

An introduction to Sedona For Niagara^{AX} programmers

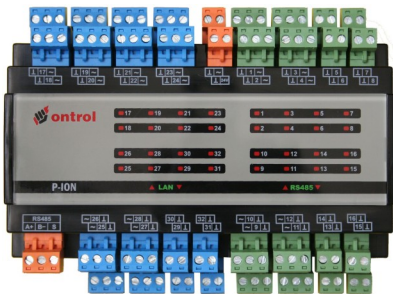
Prerequisites

- Workplace^{AX} software (or equivalent) with sedonanet feature in license
- Basic Niagara^{AX} programming knowledge, preferably TCP certification
- Any Sedona device to work with

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1	Download & Install Sedona Bundles
2	Connecting to a Sedona Device
3	Programming a Sedona Device
4	Sedona Tools



Ontrol P-ION Programmable Plant Controller



Ontrol R-ION Programmable color touch-screen room controller

STEP

1

Download
Sedona
Bundles

Basic
Tridium
TXS
Sedona
Bundle

Product or
vendor
specific
bundles

Download Sedona Bundles

- Download basic Tridium TXS Sedona bundle¹
 - version 1.2.28.4 for Niagara^{AX} 3.7
 - version 1.2.100.1 for Niagara^{AX} 3.8

These may be available from your standard Niagara download channel (niagara-community.com).

Otherwise, they can be downloaded at : <http://www.ontrol.com/sedonadownload>

- Download any additional Sedona bundles that may be required for the particular Sedona device you'll be working with.

For ontrol products : <http://www.ontrol.com/sedonadownload>

¹ Recommended version: TXS Sedona Bundle 1.2.100.1 for NiagaraAX 3.8

STEP

1

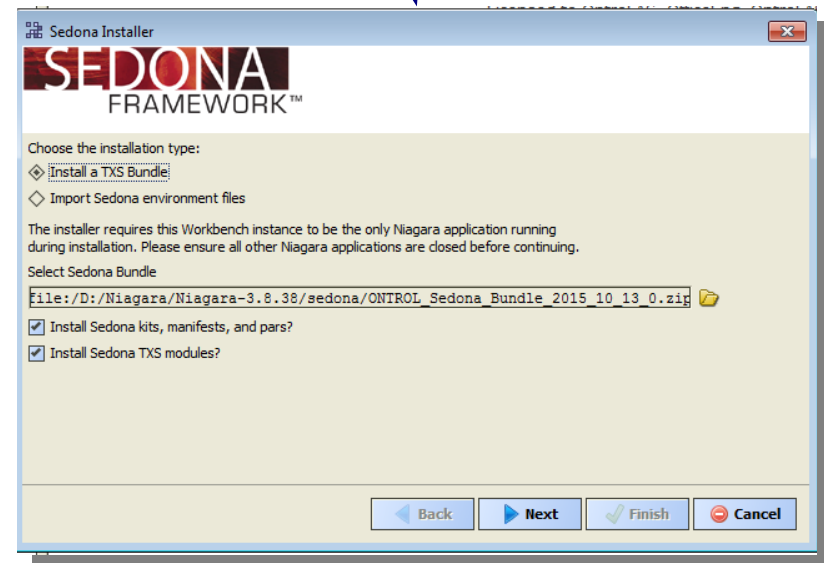
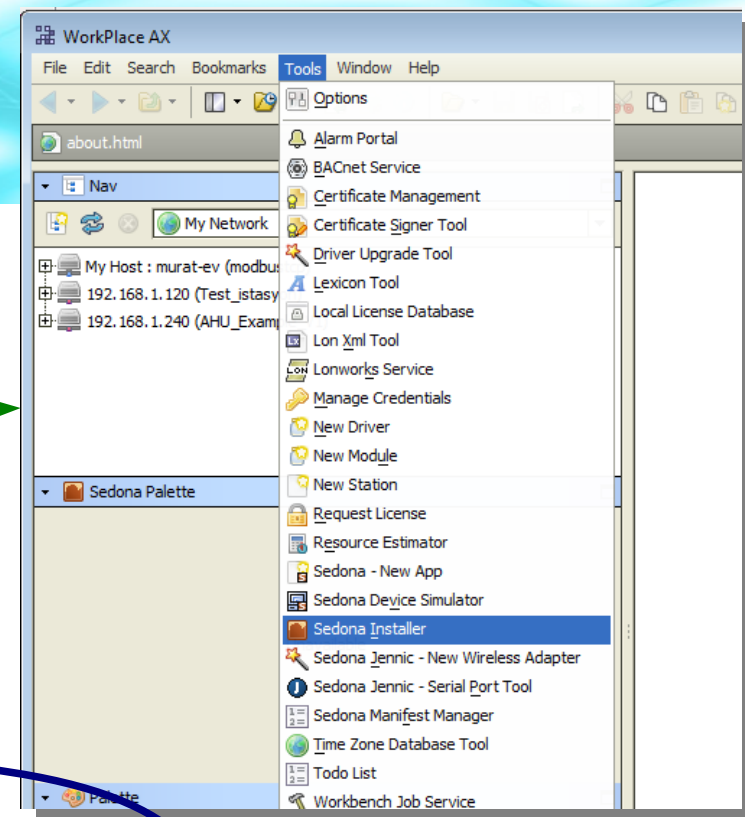
Install
Sedona
Bundles

Install Sedona Bundles

- In WorkPlace^{AX} select SedonaInstaller from the Tools menu¹.
- Select option 'Install a TXS Bundle'.
Choose the downloaded zip file.
Keep both checkboxes checked.
Click 'NEXT'.
- Follow instructions²
- Repeat for every bundle downloaded

¹ If you can not find it SedonaInstaller. Contact support@ontrol.com

² If prompted to downgrade some modules, answer 'YES'



STEP

1

Download
product
specific
utilities /
files

Device Specific Files

If you'll be working on an Ontrol R-ION :

R-ION requires additional utilities because (in its basic version) it is not an IP device.

- Download and install SoxToSerial utility
(this runs in the background to route IP packets/from USB port)
- Download and unpack native font files
(for use on graphic page design)

See document “Getting Started With R-ION”
document for detailed instructions (at ontrol.com/rion)

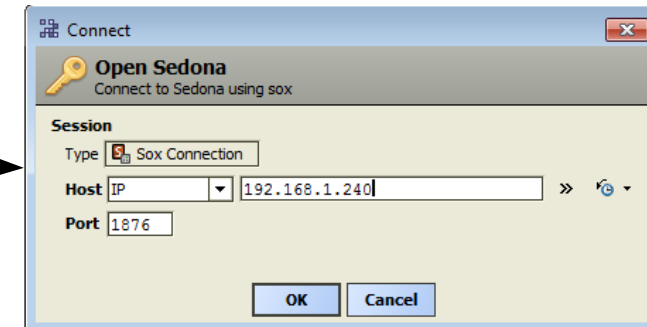
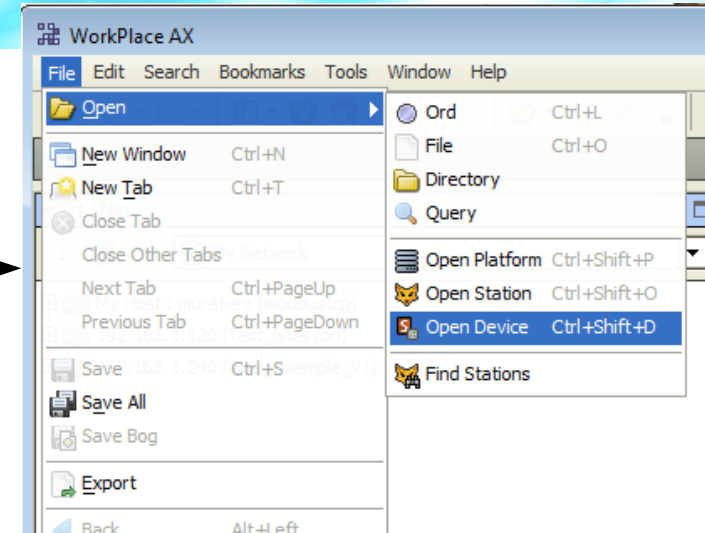


STEP 2

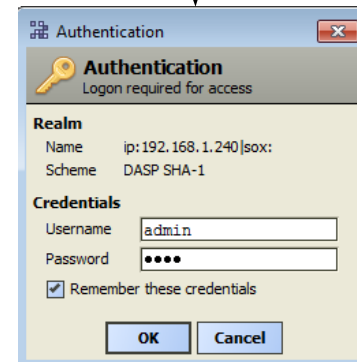
Connecting to a Sedona Device

Connecting to a Sedona Device

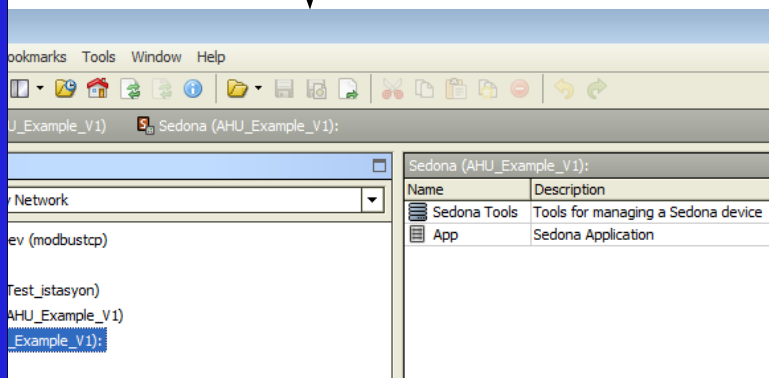
1. File >> Open >> Open Device
2. Type in IP address, click OK
3. Enter username & password
4. Success!



Default IPs are:
 For Rion with USB connection: localhost
 For Pion: 192.168.1.240



Default credentials are:
 For Rion: admin / 1234
 For Pion: admin / no password



STEP 2

Connecting
to a
Sedona
Device

Missing kit
manifests
problem

Troubleshooting 1: Missing kit manifests

To connect to a device, you need to have manifest files¹ for all kits that the current App in the device is using.

Manifest (or kit) files are typically distributed as part of a bundle (see step x, page y).

If the displayed error relates to a manufacturer specific kit, you need to contact the vendor to obtain the kit or manifest files. There is no other way.

¹ Manifest files specify meta-data about a kit such as its name, version, vendor, and description. The manifest also enumerates all the kit's component types that are available for constructing applications.



STEP 2

Connecting
to a
Sedona
Device

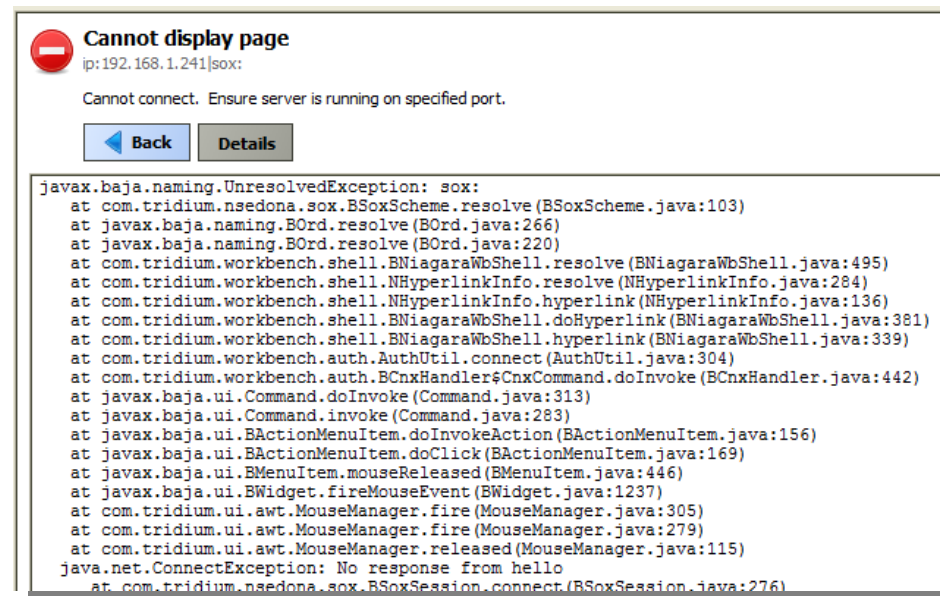
Cannot
connect
problem

Troubleshooting 2: Cannot connect

This error is thrown when a Sedona device doesn't respond.

- Check that the IP address is correct
- Check that the port number¹ is correct
- Check the IP connections (try DOS ping)

¹ Default sox port is 1876. The device may have been set to use a different port, but this would be rare.



STEP 3

Program a
Sedona
Device

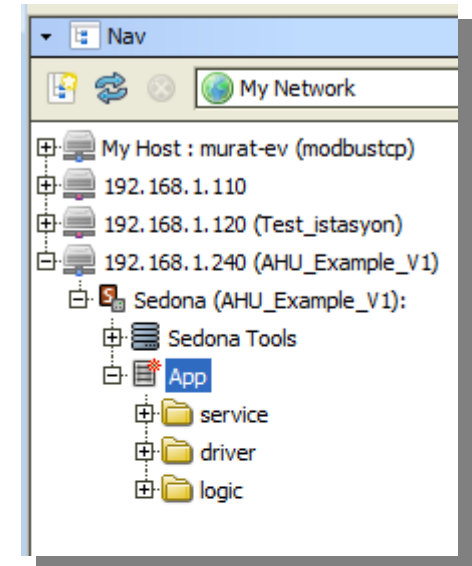
App

Programming a Sedona Device App Container

App header is the main container for

- logic
- services
- components
- drivers
- etc.

similar to Config container for a Niagara station.



STEP 3

Program a
Sedona
Device

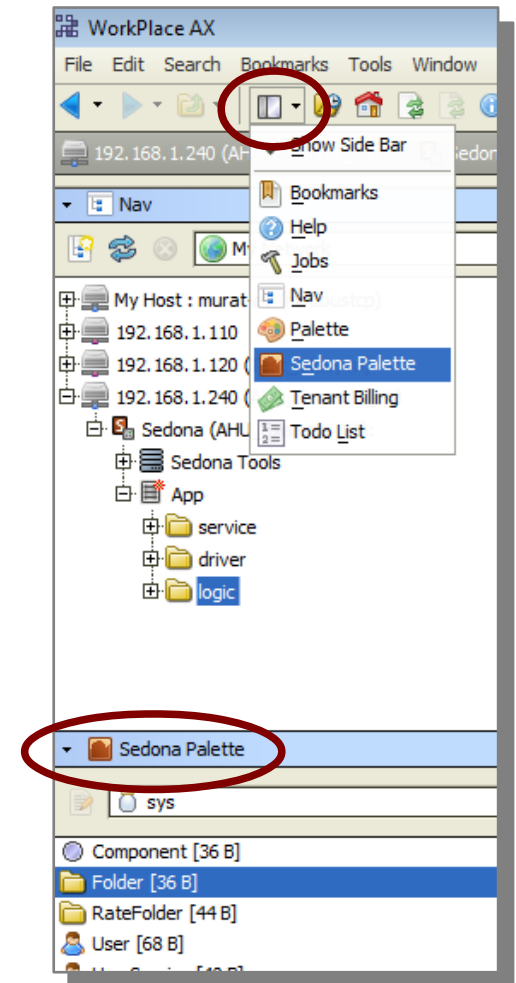
Sedona
Palette

Programming a Sedona Device Sedona Palette

You can't add components from the standard Niagara palettes, but Sedona has a similar set of palettes. Activate it from the Sidebars button on the toolbar.

Each kit has an associated palette (similar to modules in Niagara).

The Sedona palette shows only kits installed on the connected device. Additional kits can be added to the device, to be able to use additional components/functions. See page ...



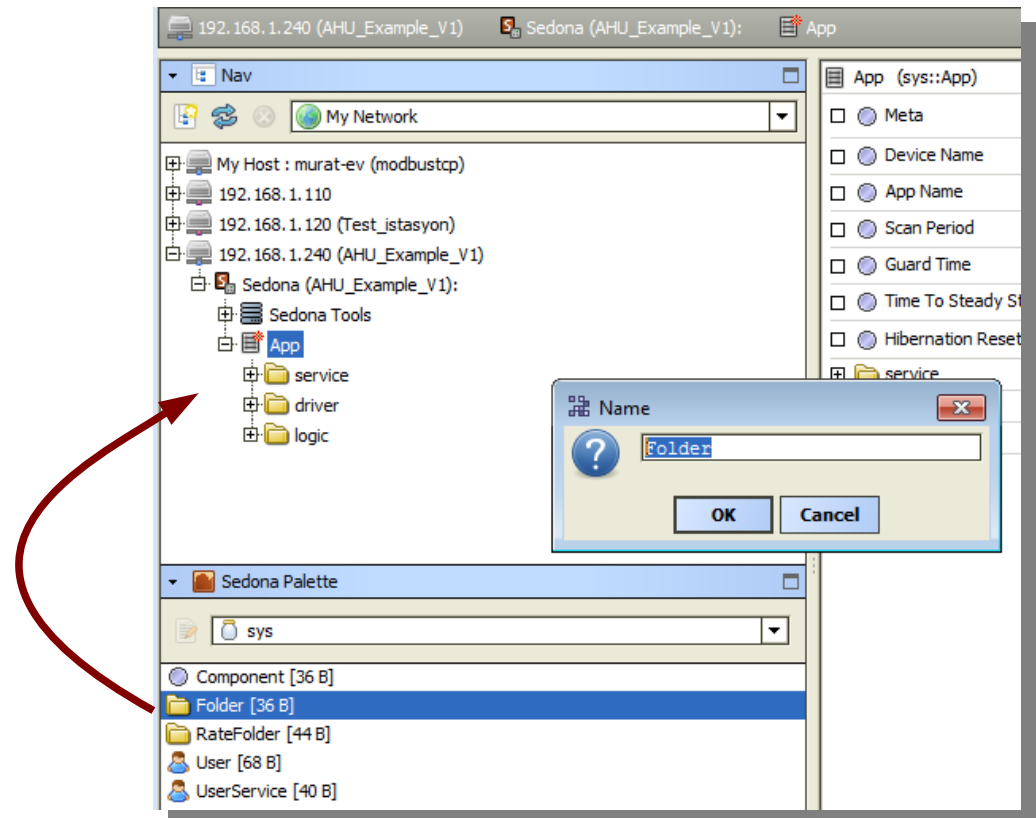
STEP 3

Program a
Sedona
Device

Adding a
folder

Programming a Sedona Device Adding a folder

Drag & drop from the Sys palette to add a new folder.



STEP 3

Program a
Sedona
Device

Standard
component
views

Programming a Sedona Device

Standard component views

Right-click on folders/components and select from Views submenu to access:

- Wiresheets
- Property sheets
- Slot sheets
- Link sheets

Usage is very similar to Niagara. Use techniques you are already familiar with to add components, set properties, make links, configure logic....

STEP 3

Program a
Sedona
Device

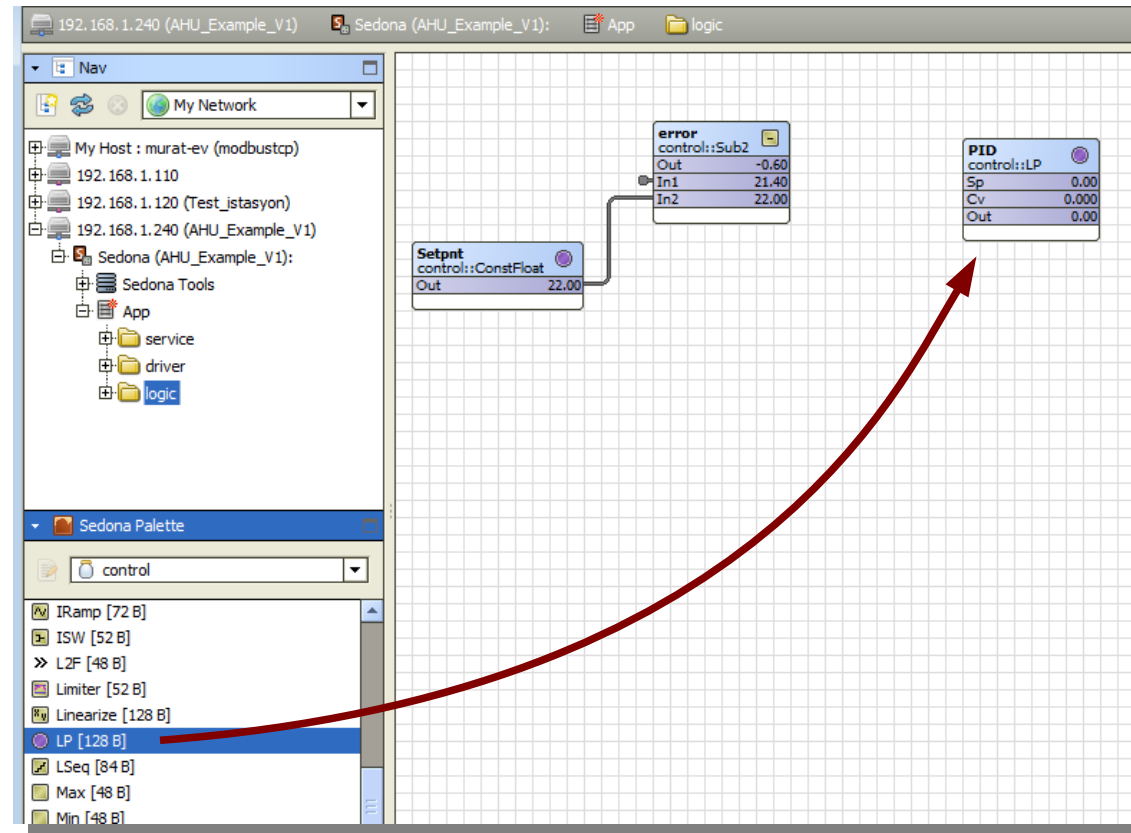
Adding a
component

Programming a Sedona Device Adding components

Drag & drop from any Sedona palette.

If a palette is not visible in the sidebar, it means the related manifest file is not installed on the device.

Use the KitManager tool to install additional kits to the device when necessary. See page ...



STEP 3

Program a
Sedona
Device

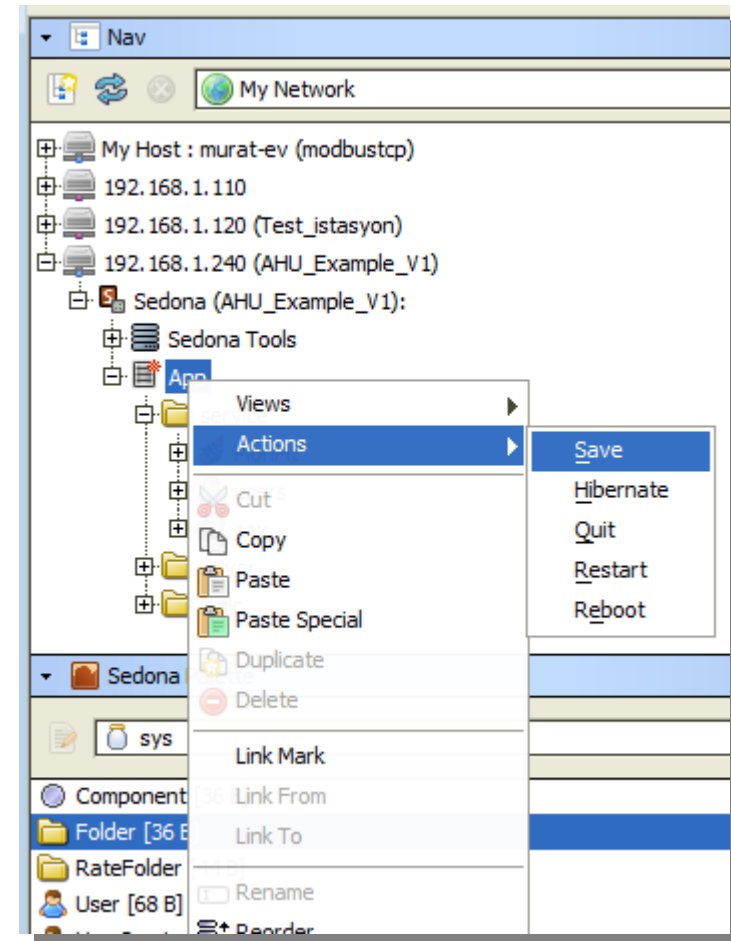
Save App

Programming a Sedona Device Save App

Remember to save the App every once in a while.

The changes you make while programming are not stored in non-volatile memory. You could lose your work if power is interrupted or the device resets.

Right-click on App container and select App>Save to make your changes permanent in device's nonvolatile memory.



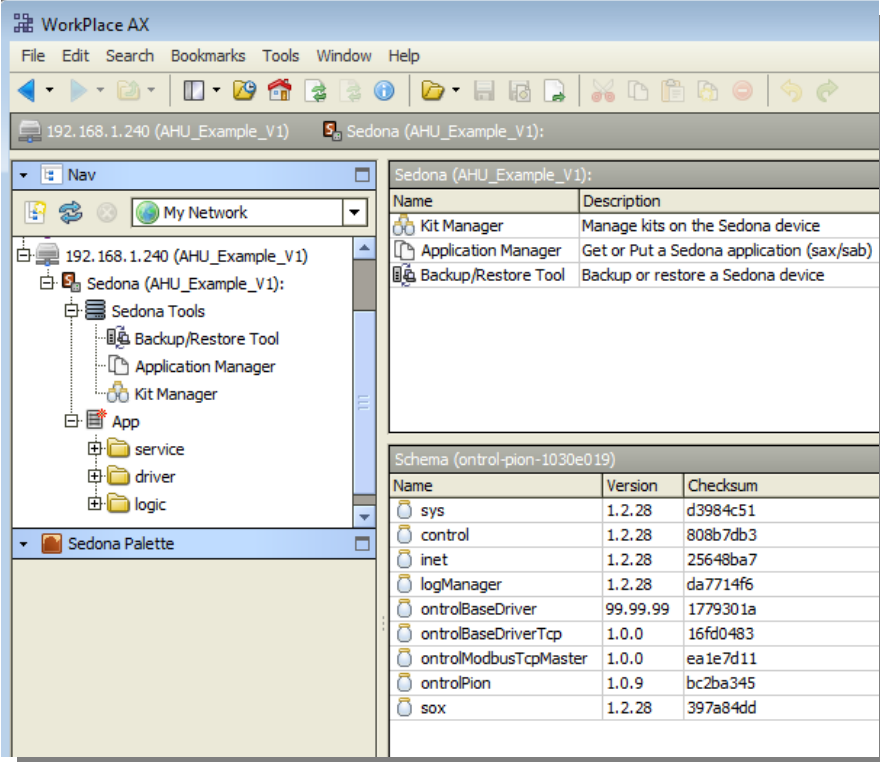
STEP 4

Sedona Tools

Sedona Provisioning Sedona Tools

Standard Sedona Tools:

- Kit Manager
- Application Manager
- Backup/Restore Tool



The screenshot shows the WorkPlace AX interface with the following components:

- Nav Panel:** Shows a tree view of the network structure. Under '192.168.1.240 (AHU_Example_V1)', there is a folder 'Sedona (AHU_Example_V1)' containing 'Sedona Tools' (with sub-items 'Backup/Restore Tool', 'Application Manager', and 'Kit Manager'), 'App', 'service', 'driver', and 'logic'.
- Sedona (AHU_Example_V1):** A table listing the tools:

Name	Description
Kit Manager	Manage kits on the Sedona device
Application Manager	Get or Put a Sedona application (sax/sab)
Backup/Restore Tool	Backup or restore a Sedona device
- Schema (ontrol-pion-1030e019):** A table listing system components:

Name	Version	Checksum
sys	1.2.28	d3984c51
control	1.2.28	808b7db3
inet	1.2.28	25648ba7
logManager	1.2.28	da7714f6
ontrolBaseDriver	99.99.99	1779301a
ontrolBaseDriverTcp	1.0.0	16fd0483
ontrolModbusTcpMaster	1.0.0	ea1e7d11
ontrolPion	1.0.9	bc2ba345
sox	1.2.28	397a84dd

STEP 4

Sedona Provisioning Kit Manager Tool

Sedona Tools

Kit Manager Tool

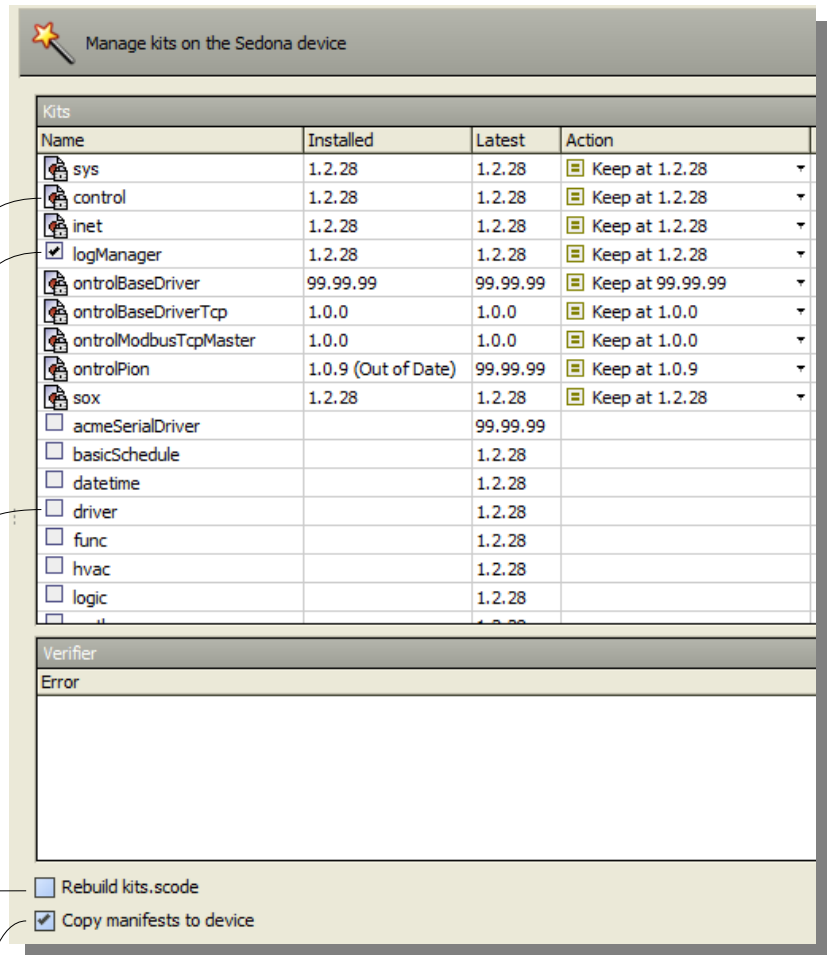
Use to add/remove kits from the device

Symbol for a kit that is installed in the device and can't be removed because it is required for the current App.

Checked boxes for kits that are installed in the device that can be removed

Unchecked boxes for kits available on the PC that can be added to the device

This is automatically checked when you add/remove kits or when a new version of an installed kit introduces a significant change. You do not need to check it under normal circumstances.



Name	Installed	Latest	Action
★ sys	1.2.28	1.2.28	Keep at 1.2.28
★ control	1.2.28	1.2.28	Keep at 1.2.28
★ inet	1.2.28	1.2.28	Keep at 1.2.28
<input checked="" type="checkbox"/> logManager	1.2.28	1.2.28	Keep at 1.2.28
★ ontronBaseDriver	99.99.99	99.99.99	Keep at 99.99.99
★ ontronBaseDriverTcp	1.0.0	1.0.0	Keep at 1.0.0
★ ontronModbusTcpMaster	1.0.0	1.0.0	Keep at 1.0.0
★ ontronPion	1.0.9 (Out of Date)	99.99.99	Keep at 1.0.9
★ sox	1.2.28	1.2.28	Keep at 1.2.28
<input type="checkbox"/> acmeSerialDriver		99.99.99	
<input type="checkbox"/> basicSchedule		1.2.28	
<input type="checkbox"/> datetime		1.2.28	
<input type="checkbox"/> driver		1.2.28	
<input type="checkbox"/> func		1.2.28	
<input type="checkbox"/> hvac		1.2.28	
<input type="checkbox"/> logic		1.2.28	

Rebuild kits.scode
 Copy manifests to device

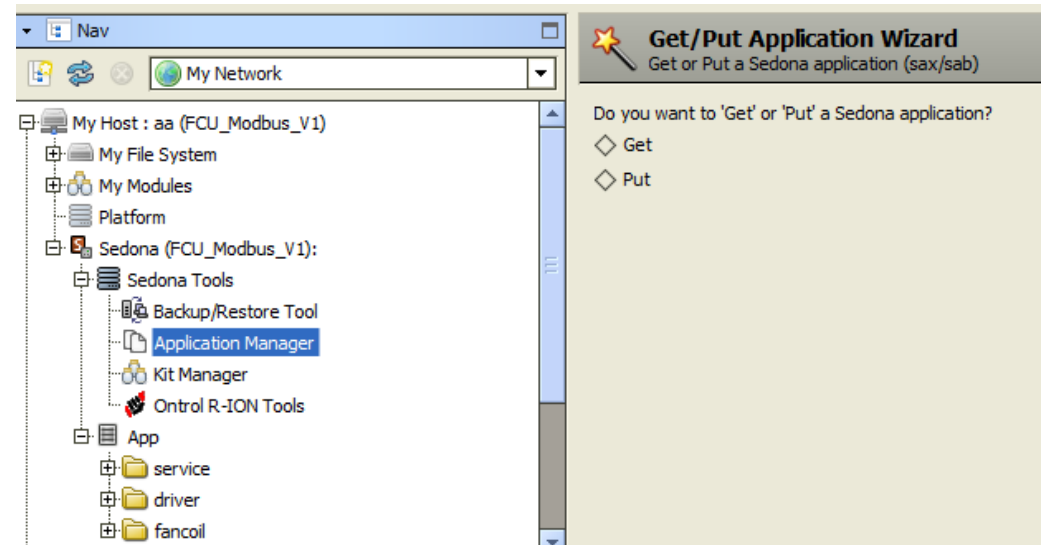
Leaving this checked will transfer a copy of the installed kits' manifest files to the device. This will ensure that manifest files are available to any PC that connects to this device, preventing the "missing kit manifests" error (see page ...) Make sure device has enough memory to host the manifest files

STEP 4

Sedona Provisioning Application Manager Tool

Use to :

- 'GET' an App from the device
(make a backup)
- 'PUT' an App to the device
(restore a backup)



Sedona
Tools

Application
Manager
Tool

STEP 4

Sedona Provisioning Backup/Restore Tool

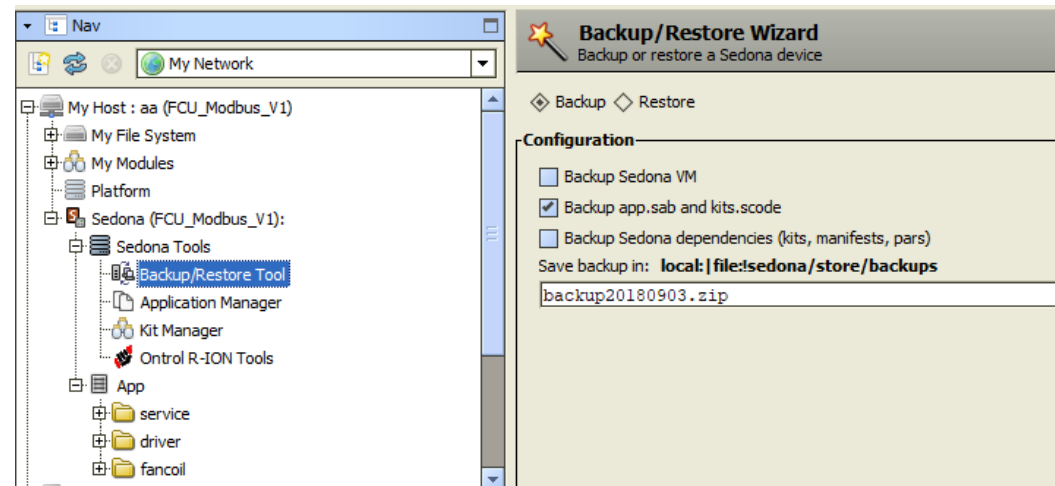
Sedona
Tools

Backup /
Restore
Tool

Backup/Restore Tool is not recommended by Ontrol.

For R-ION use “Ontrol R-ION Tools”¹

For other Ontrol Device use
“Application Manager”



¹ See document “OxPage Design”