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Demo Quick Start

Welcome to the NiagaraAX Framework! This document will get you up and running with a demo station using NiagaraAX-3.8 Workbench. If you are new to Niagara, then you might want to check out the NiagaraAX *User Guide* section “Tour of the Workbench GUI”.

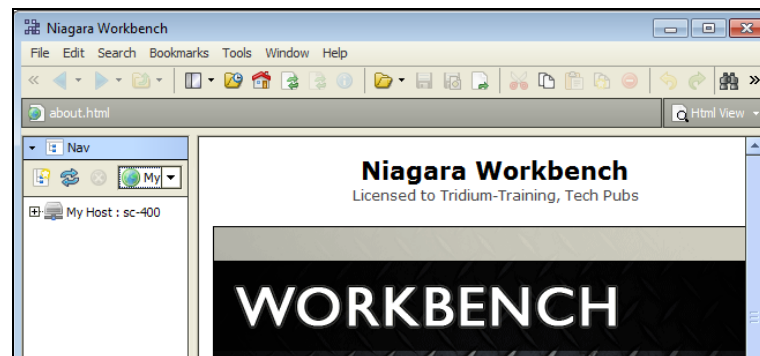
Note: *If you are a Java software developer working with the NiagaraAX Framework, you should also see the Niagara Developer Guide for details on Baja and Java usage in NiagaraAX.*

The following sections are in this Demo Quick Start document:

- “[Get the Demo Up and Running](#)” on page 1-2
- “[Tips on Navigating the Demo](#)” on page 1-7
 - “[Learning More](#)” on page 1-8
- “[Stopping the Demo Station](#)” on page 1-9
- “[Troubleshooting the Demo](#)” on page 1-10
 - “[Tree not visible](#)” on page 1-10
 - “[Cannot open Platform](#)” on page 1-11
 - “[Stations missing in Application Director](#)” on page 1-12
 - “[Cannot open Station](#)” on page 1-12
- “[Demo stations security notes](#)” on page 1-13
- “[SSL and certificate notes in AX-3.8](#)” on page 1-13
 - “[Browser access notes](#)” on page 1-14

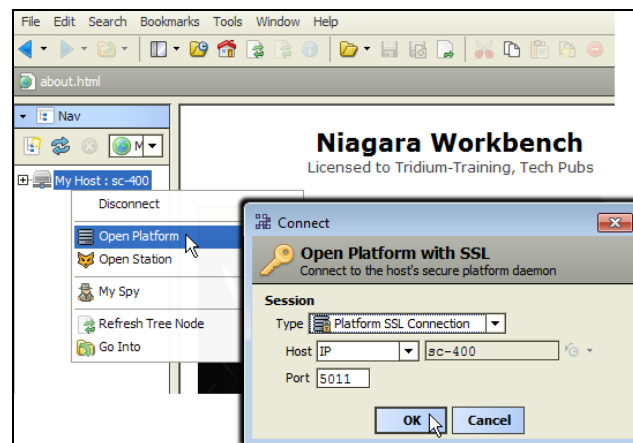
Get the Demo Up and Running

- Step 1 Start Workbench.
Your host PC appears in the Nav tree (**My Host** in left pane).



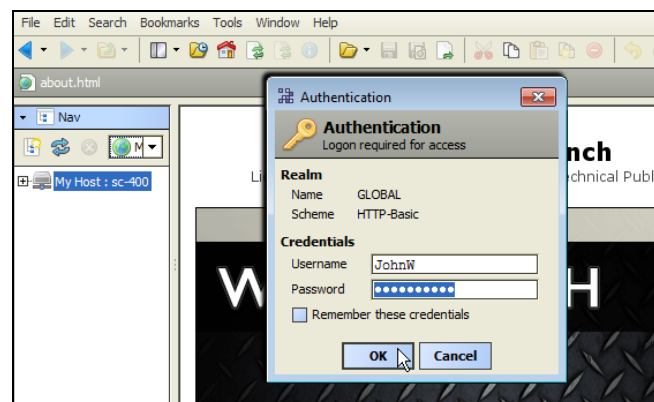
Note: If you don't see the Nav tree, turn on "side bars." See ["Tree not visible"](#) on page 1-10.

- Step 2 Right-click your host in the Nav tree.
From the popup menu, click: **Open Platform**.
A **Connect** popup appears, typically with Type set to **Platform SSL Connection**



In the **Connect** popup (above), click **OK**.

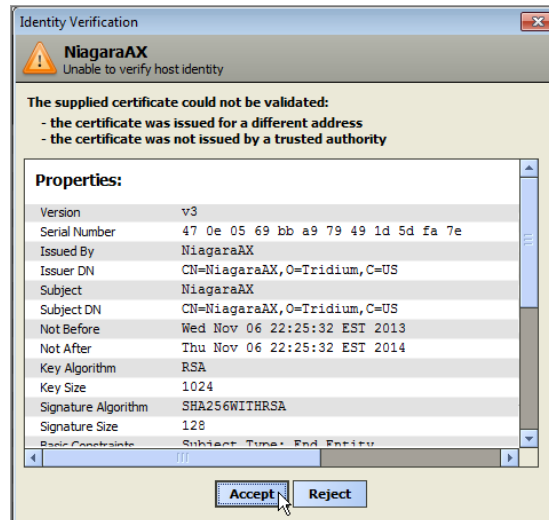
- Step 3 In the **Authentication** popup, type your Windows *administrator-level* username and password.



Note: If you click the "Remember these credentials" checkbox, future access of the Platform node will authenticate without re-entering credentials (Username and Password). Prior to AX-3.7 (and 2013 security updates), this was set by default. However, now this is cleared by default—you must set it, if desired.

Click **OK**.

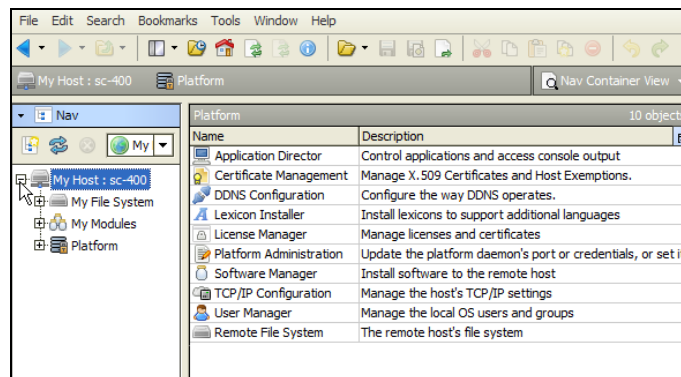
The *first time* you open your platform with SSL, a popup **Identity Verification** warning appears.



Click **Accept**. This creates an “allowed hosts” certificate exemption for Workbench on this port (5011, if using defaults). For related details, see [“SSL and certificate notes in AX-3.8”](#) on page 1-13.

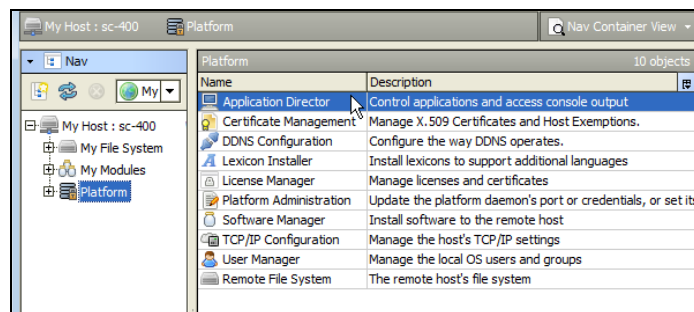
Note: If connect Type was changed from **Platform SSL Connection** to **Platform Connection** (in the **Connect** popup shown in [Step 2](#)), such a warning does not appear. It also does not appear again (after accepting it) in future local platform SSL connections—at least for the duration of this certificate.

Various platform views are listed in the right-side View pane. In the Nav tree, if you expand My Host you now see a Platform node.



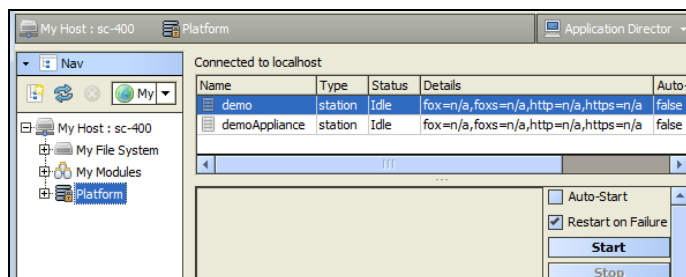
Note: If your Platform does not open, it may be a host login issue, or the Niagara platform daemon may be stopped. See [“Cannot open Platform”](#) on page 1-11.

Step 4 In the view pane, double-click the **Application Director**.



The Application Director appears in the view and lists available stations.

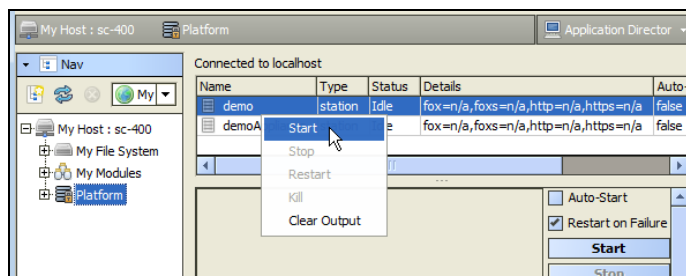
The demo station appears with a status of “Idle.”



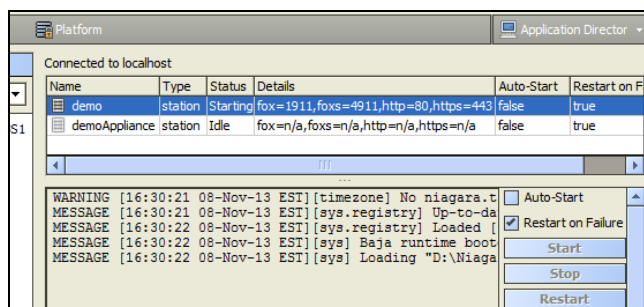
Note: If no stations list, a divider may need moving. See “Stations missing in Application Director” on page 1-12.

Step 5 Right-click the demo station in the Application Director.

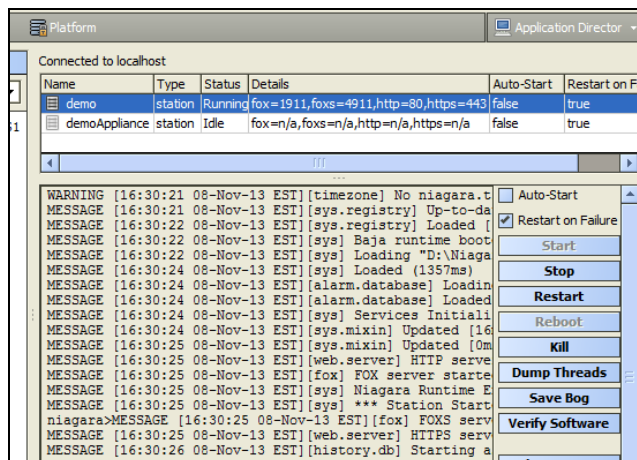
From the popup menu, click **Start** (or, with the demo station selected, click the *right-side Start* button).



The demo status changes to “Starting,” and messages start appearing in the view.




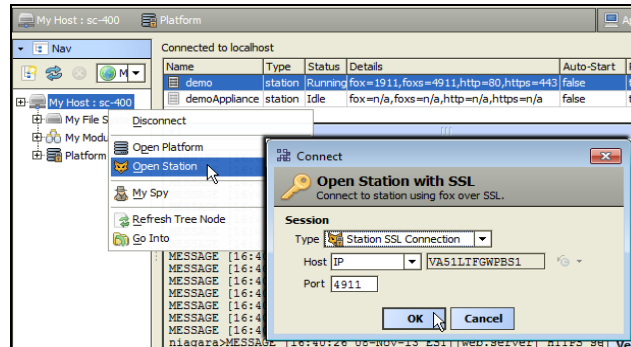
After several seconds, the demo station status changes to “Running.”



Step 6 Right-click your host again in the Nav tree.

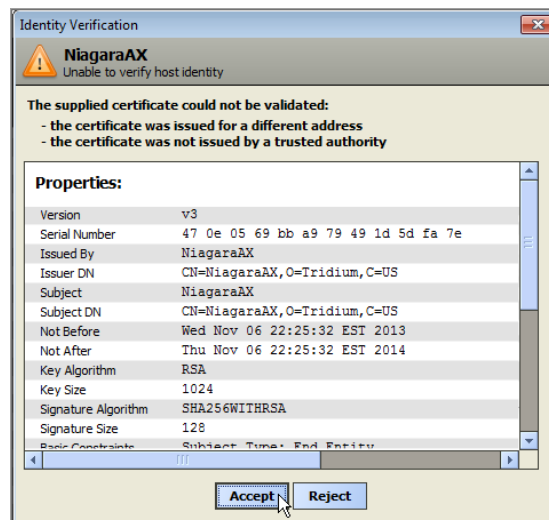
From the popup menu, click: **Open Station**

A **Connect** popup appears, typically with Type set to  **Station SSL Connection**





In the **Connect** popup (above), click **OK**.

The *first time* you open your station with SSL, a popup **Identity Verification** warning appears.

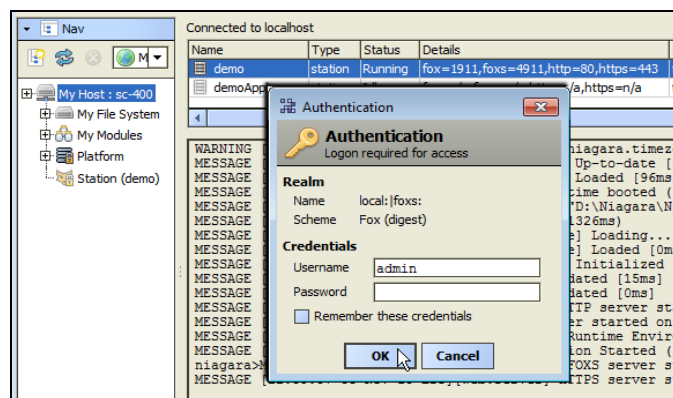


Click **Accept**. This creates an “allowed hosts” certificate exemption for Workbench on this port (4911, if using defaults). For related details, see “[SSL and certificate notes in AX-3.8](#)” on page 1-13.

Note: If connect Type was changed from  **Station SSL Connection** to  **Station Connection** (in the **Connect** popup shown in [Step 6](#)), such a warning does not appear. It also does not appear again (after accepting it) in future local SSL connections to this station—at least for the duration of this certificate.

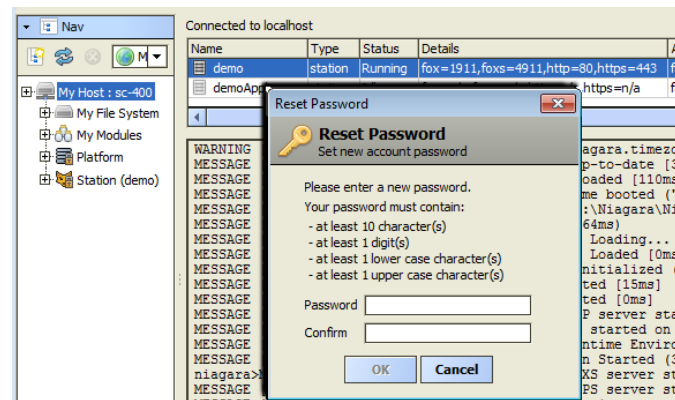
Step 7 An **Authentication** popup appears (here, you login using a *station* user account).

In the **Username** field, type **admin**



Leave **Password** blank (*for just this one time*), and click **OK**.

A “Reset Password” popup dialog appears.



Note: This “Reset Password” request occurs because all users in the AX-3.8 demo station have their account set to require a password reset upon first login (a change from the demo station in releases prior to AX-3.8). You must enter a new password for the admin user in the next step.

For related details, see “[Demo stations security notes](#)” on page 1-13.

Step 8 Type a new “strong” password in the “Password” field, and repeat it again in the second “Confirm” field.



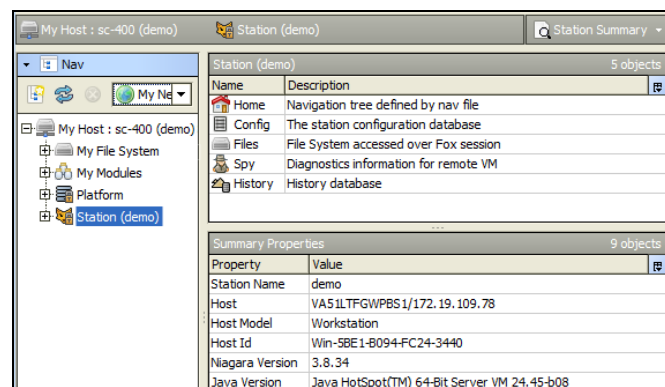
Follow the strong password rules given in the popup (note that “digit” means a numeral). The demo station’s **User Service** is configured to require *strong* passwords. Note that in AX-3.8, these strong password rules are also *configurable*, via a “Password Configuration” component under the User Service.

Note: Make this password unique, and be sure to remember (or make a note of) it!

When your matching password entries meet these rules, the **OK** button is enabled. Click **OK**.

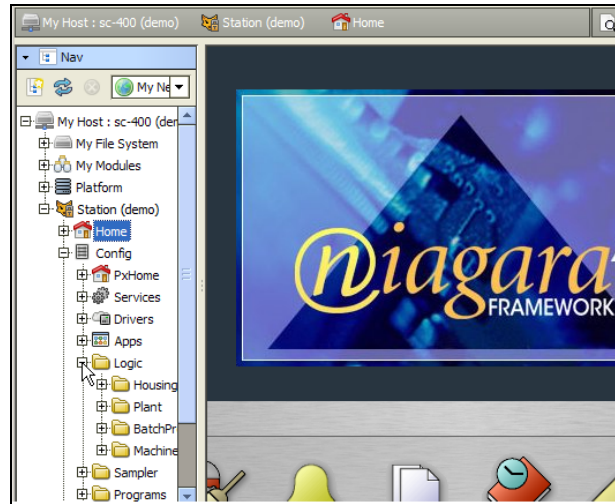
Again, see the section “[Demo stations security notes](#)” on page 1-13.

Step 9 The demo station opens in the view and appears as a node in the Tree.



Note: If the “Reset Password” dialog does not appear and the station does not open, some other login issue is likely. See “[Cannot open Station](#)” on page 1-12.

- Step 10 To explore the station, just click on expand controls in the Tree to browse the station's hierarchy. Simply *double-click* on items of interest to see item contents in the view.



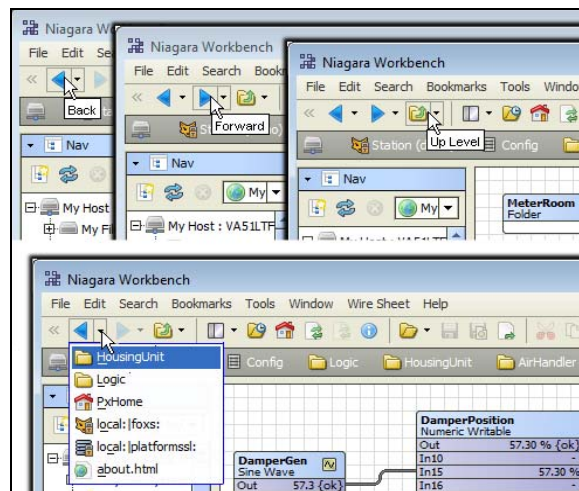
Note: The Config node represents the actual station database, and holds components with wire sheet and property sheets views, among many other view types.

See “[Tips on Navigating the Demo](#)” on page 1-7 for some of the many Workbench navigation features.

Note: You can exit Workbench without stopping the demo station, and then restart Workbench and reopen the demo again (until your PC is rebooted). Start with [Step 6](#) on page 5.
If you'd rather, you can also stop the demo station first. See “[Stopping the Demo Station](#)” on page 1-9 for more details.

Tips on Navigating the Demo

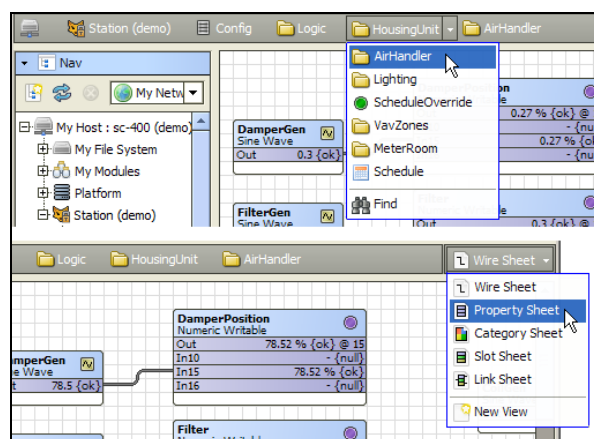
Consider the Workbench GUI as the NiagaraAX “super browser,” combined with other familiar Windows-like applications (e.g. Windows Explorer).



On the toolbar, use the **Back** and **Forward** buttons to retrace or advance your steps. Both of these buttons offer a “visited” drop-down menu.

Also, an **Up Level** button is available when you are at some child level, say under a station's Config node (also with its own drop-down menu).

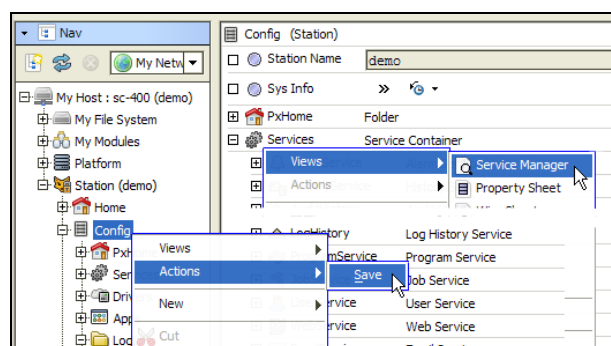
Instead of a normal “text-only” URL address bar, Workbench has a graphical **locator bar**.



As shown above, the locator bar displays not only the full path of the item in view, but also features a drop-down menu (at every level) that lists immediate child items.

The right-side of the locator bar is the **view selector**, another drop-down menu that lists all available views for the item currently shown in the view pane.

Right-click menus are woven throughout the Workbench interface, both in the sidebar (Nav tree, by default) as well as in main views.



Note: Often, multiple ways exist to perform the same operations, either working in the sidebar (e.g. Tree), main view, or from the menu bar or toolbar. For example, this document provides mostly “right-click instructions”

Learning More

To learn more about NiagaraAX, see the online Help. To learn more about features of Workbench, see the *User Guide* sections “About Workbench” and “Tour of the Workbench GUI.”

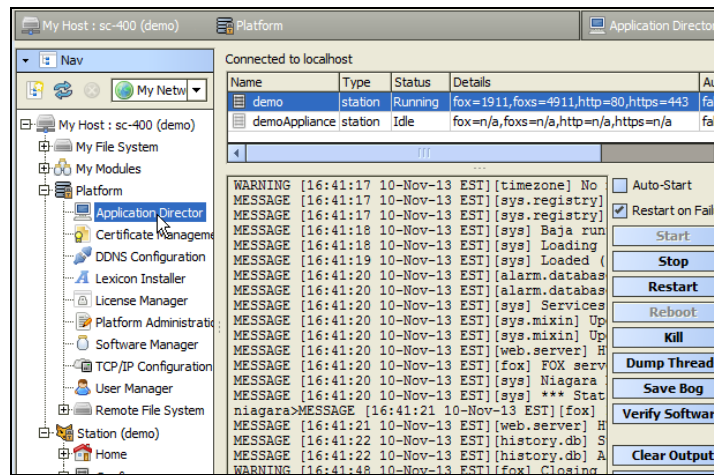
For details about SSL and NiagaraAX, see the *NiagaraAX SSL Connectivity Guide*.

Note: Please understand that NiagaraAX Help evolves as a “work in progress,” with many topics still placeholders (or with minimal details). However, we are committed to delivering a consistent, unified, Help system to lessen the need for printed documents (PDFs). Furthermore, as PDFs about NiagaraAX become available, they will reflect the same source content as found in the online Help.

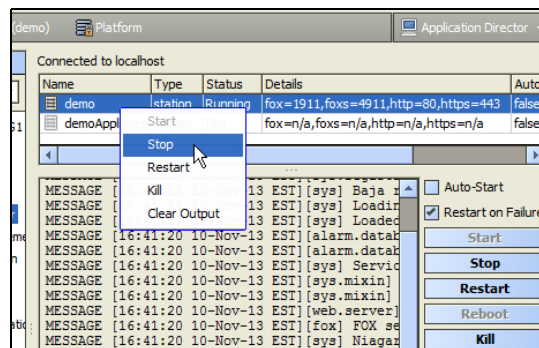
Stopping the Demo Station

Note: If you exited Workbench without first stopping the station, and you have not since rebooted your computer (or stopped/restarted the Niagara platform daemon), the station remains running.

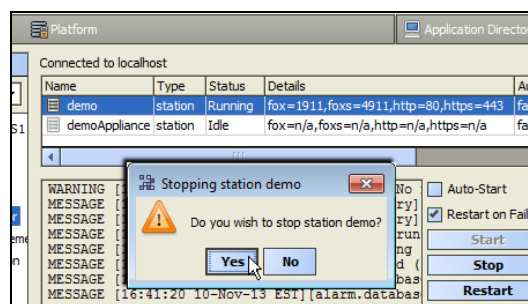
- Step 1 In Workbench, expand your host's **Platform** in the Nav tree.
Double-click the **Application Director**.



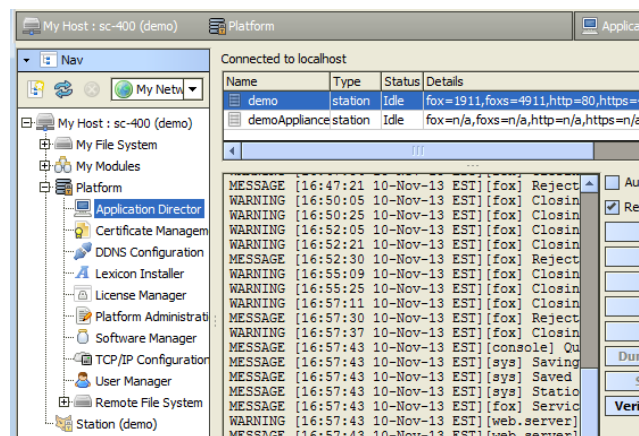
- Step 2 Right-click the demo station.
From the popup menu, click **Stop** (or, with the demo station selected, click the *right-side Stop* button).



- Step 3 A confirmation dialog appears. Click **Yes**.

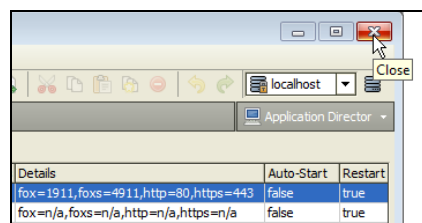


The demo station status changes to “Stopping,” then to “Idle.” The station is now stopped.

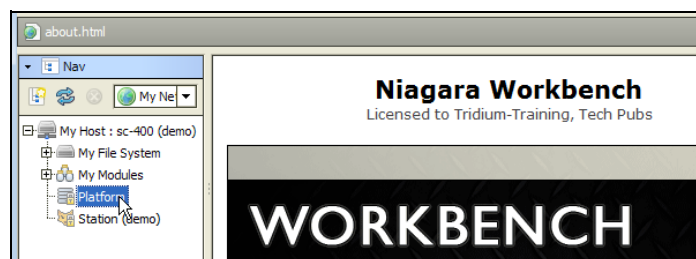


Note: If you had the demo station opened in Workbench, notice that it is now “ghosted” and collapsed. You cannot open (connect) to the demo again until you first start the demo station, using this Platform view (**Application Director**).

- Step 4 If finished looking at NiagaraAX, you can simply click the Windows “Close” control (X in upper right) to exit as shown, or to exit from the menu bar, select **File > Exit**.



When starting Workbench the next time, your host PC will be collapsed again in the Nav tree. To restart the demo, expand your host in the tree and double-click the ghosted Platform, then continue from [Step 3](#) on page 2. Or, begin anew with “[Get the Demo Up and Running](#)”.



Troubleshooting the Demo

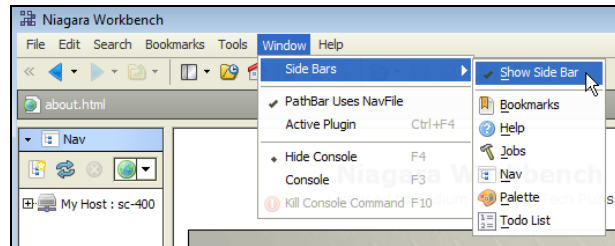
Possible demo issues are covered in the following sections:

- [Tree not visible](#)
- [Cannot open Platform](#)
- [Stations missing in Application Director](#)
- [Cannot open Station](#)

Tree not visible

Symptom: Workbench starts up *without* the left-side tree (**Nav** tree in side bar area), showing only a single pane with view. This occurs if Workbench was last used with side bars “not shown.”

To fix this, from the menu bar, select **Window > Side Bars > Show Side Bar**

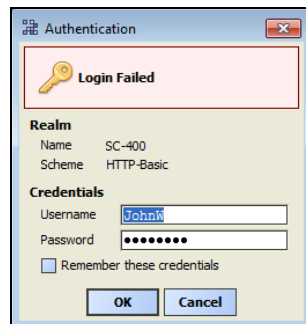


It is also possible that the side bar area is visible, but the **Nav** tree does not show. In this case, select **Window > Side Bars > Nav**

Note: From the **Window > Side Bars** menu, additional items are selectable to see in the left pane (sidebar).

Cannot open Platform

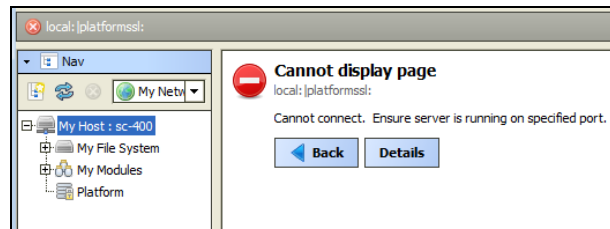
Symptom: Authentication dialog keeps reappearing after you click **OK**.



Cause: Typically, using the default platform “Basic authentication”, your entered username and password do *not match* a local user who is a member of the local Windows machine’s Administrators group.

To fix: Confirm Windows administrator privileges for the PC, then re-enter your Windows credentials.

Symptom: Nothing happens for a few seconds, and “Cannot display page” appears in the view.
Text “Cannot connect. Ensure server is running on specified port” displays.

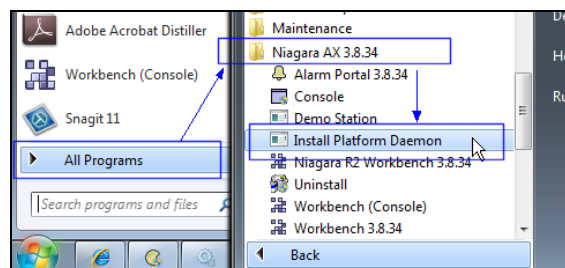


Cause: The Niagara Platform Daemon (service) is not running on your PC. This occurs if in the last NiagaraAX installation step, you unchecked “Install and Start Platform Daemon”. The platform daemon (service) is needed for local platform/station operations.

To fix: Install the platform daemon and retry connection (next).

Step 1 From the Windows Start menu, select:

Start > All Programs > Niagara 3.8.nn > Install Platform Daemon

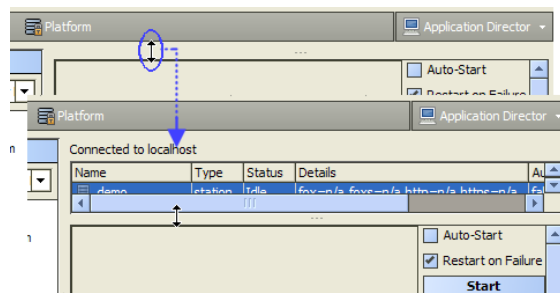


Step 2 In Workbench, retry “Open Platform” to your host (Step 2 on page 2).

Stations missing in Application Director

Symptom: After opening a local Platform connection and accessing the **Application Director**, you do not see any stations listed—including the demo station. This may occur if Workbench is being run in a small sized window (similar to one used in screen captures in this document).

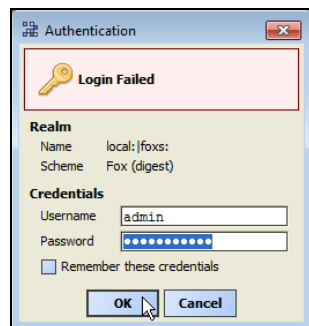
To fix this, drag (click and hold) *downwards* on the divider at the top of the **Application Director** view.



Release after you see stations listed—for example the demo station.

Cannot open Station

Symptom: Authentication dialog keeps reappearing when you click **OK**.



Likely cause: Username and password do *not match* the station's stored credentials for the admin user.

- Username: admin
- Password: *type the password entered in the last "Reset Password" popup dialog for user admin, or else the password changed for the admin user from another station view, such as the User Manager.*

To fix: Re-enter login credentials last used to access the station as user admin.

Note: *If the demo station's admin account password has never been changed, you can leave the Password field blank (empty). This produces the "Reset Password" dialog to change this password. See [Step 8](#) on page 6. In some cases where the demo station has been previously accessed and configured, the well-known admin user may have been deliberately disabled, and some other "super user" created or enabled in place. In this scenario, login using the credentials (Username and Password) for that user instead.*

See "Demo stations security notes" on page 1-13.

Demo stations security notes

Station security changes were made in the AX-3.8 development cycle that affect the standard “demo” station typically installed with NiagaraAX Workbench (as well as the “demoAppliance” station). For the most part these stations remain unchanged from previous releases, meaning that the various default users, including the “admin” user, still have a default “blank” (empty) password.

Such users include the “adminWbBasic” user, “adminHxDefault” user, and so on—all of which are “super users”. These users exist to demonstrate different “Web Profiles” when accessing the station via a browser. Obviously, this combination of “well known” super users, each with a default blank password, is not a good security practice to maintain.

Note: *For proper security in a production system, the usage of “super users” in a station should be minimized, as explained in various NiagaraAX documents, including the NiagaraAX Hardening Guide.*

Note that login access of the demo station as *any of these users*, either from Workbench or a browser, now prompts to *reset* the password. This happens because the AX-3.8 demo station now has *all station users* configured for password reset. Once a new password is entered, that super user has *full access* to the station—just as the “admin” user has.


Therefore to prevent any “unauthorized access” of a demo station, it is strongly recommended that after first accessing the station as the admin user, that you do one of the following:

- Change the password for each “well-known” default user (adminWbBasic, adminFrames, etc.). You can do this by double-clicking each user in the station’s **User Manager** view, for the **Edit** dialog.
 - Typically, you specify the same strong password that you previously entered for the admin user.
 - For each user, you also need to set the “Force Password Reset” entry from **true** to **false**. Otherwise upon the first login as that user, the **Reset Password** dialog would reappear.

Make sure to **Save** the changes to each of these users.

- Disable any of these “well-known” default users, which you can also do by double-clicking each user in the station’s **User Manager** view. Then set the user’s Enabled property to **false**, and **Save**.

Note: *Starting in AX-3.7, you can disable the user admin—where previously you could not. However, before doing this, be sure you have at least one working “super user” in the station.*

Be sure to **Save** changes to the station after making user adjustments—right-click the  **Station** node in the Nav tree and select **Save Station**.

For more details about station security in NiagaraAX, see “About Security” in the *NiagaraAX User Guide*.

SSL and certificate notes in AX-3.8

Note: *This section explains a little more about the Workbench SSL certificate warnings seen in the section “Get the Demo Up and Running” on page 1-2. Note that in AX-3.8, a few SSL-related changes were made since the releases for AX-3.7/AX-3.7u1 that affect the “demo” station, which are also described below.*

It is safe to “**Accept**” the certificate (**Identification Verification**) warnings seen in Workbench when following steps in this document. However, don’t assume that always accepting similar certificates is the correct choice. An overview with a few background details is below. For complete details about SSL and NiagaraAX, refer to the *NiagaraAX SSL Connectivity Guide*.

Since AX-3.7, NiagaraAX has included integral support for industry-standard Secure Socket Layer (SSLv3) and Transport Layer Security (TLSv1) protocols, via an “SSL Toolset”. Included are Workbench tools for managing PKI (Public Key Infrastructure) digital certificates or “self-signed” digital certificates, which are used in verifying SSL connections. When you install NiagaraAX on your PC, a local self-signed “tridium” certificate is generated, and is available for (default) local SSL usage.

- In AX-3.7 (and AX-3.7u1), after installing NiagaraAX on your PC, you could *optionally* enable SSL for your local PC platform, by making a local platform connection and accessing the **Platform Administration** view. By default, the “tridium” certificate is presented to any Workbench client that attempts an SSL platform connection.
- In AX-3.8 this changed—now when you install NiagaraAX, platform SSL is *automatically enabled* for you Workbench PC platform—by default using the self-signed “tridium” certificate. In addition, changes were made to the standard “demo” station in AX-3.8 to enable SSL for station access (“Foss Enabled” in the station’s Fox Service), as well as SSL for browser access (“Https Enabled” in the station’s Web Service)—again, (by default) both reference the self-signed “tridium” certificate.

In either case just described, when you open the *first platform SSL connection* from Workbench (the client) to your local platform daemon (a server), Workbench presents a warning “**Identity Verification**” popup that shows you the details of your local self-signed “tridium” certificate.

- If you **Accept**, an “allowed host” exemption is created for your Workbench (client), and you proceed to the **Authentication** dialog to enter your platform credentials. This warning should not appear again unless you delete the allowed host exemption, or unless the certificate expires.
- If you **Reject**, no exemption is created, nor do you see the **Authentication** dialog to make a connection. Instead, an error message is generated.

Note this Workbench certificate warning *repeats* when you open the *first station SSL connection* (Foxs) to a local station—in this case to your AX-3.8 “demo” station. When you **Accept**, another “allowed host” exemption is created for your Workbench client, this time for a different software port: 4911 Foxs default, (vs. 5011 platformssl default). Similarly, web browser access using a secure connection produces a warning in your client browser; see “[Browser access notes](#)”.

In general, usage of PKI signed certificates with NiagaraAX is recommended over the (default) self-signed “tridium” certificate. However, details are well outside the scope of this document. Again, refer to the *NiagaraAX SSL Connectivity Guide* for complete details.

Browser access notes

Additionally, if you access your local AX-3.8 “demo” station using a *secure web browser* connection (<https://localhost> if using the default WebService “Https Port” of 443), your web browser (client) will *also* issue its own certificate warning for this self-signed “tridium” certificate, asking if you wish to proceed. Again, proceeding should be *safe* in this instance.

Note: (Unrelated to SSL) If you access any AX-3.8 station with a web browser as a user with a “Wb Web” profile, that is “Web Workbench,” in order for the Java-based “WbApplet” to load, your browser client PC requires “unlimited strength policy files” in its Java installation. For more details, refer to “Additional AX-3.8 client-side Java installation steps” in the latest NiagaraAX 2013 Security Updates document.