

System600
Driver
User Guide

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Installation

Install `isoftSystem600-rt.jar` and `isoftSystem600-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 `isoftSystem600` 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 `isoftSystem600`.

Apart from installing the `4.n.nn` version of the Niagara distribution files in the JACE, make sure to install the `isoftSystem600` 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 OPC software integration, as described in the rest of this document.

Requirement

- N4 workbench 4.0.22 or higher (for commissioning).
- Niagara N4 platform support:
 1. JACE-3E.
 2. JACE 6xx.
 3. JACE 7xx.
 4. JACE 8000 (Titan JACE).
 5. Web Supervisor

Support Devices

- TEC (Terminal Box Controller)
- 3rd Party P1 FLN devices.

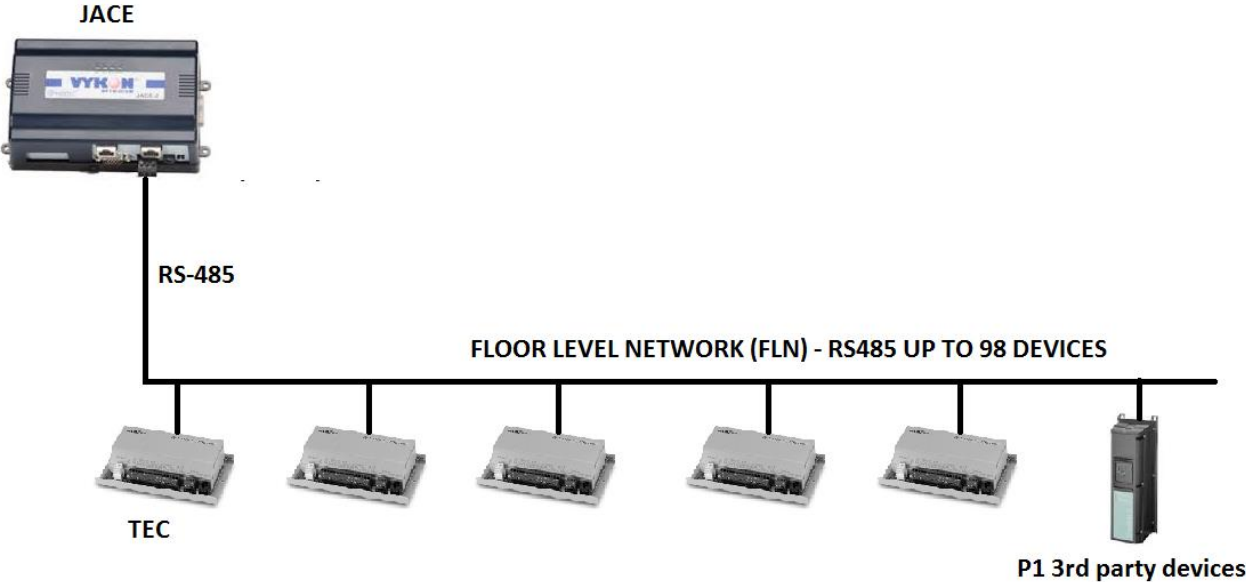
Support Application

- Standard TEC application – (Support discovery point)

Note: There were thousand numbers of the FLN application, the driver may not support the discovery point, when dealing with the 3rd party application, the integrator should have the mapping address information from the device vendor include the parameter slope and intercept.

Limitation

- There were no limit for System600Network per single station/JACE, however the limit always base on the JACE resource count depending on the JACE model also the JACE CPU limitation. You should have 20% CPU reserve to allow the driver to process the data.
- Maximum devices count per network is 98, the valid range address is 0 – 98, again to add more hardware point, the limitation is always base on JACE resource count.



Quick Start

This section provides a collection of procedures to use the Niagara N4 System600 drivers to build networks of devices with proxy points and other components. Like other Niagara N4 drivers, you can do most configurations from special “manager” views and property sheets using Workbench.

- For any of the System600 networks:
 - [“Configure the System600 network”](#)
 - [“Add System600 devices”](#)
 - [“Create System600 proxy points”](#)

Configure System600 Network

To add and configure a System600 network, perform the following main tasks:

- Add the System600 Network, as needed:
 - [Add a System600 Network](#)

Add a System600 Network

To add a System600 Network in the station

Use the following procedure to add a System600Network component under the station’s Drivers container.

Note: If the host JACE has multiple RS-485 ports to be used for client (master) access of System600Network, add one System600Network for each physical port. Note that for each System600Network, you must [configure the serial port parameters](#).

To add a System600Network in the station:

- Double-click the station’s **Drivers** container, to bring up the **Driver Manager**.

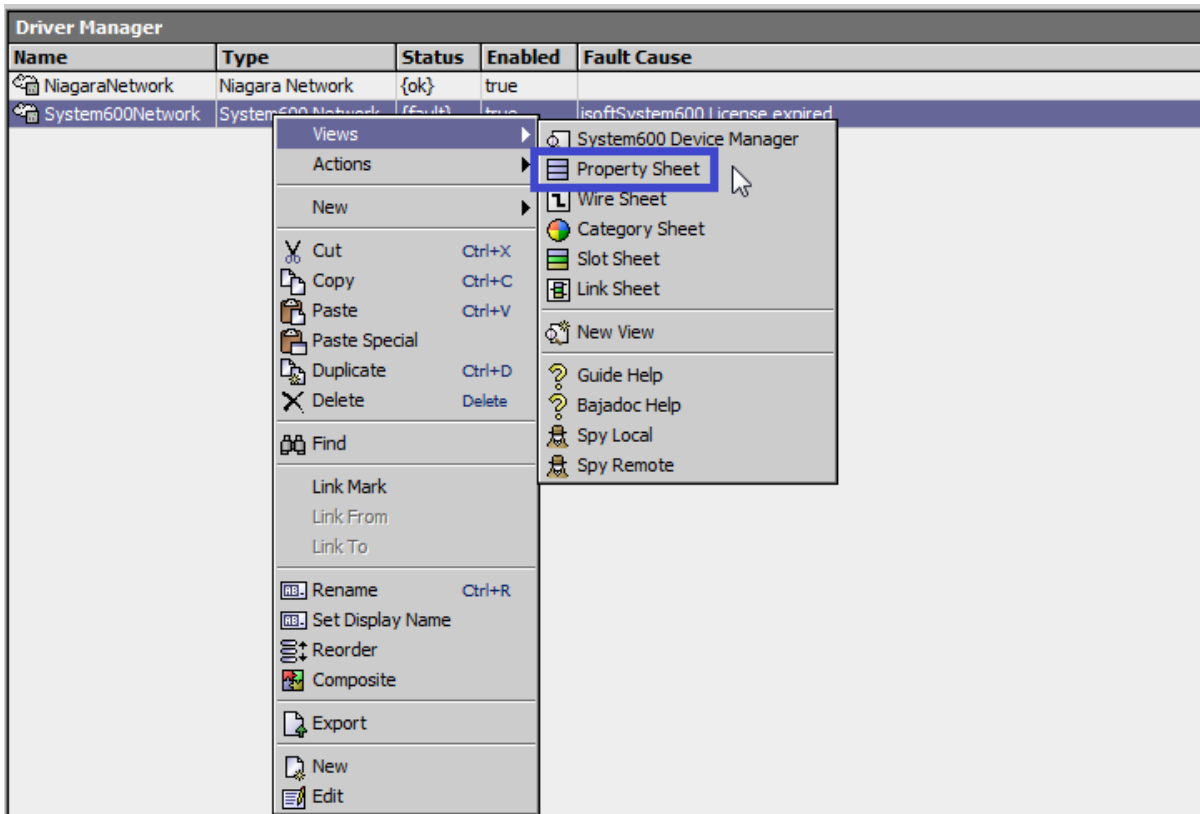
Configure the serial port parameters

In the System600Network property sheet for each network, you must set the serial port configuration to match the serial communications parameters

To set the serial port parameters

To set the serial port parameters for a System600Network:

- Right-click the System600Network and select **Views > Property Sheet**.



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

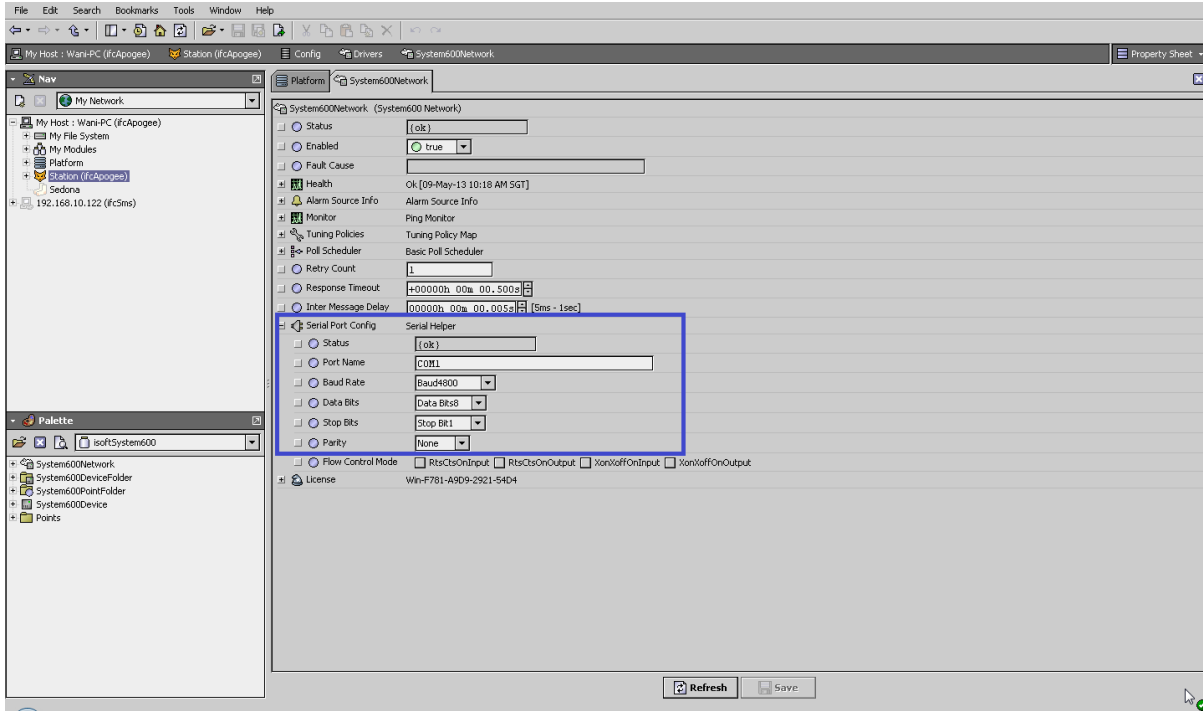
Set the properties for the JACE serial port used, where defaults are:

- Port Name: none — Enter the JACE port plan to being used, like COM2.
- Baud Rate: Baud4800
- Data Bits: Data Bits8.
- Stop Bits: Stop Bit1.

- Parity: None.
- Flow Control Mode: none.

Note : You must determine the setup of the System600 Network to correctly set the baud rate, data bits, stop bits, parity, and flow control settings.

- Click the **Save** button.



Add a System600 Devices

After adding a System600 network, you can use the network’s default “device manager” view to add the appropriate System600 devices.

Note: You need the unit number information for each System600 Device you are adding, as well as for later procedures to add proxy points under devices. Have the device vendor’s documentation available for reference, in order to map System600 data correctly in Niagara N4.

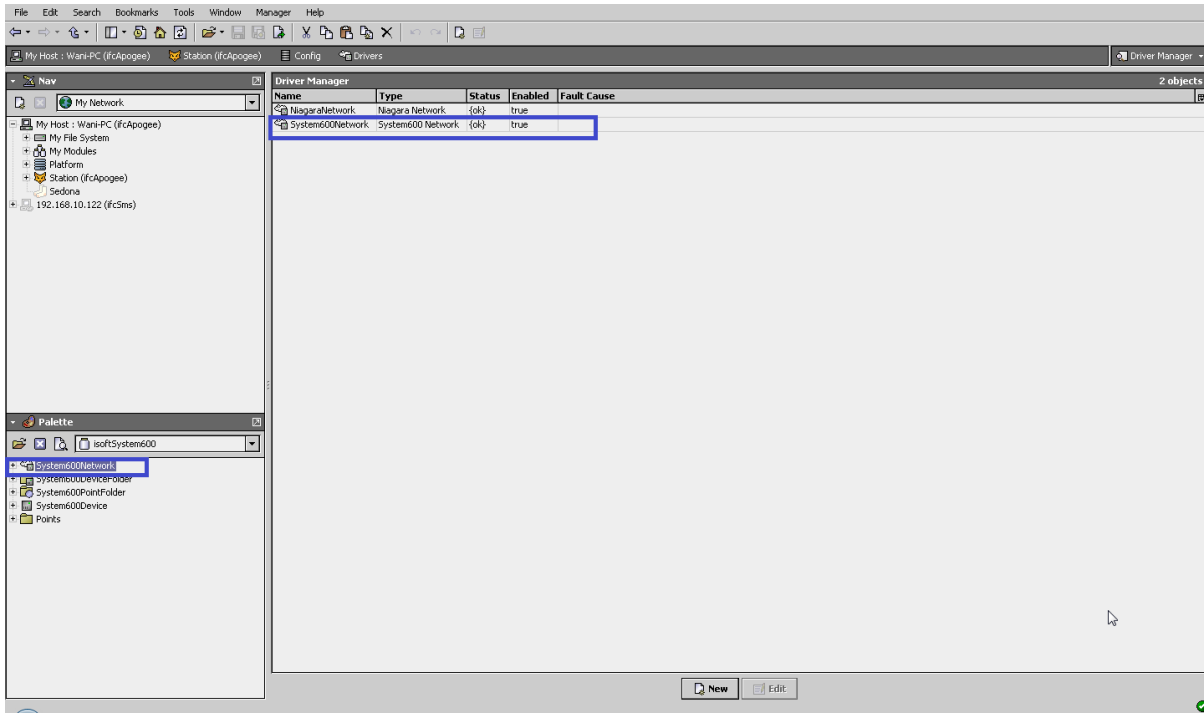
To add a System600 device in the network

Use the following procedure to add the correct type of System600 device in the network. To add a System600 device:

- In the Nav tree or in the Driver Manager view, double-click the client network, to bring up the device manager (System600 Device Manager). All of these device manager views operate in a similar fashion.

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

- In palette manager, it will list contents of driver. Then, drag “System600Network” into driver manager.
- Make sure that status is {OK} and double click to created proxy point. If the is {Fault}, please check the Port Name.
- If condition good, status should be {OK} and to created point level, double click at “System600Network” in driver manager.



Create System600 Proxy Point


As with device objects in other drivers, each System600 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 **“System600 Point Manager”**). You use it to add System600 proxy points under any System600 device.



Note: Unlike the point managers in many other drivers, the **System600 Point Manager** does offer a “Learn mode” with a **Discover** button and pane. Otherwise you can simply use the **New** button to create proxy points, referring to the vendor’s documentation for the addresses of data items in each *System600* device.

To add System600 proxy points

Once a System600 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 status and values back immediately, to help determine if point configuration is correct. Use the following procedure:

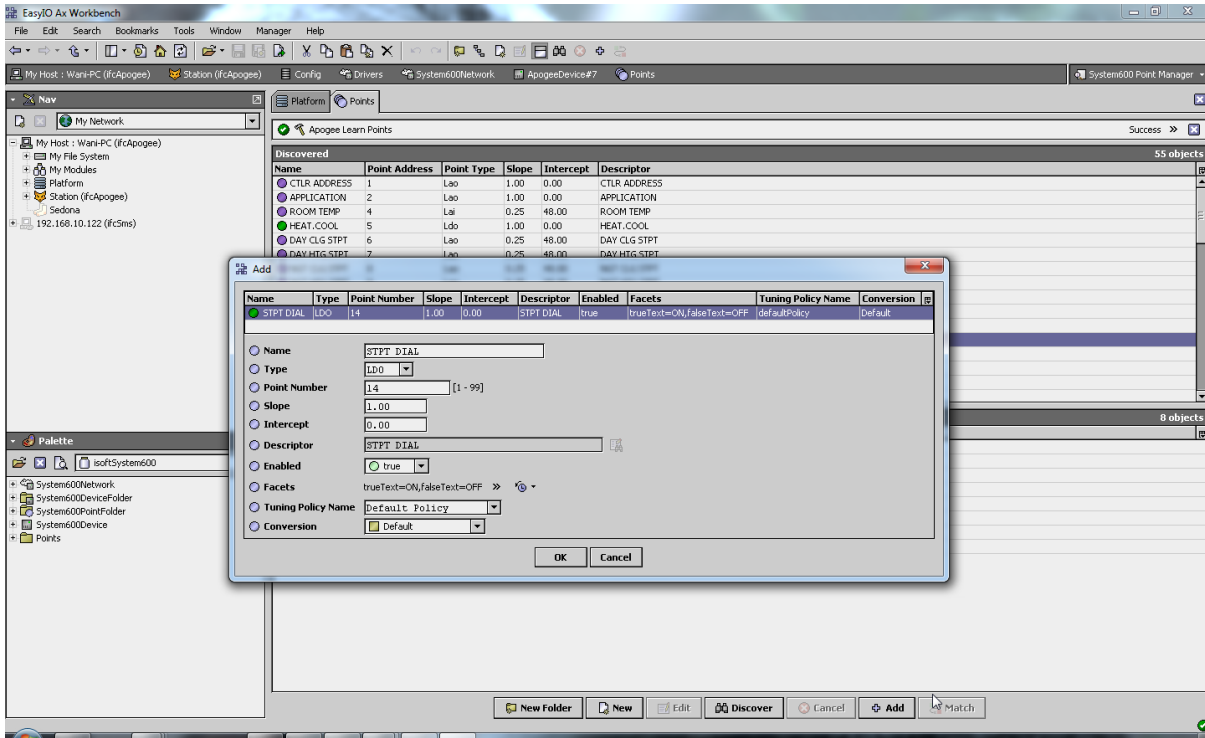
To create System600 proxy points in a device:

- 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.

Database							
Name	Type	Exts	Address	Revision	Application	Status	Health
 ApogeeDevice#7	System600 Device		7	FC12	2040	{ok}	Ok [13-May-13 3:23 PM SGT]

This brings up the **System600 Point Manager**.

- (Optional) Click the **New Folder** button to create a new points folder to help organize points, and give it a short name, such as “TempNo1”, or whatever name works for your application. You can repeat this to make multiple points folders, or simply skip this step to make all proxy points in the root of **Points**. Note that all points’ folders have their own **System600 Point Manager** view, just like **Points**. If making points folders, double-click one to move to its location (and see the point manager).
- At the location needed (**Points** root, or a points folder), click the **New** button. The **New** points dialog appears, in which you select a point “Name”, “Type”, “Point Number”, “Point Type” , and “Point Address”.



For more details, see [“About System600 proxy points”](#)

- 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 parameter 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 Iq “exception code” 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 System600 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.

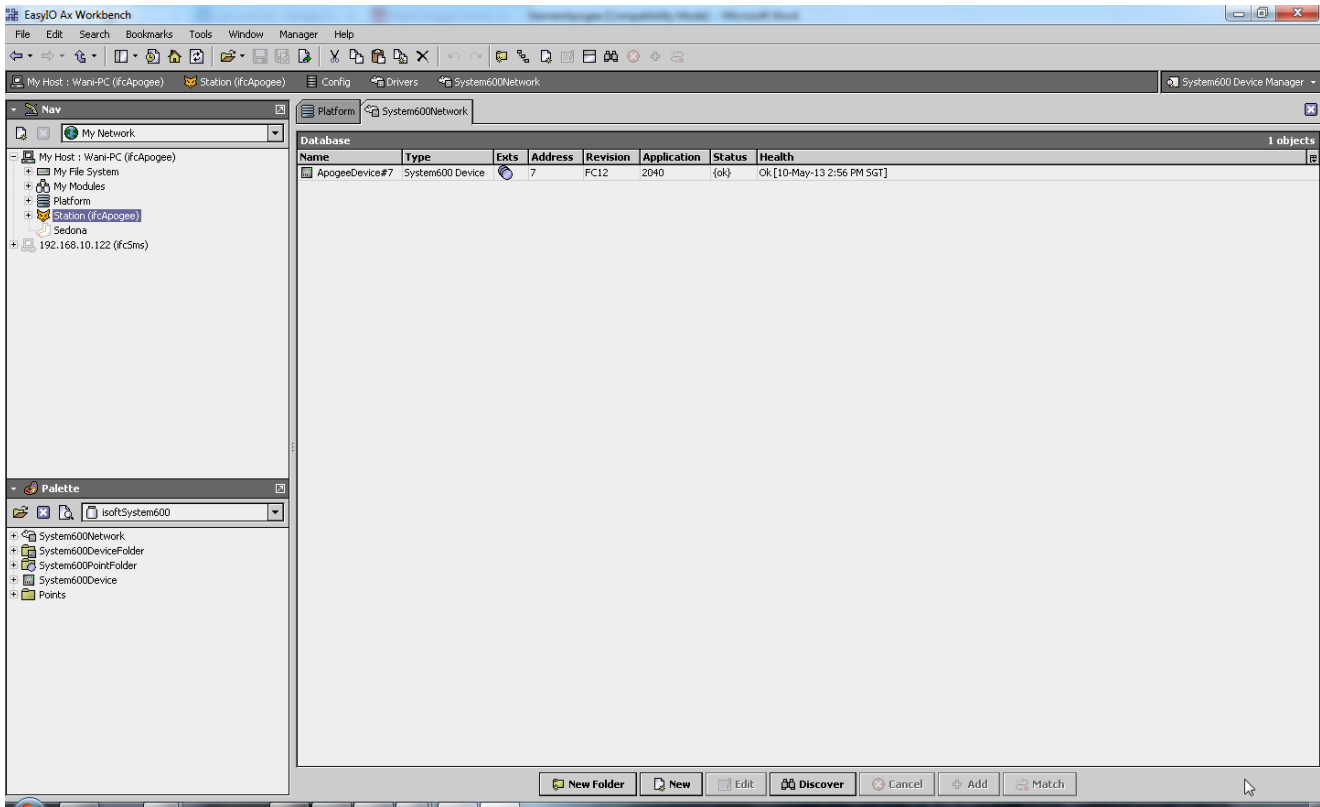
System600 View

- [System600 Device Manager](#)
- [System600 Point Manager](#)

System600 Device Manager

The System600 Device Manager is the default view when you double-click on a System600Network in the Nav tree. This manager view provides a quick and easy way to display.

The System600 Device Manager is the default view for any System600 Network container. The System600 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 System600 Device Manager view.



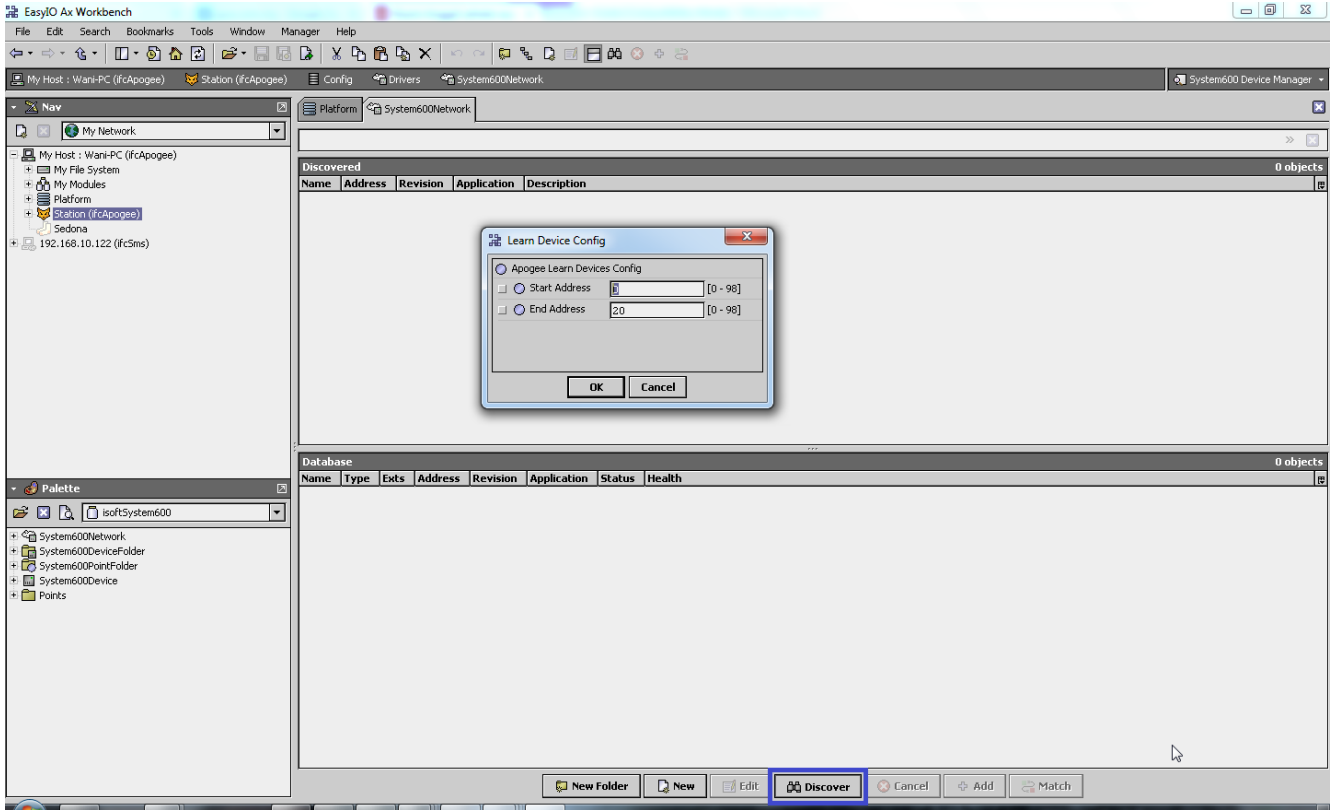
The view above shows a typical System600 Device Manager view.

The “New Folder”, “New”, and “Edit” buttons are not unique to the System600 Device Manager, and are explained in the “Niagara N4 User’s Guide” in the “Driver Architecture” section. The “Match” button is not used for the System600 driver.

You can now add the devices to the station database by clicking the “Add” button. This will pop up the “Add” dialog box:

The “Add” dialog box affords you the opportunity to tweak the display name, enabled state, and/or unit number of each of the selected devices. Click the “OK” button to add the devices to the database, or click “Cancel” to bail out.

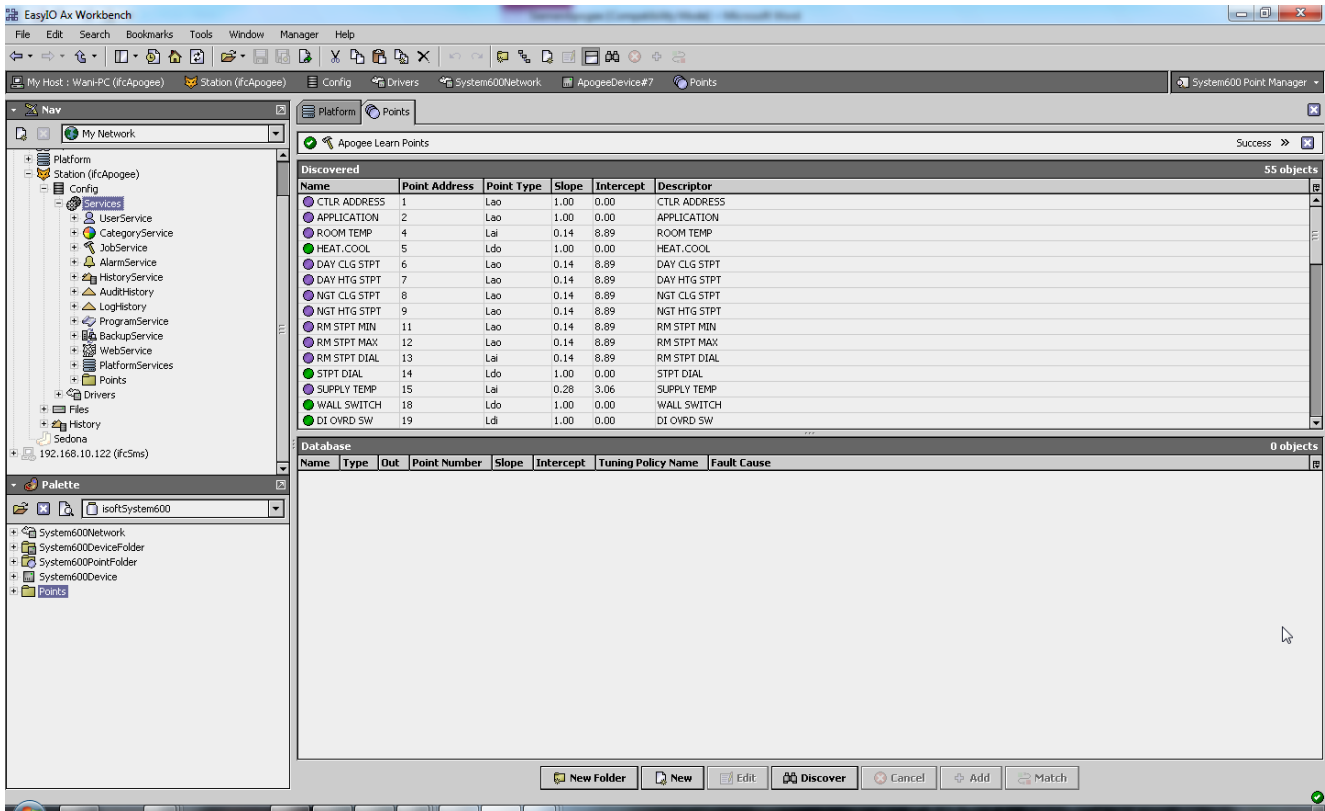
The “Discover” button implements functionality that is unique and tailored to discovering System600 devices. By clicking the “Discover” button, the “learn” mode of the manager is invoked (the panes will be split, and a “discovery” table will be displayed in the top pane).



System600 Point Manager

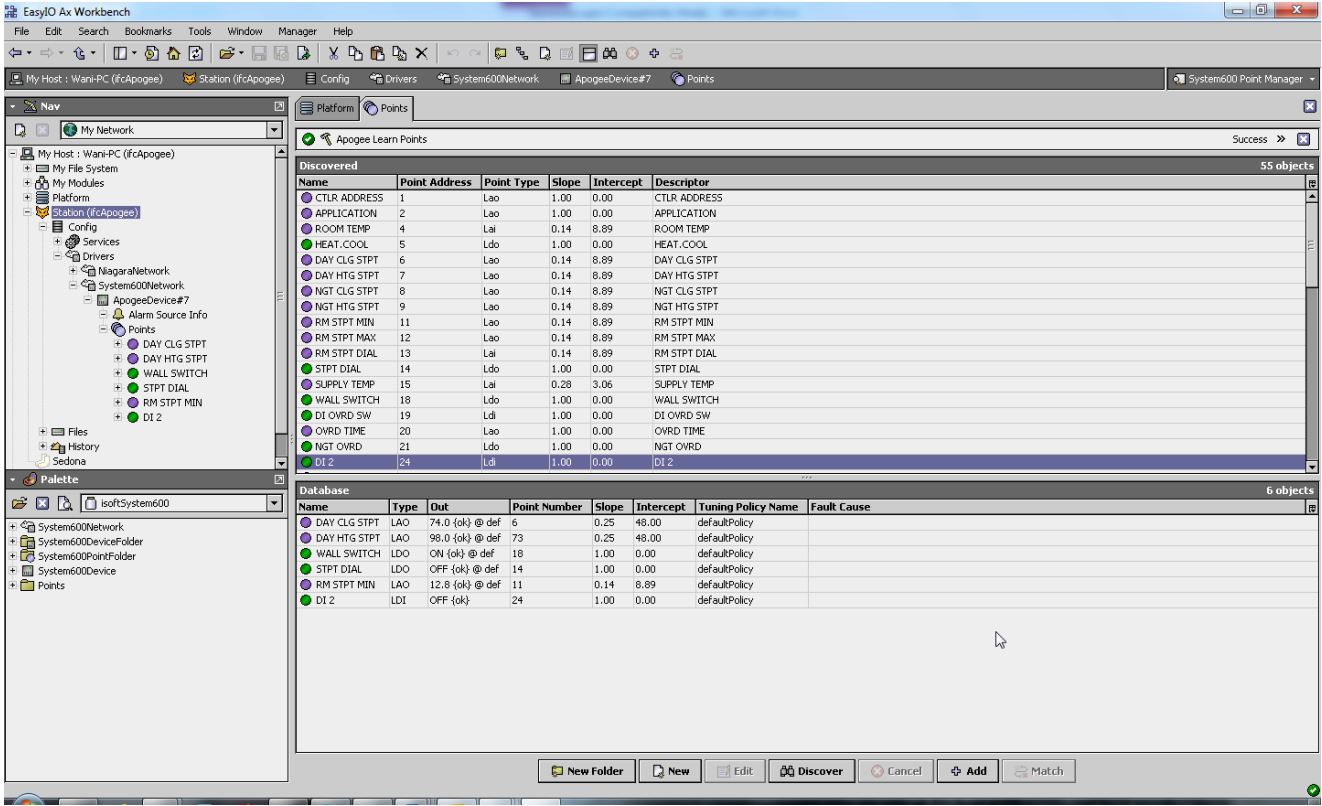
The System600 Point Manager is the default view when you double-click on a “points” folder (a System600PointDeviceExt type folder) under a System600 Device in the Nav tree. This manager view provides a quick and easy way to display and learn System600 points in a System600 device.

The System600 Point Manager is the default view for any System600PointDeviceExt container. The System600 Point Manager is a table-based view, where each row represents a unique Unit number within a device. Below is an example System600Point Manager view.



The “New Folder”, “New”, and “Edit” buttons are not unique to the System600 Device Manager, and are explained in the “Niagara N4 User’s Guide” in the “Driver Architecture” section. The “Match” button is not used for the System600 driver.

The “Discover” button implements functionality that is unique and tailored to discovering System600 devices. By clicking the “Discover” button, the “learn” mode of the manager is invoked (the panes will be split, and a “discovery” table will be displayed in the top pane).



Single or multiple points can be added as control points with System600ProxyExt extensions by selecting the discovered row(s) in the top pane, and clicking add. Doing so will cause the “Add” dialog box to appear:
 Once the point(s) are satisfactorily edited, click “OK” to create the proxy points corresponding to the point property.

Licensing

System600 driver License is running independently from the Tridium license, it has no restriction to run to any of the existing license vendor.

The System600 license provide 2 hour demo license without the unlock code. After the demo license expired the System600 Driver communication will stop automatically and will show fault in the System600Network level. "System600 license expired". To extend the demo period user required to restart the station or reboot the JACE.

To request the license please submit the JACE/Web Supervisor host ID, to unlock the driver simply go to the license property, select the word "License" and click right mouse button, action and invoke command "License Update", the dialog "License Update" will appear as below. Place the Signature code at the "Unlock Code" and select the point Count (if applicable) 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 reboot the JACE to apply the change.

