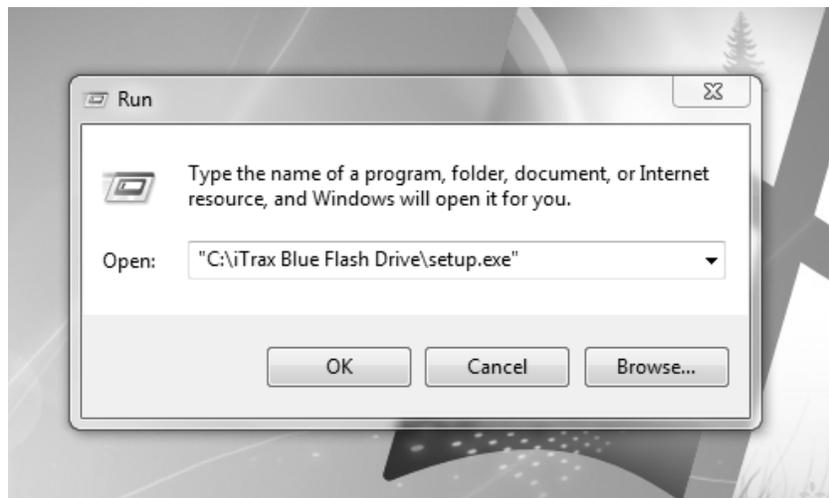


Figure 13 iTrax Run Dialog Box

## iTrax Software Installation (contd)

The *Nordson CanWorks iTrax Spray Control System– InstallShield Wizard* will begin.

See Figure 14.

6. **Click** on *Next* and accept the license terms.
7. **Click** on *Next* until the program is fully installed.
8. **Click** on *Install*.
9. **Click** on *Finish*.
10. **Close** any installation windows that may still be opened. If there are any Windows errors during the installation process, see the *Windows Operating System Preparation* on page 13 of this manual.

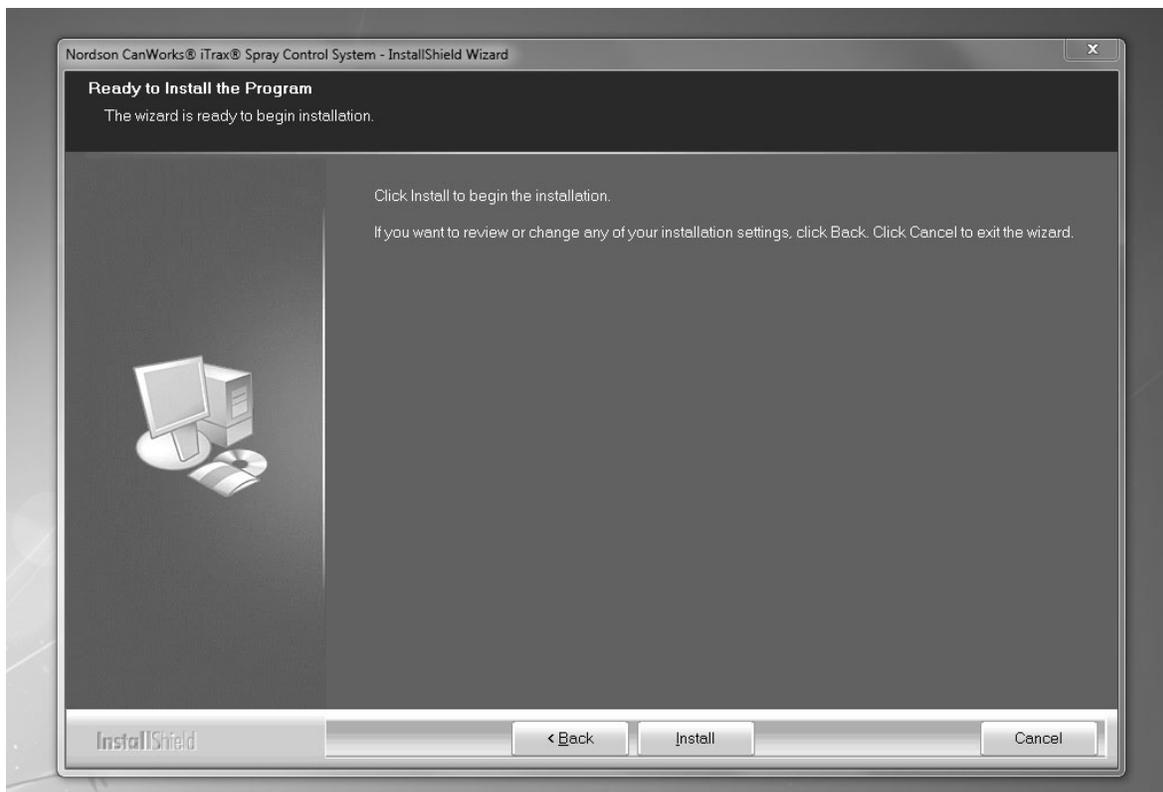


Figure 14 iTrax Spray Control System - InstallShield Wizard

See Figure 15. The *CanWorks iTrax OPC Server* icon and *CanWorks iTrax Operator Interface* icon will appear on the desktop.

11. **Click** on *Finish* and the wizard will automatically restart the iTrax PC.
12. The iTrax modules can now be connected and programmed. Refer to the corresponding module manual for complete instruction.



Figure 15 CanWorks iTrax OPC Server and CanWorks iTrax Operator Interface Icon

## Retrieve Back Up Files

**NOTE:** Complete the *New Installation* section on page 12 of this manual before completing these steps.

Listed below are the installed/configured iTrax files/folders which should be copied from the production iTrax PC to a backup device.

### *NdsnServer\ini* Folder

See Figure 16.

1. **Copy** the *C:\WdsnServer\ini* folder from the production iTrax PC.
2. **Paste** the files to the backup device.

The *system.ini* file contains the CAN interface device being used.

The files *gunNames.prf*, *gunCtrlNames.prf*, and *pressCtrlNames.prf* contain the *iTrax Operator Interface* faceplate names created for the SM, SC, and PRx modules.

The files *configNames.prf*, *gunCtrlConfigNames.prf*, and *pressCtrlConfigNames.prf* contain configuration data for the SM, SC, and PRx modules.

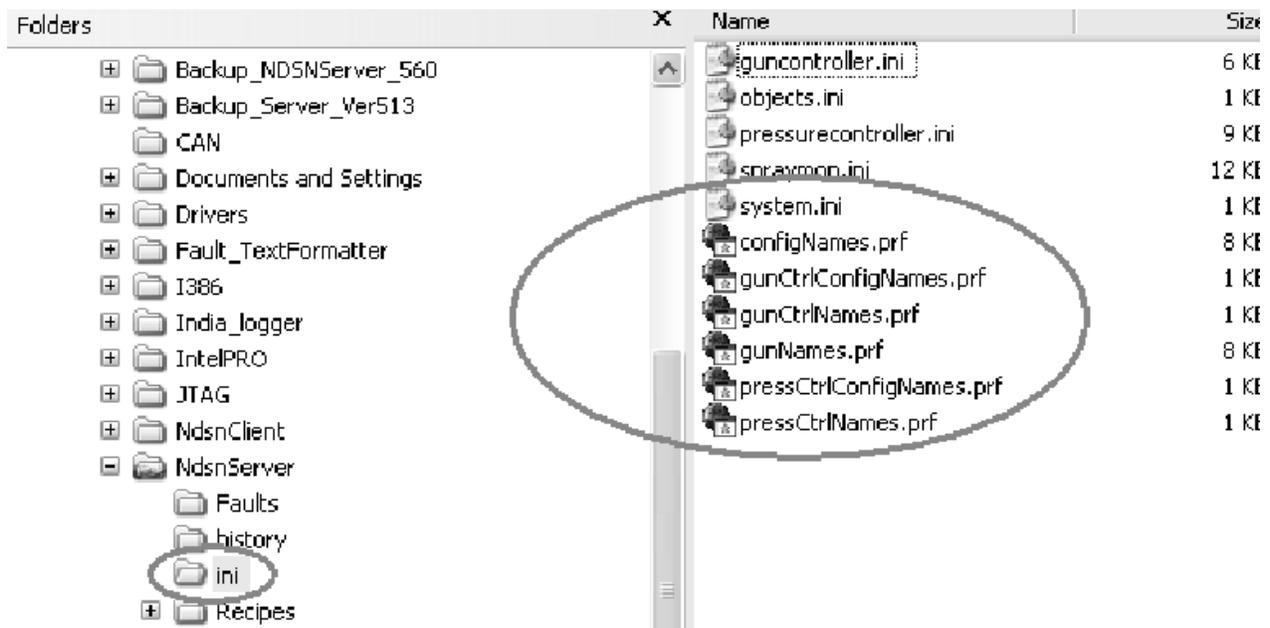


Figure 16 C:\Previous iTrax Version\NdsnServer\ini Folder

***NdsnServer\Recipes Folder***

See Figure 17.

1. **Copy** the *C:\NdsnServer\Recipe* folder from the production iTrax PC.
2. **Paste** the files to the backup device.

The *C:\NdsnServer\Recipes* folder contains one sub-folder for each recipe.

- *\*.txt* – prescribes the manual Instructions for the operator when 1-Button recipes are being loaded
- *\*.rcp* – contains the spray machine definitions
- *recipeObjects.ini* – lists of all created recipes
- *currentRecipes.rcp* – lists currently loaded recipes in each of the spray machines
- *recipeHistory.txt* – contains a log of the times, dates, and usernames of when the 1-Button recipes were loaded

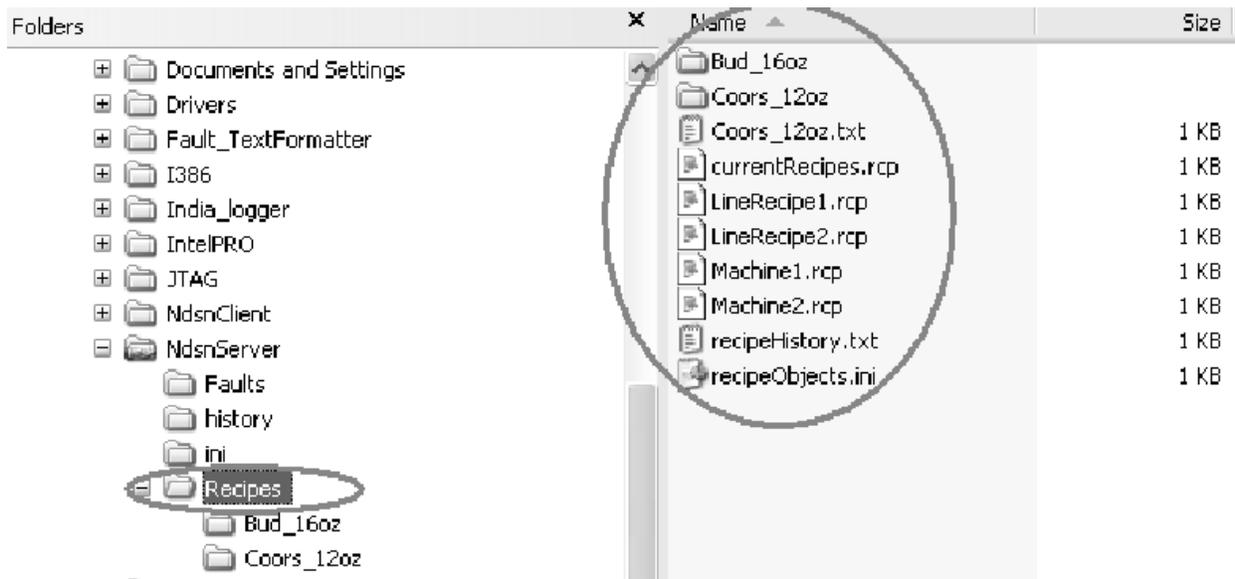


Figure 17 C:\Previous iTrax Version\NdsnServer\Recipes Folder

### ***NdsnClient Folder***

See Figure 18.

1. **Copy** the *ndsnPW.npw* file from the iTrax PC. This file contains the usernames and corresponding passwords created by the iTrax administrator.
2. **Paste** the files to the backup device.

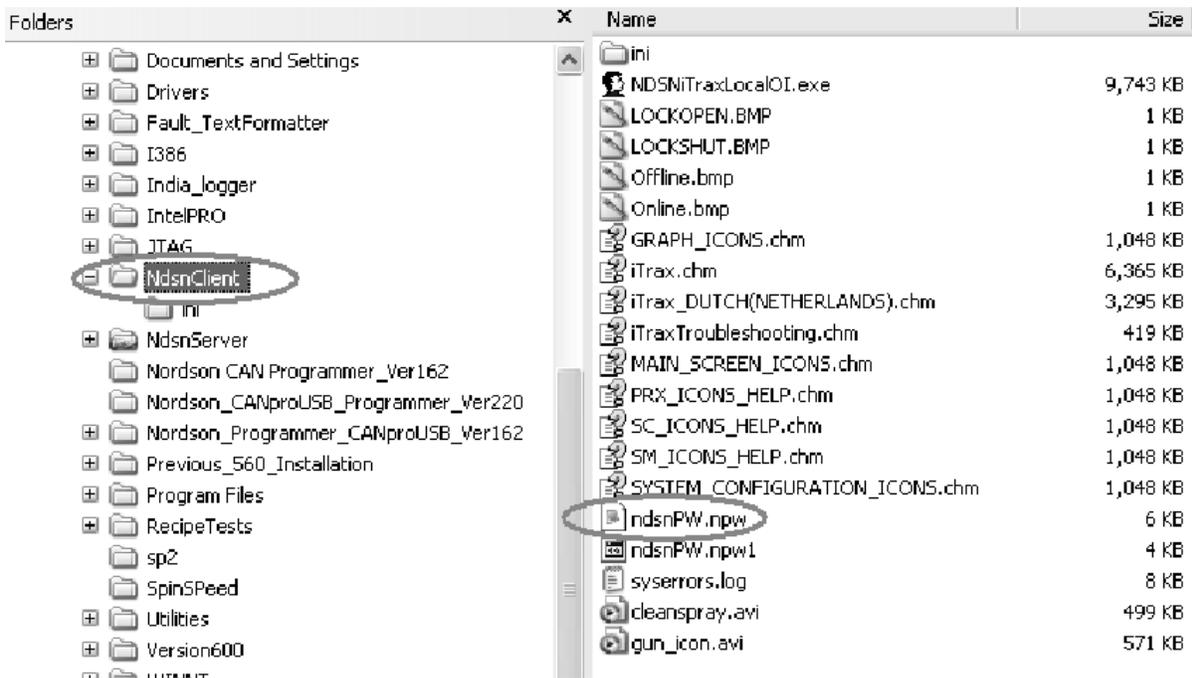


Figure 18 C:\Previous iTrax Version\NdsnClient Folder

### ***NdsnClient\ini Folder***

See Figure 19.

1. **Copy** *objects.ini* from the iTrax PC. This file contains default language selection and defines other system-level parameters.

Files *gunSetup.prf*, *gunCtrlSetup.prf*, and *pressCtrlSetup.prf* contain the *iTrax Operator Interface* layout information for the SM, SC, and PRx module faceplates.

2. **Paste** the files to the backup device.

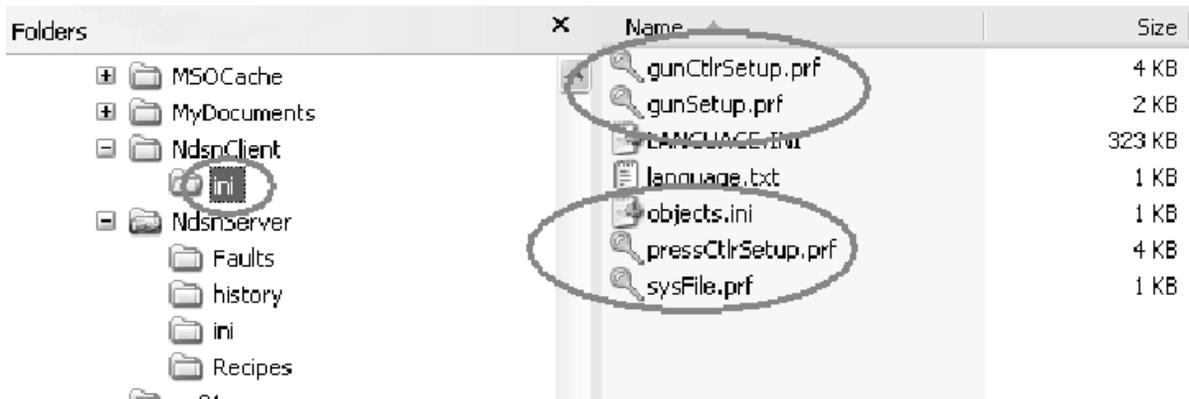


Figure 19 C:\Previous iTrax Version\NdsnClient\ini Folder

## Parts

To order parts, call the Nordson Industrial Coating Systems Customer Service Center at (800) 433-9319 or contact your local Nordson representative.

Part	Description	Note
1605306	Kit, installation, iTrax software 5.6	
1605578	<ul style="list-style-type: none"><li>• Adapter, CANproUSB</li></ul>	
1046668	<ul style="list-style-type: none"><li>• Adapter, 9-pin, female cable</li></ul>	
-----	<ul style="list-style-type: none"><li>• Memory, USB flash drive, blue</li></ul>	A
NOTE A: The flash drive included in the iTrax Software Installation Kit contains all of the necessary files and applications for setup.		