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## NiagaraAX Sedona Framework TXS-1.2 Installer Guide

In NiagaraAX-3.6 and later, a `sedonaInstaller` module is provided as part of a NiagaraAX Workbench installation. This differs from earlier NiagaraAX versions, where the Sedona Framework was packaged as part of the Workbench installation. Beginning in Sedona Framework TXS-1.2, the `sedonaInstaller` module is also provided as part of a Sedona Framework Workbench installation. The `sedonaInstaller` module provides a Workbench *tool* for installing Sedona Framework software and related files. The **Sedona Installer** tool functions identically in both versions of Workbench.

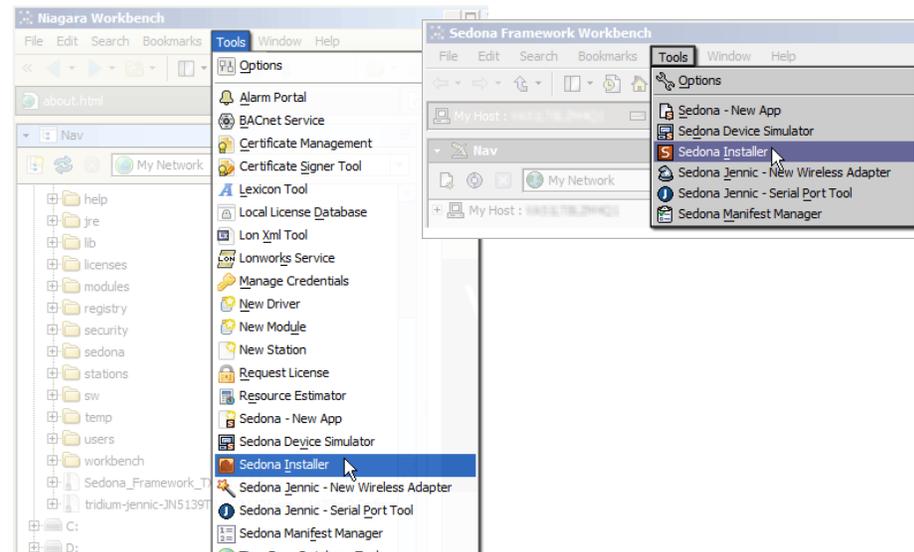
Enhanced functionality in Sedona Framework TXS-1.2 allows for two types of input options in the **Sedona Installer**. As in the earlier TXS-1.1 release, you can install Sedona Framework using a special software image—the *Sedona Framework TXS Bundle*. You also have the option to import Sedona environment files, either individually or in an archived (.zip) file.

**Note:** *If using NiagaraAX-3.8, and planning to install Sedona Framework TXS, you must use an “update 1” bundle of TXS-1.2: version 1.2.1xx (for example 1.2.100). This bundle is specific for use with AX-3.8, and is not backward compatible with AX-3.7. Whereas if using AX-3.7/AX-3.7u1, you use an earlier TXS-1.2 bundle: version 1.2.2x (for example 1.2.28.4). And in the case of AX-3.7u1 (3.7.106 or later), after installing the 1.2.28.4 bundle you need to download and install a patched nsedona module, version 1.2.28.1.*

*For more details, see sections “Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility” on page 4, “Sedona TXS 1.2 considerations with AX-3.7u1” on page 4, and “About Sedona TXS installations with AX-3.8” on page 5.*

The **Sedona Installer** is under the **Tools** menu in Workbench, as shown in [Figure 1-1](#). The Sedona Framework TXS Bundles and individual Sedona environment files (kits, manifests, pars, and zip files) can be downloaded from Niagara-Central.com or from a third-party, such as vendors of Sedona devices.

**Figure 1-1** Sedona Installer in Tools menu for Niagara Workbench (left) and Sedona Workbench (right)



This document describes Sedona Framework TXS Bundle and Sedona environment file installation, and includes the following sections:

- [“About Sedona TXS licensing”](#) on page 2
- [“Sedona Framework terms”](#) on page 3
- [“About the sedona.home property”](#) on page 3
- [“About Sedona Framework Bundles”](#) on page 4
  - [“Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility”](#) on page 4
- [“Sedona TXS 1.2 considerations with AX-3.7u1”](#) on page 4
- [“About Sedona TXS installations with AX-3.8”](#) on page 5
- [“About bundle upgrades: Workbench, JACE, and devices”](#) on page 6
- [“About upgrading from AX-3.6/TXS 1.1”](#) on page 6
- [“Installing a Sedona Framework Bundle”](#) on page 6
- [“About Sedona environment files”](#) on page 8
- [“About environment file updates: Workbench, JACE, devices”](#) on page 9
- [“Importing a Sedona Framework environment file”](#) on page 9
- [“Guidelines for creating zip file archives of Sedona environment files”](#) on page 11
- [“Setting up a Sedona development environment”](#) on page 13
- [“About the Sedona development workflow”](#) on page 14
- [“Document change log”](#) on page 15

## About Sedona TXS licensing

The licensing options for Sedona TXS reflect the flexibility of the Sedona Framework product. Consider the following points about licensing when designing and licensing your Sedona TXS systems.

- **Sedona Framework networks**  
For Sedona TXS, each physical network implementation requires a unique Niagara driver network for device integration. For example, separate and independent drivers are provided for Ethernet/WiFi and 802.15.4. The licensing limits of one type of network do not impinge upon the licensing limits on another type of network. For example, limiting the device or point count on an Ethernet network does not affect the device or point count on an 802.15.4 network. Moreover, device and point count limits are imposed independently so that, for example, unused device count does not provide allowance for more points than specified by the “point.limit” value.
- **Platform**  
Licensed features may apply to embedded platforms (also SoftJACE) or to your Workbench installation. Refer to [“Sedona Framework licensed features”](#) for more information about which features apply to particular platforms.

### **Sedona Framework licensed features**

The following features are licensed as part of the Sedona TXS release:

- **sedonaProvisioning**  
This feature is relevant for Workbench installations. It enables the use of the Sedona Framework provisioning tools, as follows:
  - Kit Manager (manage kits)
  - Application Manager (get/put an app)
  - Backup/Restore Tool (backup/restore a device)
- **sox**  
This feature is relevant for Workbench installations. It enables Sox connections in Workbench. Without this feature you cannot open a Sox connection (tunneled or direct) to any Sedona Framework device from Workbench.
- **tunneling sox="true"**  
This feature is relevant for JACE or Supervisor installations. This is an enhancement to the existing tunneling feature, so you must have the standard tunneling feature in your license. In the “tunneling” feature line, there is a “sox” attribute that is set to “true” to allow the Sox Tunnel service to run. The SoxTunnel service requires this license feature or it goes into fault.
- **sedonanet**  
This license feature is used to enable the Sedona Framework Ethernet/Wi-Fi Network and sets the maximum number of Sedona Framework devices and points that are allowed in that network. The limits are expressed using the attributes “point.limit” and “device.limit”. These limits do not affect point and device limits set by the jen6lp license feature. Additionally, if the “export” attribute is set to “export=false”, Chopan Server functionality is disabled (see the following Note).  
*Note: As of the TXS 1.1 and later releases, Chopan is only supported on Jennic platforms.*

- **jen6lp**  
This feature is relevant for JACE installations. It enables a Sedona Jen6lp Network and sets the maximum number of Jennic Devices and points that are allowed in that network. The limits are expressed using the attributes “point.limit” and “device.limit”. These limits do not affect point and device limits set by the sedonanet license feature. Additionally, if the “export” attribute is set to “export=false”, Chopan Server functionality is disabled, thus disallowing the proper operation of hibernating devices within the Sedona Jennic network.
- **jennic**  
This feature is relevant for JACE installations or possibly for Workbench host platforms. On an embedded controller, the feature is required in order to use the Jennic option card. Workbench does not require this feature unless you are using the USB wireless adapter (coordinator) with the Workbench host. Both the New Jennic Wireless Adapter and the Jennic Serial Port Tool do not function without this feature.

## Sedona Framework terms

The following terms and abbreviations are related to the Sedona Installer.

**Bundle** Sedona Framework TXS software is distributed in a “bundle”. A Sedona Framework Bundle is a special image (set of files) that is available from Niagara-Central ([www.niagara-central.com](http://www.niagara-central.com)). You use the Sedona Installer tool in Workbench to install a bundle. See the section, “[About Sedona Framework Bundles](#)” on page 4.

**Platform Archive (PAR file)** A PAR file is a zip file with a .par extension that provides a way of organizing various files and metadata about a platform into a single entity. The term “platform” is used to refer to the Sedona capabilities of a given device or class of devices. It does not specify what kits are loaded onto the device at a given time, however it does define which kits are supported (i.e. that may be added to the device if desired). The platform archive contains an XML file that describes the platform. Vendors can include other device-specific content in their PAR files, such as a device simulator SVM. PAR files can be imported using the TXS-1.2 Sedona Installer tool in Workbench.

**Kit** Developers build libraries of ready-to-use components and then deploy them as **kits**. A kit is comparable to a module on a NiagaraAX platform. The app in a device instantiates components and services contained in its installed kits. You must have the appropriate kits available on your Workbench platform to change the “core” software of a Sedona Framework device. The Sedona Tools in Workbench include a “Kit Manager” view to manage kits on a Sedona device.

**Manifest** Each kit has a corresponding manifest, with all metadata needed by tools like Workbench to connect via Sox to a Sedona device, and for a station to support Sedona proxy points in that device. Manifest files are compact XML files, named using a kitName-checksum convention similar to kit files, but with an .xml extension. You use the Manifest Manager view of either Sedona network type to manage kit manifests on the NiagaraAX host (JACE or Supervisor), or the Sedona Manifest Manager view in Workbench tools to manage manifests on your Workbench host. For more details see the *Sedona Framework Manifest Manager Engineering Notes* document for more information about working with manifests.

**sedona.home** specifies the root directory of the Sedona Framework installation. Beginning in AX-3.7, the `sedona.home` property is a fixed location, `!sedona/`. The Sedona Installer installs Sedona Framework Bundles and environment files only to `!sedona/`. For more details, see “[About the sedona.home property](#)” on page 3.

## About the `sedona.home` property

The `system.properties` file (located, for example, `c:\niagara\Niagara-3.x.xx\lib`) contains values for Sedona Framework system properties, including the `sedona.home` property.

In AX-3.6, you can change the value for `sedona.home` property to set a different location for your Sedona Framework installation. Beginning in AX-3.7, the `sedona.home` property is a fixed location, `!sedona/`. The Sedona Installer installs Sedona Framework Bundles and environment files only to `!sedona/`.

**Note:** *In Sedona TXS-1.2, you should NOT change the `sedona.home` property.*

## About Sedona Framework Bundles

When using the Sedona Installer, you must select the type of file you wish to install. The options are either a Sedona TXS Bundle or Sedona environment files. Sedona Bundles and environment files can be downloaded from Niagara-Central.com or obtained from third-parties, such as Sedona device vendors.

A Sedona Framework Bundle, typically referred to as simply a “bundle”, is available on Niagara-Central.com as a downloadable image. Bundles are specifically designed for use with the Sedona Installer. Any archive file that is formatted according to the Bundle specification may be installed using the Sedona Installer. For details, see section “[Guidelines for creating zip file archives of Sedona environment files](#)” on page 11.

Sedona Framework TXS bundles are available on Niagara-Central.com as compressed files in \*.zip format. The Sedona TXS bundle contains a Sedona Framework open source build and the core Niagara modules that are necessary to communicate with and manage Sedona Framework modules, plus additional modules that facilitate connecting with Tridium-supported platforms. See “[Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility](#)”.

In Sedona Framework TXS-1.2, the Sedona Installer no longer makes a backup of the existing installation when you install a new bundle, since all Sedona files (of any version) are installed in one location: the /kits, /manifests, and /platforms folders under !sedona/. The filenames and/or paths for Sedona files contain the version number and/or checksum, so a newer version cannot overwrite an older one. Since all the files from an older version remain when new a new bundle is installed, there is no need for a backup. Also, having all the Sedona files in one location enables you to connect to devices running older kits as well as new ones.

### Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility

When using the Sedona Installer in NiagaraAX Workbench (AX-3.8, AX-3.7u1, or AX-3.7) to install a Sedona Framework TXS bundle, you must select a bundle version compatible with your NiagaraAX installation. (AX-3.6 requires a Sedona TXS-1.1 bundle, and is covered in an earlier document revision).

NiagaraAX Version	Required Sedona Bundle Version / File	Notes
AX-3.7 (e.g. 3.7.44)	1.2.2x (e.g. 1.2.28.4) Sedona_Framework_TXS-1.2.28.4.zip	For proper security and support, we strongly recommend you first upgrade AX-3.7 to AX-3.7u1.
AX-3.7u1 (e.g. 3.7.106)	1.2.2x (e.g. 1.2.28.4) Sedona_Framework_TXS-1.2.28.4.zip	After installing the 1.2.28.4 Sedona TXS version, you need to download and install a 1.2.28.1 version of the nsedona module. Do this <i>before</i> recommissioning JACE platforms.
AX-3.8 (e.g. 3.8.38)	1.2.1xx (e.g. 1.2.100) Sedona_Framework_TXS-1.2.100.zip	The “update 1” release of TXS-1.2, especially for use with AX-3.8. No subsequent module installation is required.

For more details see the following related sections:

- “[Sedona TXS 1.2 considerations with AX-3.7u1](#)” on page 4
- “[About Sedona TXS installations with AX-3.8](#)” on page 5
- “[Installing Sedona bundles](#)” on page 6

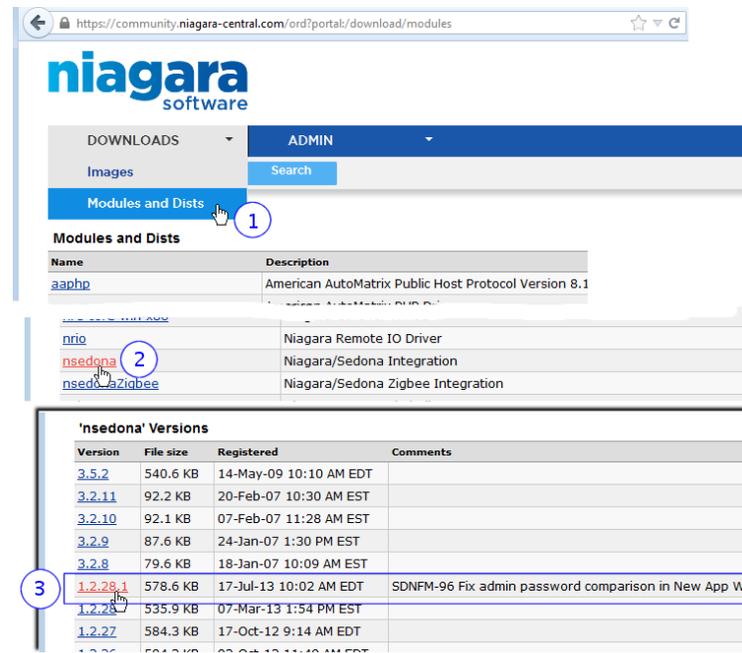
## Sedona TXS 1.2 considerations with AX-3.7u1

NiagaraAX-3.7 or later is required for Sedona Framework TXS-1.2. In 2013, security “update” releases became available for AX-3.7, AX-3.6, and AX-3.5, where for AX-3.7 this was “update 1” release, denoted here as “AX-3.7u1”. At the time of this document, the current released AX-3.7u1 build is 3.7.106. We strongly recommend any AX-3.7 system is upgraded to AX-3.7u1, for proper security and support.

After installing the update release to AX-3.7u1 (or if starting with a new AX-3.7u1 installation), you can install the original released Sedona Framework TXS-1.2 bundle (e.g. version 1.2.28.4). However, because of a code change in AX-3.7u1 from the original AX-3.7 release, you also need to download and install a “patched” level nsedona module: version 1.2.28.1

Find this file on the “Software” area of niagara-central.com, under **Downloads, Modules and Dists**, as shown in [Figure 1-2](#).

**Figure 1-2** Selecting patched nsedona 1.2.28.1 version module for download on Niagara-Central



Download and save this nsedona . jar file. To install do the following:

### Installing a patched nsedona module on AX-3.7u1 system

- Step 1 Using the AX-3.7u1 Niagara Workbench with the Sedona Framework TXS-1.2 bundle already installed, save and stop any locally running station (if applicable).
- Step 2 Close (exit) this AX-3.7u1 Niagara Workbench.
- Step 3 Copy the downloaded 1.2.28.1 nsedona . jar file into this Workbench's !modules folder, overwriting the existing nsedona . jar file.
- Step 4 Restart the AX-3.7u1 Niagara Workbench. If you stopped a locally running station, restart it now.
- Step 5 For each JACE running AX-3.7u1 that is configured with Sedona Framework TXS-1.2:
  - Open a platform connection, then save its station to a local copy.
  - Use the **Software Manager** to upgrade its nsedona module from version 1.2.28 to 1.2.28.1**Note:** This will result in a reboot of the JACE.

For more details see the following:

- “About Sedona Framework Bundles” on page 4, including “Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility”.
- “Installing Sedona bundles” on page 6
- The latest *NiagaraAX 2013 Security Updates* document, which provides details about upgrading a AX-3.7 system to AX-3.7u1.

## About Sedona TXS installations with AX-3.8

The 2014 release of NiagaraAX-3.8 included several changes from AX-3.7/AX-3.7u1 in packages and module locations. These changes prevented the original Sedona Framework TXS 1.2 release bundle (version 1.2.28.4) from fully functioning properly with AX-3.8. For example, a direct Sox connection from AX-3.8 NiagaraAX Workbench to a Sedona device did not work.

An “update 1” release of the Sedona Framework TXS-1.2 bundle was developed for use with AX-3.8:

- Sedona Framework TXS 1.2.1xx (e.g. Sedona\_Framework\_TXS-1.2.100.zip)  
Where the build-number of 100 (or higher) indicates it is an *update 1 level* build.

This update release provides key Sedona TXS-1.2 fixes with AX-3.8, but does not provide any additional features from the original Sedona Framework TXS-1.2 release. It is *important* to note the following:

- Sedona Framework TXS modules with a version of 1.2.2x, e.g. 1.2.28.4 (where build 2x < 100) will not run correctly in an AX-3.8 installation.
- Sedona Framework TXS modules with a version of 1.2.1xx, e.g. 1.2.100 (where build 1xx >= 100) will not run correctly in an AX-3.7/AX-3.7u1 installation.

For related details, see the following:

- “About Sedona Framework Bundles”, including “Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility” on page 4.

## About bundle upgrades: Workbench, JACE, and devices

Since new NiagaraAX modules may be installed as part of a new Sedona Framework Bundle installation, do the following *after* a Sedona Framework Bundle upgrade to your Workbench installation:

- **Update your JACE modules**  
For any JACE that uses Sedona TXS features, recommission that JACE using the Workbench and the platform Commissioning Wizard to make sure that it gets the updated NiagaraAX modules.
- **Update applicable manifests on the JACE**  
For any JACE running a Sedona Network, use the platform Sedona Environment Manager tool to update applicable manifests on the JACE.

See the “Sedona environment management” section in the *NiagaraAX Sedona Networks Guide* for more details.

## About upgrading from AX-3.6/TXS 1.1

If you plan to upgrade from NiagaraAX-3.6 with Sedona Framework TXS-1.1 to either AX-3.8, AX-3.7u1, or AX-3.7 that is enabled for Sedona Framework TXS-1.2, after first setting up the AX-3.8/AX-3.7u1/AX-3.7 installation, install the following Sedona bundles and related files in the order shown here:

### Upgrading from AX-3.6/TXS-1.1

This procedure describes the recommended method to use when upgrading from a NiagaraAX-3.6 installation running Sedona Framework TXS-1.1 to AX-3.8/AX-3.7u1/AX-3.7 running TXS-1.2.

Prerequisites: you must have AX-3.8/AX-3.7u1/AX-3.7 Workbench installed, licensed, and running.

- Step 1 Install the Sedona Framework TXS-1.2 Bundle. See “Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility” on page 4.
- Step 2 Install Sedona Framework TXS-1.1 Bundle - *ONLY* the Sedona kits, manifests, and pars, *NOT* the modules.
- Step 3 Install any additional third-party Sedona environment files.  
Installing in this order imports all of the Sedona *environment files* from your TXS-1.1 installation to the Sedona TXS-1.2 installation, without downgrading any of the modules or functionality provided by Sedona TXS-1.2. For more details, see the following procedures: “Installing a Sedona Framework Bundle” on page 6 and “Importing a Sedona Framework environment file” on page 9.

## Installing Sedona bundles

### Installing a Sedona Framework Bundle

This procedure describes how to install a Sedona Framework Bundle from NiagaraAX using the Sedona Installer. Prerequisites for installation include the following:

- NiagaraAX-3.7 or later Workbench installed, licensed, and running.
- Close any additional Niagara applications (including stations) that are running on your Workbench platform. During installation, certain files are backed up. Installation cannot complete if these files are in use by another process or application (such as your Niagara station).
- The Sedona Framework Bundle (for example, `Sedona_Framework_TXS-1.2.xx.zip`) is accessible from your Workbench platform.

**Note:** You can download bundles from [niagara-central.com](http://niagara-central.com). See “Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility” on page 4.

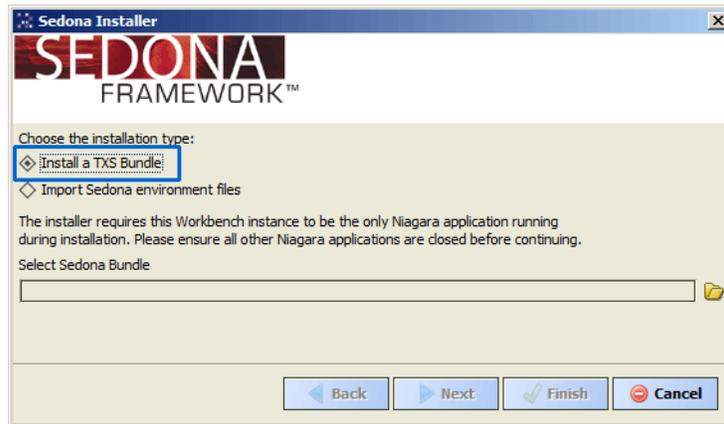


**Caution** Save any changes to your files before starting the Sedona Installer. You should select the option to Restart Workbench at the end of the installation process.

- Step 1 From the Workbench main menu, select **Tools > Sedona Installer**.  
The initial **Sedona Installer** dialog box displays. By default, the option to **Install a TXS Bundle** is selected, as shown in [Figure 1-3](#).

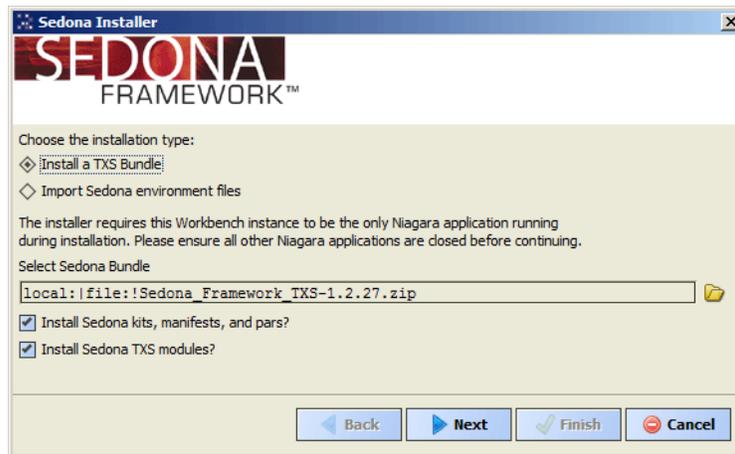
**Note:** *If this is a new Workbench installation and Sedona has not yet been installed, Install a TXS Bundle will be the only option available.*

**Figure 1-3** Sedona Installer dialog box



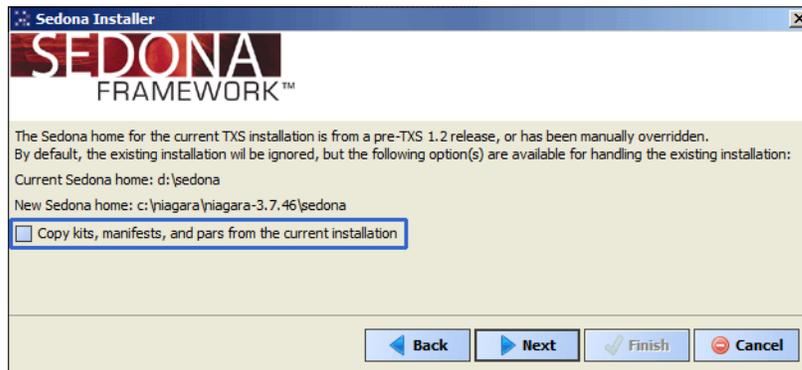
- Step 2 In the initial **Sedona Installer** dialog box, click the folder  icon to open the **File Chooser** dialog box.
- Step 3 In the **File Chooser** dialog box, browse to the desired bundle, select it and click the **Open** button. The **Sedona Installer** dialog box displays again, with the selected bundle file in the text field, as shown in [Figure 1-4](#). If you want to install only the Sedona environment files contained in the bundle, or only the module files, check or uncheck the appropriate boxes located below the selected file name.

**Figure 1-4** Install selected bundle



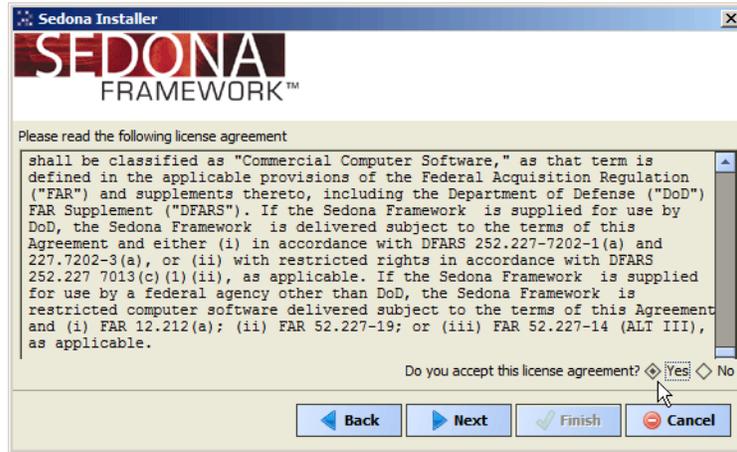
If the installer detects a Sedona installation in a location other than !sedona/, the following view displays asking if you wish to copy files from the current installation to !sedona/, as shown in [Figure 1-5](#).

**Figure 1-5** View displayed when current installation detected in a different sedona.home location



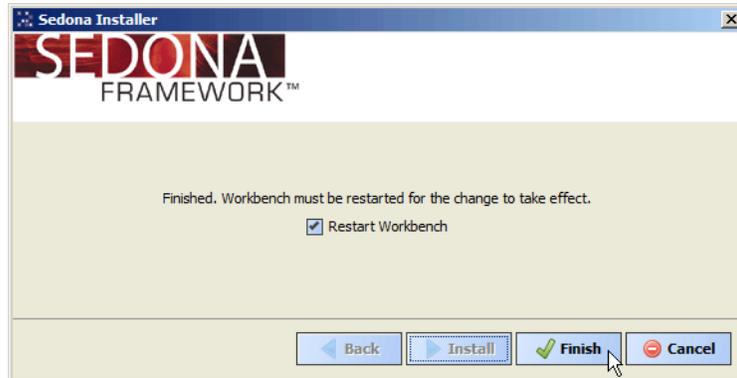
- Step 4 In the **Sedona Installer** dialog box, select the Copy . . . option box, if desired, then click the **Next** button to proceed.  
The License Agreement view appears, as shown in [Figure 1-6](#).

**Figure 1-6** Standard Sedona Bundle license agreement



- Step 5 In the License Agreement view, read the license agreement, select the Yes option and click the **Next** button to proceed.
- Step 6 In the **Sedona Installer** dialog box, click the **Install** button to initiate the final step of the **Sedona Installer** process.  
The installation may take a minute, as several processes run in sequential order. When installation successfully finishes, a message indicates that the process is complete and that Workbench should be restarted, as shown in [Figure 1-7](#).

**Figure 1-7** Restart Workbench after installation



- Step 7 In the **Sedona Installer** dialog box, select the Restart Workbench option box and click the **Finish** button to restart Workbench.  
Workbench is restarted and the new Sedona Framework Bundle is installed.

## About Sedona environment files

When using the Sedona Installer, you must select the type of file you wish to install. The options are either a Sedona TXS Bundle or Sedona environment files. Sedona Bundles and environment files are available for download from [Niagara-Central.com](http://Niagara-Central.com) or obtained from a third-party, such as a vendor for Sedona Devices.

When you download an individual Sedona Framework environment file, you need to be able to browse to it and access it from Workbench using a standard File Chooser dialog box. It may be helpful to create a folder for Sedona Framework downloads on your platform or memory stick so you can easily find the file during installation.

**Note:** The option to **Import Sedona environment files** is present in the installer only after you have first installed a TXS-1.2 or later Sedona Bundle file. The environment file import utility is a feature of Sedona, not of the Sedona Installer tool. So you need to install the latest Sedona Framework TXS-1.2.xx Bundle. For details refer to “Upgrading from AX-3.6/TXS-1.1” on page 6.

The Sedona Installer can import Sedona environment files downloaded from from Niagara-Central.com or files obtained from a third-party, such as a vendor for Sedona Devices. The Installer can import either an individual Sedona environment file, or detect and extract several Sedona environment files from a standard archive (.zip) file, and install them in the appropriate folders in !sedona/. Using this option, the installer will import any files that are one of these three types:

- **.kit**  
Sedona kit file
- **.xml**  
Sedona kit manifest file
- **.par**  
Sedona platform archive file

**Note:** Other types of files are ignored by the installer.

## About environment file updates: Workbench, JACE, devices

When importing Sedona environment files (kits, manifests, and .pars) to your Workbench installation, do the following *after* first installing the new Sedona Framework TXS-1.2.xx Bundle and upgrading JACES with the updated modules. Then, use the platform Sedona Environment Manager tool on any JACE running a Sedona network to do the following:

- Update applicable manifests on the JACE
- Update applicable kits on the JACE
- Update applicable platform files on the JACE

See the “Sedona environment management” section in the *NiagaraAX Sedona Networks Guide* for more details.

## Importing Sedona environment files

### Importing a Sedona Framework environment file

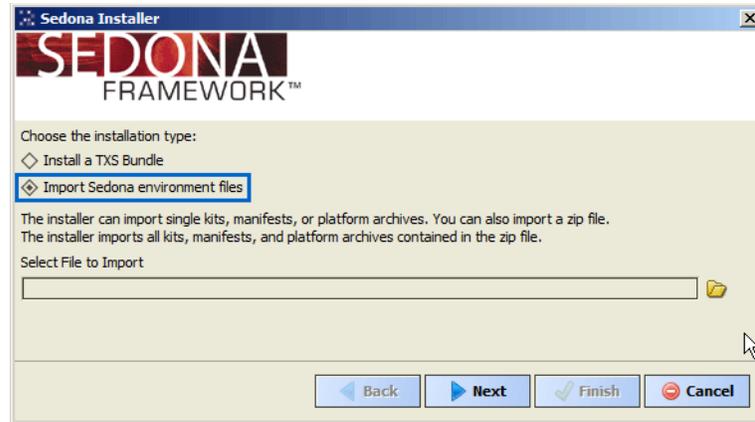
This procedure describes how to import Sedona environment file(s) using the Sedona Installer tool in Workbench. Prerequisites for this procedure include the following:

- Niagara Workbench 3.7 or later enabled for TXS-1.2 or Sedona Framework Workbench 1.2 or later installed, licensed, and running.
- If using Niagara Workbench, close any additional Niagara applications (including stations) that are running on your Workbench platform.
- The downloaded Sedona Framework environment file (or zip archive containing one or more Sedona environment files) is accessible from your Workbench platform.

**Note:** You can download Sedona environment files from Niagara-Central.com, or obtain the files from a third party.

- Step 1 From the Workbench main menu, select **Tools > Sedona Installer**. The **Sedona Installer** dialog box displays.
- Step 2 In the **Sedona Installer** dialog box, select the option to **Import Sedona environment files**, as shown in [Figure 1-8](#), and click the folder  icon to open the **File Chooser** dialog box.

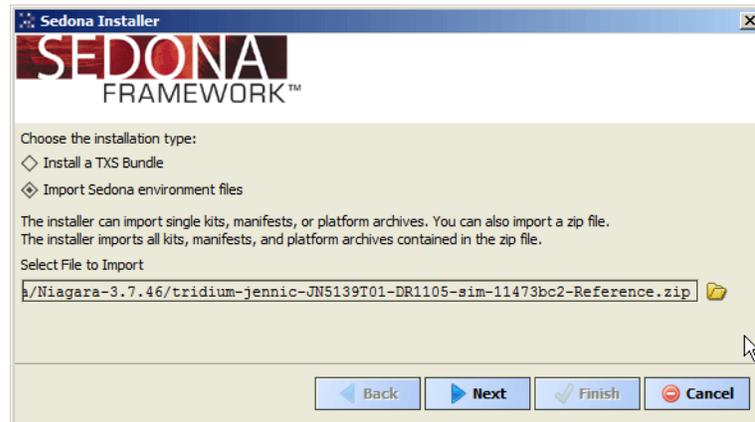
**Figure 1-8** Sedona Installer dialog box with option to Import Sedona environment files



Step 3 In the **File Chooser** dialog box, browse to the file you wish to import, select it and click the **Open** button.

The **Sedona Installer** dialog box displays again, with the selected environment file in the text field, as shown in [Figure 1-9](#).

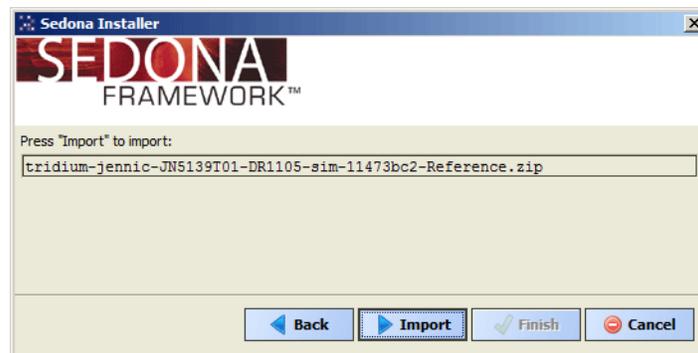
**Figure 1-9** Sedona Installer dialog box with selected file to import



Step 4 In the **Sedona Installer** dialog box, click the **Next** button.

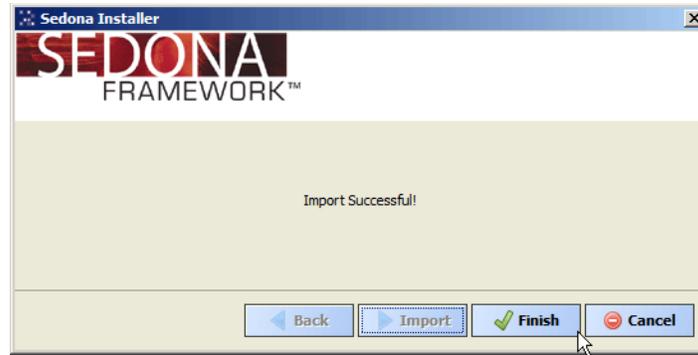
Step 5 In the **Sedona Installer** dialog box, click the **Import** button to initiate the final step of the **Sedona Installer** process, as shown in [Figure 1-10](#).

**Figure 1-10** With environment file selected, click Import to begin this process



This step may take a minute, as several processes run in sequential order. When the import successfully finishes, a message indicates that the process is complete, as shown in [Figure 1-11](#)

**Figure 1-11** Import is successful



Step 6 In the **Sedona Installer** dialog box, click the **Finish** button to close Sedona Installer. The Sedona Framework environment file is successfully imported.

## Guidelines for creating zip file archives of Sedona environment files

Use the guidelines in this reference if you need to prepare zip file archives of Sedona environment files for others to install.

The following topics are covered in this section:

- [About Sedona bundle specifications](#)
- [Bundle specification entry details](#)
- [About the installation process](#)

### About Sedona bundle specifications

A Sedona bundle file is a standard format zip file, however, you must arrange the files in a specific folder structure in order for the zip file to be recognized and used by the Sedona Installer. Any of the entries listed below may be omitted from the zip file, but if present, the entry must be placed in the position shown here:

```
[zip root]/
  modules/
  overlay/
  sedona/
    kits/
    manifests/
    platforms/
```

### Bundle specification entry details

Additional information about each of the Bundle specification entries is provided below:

**modules/** Modules are Java .jar files. They are located directly in the `modules/` folder. They will be extracted to the `AX !modules` folder during installation.



**Caution**

*The Sedona Installer in AX-3.7 allows you to install Sedona TXS bundles from earlier versions as well Sedona TXS-1.2 bundles. If you install a Sedona TXS-1.1 bundle after you have already installed a later version of Sedona TXS, be sure to uncheck the box labeled **Install Sedona TXS modules?**. Otherwise, you will be downgrading the Sedona portion of your installation and may lose functionality.*

**overlay/** Overlay files are any additional files that need to be installed automatically along with the usual Sedona environment files. For example, a vendor might have additional utilities or apps to include with a vendor-specific bundle file.

Specify the contents of the `overlay/` folder exactly as the contents are to be installed under `!sedona`, for example, if the bundle file contains:

```
[zip root]/
  overlay/
    vendorBin/
      handyTool.exe
```

When the bundle is installed, this is how the overlay files are installed in the Workbench environment under !sedona:

```
!sedona/  
  vendorBin/  
    handyTool.exe
```

**sedona/kits** Specify the contents of the sedona/kits folder exactly as the contents are in a normal Sedona installation, for example:

```
[zip root]/  
  sedona/  
    kits/  
      vendorKit/  
        vendorKit-abcd1234-1.2.3.kit
```

As specified in the above example, the kit files are installed in the Workbench environment under !sedona/kits:

```
!sedona/  
  kits/  
    vendorKit/  
      vendorKit-abcd1234-1.2.3.kit
```

**sedona/manifests** Specify the contents of the sedona/manifests folder exactly as the contents are in a normal Sedona installation, for example:

```
[zip root]/  
  sedona/  
    manifests/  
      vendorKit/  
        vendorKit-abcd1234.xml
```

As specified above, the manifest files are installed in the Workbench environment under !sedona/manifests:

```
!sedona/  
  manifests/  
    vendorKit/  
      vendorKit-abcd1234.xml
```

**sedona/platforms** Specify the contents of the sedona/platforms folder exactly as they are in a normal Sedona installation. For example, for a platform with platform ID “vendor-venModel-9876fedc”:

```
[zip root]/  
  sedona/  
    platforms/  
      db/  
        vendor/  
          venModel/  
            9876fedc/  
              .par/  
                platformManifest.xml
```



**Caution** *In a Sedona TXS bundle file, the platform files are NOT packaged in .par files. This differs from a Sedona environment file archive, where they MUST be packaged in .par files in order to be installed.*

As specified above, the platform files are installed in the Workbench environment under !sedona/platforms:

```
!sedona/  
  platforms/  
    db/  
      vendor/  
        venModel/  
          9876fedc/  
            .par/  
              platformManifest.xml
```

### About the installation process

During installation process, the installer does the following:

- **For Sedona TXS bundles**  
Extracts the contents of the bundle to a temporary location.  
If requested, copies any AX modules in the bundle to the Workbench !modules/directory.
- **For Sedona environment files**  
Installs Sedona environment files to !sedona/.  
*Note: Beginning with AX 3.7, this location is fixed.*  
If requested, the installer copies environment files from the existing Sedona installation to !sedona/.

## Setting up a Sedona development environment

If you plan to develop Sedona software, additional files and folders for this purpose are included in the officially released Sedona Framework TXS-1.2 Bundle file. The Sedona Installer does not automatically install these files; you must extract them manually.

Typically, you would set up your development environment separate from your Workbench installation, for example, C:\sedonadev. Conduct all of your Sedona software development in this development environment. When ready, you can test any newly developed kit in your Workbench installation. There is no need to package the kit in a bundle or .zip file; use the Sedona Installer in your Workbench installation to import the kit you have created.

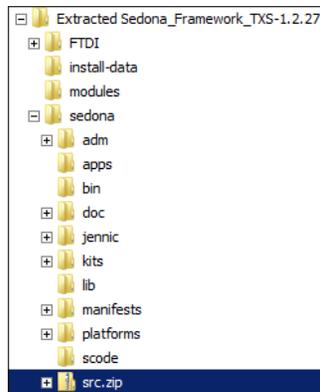
### Installing a Sedona development environment

This procedure describes extracting the Sedona Open Source .zip archive to use in Sedona software development. The development environment should be separate from your Workbench installation

- Step 1 Open the downloaded Sedona Framework TXS-1.2 Bundle file in any zip application, and extract the contents of the sedona/ folder of the archive to your development home location, for example, [sedonadev].

Once the extraction is complete, you will find the file src.zip, as shown in Figure 1-12 in your development home location. This is an archive file containing the Sedona Open Source.

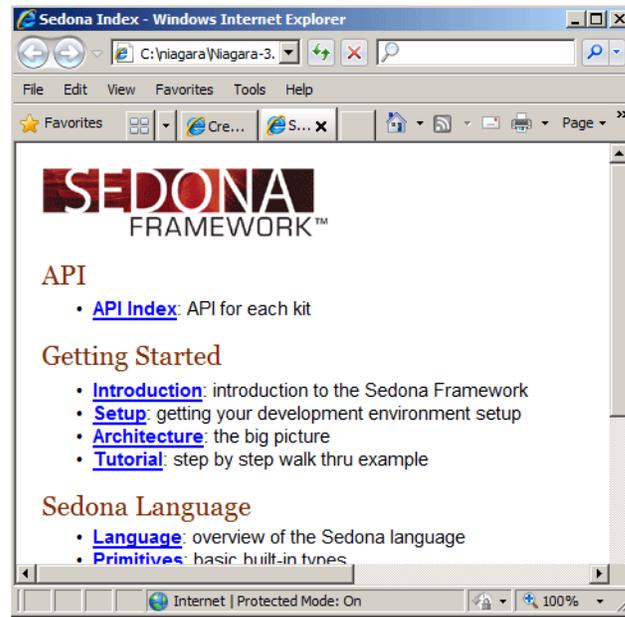
**Figure 1-12** Src.zip contained in extracted Sedona bundle



- Step 2 Extract the contents of the src.zip archive to the [sedonadev]/src/ if you wish to view or modify the Sedona open source code.

If you are new to Sedona development, refer to the browser-based Sedona development documentation included in the extracted sedona folder. To access the documentation, open sedona/doc/index.html in any browser, as shown in Figure 1-13.

**Figure 1-13** Example of browser-based Sedona documentation included in extracted bundle



## About the Sedona development workflow

The following are recommended practices for Sedona development. The following illustrates the typical workflow that the tools and the documentation were designed for. You may choose to use a workflow that is different from what is described here. If so, you may need to adjust the following to match your setup.

The following topics are covered in this section:

- [About file locations](#)
- [About developing kits](#)
- [About developing platforms](#)

### About file locations

- The source for a new kit, `mykit`, normally goes in `[sedonadev]/src/mykit`.
- The source (platform XML file) for a new platform, `myplat`, normally goes in `[sedonadev]/platforms/src/myplat`.
- When you compile your kit with `sedonac`, the kit and manifest files will be put under `[sedonadev]/kits/mykit` and `[sedonadev]/manifests/mykit`, respectively.
- Workbench looks for kit, manifest and platform files in `!sedona`. Use the Sedona Installer tool to transfer files you have developed from your development environment to the Workbench installation area.
- When you compile your platform XML with `sedonac`, the staged files (including the platform manifest) will be put wherever you specify using the `-outDir` switch.

### About developing kits

For detailed information on developing Sedona kit files, refer to the browser-based Sedona development documentation in your development home location, for example, `C:/sedonadev`. To access the documentation, open `[sedonadev]/doc/index.html` in any browser.

### Developing a kit

This procedure describes how to compile an scode image of your kit file and import it to your Workbench installation.

- Step 1 In your Sedona development environment, develop Sedona source code for your kit file and run `sedonac` to compile it.
- Step 2 In your Workbench installation, run the Sedona Installer tool and select the **Import Sedona environment files** option.
- Step 3 Select the specific kit just created, then click **Next** and **Import**.

- Step 4 Once the kit is imported to your Workbench installation, it should appear in the Kit Manager for local Sox connections.
- Note:** *You may need to reopen Kit Manager if already open, to refresh the list.*
- Step 5 If desired, you can transfer the kit to a JACE using the Sedona Environment Manager to make it available for use by the Sox Gateway tools.

### About developing platforms

For detailed information on developing Sedona platform archive files, refer to the browser-based Sedona development documentation in your development home location, for example, `C:/sedonadev`. To access the documentation, open `[sedonadev]/doc/index.html` in any browser.

### Developing a platform

This procedure describes how to compile a Sedona platform archive and import it to your Workbench installation.

- Step 1 In your Sedona development environment, create a platform XML file for a given platform and run `sedonac` to compile it, specifying the path to the preferred staging directory, for example, `[stage]`.
- Step 2 Run `platArchive -s [stage]/.par` to create the `.par` file.
- Note:** *The default location is `[stage]/.par/out`.*
- Step 3 In your Workbench installation, run the Sedona Installer tool and select the **Import Sedona environment files** option.
- Step 4 Select the specific `.par` just created, then click **Next** and **Import**.
- Step 5 If desired, you can transfer the `.par` to a JACE using the Sedona Environment Manager to make it available for use by the Sox Gateway tools.

## Document change log

Updates (changes/additions) to this *NiagaraAX Sedona Framework TXS-1.2 Installer Guide* document are listed below.

- Updated: February 14, 2014  
Updated for Sedona Framework TXS-1.2 installation changes related to the release of NiagaraAX-3.8 and the security “update 1” release of NiagaraAX-3.7, with an early related **Note:** on page 1. New sections include “[Sedona Framework TXS 1.2 Bundle to NiagaraAX compatibility](#)” on page 4, “[Sedona TXS 1.2 considerations with AX-3.7u1](#)” on page 4, and “[About Sedona TXS installations with AX-3.8](#)” on page 5. Various other document sections had minor changes and/or added notes.
- Updated: December 18, 2012  
Document updated for TXS-1.2 features, with many changed and new sections.
- Publication: November 7, 2011  
Initial Publication for Sedona TXS-1.1.

