Staefa Smart II Driver User Guide

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Chapter 1

Installation

Install ifcStaefa-rt.jar and ifcStaefa-wb.jar on the computer where Niagara N4 Workbench will run. To install, place a copy of the file in the modules directory of your Niagara N4 installation. This is typically C:\Niagara\Niagara-4.n.nnn\modules.

Install ifcStaefa module on the target station. Using a Niagara N4 workbench where the module has already been installed, connect to the stations platform service. Go to the software manager and install ifcStaefa.

Apart from installing the 4.*n.nn* version of the Niagara distribution files in the JACE, make sure to install the ***ifcStaefa*** module too (if not already present, or upgrade if an older revision). For more details, see "About the Commissioning Wizard" in the JACE Niagara N4 Install and Startup Guide.

Following this, the station is now ready for Staefa software integration, as described in the rest of this document.

Requirements

The requirement for the Staefa integration as below:

- N4 workbench 4.0.xx or higher.
- Serial communication RS485 Port. (Required "serial" feature in the license).

- Niagara N4 platform JACE support:

    1. JACE-3E.
    2. JACE 6xx.
    3. JACE 7xx.
    4. JACE 8000 (Titan JACE).

- JACE 2/ JACE 4, JACE 5, JACE 6 or JACE 7.
- Staefa SM2 AETI-485/TTL.
- Niagara Ax 3.4.5x or higher.

Note: *Without the Staefa SM2 AETI-485 the communication will not work at all. To get the Staefa SM2 AETI-485/TTL device you can contact at cbdaei@atkinsonel.com*

Devices Tested

- Smart2 DDC
- Smart2 FNC
- Smart2 HTP
- Smart2 MUX
- Smart2 VAV

Chapter

2

Quick Start

This section provides a collection of procedures to use the NiagaraN4 Stafea drivers to build networks of devices with proxy points and other components. Like other NiagaraN4 drivers, you can do most configuration from special “manager” views and property sheets using Workbench.

- “Configure the Staefa network”
- “Add Staefa devices”
- “Create Staefa proxy points”

Configure Staefa Network

To add and configure a Staefa network, perform the following main tasks:

- Add the Staefa network, as needed:
  - Add a StaefaNetwork
  - Review network-level Staefa configuration

Add a StaefaNetwork

To add a StaefaNetwork in the station

Use the following procedure to add a StaefaNetwork component under the station’s Drivers container.

Note : If the host JACE has multiple RS-485 ports to be used for client access of Staefa networks, add one StaefaNetwork for each physical port. Note that for each StaefaNetwork, you must Configure the serial port parameters and transmission mode.

To add a StaefaNetwork in the station:

- Double-click the station's **Drivers** container, to bring up the **Driver Manager**.
- Click the **New** button to bring up the New network dialog. For more details, see "Driver Manager New and Edit" in the *Drivers Guide*.

- Select "Staefa Network," number to add: 1 (or more if multiple networks) and click **OK**. This brings up a dialog to name the network(s).

- Click **OK** to add the StaefaNetwork(s) to the station. You should have a StaefaNetwork named "StaefaNetwork" (or whatever you named it),under your Drivers folder, initially showing a status of "{fault}" and enabled as "true."

  After you Configure the serial port parameters and transmission mode, status should change to "{ok}".

  Configure the serial port parameters and transmission mode

  In the StaefaNetwork property sheet for each network, you must set the serial port configuration to match the serial communications parameters used by other Staefa devices on the network.

  To set the serial port parameters

  To set the serial port parameters and mode for a StaefaNetwork:

- Right-click the StaefaNetwork and select **Views > Property Sheet**.

  The **Property Sheet** appears.

- Scroll down and expand the **Serial Port Config** slot.

  Set the properties for the JACE serial port used, where defaults are:

  - Port Name: none - Enter the JACE port plan to being used, like COM2 or COM3.
  - Baud Rate: Baud1200 – valid baud rate is baud300, baud1200.
  - Data Bits: Data Bits8 – always Bits 8 and cannot be change.
  - Stop Bits: Stop Bit1 – always Bits1 and cannot be change.
  - Parity: none – Always none and cannot be change.
  - Flow Control Mode: none – not support and it cannot be change.

  Note : You must determine the setup of the Staefa serial network to correctly set the baud rate, data bits, stop bits, parity, and flow control settings.

- Click the **Save** button.

Add a Staefa Devices

After adding a Staefa network, you can use the network's default "device manager" view to add the appropriate Staefa devices.

Note: *You need the address information for each Stafea device you are adding, for this procedure, as well as for later procedures to add proxy points under devices.*

To add a Staefa device in the network

Use the following procedure to add the correct type of Staefa device in the network. To add a Stafea device:

- In the Nav tree or in the Driver Manager view, double-click the Staefa Network, to bring up the device manager (Staefa Device Manager) all of these device manager views operate in a similar fashion.

To add a Staefa device in the network manualy

Note: *For general device manager information, see the "About the Device Manager" section in the Drivers Guide.*

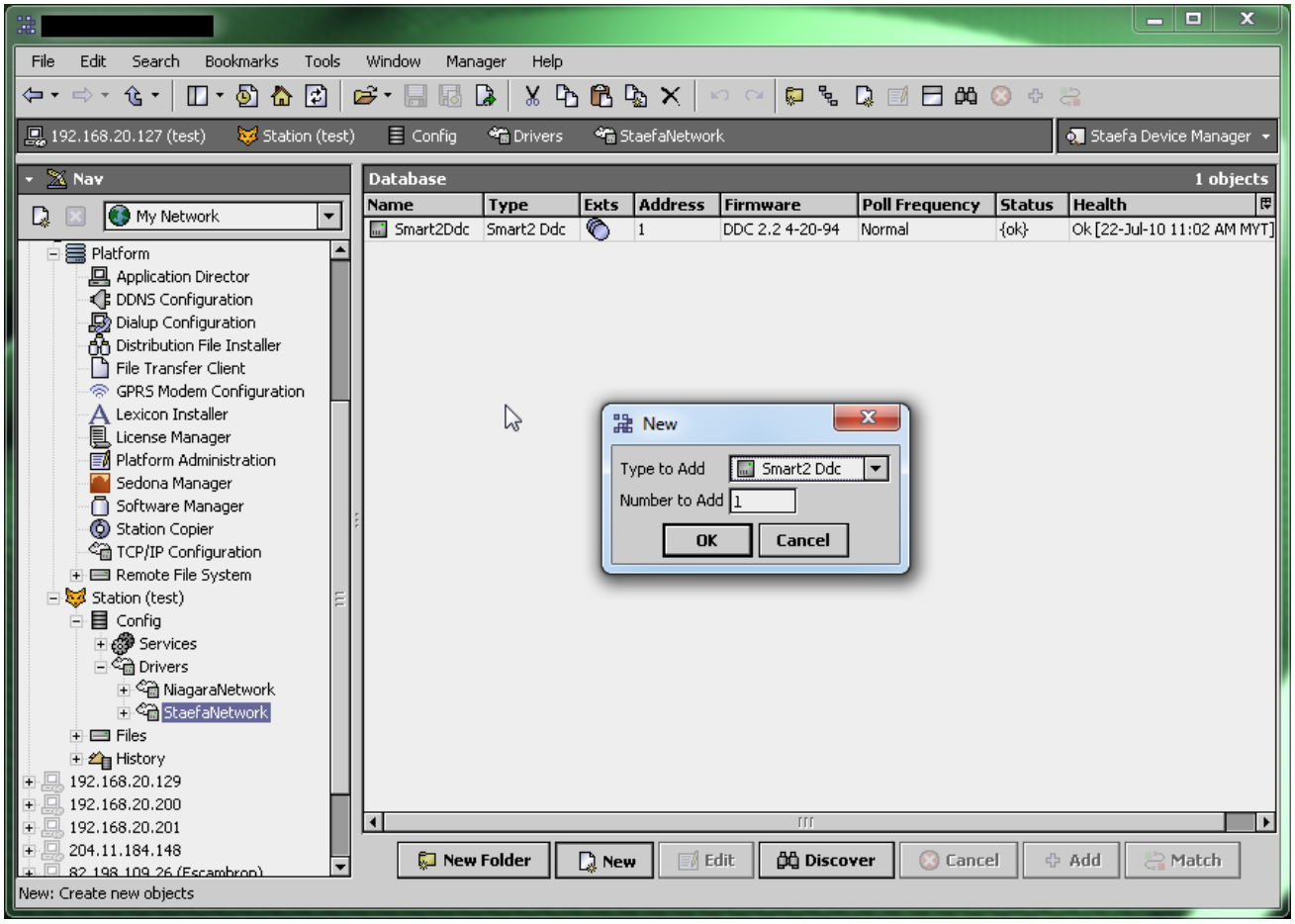
- Click the **New** button to bring up the **New** device dialog.
- Select for Type to Add (Smart2 Ddc, Smart 2 Fnc, Smart 2 Htp, Smart 2 Mux and Smart 2 Vav) and number to add: 1 (or more, if multiple) and click **OK**.

  This brings up a dialog to name the device(s), enter Staefa device address. Any Staefa*Device* needs the unique Stafea address valid is (0—238).
- Click **OK** to add the client device(s) to the network.

  You should see the device(s) listed in the Staefa device manager view, showing a status of "{ok}" and enabled as "true."

  If a device shows "down" check the configuration of the network and/or the device addresses. You can simply double-click a device in the device manager to review settings in an **Edit** dialog, identical to the **New** dialog when you added it.

After making any address changes, click **Save**, then right-click the device and select **Actions > Ping**.



To add a Staefa device in the network by discover

- Click the **Discover** button to bring up the **New** device dialog.
- Select for Type to Add (Smart2 Ddc, Smart 2 Fnc, Smart 2 Htp, Smart 2 Mux and Smart 2 Vav) and number to add: 1 (or more, if multiple) and click **OK**.
- Set the Start Address and Stop Address to scan the live devices in the network. Any Staefa*Device* needs the unique Stafea address valid is (0—238).
- Click button OK to start Discover the device.

- If any devices is a live and giving a response while discovering in progress the device will automatically added at the Discovered table.

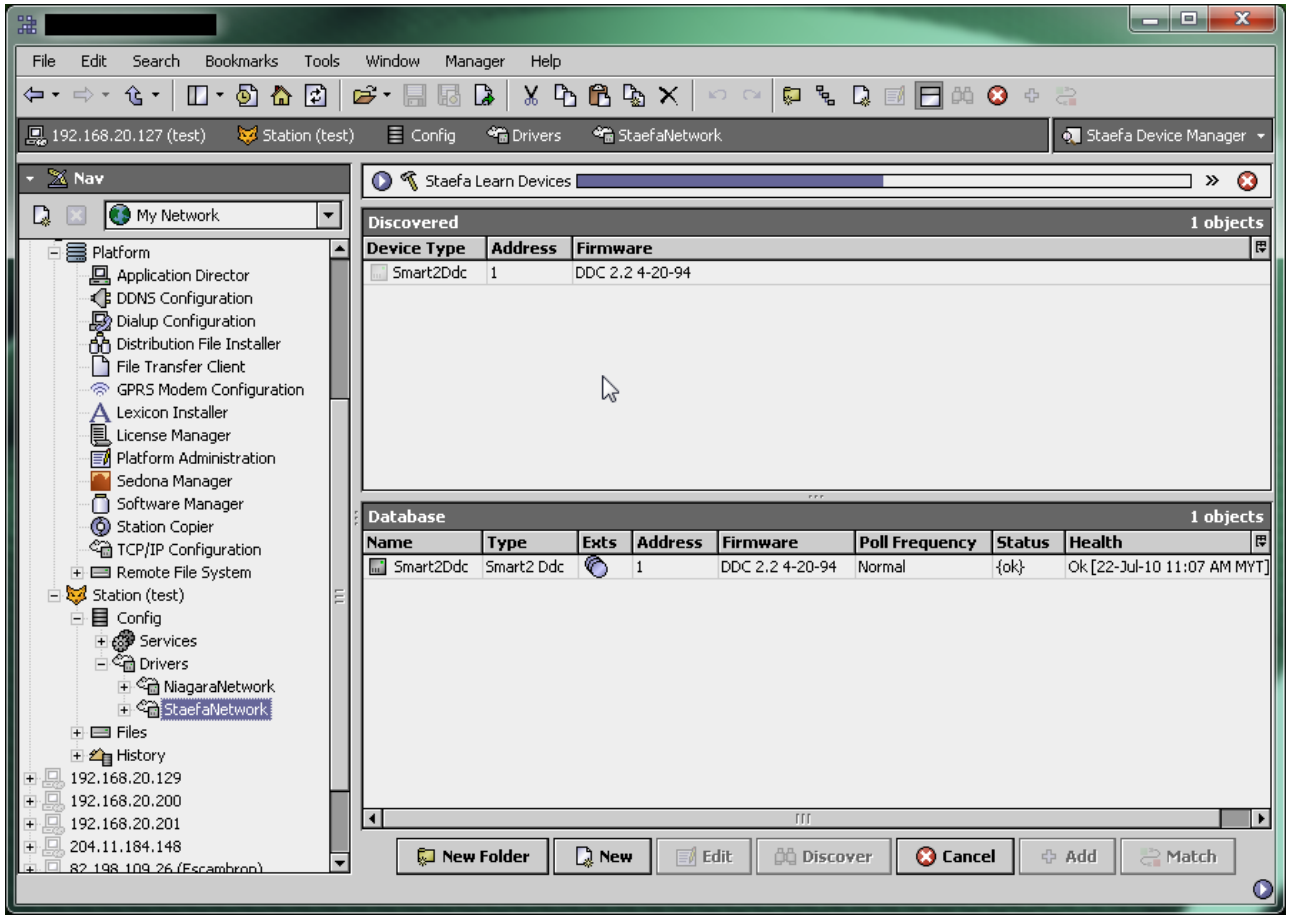
- Select the device at the Discovered table or use drag and drop from the Discovered table to Database table and this will automatically bring up the new Dialog , this is commonly done for re-editing items like data addresses, names, or facets.

- Click **OK** to add the Staefa device(s) to the network.

  You should see the device(s) listed in the Staefa device manager view, showing a status of "{ok}" and enabled as "true."

  If a device shows "down" check the configuration of the network and/or the device addresses. You can simply double-click a device in the device manager to review settings in an **Edit** dialog, identical to the **New** dialog when you added it.

  After making any address changes, click **Save**, then right-click the device and select **Actions > Ping**.



Create Staefa Proxy Point

As with device objects in other drivers, each Staefa device has a **Points** extension that serves as the container for proxy points. The default view for any Points extension is the Point Manager (and in this case, the "**Staefa Client Point Manager**". You use it to add Staefa proxy points under any Staefa device.

Note: *Unlike the point managers in many other drivers, the* **Staefa Point Manager** *does not offer a "Learn mode" with a* **Discover** *button and pane. However it will automatically display the entire point at the Discover table when you are selecting the Staefa Point Manager.*

To add Staefa proxy points

Once a Staefa device is added, you can add proxy points to read and write data. If programming online (and the device shows a status of "{ok}"), you can get statuses and values back immediately, to help determine if point configuration is correct. Use the following procedure:

To create Staefa proxy points in a device:

- In the **Device Manager**, in the **Exts** column, double-click the Points icon in the row representing the device you wish to create proxy points.

  This brings up the **Staefa Point Manager**.

- To add the Staefa Proxy point simply select from the discover table, you can select from the discover folder like "general, Input, Output, Loop and etc. (Latter applies only if selecting type: Numeric Point or Numeric Writable).

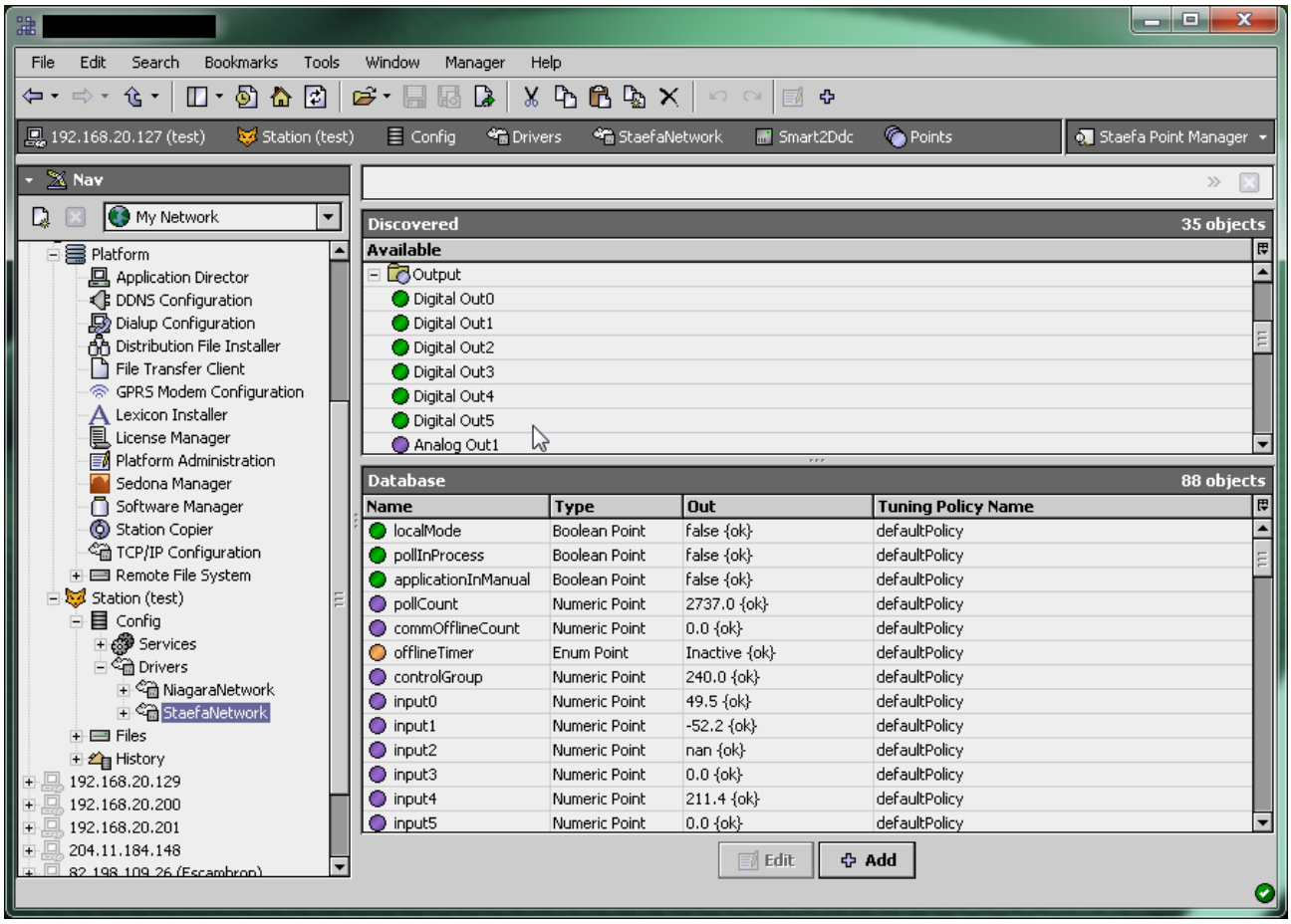
- Click **OK** to add the proxy point(s) to the Points extension (or to the current points folder), where each shows as a row in the point manager.

  If addressed correctly, each point should have a status of "{ok}" with a polled value displayed.

  - If a point shows a "{fault}" status, check its ProxyExt "Fault Cause" property value, which typically includes a error string, such as "Read fault: illegal data address". In such a case, re-check the address in the point against the documented address for the data item.

- Continue to add proxy points as needed under the **Points** extension of each Staefa device. As needed, double-click one or more existing points for the **Edit** dialog, similar to the **New** dialog

used to create the points. This is commonly done for re-editing items like data addresses, names, or facets.



Chapter

3

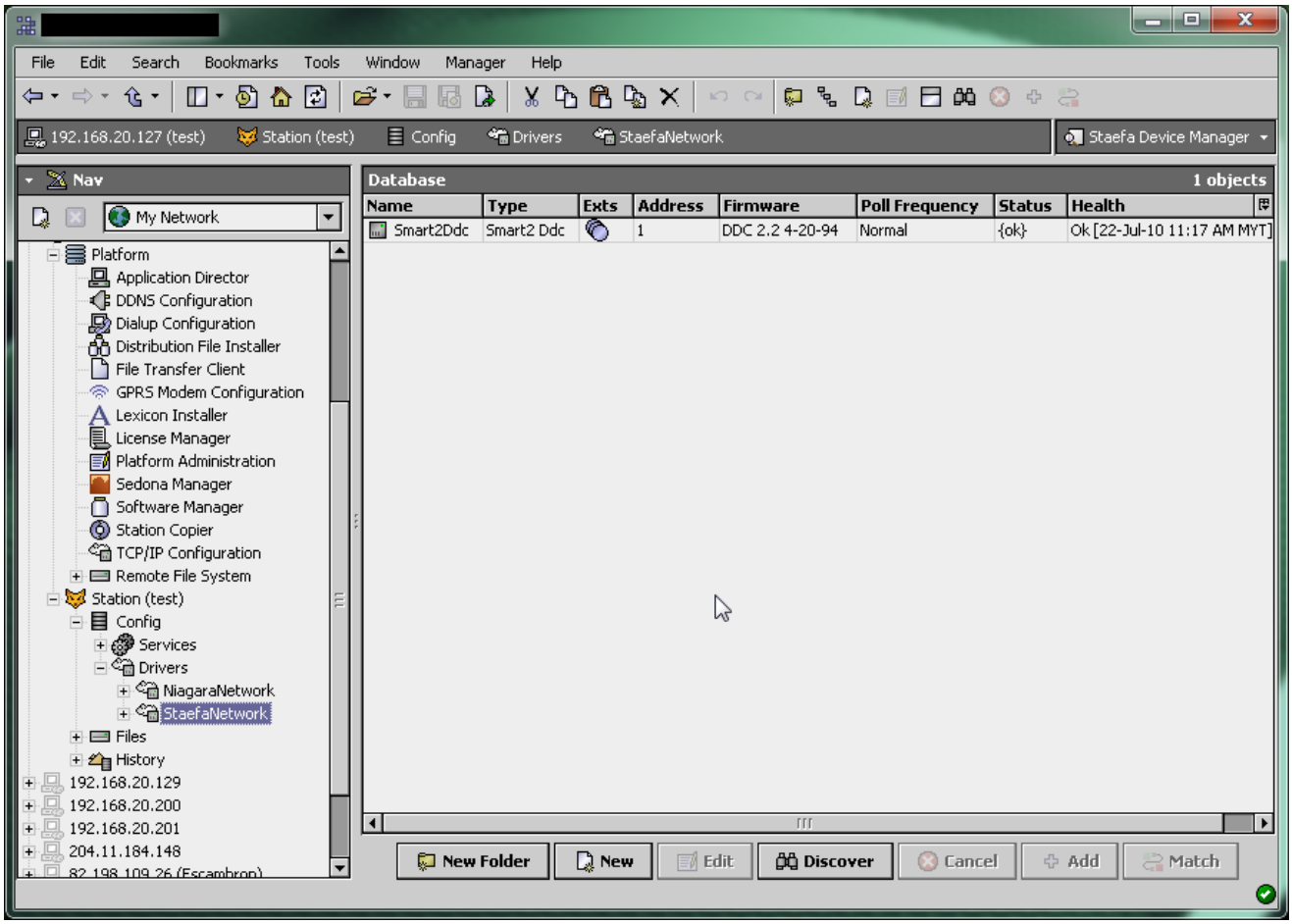
Staefa View

- Staefa Device Manager
- Staefas Point Manager

Staefa Device Manager

The Staefa Device Manager is the default view when you double-click on a Staefa Network in the Nav tree. This manager view provides a quick and easy way to display.

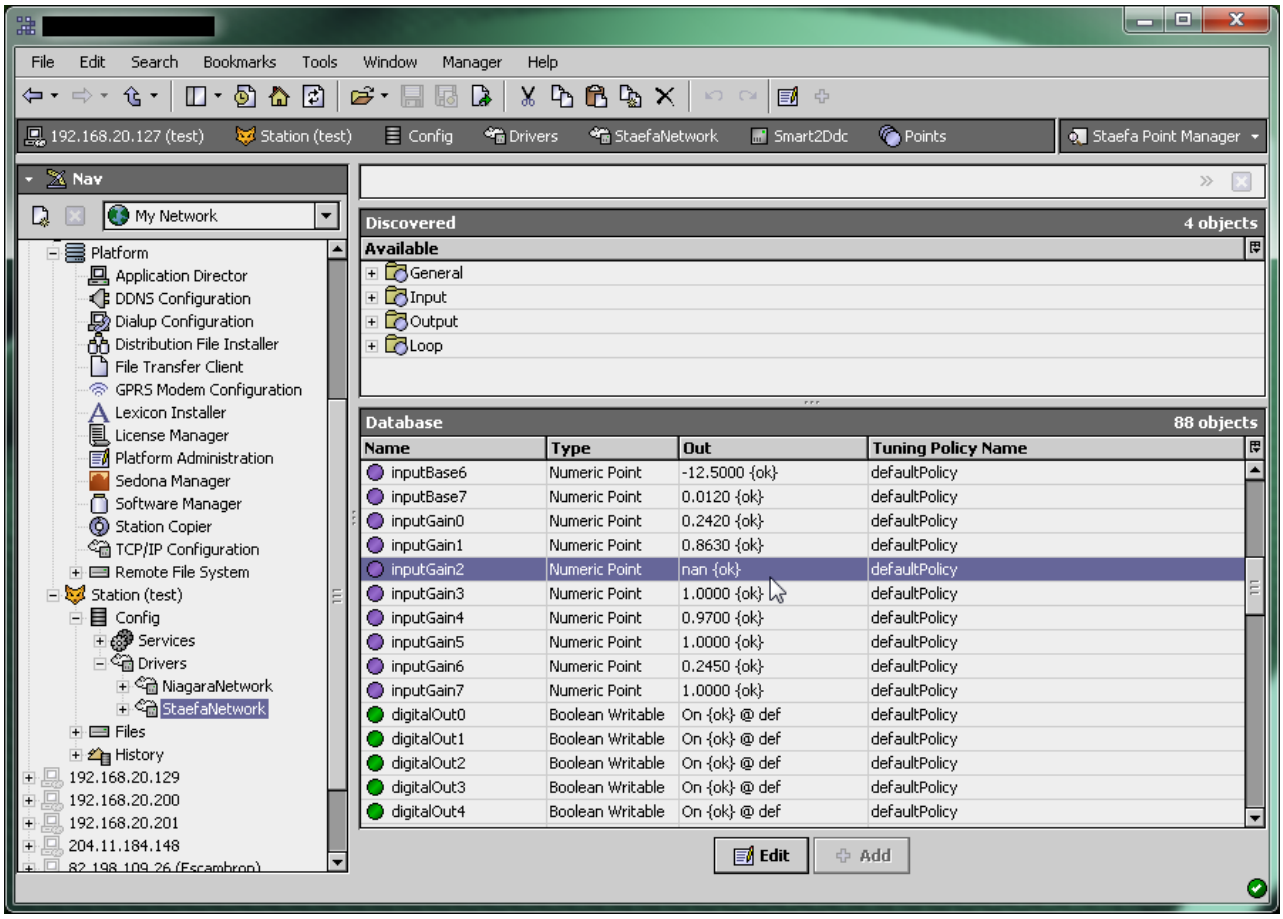
The Staefa Device Manager is a table-based view, where each row represents a unique device. When building a network in the station, you use this view to create, edit, and delete device-level components. Below is an example Staefa Device Manager view.



Staefa Point Manager

The Staefa Point Manager is the default view when you double-click on a “points” folder (a StaefaPointDeviceExt type folder) under a Smart2Device in the Nav tree. This manager view provides a quick and easy way to display.

The Staefa Point Manager is the default view for any StaefaPointDeviceExt container. The Staefa Point Manager is a table-based view, where each row represents a unique “Point Path” within a device. Below is an example Staefa Point Manager view.

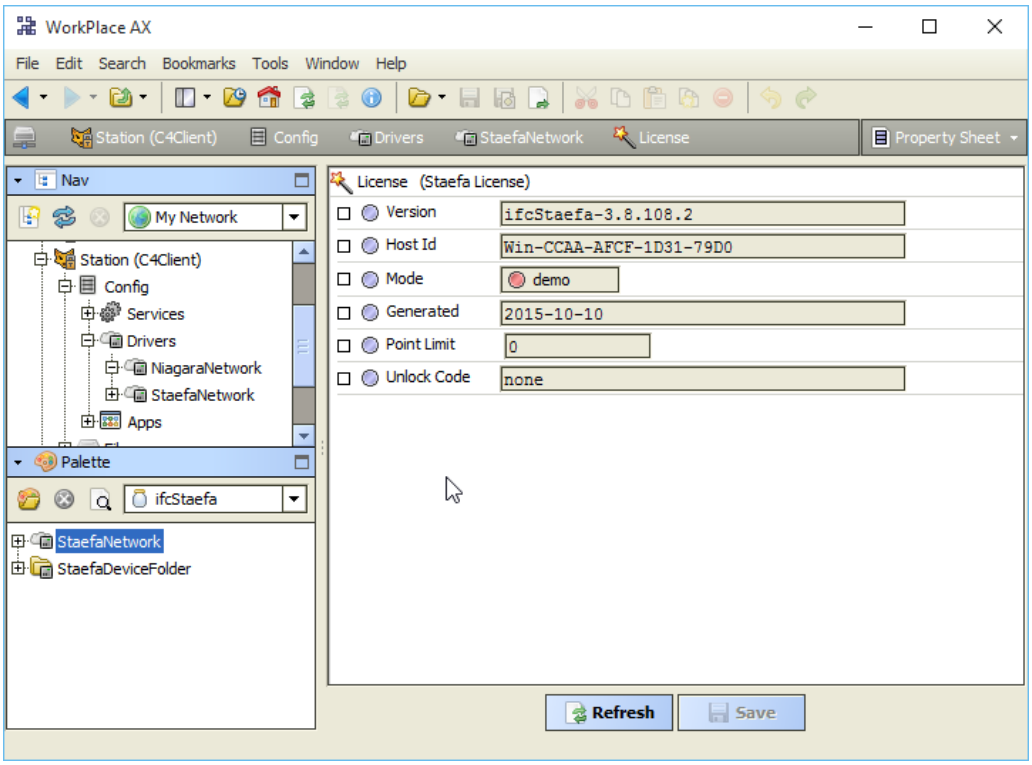

File Edit Search Bookmarks Tools Window Manager Help
192.168.20.127 (test)
Station (test)
Config
Drivers
StaefaNetwork
Smart2Ddc
Points
Staefa Point Manager
Nav
My Network
Platform
Application Director
DDNS Configuration
Dialup Configuration
Distribution File Installer
File Transfer Client
GPRS Modem Configuration
Lexicon Installer
License Manager
Platform Administration
Sedona Manager
Software Manager
Station Copier
TCP/IP Configuration
Remote File System
Station (test)
Config
Services
Drivers
NiagaraNetwork
StaefaNetwork
Files
History
192.168.20.129
192.168.20.200
192.168.20.201
204.11.184.148
Discovered
4 objects
Available
General
Input
Output
Loop
Database
88 objects
Name
Type
Out
Tuning Policy Name
inputBase6 Numeric Point -12.5000 {ok} defaultPolicy
inputBase7 Numeric Point 0.0120 {ok} defaultPolicy
inputGain0 Numeric Point 0.2420 {ok} defaultPolicy
inputGain1 Numeric Point 0.8630 {ok} defaultPolicy
inputGain2 Numeric Point nan {ok} defaultPolicy
inputGain3 Numeric Point 1.0000 {ok} defaultPolicy
inputGain4 Numeric Point 0.9700 {ok} defaultPolicy
inputGain5 Numeric Point 1.0000 {ok} defaultPolicy
inputGain6 Numeric Point 0.2450 {ok} defaultPolicy
inputGain7 Numeric Point 1.0000 {ok} defaultPolicy
digitalOut0 Boolean Writable On {ok} @ def defaultPolicy
digitalOut1 Boolean Writable On {ok} @ def defaultPolicy
digitalOut2 Boolean Writable On {ok} @ def defaultPolicy
digitalOut3 Boolean Writable On {ok} @ def defaultPolicy
digitalOut4 Boolean Writable On {ok} @ def defaultPolicy
Edit
Add

Chapter 4

Licensing

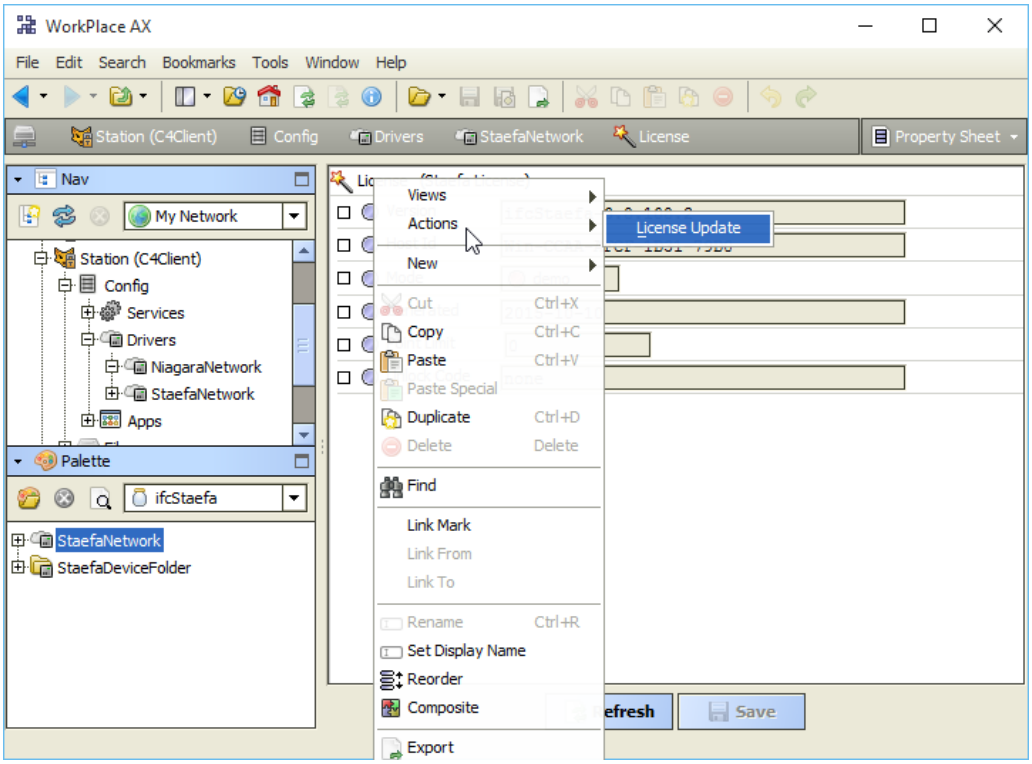
Stafea driver License is running independently from the Tridium license, it has no restriction to run to any of the existing license vendor.

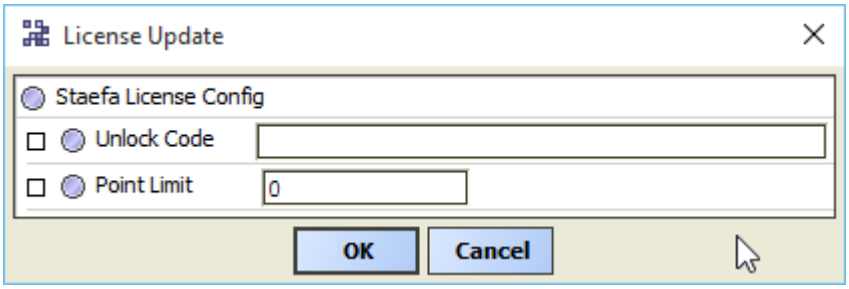
The Stafea license provide 2 hour demo license without the unlock code. After the demo license expired the Staefa Driver communication will stop automatically and will show fault in the Staefa Network level. “ifcStaefa license expired”. To extend the demo period user required to restart the station or reboot the JACE.



To request the license submit the JACE/Web Supervisor host ID, to unlock the driver simply go to the license property action and invoke command “License Update”, the dialog “License Update” will appear. Place the unlock code at the “Unlock Code” property. Please take note the license only provide by authorize vendor. If

the signature code is successful enter the property “Mode” will automatically change to “registered” and user is required to restart the station to apply the change.





end