# General Instructions for using PACTware™

**Topics covered:**
- **Basic Steps**
- **Detailed Step-by-Step tutorial**
- **Troubleshooting**


**Directly below are the 8 basic steps to follow when using PACTware™:**

- **Start the PACTware™ application**
- **Select the correct Communication Protocol DTM for the Device**
- **Select the proper Device / Instrument DTM**
- **Create a software _Connection_ to the Device**
- **_Load_ the configuration information _from_ the _Device_**
- **_Edit Device Parameters_**
- **Save changes to the device**
- **Save the instrument's configuration to a "File" locally**


**Step by step details provided below:**


**Start the application by double click on the PACTware™ icon, (usually located on your desktop), if prompted for a user name and password enter them now.**

**NOTE: The default User Name and Password are "Administrator" and "manager" respectively.**

**Once PACTware™ has been started you will find yourself at the main PACTware™ shown below:**
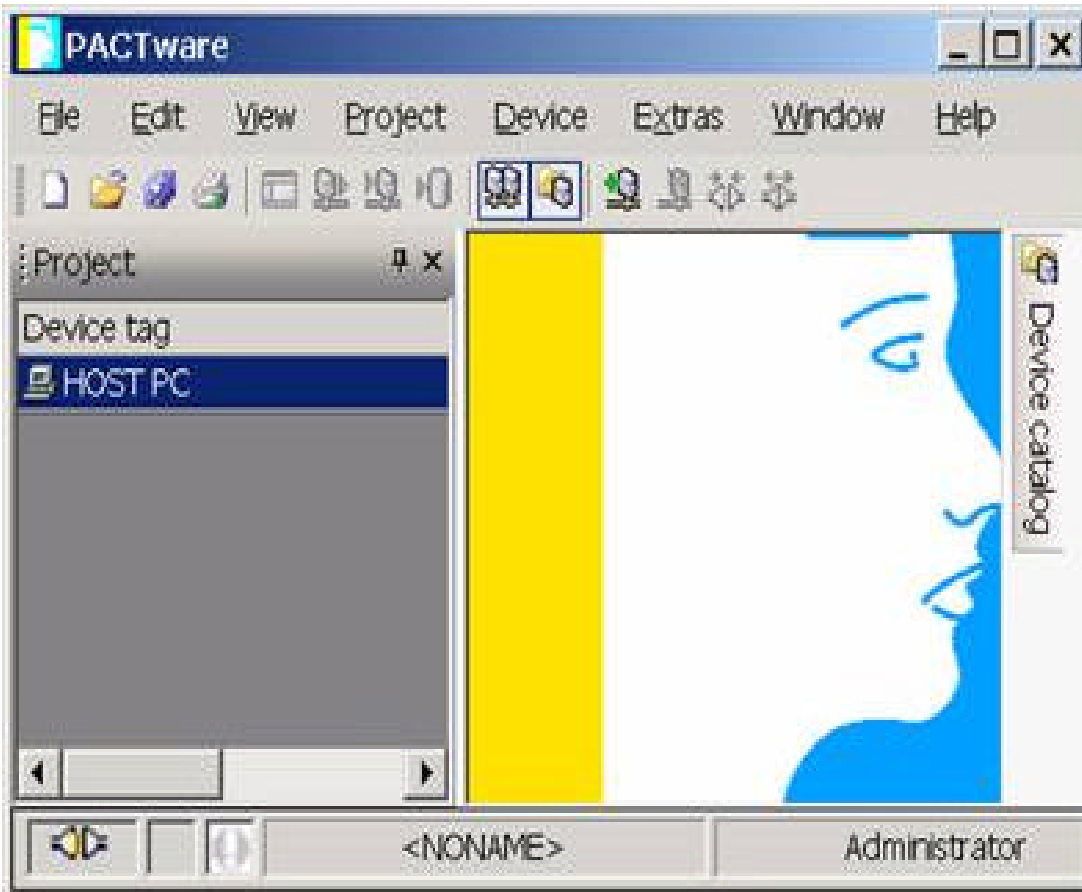
In order to use PACTware™ software to communicate to an instrument you must first tell PACTware™ what protocol device you wish to communicate to by selecting the applicable "Communication Protocol DTM". You do this by selecting "Device" then "Add Device"; see picture below:
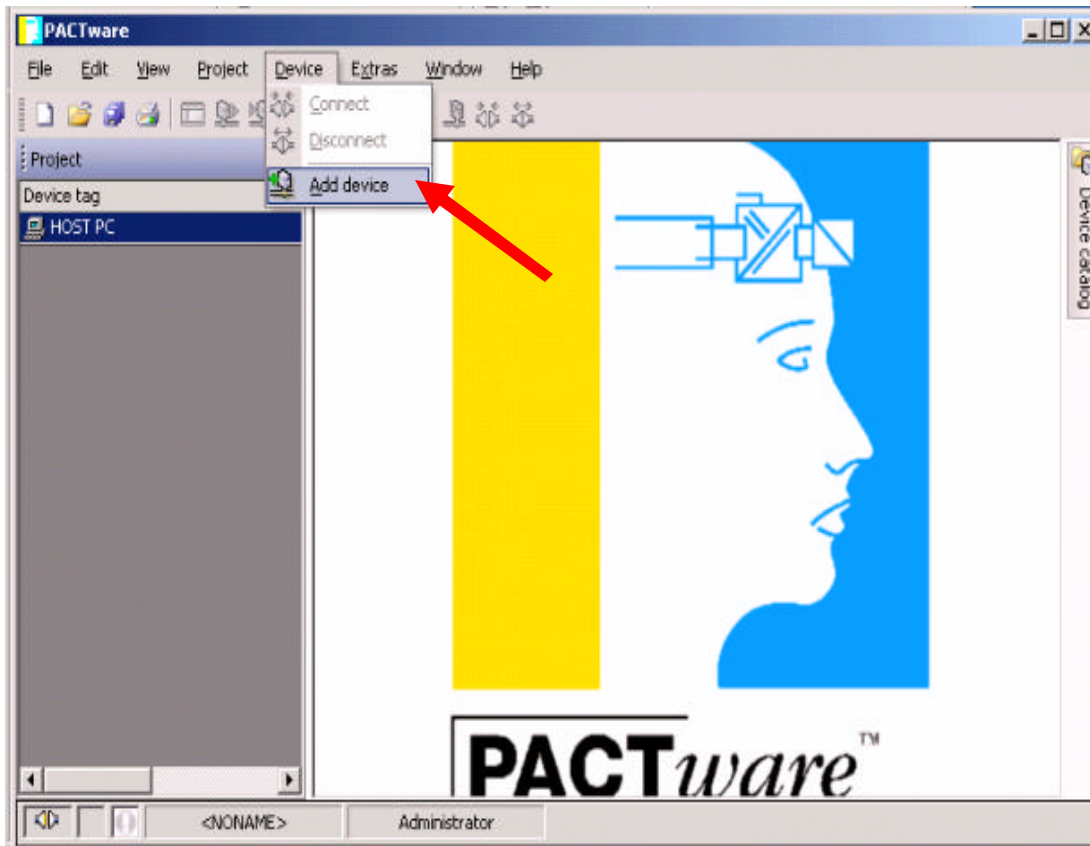


Below, is an example of the PACTware™ Communication Protocol DTM Selection screen.
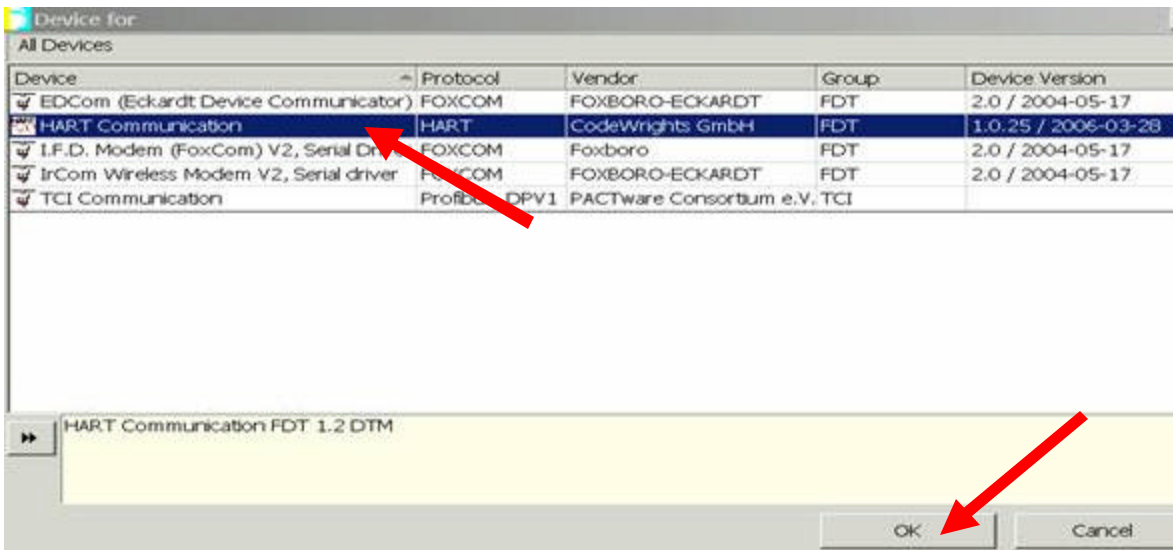


Select the appropriate "Communication Protocol DTM" based on the instrument's model number and then select OK.

For a HART Device, you will select the "HART Communications" DTM.
For a FoxCom Device, you will select the "IFD Modem (FoxCom) V2".
And similar for other products.

**NOTE**: If FoxCom communication is selected, you will be prompted for the correct "COM PORT" number **after** selecting the instrument DTM, shown later.

**NOTE**: If HART communication is selected, an arbitrary COM PORT number is assigned. You can change the "COM PORT" number **now** if it is not already correct by selecting "**D**evice" and then "**P**arameter".

In the HART Communication example below the COM PORT is currently set to "COM1".
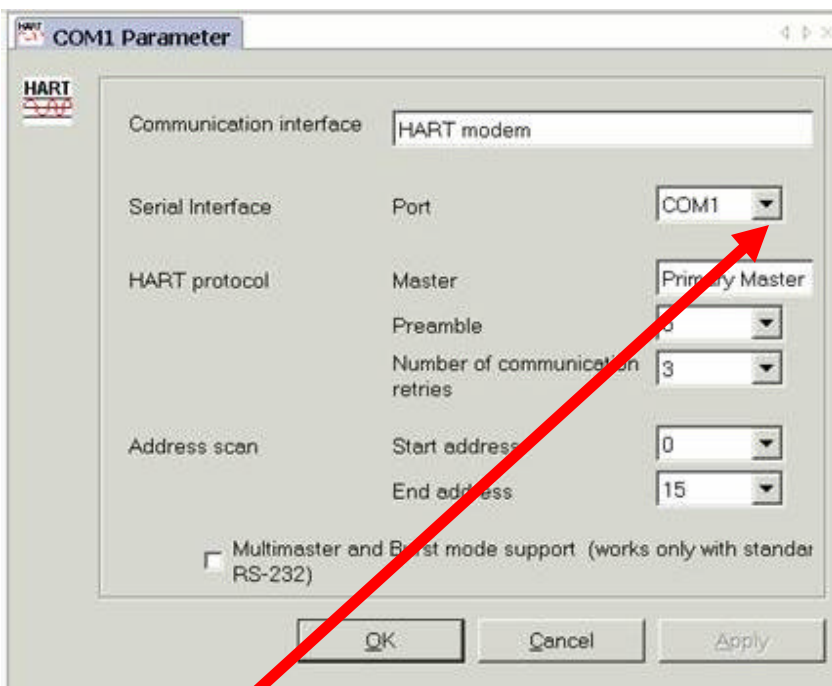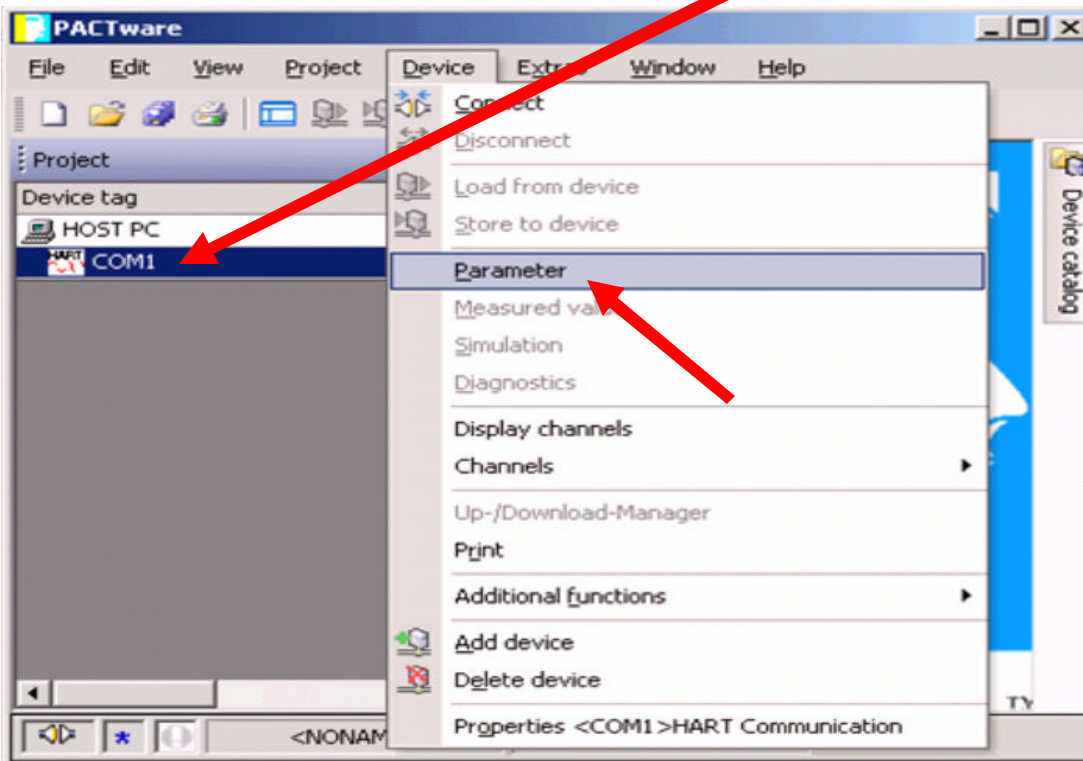


**COM PORT HELP:**
The COM PORT number to use can be determined by going into the Windows® Device Manager and looking within the "Ports (COM & LPT)" section for the device you're using, and taking note of its COM number.

\* Native 9-Pin RS-232 ports are *usually* COM1 or COM2
\* USB modems or adapters can be any number.

**NOTE: Always** make sure this COM # is correct within PACTware™.

Use the Drop Down menu on the "Parameter" screen to select your correct COM PORT number; click "**A**pply" and then "**O**K".

Below are 2 examples that continue from the point of adding the Communication DTM forward.  The first example is for a HART protocol IDP10 and the second example is for a FoxCom protocol IDP10.

**Example for a HART protocol device:**  Full instrument Model number will be IDP10-**T**22B21F, (the "**T**" indicates HART protocol).

With the appropriate Communication Protocol DTM selected you now need to tell PACTware™ what <u>device</u> you wish to communicate to by selecting the correct "Device / Instrument DTM".  You do this by selecting "<u>D</u>evice" then "<u>A</u>dd Device"; see picture below:
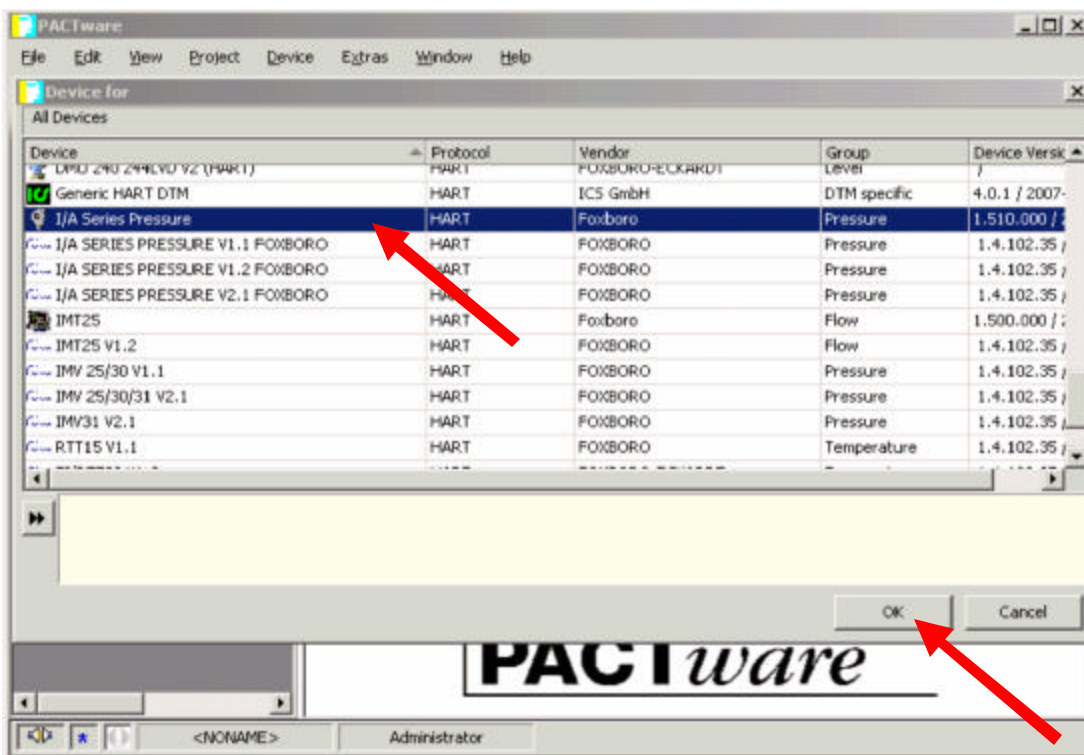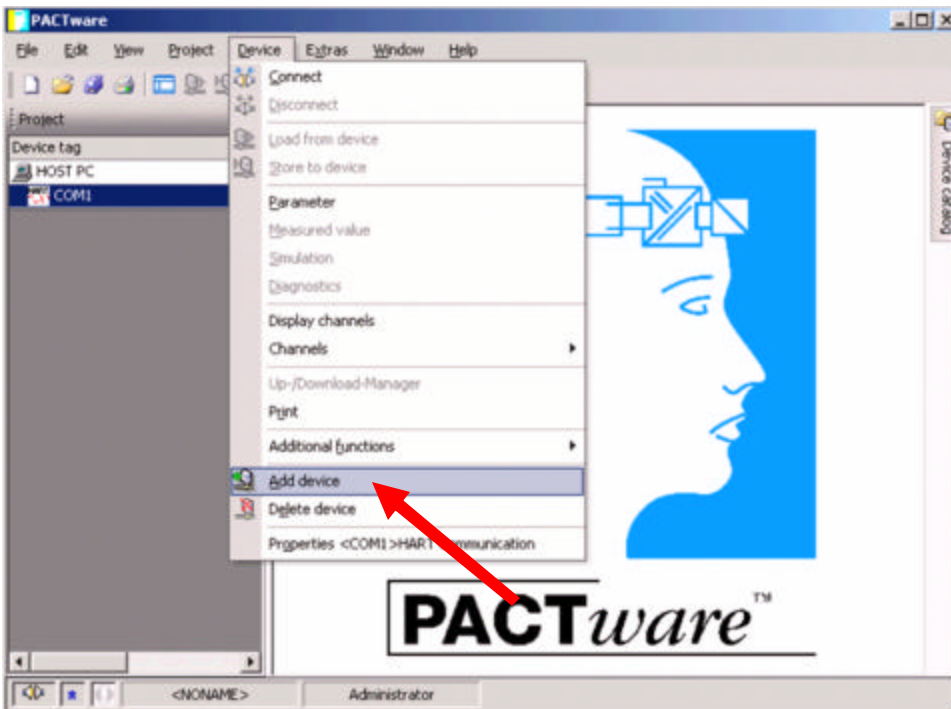




Now select the I/A Series Pressure DTM, and then select "OK".
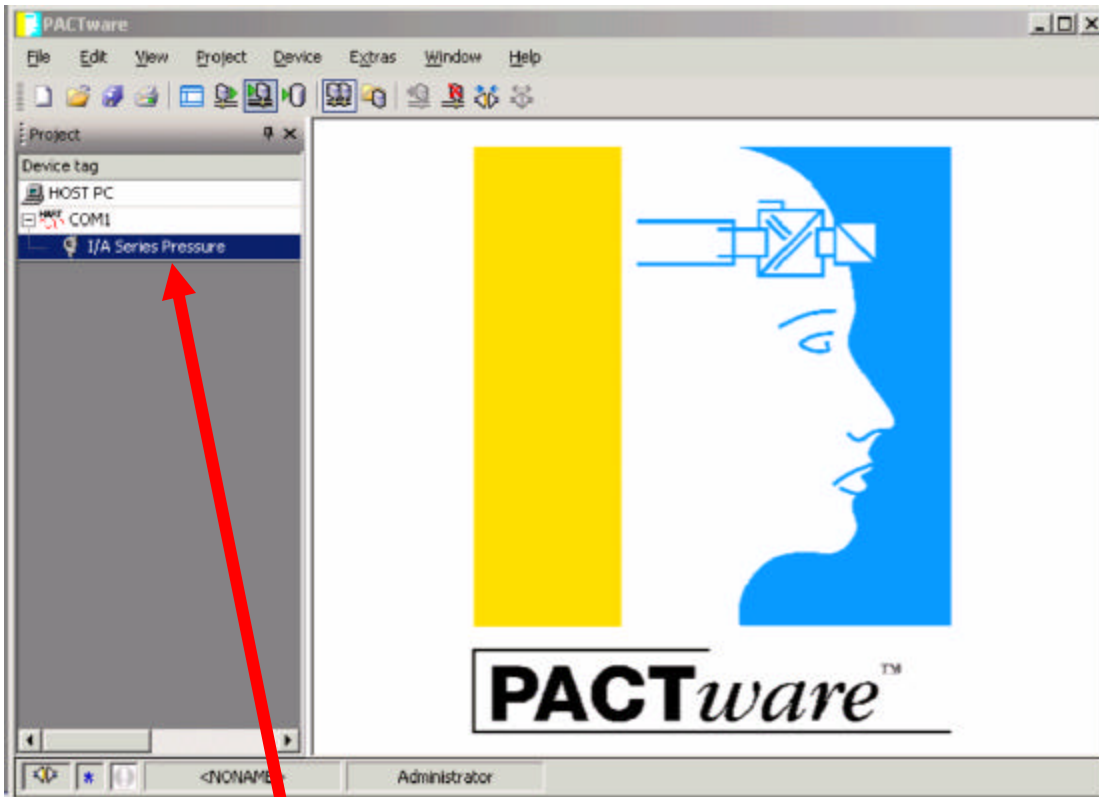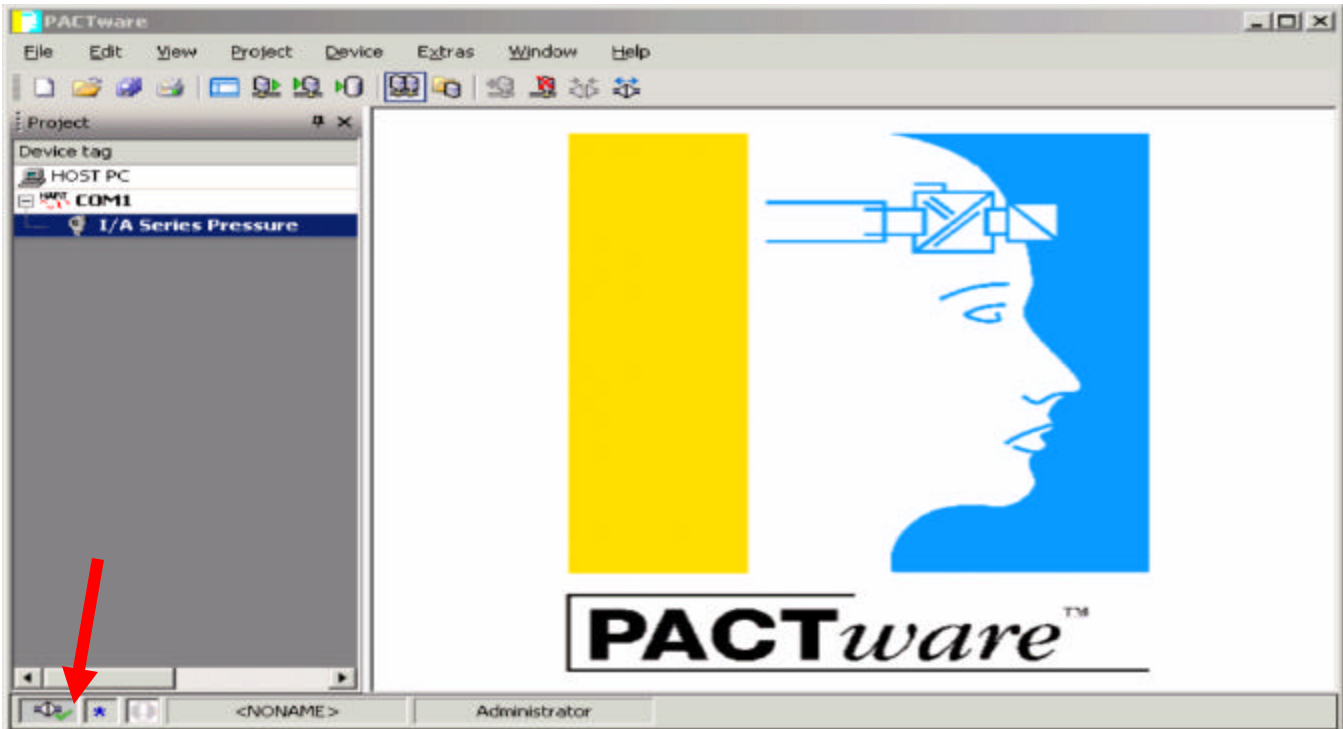
With the "Project Structure" complete, you can now create a software connection to the device by selecting "**D**evice" and then "**C**onnect".
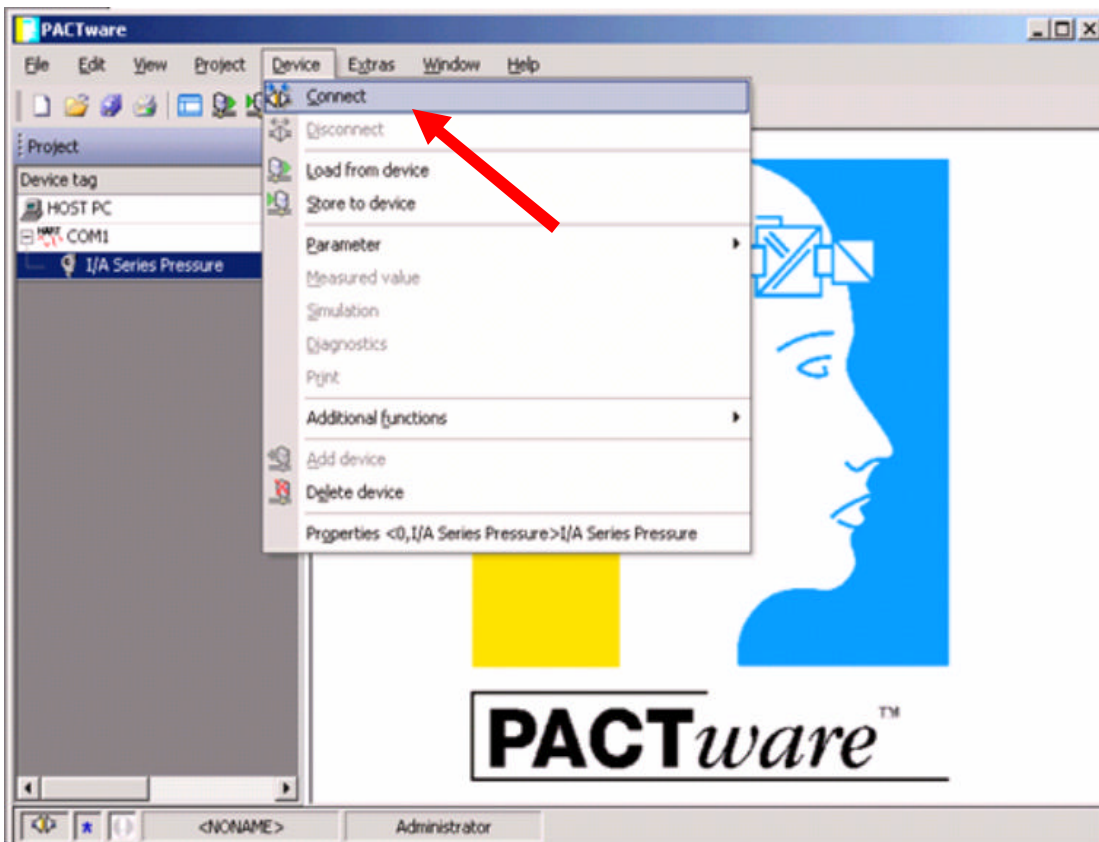
If everything has been done correctly thus far you shouldn't have seen any error messages and both the "Communication Protocol DTM" as well as the "Device / Instrument DTM" will now be BOLD. Additionally you should see a green check mark **V** in the lower left hand status bar.
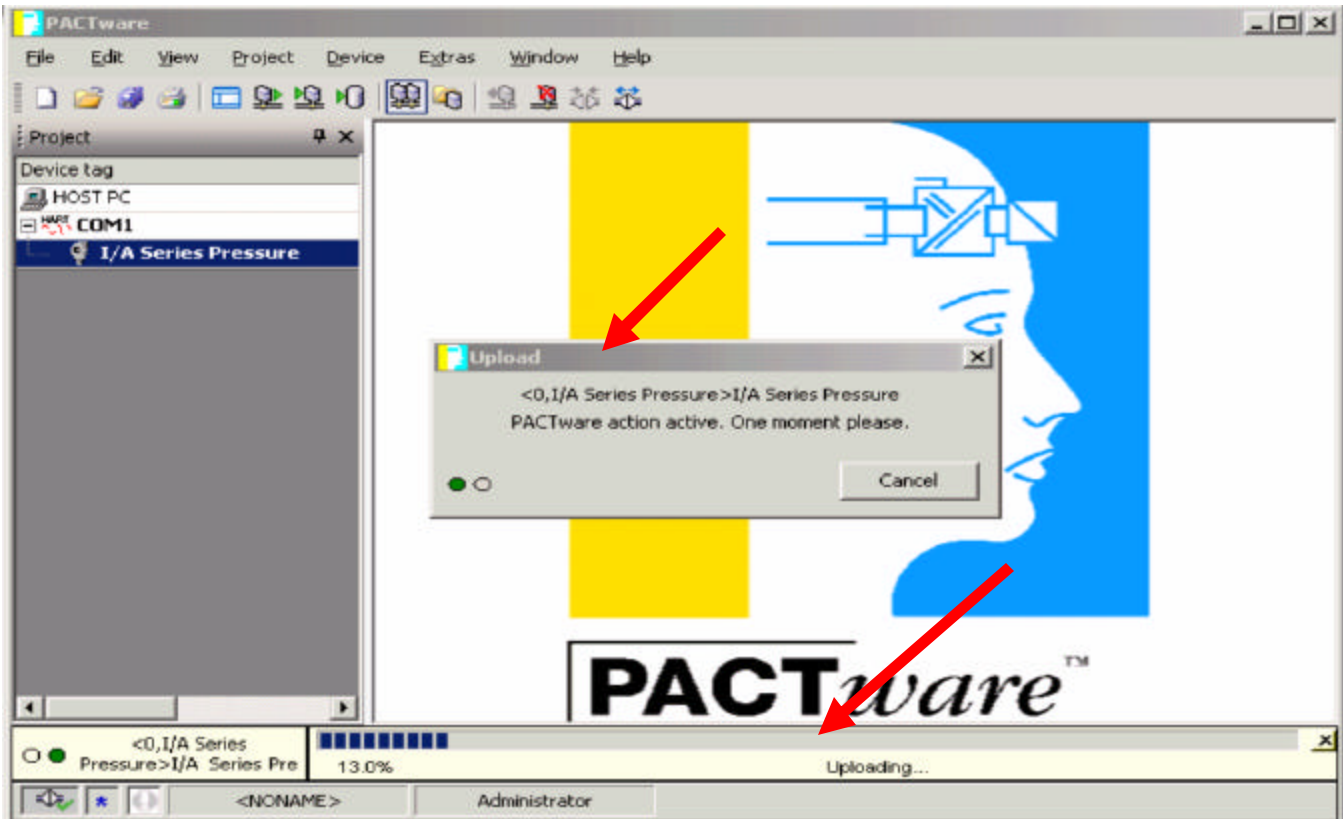


Now that you've established the "software connection" to the device you need to load the device's configuration information into PACTware™.
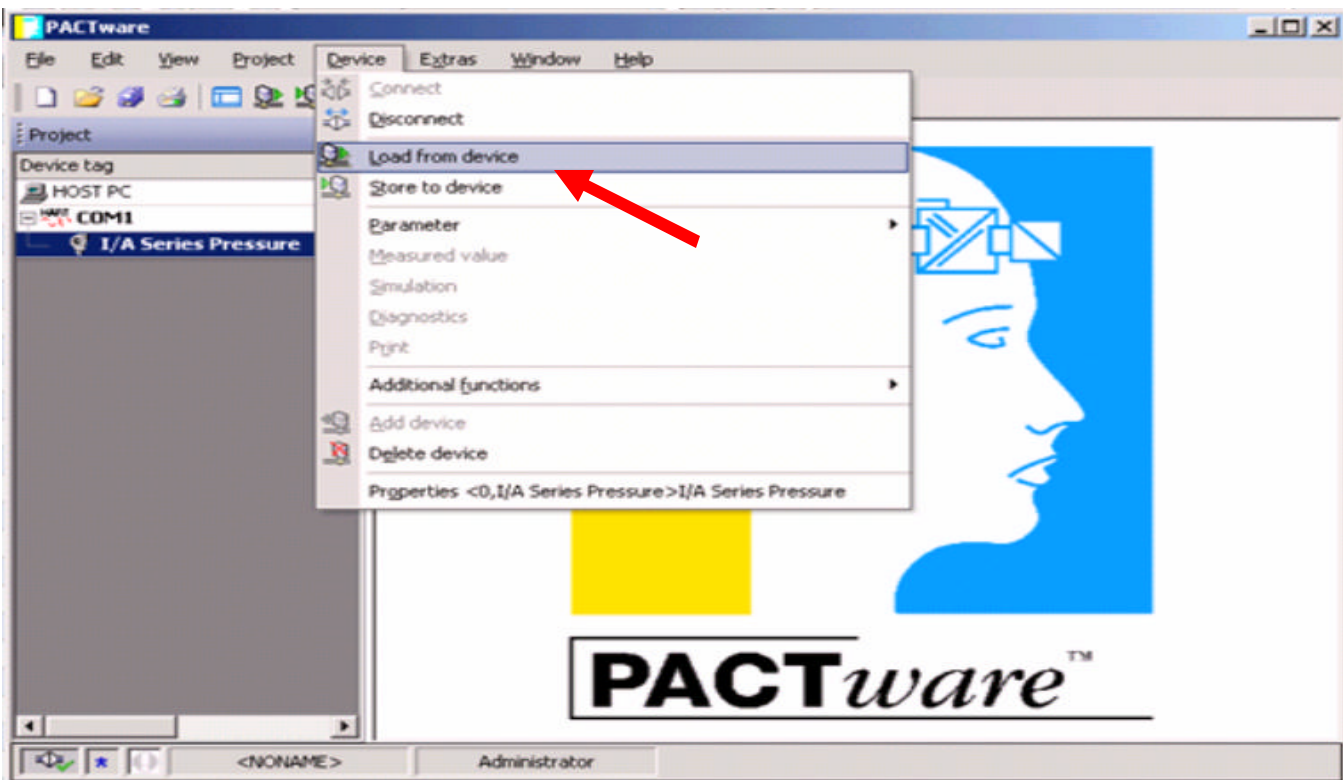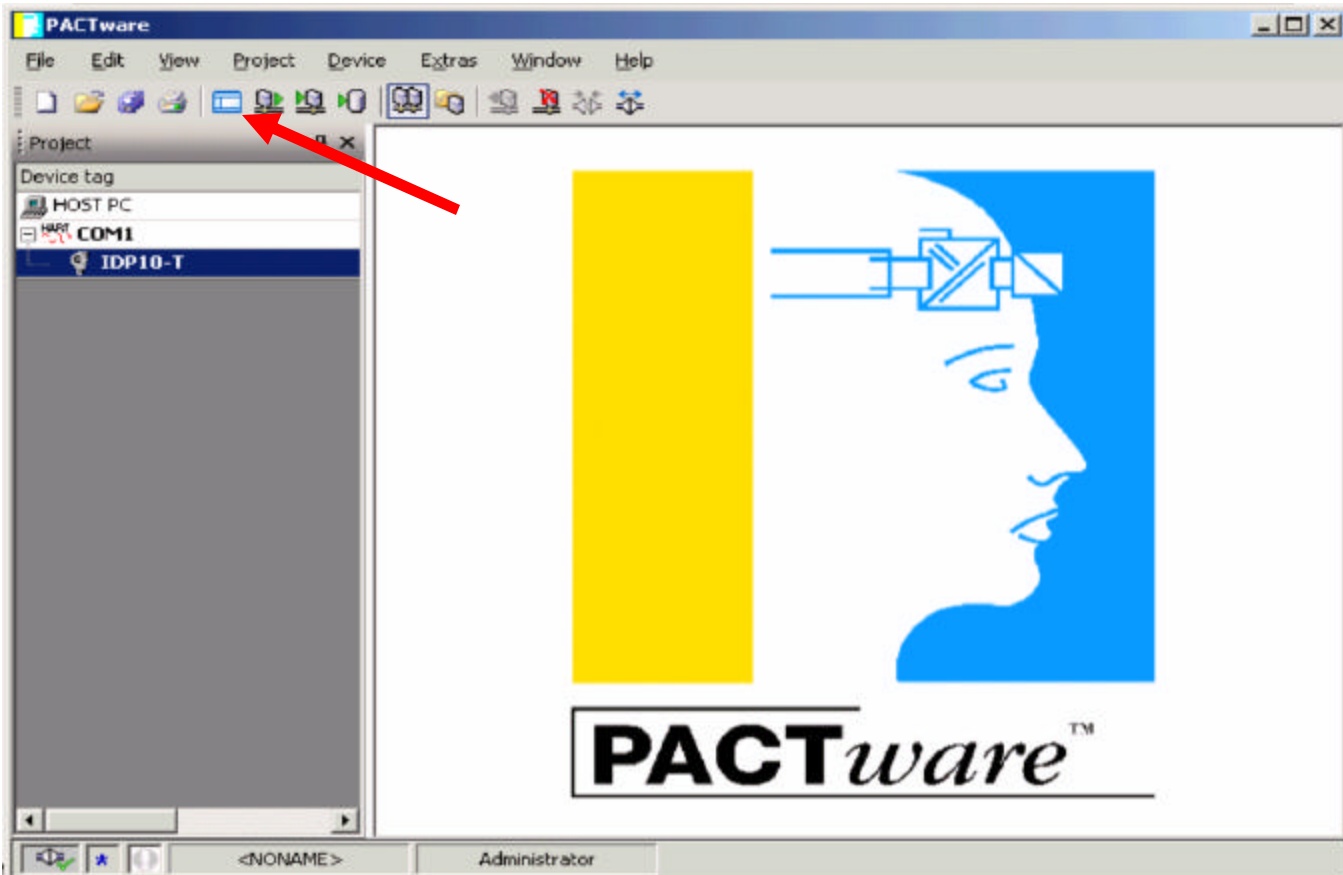


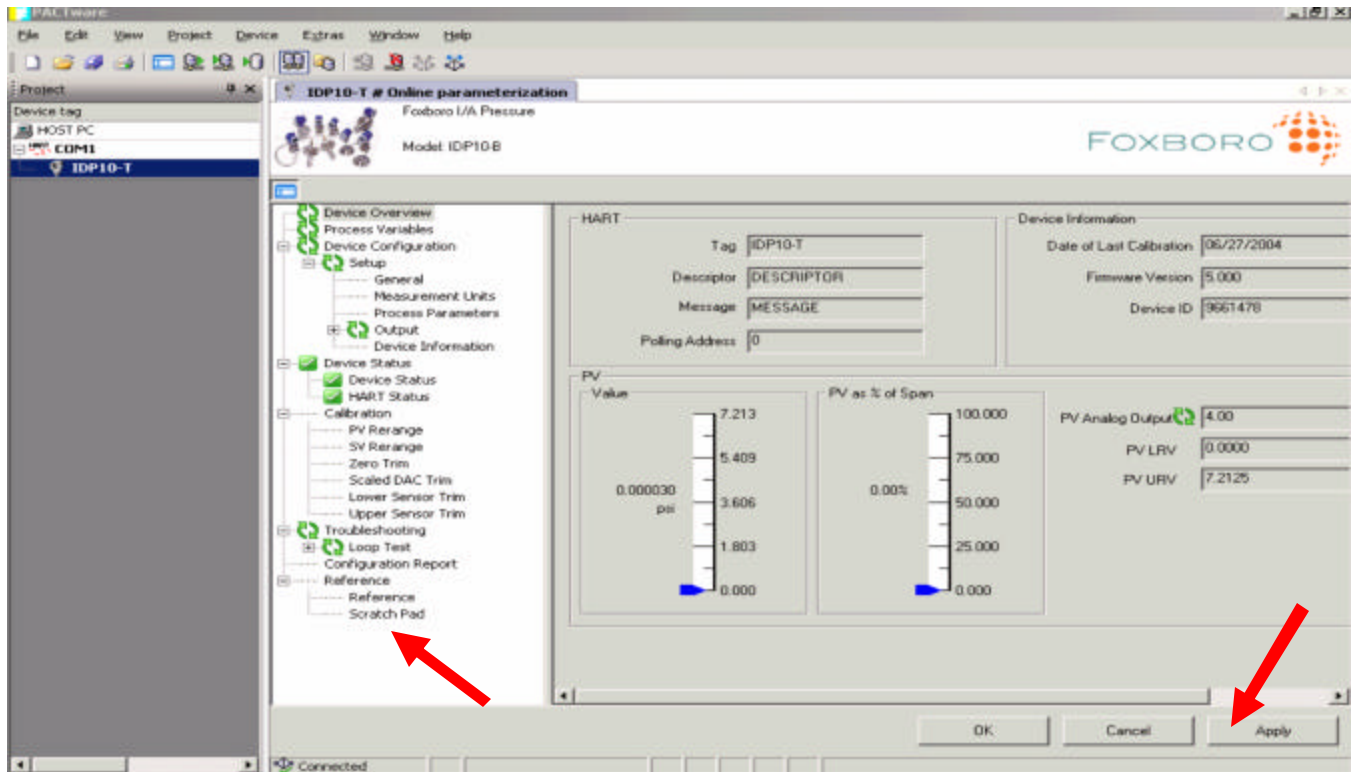To load the device's configuration information in to PACTware™ select "**D**evice" then "**L**oad from device".

**After clicking "Load from device" Icon you'll see the "Upload" screen shown below and the upload progress bar.**
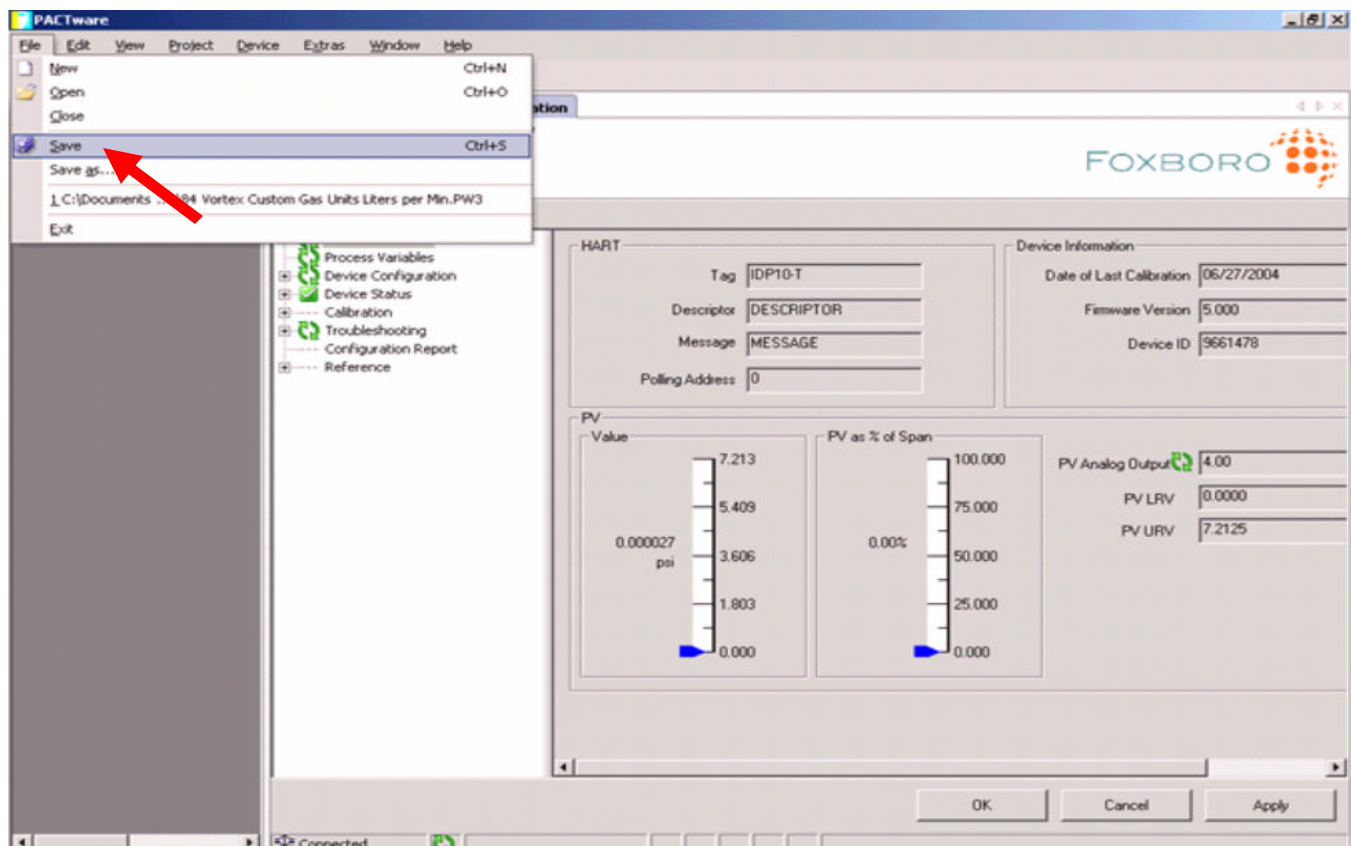


**When the Progress bar is through building you can now click on the Edit device parameter icon.**

**Screens Shown below are for a HART IDP10**



You can now use the "Navigation Pane" to locate the configuration or calibration screens and click "Apply" to save any changes made within these screens down to the device.



To save a copy of the instrument's configuration to a file, select "File" then "Save".

**Example for a FoxCom protocol device:** Full instrument Model number will be IDP10-**D**22**B**21F, (the "**D**" indicates FoxCom protocol)

With the appropriate Communication Protocol DTM selected you now need to tell PACTware™ what _device_ you wish to communicate to by selecting the correct "Device / Instrument DTM". You do this by selecting "**D**evice" then "**A**dd Device"; see picture below.

**NOTE: For FoxCom "I/A Series Pressure Transmitters" the DTM you select is based on the SPAN CODE of the I/A Series Pressure Transmitter; in this case span code "B".**
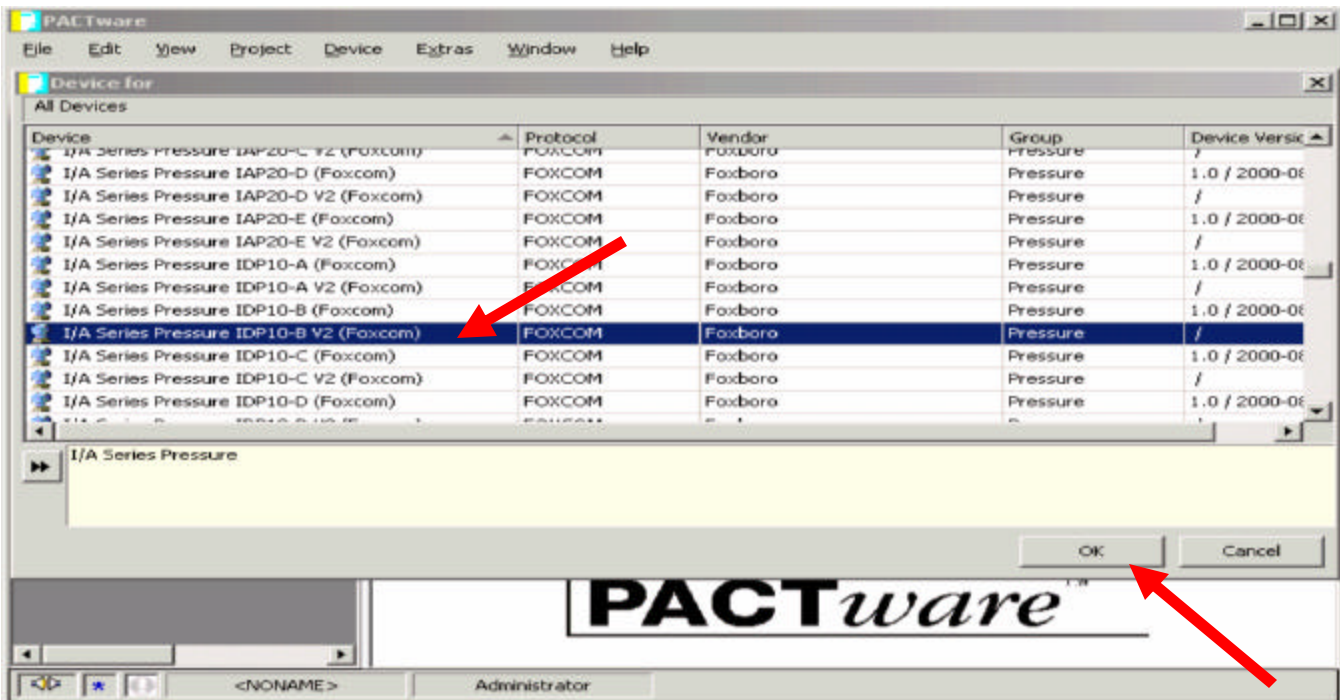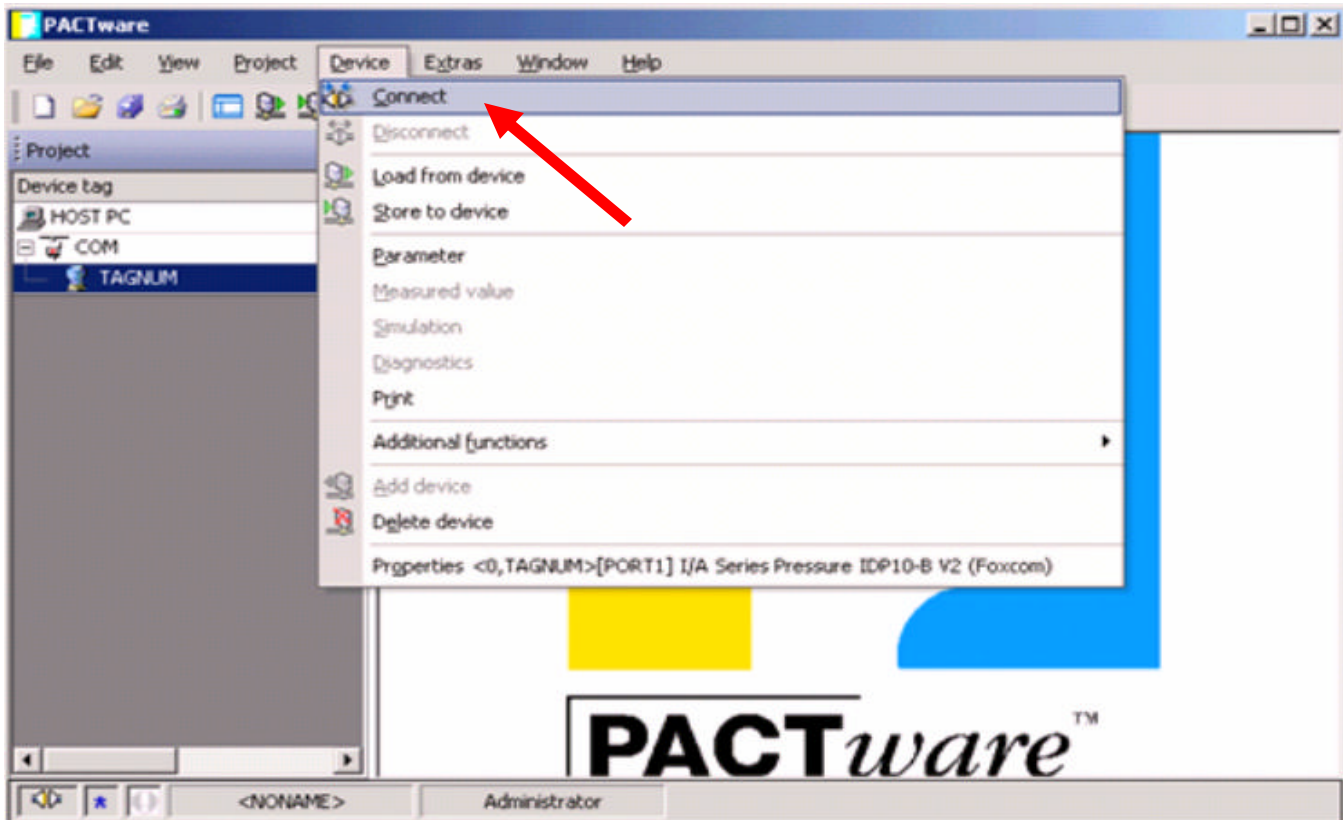


Once the IDP10-B V2 (FoxCom) DTM is selected click on OK. You will now be prompted for the correct COM PORT number.

**NOTE: FoxCom devices can ONLY use COM PORT 1 through COM PORT 4**
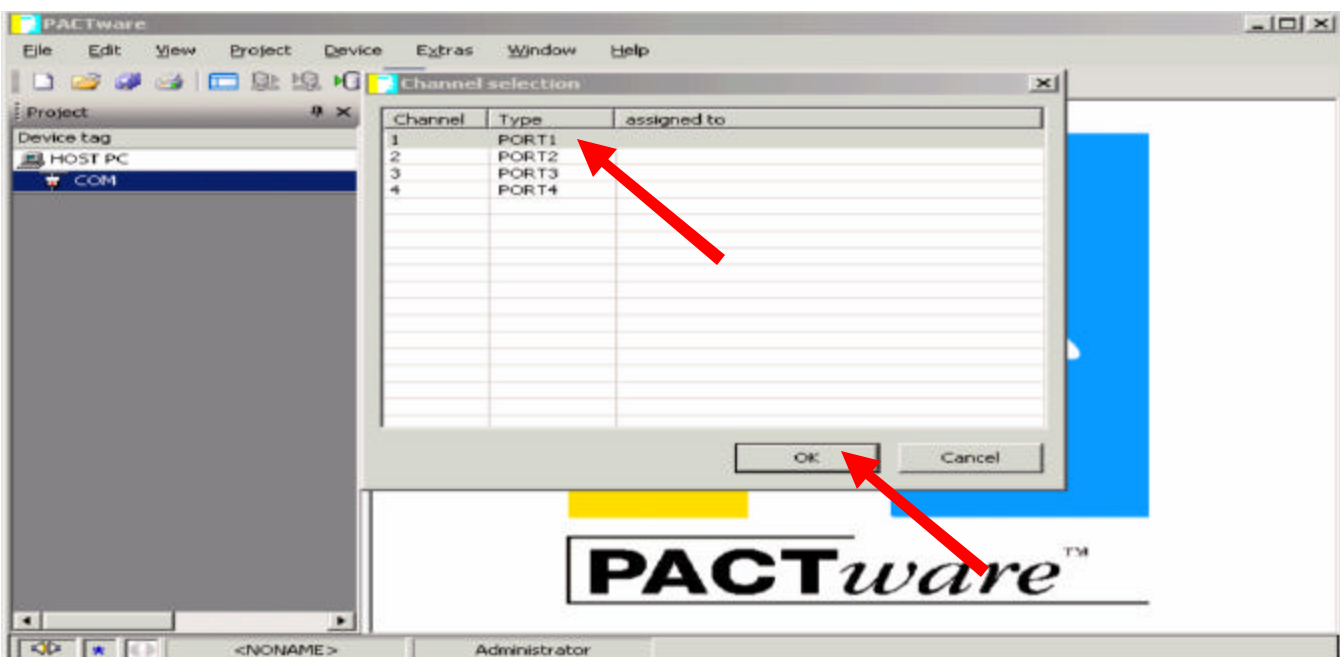


Select the correct Com Port number and then click OK.

With the "Project Structure" complete you can now create a software connection to the device by selecting "**D**evice" and then "**C**onnect".



You may see the message below after selecting "**C**onnect". This is not truly an error but merely a message informing you that the device's configuration is different then the configuration information found within the device DTM's default database, click "OK" to continue.
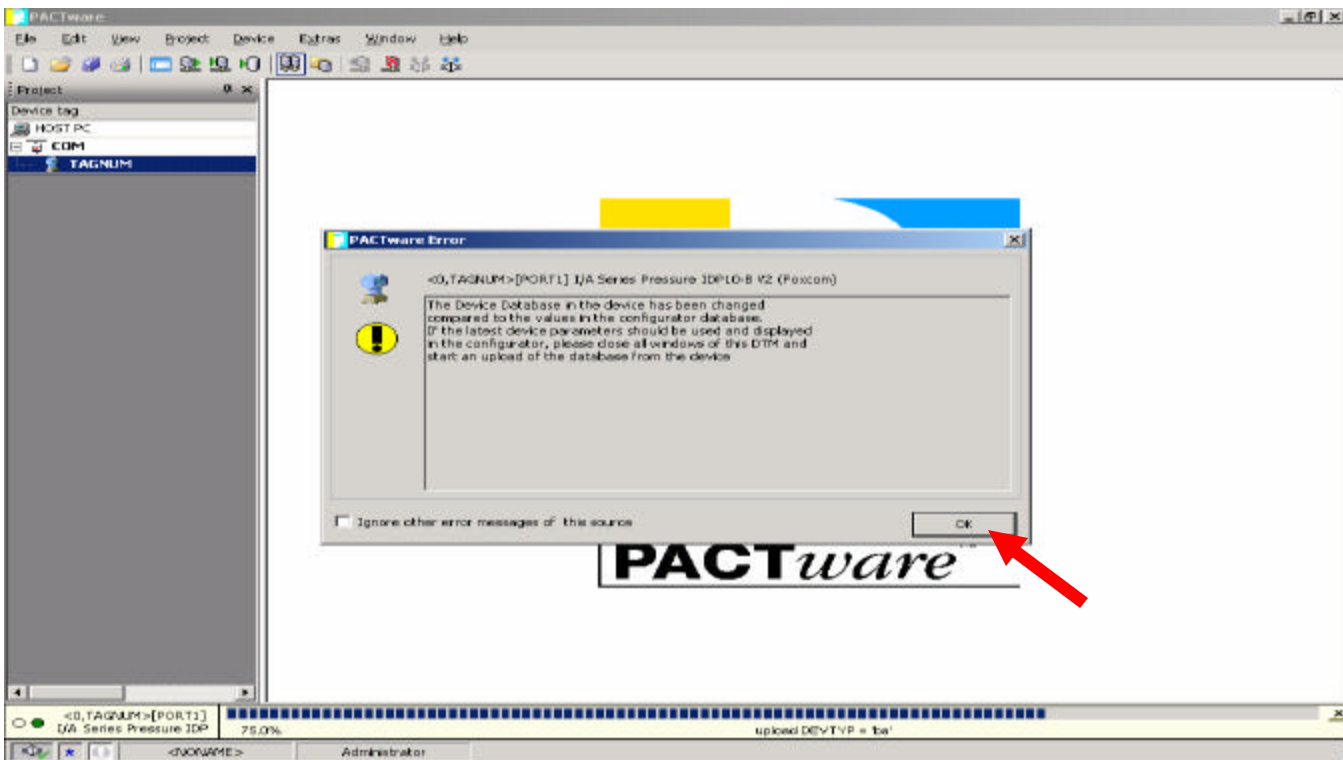
**NOTE:** If you did see the informational message described earlier you will also see a flashing ! indicating an error message has been detected. To clear this message double click on the ! and then select "Clear".
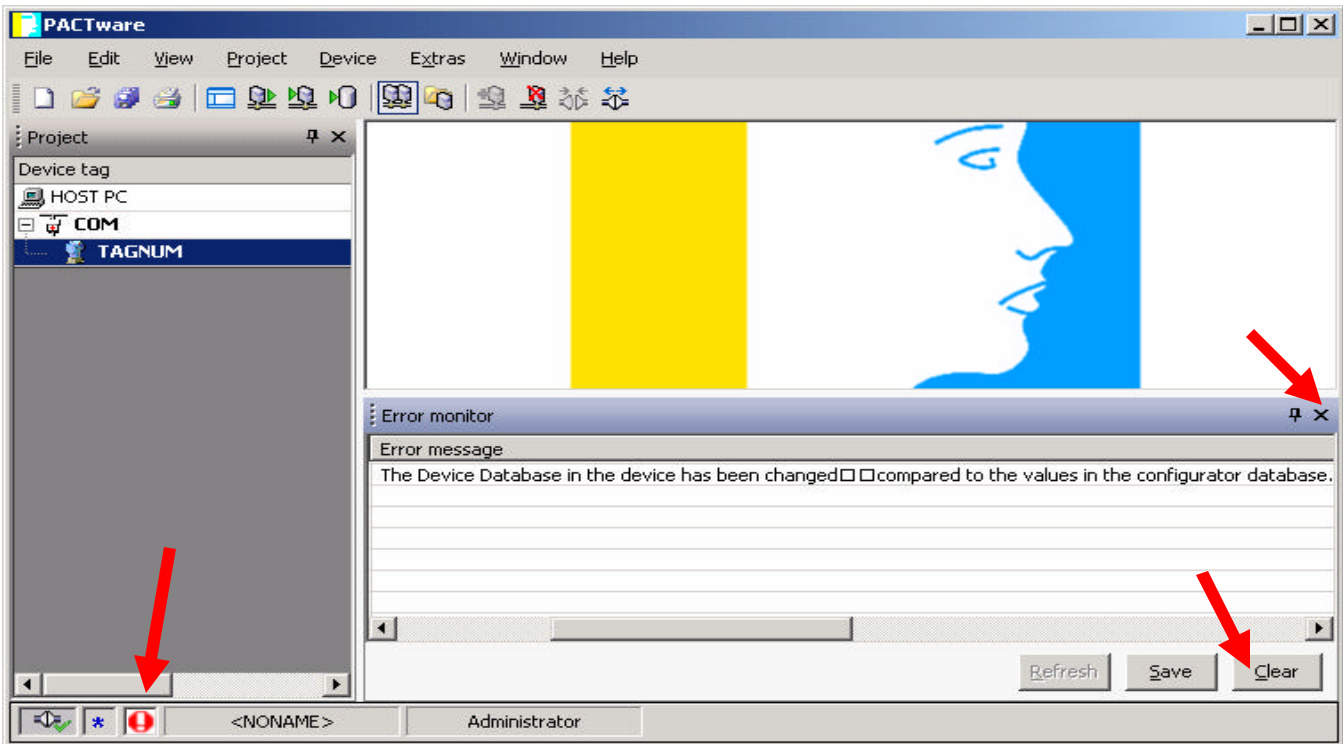


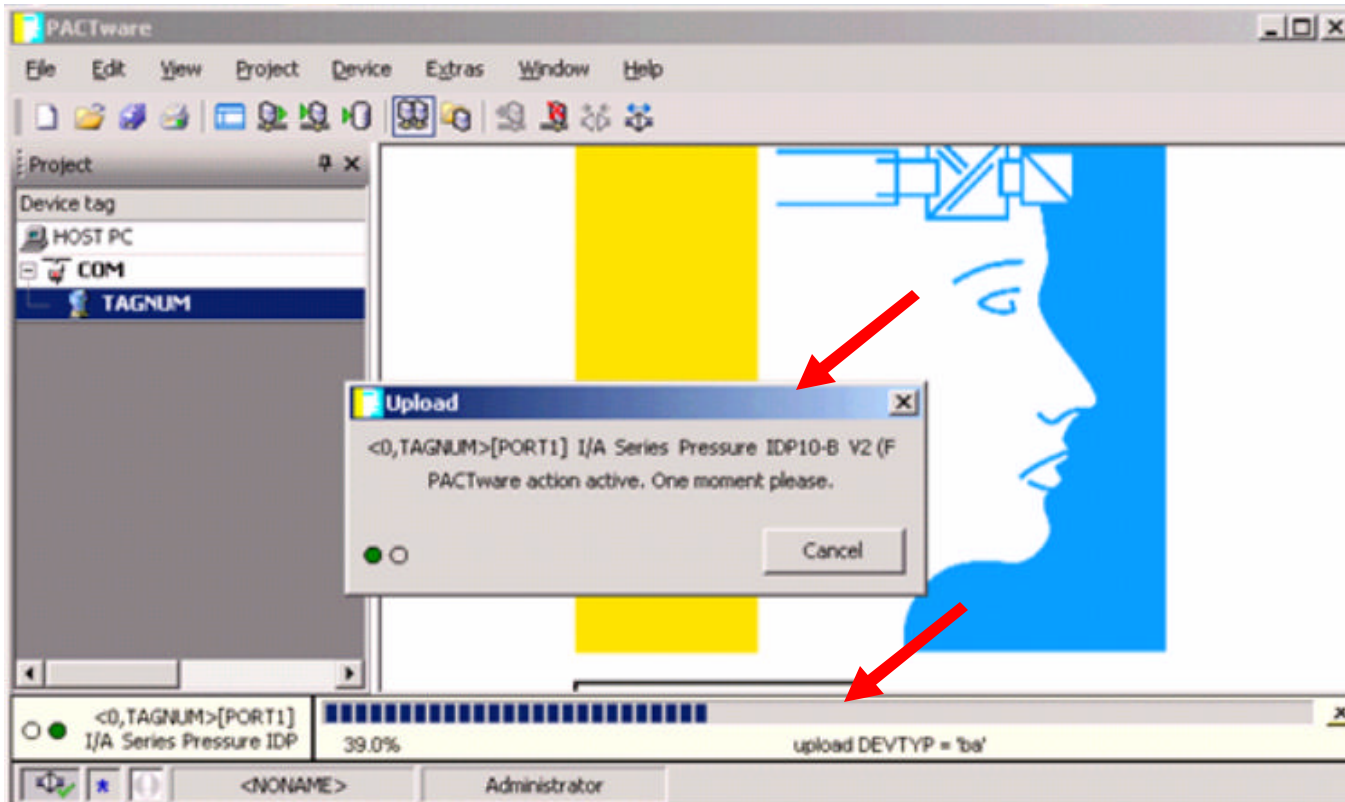Additionally you can now close the "Error monitor" screen, shown above.
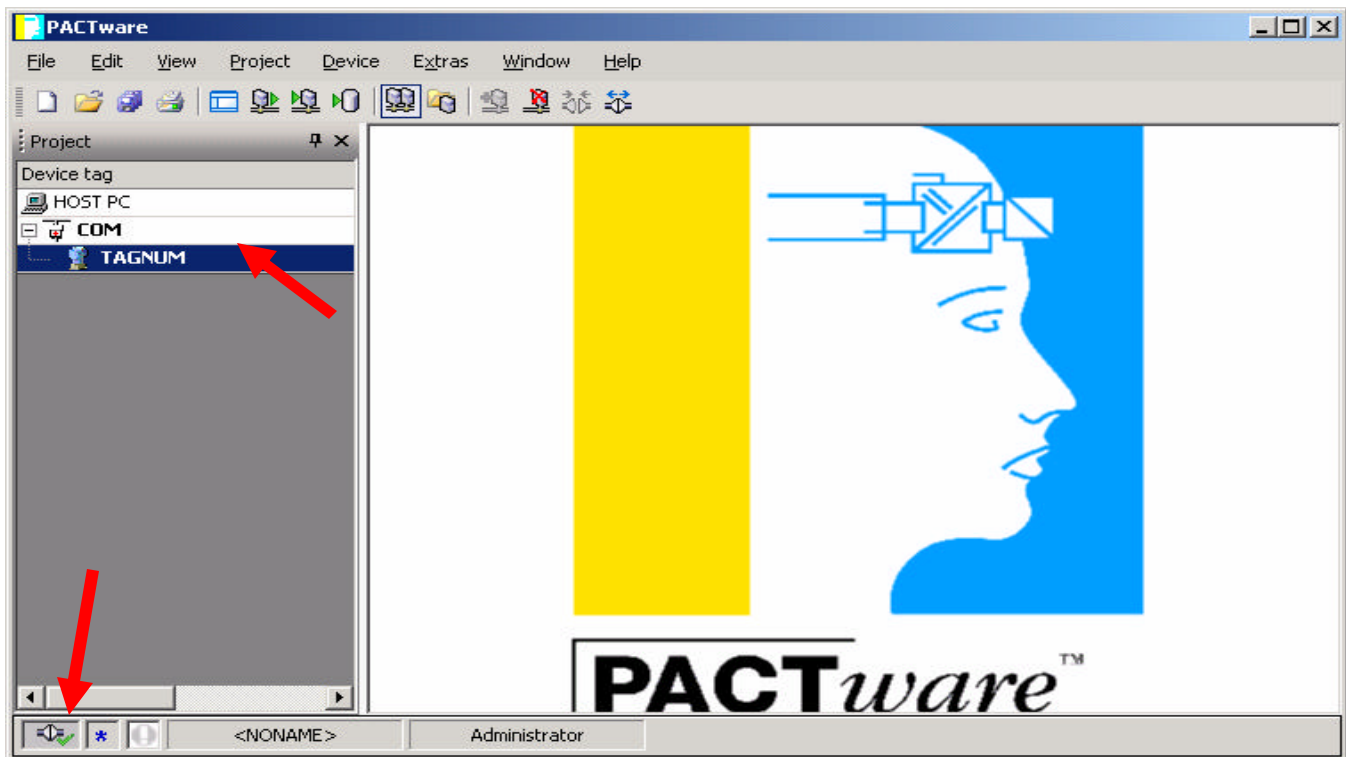


If everything has been done correctly thus far both the "Communication Protocol DTM" as well as the "Device / Instrument DTM" will now be BOLD. Additionally you should see a green check mark V in the lower left hand status bar.

Now that you've established the "software connection" to the device, you need to load the device's configuration information into PACTware™.
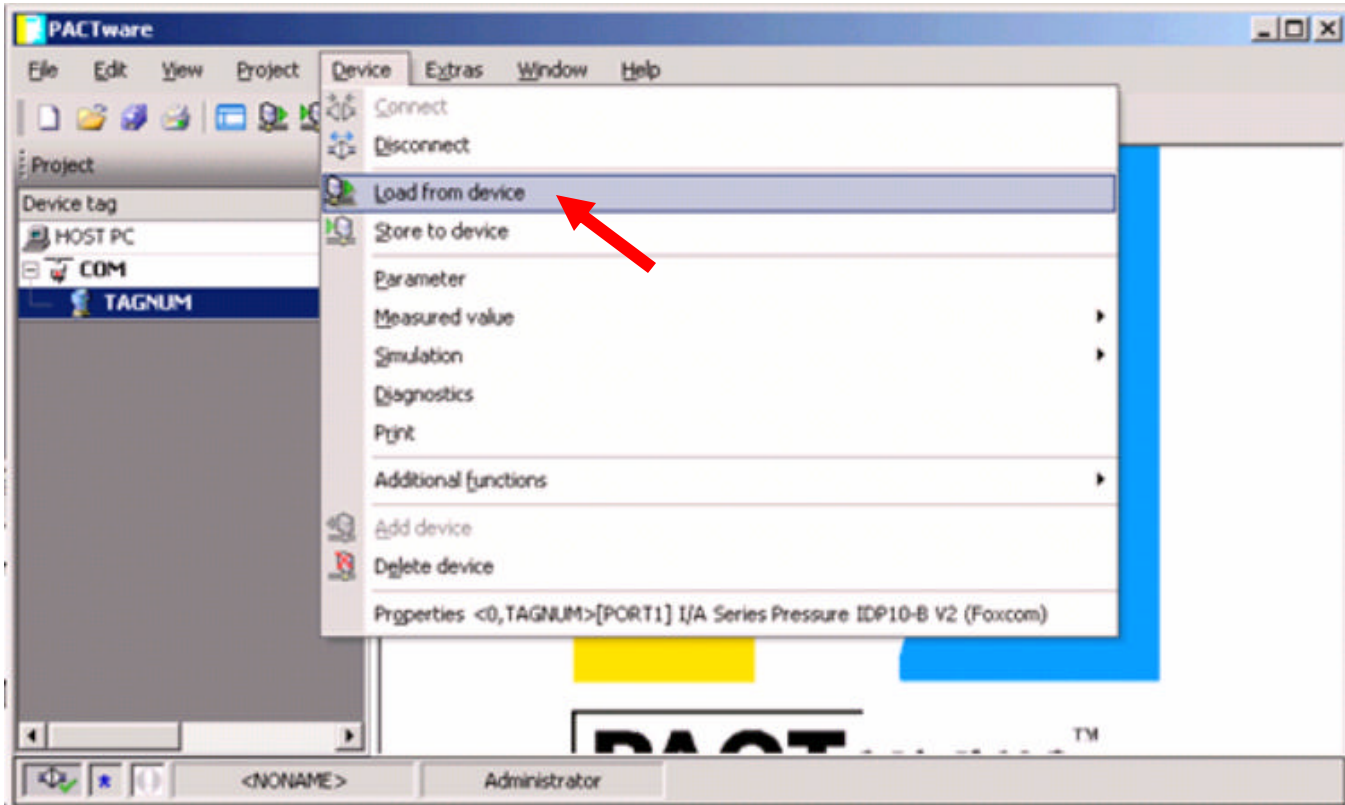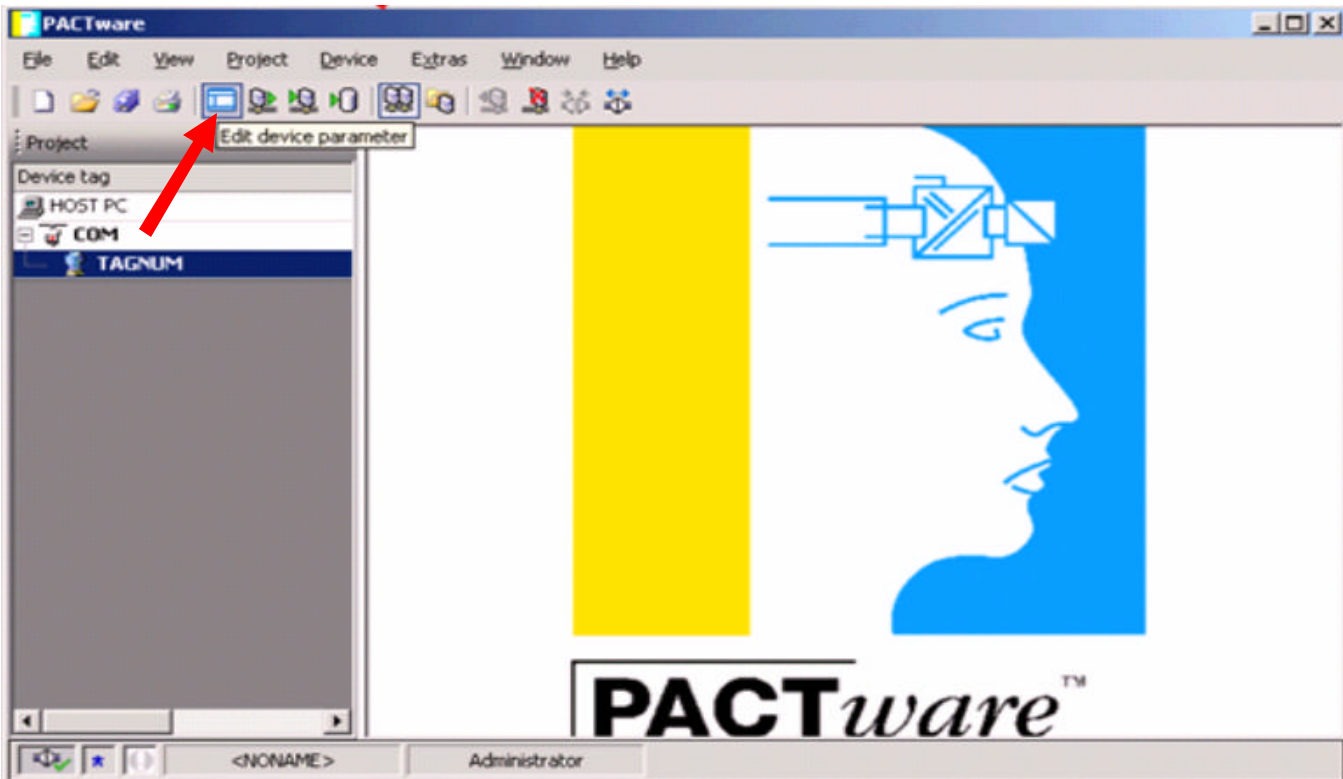


To load the device's configuration information in to PACTware™, select "Device" then "Load from device".
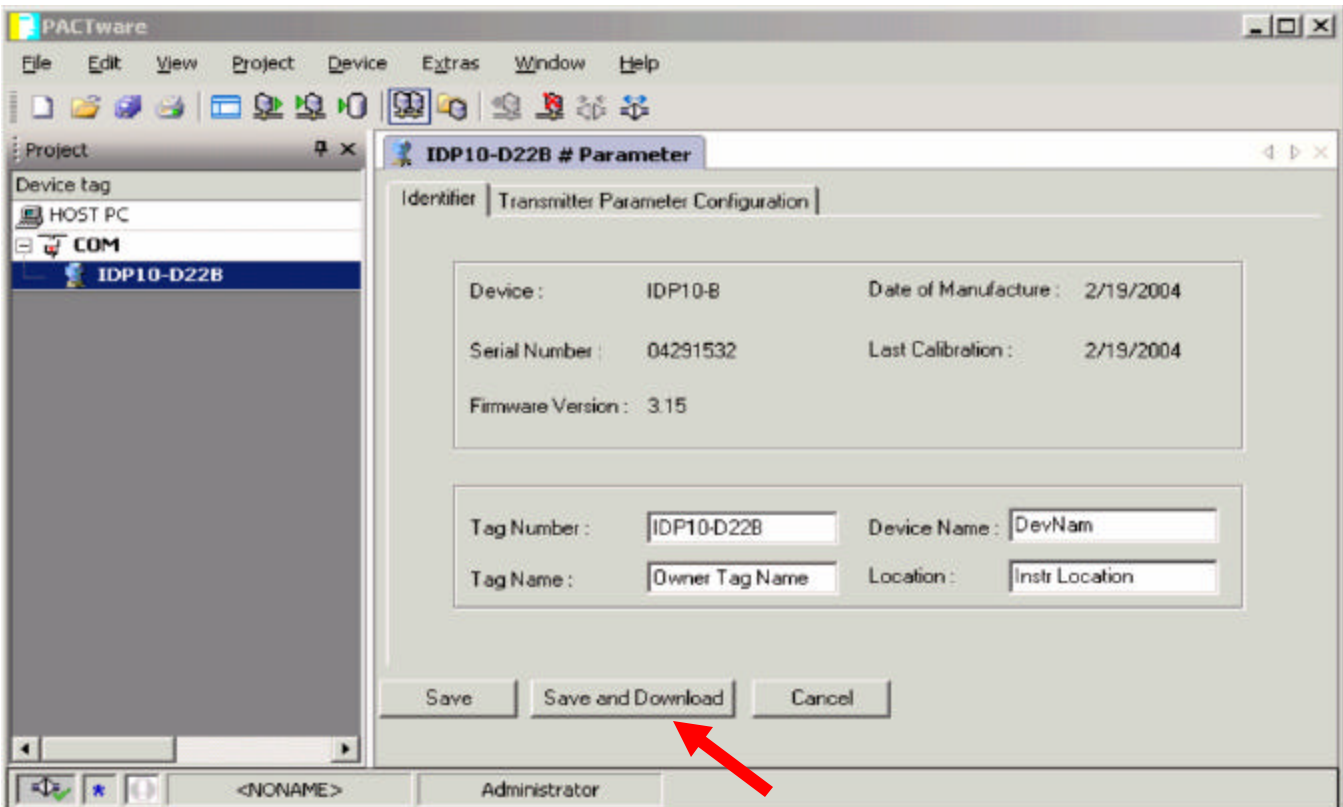


After clicking "Load from device" Icon, you'll see the "Upload" screen shown below and the upload progress bar.

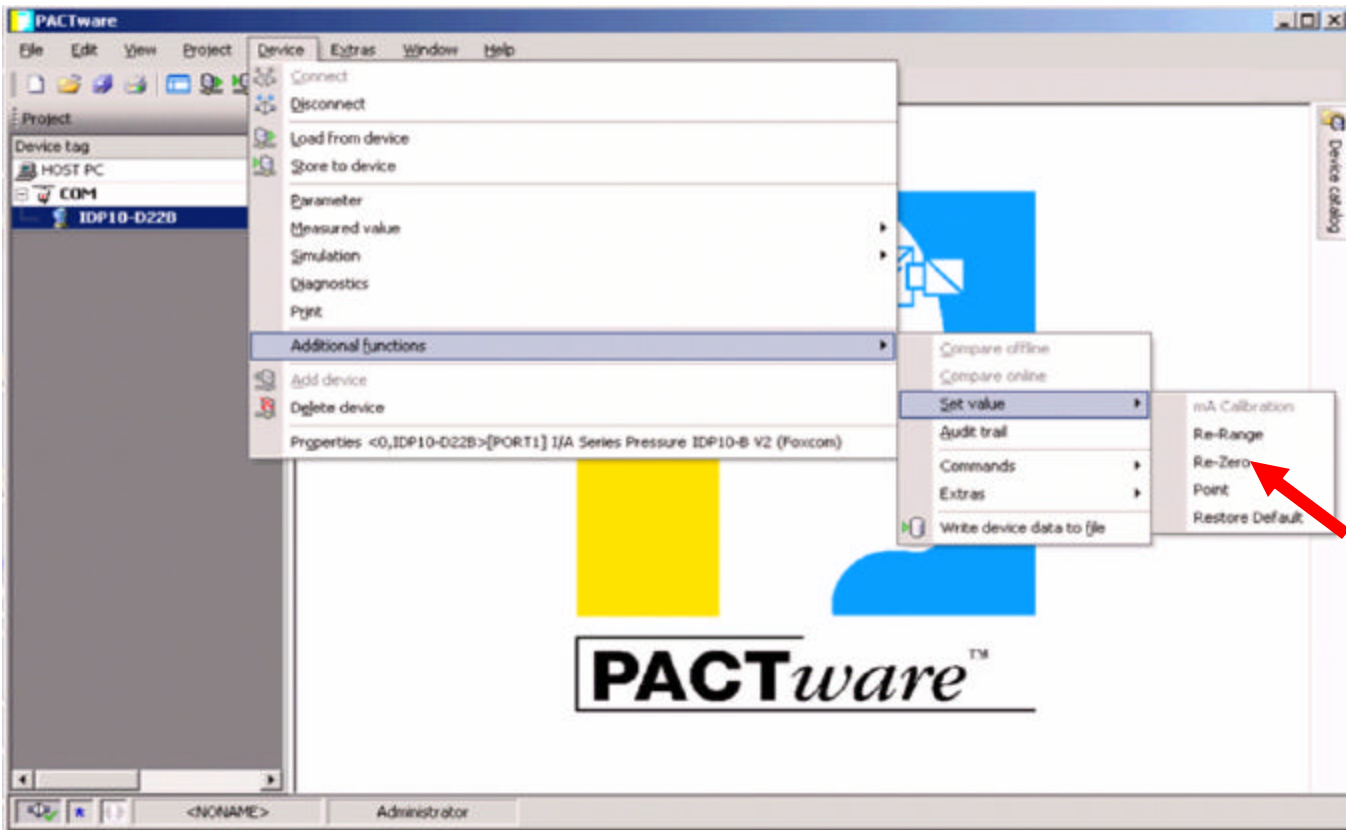**When the Progress bar is through building, you can now click on the "Edit device parameter" icon.**



**Screens Shown below are for a FoxCom IDP10:**



**You can now use the "Identifier" or "Transmitter Parameter Configuration" tabs screens to edit the instrument then click "Save and Download" to save any changes made within these screens down to the instrument.**

There are also some "Additional Functions" available however, the "Edit device parameter" screen must be closed in order for these to be accessible.
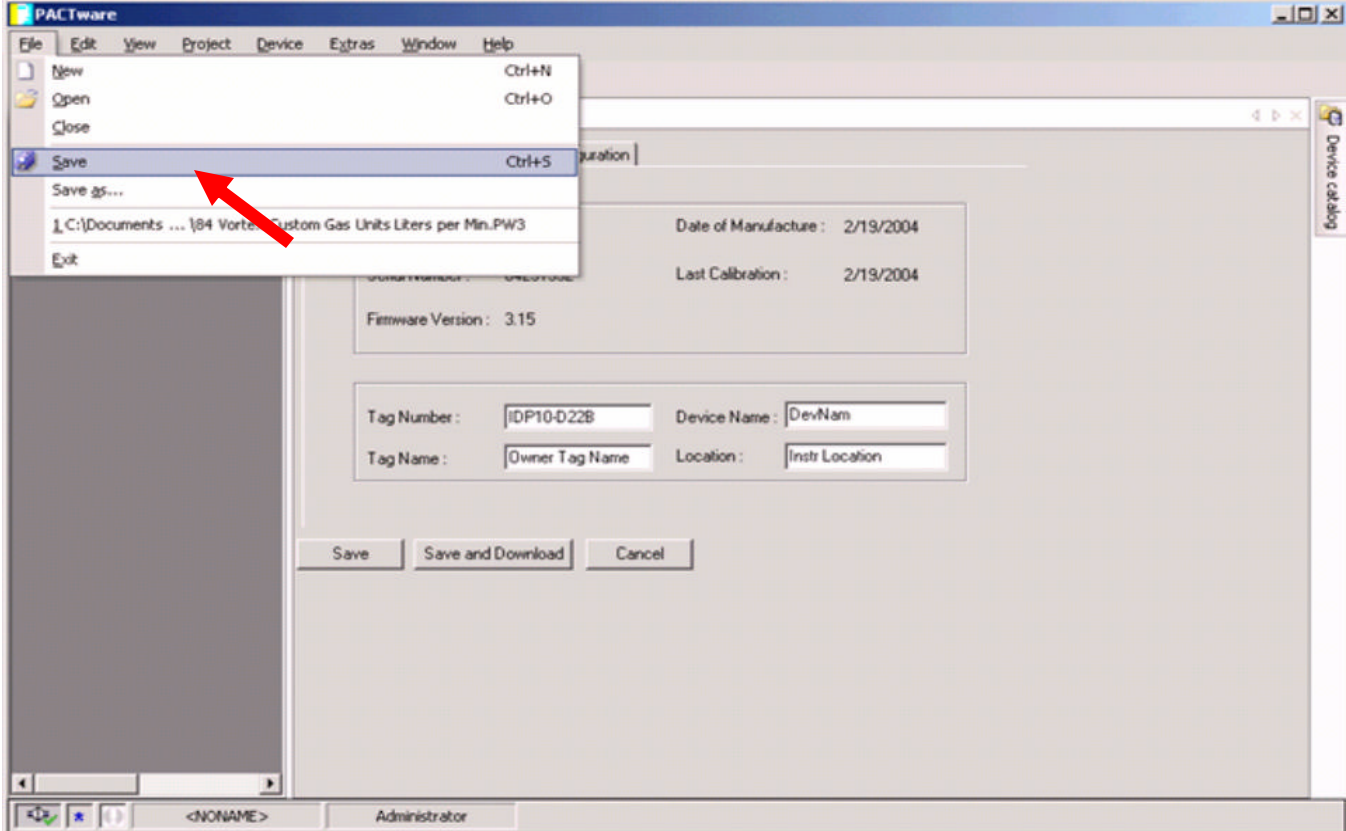


To save a copy of the instrument's configuration to a file, select "File" then "Save".

# Troubleshooting:

- **Most** communication errors are the result of using an **incorrect COM PORT number** within PACTware™.
    - Confirm the Com Port number within the Windows® Device Manager.
    - If a USB adapter or a USB modem is being used, confirm the Com Port # allocated to this device is indeed the Com Port number being used within PACTware™.
    - If a USB adapter or a USB modem is being used, confirm the software, (a.k.a. "Driver"), for this device is properly install within the Windows® Device Manager.
        - **"?"** or **"X"** indicate a problem with the "Driver" or the device itself.

- You should have **250 Ohms of "loop" resistance** on the 4-20mA / 24 volt loop.

    - Your communication modem should be connected to either the plus and minus terminals of the instrument or on each side of a 250 Ohm resister, (see illustration below).
    - In some installations this resistance may be provided by an "Intelligent" DCS.

- Confirm the communication **Protocol** based on the instrument's model number.

- Be sure you have the instrument powered up and wired correctly as shown below; if the instrument has an LCD Display, it should be visible.