

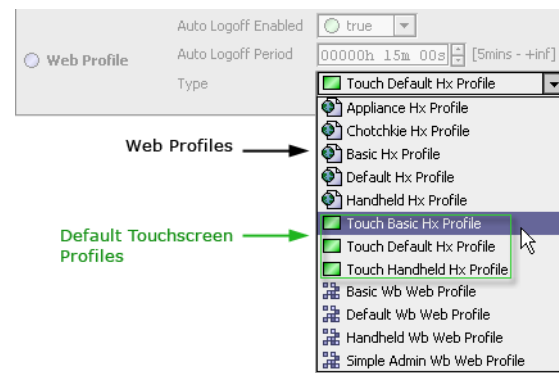
Information and/or specifications published here are current as of the date of publication of this document. Tridium, Inc. reserves the right to change or modify specifications without prior notice. The latest product specifications can be found by contacting our corporate headquarters, Richmond, Virginia. Products or features contained herein are covered by one or more U.S. or foreign patents. This document may be copied by parties who are authorized to distribute Tridium products in connection with distribution of those products, subject to the contracts that authorize such distribution. It may not otherwise, in whole or in part, be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form without prior written consent from Tridium, Inc. Complete Confidentiality, Trademark, Copyright and Patent notifications can be found at: <http://www.tridium.com/galleries/SignUp/Confidentiality.pdf>.

NiagaraAX Touchscreen Profile

Profiles provide NiagaraAX developers with the ability to customize an application interface. Profiles are assigned to users (using login credentials) to present a custom set of views that are appropriate for that user. Workbench provides two basic categories of profiles: Kiosk profiles and Web profiles.

Touchscreen profiles (shown below) are a type of Web Profile that characteristically provide enhanced views in a browser running on a touchscreen device.

Figure 3-1 Touchscreen profiles are a type of Web profile



The following sections describe the types of touchscreen display features available in using the touchscreen profiles available in NiagaraAX-3.4 and later:

- [About Touchscreen Profiles](#)
- [Creating Charts for the touchscreen profile](#)
- [About the touchscreen Navigation Menu](#)
- [Touchscreen profile setup](#)

About Touchscreen Profiles

For many touchscreen applications, especially those that use small touchscreen devices, the standard NiagaraAX widget controls and indicators are too small for easy use with a finger (instead of a mouse pointer or a stylus).

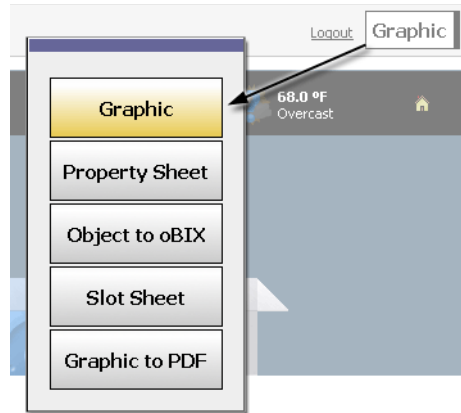
Starting in NiagaraAX-3.4, and available in NiagaraAX-3.5, the following features provide for a touch-screen-friendly interface using profile-sensitive components. New Profile-Sensitive widgets include:

- **Large check-boxes**
Typical check-boxes and radio buttons are replaced with larger option select boxes.

Figure 3-2 Large touch boxes replace standard-size radio buttons and check-boxes

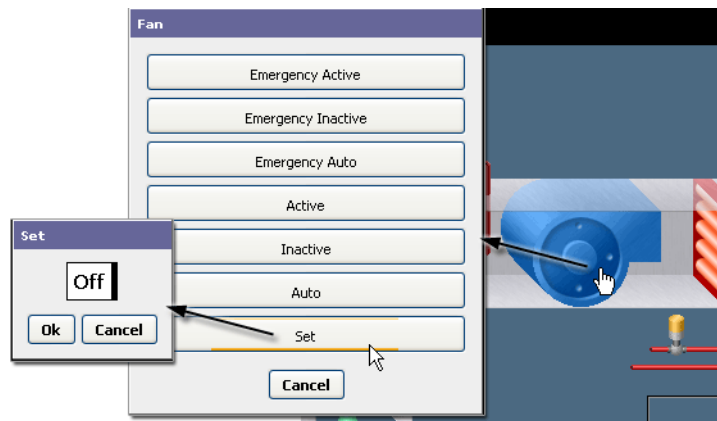


- **Popup option-lists**
These option-lists replace the smaller drop-down lists, including the View Selector (shown below).

Figure 3-3 Selection options are presented in popup option-lists

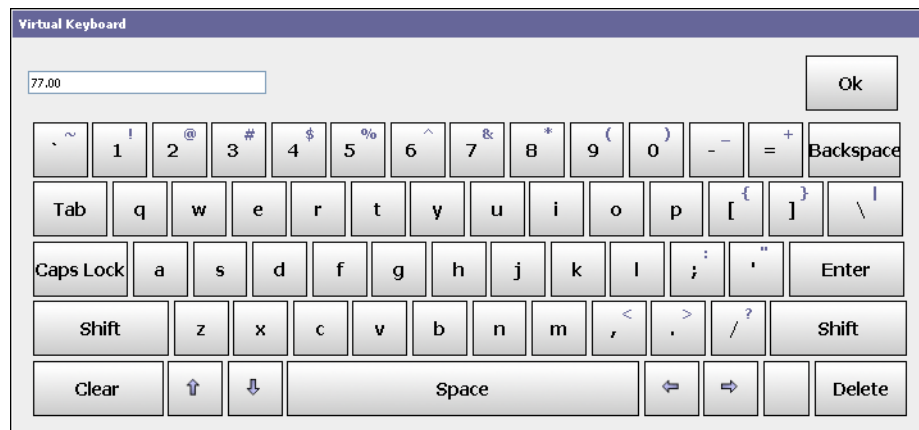
- **Larger Action Controls**

A popup **Actions** dialog box replaces the typical right-click or popup menu for setting actions on graphic components. The selection buttons in the dialog box may initiate the action directly or open a secondary dialog box for choosing options or entering values.

Figure 3-4 Popup option boxes display action options

- **Touchscreen Keyboard**

This Virtual Keyboard displays whenever an editable text field is selected at the touchscreen display. A text box in the top left corner of the keyboard displays values entered by touching the keyboard.

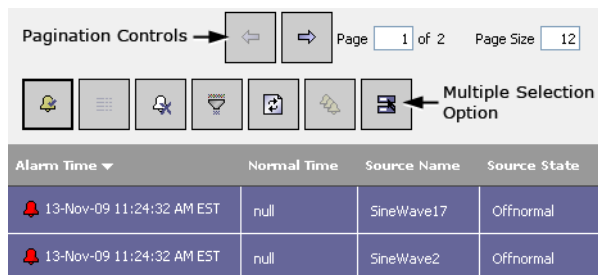
Figure 3-5 The virtual keyboard displays for character entry fields

- **Enhanced Alarm Console interface**

The touchscreen-enhanced Alarm Console interface displays several touchscreen interface features, including:

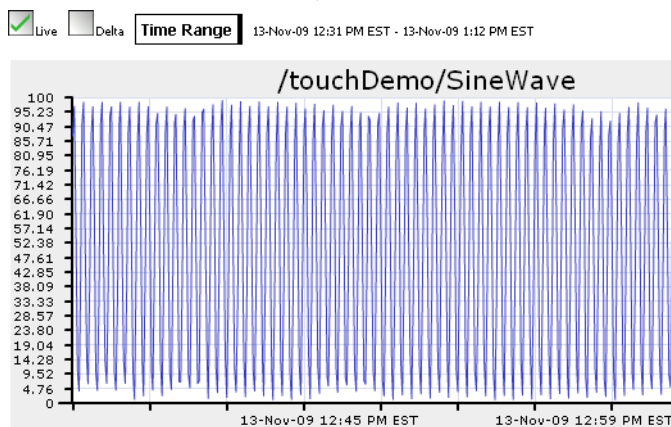
- **Pagination Controls**
Left and right arrow buttons let you scroll back and forward, respectively, through pages of alarms. A Page Size field allows you to specify how many alarms appear on one page of data.
- **Filter Controls**
These controls allow you to filter alarms based on times, Source Status, and other parameters.
- **Multi-record selection button**
Selecting this button allows you to select multiple records at once (similar to holding down a keyboard Shift key).

Figure 3-6 Enhanced alarm console interface for the touchscreen



- **Flash-based charting**
Touchscreen charting includes live charting using Flash technology. These Flash-based charts display the larger touchscreen controls and are limited to line charts with a single data series per chart. You may place more than one chart widget on a single Px page.
Note: Only numeric values may be charted. String, boolean, and enum values do not work.

Figure 3-7 Flash chart displays in touchscreen profile view



Creating Charts for the touchscreen profile

When using a touchscreen profile, you can use a link to open a single numeric value history file as a stand-alone view directly in the touchscreen browser. However, if you want to design a page with other components on it you need to use a History Chart on a Px page. The following steps describe how to create a Flash-based chart on a Px page to plot a single series of numeric history values.

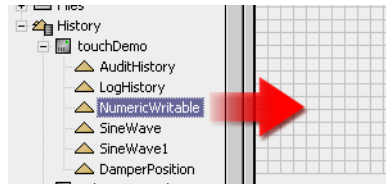
Note: You can use the same general steps to create a History Table by selecting “Workbench View” and “History Table” in the Make Widget Wizard (Step 2):

Create a chart on a Px page for touchscreen profile

The following steps describes how to add a chart to a Px page using WorkbenchAX.

- Step 1 From the WorkbenchAX nav tree, drag a numeric value onto the Px Editor canvas for the Px page you want to create or edit.

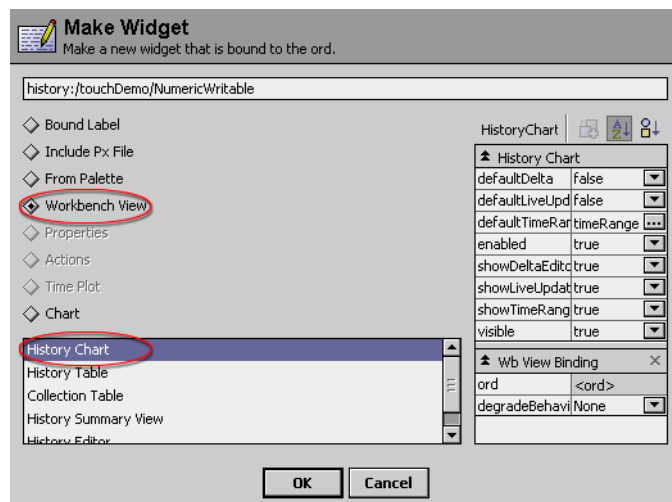
Figure 3-8 Dragging a numeric history onto the Px Editor canvas



The Make Widget Wizard displays.

- Step 2 In the Make Widget Wizard, select the following property values, as shown below, and click the OK button:

Figure 3-9 Selecting a History Chart in the Make Widget Wizard



- Workbench View
- History Chart (or select History Table, if desired)

The chart appears in the Px Editor edit mode


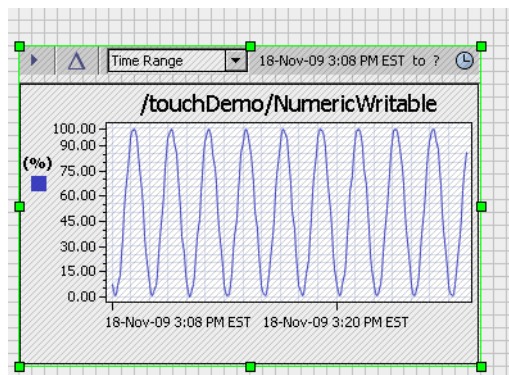
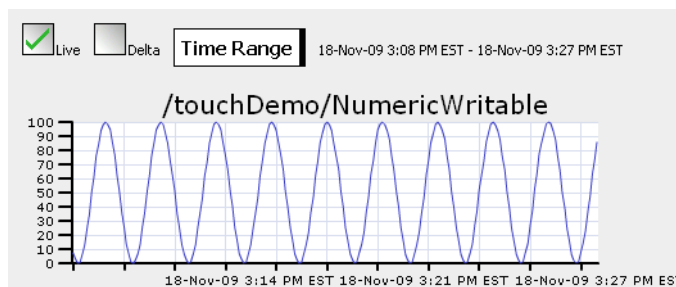
- Step 3 Position the chart widget, as desired, and click the Px Editor mode button  to toggle out of Edit mode.

Figure 3-10 Selecting a History Chart in the Make Widget Wizard



The chart is saved and is available to display as part of a touchscreen profile, as shown below.

Figure 3-11 History Chart displays in the Make Widget Wizard

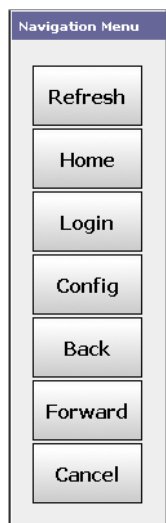


About the touchscreen Navigation Menu

A special navigation menu displays under the following types of conditions:

- Interface Problems
- Session Disconnect

Figure 3-12 Navigation Menu



The following links are available on the Navigation Menu:

- **Refresh**
Reloads the current view
- **Home**
Changes the view to the designated home page
- **Login**
Changes the view to the login view

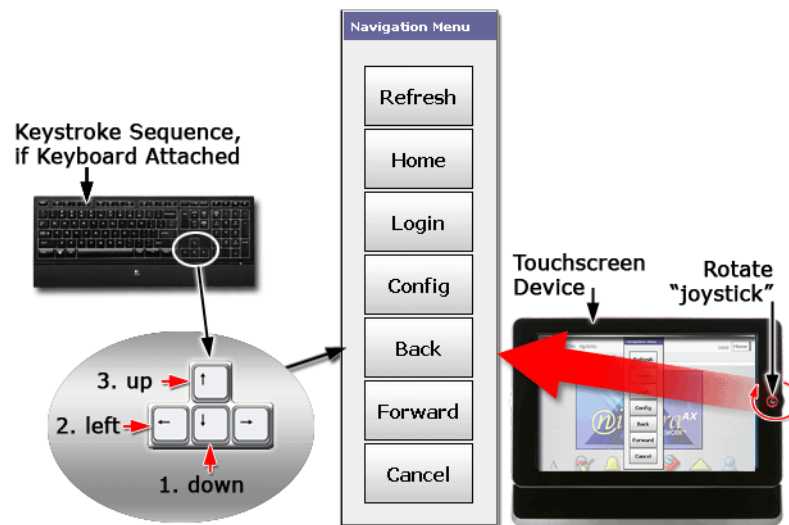
- **Config**
Changes the view to application root node of the application
- **Back**
Changes the view to one view previous as defined by the navigation history
- **Forward**
Changes the view to one view forward in the navigation history
- **Cancel**
Clears the menu from the current view

Interface problems

If it appears that a touchscreen device is not responding to commands (for example, if it is "locked up"), you can activate the Navigation Menu ("debug menu") by one or more methods, depending on features available with the particular touchscreen device. Either of the following methods should open the menu, as shown below:

- If a pointing control (such as a joystick) is available on the touchscreen device, quickly rotate the pointing control clockwise.
- If a keyboard is available, type the following keystrokes in quick succession:
down arrow, left arrow, up arrow

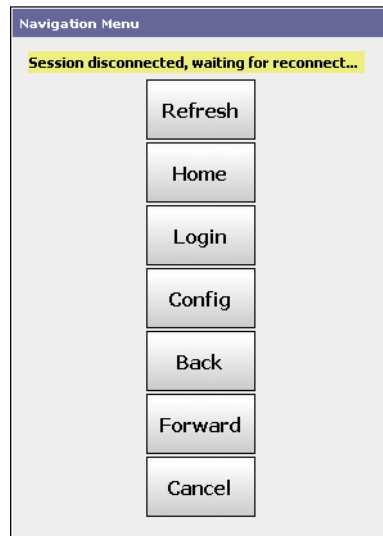
Figure 3-13 Displaying the Navigation Menu



Session Disconnect

The Navigation Menu displays automatically any time a dynamic page detects loss of a connection to the application. This may happen when an application is restarting or if the designated wireless connection point is no longer in range.

Figure 3-14 Navigation Menu



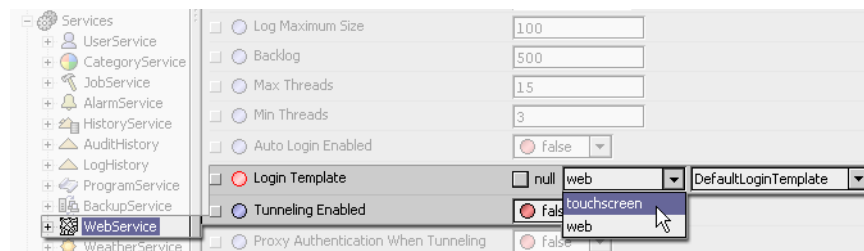
Once the application is running, or when the wireless point is back in range, the menu closes.

Touchscreen profile setup

The following listed items describe how to set up an application (using WorkbenchAX) so that the application can be accessed using a touchscreen device.

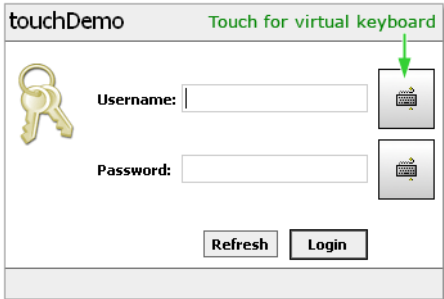
1. Verify that you have all the required modules
In addition to the standard modules required to display Hx profiles, make sure that you have the following modules installed:
 - touchscreen.jar
 - web.jar
 - hx.jar
 - queryTable.jar
 - smartTableHx.jar
 - history.jar
2. Configure the Web Service to use the TouchLoginTemplate
The TouchLoginTemplate provides a browser login view that allows users to login with a touchscreen virtual keyboard or use an actual keyboard, if available.
 - In the WorkbenchAX nav tree, under the Config > Services node, double-click on the WebService icon to display the WebService property sheet view.

Figure 3-15 WebService property sheet view



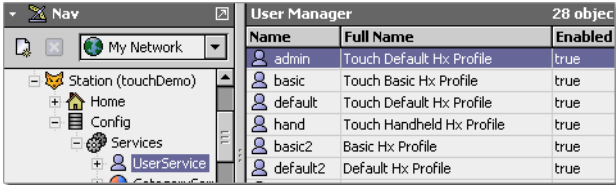
- In the WebService property sheet view, at the Login Template property, clear the null check-box, if selected. With the null check-box cleared, the two touchscreen option lists display.
- At the Login Template property, select the touchscreen and TouchLoginTemplate options.
- At the bottom of the WebService property sheet view, click the Save button. The WebService is configured to use the TouchLoginTemplate. When a user initially connects to the station from a browser, the TouchLoginTemplate displays a login view, similar to the image below:

Figure 3-16 Touchscreen login page



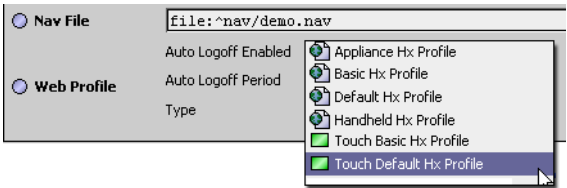
3. Assign the touchscreen profile to a user
- To use a touchscreen profile, you must assign it to an enabled user.
- In the WorkbenchAX nav tree, under the Config > Services node, double-click on the UserService icon to display the User Manager view.
 - In the User Manager view, double-click on the name of the user that you want to provide with a touchscreen profile. The **Edit** dialog box displays.

Figure 3-17 Selecting a user in the User Manager view



- In the **Edit** dialog box, select a desired touchscreen profile from the option list and click the **OK** button. The touchscreen profile is assigned to the selected user.

Figure 3-18 Selecting a touchscreen profile



Document change log

Updates (changes/additions) to this *Engineering Note: NiagaraAX Touchscreen Profile* document are listed below.

- Publication: January 29, 2009
Initial publication.