



FocusControl

User's Manual

Software Version 1.0

DMTA-20094-01EN — Rev. B
September 2022

This instruction manual contains essential information on how to use this Evident product safely and effectively. Before using this product, thoroughly review this instruction manual. Use the product as instructed. Keep this instruction manual in a safe, accessible location.

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This document was prepared with particular attention to usage to ensure the accuracy of the information contained therein, and corresponds to the version of the product manufactured prior to the date appearing on the title page. There could, however, be some differences between the manual and the product if the product was modified thereafter.

The information contained in this document is subject to change without notice.

Software version 1.0

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Rev. B

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User Interface Terminology

English	Translation
[Connection Name] Properties	[Connection Name] Properties
[Connection Name] Status	[Connection Name] Status
Access Permissions	Access Permissions
Accessories	Accessories
Add	Add
Add a new user in PC settings	Add a new user in PC settings
Add a user	Add a user
Add New User	Add New User
Add or Remove Programs	Add or Remove Programs
Administrator	Administrator
All programs	All programs
Allow	Allow
ANONYMOUS LOGON	ANONYMOUS LOGON
Apply	Apply
Category=Network	Category=Network
Change an Account	Change an Account
Change the account type	Change the account type
COM Security	COM Security
Common Files	Common Files
Component Services	Component Services
Computer Configuration	Computer Configuration
Computers	Computers
Configuration	Configuration

English	Translation
Connect	Connect
Connecting to Hardware and/or Software	Connecting to Hardware and/or Software
Control Panel	Control Panel
DCOM Config	DCOM Config
DCOM Machine wide settings	DCOM Machine wide settings
DEFAULT	DEFAULT
Default Authentication Level	Default Authentication Level
Default Impersonation Level	Default Impersonation Level
Default Properties	Default Properties
Destination drive	Destination drive
Device	Device
Domain	Domain
Edit Limits	Edit Limits
Enable Distributed COM on this computer	Enable Distributed COM on this computer
Enter the object names to select	Enter the object names to select
Ethernet Properties	Ethernet Properties
Everyone	Everyone
Finish	Finish
General	General
Group or user names	Group or user names
Hook	Hook
I accept	I accept
I agree	I agree
Identity	Identity
Install	Install
Installation Complete	Installation Complete
Installing	Installing
Instrument	Instrument
Internet Protocol Properties	Internet Protocol Properties
Internet Protocol Version 4 (TCP/IPv4)	Internet Protocol Version 4 (TCP/IPv4)

English	Translation
IP Address	IP Address
Launch and Activation Permissions	Launch and Activation Permissions
Local Access	Local Access
Local Activation	Local Activation
Local Launch	Local Launch
Manage accounts	Manage accounts
Manage another account	Manage another account
Manage User Accounts	Manage User Accounts
My computer	My computer
My Computer Properties	My Computer Properties
Network and Sharing Center	Network and Sharing Center
Network Connection	Network Connection
Network Settings	Network Settings
Next	Next
OK	OK
Open an existing configuration	Open an existing configuration
Other	Other
PC info	PC info
PC settings	PC settings
Perform automatic configuration	Perform automatic configuration
Permissions for Everyone	Permissions for Everyone
Play	Play
Preferences	Preferences
Programs	Programs
Properties	Properties
Registry Editor	Registry Editor
Remote Access	Remote Access
Remote Activation	Remote Activation
Remote Launch	Remote Launch
Run	Run
Search programs and files	Search programs and files

English	Translation
Security	Security
Select Destination Directory	Select Destination Directory
Select Users, Service Accounts, or Groups	Select Users, Service Accounts, or Groups
Settings	Settings
Skip	Skip
Skip automatic configuration	Skip automatic configuration
Software	Software
Software Licence Agreement	Software Licence Agreement
Start	Start
Start Installation	Start Installation
Stop	Stop
Subnet Mask	Subnet Mask
System	System
The interactive user	The interactive user
Unhook	Unhook
Uninstall a program	Uninstall a program
Uninstall or change a program	Uninstall or change a program
Use Default	Use Default
Use the following IP address	Use the following IP address
User Accounts	User Accounts
User name	User name
Value data	Value data
Welcome	Welcome
Windows edition	Windows edition
USB	universal serial bus

Important Information — Please Read Before Use

Intended Use

FocusControl is designed to help create custom applications for nondestructive inspections on industrial and commercial materials.

Instruction Manual

This instruction manual contains essential information on how to use this Evident product safely and effectively. Before using this product, thoroughly review this instruction manual. Use the product as instructed.

Keep this instruction manual in a safe, accessible location.

IMPORTANT

Some of the details of screen images shown in this manual may differ from the screen images displayed in your software. However, the principles remain the same.

Safety Symbols

The following safety symbols might appear on the instrument and in the instruction manual:



General warning symbol

This symbol is used to alert the user to potential hazards. All safety messages that follow this symbol shall be obeyed to avoid possible harm or material damage.



High voltage warning symbol

This symbol is used to alert the user to potential electric shock hazards greater than 1000 volts. All safety messages that follow this symbol shall be obeyed to avoid possible harm.

Safety Signal Words

The following safety symbols might appear in the documentation of the instrument:



DANGER

The DANGER signal word indicates an imminently hazardous situation. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, will result in death or serious personal injury. Do not proceed beyond a DANGER signal word until the indicated conditions are fully understood and met.



WARNING

The WARNING signal word indicates a potentially hazardous situation. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in death or serious personal injury. Do not proceed beyond a WARNING signal word until the indicated conditions are fully understood and met.

**CAUTION**

The CAUTION signal word indicates a potentially hazardous situation. It calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, may result in minor or moderate personal injury, material damage, particularly to the product, destruction of part or all of the product, or loss of data. Do not proceed beyond a CAUTION signal word until the indicated conditions are fully understood and met.

Note Signal Words

The following safety symbols could appear in the documentation of the instrument:

IMPORTANT

The IMPORTANT signal word calls attention to a note that provides important information, or information essential to the completion of a task.

NOTE

The NOTE signal word calls attention to an operating procedure, practice, or the like, which requires special attention. A note also denotes related parenthetical information that is useful, but not imperative.

TIP

The TIP signal word calls attention to a type of note that helps you apply the techniques and procedures described in the manual to your specific needs, or provides hints on how to effectively use the capabilities of the product.

Warranty Information

Evident guarantees your Evident product to be free from defects in materials and workmanship for a specific period, and in accordance with conditions specified in the Terms and Conditions available at <https://www.olympus-ims.com/en/terms/>.

The Evident warranty only covers equipment that has been used in a proper manner, as described in this instruction manual, and that has not been subjected to excessive abuse, attempted unauthorized repair, or modification.

Inspect materials thoroughly on receipt for evidence of external or internal damage that might have occurred during shipment. Immediately notify the carrier making the delivery of any damage, because the carrier is normally liable for damage during shipment. Retain packing materials, waybills, and other shipping documentation needed in order to file a damage claim. After notifying the carrier, contact Evident for assistance with the damage claim and equipment replacement, if necessary.

This instruction manual explains the proper operation of your Evident product. The information contained herein is intended solely as a teaching aid, and shall not be used in any particular application without independent testing and/or verification by the operator or the supervisor. Such independent verification of procedures becomes increasingly important as the criticality of the application increases. For this reason, Evident makes no warranty, expressed or implied, that the techniques, examples, or procedures described herein are consistent with industry standards, nor that they meet the requirements of any particular application.

Evident reserves the right to modify any product without incurring the responsibility for modifying previously manufactured products.

Technical Support

Evident is firmly committed to providing the highest level of customer service and product support. If you experience any difficulties when using our product, or if it fails to operate as described in the documentation, first consult the user's manual, and then, if you are still in need of assistance, contact our After-Sales Service. To locate the nearest service center, visit the Service Centers page on the Evident Scientific Web site.

Introduction

FocusControl is a COM component software development kit that you can use to optimize your inspection software and workflows:

- It allows you to build customized software user interfaces based on the application and user requirements.
- You can use it to automate your inspection-system workflow.

FocusControl is compatible with 32-bit and 64-bit C++, C#, LabVIEW, and Visual Basic programming environments. To make creating applications easier, complete sample programs are provided. Along with the corresponding source code, the sample programs provide a ready-to-use starting point for building dedicated applications. The purpose of these sample programs is to provide a solid basis for the most common types of applications, which can be narrowed down to the following three categories:

- *FocusPC integration applications*
Used for remotely controlling the FocusPC software, which in turn is used to control the inspection sequence and data processing functionalities.
- *Online data applications*
Used for extracting data and monitoring FocusPC in deferred real time, in order to create a pseudo-live data display application.
- *FocusPC window embedding applications*
Used for integrating FocusPC components inside an external program to create a customized application with FocusPC operating in the background.

Because the library is designed to be used in C++, C#, Visual Basic, and LabVIEW programming environments, the sample programs have been developed using these four languages. For more details, see “Application Examples” on page 67.

NOTE

A certain level of knowledge and familiarity with nondestructive testing (NDT) using ultrasound is required to be able to use FocusControl.

The FocusControl commands are detailed in an online help document, located at the following access path:

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Manual

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Manual

For more information on nondestructive ultrasonic testing, refer to the following manuals from the *Advanced NDT Series* collection, available for free as downloadable PDF files at <https://www.olympus-ims.com/en/pdf-library/>.

- *Introduction to Phased Array Ultrasonic Technology Applications*
 - *Advances in Phased Array Ultrasonic Technology Applications*
-

1. Installation

FocusControl is available in 32-bit and 64-bit versions, both of which can be downloaded from the Evident website.

NOTE

Before installing FocusControl, all previously installed versions must be removed from your computer.

Make sure that the computer on which you are installing the component meets the minimum system requirements. Carefully follow the steps described in “Computer Configuration” on page 29 to make sure that your computer is properly configured.

For information on the application examples included with FocusControl, see “Application Examples” on page 67.

1.1 System Requirements

To install and run FocusControl, you need a computer that meets the following requirements:

- CPU: Intel Core i7 or Xeon E3
- RAM memory: 16 GB (DDR3 or better)
- Data storage drive: SSD
- Network adaptor: Gigabit Ethernet card
- 1280 × 1024 or higher display adaptor and monitor resolution
- One USB port for the HASP security hardware key

- A keyboard and a pointing device
- One of the following operating systems:
 - Microsoft Windows 8
 - Microsoft Windows 7
 - Microsoft Windows XP Professional (Service Pack 3)

1.2 Finding the Version Number of FocusControl

If the FocusControl component has already been installed on your computer, you must find its version number in order to decide whether it should be updated.

To find the version number of FocusControl for Windows 8

1. On the Windows taskbar, click **Settings**, and then click **Control Panel**.
2. Click **Uninstall a program**.

The **Uninstall or change a program** window is displayed.

3. Scroll down to **Evident FocusControl [version number]**.

The number displayed at the end of the name of the software indicates the current software version (see Figure 1-1 on page 16).

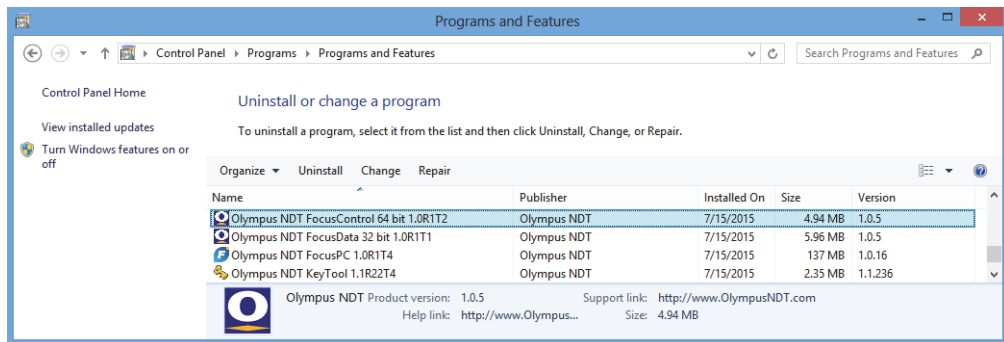


Figure 1-1 FocusControl’s version number under Windows 8

To find the version number of FocusControl under Windows 7

1. On the Windows taskbar, click **START**, and then click **Control Panel**.

2. Under **Programs**, click **Uninstall a program**.
The **Uninstall or change a program** panel is displayed.
3. Scroll down to **Evident FocusControl [version number]**.
The number displayed at the end of the name of the software indicates the current software version (see Figure 1-2 on page 17).

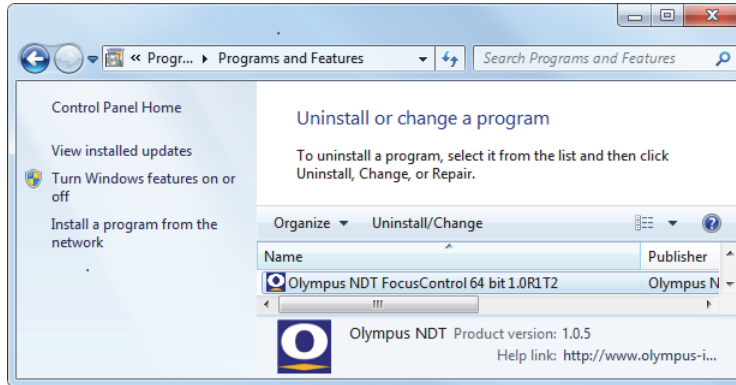


Figure 1-2 FocusControl's version number under Windows 7

To find the version number of FocusControl under Windows XP

1. On the Windows taskbar, click **START**, and then click **Control Panel**.
2. Double-click **Add or Remove Programs**.
The **Add or Remove Programs** window is displayed.
3. Scroll down to **Evident FocusControl [version number]**.
The number displayed at the end of the name of the software indicates the current software version (see Figure 1-3 on page 18).

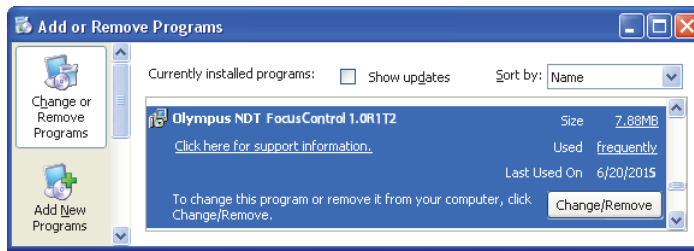


Figure 1-3 FocusControl's version number under Windows XP

1.3 Installing the FocusControl Component

The FocusControl component is installed using an installation wizard in Windows 8, Windows 7, or Windows XP.

NOTE

The installation steps in this section provide examples for Windows 8, but similar steps apply to Windows 7 and Windows XP.

To install the FocusControl component

1. On the Evident website at <https://www.olympus-ims.com/en/service-and-support/downloads/>, find and download the installer for the FocusControl software.

The installer should be available in the **FocusPC** section. It can also be found on the software USB key provided with Evident instruments.

NOTE

On the Evident website, you can find the most recent version of the FocusControl component installer.

2. Double-click the **InstallFocusControl[version].exe** file that you have downloaded from the website or accessed on the software USB key.

The installation wizard appears, and confirms the version of the software that will be installed on your computer (see Figure 1-4 on page 19).

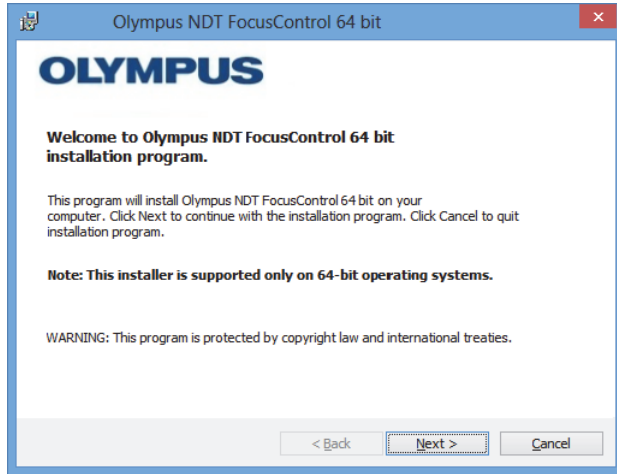


Figure 1-4 The Welcome page confirming the software version

3. On the **License Agreement** page of the installation wizard, select **I accept**, and then click **Next** (see Figure 1-5 on page 20).

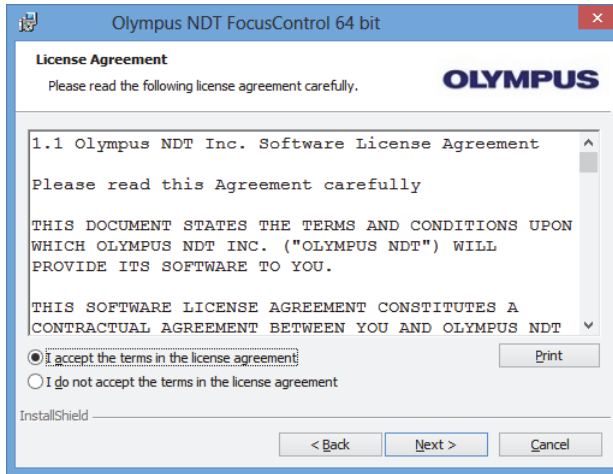


Figure 1-5 The Licence Agreement page

4. Depending on your software version and operating system, click **Next** to install any necessary prerequisite software (see Figure 1-6 on page 20).

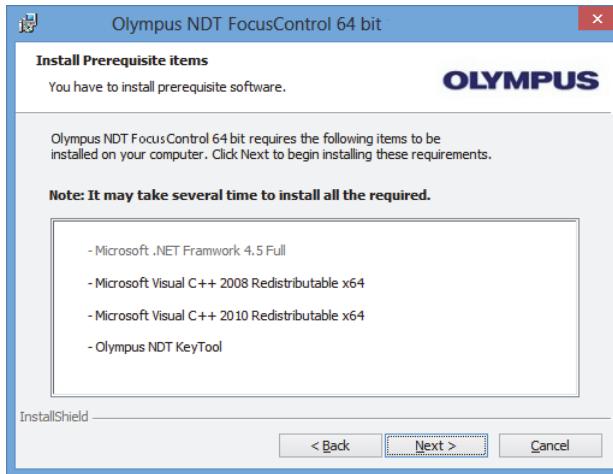


Figure 1-6 The Install Prerequisite Items page

5. On the **Ready to Install the Program** page, click **Install** (see Figure 1-7 on page 21).

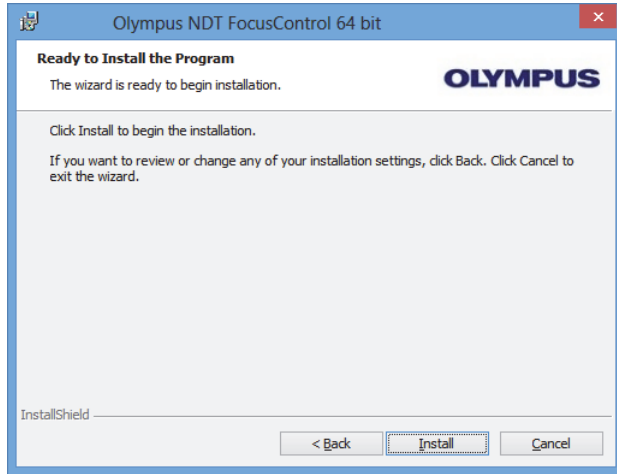


Figure 1-7 The Ready to Install page

The **Installing** page appears (see Figure 1-8 on page 21).

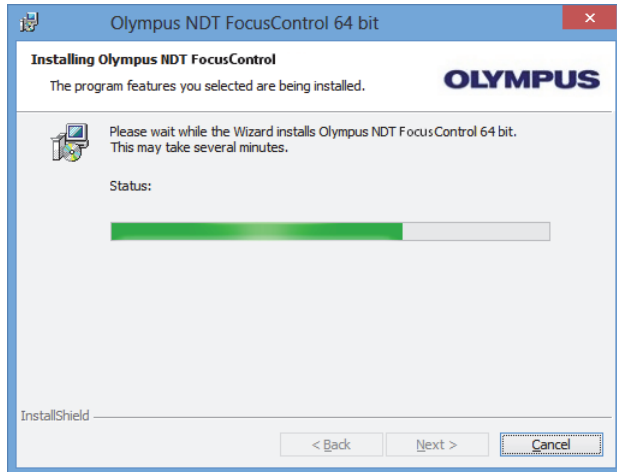


Figure 1-8 The Installing page

6. After the files have been installed, click **Next**, and then proceed as follows:
 - a) Click **Finish** in the **Installation Completed** page to complete the installation (see Figure 1-9 on page 22).
 - b) Click **Next** in the **Computer Configuration** page to proceed to the FocusPC configuration, or click **Skip** to skip the configuration (see Figure 1-10 on page 23).
 - c) Click **Next** in the **Connecting to Hardware and/or Software** page to establish communication with FocusPC elements that are to be controlled (see Figure 1-11 on page 23).

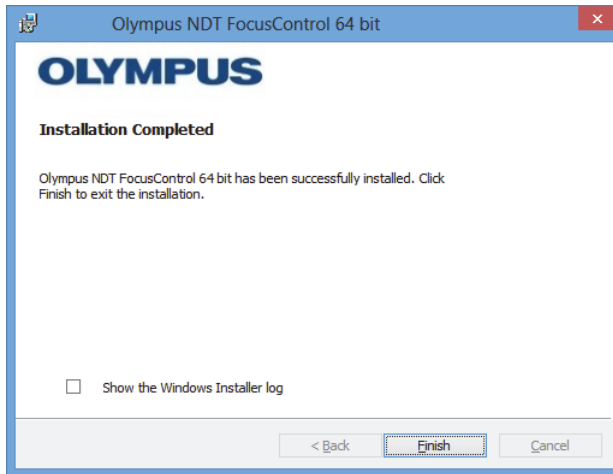


Figure 1-9 The Installation Completed page

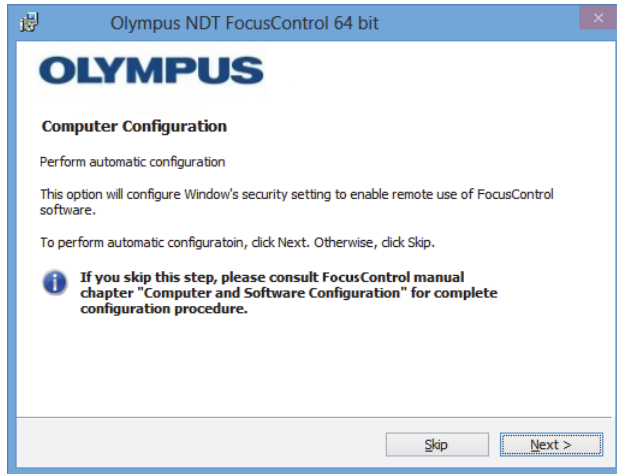


Figure 1-10 The Computer Configuration page

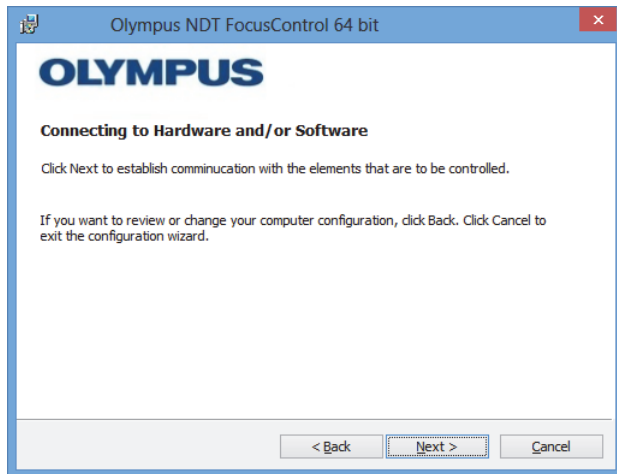


Figure 1-11 The Connecting to Hardware and/or Software page

7. On the **Configuration** page, in the lists under **Device** (the topmost item is selected by default), select the elements (FocusPC software) that are to be controlled (see Figure 1-12 on page 24).

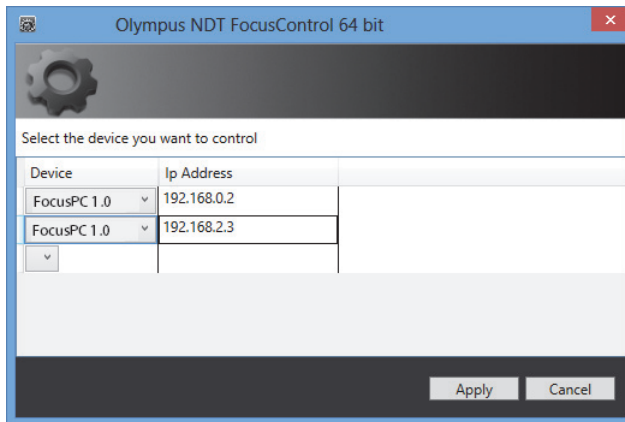


Figure 1-12 The Configuration page

In the text boxes under **IP Address**, type the IP address of each of the elements you want to control:

- ◆ For FocusPC, type the IP address of the computer on which FocusPC is installed.

NOTE

When FocusPC is installed on the same computer as FocusControl, you do not need to specify an IP address.

You can control up to three elements at a time in any combination.

8. Click **Apply** to save the elements to control and their IP addresses.

The FocusControl component is now installed.

IMPORTANT

The elements to be controlled by FocusControl and their IP addresses can be modified later using the **Configuration Manager**. For more information, see “Modifying Elements to Control” on page 26.

The configuration of the Windows security settings to enable remote control of FocusPC software can be modified later or completed separately. For more information, see “Computer Configuration” on page 29.

The files are located in the **Evident NDT** folder (see Figure 1-13 on page 25) and in the **Common Files** folder (see Figure 1-14 on page 25) on the drive that you specified during installation.

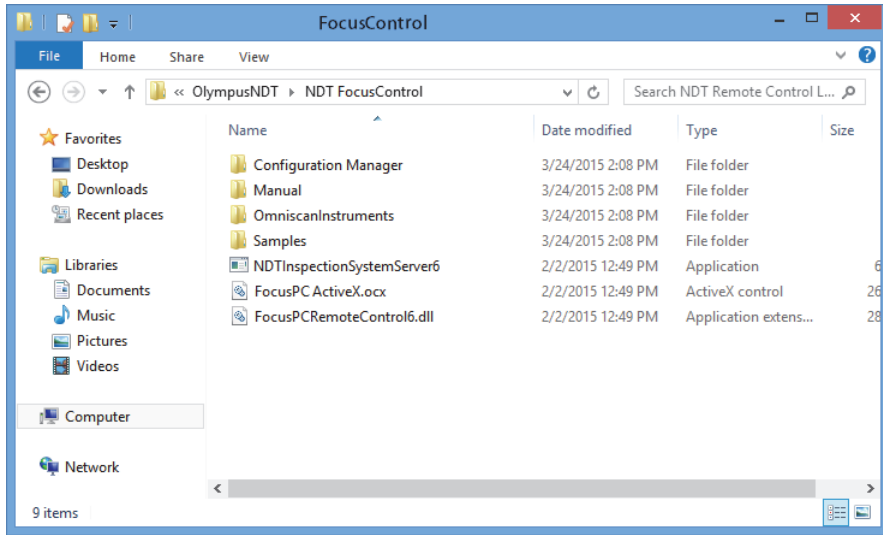


Figure 1-13 The path to the FocusControl [nmn] folder

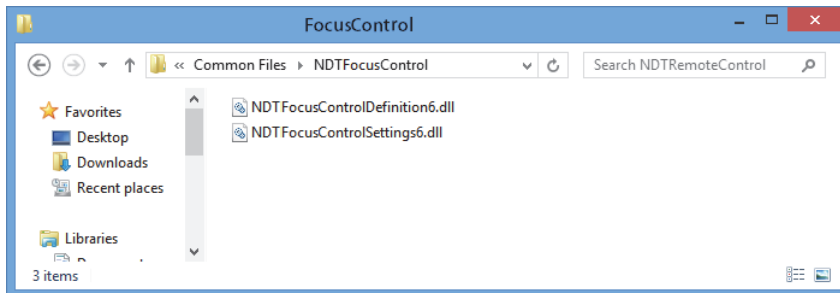


Figure 1-14 The path to the FocusControl files

1.4 Modifying Elements to Control

After the FocusControl component has been installed, you can modify which elements are to be controlled by using the **Configuration Manager**, which can be found at the following access path (see Figure 1-15 on page 26):

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mm\Configuration Manager

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mm\Configuration Manager

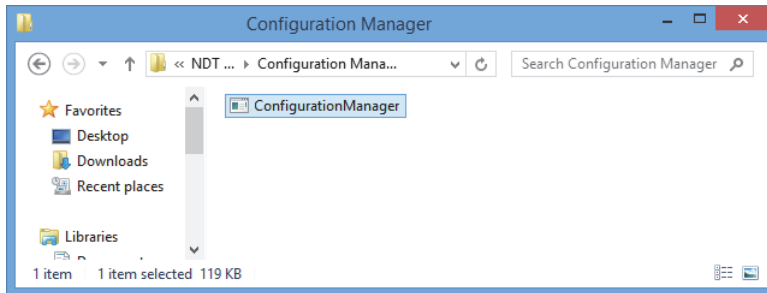


Figure 1-15 The access path to the Configuration Manager for FocusControl

From the **Configuration Manager**, you can change the elements to be controlled (FocusPC software), and add or modify IP addresses.

To modify elements to control

1. Double-click the **ConfigurationManager.exe** file.
The **Configuration** page appears (see Figure 1-16 on page 27).

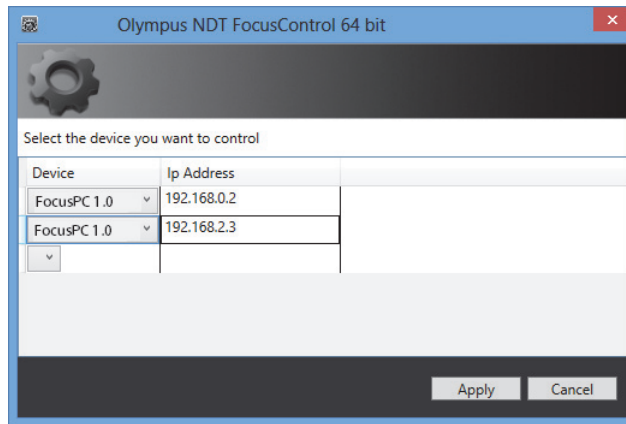


Figure 1-16 The Configuration page for selecting devices to control

2. On the **Configuration** page, in the lists under **Device** (selected by default), select the elements that are to be controlled (see Figure 1-16 on page 27).
In the boxes under **IP Address**, type the IP addresses of each of the elements you want to control. For FocusPC, type the IP address of the computer on which FocusPC is installed. If FocusPC is installed on the same computer as FocusControl, you do not need to specify an IP address.
You can control up to three elements at a time in any combination.
3. Click **Apply** to save the elements that you want to control.

2. Computer Configuration

All computers used for the remote control application and FocusPC software must be properly configured to prevent any messages from appearing at start-up.

This section contains appropriate configuration procedures (under Windows XP, Windows 7, and Windows 8) for all computers that use Microsoft Distributed Component Object Model (DCOM) technology. These configurations enable communication between the computers. These procedures are not compulsory. You may use your own configurations if they have already been defined.

IMPORTANT

Make sure that the file sharing function of the network connection is activated and that the file sharing validation has been performed for all computers (see Figure 2-1 on page 30).

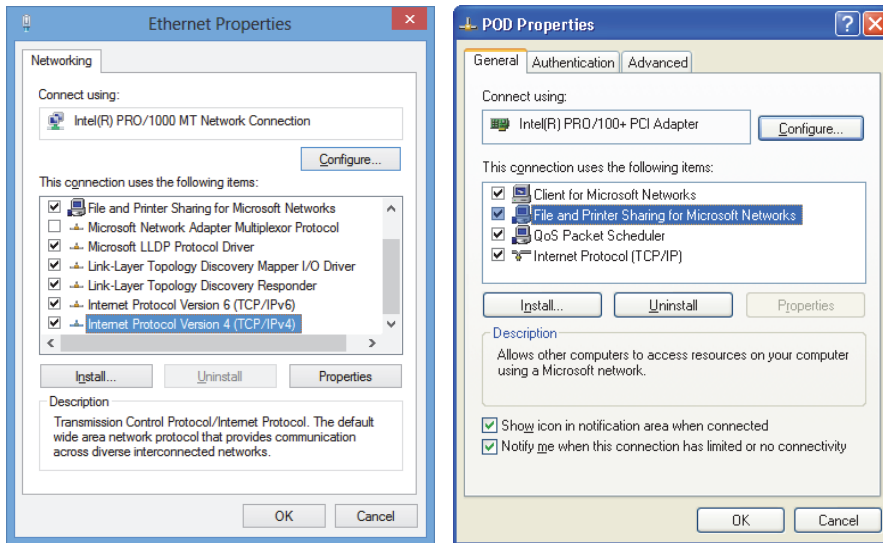


Figure 2-1 Activating file sharing in Windows 8 (*left*) or Windows 7 or XP (*right*)

Computers can be configured to use FocusControl to remotely control FocusPC.

2.1 Configuring for Remote Control of FocusPC

This section contains the procedure to configure a computer with FocusControl to remotely control FocusPC.

To configure a computer for remote controlling FocusPC

1. Before installing FocusPC, create a common user (with the same password) with administrator rights on all computers used for the application (for details, see “Creating User Accounts with Administrator Privileges” on page 54).
2. Install FocusPC on all computers that will be controlled with FocusControl (refer to the *FocusPC User’s Manual*).

From this point onwards, the procedure only has to be performed for computers on which FocusPC has been installed and that are remotely controlled by FocusControl.

3. If you are using Windows 8, in the **Search** box on the Windows taskbar, type **dcomcnfg**, and then press the Enter key (see Figure 2-2 on page 31).

OR

If you are using Windows 7, in the **Search programs and files** box on the Windows taskbar, type **dcomcnfg**, and then press the Enter key. Alternatively, you can click **All Programs**, click **Accessories**, and then click **Run**; in the **Run** dialog box, type **dcomcnfg**, and then click **OK** (see Figure 2-3 on page 32).

OR

If you are using Windows XP, in the Windows taskbar, click **Start**, then click **Run**; in the **Run** dialog box, type **dcomcnfg**, and then click **OK** (see Figure 2-3 on page 32).

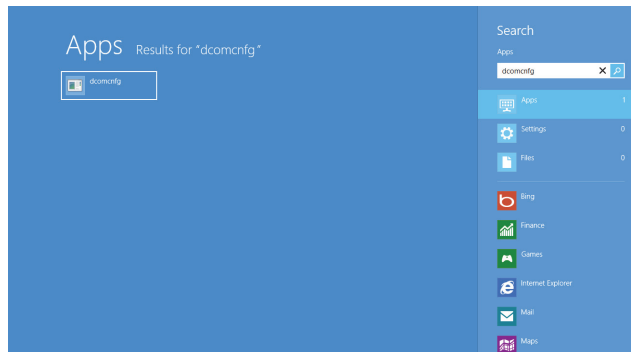


Figure 2-2 The Search box in Windows 8

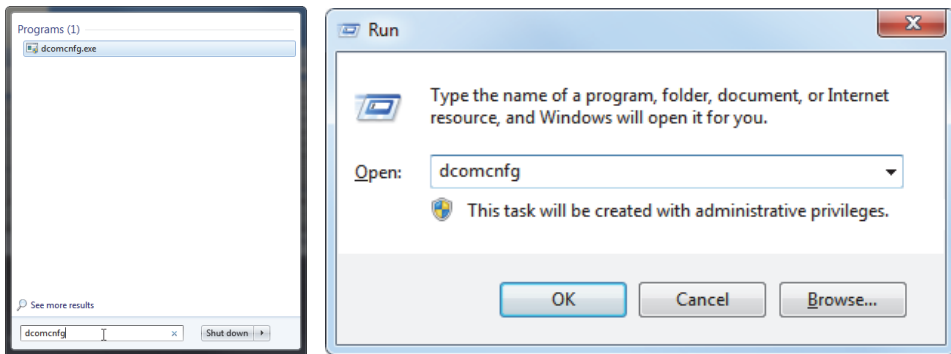


Figure 2-3 The Search box (*left*) or the Run dialog box (*right*) [Windows 7/XP]

4. In the **Component Services** window (see Figure 2-4 on page 32), access your computer properties:
 - a) Expand the **Component Services** folder.
 - b) Expand the **Computers** folder, right-click **My Computer**, and then click **Properties** on the shortcut menu.

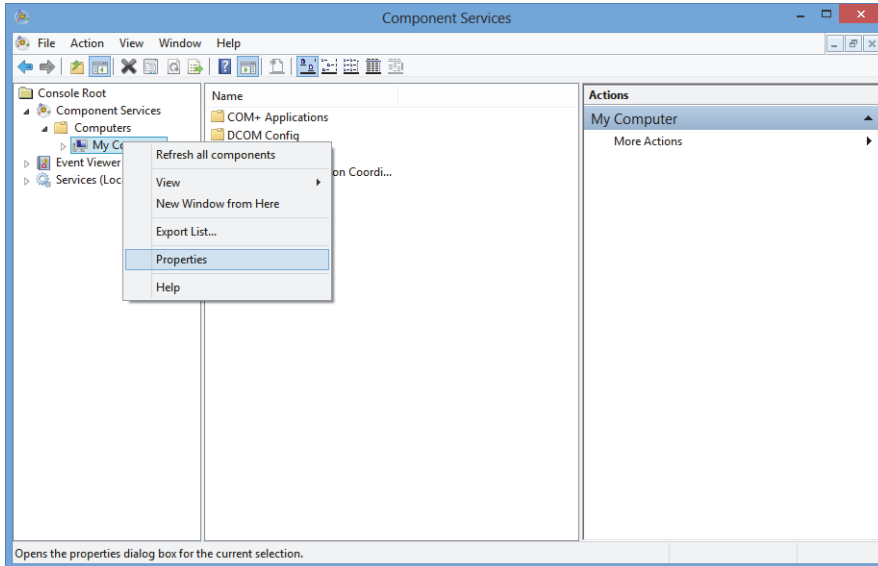


Figure 2-4 The Component Services window

5. In the **My Computer Properties** dialog box (see Figure 2-5 on page 33), proceed as follows:
 - a) Click the **Default Properties** tab.
 - b) Select the **Enable Distributed COM on this computer** check box.
 - c) In the **Default Authentication Level** list, select **Connect**.
 - d) In the **Default Impersonation Level** list, select **Identify**, and then click **Apply**.

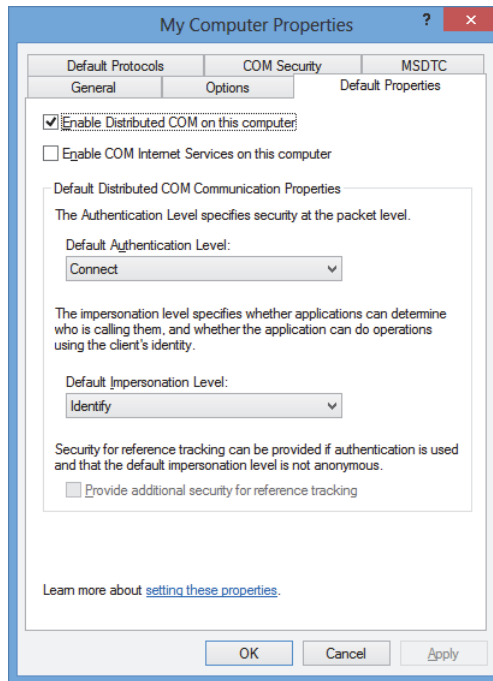


Figure 2-5 The Default Properties tab in the My Computer Properties dialog box

- e) Click the **COM Security** tab (see Figure 2-6 on page 34).
- f) Under **Access Permissions**, click **Edit Limits**.

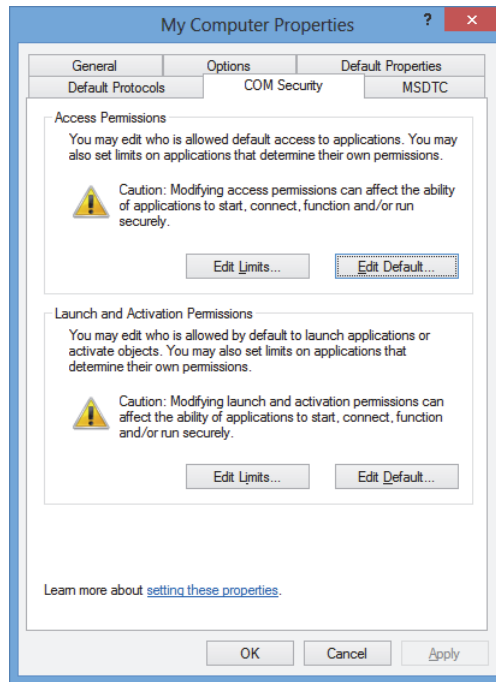


Figure 2-6 The COM Security tab in the My Computer Properties dialog box

6. In the **Access Permission** dialog box (see Figure 2-7 on page 35), set your access permissions:
 - a) Under **Group or user names**, click **Everyone**.
 - b) In the **Everyone** list, under **Allow**, make sure that the **Local Access** and **Remote Access** check boxes are selected.
 - c) Under **Group or user names**, click **ANONYMOUS LOGON**.
 - d) In the **ANONYMOUS LOGON** list, under **Allow**, select the **Local Access** and **Remote Access** check boxes.
 - e) Click **OK**.

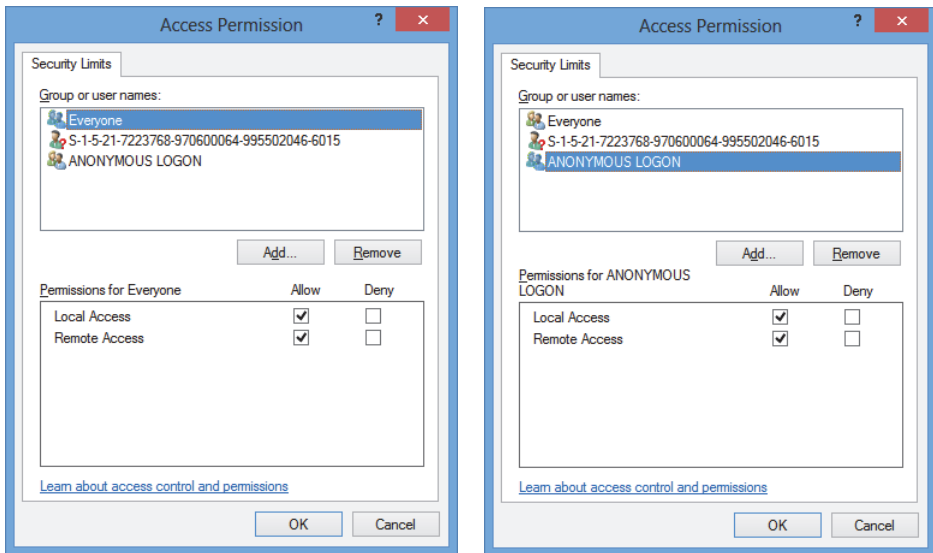


Figure 2-7 The Access Permission dialog box

7. In the **My Computer Properties** dialog box, select the **COM Security** tab, and then, under **Launch and Activation Permissions**, click **Edit Limits** (see Figure 2-8 on page 36).

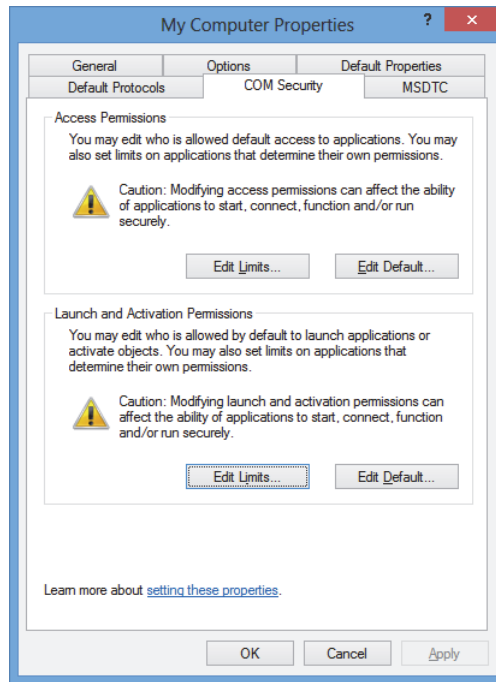


Figure 2-8 The COM Security tab in the My Computer Properties dialog box

8. In the **Launch and Activation Permissions** dialog box (see Figure 2-9 on page 37), define your permissions:
 - a) Under **Group or user names**, click **Everyone**.
 - b) In the **Permissions for Everyone** list, under **Allow**, make sure that the **Local Launch**, **Remote Launch**, **Local Activation**, and **Remote Activation** check boxes are selected.
 - c) Click **OK**.

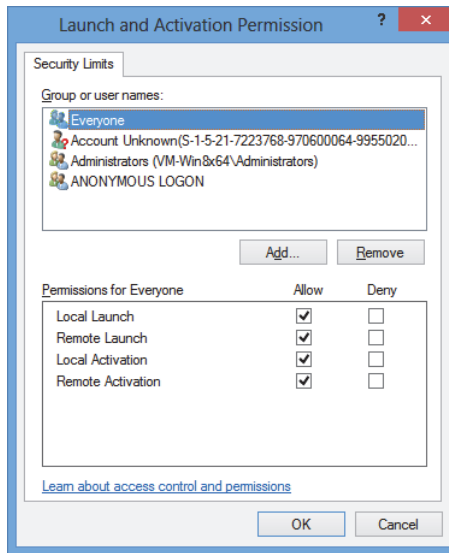


Figure 2-9 The Launch and Activation Permission dialog box

9. In the **My Computer Properties** dialog box, under **Access Permissions** in the **COM Security** tab, click **Edit Default** (see Figure 2-10 on page 38).

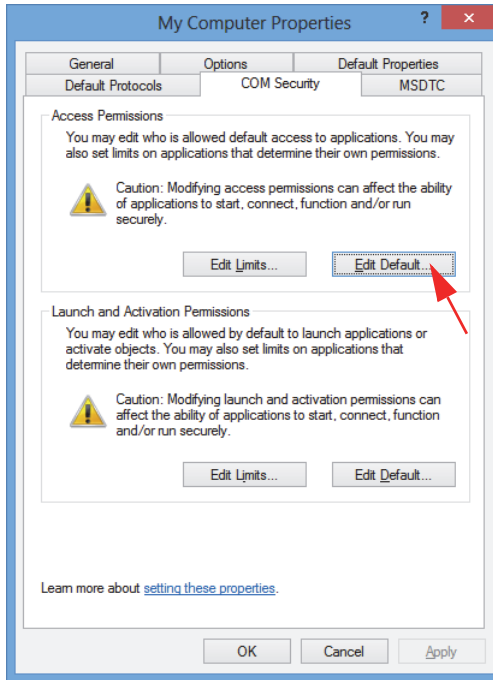


Figure 2-10 The Edit Default button under Access Permissions

10. In the **Access Permission** dialog box, click **Add** (see Figure 2-11 on page 39).

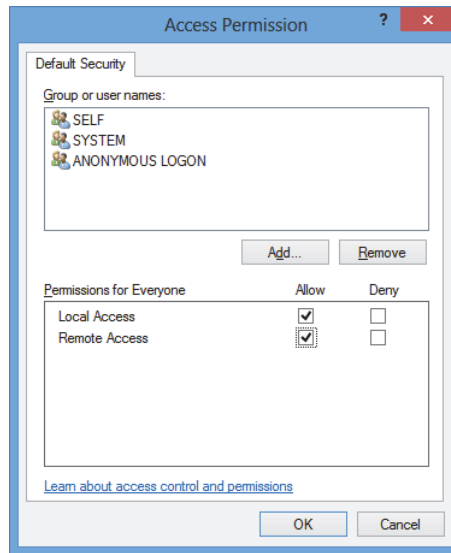


Figure 2-11 The Group or user names in the Access Permission dialog box

11. In the **Select Users or Groups** dialog box, in the **Enter the object names to select** box, type **Everyone**, and then click **OK** (see Figure 2-12 on page 39).

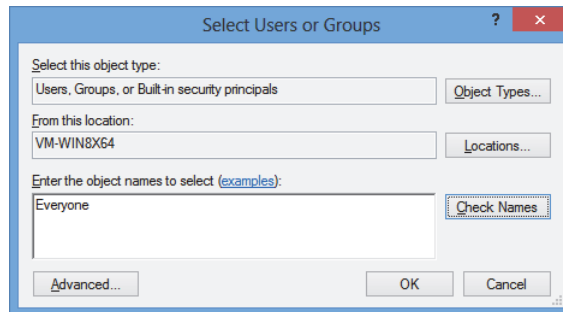


Figure 2-12 The Select Users or Groups dialog box

In the **Access Permission** dialog box, the name appears under **Group or user names** (see Figure 2-13 on page 40).

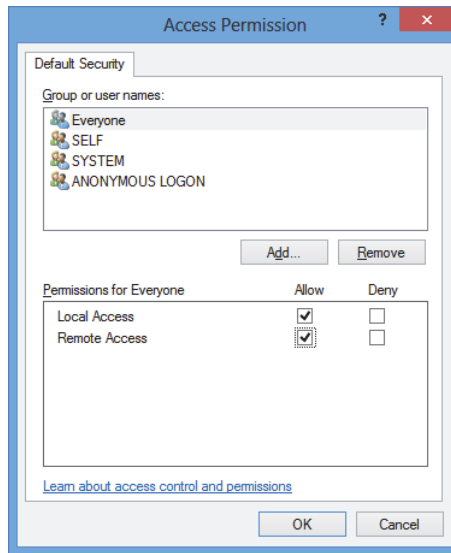


Figure 2-13 The new name in the Group or user names list

12. In the **Permissions for Everyone** list, under **Allow**, select the **Local Access** and **Remote Access** check boxes, and then click **OK**.
13. On the **COM Security** tab of the **My Computer Properties** dialog box, under **Launch and Activation Permissions**, click **Edit Default** (see Figure 2-14 on page 41).

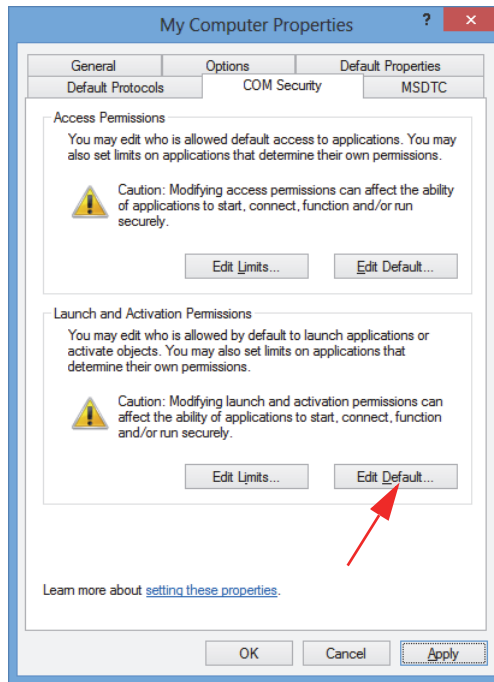


Figure 2-14 The Edit Default button under Launch and Activation Permission

14. In the **Launch and Activation Permission** dialog box, click **Add** (see Figure 2-15 on page 42).

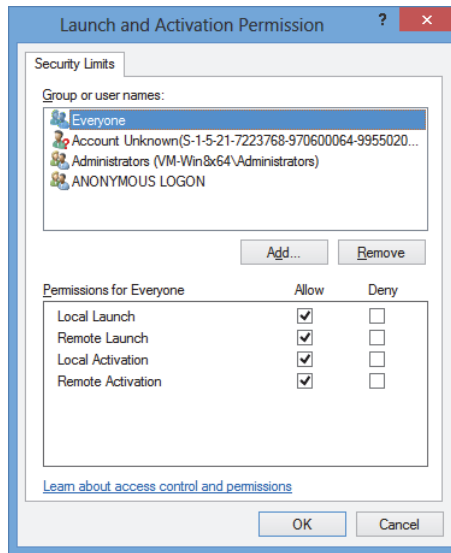


Figure 2-15 The Launch and Activation Permission dialog box

15. In the **Select Users or Groups** dialog box, in the **Enter the object names to select** box, type **Everyone**, and then click **OK** (see Figure 2-16 on page 42).

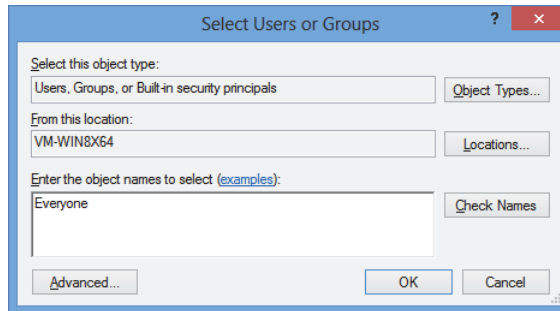


Figure 2-16 The Select Users or Groups dialog box

In the **Launch and Activation Permissions** dialog box, the name appears in the **Group or user names** list (see Figure 2-17 on page 43).

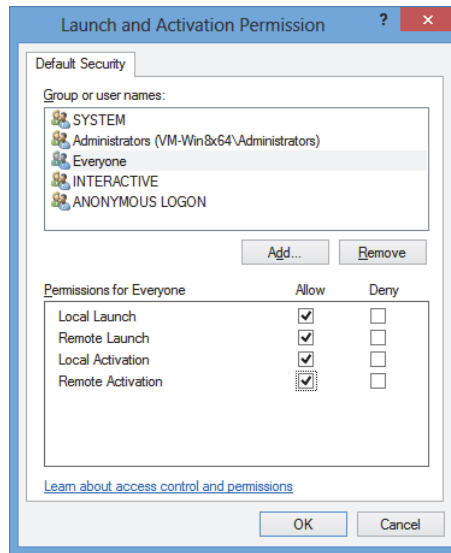


Figure 2-17 The new name in the Group or user names list

16. In the **Permissions for Everyone** list, under **Allow**, select the check boxes for **Local Launch**, **Remote Launch**, **Local Activation**, and **Remote Activation**, and then click **OK**.
17. In the **My Computer Properties** dialog box, click **Apply** (see Figure 2-18 on page 44).

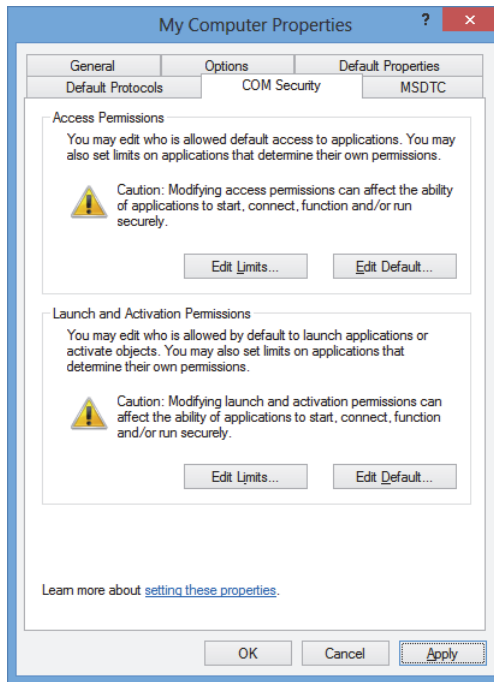


Figure 2-18 The My Computer Properties dialog box

18. In the **DCOM Machine wide settings** dialog box (see Figure 2-19 on page 44), click **Yes** to confirm the update and then, in the **My Computer Properties** dialog box, click **OK**.

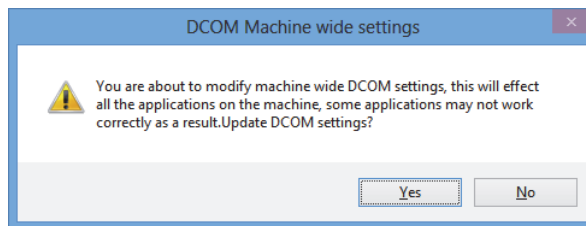


Figure 2-19 The DCOM Machine wide settings dialog box

19. In the **Component Services** window (see Figure 2-20 on page 45), access the FocusPC properties:
 - a) Expand the **My Computer** folder, and then click the **DCOM Config** folder.
 - b) On the **DCOM Config** pane, right-click the **Evident NDT FocusPC [version number]** component, and then, on the shortcut menu, click **Properties**.

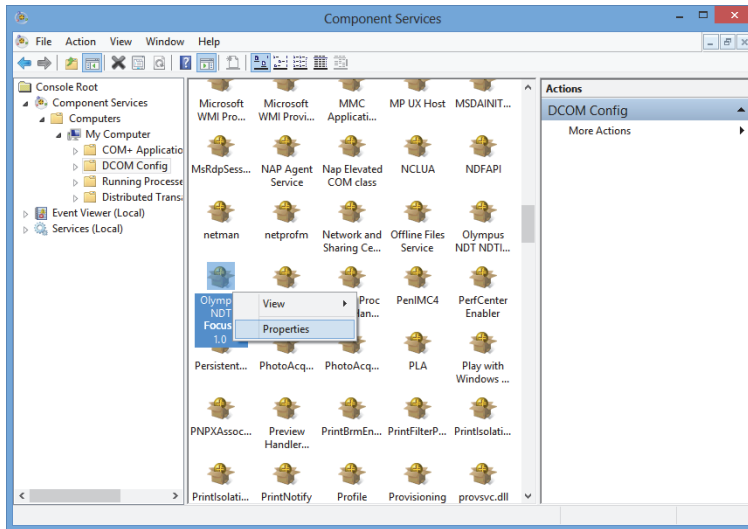


Figure 2-20 The Component Services window

20. In the **Evident NDT FocusPC Properties** dialog box (see Figure 2-21 on page 46), proceed as follows:
 - a) Click the **Security** tab.
 - b) Under **Launch and Activation Permissions** and **Access Permissions**, select the **Use Default** option, and then click **Apply**.

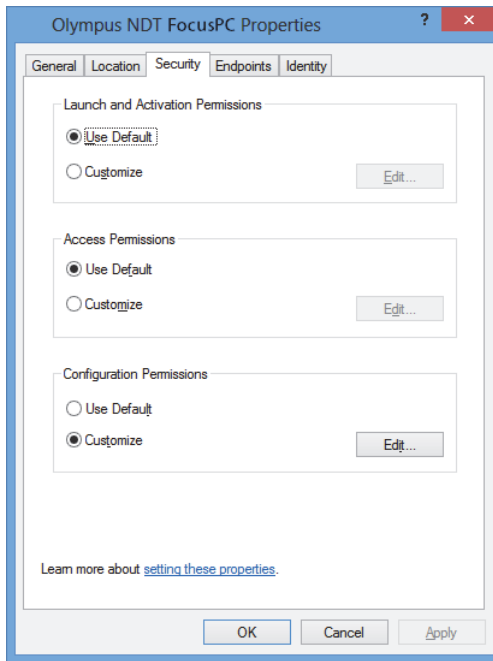


Figure 2-21 The Security tab in the Evident NDT FocusPC Properties dialog box

- c) Click the **Identity** tab (see Figure 2-22 on page 47).
- d) Select the **The interactive user** option, and then click **OK**.

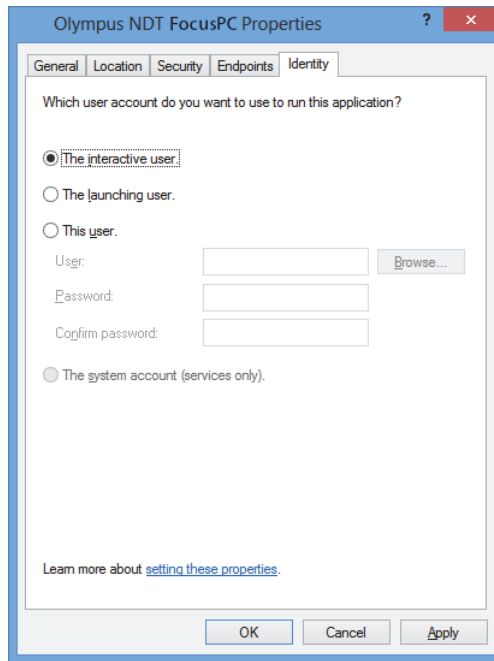


Figure 2-22 The Identity tab in the Evident NDT FocusPC Properties dialog box

21. Close the **Component Services** window.

2.2 Configuring FocusPC for Remote Control

The FocusPC software must be configured for remote control to prevent any dialog boxes from appearing at the FocusPC start-up. Before configuring FocusPC, make sure that you have started up and closed FocusPC at least once. The configuration must be performed for all FocusPC software installations used in remote control.

To configure FocusPC for remote control

1. Type **regedit** in the search box of your Windows taskbar, and then, depending on your Windows version, press the Enter key or click **OK** (for more details, see step 3 in “Configuring for Remote Control of FocusPC” on page 30).
2. In the **Registry Editor** window (see Figure 2-23 on page 48), proceed as follows:

- a) Expand the **HKEY_CURRENT_USER** folder.
- b) Expand the **Software** folder.

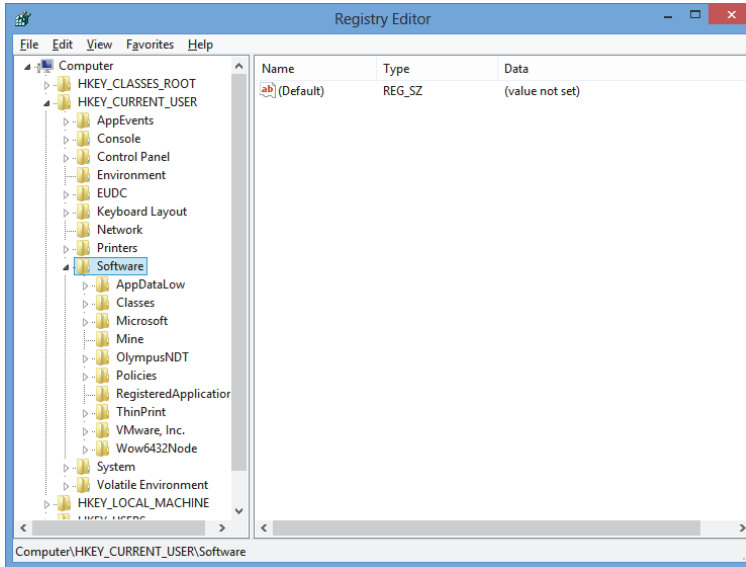


Figure 2-23 The Registry Editor window

- c) Under the **Software** folder, expand the **Evident NDT** folder (see Figure 2-24 on page 49).
- d) Expand the **FocusPC[version]** folder.
- e) Click the **DEFAULT** folder to display its contents in the pane on the right side of the **Registry Editor** window.

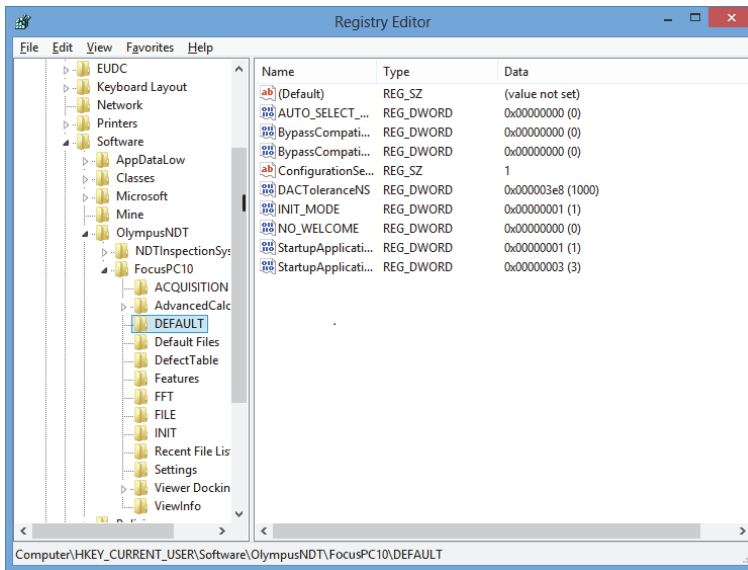


Figure 2-24 The files to modify in the DEFAULT folder

3. Change the binary values as follows:
 - a) Double-click the **AUTO_SELECT_POD** file to open the **Edit DWORD Value** dialog box for that file (see Figure 2-25 on page 49).

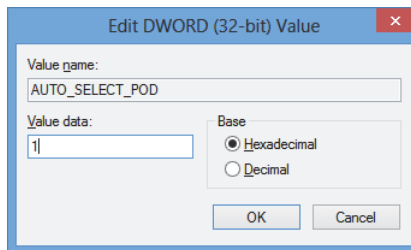


Figure 2-25 The Edit DWORD Value dialog box for the AUTO_SELECT_POD file

- b) In the **Value data** box, type **1**, and then click **OK**.
This allows the software to detect the acquisition instrument automatically; therefore, the **Select POD Configuration to Use** dialog box will not open.

- c) Double-click the **INIT_MODE** file, type **2** in the **Value data** box, and then click **OK** (see Figure 2-26 on page 50).

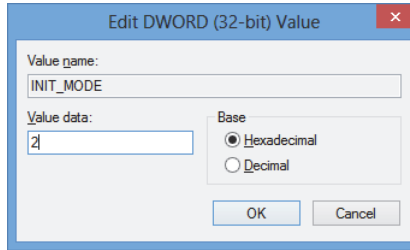


Figure 2-26 The Edit DWORD Value dialog box for the INIT_MODE file

This selects the **Open an existing configuration** option in the **Configuration Selection** dialog box.

- d) Double-click the **NO_WELCOME** file, type **1** in the **Value data** box, and then click **OK** (see Figure 2-27 on page 50).

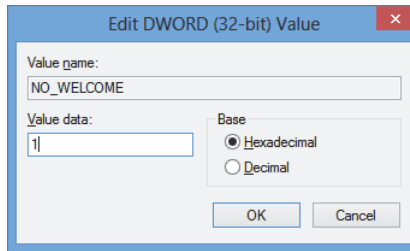


Figure 2-27 The Edit DWORD Value dialog box for the NO_WELCOME file

3. Hardware and Software Configuration

This chapter explains how to establish communication with the elements that you want to control. Performing these procedures ensures proper connection with the remote hardware and/or software.

NOTE

If you have selected more than one element to control, the selection order determines the number assigned to each element.

For example, if you have selected “FocusPC, FocusPC,” the element numbers are assigned as follows: Item[1] for the first computer equipped with FocusPC and Item[2] for the second computer equipped with FocusPC.

Connecting FocusControl to FocusPC

FocusControl can be connected to FocusPC software installed on the same computer (local FocusPC) or to FocusPC software installed on a different computer (remote FocusPC).

If you want to use FocusPC to perform acquisitions, a compatible acquisition instrument must be connected to the computer and recognized by the FOCUS PX Configuration Tool on the computer on which FocusPC is running.

For more information on connecting an acquisition instrument to FocusPC, refer to the *FocusPC User's Manual*.

3.1 Connecting to Local FocusPC

This section describes how to connect FocusControl to FocusPC software that is installed on the same computer as FocusControl.

To connect FocusControl to local FocusPC

1. Open the **Configuration Manager**, which can be found at the following access path (see Figure 3-1 on page 52):
 - For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mm\Configuration Manager
 - OR
 - For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mm\Configuration Manager

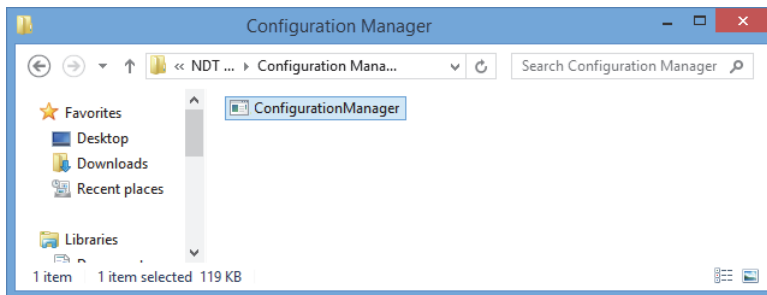


Figure 3-1 The access path to the Configuration Manager for FocusControl

2. On the **Configuration** page, in the first list under **Device** (which is selected by default), select **FocusPC [version]** and leave the **IP Address** box empty (see Figure 3-2 on page 53).

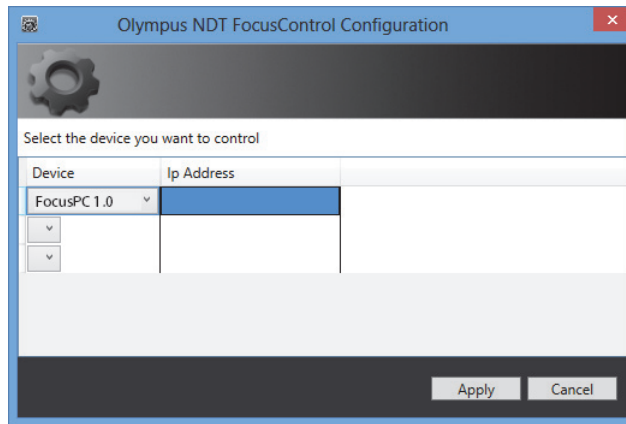


Figure 3-2 The Configuration page

3. Open the **FocusPC_MFC.exe** sample program, which can be found at the following access path (see Figure 3-3 on page 53):
 - For the 32-bit version:
C:\Program Files\Evident NDT\FocusControl *nnn* \Samples\x86\Binaries
 - OR
 - For the 64-bit version:
C:\Program Files\Evident NDT\FocusControl *nnn* \Samples\x64\Binaries

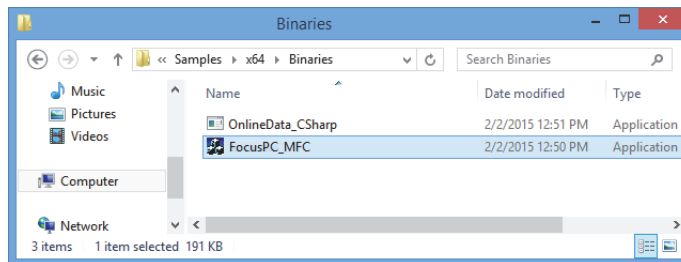


Figure 3-3 The access path to the FocusPC_MFC.exe program

4. Click **Connect** in the **FocusPC Application** window (see Figure 3-4 on page 54). FocusPC opens and can now be controlled remotely using the sample program through FocusControl.

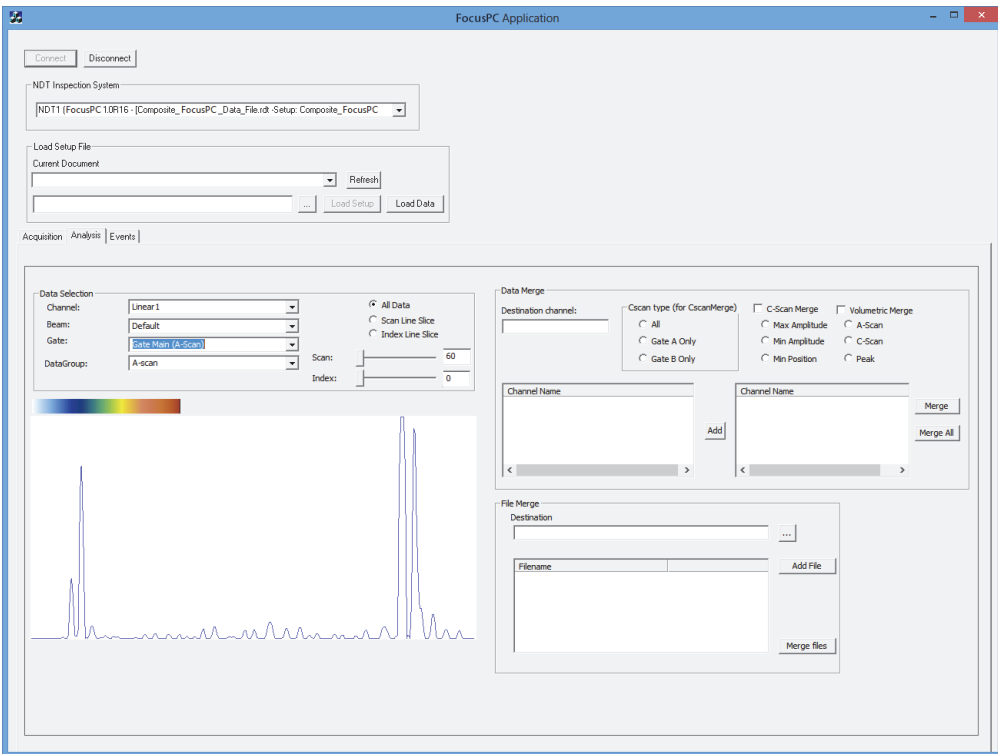


Figure 3-4 The FocusPC Application window

3.2 Creating User Accounts with Administrator Privileges

Before connecting to remote FocusPC, you must create a user account with administrator rights on each computer being used.

To create user accounts in Windows 8

NOTE

For Windows 7 and XP, see “To create user accounts in Windows 7 or Windows XP” on page 59.

1. In the **Search** box on the Windows taskbar, type **Control Panel**, press the Enter key, and then click **User Accounts** (see Figure 3-5 on page 55).

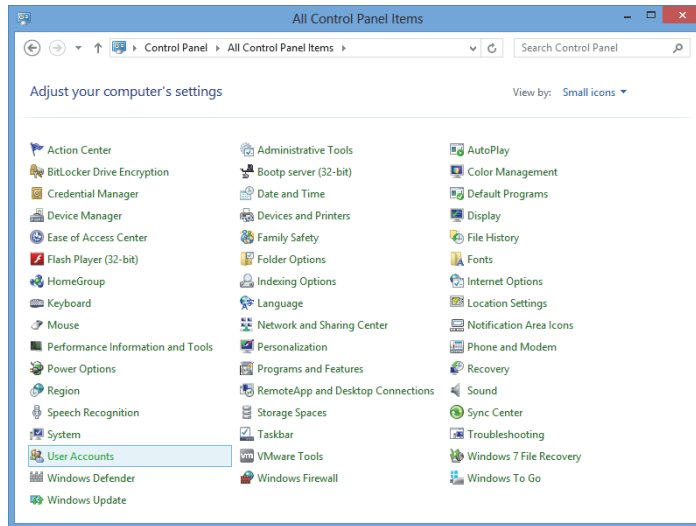


Figure 3-5 Accessing the User Accounts in Windows 8

2. In the **User Accounts** window, click **Manage another account** (see Figure 3-6 on page 55).

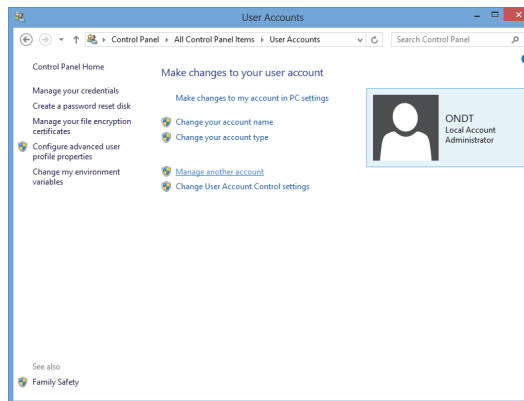


Figure 3-6 The User Accounts window

3. In the **Manage Accounts** window, click **Add a new user in PC settings** (see Figure 3-7 on page 56).

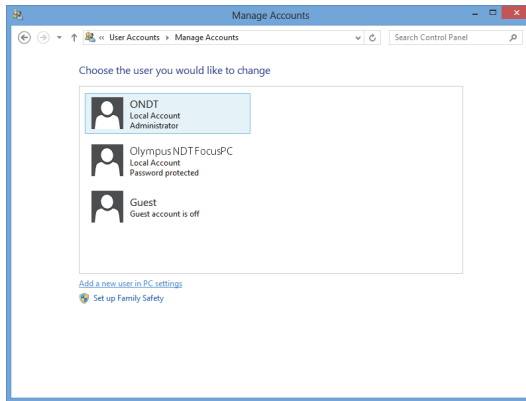


Figure 3-7 The Manage Accounts window

4. In PC settings, click **Add a user** (see Figure 3-8 on page 56).

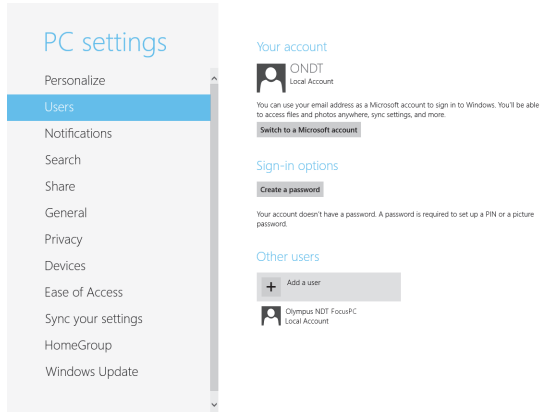


Figure 3-8 Adding a user in PC settings

5. In the **User name** box, type **FocusPC**, and then click **Next** (see Figure 3-9 on page 57).

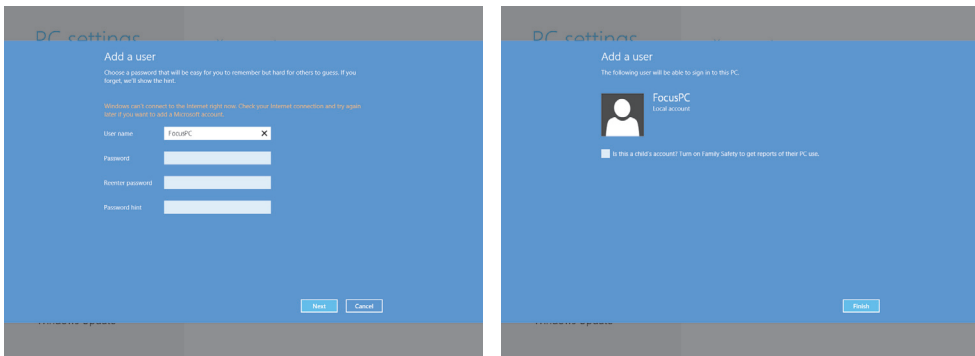


Figure 3-9 Creating the user name

6. Click **Finish** to confirm the new user account.
7. In the Control Panel's **User Accounts** window, click **Manage another account** (see Figure 3-6 on page 55).
8. In the **Manage Accounts** window, click **FocusPC** (see Figure 3-10 on page 57).

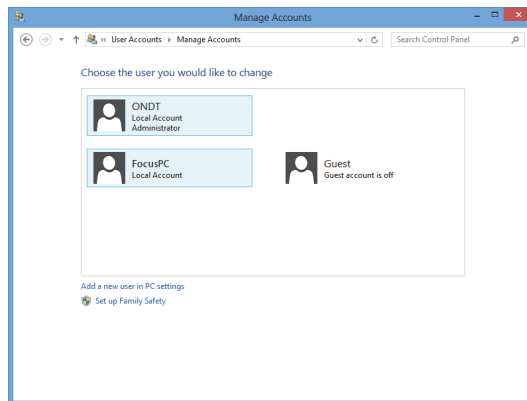


Figure 3-10 Selecting the FocusPC user account

9. In the **Change an Account** window, click **Change the account type** (see Figure 3-11 on page 58).

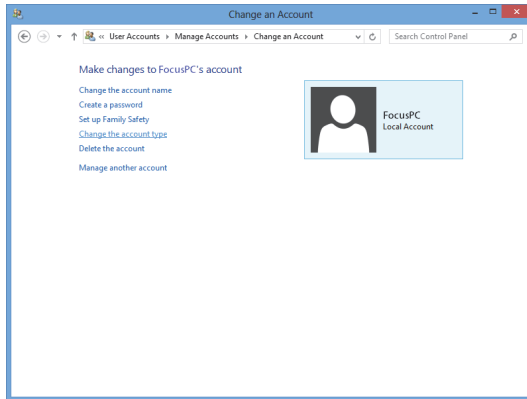


Figure 3-11 Changing the account type

10. In the **Change Account Type** window, select **Administrator**, and then click **Change Account Type** (see Figure 3-12 on page 58).

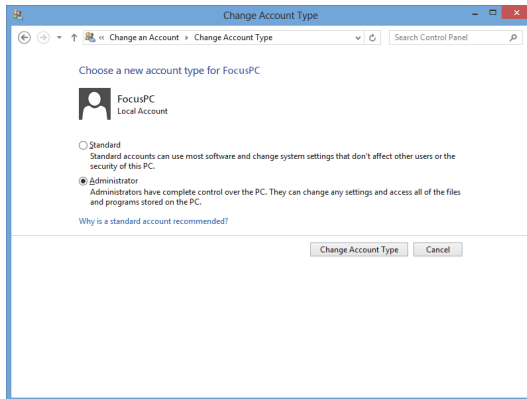


Figure 3-12 Selecting the Administrator account type

To create user accounts in Windows 7 or Windows XP

NOTE

For Windows 8, see “To create user accounts in Windows 8” on page 54.

1. Click **Start > Control Panel > User Accounts**, and then click **Manage User Accounts**. In the **User Accounts** dialog box, click **Add**.
2. In the **Add New User** dialog box, enter a user name in the **User name** box and a domain name in the **Domain** box, and then click **Next** (see Figure 3-13 on page 59).

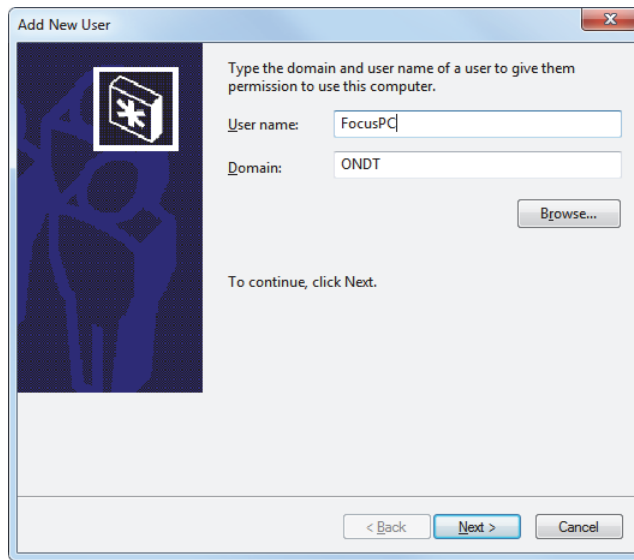


Figure 3-13 Adding a user (Windows 7 example)

3. If you are using Windows 7, select the **Administrator** access level, and then click **Finish** (see Figure 3-14 on page 60).
OR
If you are using Windows XP, select **Other**, set the access level to **Administrators**, and then click **Finish** (see Figure 3-15 on page 60).

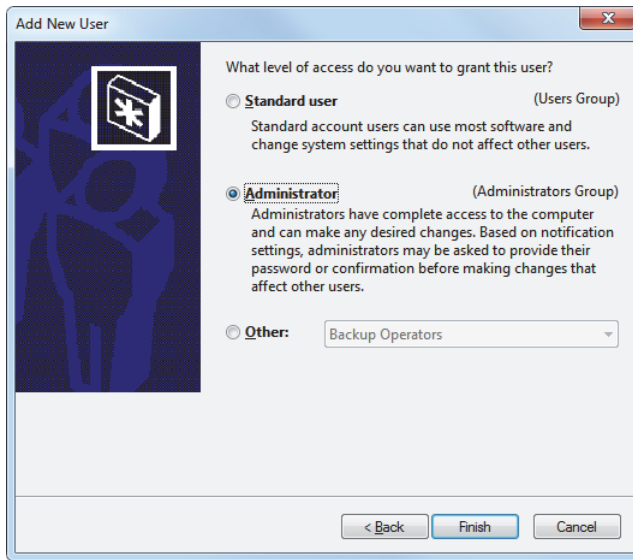


Figure 3-14 Setting the user access level (Windows 7)



Figure 3-15 Setting the user access level under Other (Windows XP)

3.3 Connecting to Remote FocusPC

This section describes how to connect FocusControl to FocusPC software that is installed on a remote computer. This requires a user account with administrator privileges on each computer (see “Creating User Accounts with Administrator Privileges” on page 54), and correct configuration of network connections.

To connect FocusControl to remote FocusPC

1. Connect a crosslink Ethernet (RJ-45) cable (*category 5e or better*) to a network port on each of the computers.
2. Create a user account with administrator privileges on each computer (for details, see “Creating User Accounts with Administrator Privileges” on page 54).
3. On the local computer, configure the network connection:
 - a) If you are using Windows 8: on the taskbar, click **Settings > Control Panel > Network and Sharing Center**, and then click the connection used to establish the link with the remote FocusPC. In the **[Connection Name] Status** dialog box that appears, click **Properties**. In the **Ethernet Properties** dialog box that appears next, select **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties** (see Figure 3-16 on page 62).

OR

If you are using Windows 7: on the taskbar, click **Start > Control Panel > Network and Sharing Center > Change adaptor settings**, and then click the connection used to establish the link with the remote FocusPC. In the **[Connection Name] Status** dialog box that appears, click **Properties**. In the **[Connection Name] Properties** dialog box that appears next, select **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties** (see Figure 3-17 on page 62).

OR

If you are using Windows XP: on the taskbar, click **Start > Control Panel > Network Connection**, and then double-click on the connection used to establish the link with the remote FocusPC. In the **[Connection Name] Properties** dialog box that appears, select **Internet Protocol (TCP/IP)**, and then click **Properties** (see Figure 3-17 on page 62).

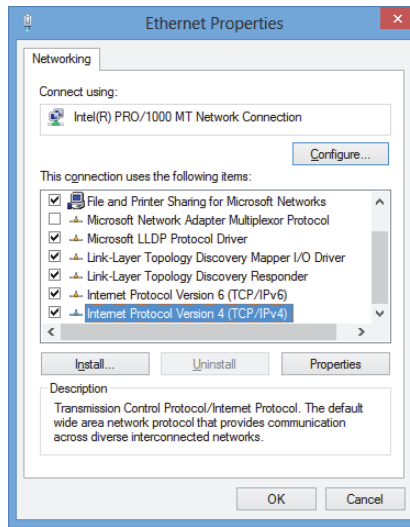


Figure 3-16 The Ethernet Properties dialog box on the local computer (Windows 8 example)

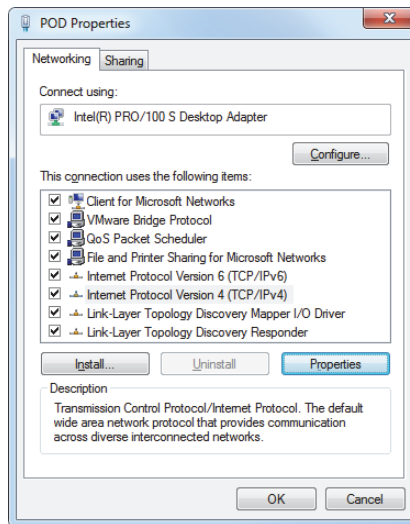


Figure 3-17 The [Connection Name] Properties dialog box on the local computer (Windows 7 example)

- b) In the **Internet Protocol Properties** dialog box, click **Use the following IP address**, type compatible IP address values in the **IP address** and **Subnet Mask** boxes, and then click **OK** (see Figure 3-18 on page 63).

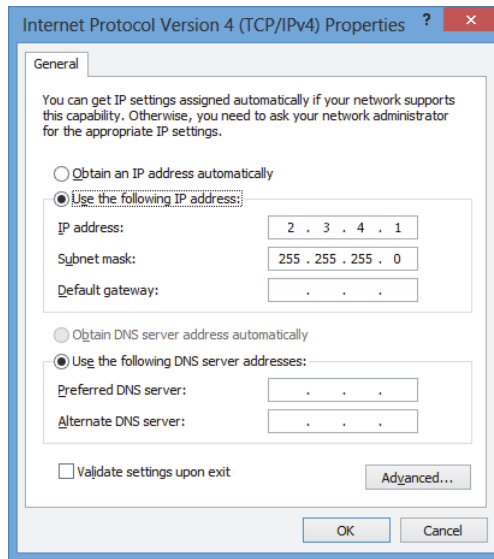


Figure 3-18 Configuring the internet protocol on the local computer

4. On the remote computer, configure the network connection by following a procedure similar to the one outlined in step 3 on page 61 for the local computer; however, you must enter an IP address value that is different from the value entered for the local computer yet still compatible.

NOTE

On the remote computer, set the IP address to a value that is in the same range as the local computer (the same first three blocks) but not identical to the IP address of the local computer. For example, **2.3.4.1** for the local (see Figure 3-18 on page 63) and **2.3.4.2** for the remote (see Figure 3-19 on page 64).

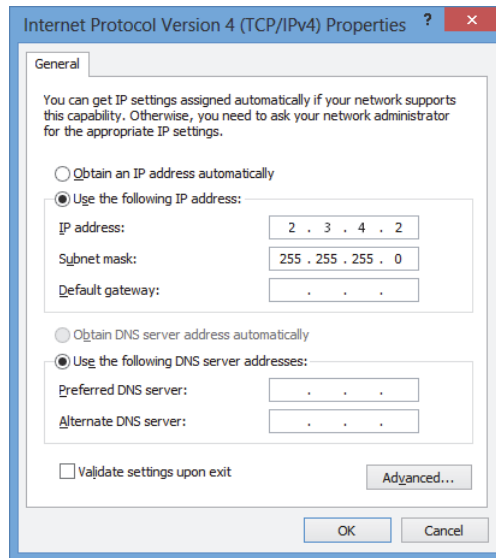


Figure 3-19 Configuring the internet protocol on the remote computer

5. On the local computer, open the **Configuration Manager**, which can be found at the following access path:
 - For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl *mmn*\Configuration Manager
- OR
- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl *mmn*\Configuration Manager
6. On the **Configuration** page, under **Device**, select **FocusPC *mmn*** from the list.
7. Under **IP Address**, type the IP address of the remote computer in the box, as defined in step 4, and then click **Apply** (see Figure 3-20 on page 65).

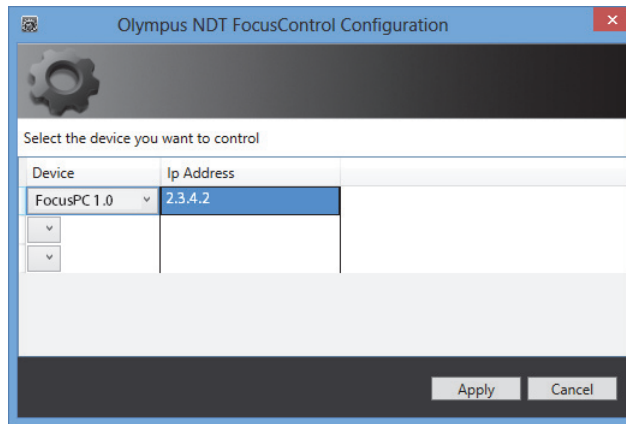


Figure 3-20 Configuring for FocusPC

4. Application Examples

The compiled and ready-to-use sample applications for FocusControl can be found in the folder at the following access path:

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
nmn\Samples

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
nmn\Samples

These sample applications are an ideal starting point for building your own custom applications.

The complete source code of the sample applications is available at the above access path, inside a subfolder with the name of the sample application, to which is added the name of the language used to program the sample application's code.

4.1 FocusPC Remote Control Application

The **FocusPC_MFC.exe** program reproduces typical FocusPC applications that are built in software environment integrations.

- When a setup file is loaded, the program enables broad control of the inspection sequence parameters and initializing.
- When a data file is loaded, the program enables data handling commands for post-processing on either single or multiple data file configurations.

4.1.1 Activating FocusPC Remote Control

The **FocusPC_MFC.exe** program is a ready-to-use sample application programmed in C++. It contains commands that are frequently used in FocusPC's acquisition and analysis modes.

To use the FocusPC remote control application

1. Make sure that FocusControl is properly configured for connection to FocusPC (see "Connecting FocusControl to FocusPC" on page 51).
2. Double-click **FocusPC_MFC.exe** in the folder at the following access path:
 - For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Samples\x86\Binaries
 - OR
 - For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Samples\x64\Binaries
3. In the **FocusPC Application** window, click **Connect** (see Figure 4-1 on page 69).

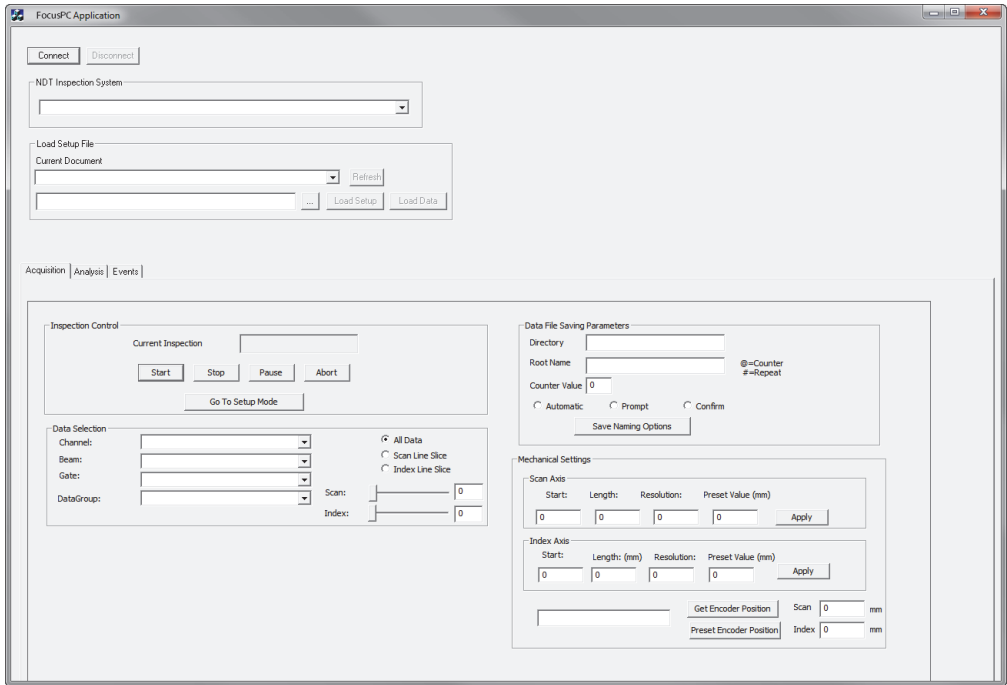


Figure 4-1 The FocusPC Application main window

The FocusPC remote control commands are now available in the main window (see Figure 4-2 on page 70). Details about the commands are provided in “FocusPC Functions” on page 70.

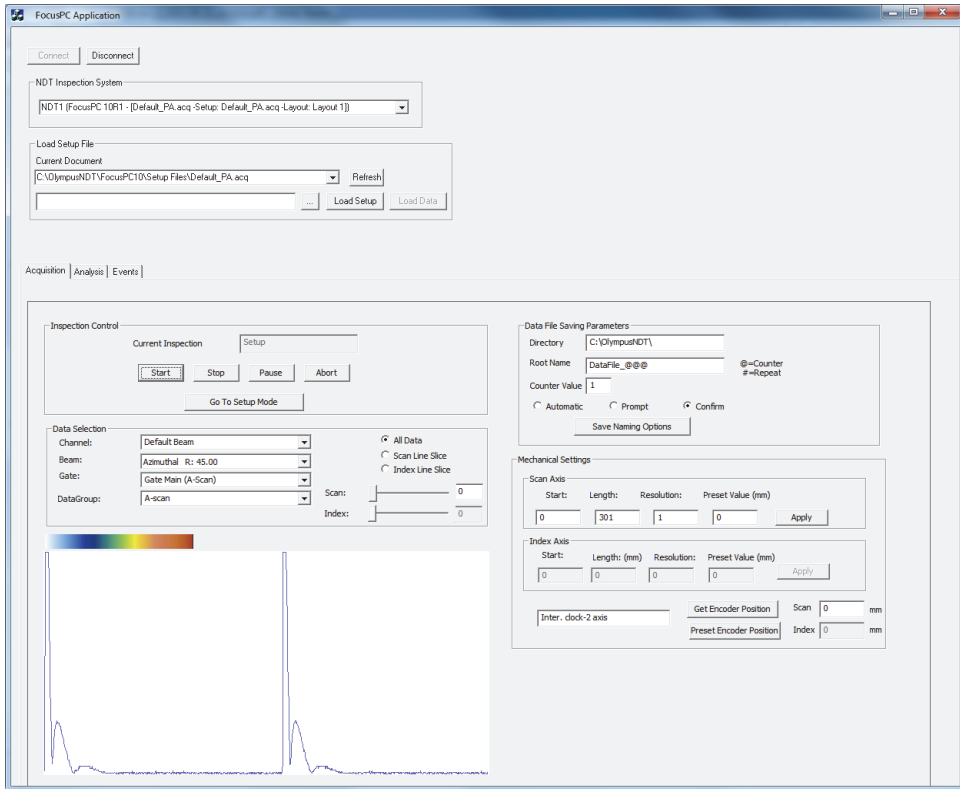


Figure 4-2 The FocusPC Application main window with FocusPC connection

4.1.2 FocusPC Functions

An overview of the commands in the FocusPC remote control application is provided in Figure 4-3 on page 71 and Figure 4-4 on page 72.

Connect to / disconnect from FocusPC. Load a FocusPC setup or data file. Control the acquisition of data. Set the data file saving parameters.

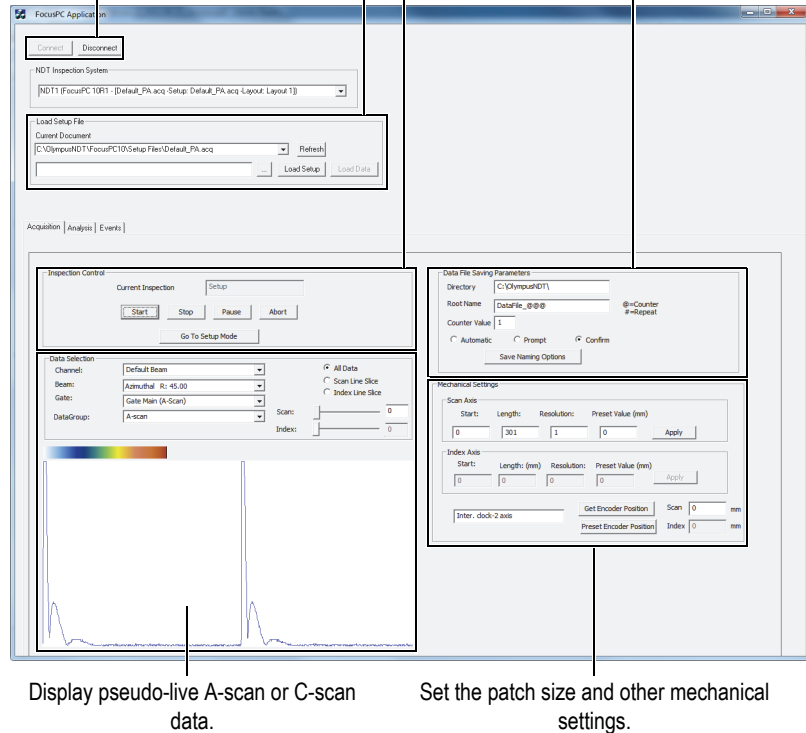


Figure 4-3 The Acquisition tab controls in FocusPC Application main window

The available commands are found in the **FocusPC Application** main window, under two of the three tabs. They enable the connection or disconnection of the remote control application to FocusPC, and loading a setup file. The **Acquisition** tab contains commands for controlling data acquisition, selecting and displaying data, preconfiguring a data-file naming scheme, selecting where data files are saved on a connected computer, and obtaining the encoder's current position (see Figure 4-3 on page 71).

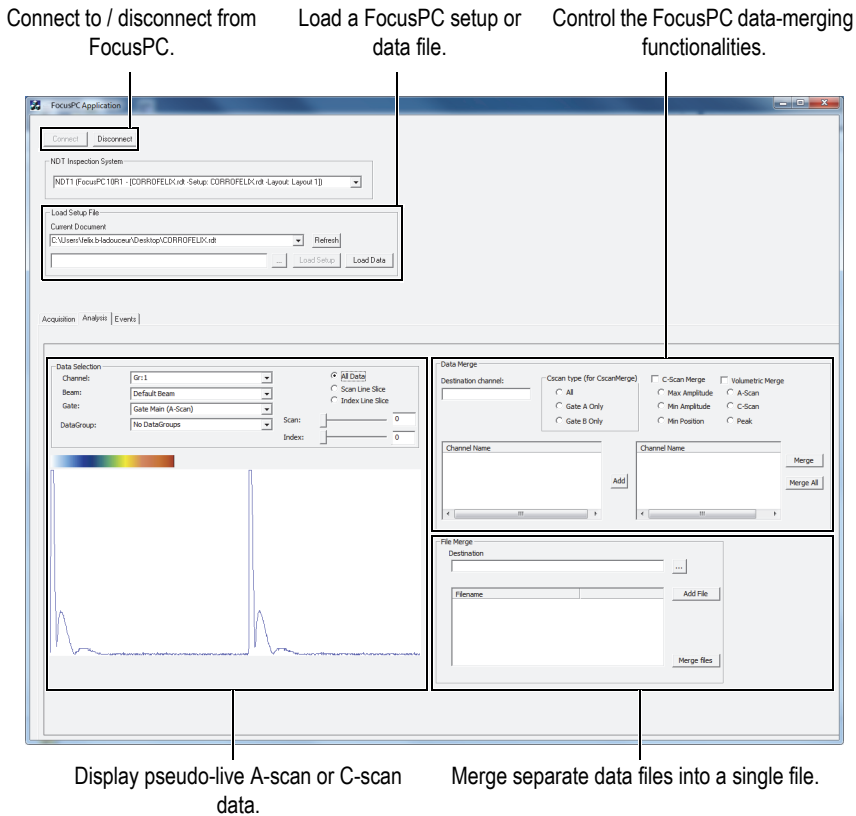


Figure 4-4 The Analysis tab controls in the FocusPC Application main window

The **Analysis** tab contains commands for selecting and displaying data, merging data, and merging data files (see Figure 4-4 on page 72).

The complete source code for the sample FocusPC application can be found at the following access path:

- For the 32-bit version:
 [Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Samples\x86\FocusPC_MFC

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Samples\x64\FocusPC_MFC

The code of the sample C++ application can be found inside a subfolder with the name of the sample application, to which is added the name of the language used to program the sample application's code.

4.2 Remote Online Data Application

The **OnlineData_CSharp.exe** program reproduces typical FocusPC pseudo-live data extraction applications that can be used for online external data monitoring and display.

4.2.1 Activating Remote Online Data

The **OnlineData_CSharp.exe** program is a ready-to-use sample application programmed in C#. It contains commands that are frequently used for pseudo-live FocusPC data extraction.

To use the remote online data application

1. Make sure that FocusControl is properly configured for connection to FocusPC (see "Connecting FocusControl to FocusPC" on page 51).
2. Double-click **OnlineData_CSharp.exe** in the folder at the following access path:
 - For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Samples\x86\Binaries
 - OR
 - For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Samples\x64\Binaries
3. In the **Online Data UI** window, click **Connect** (see Figure 4-5 on page 74).

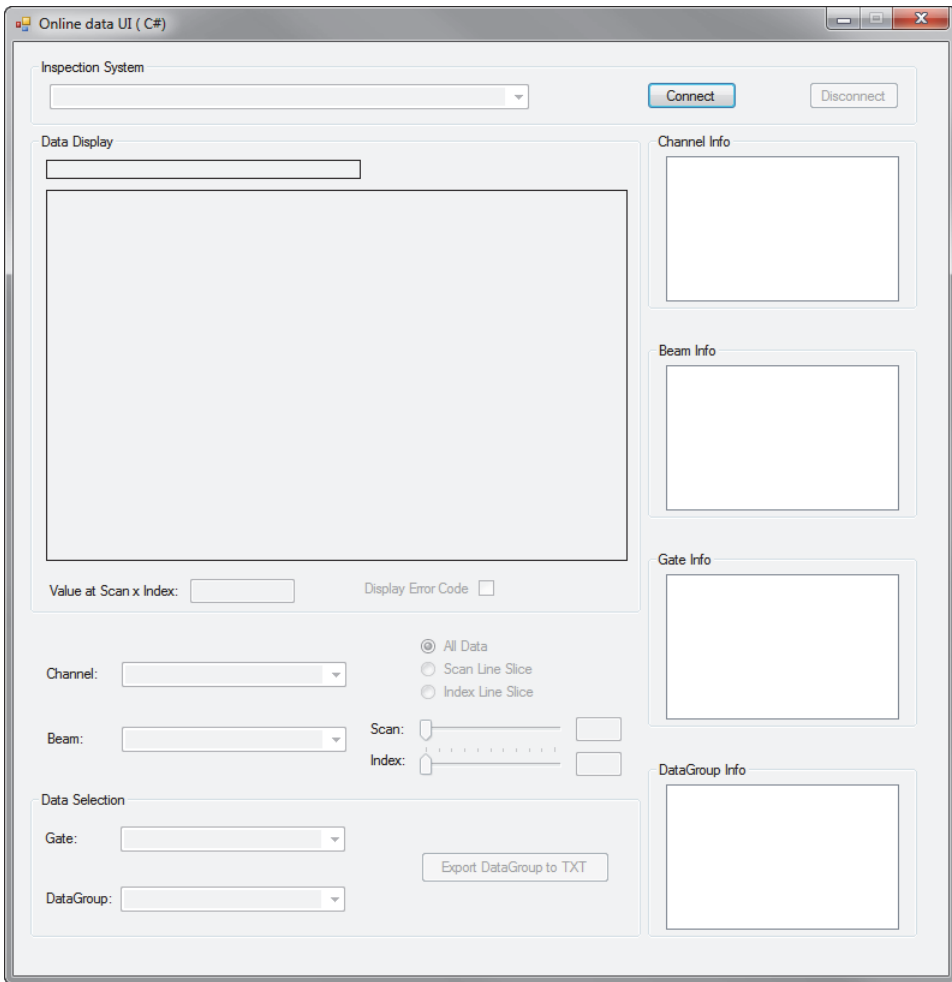


Figure 4-5 The Online Data UI main window

The commands for pseudo-live FocusPC are now available in the main window (see Figure 4-6 on page 75). Details about the commands are provided in “Online Data Functions” on page 75.

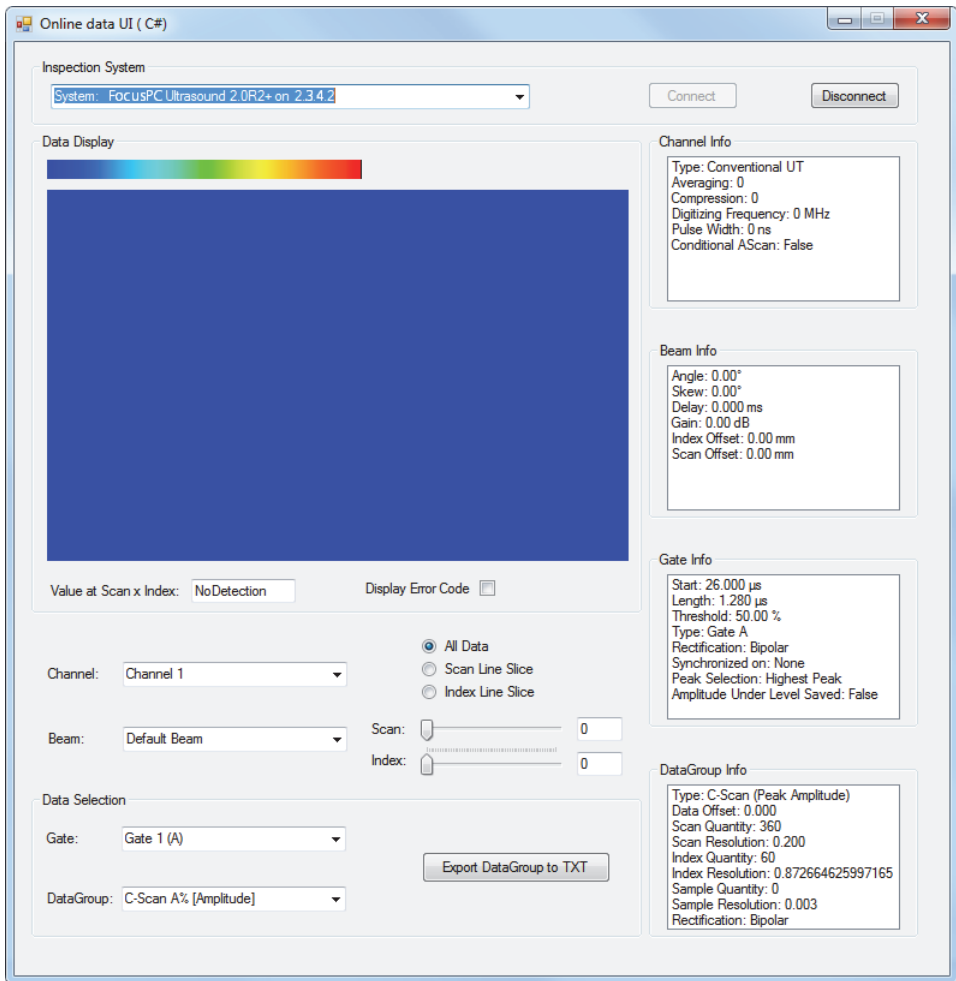


Figure 4-6 The Online Data UI main window after connection

4.2.2 Online Data Functions

Figure 4-7 on page 76 provides an overview of the Online Data application's controls for pseudo-live FocusPC.

The commands enable the connection or disconnection of the computer and FocusPC, loading a setup file, and selecting and displaying data.

The complete source code for the sample Online Data UI application can be found at the following access path:

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Samples\x86\Online Data_CSharp

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Samples\x64\Online Data_CSharp

The code of the sample C# application can be found inside a subfolder with the name of the sample application, to which is added the name of the language used to program the sample application's code.

4.3 FocusPC Embedding Application

The **Embedded FocusPC.vi** program is a basic FocusPC embedding application programmed in LabVIEW. It can be used to build a more complete interface that can display, for example, A-scan and/or C-scan data, with FocusPC operating in the background.

4.3.1 Activating FocusPC Embedding

The **Embedded FocusPC.vi** program is a ready-to-use sample application that contains commands to embed a FocusPC display inside another application such as LabVIEW.

To use the FocusPC embedding application

1. Make sure that FocusControl is properly configured for connection to FocusPC (see "Connecting FocusControl to FocusPC" on page 51).
2. Double-click **EmbeddedFocusPC_LabVIEW.exe** in the folder at the following access path:


- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Samples\x86\Binaries
- OR
- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Samples\x64\Binaries
3. In the **EmbeddedFocusPC_LabVIEW.exe** window, click **Play** (.
 4. Click **Hook FocusPC** to embed FocusPC (see Figure 4-8 on page 78).



Figure 4-8 The LabVIEW main window with an embedded FocusPC window

4.3.2 FocusPC Embedding Functions

The LabVIEW window's controls consist of buttons to hook or unhook FocusPC from the LabVIEW application.

The complete source code for the sample embedded FocusPC window application can be found at the following access path:

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mm\Samples\x86\Embedded FocusPC_LabVIEW

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mm\Samples\x64\Embedded FocusPC_LabVIEW

The code of the sample LabVIEW application can be found inside a subfolder with the name of the sample application, to which is added the name of the language used to program the sample application's code.

5. Command Organization

The FocusControl commands are based on an arborescent (tree) structure. The availability of commands depends on the elements to be controlled.

5.1 Conventions

The following conventions are used in the commands listed in Figure 5-1 on page 83 to Figure 5-14 on page 93:

- Terms in **bold** identify public methods, and terms in *italics* identify public properties.
- Interfaces can be easily identified because their names generally begin with the letter *i*.
- Collection names generally end with the letter *s*.

To access an inspection station, you must use a remote control object from the INDTInspectionSystems collection.

The FocusPC software supports all FocusControl commands.

NOTE

You can also use FocusData software to access the data from the FocusPC data files generated through FocusControl. For more information, refer to the *FocusData User's Manual*.

5.2 Units

All values in your settings are expressed in the International System of Units (SI) as follows:

- Time is in seconds.
- Distance is in meters.
- Amplitude is in percentage.
- Rotation/angles are in degrees.

5.3 Command Structure

The command structure details are provided in the tree views in Figure 5-1 on page 83 to Figure 5-14 on page 93.

NOTE

Some of the functions may differ from the way they are presented in Figure 5-1 to Figure 5-14. For an up-to-date tree structure revision, along with full descriptions of each function, refer to the help file located at the following access path:

- For the 32-bit version:
[Installation Folder Name]\Program Files (x86)\Evident NDT\FocusControl
mmn\Manual

OR

- For the 64-bit version:
[Installation Folder Name]\Program Files\Evident NDT\FocusControl
mmn\Manual
-

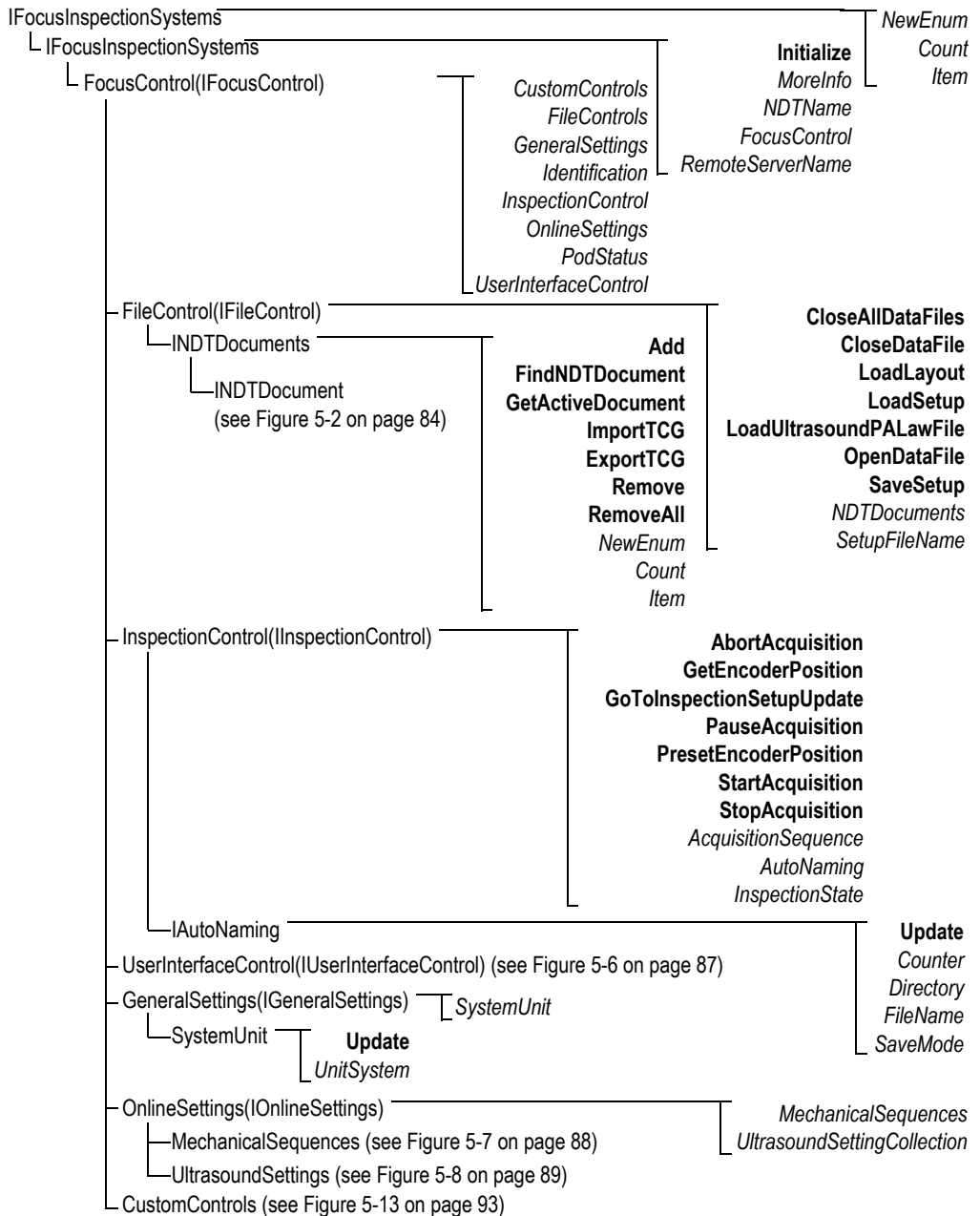


Figure 5-1 FocusControl tree structure

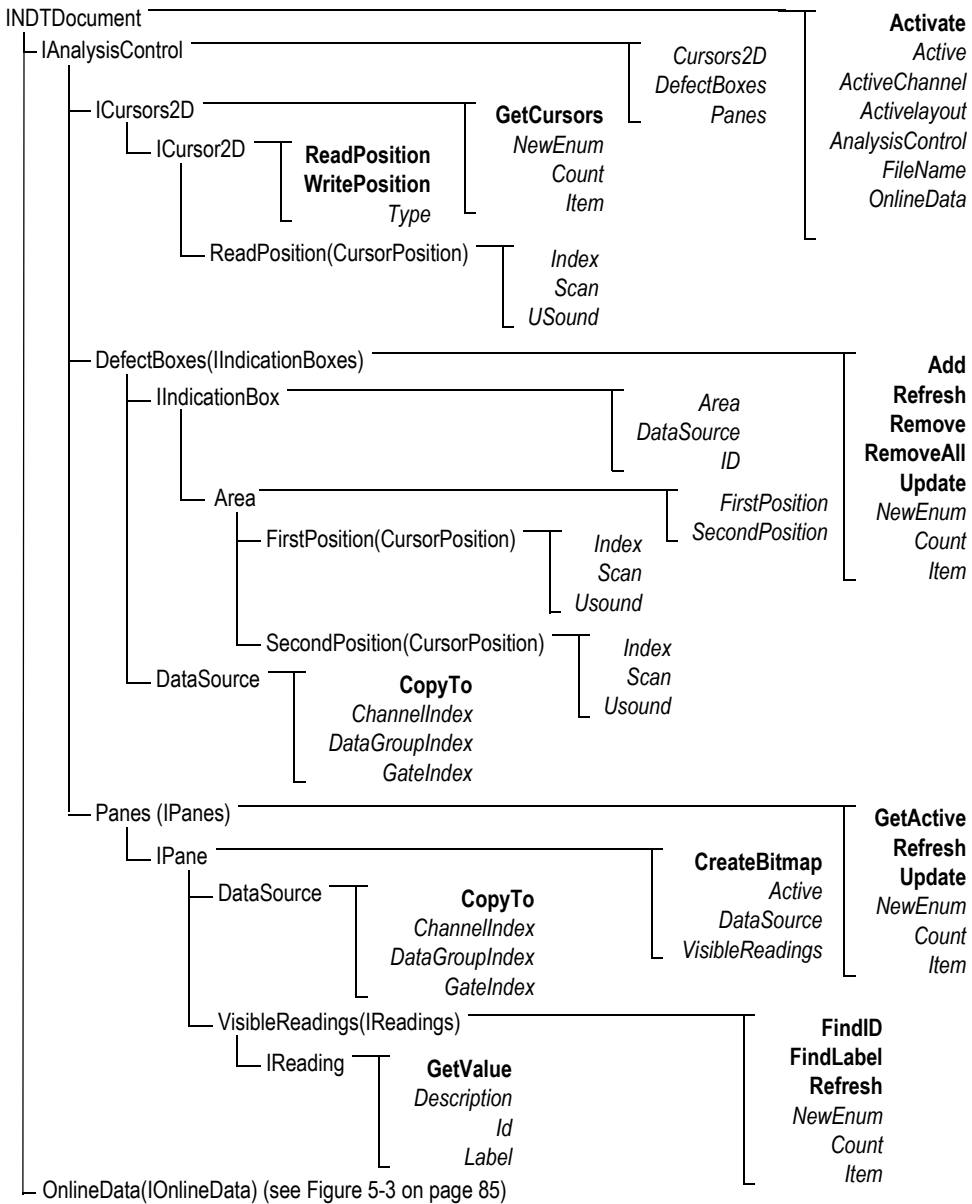


Figure 5-2 INDDocument tree structure

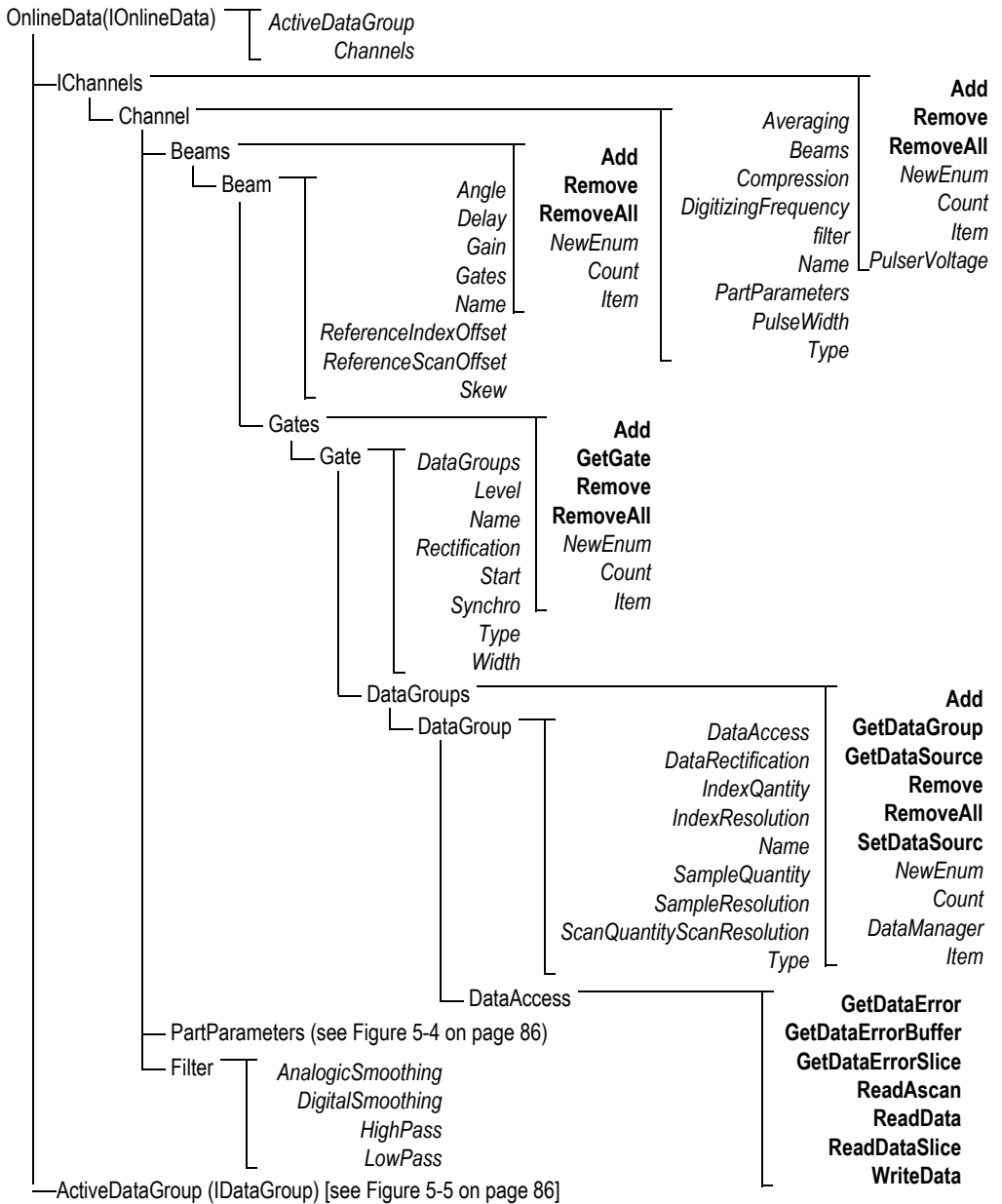


Figure 5-3 IOnlineData tree structure

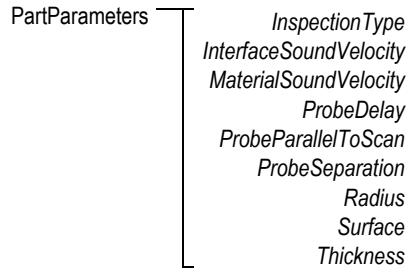


Figure 5-4 PartParameters tree structure

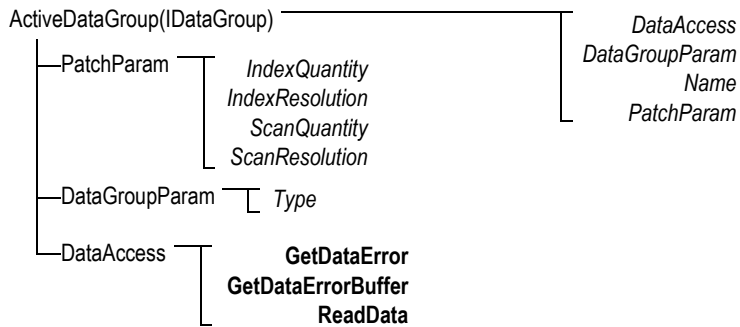


Figure 5-5 ActiveDataGroup(IDataGroup) tree structure

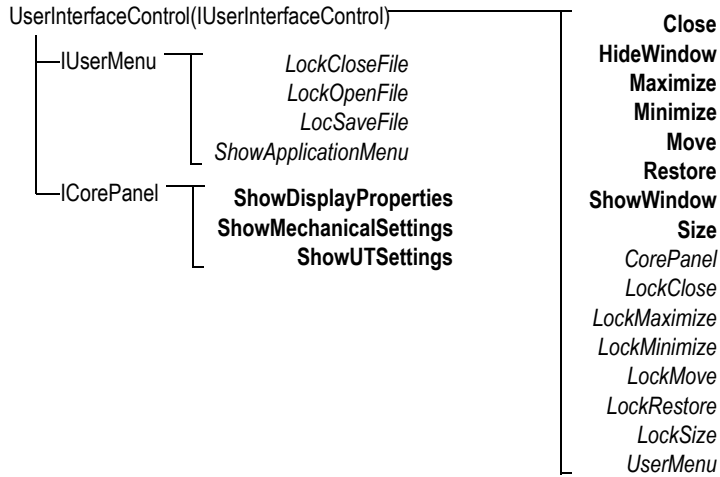


Figure 5-6 UserInterfaceControl(IUserInterfaceControl) tree structure

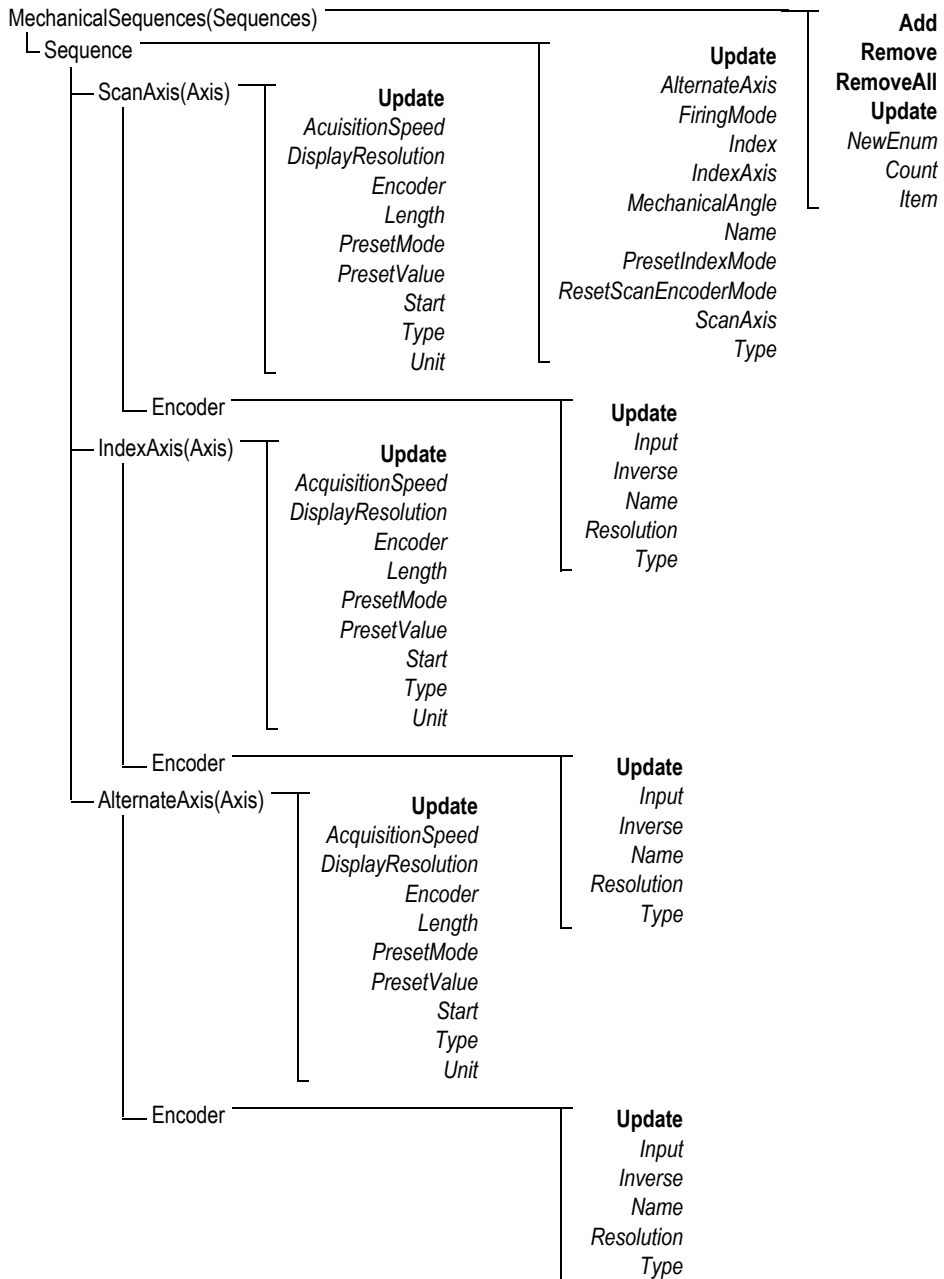


Figure 5-7 MechanicalSequences tree structure

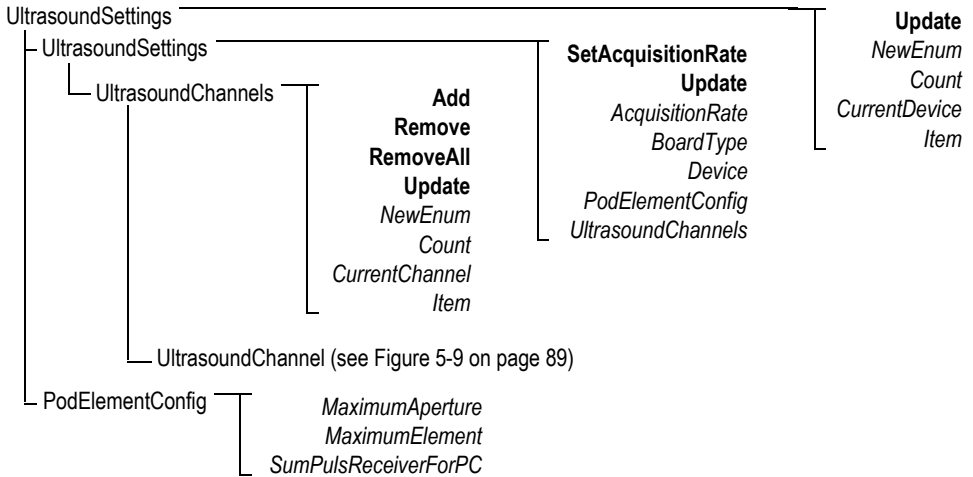


Figure 5-8 UltrasoundSettings tree structure

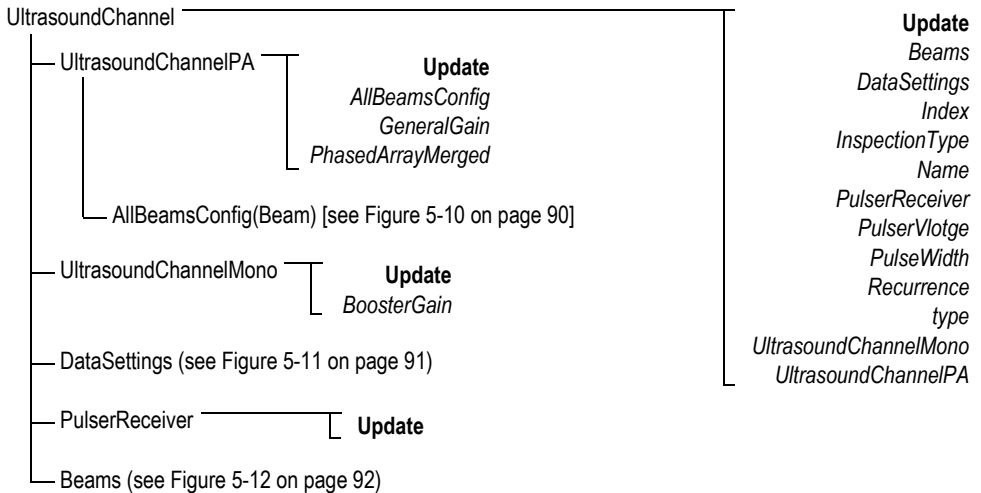


Figure 5-9 UltrasoundChannel tree structure

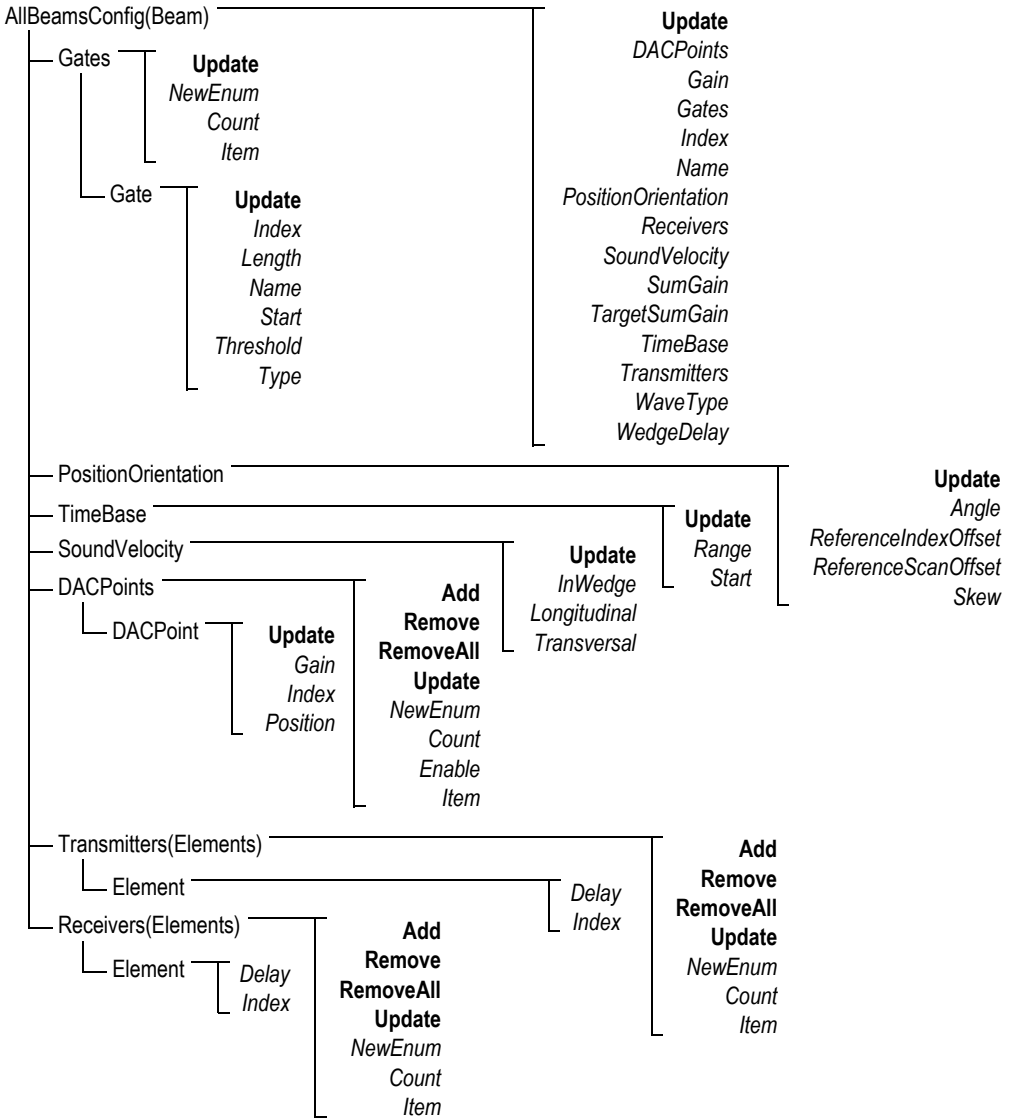


Figure 5-10 AllBeamsConfig(Beam) tree structure

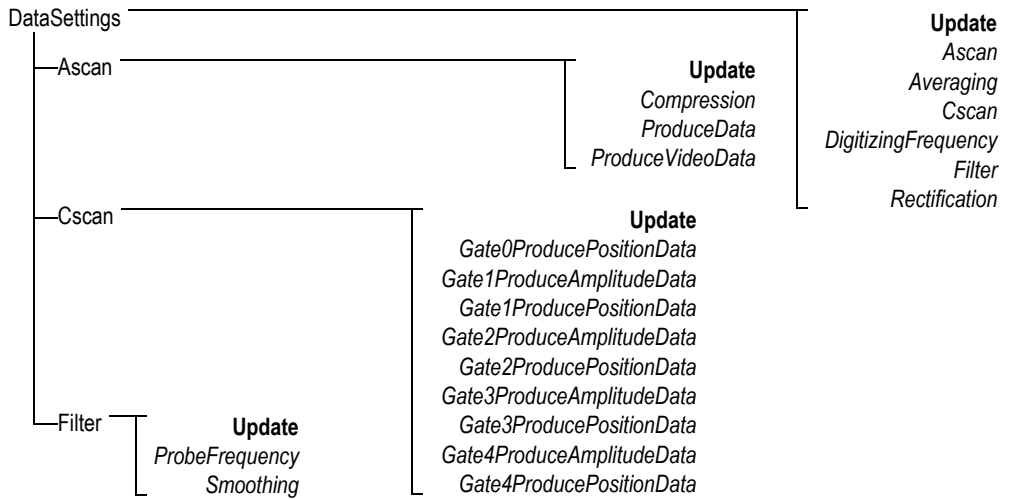


Figure 5-11 DataSettings tree structure

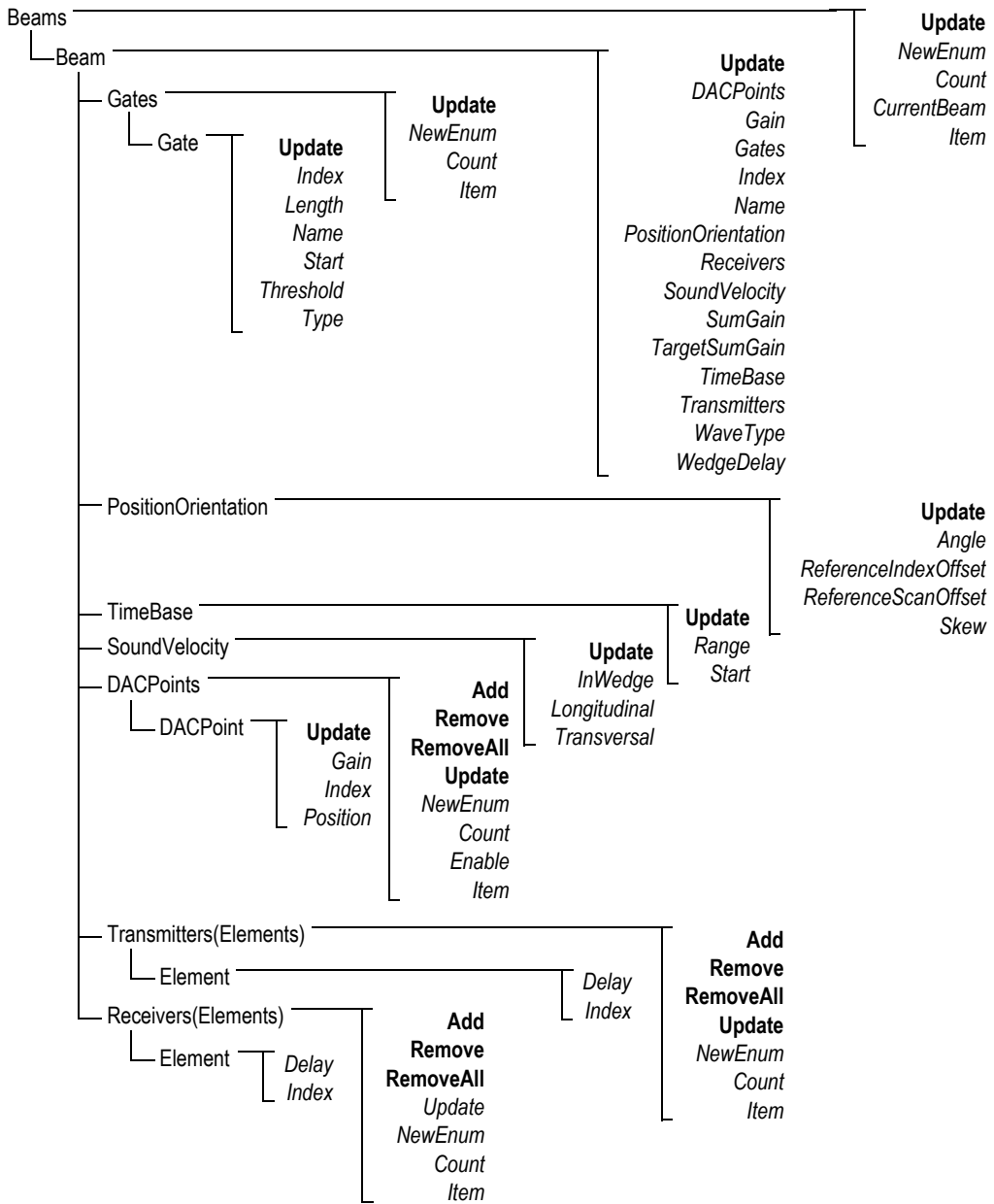


Figure 5-12 Beams tree structure



Figure 5-13 CustomControls tree structure



Figure 5-14 FocusPCActiveX tree structure

6. Troubleshooting

This chapter contains troubleshooting guides for errors that may arise while using FocusControl. Error categories are presented separately in tables that include the error codes, their descriptions, and the associated solutions.

6.1 Troubleshooting First Steps

Before contacting Evident technical support, it is recommended to perform the following short steps. These steps will help you solve simple and common issues and gather essential information that will speed up solving remaining issues in case you need to contact technical support.

To perform the troubleshooting first steps

1. Verify which version of the Windows operating system is installed on your computer.

To retrieve the Windows operating system version under Windows 8

- ◆ On the Windows taskbar, click **Settings**, and then click **PC info**.

Under **Windows edition**, the version of the operating system is displayed (see Figure 6-1 on page 96).

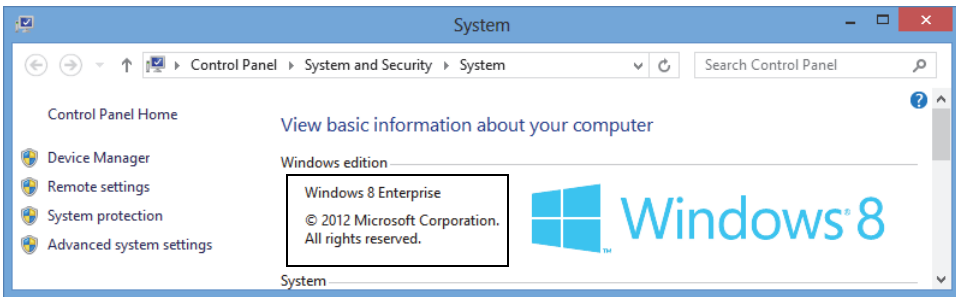


Figure 6-1 The Windows 8 Control Panel displaying the Windows edition

To retrieve the Windows operating system version under Windows 7

- a) On the taskbar, click **Start**.
- b) Right-click **Computer**, and then click **Properties** (see Figure 6-2 on page 96).
Under **Windows edition**, the version of the operating system is displayed.



Figure 6-2 The Windows 7 Control Panel displaying the Windows edition

To retrieve the Windows operating system version under Windows XP

- a) On the taskbar, click **Start**.
- b) Right-click **My Computer**, and then click **Properties**.
- c) Click the **General** tab (see Figure 6-3 on page 97).
Under **System**, the version of the operating system is displayed.



Figure 6-3 Windows XP System version in the System Properties dialog box

2. Verify that you are running on either Windows 8, Windows 7, or Windows XP (minimum requirement: Service Pack 3).
3. Verify that your HASP key, which contains your FocusControl license, is properly connected and recognized by your computer:
 - ◆ On the Windows taskbar, click the Start button, click **All Programs**, click **Evident NDT**, and then click **Keytool [Version Number]** (see Figure 6-4 on page 98).

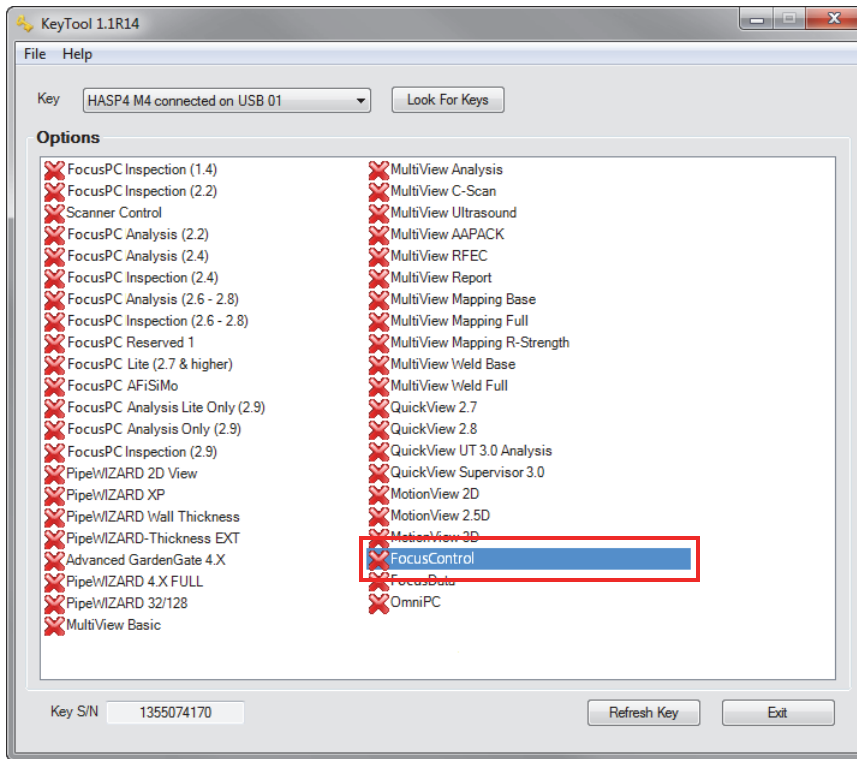


Figure 6-4 The KeyTool window with FocusControl license

4. If applicable, verify whether your antivirus software is preventing FocusControl from working correctly.
5. If applicable, verify whether your firewall software is preventing FocusControl from working correctly.
6. Reinstall the latest FocusControl version on your computer. For more information, see “Installing the FocusControl Component” on page 18.
7. Install the latest FocusControl version on another computer to see if this solves the problem. For more information, see “Installing the FocusControl Component” on page 18.

If an issue still persists after completing this procedure, contact your local Evident representative.

6.2 Hardware Key

Table 1 on page 99 contains a troubleshooting guide for error codes related to the hardware key. The hardware key contains authorization codes to enable the execution of Evident software products and options. You need to connect your hardware key to the USB port of the computer to authorize the execution of the Evident software.

Table 1 Troubleshooting guide for hardware key errors

Error code	Description	Solution
0x3009	Key access error has occurred. You cannot use this functionality.	Make sure that the hardware key is correctly inserted and that it contains the right code.
0x3010	The key has an invalid code. You cannot use this functionality.	
0x3011	The key type is invalid. You cannot use this functionality.	
0x3012	No key found. You cannot use this functionality.	

6.3 Connection to FocusPC

Table 2 on page 100 contains a troubleshooting guide for error codes related to the connection with FocusPC.

Table 2 Troubleshooting guide for FocusPC connection errors

Error code	Description	Solution
0x3013	Unable to initialize FocusPC.	Make sure that the connection is properly established and that FocusPC is correctly installed.

6.4 Custom Control

Table 3 on page 100 contains a troubleshooting guide for error codes related to the usage of the custom control function.

Table 3 Troubleshooting guide for custom control errors

Error code	Description	Solution
0x3000	Custom control not found.	This may happen when you use the command to find a merger. Make sure that the name is correctly typed: <ul style="list-style-type: none">• DataFileMerger• CScanMerge• VolumetricMerge If the name is correct, then make sure that FocusPC is correctly installed.

6.5 FocusPC

Table 4 on page 101 contains a troubleshooting guide for error codes related to the use of FocusPC.

Table 4 Troubleshooting guide for FocusPC errors

Error code	Description	Solution
0x3000	This action is allowed in setup mode only.	Change from the current mode to the setup mode using the following command: <code>GoToInspectionSetupState ()</code>
0x3001	Unable to start acquisition in FocusPC.	Look at the remote FocusPC to see if there is an error message displayed. The software may be waiting for a response.
0x3002	Unable to stop acquisition in FocusPC.	
0x3003	Unable to pause acquisition in FocusPC.	
0x3004	Unable to abort acquisition in FocusPC.	
0x3005	Change mode to setup failed.	
0x3006	Unable to update autonaming parameters.	Make sure that you are in the setup mode and that the name you are using is correctly typed.
0x3007	Unable to load setup file in FocusPC.	Make sure that the path and the name are correct and that you do not have a sharing violation for this file (you cannot have a file opened in another application).
0x3008	File is already loaded in FocusPC.	You cannot open a file when it is already loaded in FocusPC. Close the file and load it again.
0x3009	This focal law does not exist.	You are trying to access a focal law that does not exist. Create this focal law in FocusPC.

Table 4 Troubleshooting guide for FocusPC errors (continued)

Error code	Description	Solution
0x300A	This channel does not exist.	You are trying to access a channel that does not exist. Create this channel in FocusPC.
0x300B	Unable to load .law file.	This may happen when using the <code>LoadUltrasoundPALawFile</code> command. Make sure that this file exists and that it is a valid focal law file.
0x300C	Error occurred while updating FocusPC.	This may happen when using <code>Update()</code> while setting an ultrasound parameter. Make sure that the value you are trying to enter is valid.
0x300D	Unable to save this setup.	Look at the remote FocusPC to see if there is an error message displayed. The software may be waiting for a response.
0x300E	Invalid file name.	Use another name.

6.6 Ultrasound Settings

Table 5 on page 103 contains a troubleshooting guide for error codes related to the setup of ultrasound parameters.

Table 5 Troubleshooting guide for ultrasound parameter setup errors

Error code	Description	Solution
0x300F	DAC value must be positive.	Follow the requirement that is indicated in the description.
0x3010	Position orientation settings can be modified in phased array only.	
0x3011	Beam wedge delay can be modified in phased array only.	

6.7 Access

Table 6 on page 103 contains a troubleshooting guide for error codes related to FocusControl access.

Table 6 Troubleshooting guide for FocusControl access errors

Error code	Description	Solution
0x3012	You are not allowed to use the FocusControl option.	FocusControl needs to be initialized by the InspectionSystems.dll. You cannot access FocusPC directly.
0x3013	You cannot add a sequence using FocusControl in this version.	Do not use <code>AddSequence ()</code> with this version.

Table 6 Troubleshooting guide for FocusControl access errors (continued)

Error code	Description	Solution
0x3014	The function has been locked.	You have used <code>Lock</code> in <code>UserInterfaceControl</code> and you are trying to make a change. For example, you used <code>LockMinimize(VARIANT_TRUE)</code> , and now you are trying to minimize the view. You need to unlock the parameter first, using <code>LockMinimize(VARIANT_FALSE)</code> , and then use <code>Minimize()</code> .
0x3015	You cannot access the inspection setup and layout in analysis mode.	You are trying to change the current layout to an inspection layout, but you are in analysis mode. You must change the mode or use an analysis layout.
0x3016	Document not found.	The document you are trying to find is probably closed.

6.8 Contacting Technical Support

If you need to contact technical support for help in diagnosing and resolving your issue, make sure you can provide the following information:

- Serial number of the one or more instruments
- Firmware version of the one or more instruments

To retrieve the system information file under Windows XP

- (1) On the Windows taskbar, click **Start**, and then click **Run**.
- (2) In the **Run** dialog box, type `msinfo32`.
- (3) In the **System Information** dialog box, click **File**, and then click **Save**.

To retrieve the system information file under Windows 7

- (1) On the Windows taskbar, click **Start**.
- (2) In the **Search programs and files** box, type `msinfo32`.
- (3) In the **System Information** dialog box, click **File**, and then click **Save**.

To retrieve the system information file under Windows 8

- (1) On the Windows taskbar, click **Search**.
- (2) In the **Search** box, type **msinfo32**.
- (3) In the **System Information** dialog box, click **File**, and then click **Save**.

- FocusControl version number

For more information, see “Finding the Version Number of FocusControl” on page 16.

- Brand and model of the one or more laptops
- Operating system version of the one or more computers
- Antivirus software on the one or more computers
- Firewall on the one or more computers
- Type of Ethernet cables being used
- State of lights on Ethernet router

The yellow lights should be on and the green light should be flashing.

When you have gathered all the appropriate information, contact technical support (see “Technical Support” on page 12).

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