TSI® FMS 5 SOFTWARE
HOW TO CONFIGURE
ICPCON CONTROLLER I-7017C

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Contents

Description

The purpose of this document is to provide instructions for setting up ICPCON Controller I-7017C to work with FMS 5 Software. It contains information about how to setup communications and configuration in FMS 5 in order to establish communication to the controller.

Requirements

- FMS 5.3 or above must be installed and running.

- Converter Ethernet to RS-485 must be installed and configured for COM1.

ICPCON Controller Installation and Configuration

For wiring diagrams and power requirements, consult ICPCON Controller documentation that was supplied with the device.

In order to initially setup the ICP Controller parameters, it will be necessary to use ICP DAS DCON Utility application. If a copy was not provided with the controller, it can be downloaded free of charge at http://www.icpdas.com/download/7000/7000.htm.

Configuring ICP Controller

If this is the first time this controller is in use, make sure that the switch at the bottom is set to **Init**.
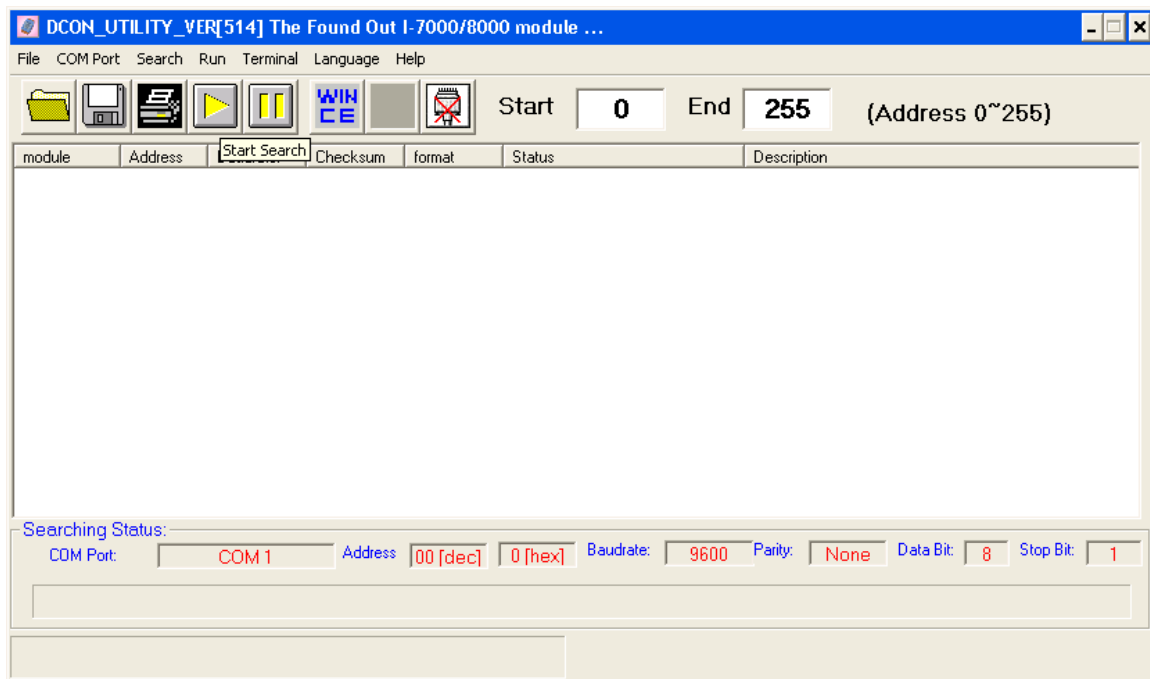
1. Once controller is connected with the computer via RS-485 converter and DCON Utility is installed, start the DCON Utility. You will be presented with the following screen.
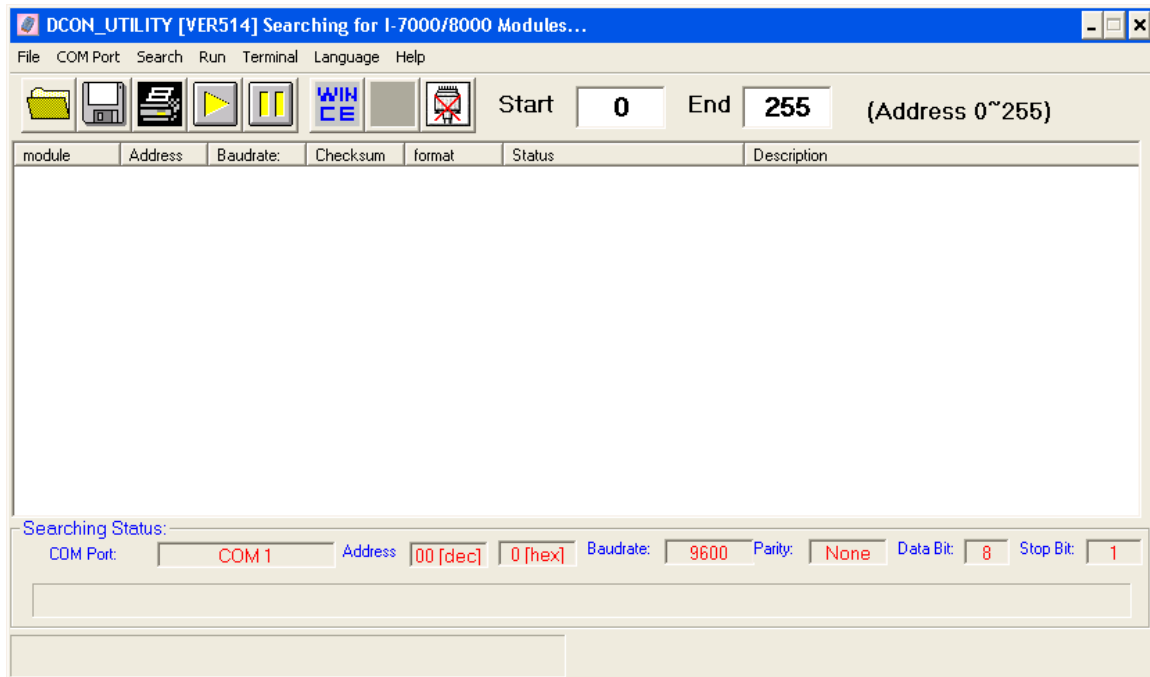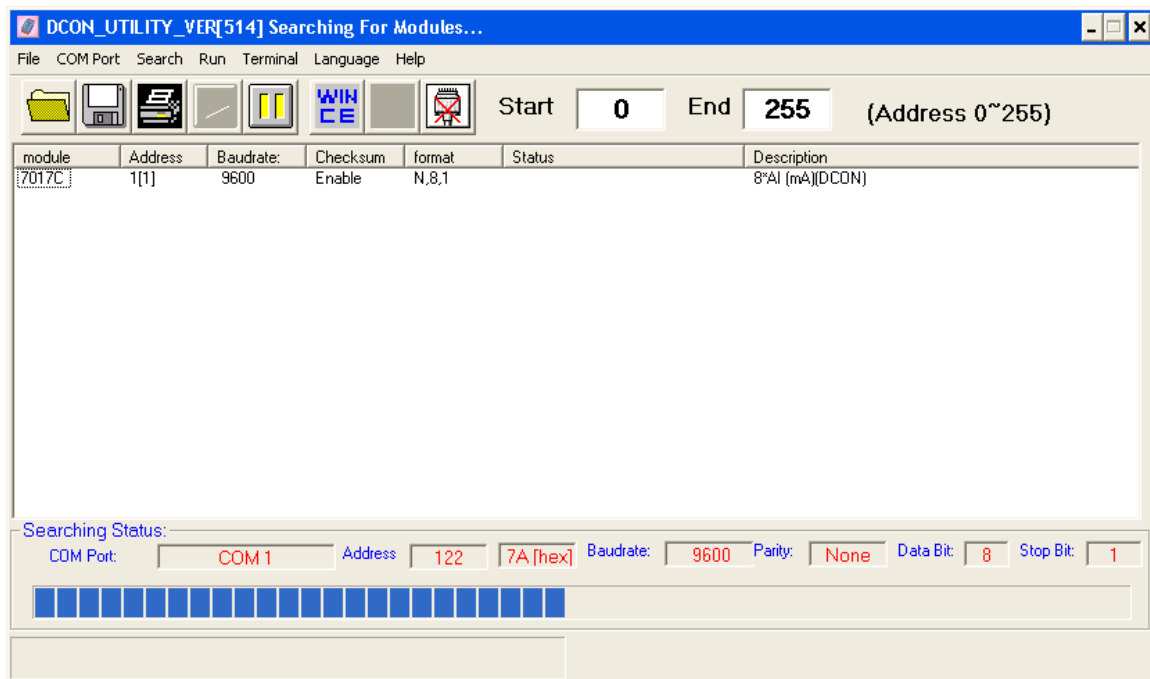

2. Under **COM Port** menu, select the communication port to which RS-485 converter is attached and select settings shown.
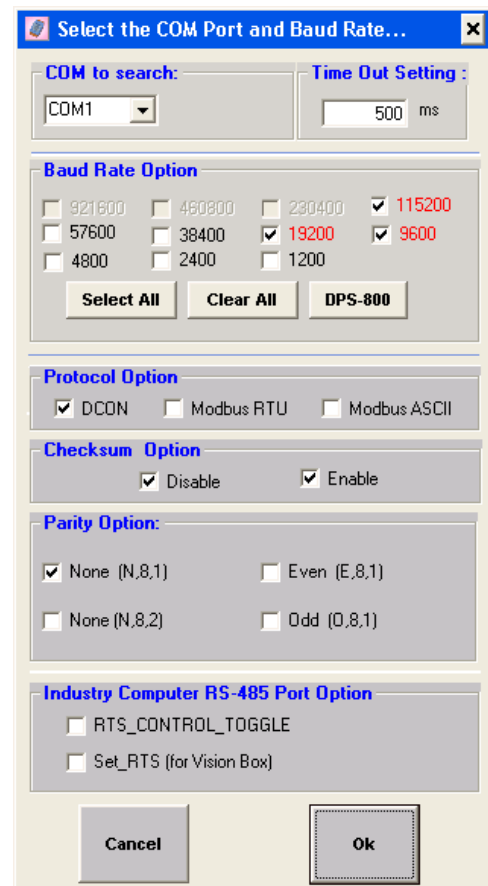
3. Click **OK**. Click **Start Search** icon (yellow play button).

4. Application will start running search and all detected controllers on given serial port will display.

5. Once the controller has been detected, double-click on the name under module heading.

6. Configuration screen will display.

7. The following settings should be applied.

Address	1 (or higher number than zero)
Baud Rate	9600
Checksum	Enable
Data Format	Engineering
Input Range	Verify what is the output range from the sensor(s) attached and select accordingly
Filter Setting	60Hz
Parity Options	None parity (N, 8, 1) – translates to 8 data bits, 1 stop bit and none parity

8. It is important to remember these settings as well as the serial port name to which ICP controller is attached. This data will be needed for FMS 5 setup.

9. Click **Setting** and follow the on-screen instructions to set the controller back to normal mode.
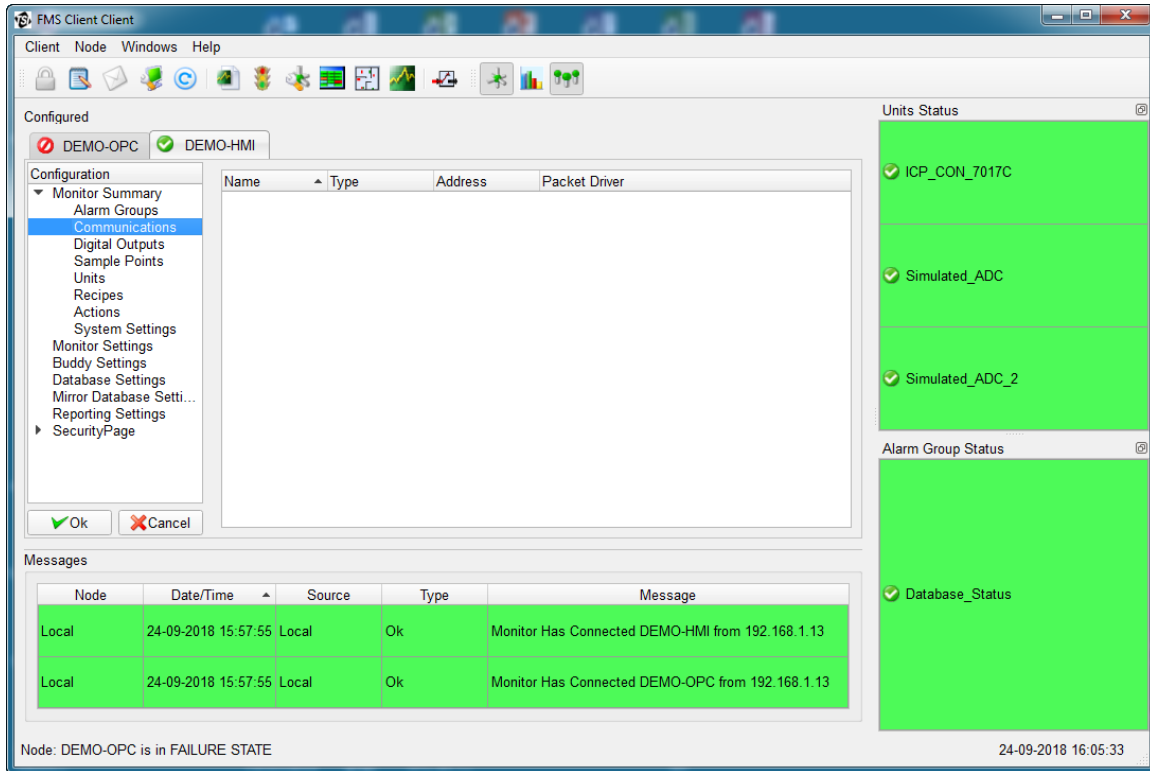
FMS 5 Configuration

1. Once the controller has been setup using DCON Utility, start FMS 5 Client and select the node on which the controller is attached.
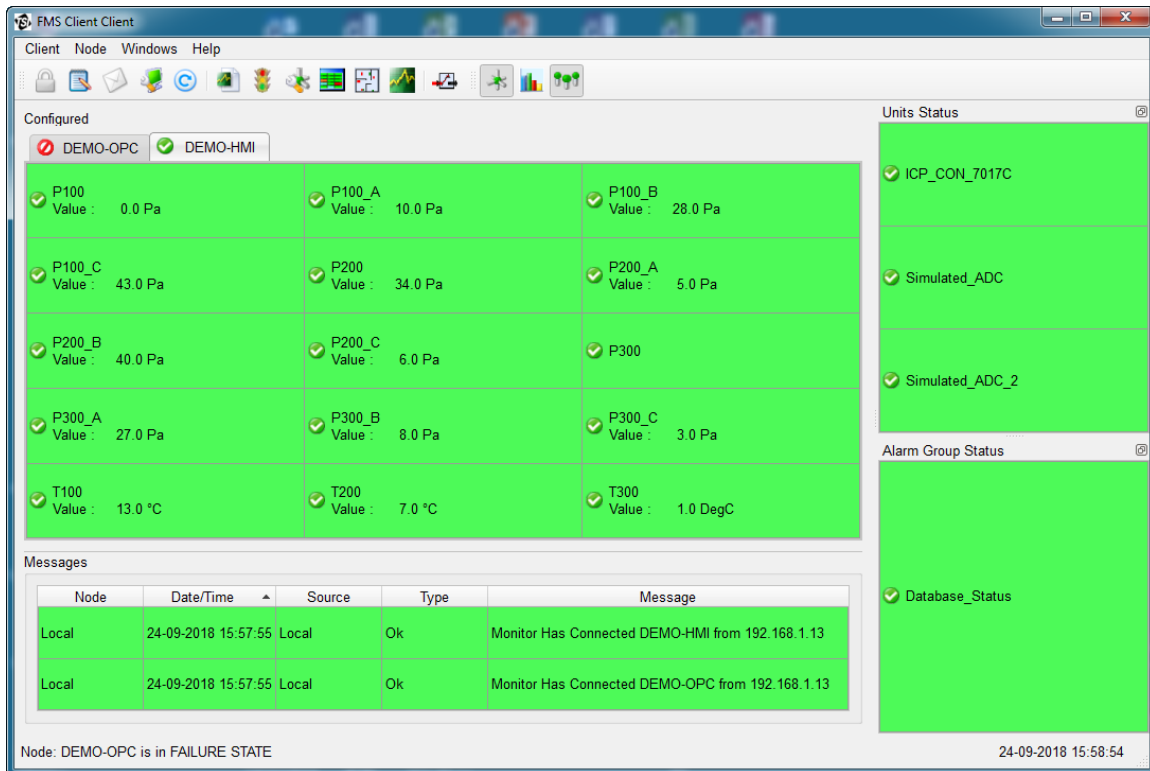

2. Click **Configure Node** icon on the top menu bar or select **Node->Configure->Node** from the menu bar at the top of the client window.

Configuring Communications

1. Expand **Monitor Summary** and select **Communications**.

2. Right-click in the middle pane and select **New Communication Channel** from the pop-up menu.

3. Select **Serial Communications** for the communication type.

4. Enter the name for the communication channel that you want to create. Sample shows a combination of the ICP controller name and serial port name assigned to this channel.
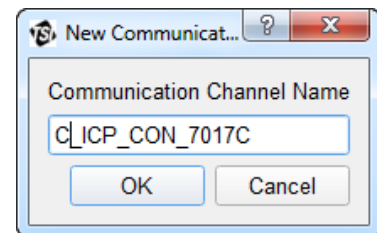
5. Click **OK**. In the following window, enter the data that corresponds to ICP controller.

Packet Driver	Line Mode
COM	Serial port to which controller is attached
Baud Rate	9600
Data Bits	8
Stop Bits	1
Parity	None
Flow Control	None

6. Make sure **Enabled** is checked. Once all settings are entered, click **OK**.

Configuring Units

1. On the configuration sub-window, select **Units**.

2. In the middle sub-window, right-click and select **New Unit**. A window to assign new unit name will popup.

3. Assign a meaningful name to this unit. For example, the type of the controller with serial port name to which it is attached is helpful. Click **OK**. The unit configuration window will appear.

   - For the driver, select **Solo 7017**.
   - Set recipe to **Default**.
   - Check **Enabled**.

4. Click **OK**.

5. Double-click on the newly created unit.

6. Select **Driver** tab.

   - **For Channel**: select the communications channel that was created in the Configuring Communications section.
   - **For Node**: select the node address that was assigned to the ICP controller in Configuring ICP Controller section.
   - **For Poll Interval(s)**: select the frequency with which FMS 5 will query ICP controller for updates (in seconds).

7. Once all the parameters are set, click **OK**.

Configuring Sample Points

1. Once the unit is setup correctly, sample point(s) to this controller need to be assigned in order to be able to view the values on the main status screen.

2. Select **Sample Points** from the configuration sub-window.
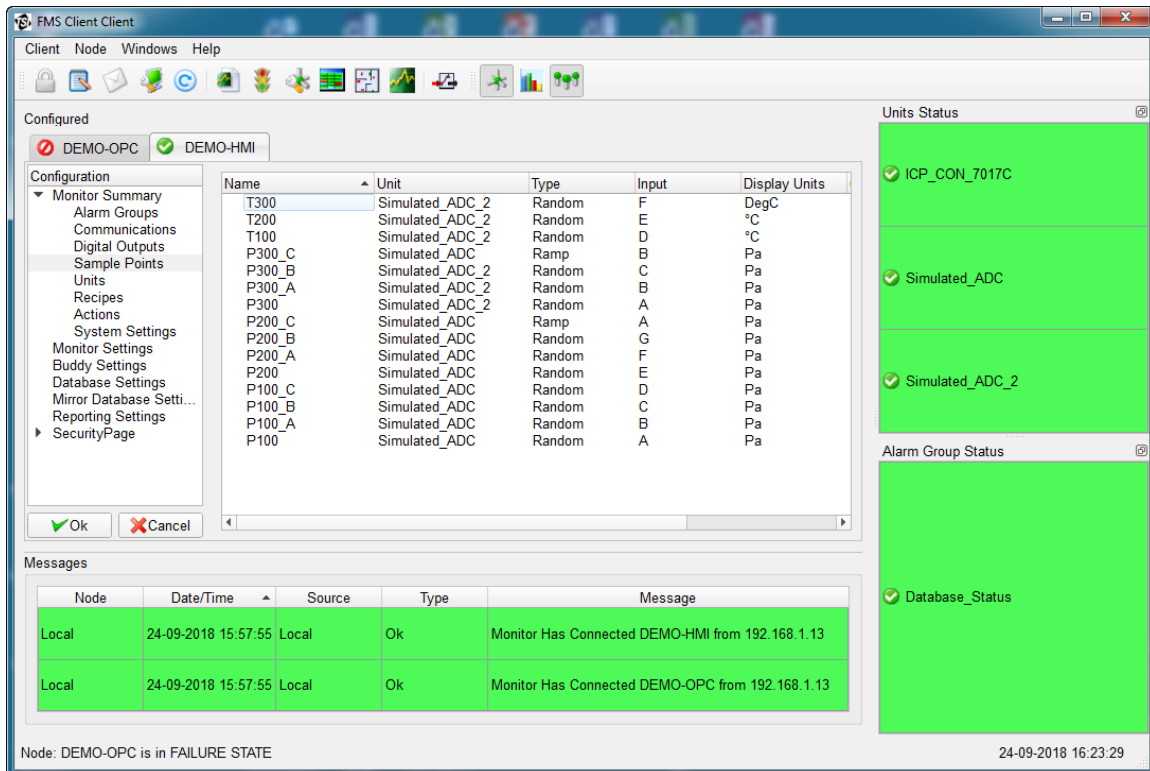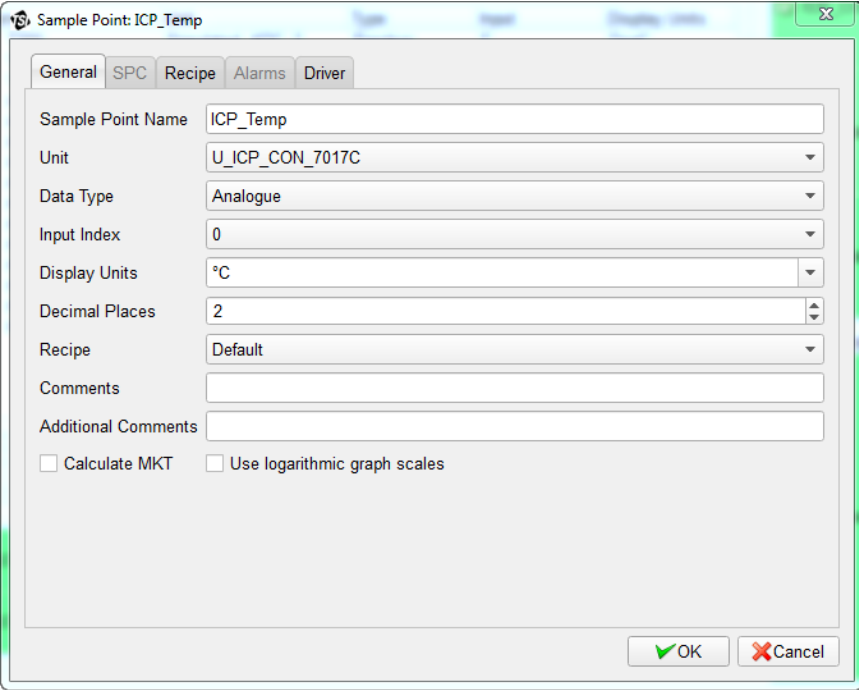
3. Right-click on the middle sub-window and select **New Sample Point**, which will open a new window to enter sample point name.
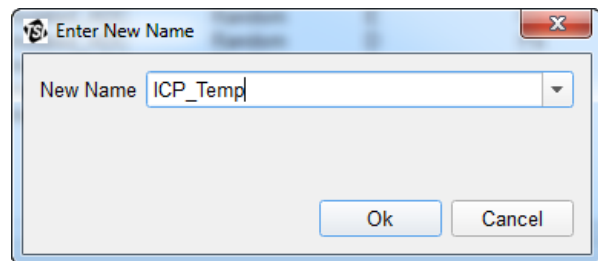
4. Click **OK** and the sample point configuration window appears to enter the values relating to this sampling point.

   - Set **Unit** to the unit defined in previous section.
   - Set **Data Type** to analogue, if not already set by default.
   - Set **Input Index** to the value corresponding to the location of the sensor attached to ICP Controller. The controller has eight 2-wire inputs marked lin#(±) where # is the number of input.
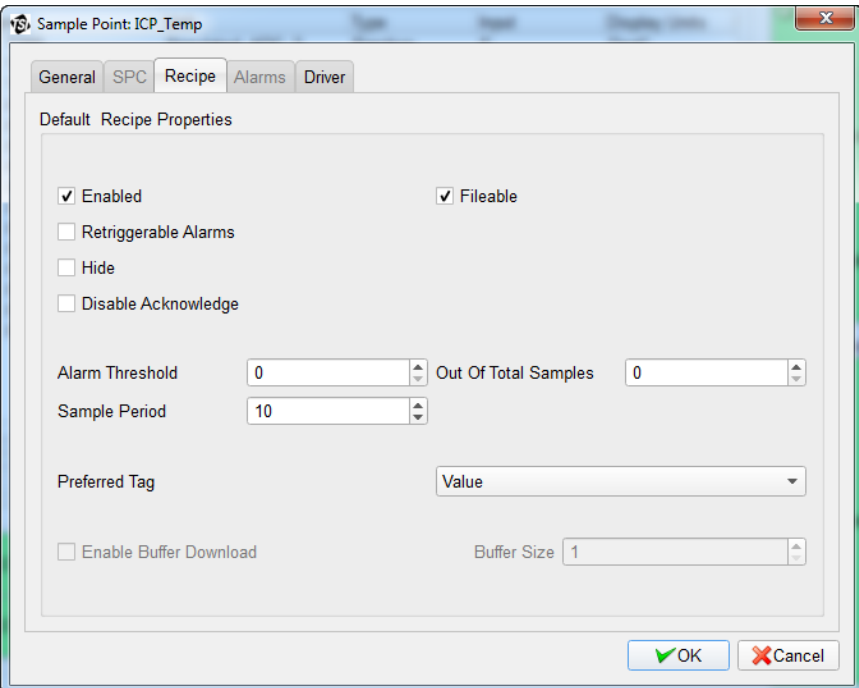
- Set **Display Units** to correspond to reported values.

- Set preferred number of decimal places to display.

- Select the **Recipe** (if any are defined) to be used with this sample point.

5. In order to setup some additional parameters for this sampling point, select **Recipe** tab.

   - Check **Enabled**, and if you want to archive the values for this sampling point, check **Fileable** as well.
   - Set desired sample period to query this sampling point.
   - Select the preferred tag (the parameter that is to be displayed from the given sensor).

6. Select **Driver** tab.
   - Enter the correct values for **Low** and **High** that correspond to the attached sensor.
   - Check **4-20mA Input** if sensor input is 4-20 mA.
   - For open loop failure, enter the value in **mA Fail** for which an error message will be generated if the value falls below.

7. Once all the values are set accordingly, click **OK**. A newly created sample point is listed on sub-window.

8. Click **OK** on configuration sub-window (left pane) and select **Save** when prompted to save the configuration. The option to restart the node in order for changes to take effect will appear.

9. Select **Yes** to reboot the node. Once FMS 5 Client has connected to the node, again verify that the newly created sampling point on the status window shows.

UNDERSTANDING, ACCELERATED