90-0454 Lonestar and FAIMS PAD Software Install - Customer Procedure

Issue/Version	Date	Author	Details
001	7/5/14	AP	New document

Contents

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Warning Labels

⚠️	This symbol is used to highlight a section explaining particularly important safety considerations
⚡	This warning label indicates danger of electrical shock hazard
♨️	This warning label indicates parts of the product that will become hot during use. Please take care.

Introduction

Document Purpose

The purpose of this document is to detail the process to successfully install the Lonestar software onto a Windows 7 based PC or Laptop connected to an Owlstone FAIMS PAD.

Related Documents

None

Nomenclature

Term or abbreviation	Meaning
SSD	Solid State Drive
HDD	Hard Disk Drive
USB	Universal Serial Bus
SATA	Serial ATA

Procedure Purpose

The purpose of this procedure is to install the following software from a USB stick or equivalent onto a Windows 7 PC or Laptop.

- 91-0086 Lonestar Installer (including the relevant National Instruments software)
- 91-0088 Python Software
- 91-0053 Lonestar Windows FAIMS driver
- 91-0011 Lonestar FTDI USB-serial driver
- 91-0006 Lonestar MAX System Configuration File

Administrator Access rights will be required to successfully complete this.

Installing the Lonestar Software (incl NI) and Python Software

From the USB stick locate **91-0086 Lonestar Installer** and double click on the "Setup" file. It will look something like:
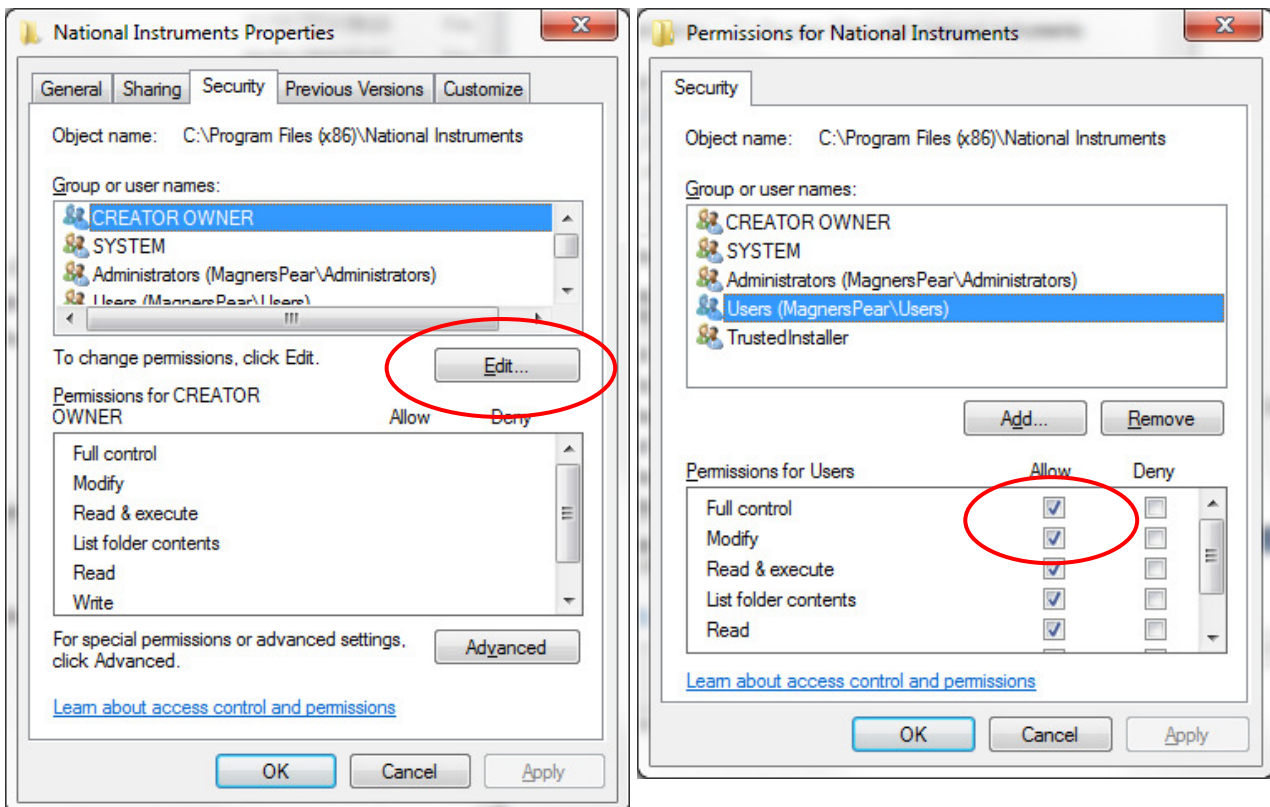

This may take some time (tens of minutes or more) depending on the speed of the PC/Laptop.

Then locate **91-0088 Python software** and run this installer.

Modify Security Settings/Permissions

To allow users to be able to save data to folders within the " C:\Program Files (x86)" directory, the access rights need to be modified.

1) For both the directories

    C:\Program Files (x86)\Lonestar, and

    C:\Program Files (x86)\National Instruments

2) Right click on the folder, select Properties

3) Select the Security Tab and Edit

4) Select the current user (e.g. "Magners Pear\Users" in the example below)

5) Select "Allow" for Full Control and Modify.

6) Click "OK" and OK".

Adding the Owlstone FAIMS PAD Win7 Driver

The driver is used for the USB communications from the Laptop/PC to the FAIMS device.

1) Click Start/Computer and Select C: Drive.   In the C: directory, create a new folder and call it "Drivers". From the USB Stick, copy the folder

   • **91-0053 Lonestar Windows FAIMS driver**
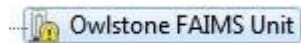
to the C:\Drivers folder

To install the driver

2) For a FAIMS PAD, connect the powered up FAIMS PAD to the PC using the USB connector on the long

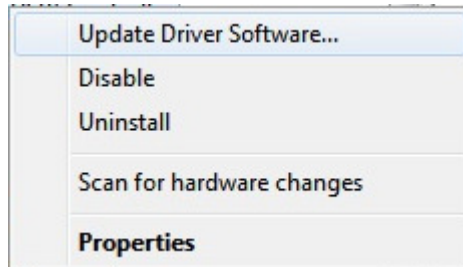side of the FAIMS box, OR the mini-B USB connector on the short side.

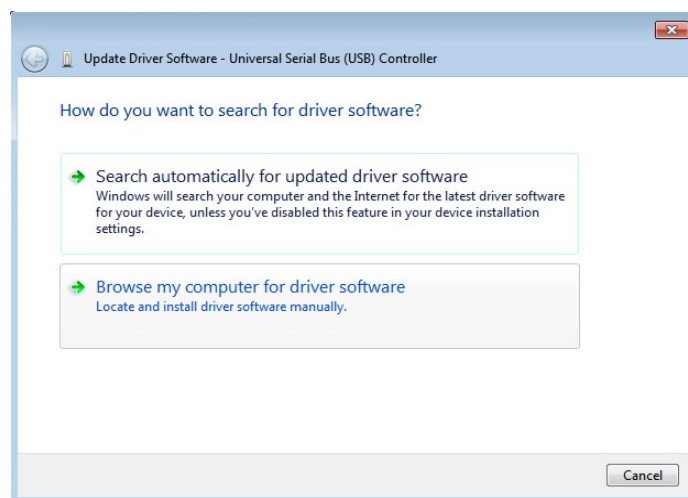3) Windows should find the new hardware but be unable to install it.

4) Click Start/My Computer/Manage then select Device Manager.

5) Under the heading Other Devices, Owlstone FAIMS Unit will have a yellow exclamation mark next to it.
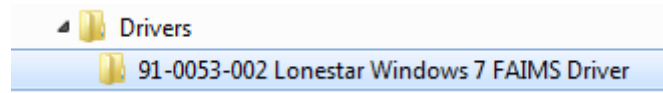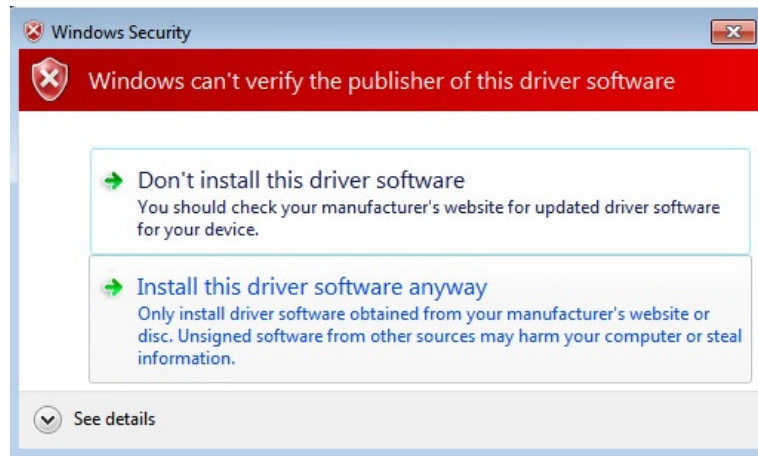

6) Right click and select Update Driver Software

7) Select Browse My computer For Driver Software

8) Select **C:/Drivers/91-0053 Lonestar Windows FAIMS Driver**

9) Click Next. Windows will display the message:

10) Click Install this driver software anyway.

11) The software has successfully updated your driver

Adding the USB-RS232 (FTDI) driver

This driver is only used for a Lonestar to communicate with the ATLAS Heater Control Box. It is not needed for a FAIMS PAD.
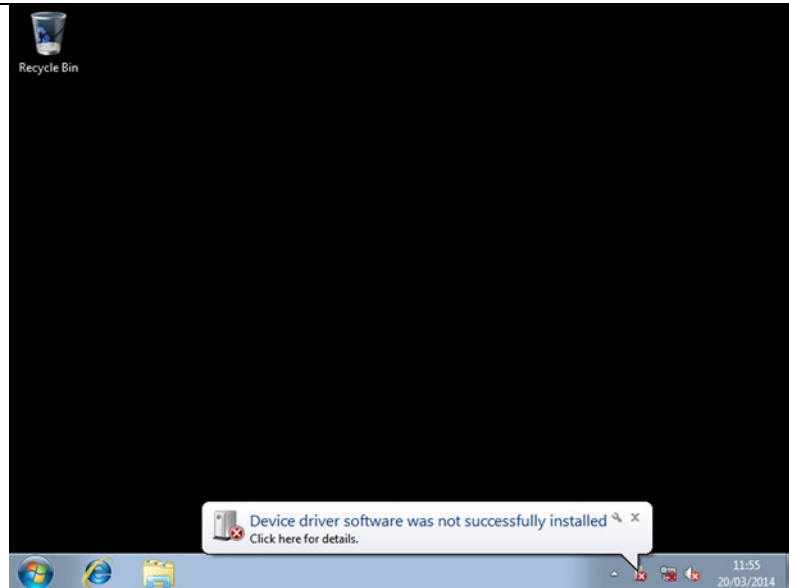
1) Click Start/Computer and Select C: Drive. In the C: directory:

2) Create a New Folder and call it "Drivers". From the USB Stick, copy the folder

- **91-0011 Lonestar FTDI USB-serial Driver**

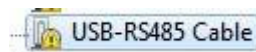to the C:\Drivers folder

To install the driver

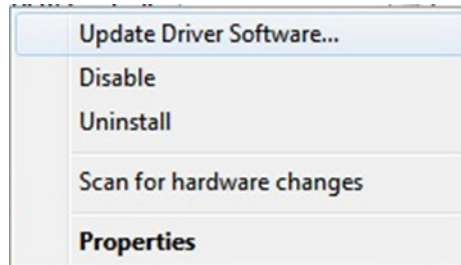3) Plug a FTDI USB 485 converter into the pc. The device driver will **not** be installed.

The installation of this driver is in two parts. For the first part of the install:
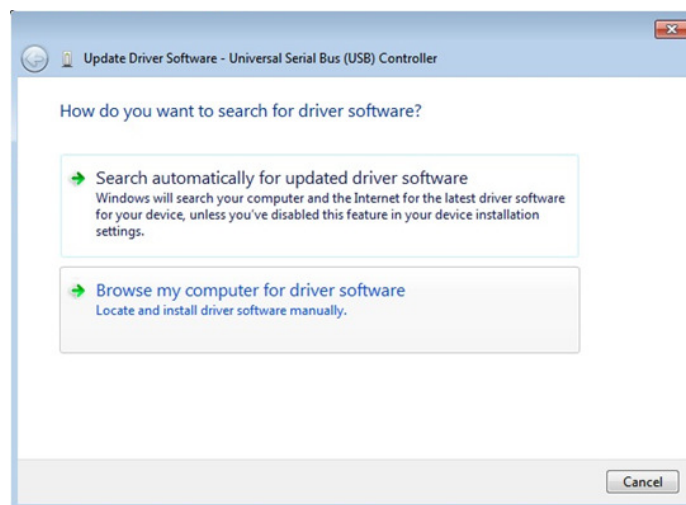
4)   Click Start/My Computer/Manage then select Device Manager.

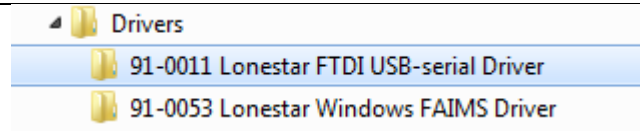5)   Under the heading Other Devices, USB-RS485 cable will have a yellow exclamation mark next to it.

6)   Right click and select Update Driver Software

7)   Select Browse My computer For Driver Software

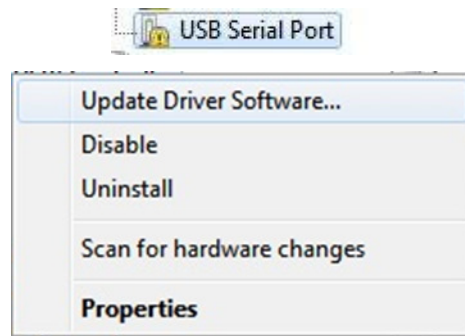8)   Select C:/Drivers Folder 91-0011 Lonestar FTDI USB-serial Driver and click on the folder

9) Click next and the driver will be installed.

10) After installation windows will still display the message:
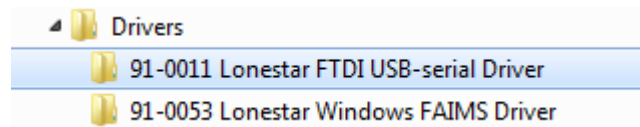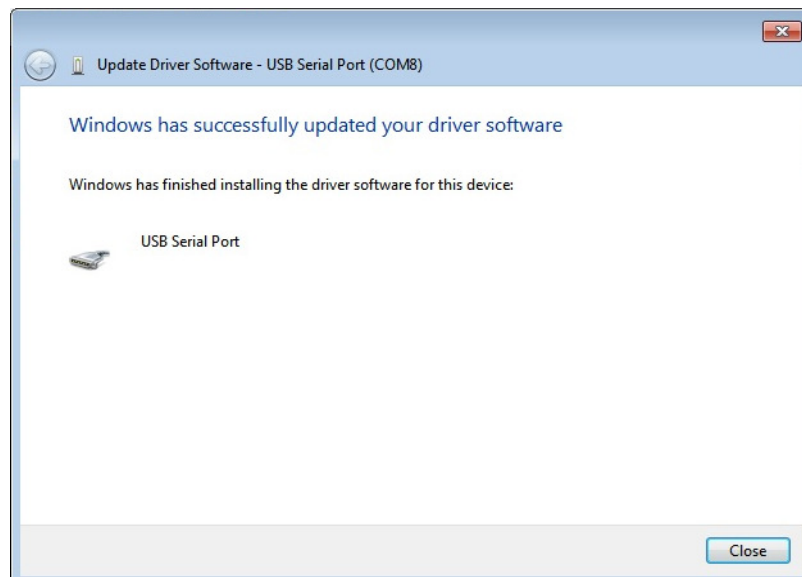

For the second part of the install:

11) Click Start/My Computer/Manage then select Device Manager again.

12) Right click on USB Serial Port. Select Update Driver Software.
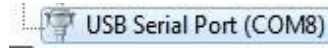

13) Once again select C:/Drivers Folder 91-0011 and click on the folder 91-0011 Lonestar FTDI USB-serial Driver

14) Click next and the driver will be installed.

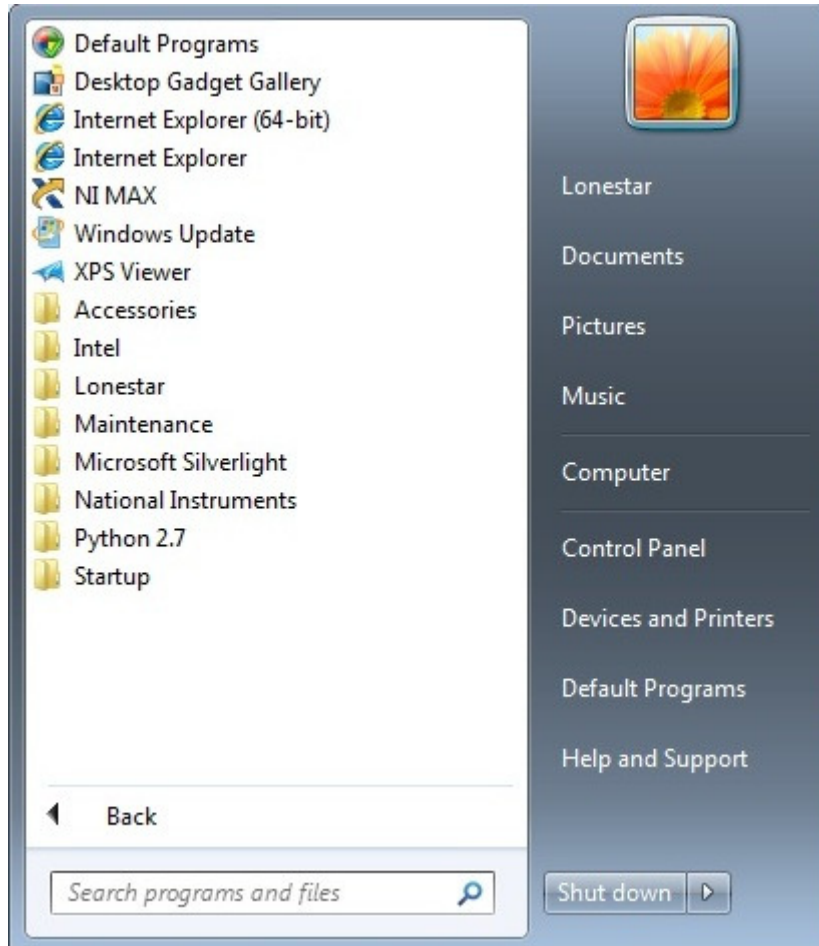15) In device manager the USB port will now have a COM number next to it.

USB Serial Port (COM8)

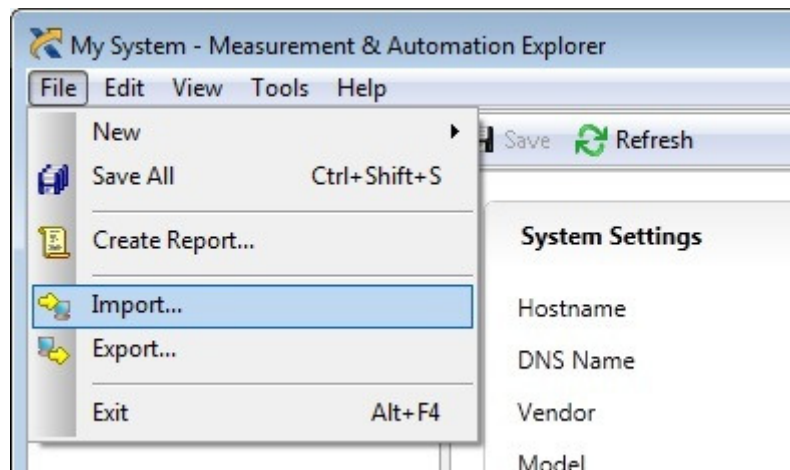16) Remove the FTDI USB cable from the PC.

Importing the NI Configuration File

Before importing the configuration file, you must have first run **91-0086 Lonestar Installer.**

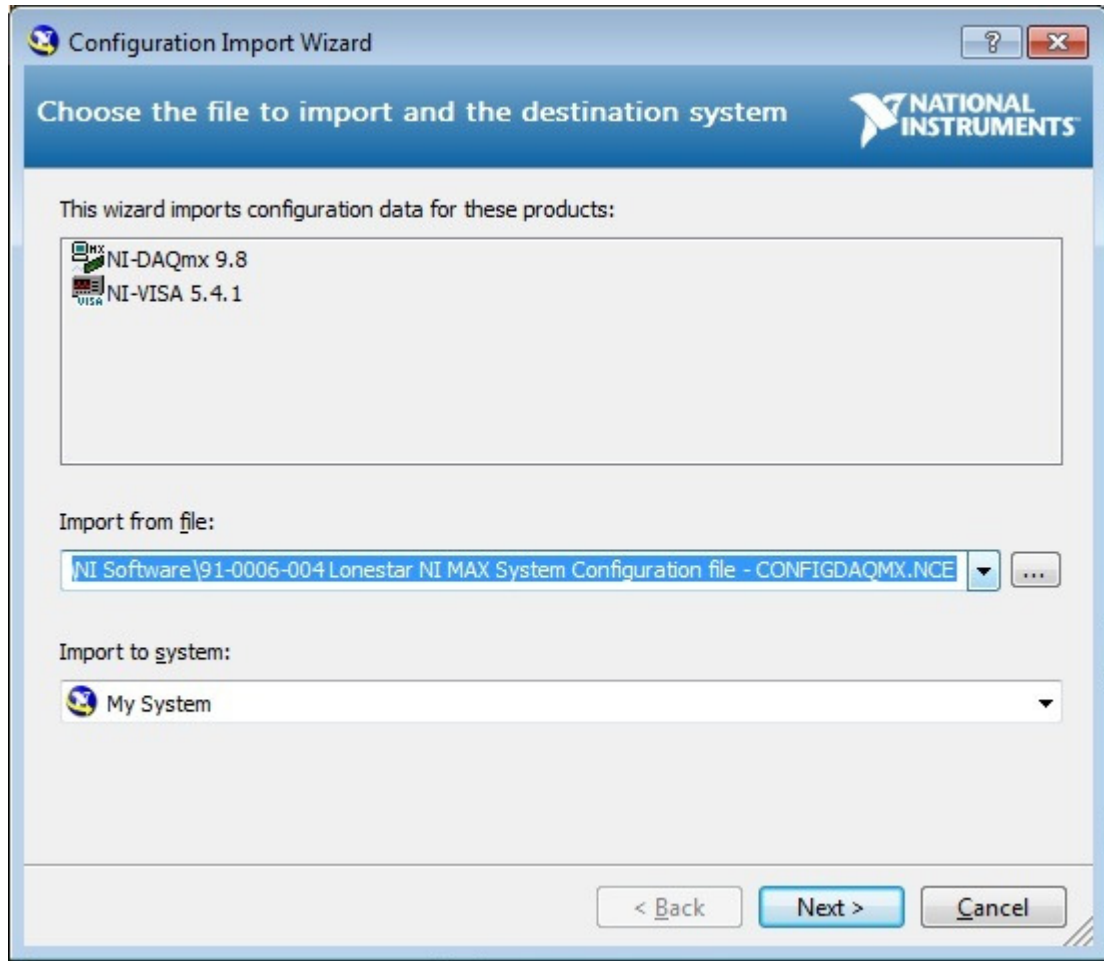1) In Start/All Programs select "NI MAX"
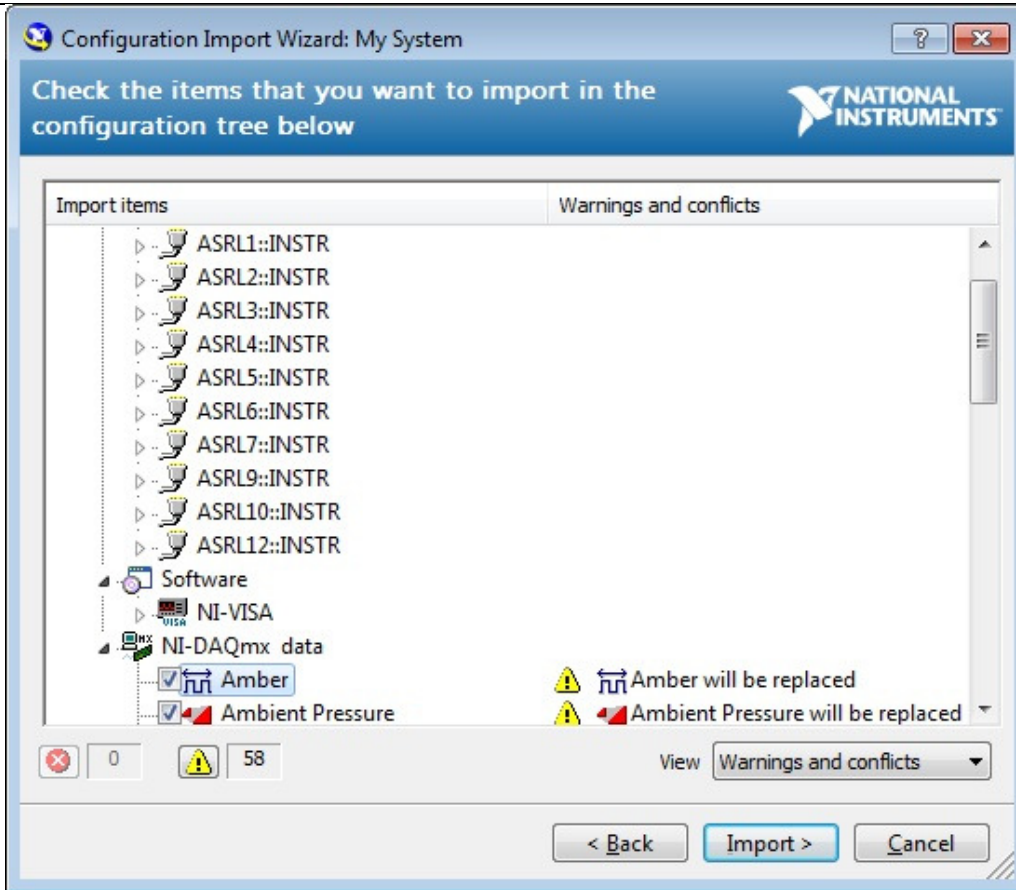

2) When this has started, select File/Import

3) Use the button marked "..." to browse for the file 91-0006 Lonestar MAX System Configuration
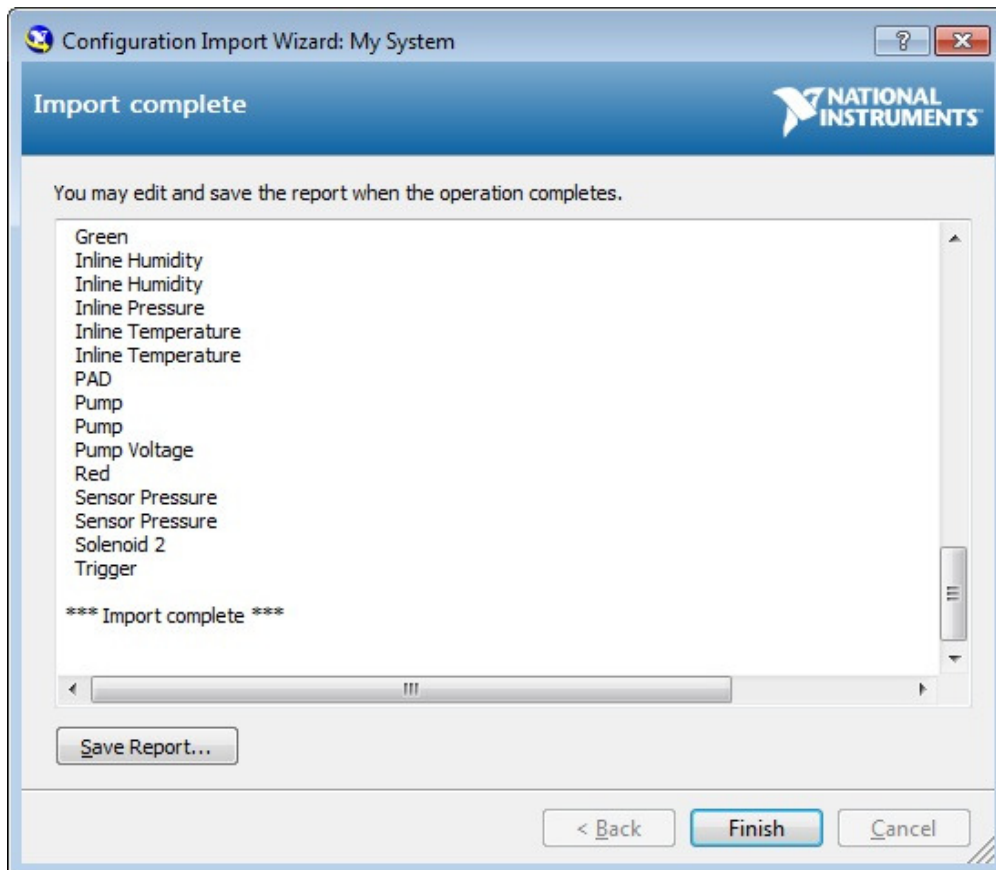
File. Click on "Next"

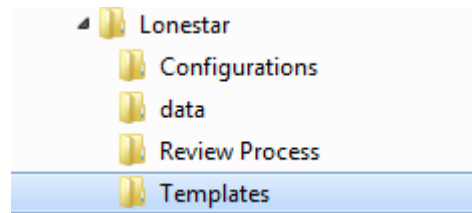4) After the software has scanned the file it will show some warnings and conflicts. Ignore these and click "Import"

5) When this is complete, click "Finish"

Creating the Lonestar Settings File

The default **LonestarSettings.ini** file should be in

      C:\Program Files (x86)\Lonestar\Templates

Copy the file **LonestarSettings.ini** up one directory to

      C:\Program Files (x86)\Lonestar\

Double click to open - the default values that can be changed are:

      Unit#=LN1234

      Chip#=F1234

      Chip Width (um)=35.0

These can be changed to the values specific to the unit. These are for display only and are not used in the software

Note that the formats are NOT as shown but should be in the format:

      "Chip#"   ABC123456789

      "Unit#"   123

About Owlstone

Owlstone develops and commercializes innovative new technologies to address the critical need for compact, dependable and cost-effective chemical and biological detection solutions for a wide range of markets.

Owlstone was formed through the recognition of the opportunities created by the application of micro- and nano- technology to develop improved sensing solutions.

Owlstone is focused on the innovation of detection technologies to address unmet needs, developing solutions that are flexible enough to target a range of markets with the potential for growth by enabling new application opportunities.

From homeland security to home safety, Owlstone is working with leading manufacturers and integrators across a range of markets to develop products incorporating our microchip chemical sensing solution.

Owlstone is headquartered in the United States and has laboratory facilities in the United Kingdom. Owlstone Ltd was founded in 2003 with a seed investment of two million dollars from Advance Nanotech, Inc., a New York based company specializing in the investment in and commercialization of nanotechnologies.

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Introduction

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- 91-0011 Lonestar FTDI USB-serial driver
- 91-0006 Lonestar MAX System Configuration File

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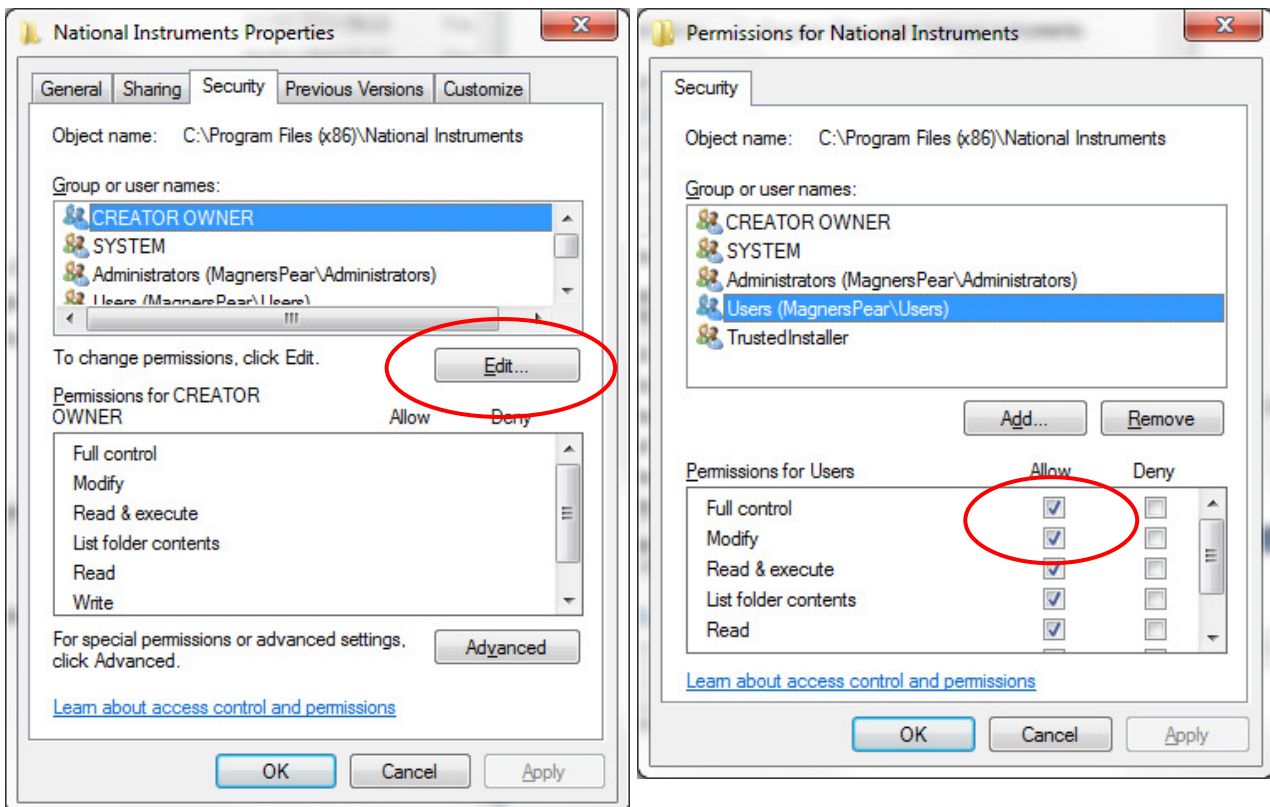

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3) Select the Security Tab and Edit

4) Select the current user (e.g. "Magners Pear\Users" in the example below)

5) Select "Allow" for Full Control and Modify.

6) Click "OK" and OK".

Adding the Owlstone FAIMS PAD Win7 Driver

The driver is used for the USB communications from the Laptop/PC to the FAIMS device.

1) Click Start/Computer and Select C: Drive.   In the C: directory, create a new folder and call it "Drivers". From the USB Stick, copy the folder

   - **91-0053 Lonestar Windows FAIMS driver**

to the C:\Drivers folder

To install the driver

2) For a FAIMS PAD, connect the powered up FAIMS PAD to the PC using the USB connector on the long

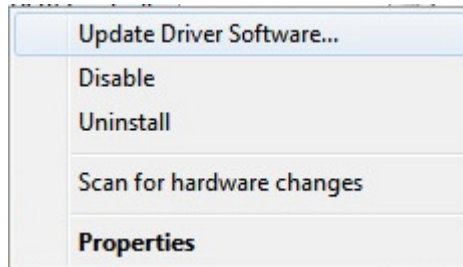side of the FAIMS box, OR the mini-B USB connector on the short side.

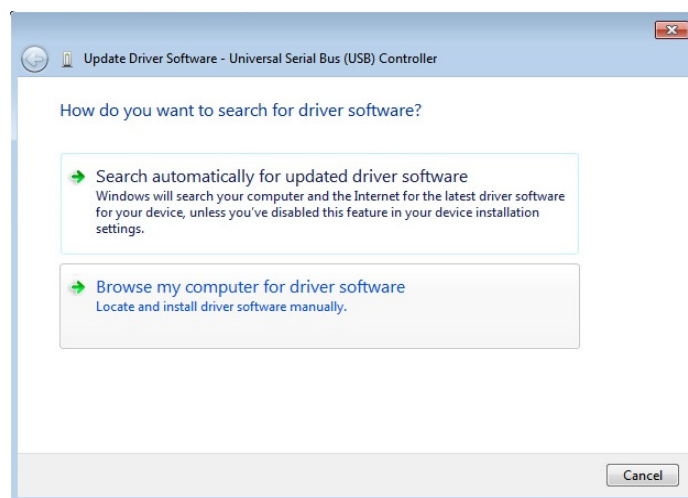3)   Windows should find the new hardware but be unable to install it.

4)   Click Start/My Computer/Manage then select Device Manager.

5)   Under the heading Other Devices, Owlstone FAIMS Unit will have a yellow exclamation mark next to it.
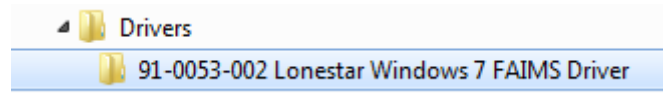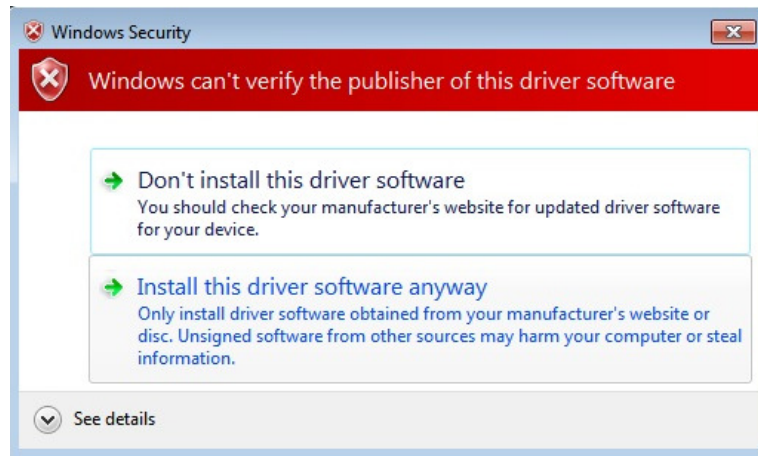

6)   Right click and select Update Driver Software

7)   Select Browse My computer For Driver Software

8) Select **C:/Drivers/91-0053 Lonestar Windows FAIMS Driver**

9) Click Next. Windows will display the message:

10) Click Install this driver software anyway.

11) The software has successfully updated your driver

Adding the USB-RS232 (FTDI) driver

This driver is only used for a Lonestar to communicate with the ATLAS Heater Control Box. It is not needed for a FAIMS PAD.
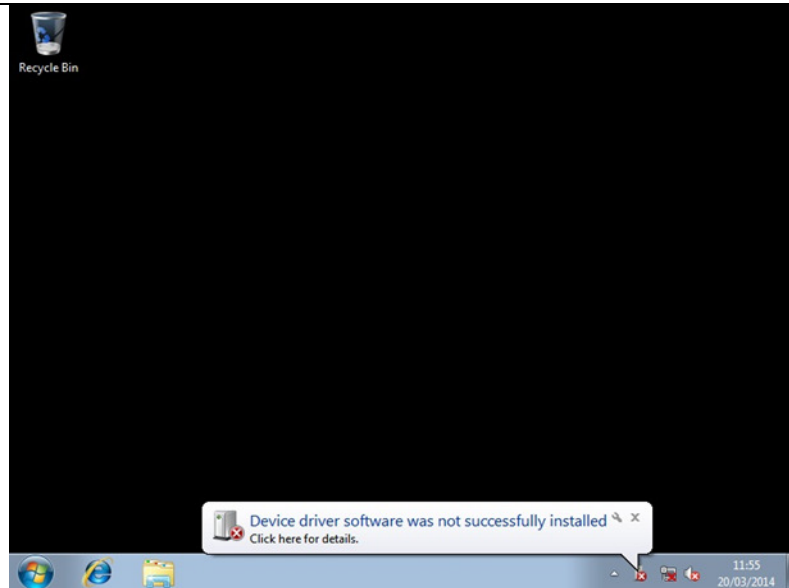
1) Click Start/Computer and Select C: Drive. In the C: directory:

2) Create a New Folder and call it "Drivers". From the USB Stick, copy the folder

- **91-0011 Lonestar FTDI USB-serial Driver**

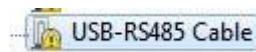to the C:\Drivers folder

To install the driver

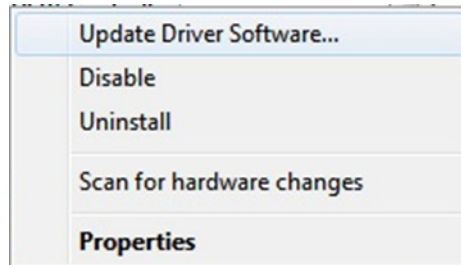3) Plug a FTDI USB 485 converter into the pc. The device driver will **not** be installed.

The installation of this driver is in two parts. For the first part of the install:
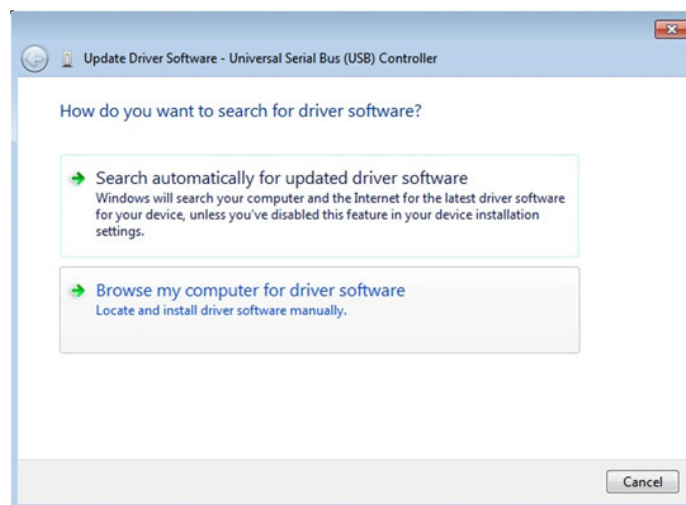
4)   Click Start/My Computer/Manage then select Device Manager.

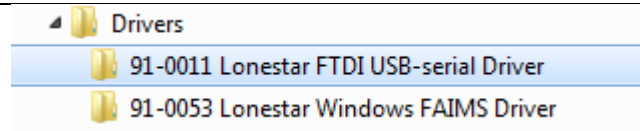5)   Under the heading Other Devices, USB-RS485 cable will have a yellow exclamation mark next to it.

6)   Right click and select Update Driver Software

7)   Select Browse My computer For Driver Software

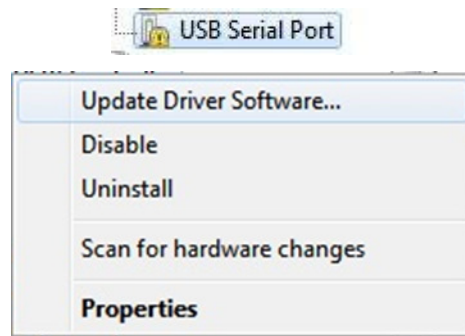8)   Select C:/Drivers Folder 91-0011 Lonestar FTDI USB-serial Driver and click on the folder

9) Click next and the driver will be installed.

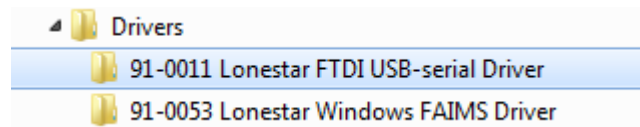10) After installation windows will still display the message:
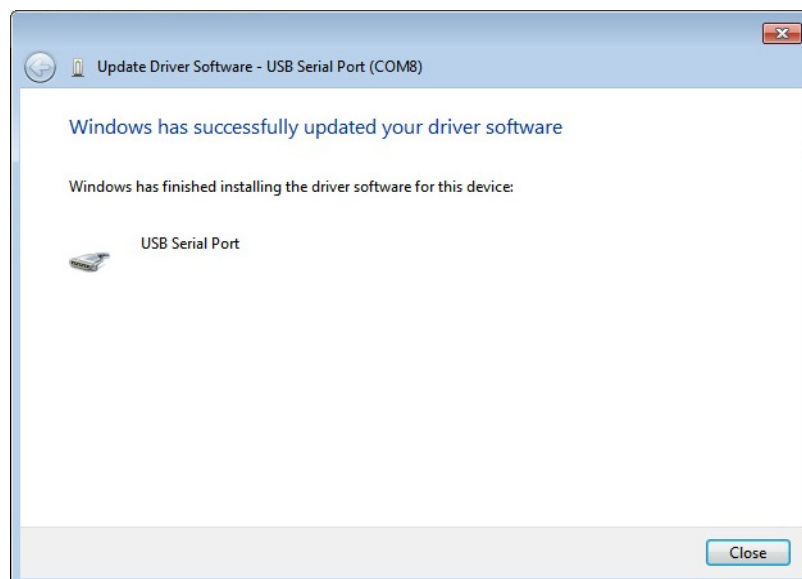

For the second part of the install:

11) Click Start/My Computer/Manage then select Device Manager again.

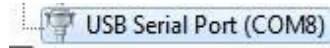12) Right click on USB Serial Port. Select Update Driver Software.

13) Once again select C:/Drivers Folder 91-0011 and click on the folder 91-0011 Lonestar FTDI USB-serial Driver

14) Click next and the driver will be installed.

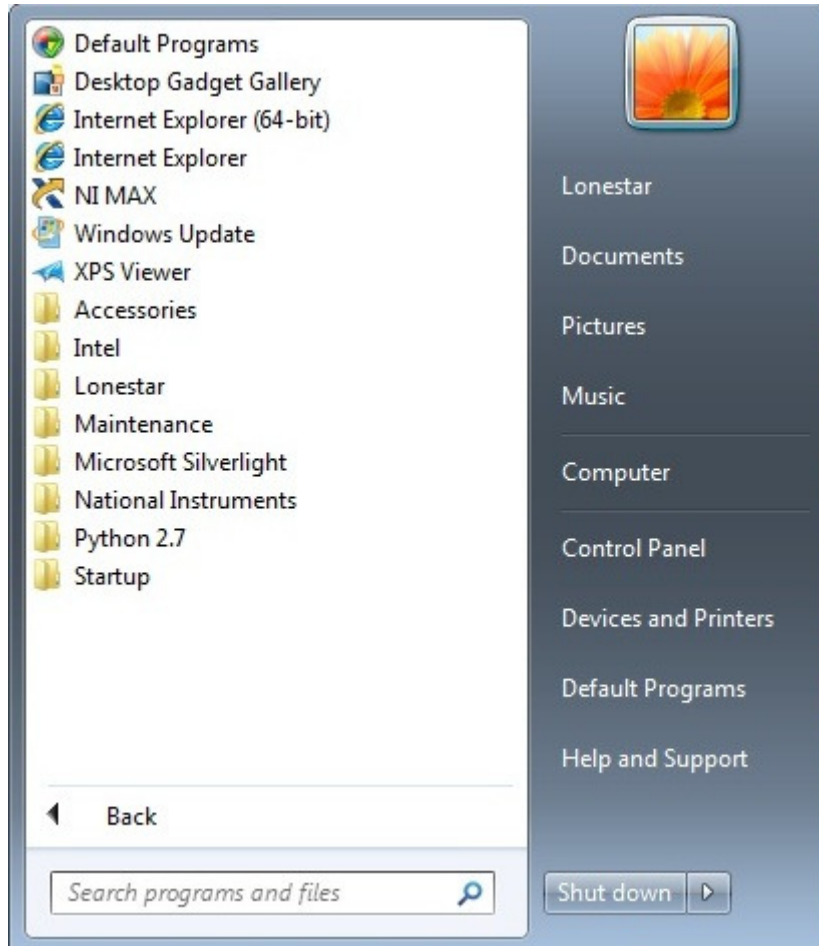15) In device manager the USB port will now have a COM number next to it.

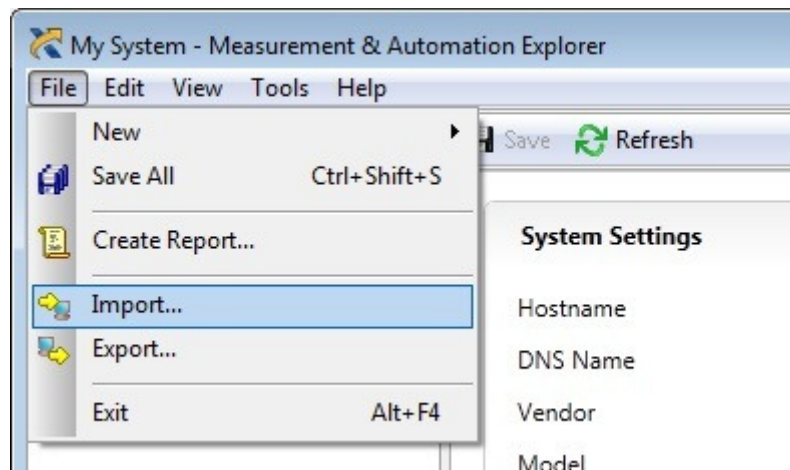16) Remove the FTDI USB cable from the PC.

Importing the NI Configuration File

Before importing the configuration file, you must have first run **91-0086 Lonestar Installer.**

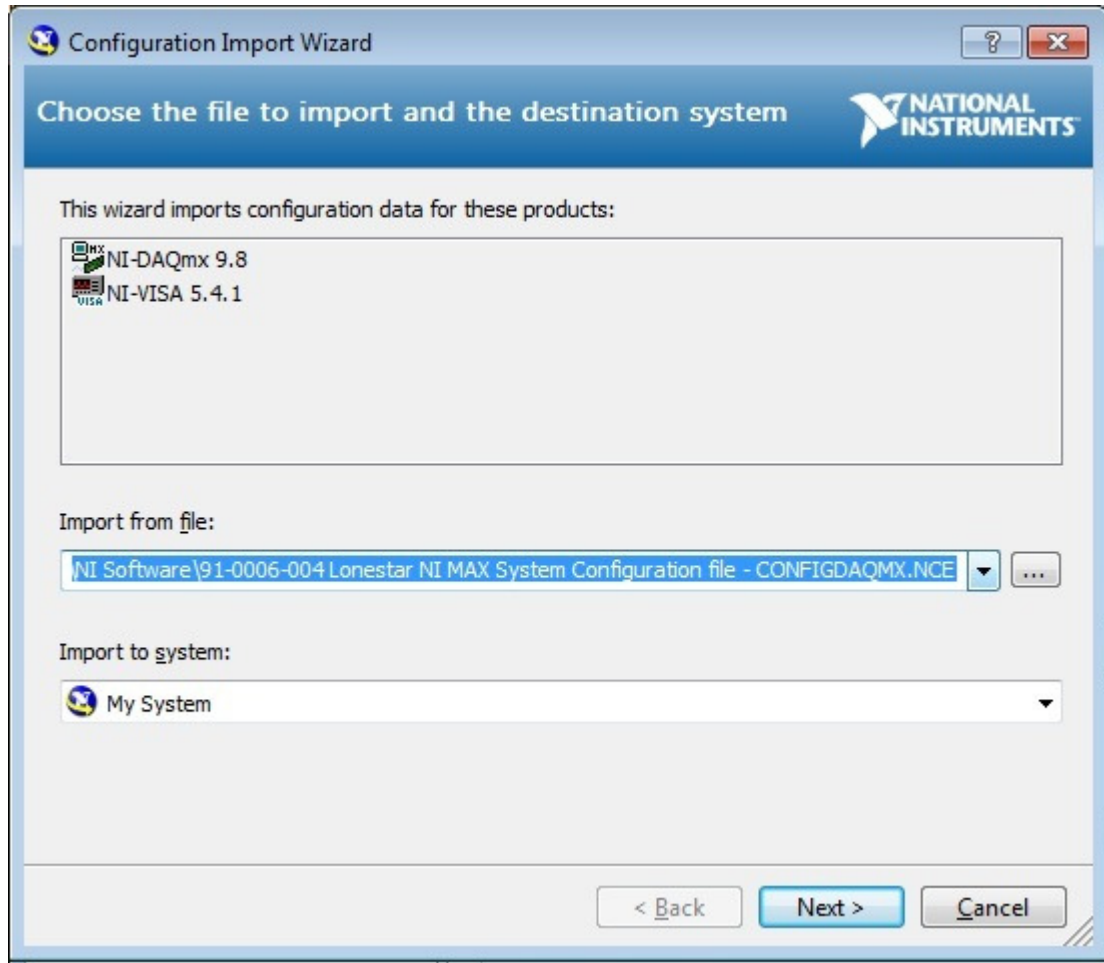1) In Start/All Programs select "NI MAX"
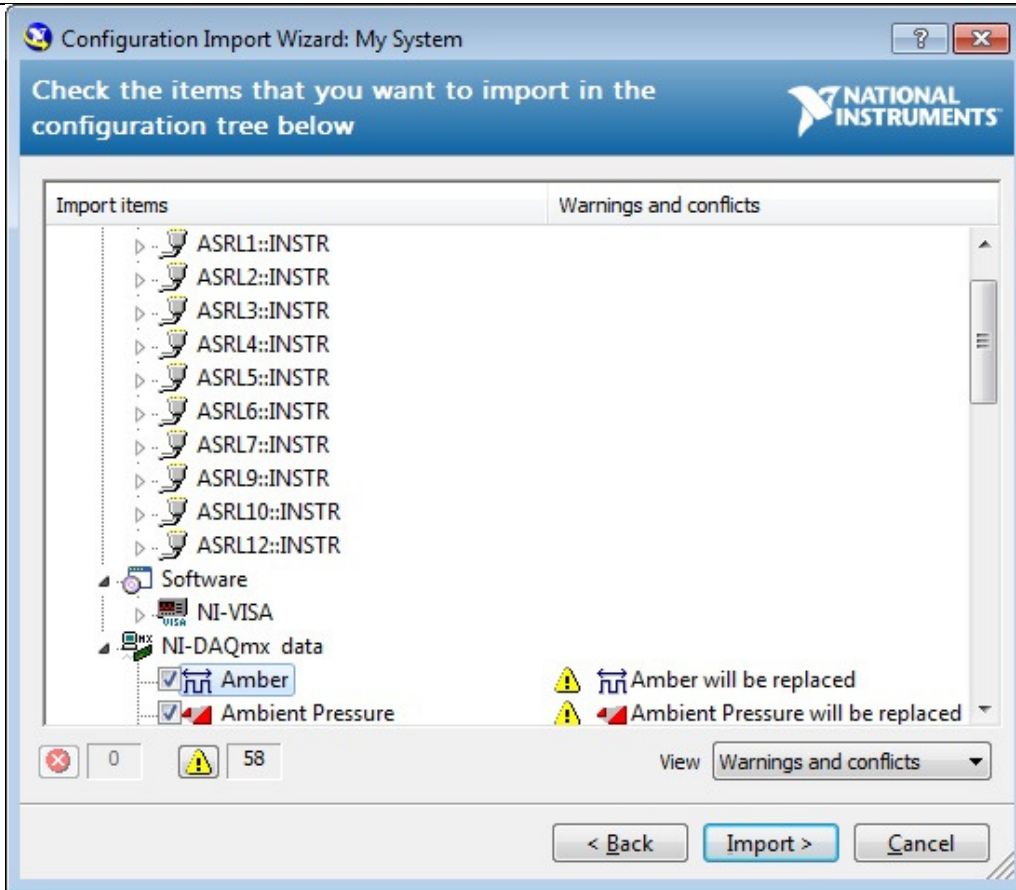

2) When this has started, select File/Import

3) Use the button marked "..." to browse for the file 91-0006 Lonestar MAX System Configuration
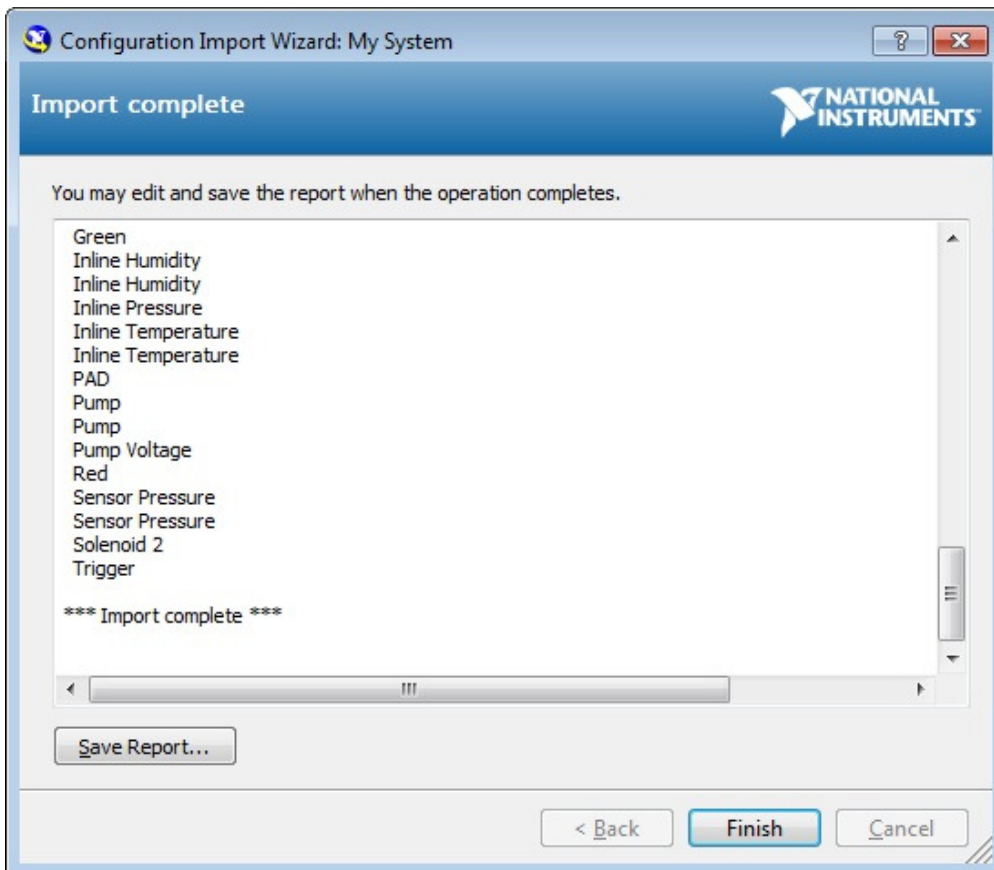
File. Click on "Next"

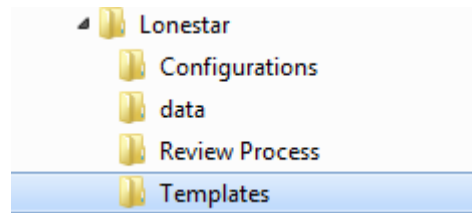4) After the software has scanned the file it will show some warnings and conflicts. Ignore these and click "Import"

5) When this is complete, click "Finish"

Creating the Lonestar Settings File

The default **LonestarSettings.ini** file should be in

    C:\Program Files (x86)\Lonestar\Templates

Copy the file **LonestarSettings.ini** up one directory to

    C:\Program Files (x86)\Lonestar\

Double click to open - the default values that can be changed are:

    Unit#=LN1234

    Chip#=F1234

    Chip Width (um)=35.0

These can be changed to the values specific to the unit. These are for display only and are not used in the software

Note that the formats are NOT as shown but should be in the format:

    "Chip#"   ABC123456789
    "Unit#"   123

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From homeland security to home safety, Owlstone is working with leading manufacturers and integrators across a range of markets to develop products incorporating our microchip chemical sensing solution.

Owlstone is headquartered in the United States and has laboratory facilities in the United Kingdom. Owlstone Ltd was founded in 2003 with a seed investment of two million dollars from Advance Nanotech, Inc., a New York based company specializing in the investment in and commercialization of nanotechnologies.