Honeywell

Reveal™ Software Installation and Programming

Contents

INTRODUCTION

The Reveal™ display unit uses Honeywell's patent pending EZ-Nav™ technology to provide real-time status information on an easy-to-use, wall-mounted touchscreen LCD. The Reveal has a 480 x 272, High Definition, 24-bit Full Color backlit LCD display. It is also available in a 16-level Extended Temperature gray-scale display. Both displays have a viewing area of 8 in^2 (51.6 cm^2).

Reveal has customizable user screens, multi-language capability, and permission-based access control. With these features it provides site personnel the ability to quickly and conveniently access setpoint changes, local alarm data, and other system information.

This document describes the Software Installation and Programming of the Reveal display unit.

For installation and configuration information, go to www.Honeywell.com/manuals to download the following:

    Reveal™ Installation Instructions (form 62-0321)

62-0322-01

SOFTWARE INSTALLATION

Complete these software installation procedures to install the necessary files to use the Reveal display unit within a Honeywell WEBs environment.

The following procedure adds files into an existing Honeywell WEBs-AX or ComfortPoint (CP) Supervisor installation:

1. Download the file, Honeywell Reveal_Support_version#.zip, from the Honeywell web site. Register or log-in at www.Honeywell.com and select **Software Updates** under **MyHoneywell** and extract and open the executable file to begin the installation. If prompted for a password, a Honeywell representative should be contacted at 1-800-348-1235)

2. Select Next on the installation welcome screen after which a required license agreement displays. The installation will terminate unless the agreement is accepted. See Fig. 1.

3. Once the End User License Agreement is read, click the bullet beside "I accept the terms of the license agreement" and then select the Next button to continue the installation. This will prompt installation via the default target directory of the existing Workbench/Supervisor installation.

4. Select Yes to accept the default location, and then select next from the Choose Destination Location pop-up to install the files into the default location.
   If No was selected, follow the prompts to browse and select an alternate directory.

5. Upon completion, the Workbench/Supervisor is capable of configuring the Reveal display unit.

6. If the directory is not found, an alternate location may be chosen, however, this may also mean that the WEBs-AX environment is not setup.
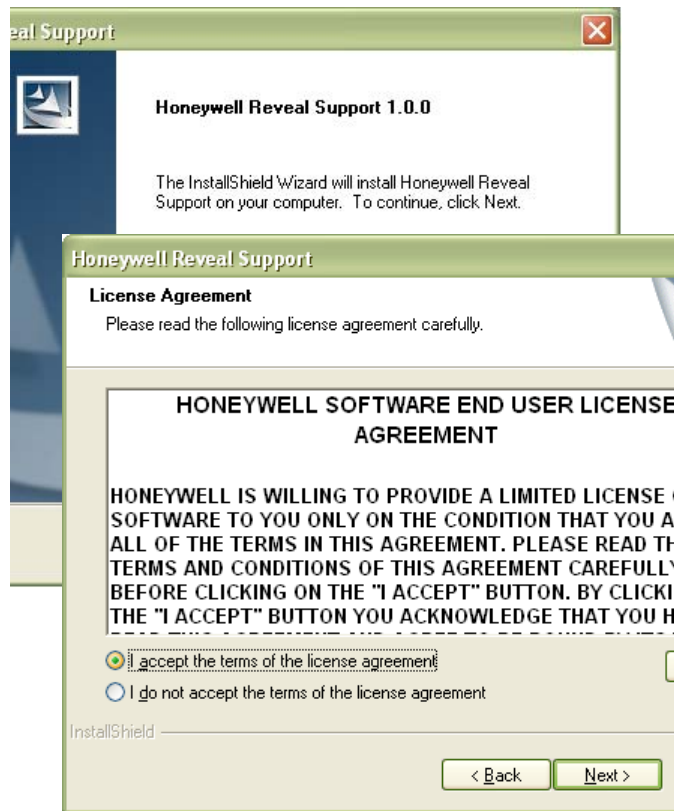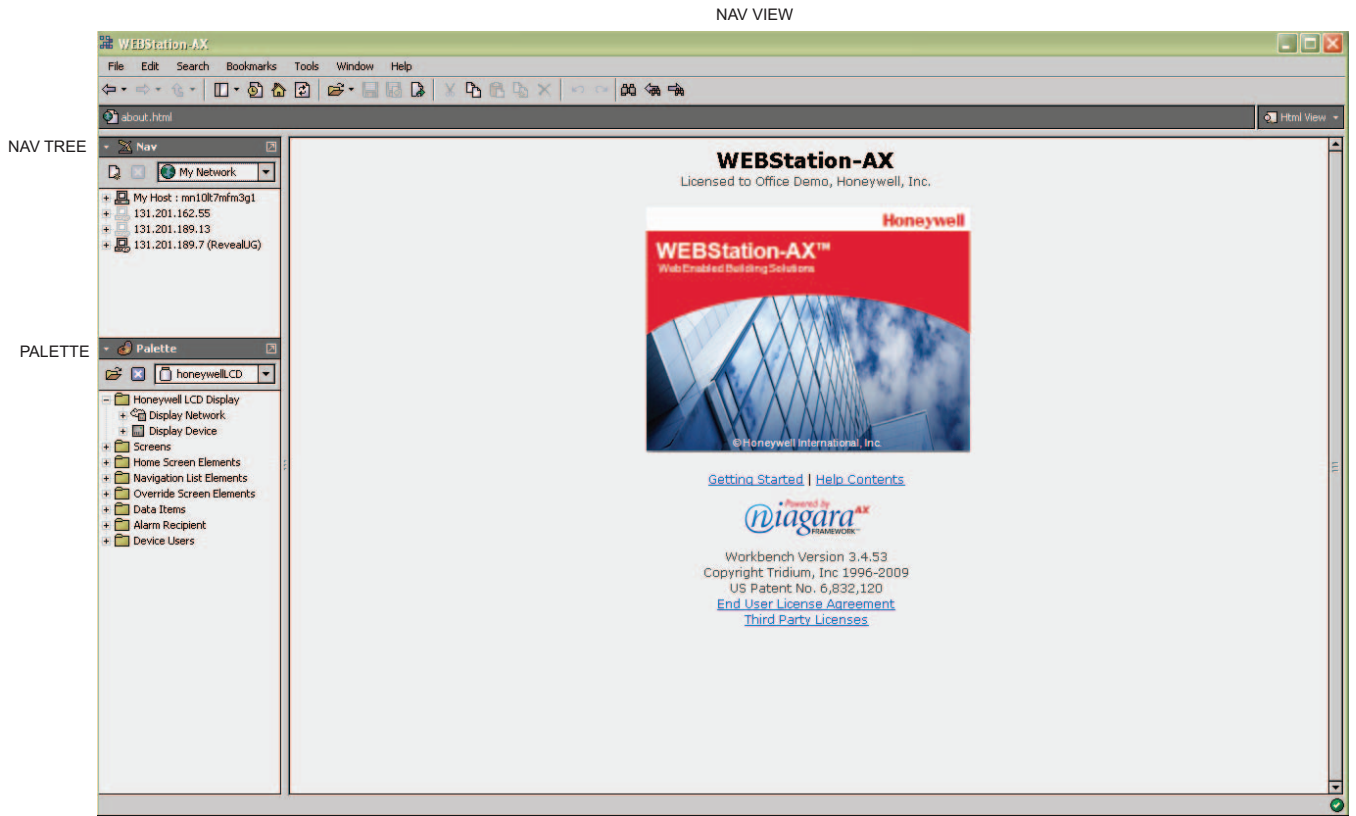

Fig. 1. Welcome and End User License screens.

DEVICE PREPARATION

Programming with the Workbench/Supervisor workspace

The Workbench/Supervisor window is separated into the following panes as shown in Fig. 2 on page 3:
- NavView
- NavTree
- Palette

NAV VIEW

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Fig. 2. Workbench/Supervisor.

The NavTree provides a hierarchical view of a user's whole system. The expandable tree is useful for performing actions on nodes (button beside items that allow you to expand and view all of the properties) and for navigating the screens and views of system components. All available operations and views can be accessed by double-clicking on nodes or using right-click pop-up menus.

The NavTree may contain these nodes:
• My Host (local system)
• My Modules
• My File System
• Platform
• Stations (connected or disconnected)
• Remote Host
• Platform
• Station

The NavView is the action window in which components can be viewed and modified.

The Palette provides an area to open, view, and access components in a module. For the Reveal display unit, the palette displays the library of elements that can be added to a screen layout.

The categories of elements available for the Reveal display unit within the Palette are:
• Honeywell LCD Display
• Screens
• Home Screen Elements
• Navigation List Elements
• Override Screen Elements
• Data Items
• Alarm Recipient
• Device Users

License Check

Before you begin, please ensure that the WEBs/CP controller is licensed to program the device. The license file should contain the "LCDProgrammable" feature name as shown in Fig. 3.
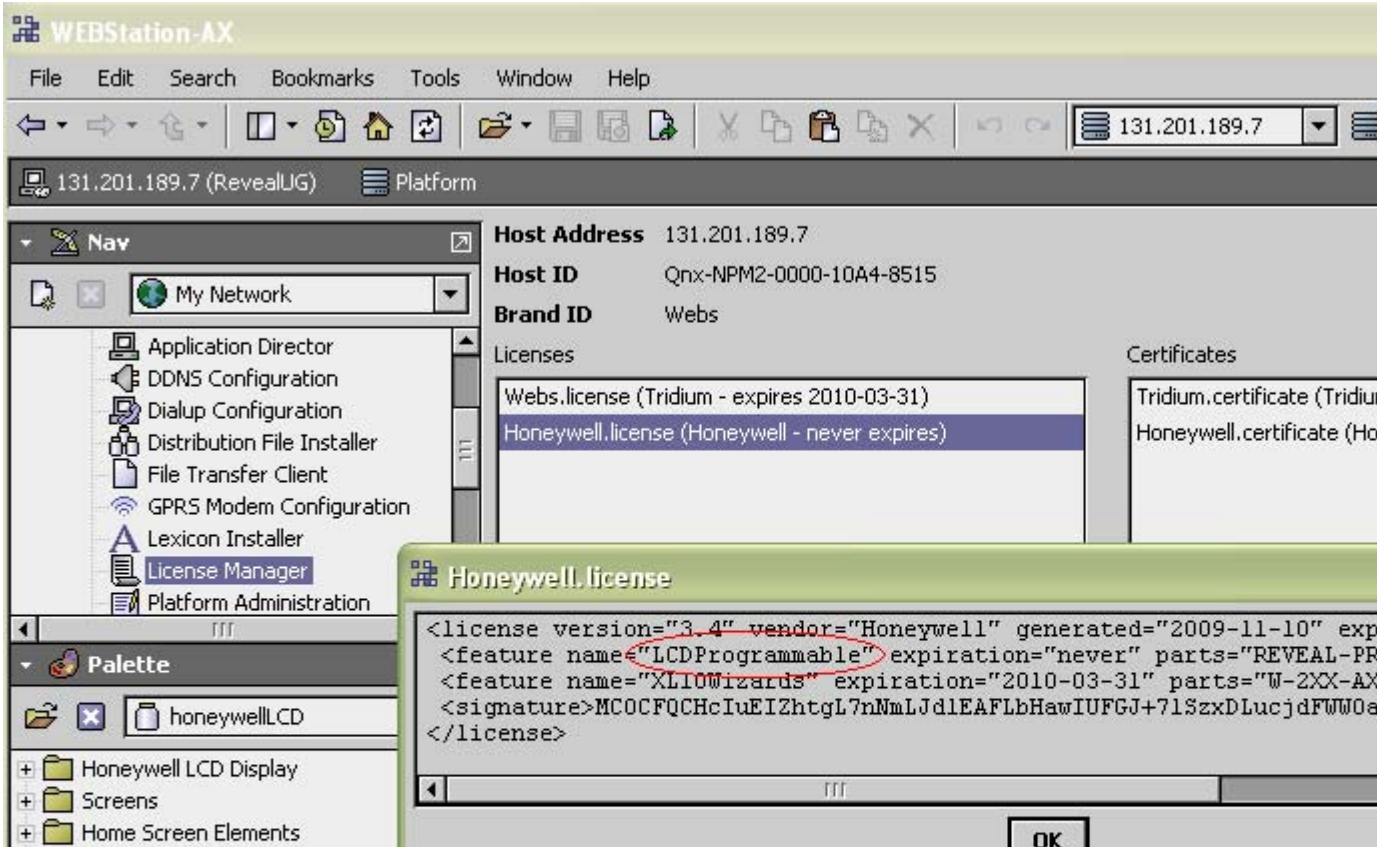

Fig. 3. License Check

PROGRAMMING

Unit Configuration

The Unit Configuration button is where all administrative selections, settings, and preference changes can be made.

Platform Settings

The following can be viewed and/or modified from the Platform Settings screen (see Fig. 4 on page 5):
- Contrast (only applicable to gray-scale display)
- Brightness
- Login Timeout
- Language (Release 1.0 only supports English)
- Network Address
- Software Version
- O.S. Version
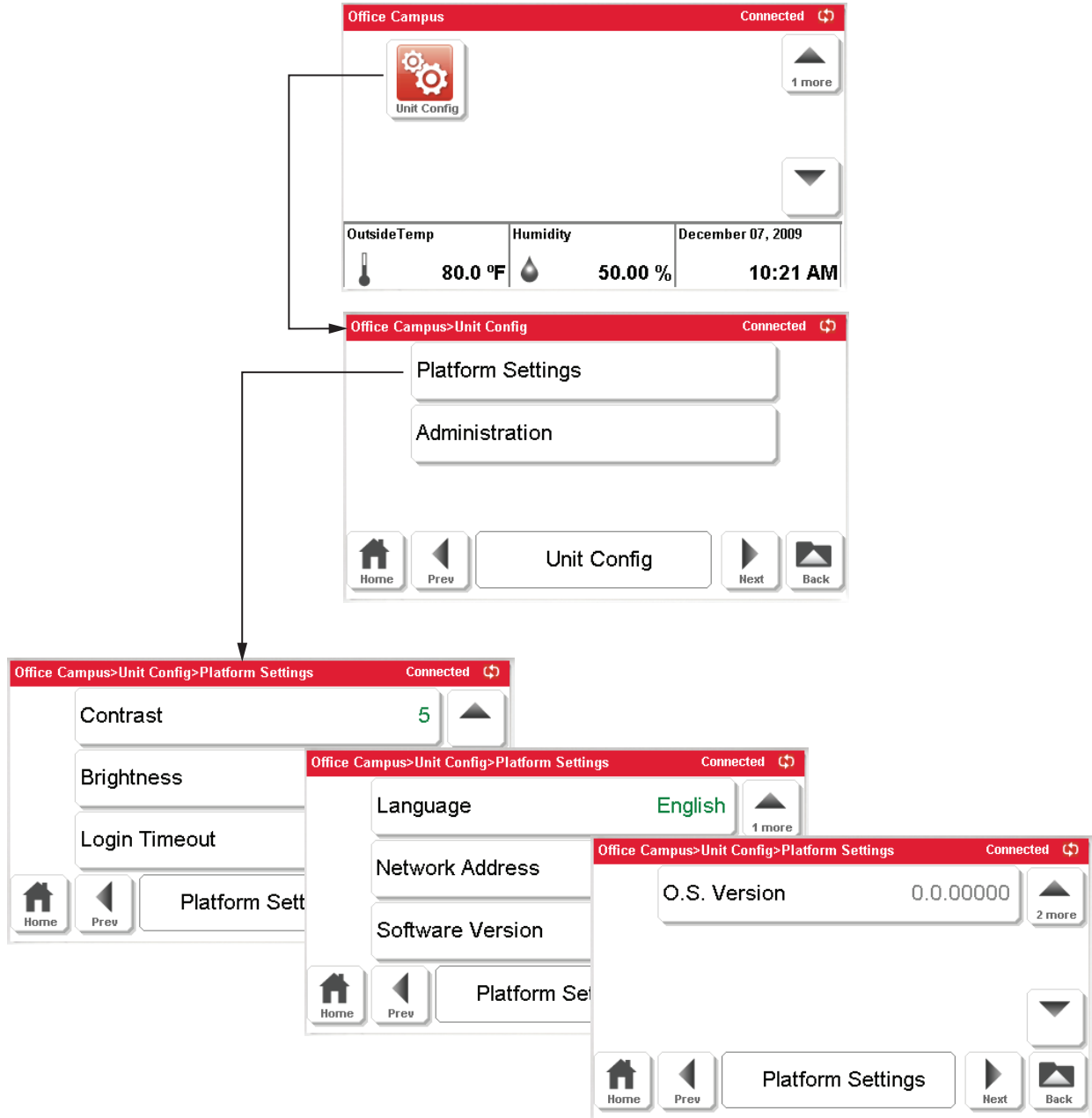
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Fig. 4. Platform screens.

Administration Settings

The Administration tab in the Unit Configuration section allows access to the following (see Fig. 5):
- Logout
- Clean Display
- Touch Calibrate
- Reboot
- Upgrade Unit
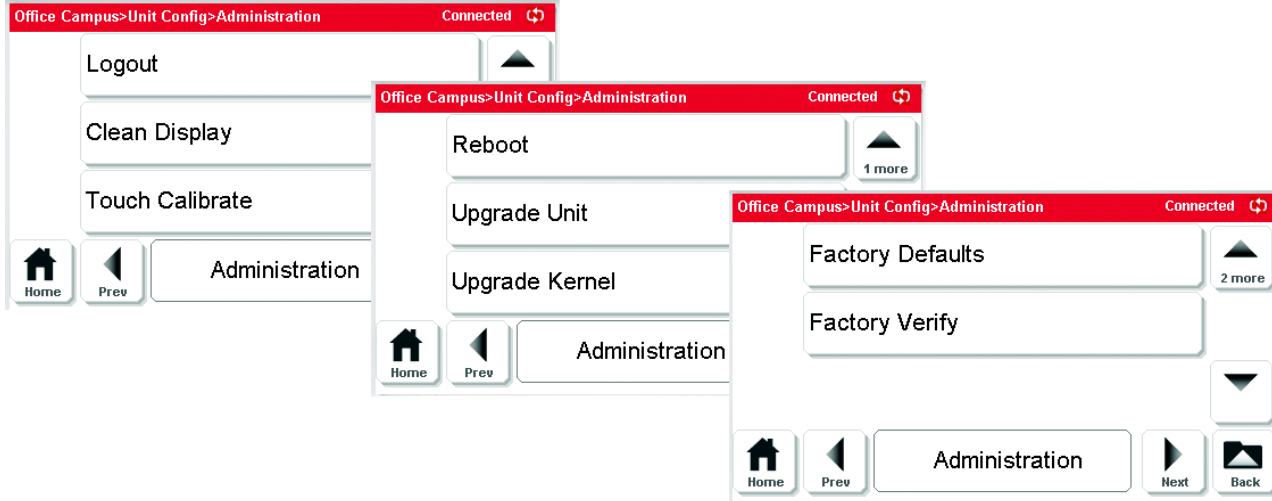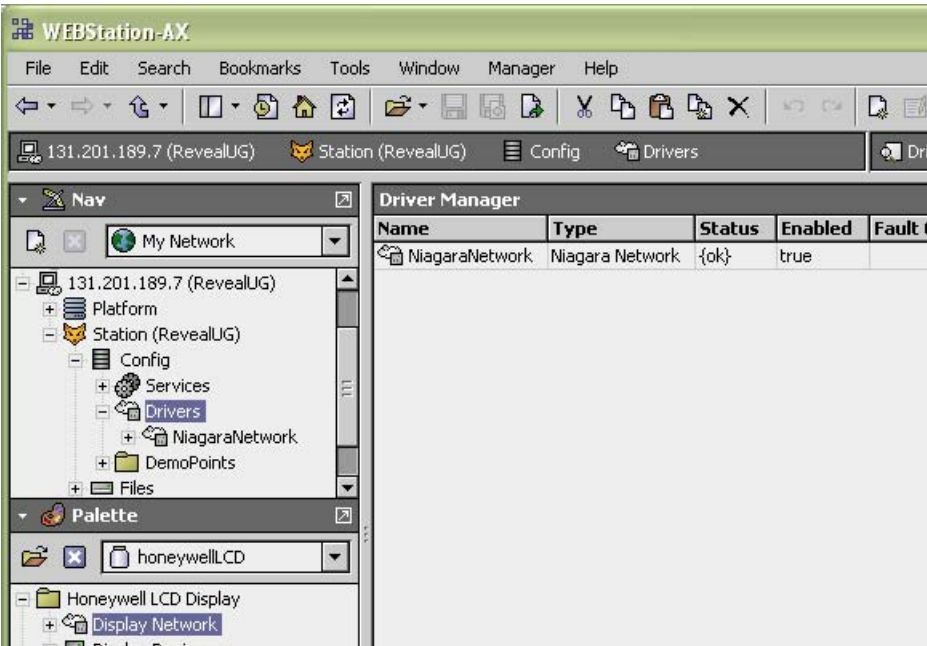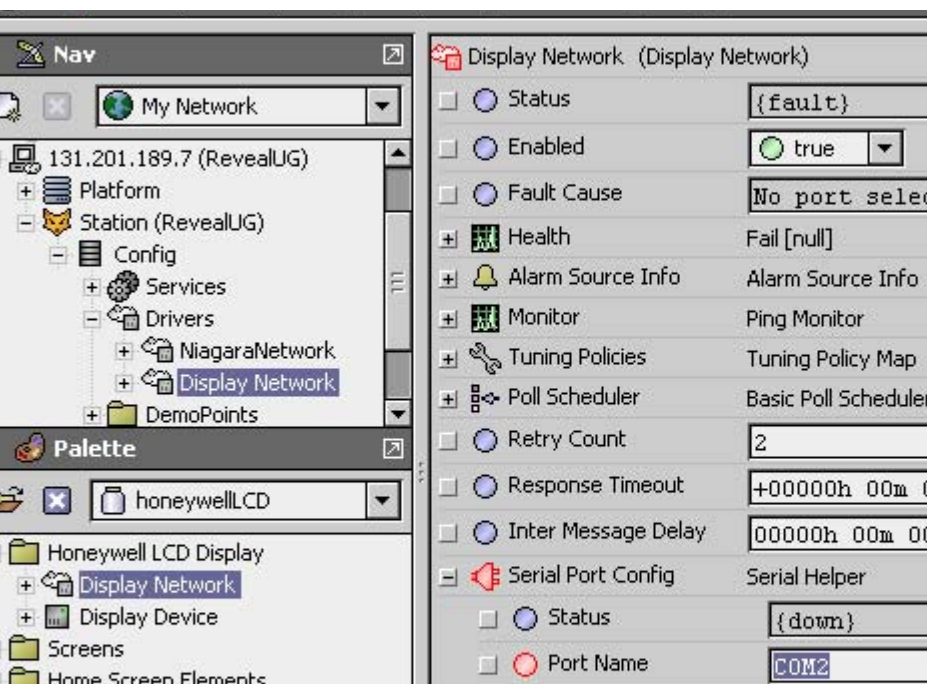- Upgrade Kernel
- Factory Defaults
- Factory Verify

Fig. 5. Administration screens.

Adding a Device Network

Use the following procedure to add a Device Network:

Table 1. Adding a Device Network.

Step	Procedure
1	Start the WEBs-AX/CP Supervisor program.
2	Use the NavTree, to navigate to the desired WEBs/CP Controller station.
3	After connecting to the station on the WEBs/CP Controller, expand the Config node in the NavTree and double-click on the Drivers node. The Driver Manager view will be displayed; this is a list of all configured networks in the station.
4	Drag the Display Network icon from the palette to add a new network. NOTE: The Display Network should be disabled until all devices in the network have been completely installed and configured (for details, refer to the *Reveal™ Installation Instructions* (form 62-0321). **Fig. 6. Display Network icon.**
5	Enter an identifying name for the network and click the OK button.
6	In the NavTree, right-click on the newly created network and select the Property Sheet under views.
7	Expand the Serial Port Config property and assign the Port Name. The default RS-485 port on a WEB/CP 201/ 600 is COM2. **Fig. 7. Port naming.**

Adding a Device to the Network

After you have added a network, use the following procedure to add a device to the network:

1. After connecting to the WEBs/CP Controller's station, expand the Config node in the NavTree, expand the Drivers node, and then double-click on the Display Network node. The Basic Device Manager view displays; this is a list of all configured networks in the station. See Fig. 8.

IMPORTANT

> *The Display Network should be disabled until all devices in the network have been completely installed and configured. For details, refer to the Reveal™ Installation Instructions (form 62-0321).*

2. Drag a Display Device from the palette to add a new device on Reveal's Display Network.
3. In the New pop-up window, enter an identifying name for the device and assign the address.
4. Click on the OK button to add the device.

NOTE: A maximum of 4 display units can be added to a Display Network on one Controller.
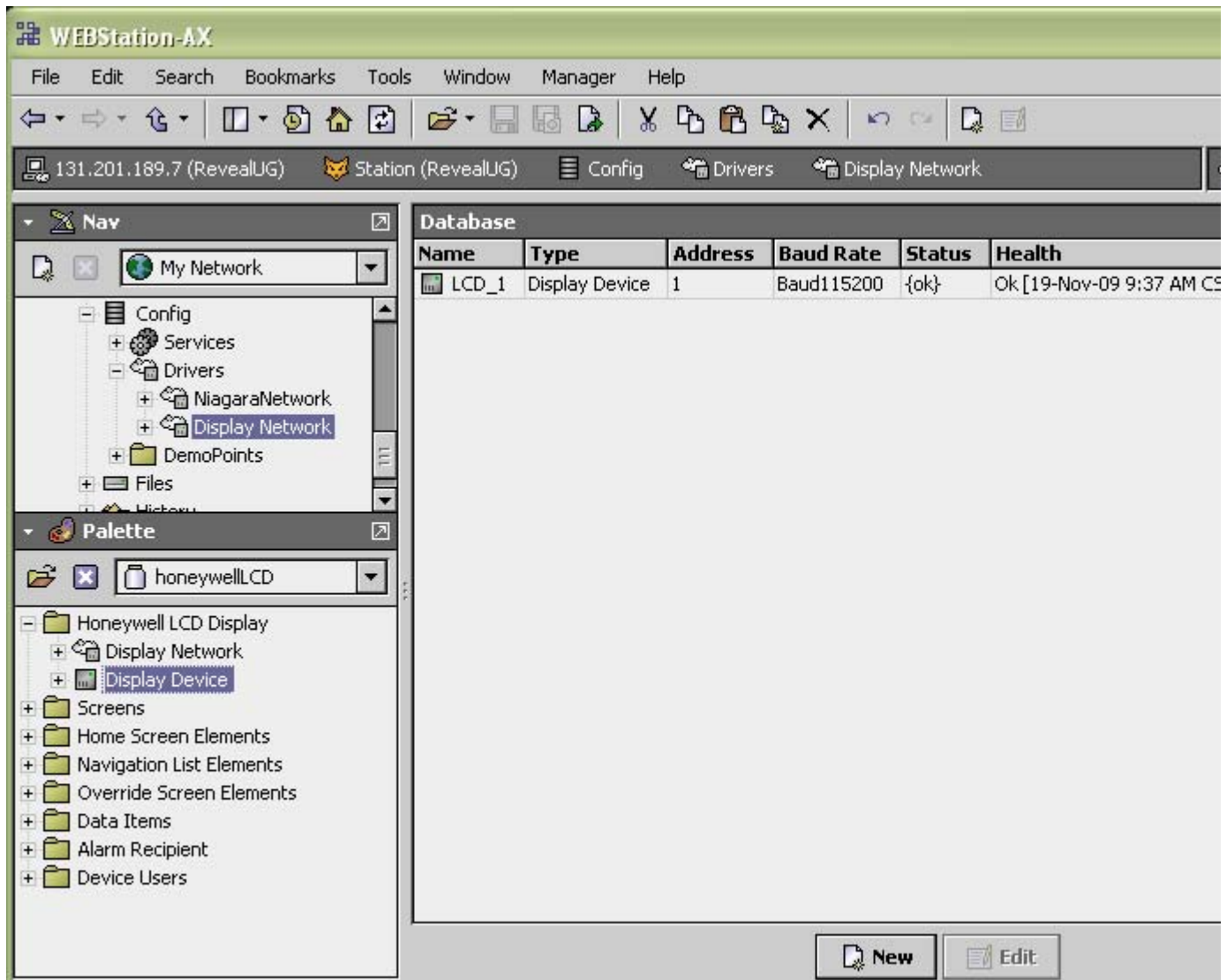

Fig. 8. View of all Network Devices.

Transferring Files

Complete the following procedure to transfer files from the PC to the WEBs/CP Controller.

1. Start the Workbench/Supervisor program.
2. Navigate to the desired WEBs/CP Controller station.
3. Connect to the Platform, expand the Platform node in the NavTree, and select File Transfer Client. Files on the local system are displayed in the left-side pane and files on the WEBs/CP Controller are displayed in the right-side pane.

4. In the left-side pane, double-click on the Images folder (see Fig. 9). On the right-side pane, navigate to the station's /LCD/images folder.
5. Highlight the required files in the expanded Images folder. See Fig. 9.
6. Click on the transfer button (right arrow between the left and right panes) to initiate a file transfer. See Fig. 9.
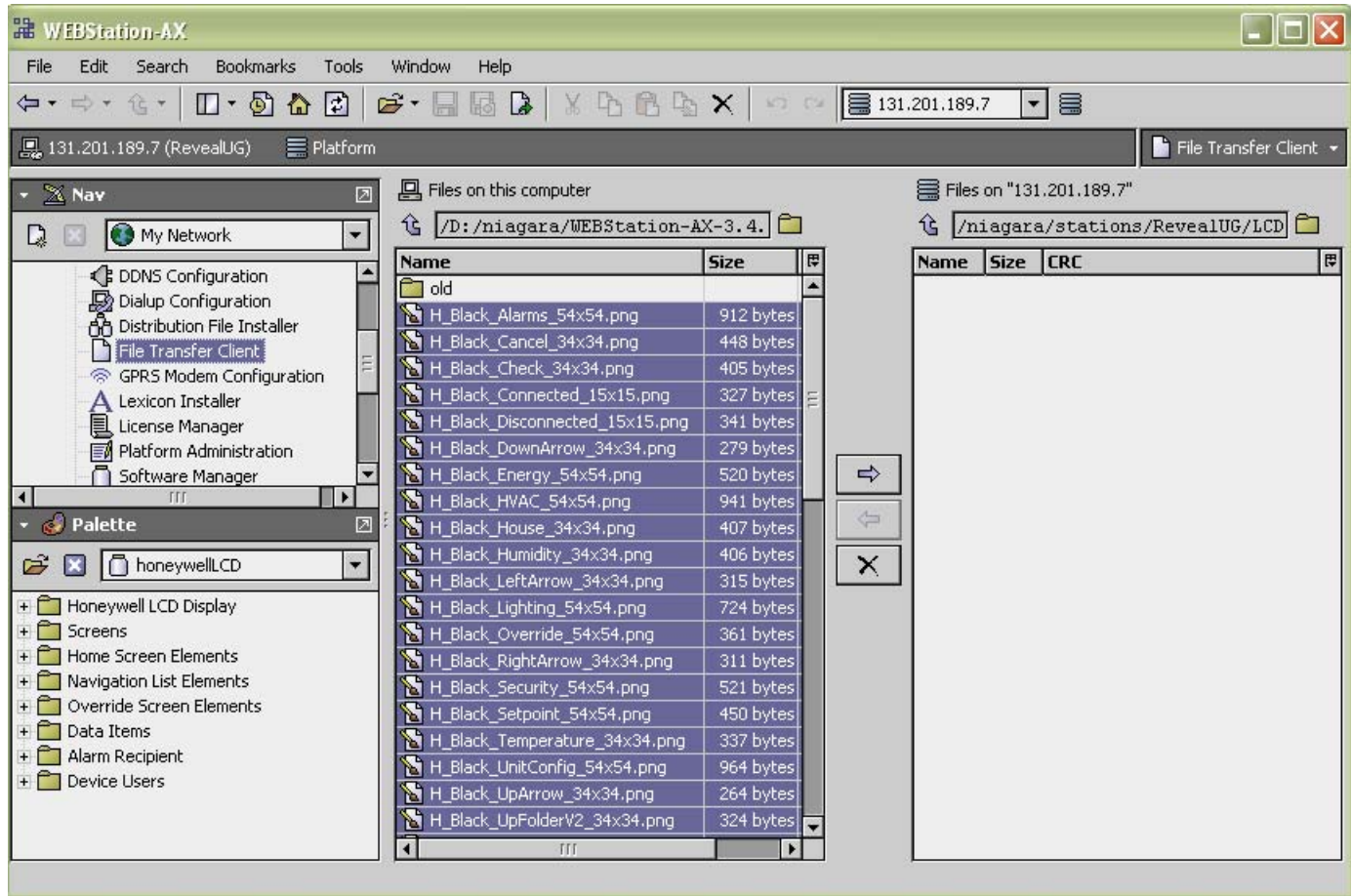
Fig. 9. Files selected on PC.

Device Configuration

This section describes configuration of the Reveal's device Properties, Actions, and Users.

Device Properties

Product information and device status are available from the device's Property Sheet view (see Fig. 10 on page 10).

DEVICE INFO
The Device Info property contains information about the Reveal display unit hardware. This information includes:
• Product identification

• Copyright, serial number and date of manufacture
• Versions of the boot loader, operating system, kernel and application
• Hardware operating conditions (board temperature and contrast voltage)

DEVICE STATUS
The Device Status property contains information about the devices operating state. This information includes:
• Currently logged in user
• Download state
• Time of the last successful download
• Time of the last successful application upgrade

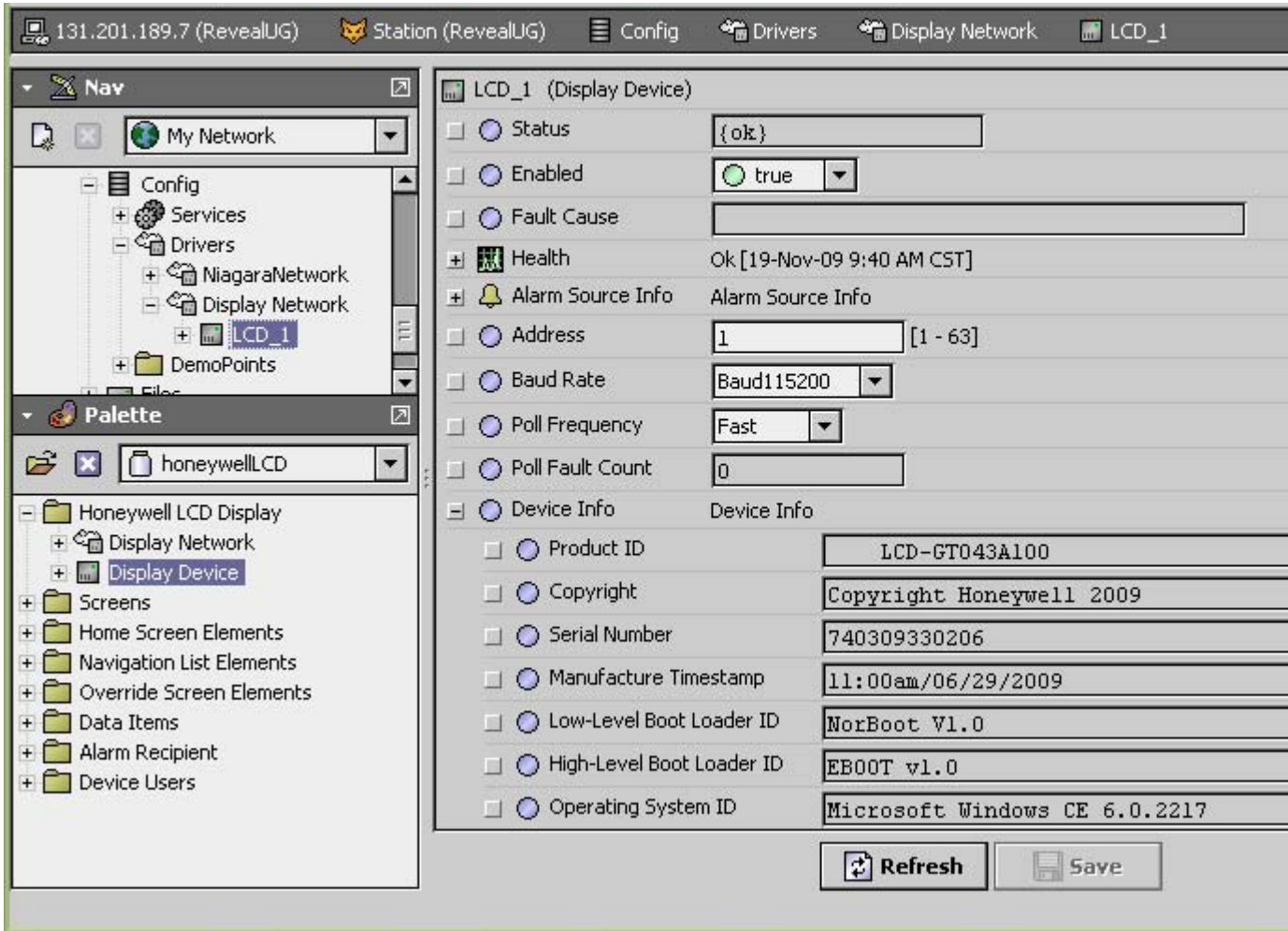**Fig. 10. Device Property Sheet – Device Info node.**

Device Actions

The Reveal display unit has two available right-click actions,
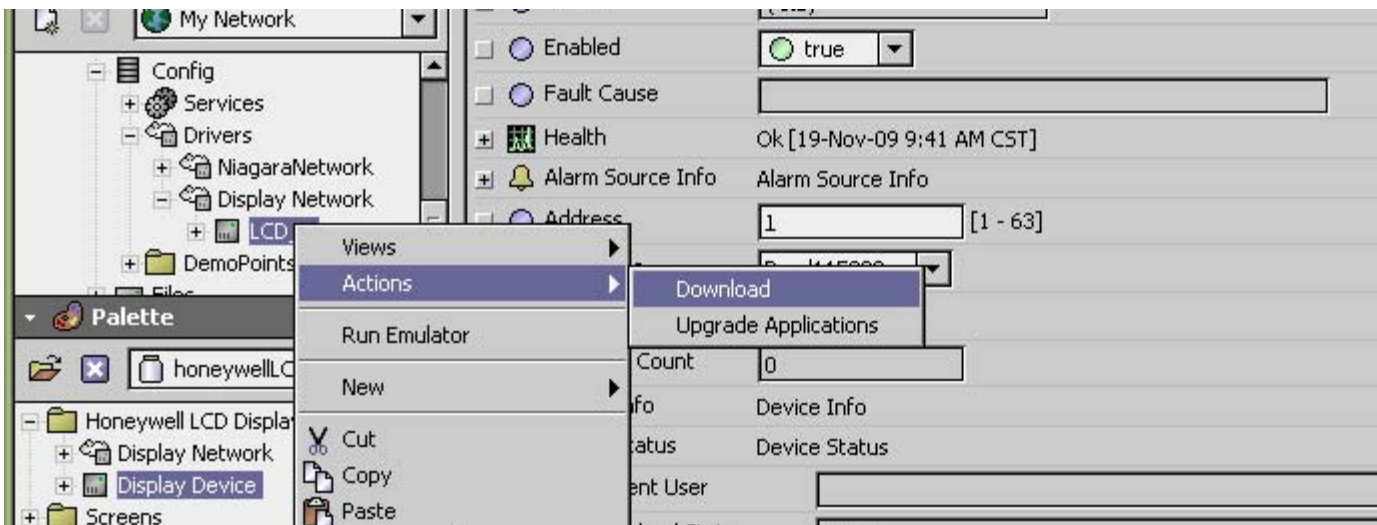Download and Upgrade Applications, as shown in Fig. 11.

Fig. 11. Download and Upgrade Applications actions.

DOWNLOAD

After the screen layout has been defined, this setup must be transferred to the device. For details, See "Screen Layout" on page 15.

The download process will copy the screen layout and all available image files from the WEBs/CP Controller to the Reveal display unit. For details, see "Transferring Files" on page 9

NOTE: During a download all files in the station's LCD/images subdirectory will be sent to the device.

Download activity can be monitored by viewing the Download State from the device's Property Sheet view. For details, See "Device Properties" on page 9.

Configuring Device Users

Users of the Reveal display unit have unique 4-digit access codes. This code is required for user authentication before operating parameters are modified or configuration settings are changed.

To utilize the station's Audit History Service, each Reveal user is associated with a station user. When a user edits any operating parameter at the Reveal display unit, that change is noted in the audit history using the name of the station user which corresponds to the authenticated 4-digit access code.

Before a Reveal user can be configured, it is necessary to create a corresponding station user in the WEBs/CP Controller. Station users are managed with the User Service, which is found under the station's Services container.

ADDING A STATION USER

To add a Station User, use the following procedure:
1. After connecting to the WEBs/CP Controller's station, locate the User Service by expanding the Station, Config, and Services nodes in the NavTree.
2. Double-click on User Service to display the User Manager view.
3. Add a station user by clicking on the New button at the bottom of the screen.

4. When a station user is added the proper access rights must be set. Reveal permission level is defined by Category 1 (note that the actual category name may differ). A Reveal user must be a Super User or have Category 1 admin-write permissions.

ADDING A DEVICE USER

After the station user has been added, a device user can be created as described in the following procedure:
1. In the NavTree, expand the Display Network and double-click on the device being configured; the device's Property Sheet will appear.
2. Highlight the Device Users container in the NavTree. Right-click and select Add User (see Fig. 12). Alternately, a new user can be added by dragging a Display User from the palette onto the Device Users container.

Fig. 12. Add User menu.

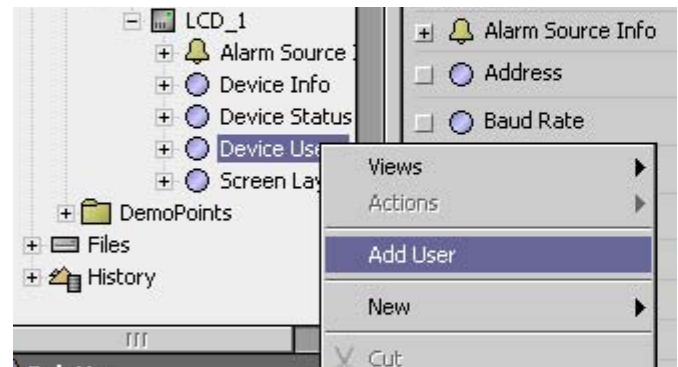3. After selecting the Add User menu item or dropping a Display User onto the Device Users container, a dialog box will prompt for a user name. Enter the User's name and click the OK button to add the new user.
4. Assign the new user a unique 4-digit access code.
5. To complete the new user setup, associate the device user with a station user by selecting from the drop-down list of configured station users.

Programming Screens and Elements

The Reveal User Interface (UI) is composed of screens, screen elements, navigation elements, and data elements. These screen-building elements are available in the HoneywellLCD.jar palette.
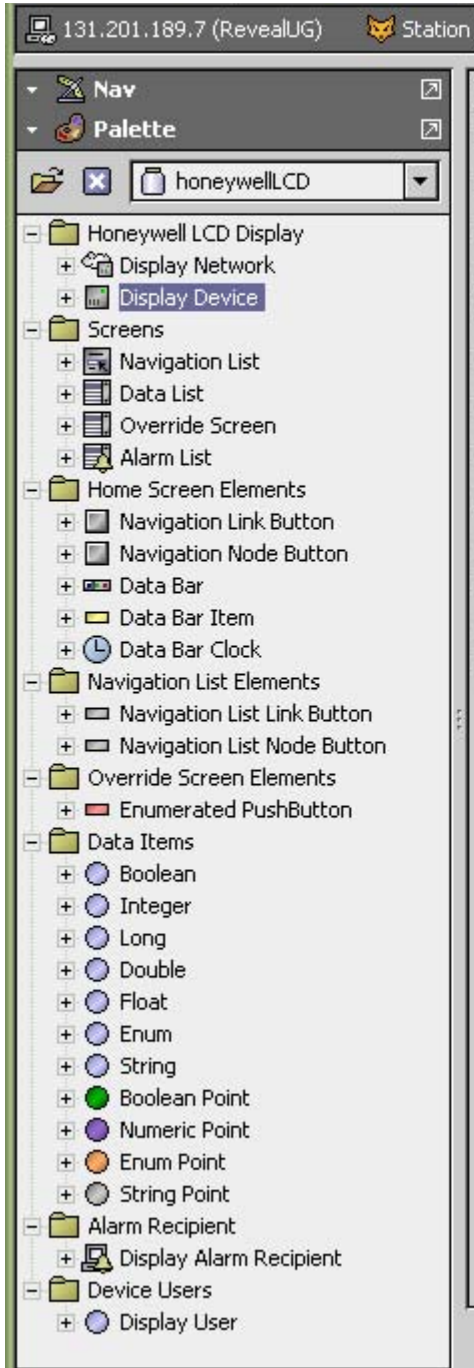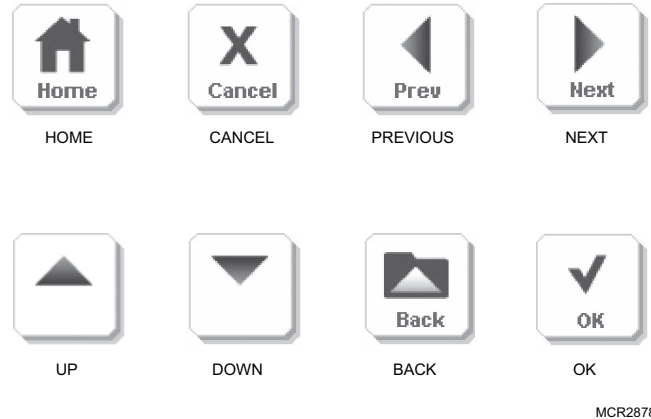

Fig. 13. honeywellLCD palette for configuring Reveal.

The UI is created by selecting elements from the palette; the elements selected and their placement within the UI defines the navigation hierarchy.

Introduction

Screens and elements[a] are fully configurable and may vary from those shown below. They are built using a combination of elements.

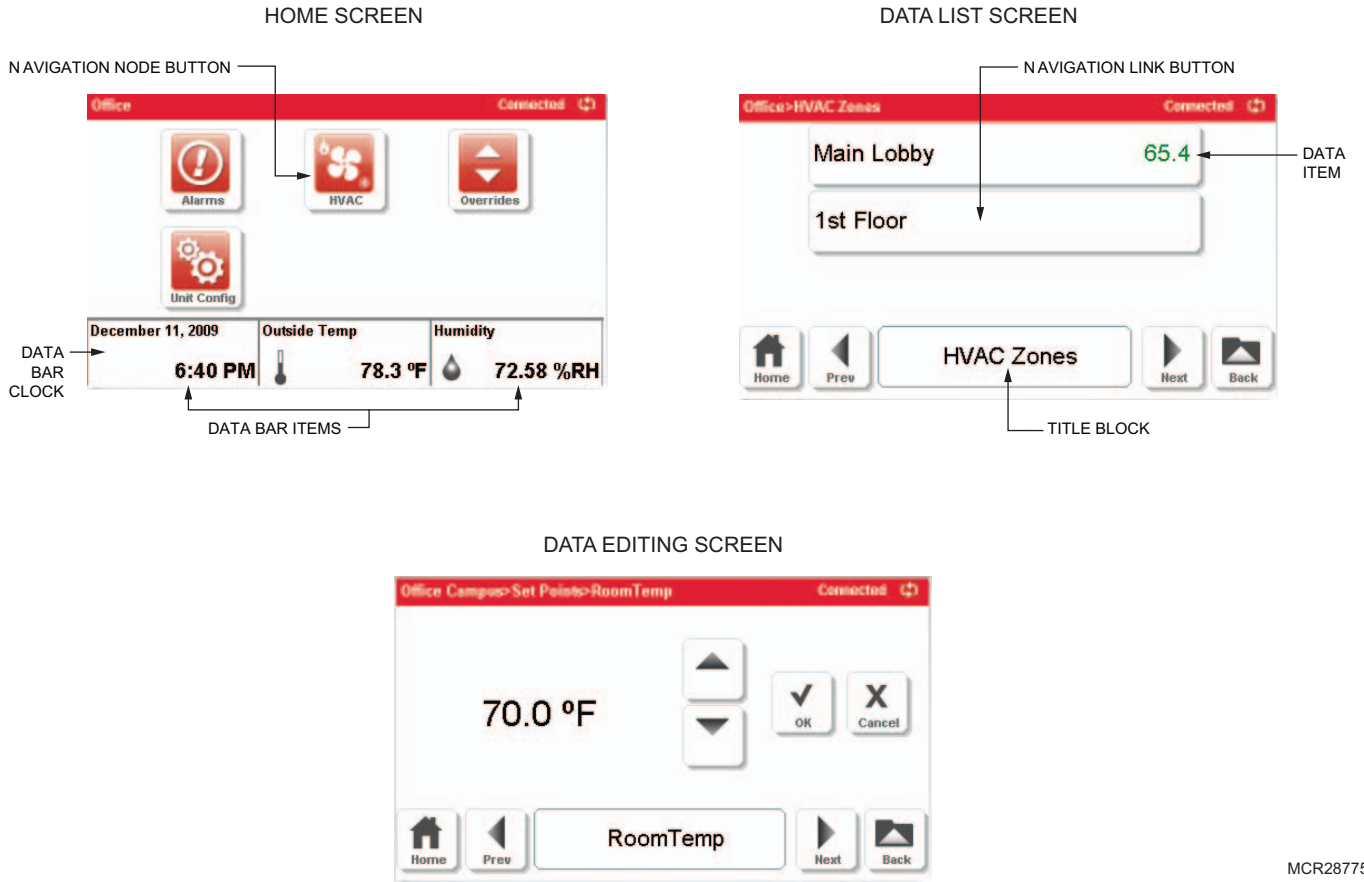MCR28783

Fig. 14. Navigation buttons.

The **Home Screen** has top level buttons and associated icons for navigation to deeper screen sets. The Home screen will vary in the types of viewable icons, depending on the users required access. With Honeywell's EZ-Nav™ technology, a 'Home' icon is on every page, for quick return to the Home Screen from anywhere in the navigation.

The **Navigation List Screen** shows the various zones and floors with optional summary data values on the buttons.

The **Data List Screen** contains all data available for a selected section. This screen also includes a list of data buttons with optional summary data values and **read-only** or **editable** points, shown on the color unit in gray and green text and on the gray-scale unit in a lighter shade.

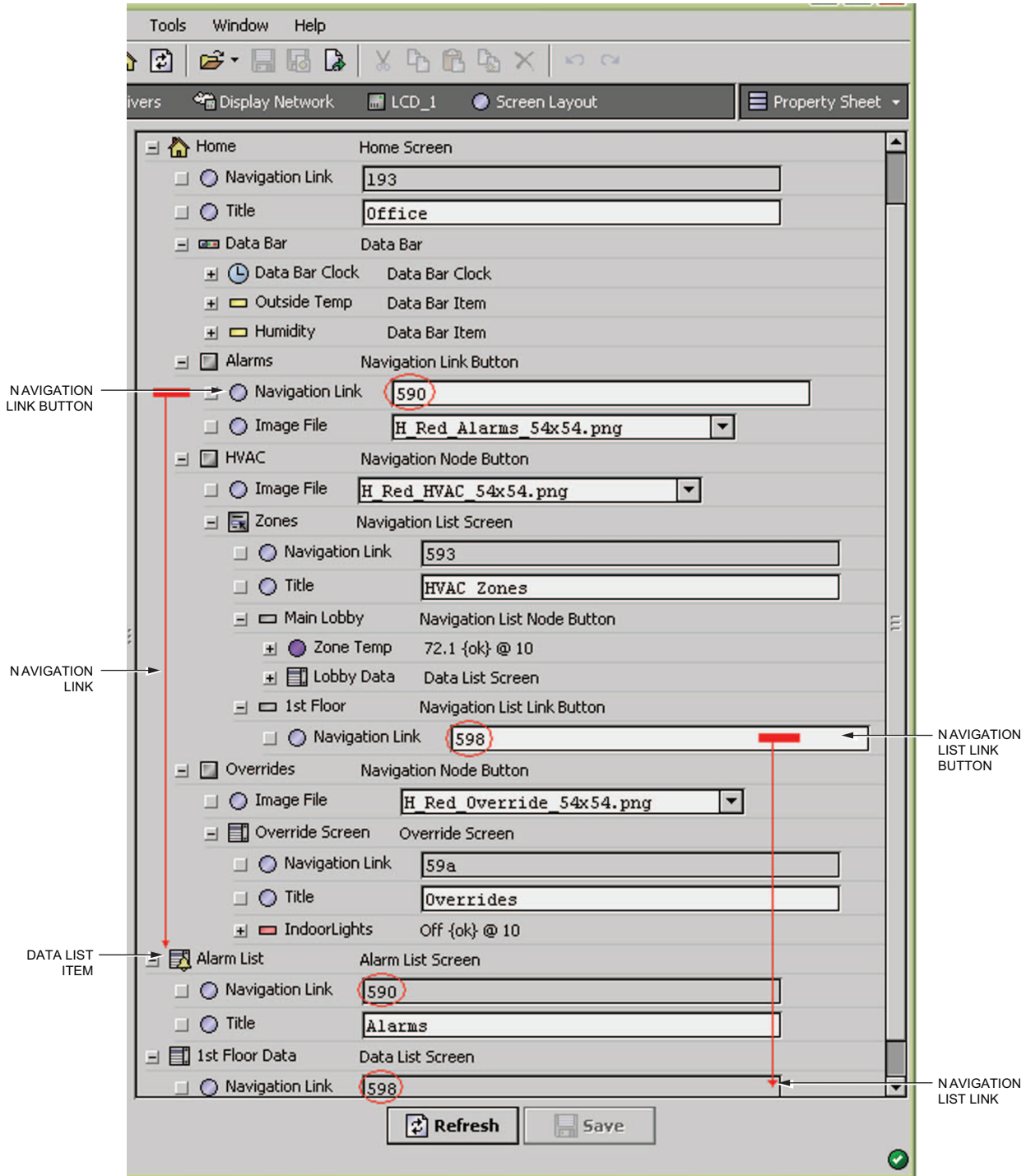The **Data Editing Screen** can be accessed directly by selecting an editable point on the Data List Screen. This page allows editing data values via the EZ-Nav up and down arrows for simplified usability.

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[a] Elements begin on page 15.

HOME SCREEN

DATA LIST SCREEN

Fig. 15. Screen, Navigation, and Data Item examples.

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Fig. 16. Hierarchy of screens list illustrating navigation linking.

Elements

DATA BAR
Defines a reserved area of the home screen in which a maximum of three live data values can be displayed. Current temperature, humidity and time of day are examples of the information which might be placed on the data bar. The data bar is composed of Data Bar Item and Data Bar Clock elements.

DATA BAR ITEM
Functions as a placeholder for a data value from the Reveal display unit. Content is selected from the available Data Item types. A user-assigned name and user-selected image may be displayed with the data value.

DATA BAR CLOCK
Functions as a placeholder for the current time.

Link versus Node Buttons
The Home screen has two types of buttons - Navigation Node Button and Navigation link Button. Similarly, the Navigation List Screen also has two equivalent types of buttons - Navigation List Node Button and Navigation List Link Button.

It is important to understand the difference between the Node and Link type of buttons in display's navigation tree. The NODE type button (parent) points to a screen (child) WITHIN the hierarchy. Therefore, that child screen, say a data list, resides within the navigation tree. On the other hand, the LINK type button points to a screen OUTSIDE of the hierarchy. Such a child screen, say an alarm list, resides outside of the navigation tree for easy access to data.

It is not mandatory to use one type of button versus the other. If the display has very few data items, one could use a NODE button to embed the data list screens directly within the hierarchy. However, if there are a lot of data lists or the data in multiple navigation screens is repetitive, one could maintain data lists outside of the navigation. In the latter case, one could use LINK buttons to point to the data lists keeping the data separate from navigation. This also helps in easy maintenance of the screen layout.

NAVIGATION (LIST) LINK BUTTON
This button type creates a clickable link to any screen in the UI hierarchy. A user-assigned name and an optional selection from the available Data Item types may be displayed on the button.

NAVIGATION (LIST) NODE BUTTON
This button type is used to define a level in the navigation hierarchy. Within the layout definition, this element is a container (or parent) for a user-defined screen. When rendered on the Reveal display unit, this button provides a clickable Link from the navigation list or the Home Screen to the child screen. A user-assigned name and an optional selection from the available Data Item types may be displayed on the button.

Data Items
Data Item elements provide the interface for transferring real-time data between the WEBs/CP Controller and the Reveal display unit. When a Data Item is added to the UI definition it is associated (or linked) with a data source of a compatible type on the WEBs/CP Controller.
- As a child of the layout container. In this case, the screen is included in the navigation hierarchy through a link-type

The following six types represent the primitive data types:
- Boolean
- Enum
- Float
- Integer
- Long
- String

Each of these Data Items must be associated (or linked) with a data source which stores a simple piece of data and contains no slots.

The following four types represent the point types available:
- Boolean Point
- Numeric Point
- Enum Point
- String Point

Each of these Data Items must be associated (or linked) with a data source which is a complex data object composed of slots.

A pre-defined behavior of each Data Item type is to adopt the modifiers (or facets) of the data source; these modifiers include precision, units of measure, true and false text values, and enumeration range.

When added to Data Bar Item, Navigation List Link Button, and Navigation List Node Button elements the Data Item interface allows the displayed value to be updated in real-time.

When added to the Data List screen type, each Data Item type has several pre-defined behaviors:
- The Data Item is rendered as a button. This button displays its' assigned name and the value of the associated (or linked) data source.
- The Data Item interface allows the value displayed on the button to be updated in real time.
- The Data Item interface allows the data source to be modified in real time, if the data source is in a writable state.
- The Data Item adopts the read only or writable state of the data source with which it has been associated (or linked). This state influences the look and behavior of the button. If the data source is read only, the button will have a grayed-out appearance to indicate that the item is inactive and available only for viewing. If the data source is writable, the button will have a normal appearance indicating that the item is active and available for editing.
- The Data Item may have an associated editing screen. This screen will be rendered on the Reveal display unit if the button is active and pressed. Editing screens are provided for modifying: the value of numeric types, the true/false state of boolean types, the ordinal of enumeration types, and the text of string types.

Screen Layout
The Reveal display unit contains a property called Screen Layout. This property is a container for the device's UI definition.

The UI is created by copying elements from the honeywellLCD palette and pasting them onto the layout. Alternately, elements can be added to the layout using the drag-and-drop method.

Screens may be added in two ways:
- As the child of a node-type button (Navigation Node Button or Navigation List Node Button).
  button (Navigation Link Button or Navigation List Link Button).

Navigation Button Images

Use the following procedure to create the navigation buttons for the Reveal display screen:

1. After connecting to the WEBs/CP Controller's Station, expand the Config and then Drivers nodes in the NavTree.
2. Expand the device's network node and locate the device to be configured.
3. Expand the device's node, double-click on the Screen Layout container, and the Property Sheet view of the container displays. Most of the layout creation tasks will use the Property Sheet view of Screen Layout.
4. From the Screen Layout container's Property Sheet view, expand the Navigation Buttons node. See Fig. 17.
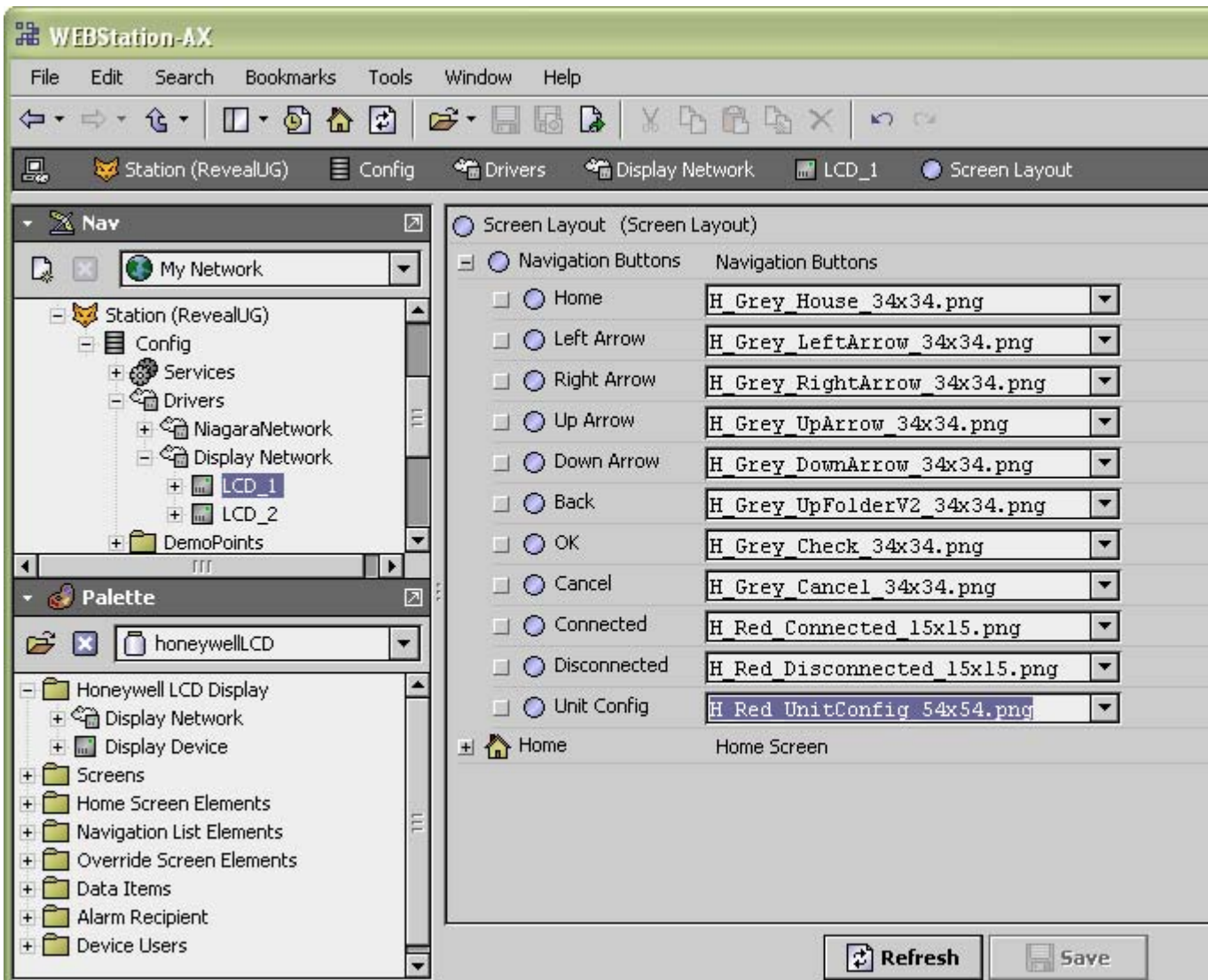5. For each button, select an icon from the list of available image files.

Fig. 17. Navigation button images drop-down list.

Home Screen

Use the following procedure to create the home screen for a device:

1. From the Screen Layout container's Property Sheet view, expand the Home component.
2. Enter a Title to be displayed on the home screen.

3. Configure the Home Screen by dragging elements from the Home Screen Elements folder of the honeywellLCD palette and dropping them on the Home node. Expand the Home Screen Elements folder of the honeywellLCD palette.
4. From the Screen Layout container's Property Sheet view, expand the Home node
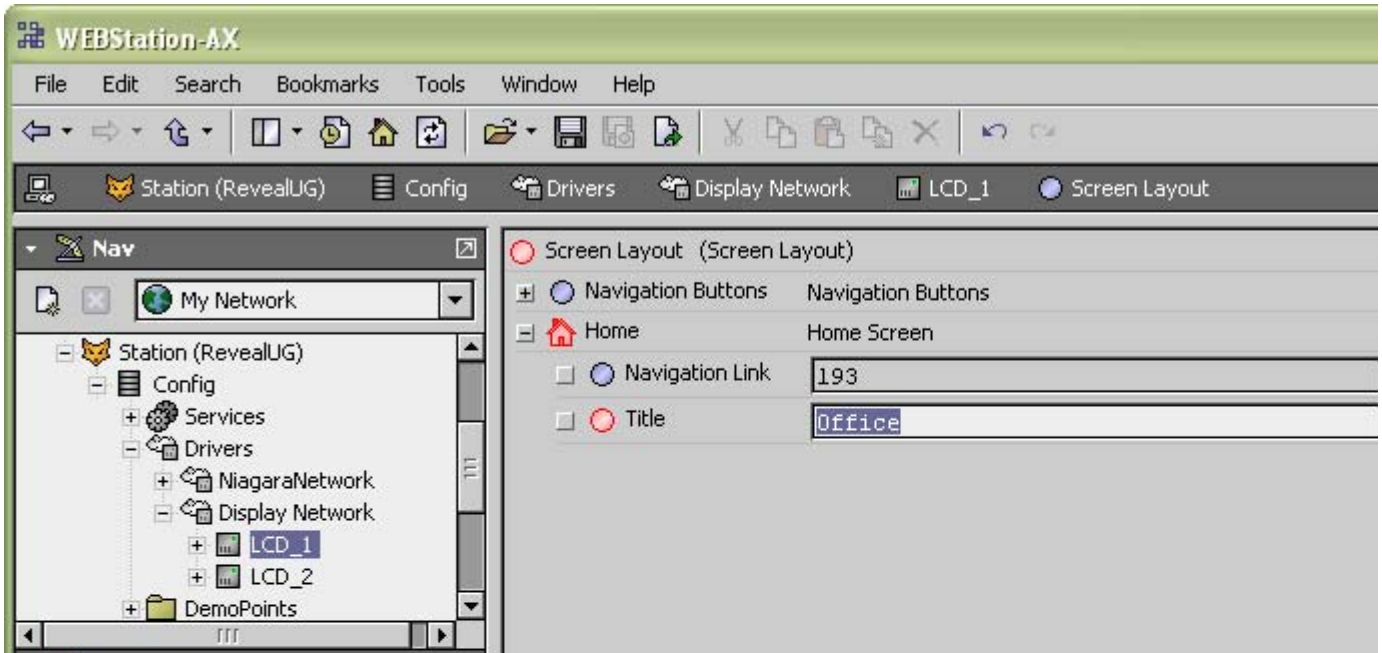
Fig. 18. Adding Home Screen title.

Creating the Data Bar

1. Drag a Data Bar from the palette onto the Home screen.
2. Enter an identifying name in the Name dialog box and click the OK button to add the element.
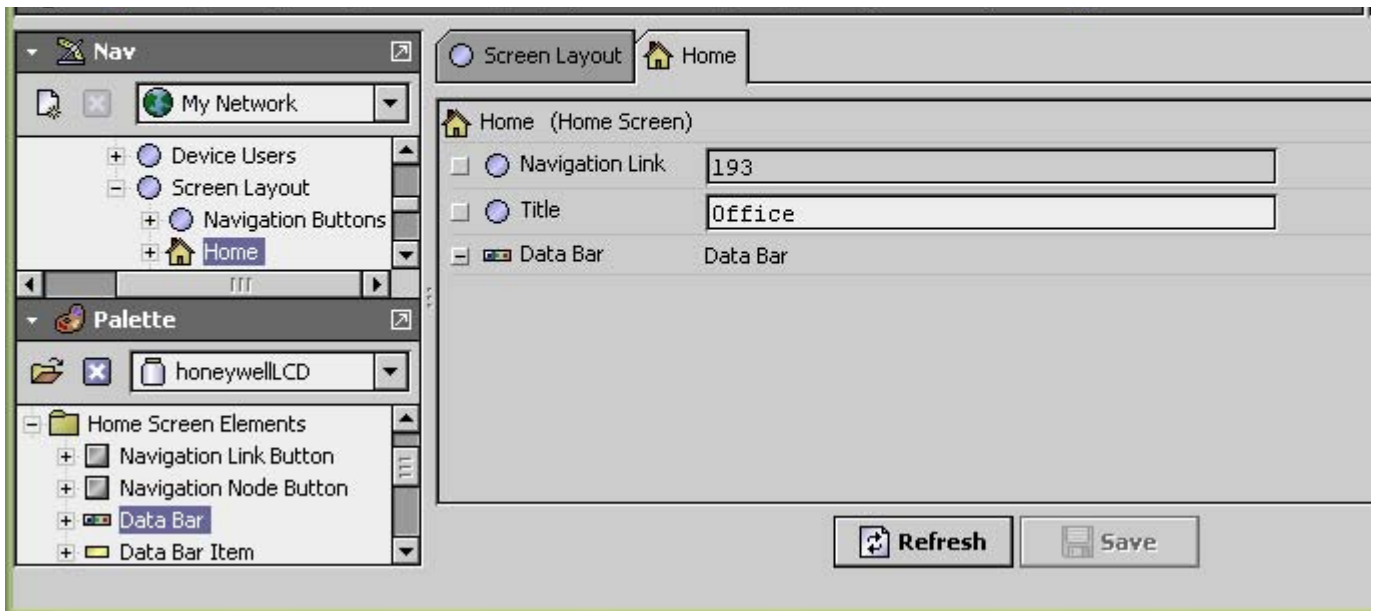

Fig. 19. Data Bar.

Creating the Data Bar Clock

1. To display the current time in the data bar area, drag a Data Bar Clock onto the Data Bar.
2. Enter an identifying name in the Name dialog box and click the OK button to add the element.
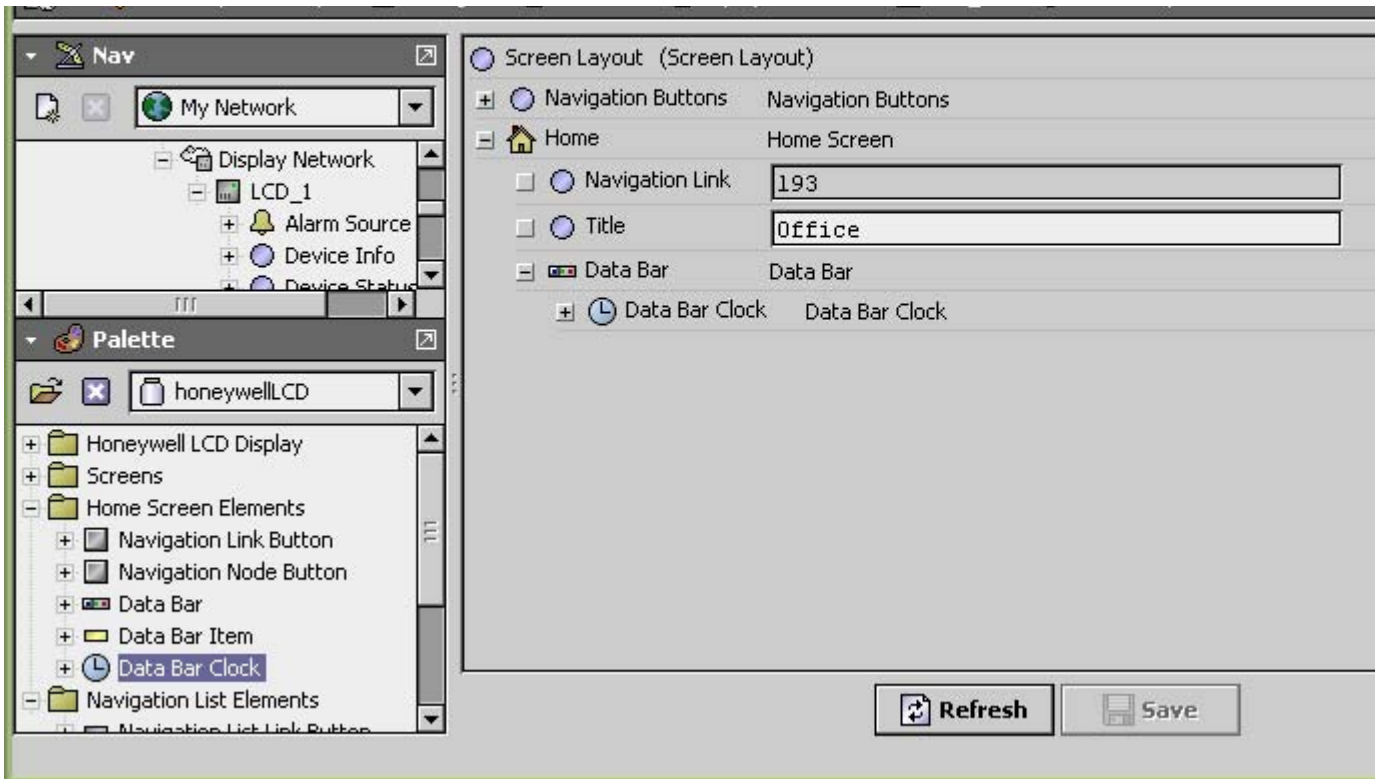

Fig. 20. Data Bar Clock.

Creating a Data Item

Use the procedure in Table 2 to add a data item.
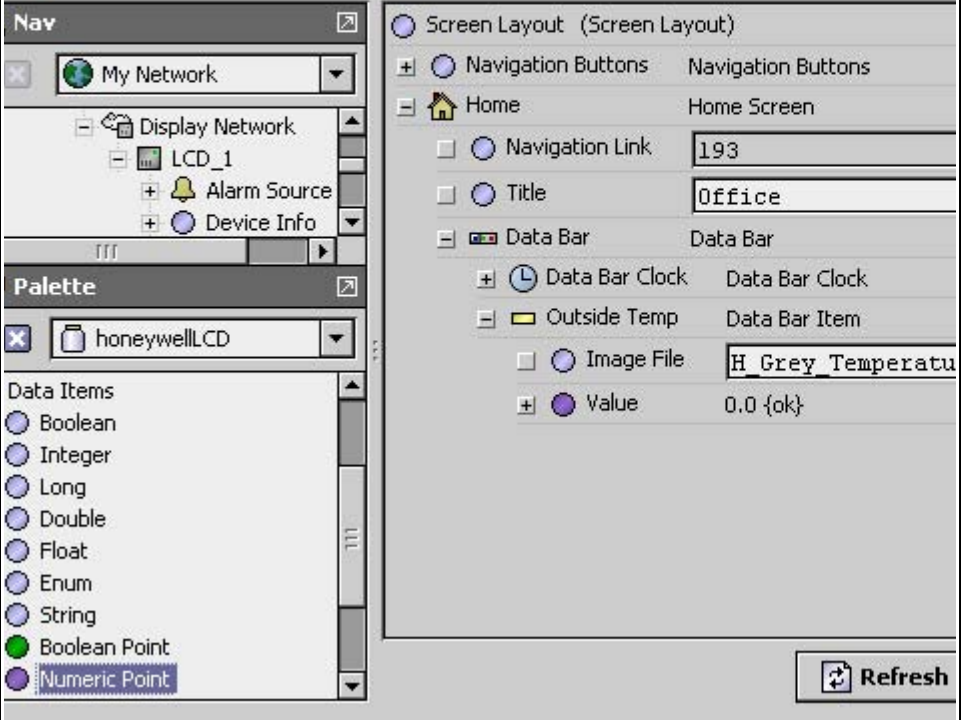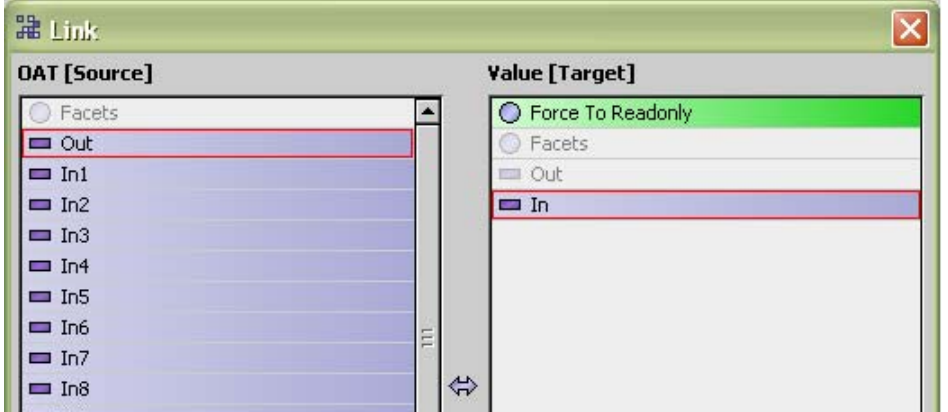
Table 2. Creating a Data Item for the home screen.

Step	Procedure
1	To display a data value on the data bar, copy a Data Bar Item from the palette onto the Data Bar.
2	In the Name dialog box, enter a name to be displayed on the item and click the OK button to add the element.
3	Expand the newly added Data Bar Item and select an icon from the list of available image files; note that the assignment of an icon is optional.
4	Based on the type of data to be displayed (Outside Air Temperature in this case, which is a Numeric Point), copy the appropriate element from the palette's Data Items folder onto the Data Bar Item. Enter an identifying name in the Name dialog box and click the OK button to add the data item. **Fig. 21. Data Item.**
5	In the NavTree, locate the source component for the information to be displayed; right-click on the data source and select Link Mark.
6	From either the NavTree or the Property Sheet view right-click on the previously added Data Item and select Link From.
7	In the Link dialog box, select the Out property of the source component and the In property of the Data Item. NOTE: The Navigation Link property should only be modified using the documented procedure. Modifying this property by any other means will corrupt the screen layout definition. **Fig. 22. Link Source to Target prompt.**

Table 2. Creating a Data Item for the home screen. (Continued)

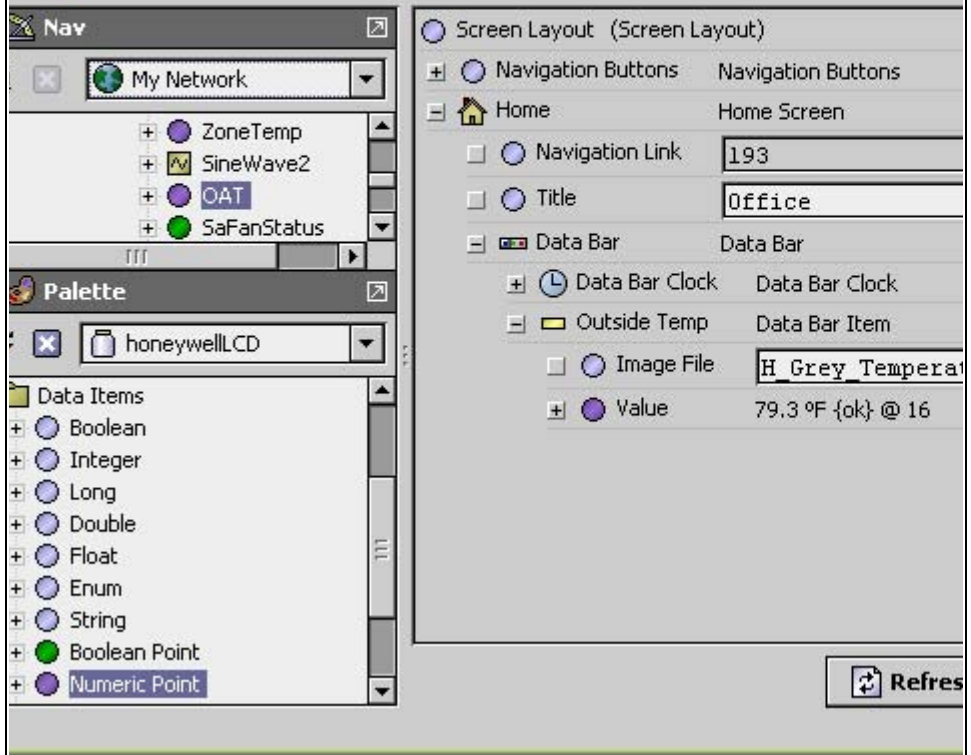| Step	Procedure
8	Creation of this link allows the Reveal display unit to update the data bar anytime the source component's value changes. NOTE: Setpoints and other Data Types are also added in a similar way.

Fig. 23. View of actual value once connected to data source.

Navigation Link and Node Buttons

Use the procedure in Table 3 to create navigation link and
node buttons.

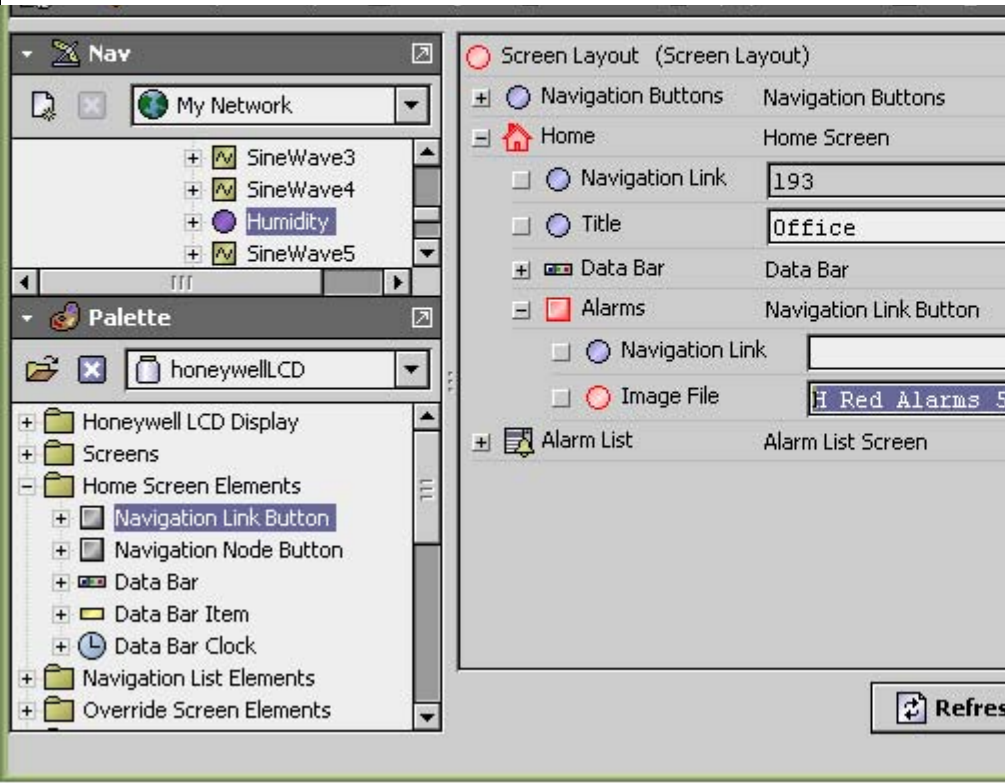**Table 3. Creating Navigation Link and Node buttons.**

Step	Procedure
Navigation Link Button	
1	Drag a Navigation Link Button from the palette onto the Home screen.
2	In the Name dialog box, enter a name (e.g. Alarms) to be displayed on the navigation button and click the OK button to add the element.
3	Expand the newly added element and select an icon from the list of available image files. NOTE: The assignment of an icon is optional.
4	Add a target Screen, say an Alarm List screen to the Screen Layout root.
5	Locate the screen (e.g. the Alarm List) that will be the target of this navigation button. Right-click on the target screen and select Link Mark. **Fig. 24. Adding an icon to a Navigation Link button.**
6	From either the NavTree or the Property Sheet view right-click on the previously added Navigation Link Button (Alarms) and select Link From.

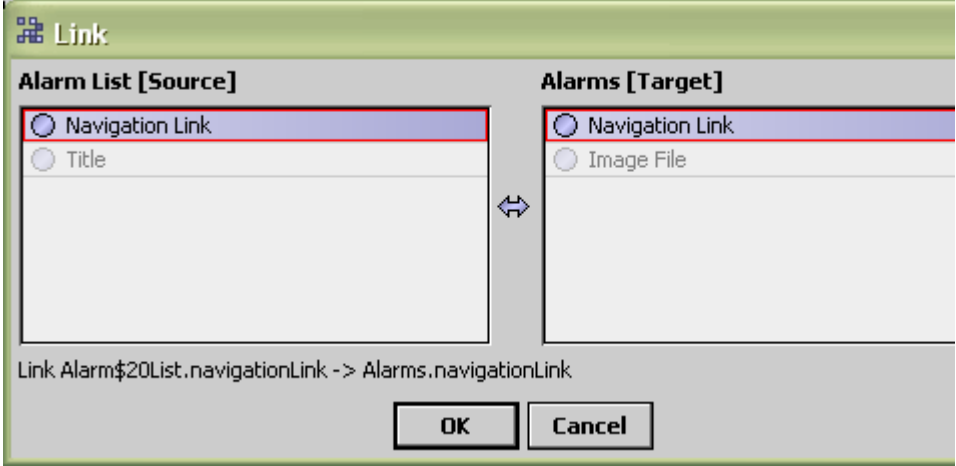**Table 3. Creating Navigation Link and Node buttons. (Continued)**

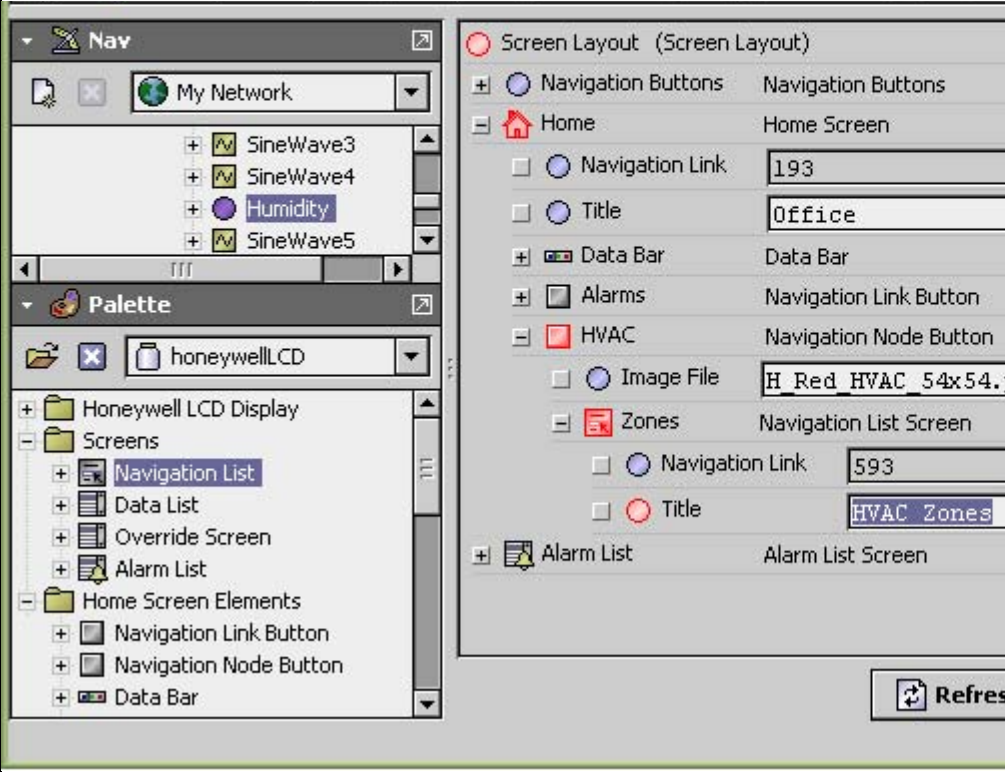| Step	Procedure
7	Link the Navigation Link slots of the screen and the button. NOTE: The Navigation Link property should only be modified using the documented procedure. Modifying this property by any other means will corrupt the screen layout definition. **Fig. 25. Link Source to Target prompt.**
Navigation Node Button	
8	Drag a Navigation Node Button from the palette onto the Home screen
9	In the Name dialog box, enter a name to be displayed on the navigation button and click the OK button to add the element.
10	Expand the newly added element and select an icon from the list of available image files; note that the assignment of an icon is optional.
11	Based on the desired navigation hierarchy, select a screen from the available types and drag the screen from the palette onto the Navigation Node Button.
12	Enter an identifying name in the Name dialog box and click the OK button to add the screen.
13	Expand the newly added screen and enter a Title to be displayed on the screen. **Fig. 26. Adding a title to a navigation button.**

Navigation List Screen and Elements

Use the procedure in Table 4 to create the Navigation List
screen, List Node button, and List Link button.

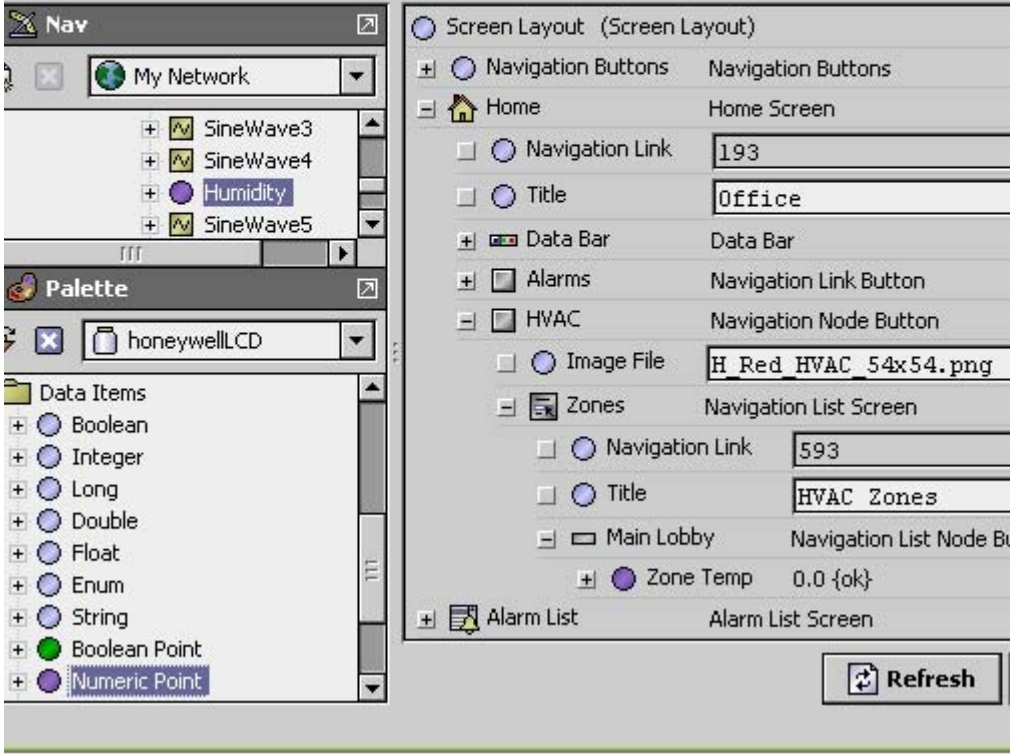**Table 4. Creating the Navigation List screen elements.**

Step	Procedure
Navigation List Screen	
1	Expand the Navigation List Screen Elements folder of the honeywellLCD palette.
2	From the Screen Layout container's Property Sheet view, locate the Navigation List being configured.
Navigation List Node Button	
3	Drag a Navigation List Node Button from the palette onto the Navigation List.
4	In the Name dialog box enter a name to be displayed on the Navigation List Button and click the OK button to add the element. (Optionally, a live data value can be displayed on the button.)
5	Based on the type of data to be displayed, copy the appropriate element from the palette's Data Items folder onto the button. **Fig. 27. Copy Data item.**
6	Enter an identifying name in the Name dialog box and click the OK button to add the data item.
7	In the NavTree, locate the source component for the information to be displayed; right-click and select Link Mark.
8	From either the NavTree or the Property Sheet view right-click on the previously added Data Item and select Link From.
9	In the Link dialog box, select the Out property of the source component and the In property of the Data Item.

Table 4. Creating the Navigation List screen elements. (Continued)

Step	Procedure
10	Creation of this link allows the Reveal display unit to update the Navigation List Button anytime the source component's value changes. **Fig. 28. View of actual value once connected to data source.**
11	Based on the desired navigation hierarchy, select a screen from the available types. Drag the screen from the palette onto the Navigation List Node Button. In this example, we drag a data list screen.
12	Enter an identifying name in the Name dialog box and click the OK button to add the screen.

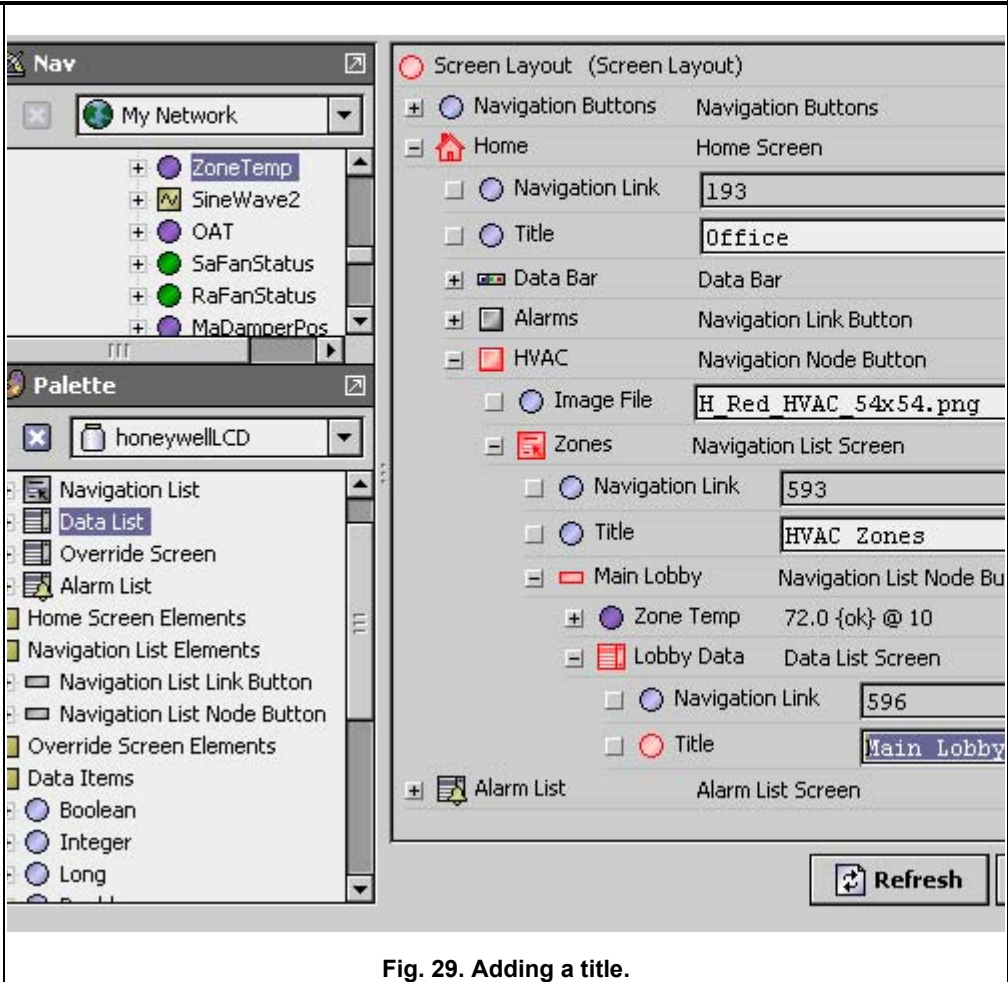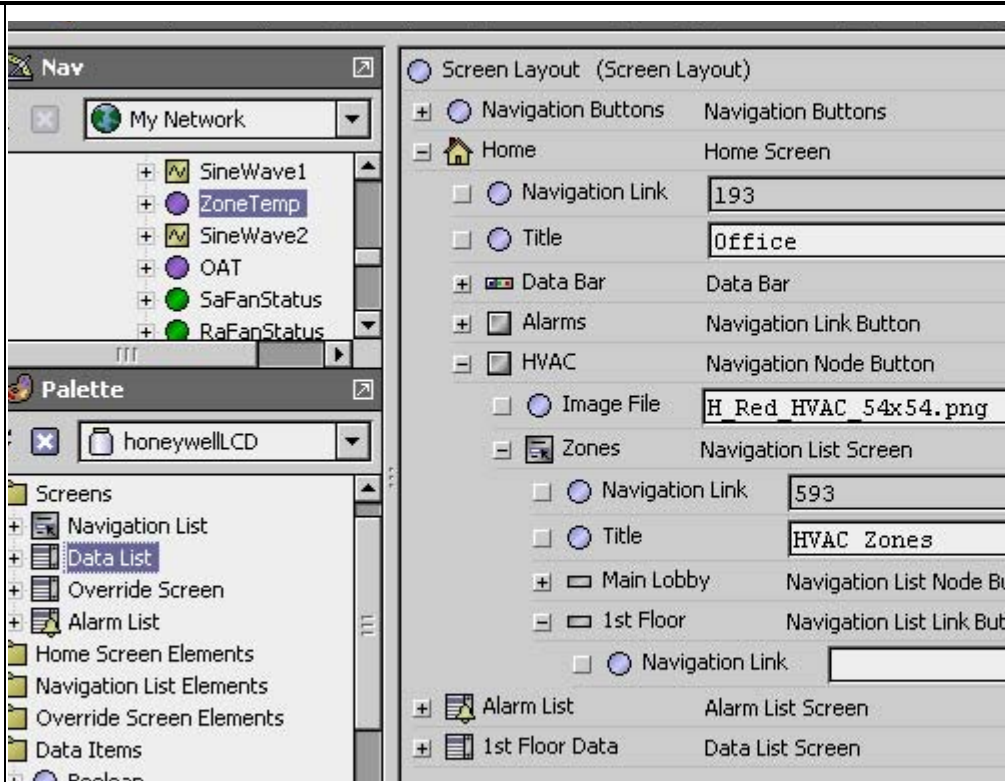**Table 4. Creating the Navigation List screen elements. (Continued)**

Step	Procedure
13	Expand the newly added data list screen and enter a Title to be displayed on the screen.

Fig. 29. Adding a title.

14	Once the Data List is added, you can add new data items to it, as desired.

Navigation List Link Button

14	Drag a Navigation List Link Button from the palette onto the Navigation List.
15	In the Name dialog box, enter a name to be displayed on the Navigation List Button and click the OK button to add the element. (Optionally, a live data value can be displayed on the button.)

Table 4. Creating the Navigation List screen elements. (Continued)

Step	Procedure
16	Drag a Data List from the palette onto the Screen Layout. Enter a name to be displayed for the newly added Data List **Fig. 30. Drag Data List from palette.**
17	Locate the screen that will be the target of this Navigation List Button, and right-click on the target screen and select Link Mark.
18	From either the NavTree or the Property Sheet view right-click on the previously added Navigation List Link Button in the NavTree view and select Link From. NOTE: The Navigation Link property should only be modified using the documented procedure. Modifying this property by any other means will corrupt the screen layout definition.
19	Link the Navigation Link slots of the screen and the button.

Override Screen

Use the procedure in Table 5 to create an override screen for a
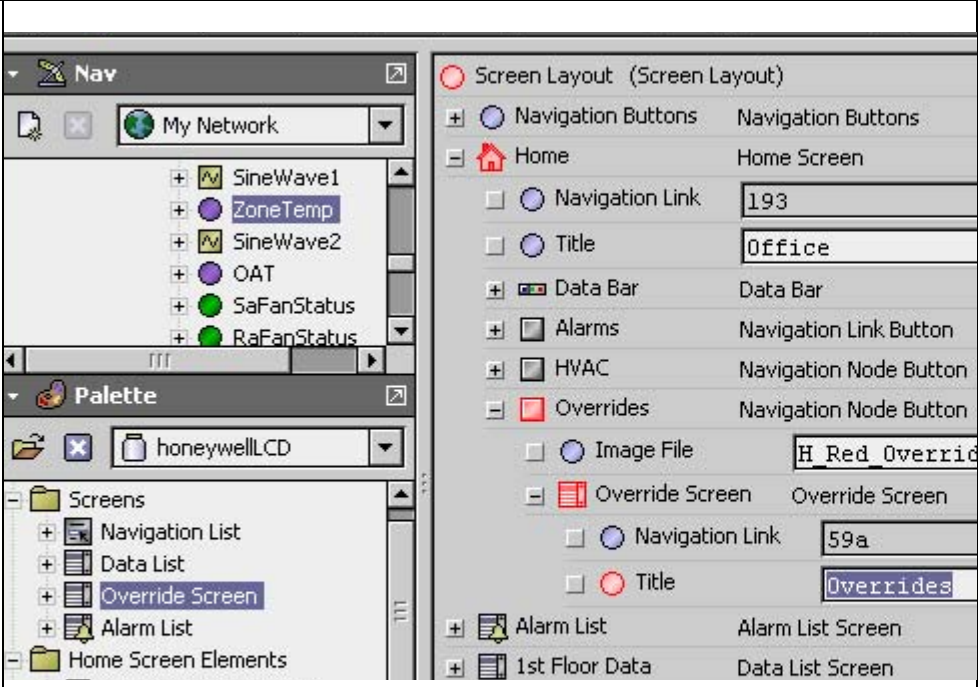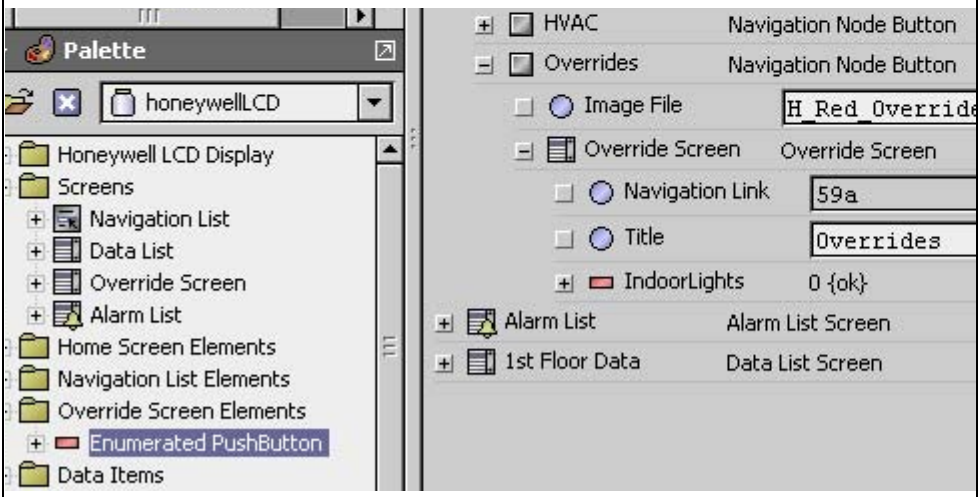device.

Table 5. Creating an Override screen.

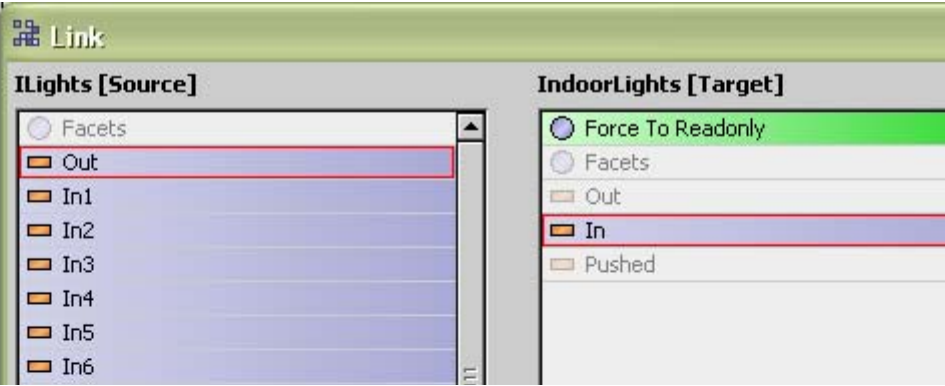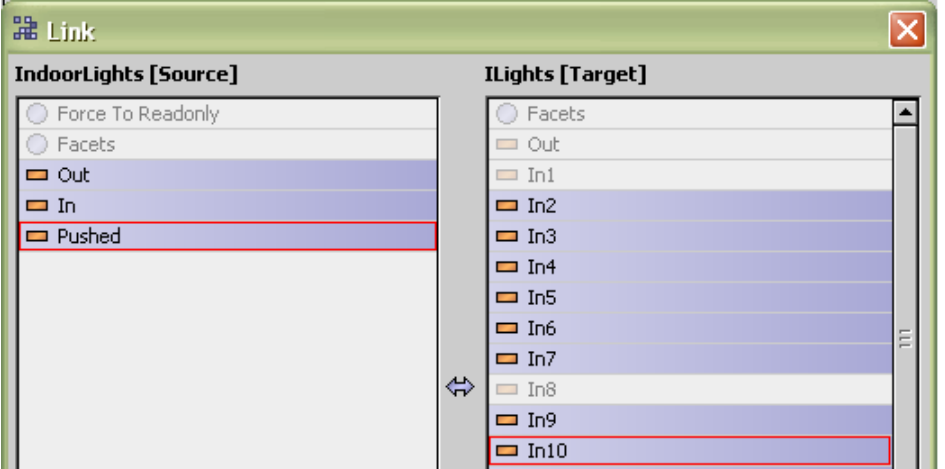| Step	Procedure
1	Drag an Navigation Node Button from the palette onto the Home screen.
2	In the Name dialog box, enter a name to be displayed on the navigation button and click the OK button to add the element.
3	Expand the newly added element and select an icon from the list of available image files. NOTE: The assignment of an icon is optional.
4	Select an Override screen from the palette and drag it onto the Navigation Node Button.
5	Enter an identifying name in the Name dialog box and click the OK button to add the screen
6	Expand the newly added screen and enter a Title to be displayed on the screen. **Fig. 31. Add Override title.**
7	Copy the Enumerated PushButton from the palette's Override Screen Elements folder onto the screen. Rename it as appropriate. **Fig. 32. Copy Enumerated Pushbutton.**
8	From either the NavTree or the Property Sheet view, right-click on the previously added Enumerated PushButton (screen) and select Link Mark.

Table 5. Creating an Override screen. (Continued)

Step	Procedure
9	In the NavTree, locate the enumerated component for the information to be displayed; right-click and select Link To.
10	In the Link dialog box, select the Out property of the enumerated (source) component and the In property of the Enumerated PushButton (target). NOTE: The Navigation Link property should only be modified using the documented procedure. Modifying this property by any other means will corrupt the screen layout definition. **Fig. 33. Select Out and In properties.**
11	In the NavTree, locate the enumerated component again; right-click and select Link From this time. NOTE: Enumerated Push Buttons have to be linked bidirectionally so that the change of state on screen is reflected in the enumerated component and vice versa.
12	In the Link dialog box, select the Pushed property of the Enumerated PushButton (screen) and the numbered In__ property of the enumerated component. **Fig. 34. Select Pushed and Numbered In properties.**

Table 5. Creating an Override screen. (Continued)
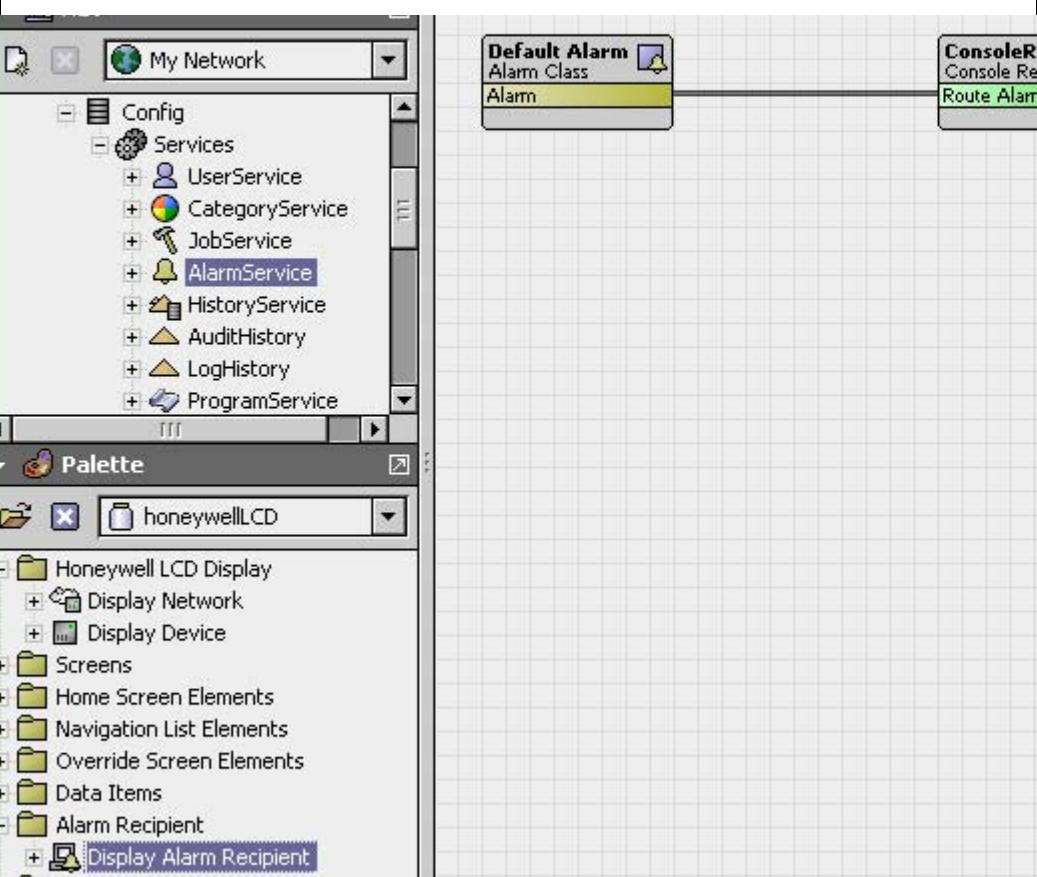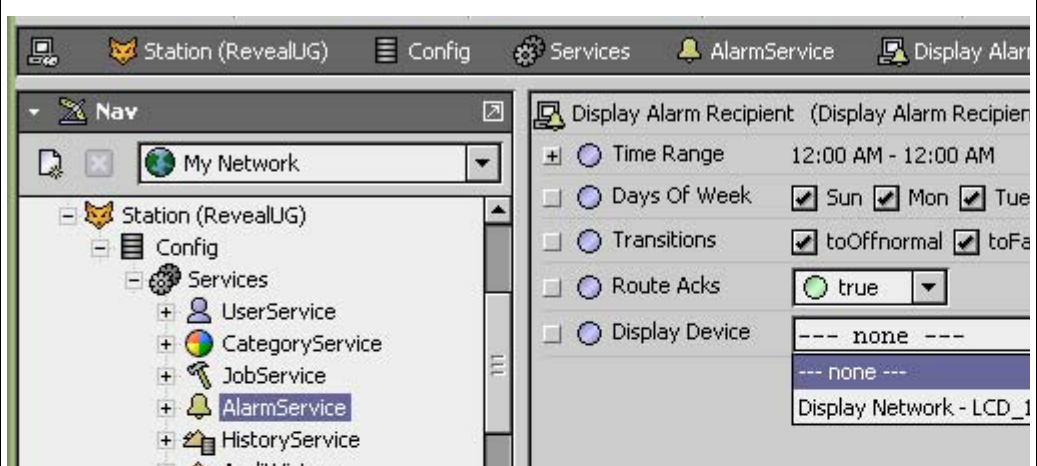
Step	Procedure
13	You may verify the two newly created links by viewing the LinkSheet of the Enumerated PushButton. Right click and select Views, then Link Sheet.

Fig. 35. Link Sheet.

Alarm Routing

To perform Alarm Routing, use the procedure in Table 6:

Table 6. Alarm routing procedure.

Step	Procedure
1	After connecting to the WEBs/CP Controller's Station, expand the Config and then Services nodes in the NavTree.
2	Double-click on the AlarmService node to display the service's Wire Sheet view.
3	From the Reveal display unit palette, expand the Alarm Recipient folder and drag a WEB-LCD Alarm Recipient onto the Wire Sheet. **Fig. 36. Alarm Recipient folder in palette.**
4	Enter an identifying name in the Name dialog box and click the OK button to add the new alarm recipient.
5	To establish a relationship between an alarm class and the new alarm recipient, link the class's Alarm property with the Route Alarm action of the recipient.
6	In the NavTree, double-click on the newly added alarm recipient to display the recipient's Property Sheet view.
7	Open the Display Device drop-down list and select an existing Reveal device. This will link the alarm recipient with the selected device; all alarm events routed to the recipient will be transmitted to the Reveal display unit for display. NOTE: Alarms display only if an Alarm Screen exists in the Reveal's screen layout definition. **Fig. 37. Linking Alarm Recipient to device.**

Screen Limits

Upon start-up, a home screen similar to Fig. 38 displays.
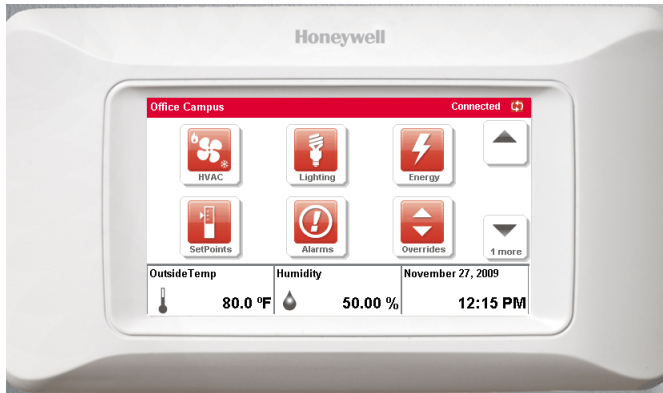

Fig. 38. Typical home screen view (fully loaded application).

Users

The following typical user screens can be viewed from the Emulator and are present in the device. See Fig. 39 for an example.
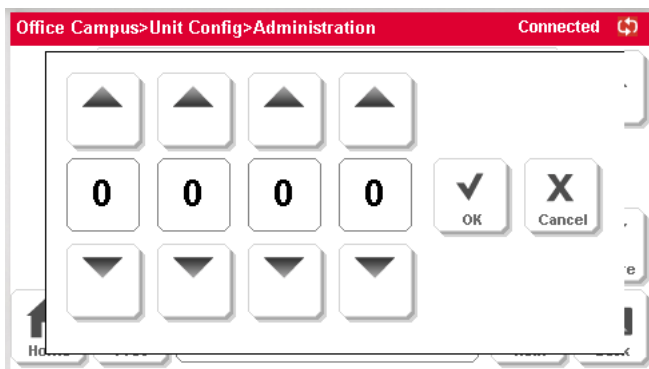

Fig. 39. Typical Log-in screen.

Number of Screen Elements

The number of screen elements that is recommended for use without affecting the functionality of the application is described as follows.

The Reveal display unit supports up to 5000 screen objects and/or data fields which can be used in the combinations described in previous sections, to create and display site and system status and other information.

As illustrated in Table 7, the total number of screen objects (up to 5000) can be approximated by taking the total number of user screens (individual landing screens where the title bar displays a different name for that screen) and multiplying it by the number of screen elements or data points displayed per screen.

Table 7. Total Screen Elements/ Data Points.

		Number of User Screens					
		1000	500	250	166	125	100
Data Points	5	X					
	10		X				
	20			X			
	30				X		
	40					X	
	50						X

Understanding Data Point/ Screen Elements

To illustrate how Reveal screens are constructed, Let's start by examining a typical Home Page screen as shown in Fig. 40.
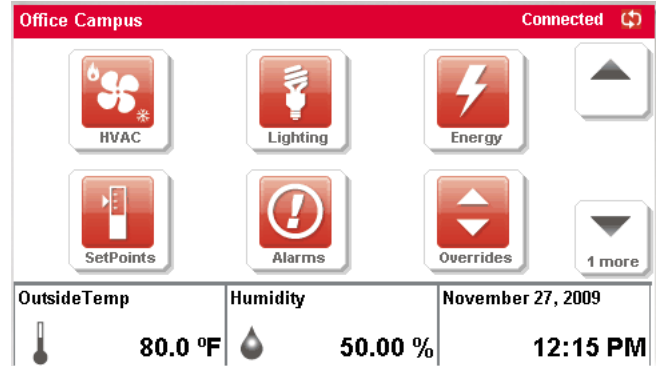

Fig. 40. Home Page.

The Reveal screens are composed of a variety of screen elements, each representing a button, data field or screen background.

The screen shown in Fig. 40 consists of one (1) screen background element, six (6) button elements, and three (3) data field elements. Therefore the screen in Fig. 40 consumes ten (10) total elements for this one user screen, in the Reveal's internal memory.

SCREEN BACKGROUND ELEMENTS

Please note that the following items on a screen background are considered part of the screen background element and should not be counted. See Fig. 15 on page 13 for examples,
- **Home/Back Buttons**: located at bottom of screens
- **Title Block**: located at bottom center of screens - tells the name of the item currently being viewed
- **Previous/Next Buttons**: located at bottom of screens
- **Page Up/Down Buttons**: located at right side of screens if screen has more than one full page of items
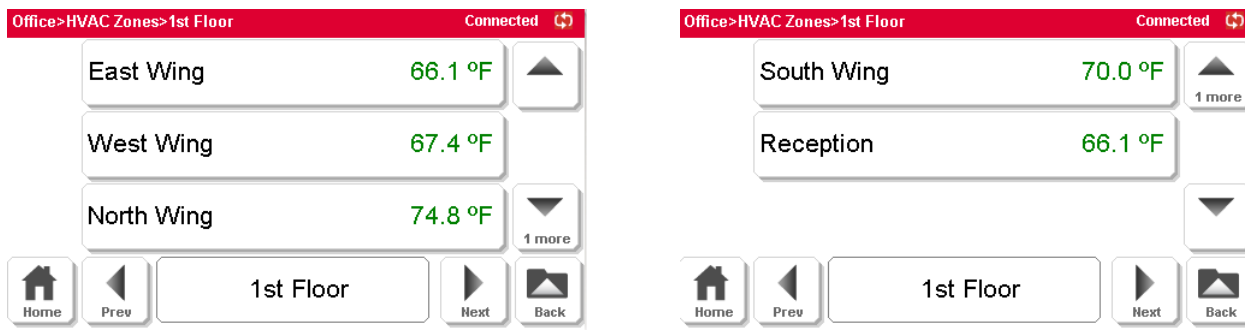
Fig. 41. Two user screens with a shared background element.

If the screen background stays the same for more than one screen (title bar name does not change), then that background screen should only be counted once as one element. In the screens in Fig. 41, the 1st Floor Data List has 5 data items. So the second screen only counts as two additional screen elements for the two data items. This is because using this screen in more than one place does not utilize any more memory in the Reveal display unit.

EMULATOR OVERVIEW

The Emulator is a Windows CE application installed into the Workbench/Supervisor that can be used to preview button location, screen layout and UI functionality prior to downloading the hardware.

The emulator is started by right-clicking on the Reveal display unit and selecting the Run Emulator menu item.

Fig. 42. Run Emulator menu selection.

UPDATE DEVICE AND APPLICATION

The Reveal display device can be upgraded via USB.

An alternate procedure for downloading files is to transfer files to the Reveal display unit and upgrade the application via the Workbench/Supervisor.

NOTE: Download and update may be performed via the USB method or via the Workbench/Supervisor. There is no need to do both.

See "Upgrade Application" on page 34 to update the Reveal firmware.

Update Device via USB

Use the following procedure to update the Reveal application with a USB drive.

1. Insert blank USB drive into PC.
2. Copy the files located in the Applications folder (see Fig. 43) onto the root directory of the USB drive:
   • PanoramaApp.exe
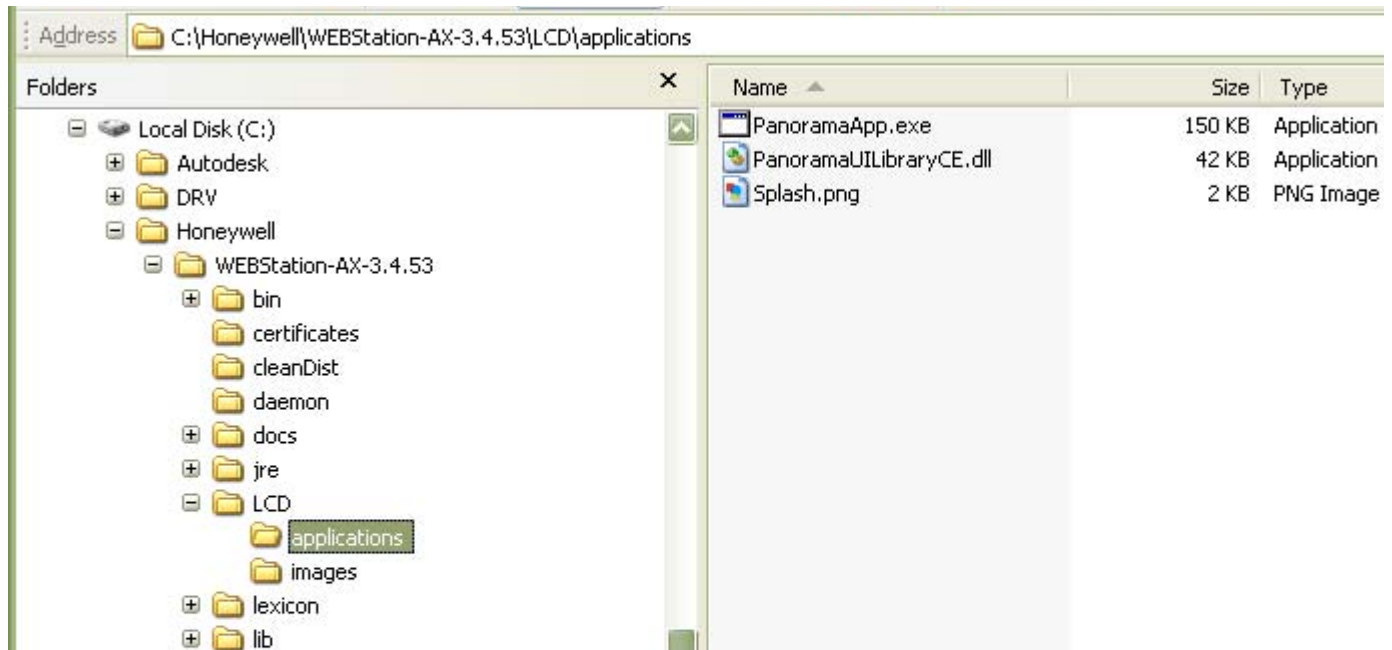   • PanoramaUILibraryCE.dll
   • Splash.png

Fig. 43. Location of Applications folder.

3. Copy the files located under the Images folder onto the root directory of the USB drive and then insert the drive into the USB port of the Reveal display unit.
4. Navigate to the Unit Config button (via the Home page), select the Administration button, and then select Upgrade Unit.

NOTE: Do not remove the drive from the USB port during this process. Allow unit to reboot and complete its download from the WEBs/CP Controller.

5. Once the update has completed the drive can be removed from the USB port.
6. Navigate to the Unit Config button (via the Home page), and select the Platform Settings button.
7. Page down and verify the expected Software Version number is displayed

Update via Workbench/Supervisor

Use the following procedure to update the Reveal application via the Workbench/Supervisor.

NOTE: Download and update may be performed via the USB method or via the Workbench/Supervisor. There is no need to do both.

Use the following procedure to update via the Workbench/Supervisor:

1. Start the Workbench/Supervisor program.
2. Navigate to the desired WEBs/CP Controller station.
3. Connect to the Platform, expand the Platform node in the NavTree, and select File Transfer Client.
   • The files on the local system display in the left-side pane and files on the WEBs/CP Controller display in the right-side pane.
4. In the left-side pane, navigate to the Reveal folder under the Workbench/Supervisor installation.
   • Example: C:/Honeywell/WEBStation-AX-3.4.43/LCD
5. In the right-side pane, double-click on the LCD folder under the station directory of the WEBs/CP Controller (see Fig. 44 on page 34).
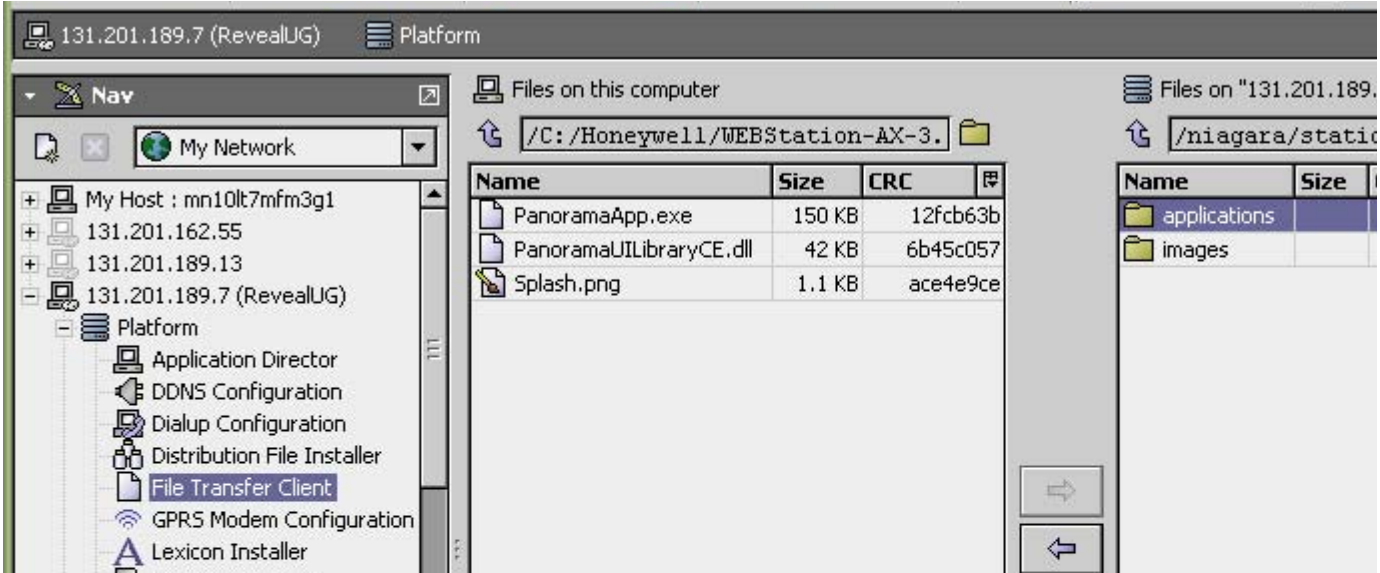
Fig. 44. New subdirectory folder.

6. In the left-side pane, highlight the Applications folder. Click on the transfer button (right arrow between the left and right panes) to initiate a file transfer. Upon completion, an Applications folder displays in the right-side pane.
7. In the NavTree, navigate to the Reveal display unit in the station that needs to be upgraded.
   • Access this display using the following example: Station -> Config -> Drivers -> DisplayNetwork -> LCD_x
8. Right click on Reveal. Select Actions then select Upgrade Applications. This will initiate the upgrade of the unit (see Fig. 45).

Fig. 45. Upgrade Applications action.

9. Viewing the Download State in the Device Status container displays the progress of the download.
   • Access this display using the following example: Station -> Config -> Drivers -> DisplayNetwork -> LCD_x -> Device Status
10. Navigate to the Device Info container and verify the expected Application Version number is displayed.
   • Access this display using the following example: Station -> Config -> Drivers -> DisplayNetwork -> LCD_x -> Device Info

Upgrade Application

This action is invoked to install a new version of the Reveal display unit firmware.

Before an upgrade is initiated the appropriate files must be transferred to the WEBs/CP Controller. For details, see "Transferring Files" on page 9.

NOTE: During a download all files in the station's LCD/applications subdirectory will be sent to the device.

Upgrade activity can be monitored by viewing the Download State on the device's Property Sheet view. For details, see "Device Properties" on page 9.
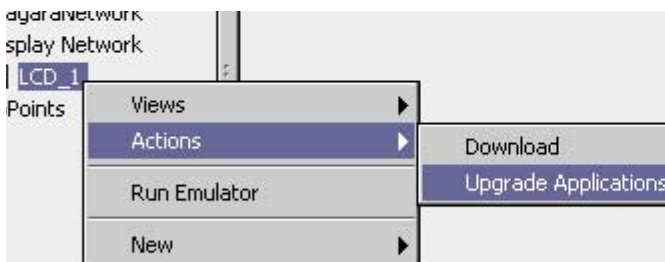
TECHNICAL SUPPORT, WARRANTY, AND RETURNS

For technical support, please call 1-800-328-2231 or send an e-mail to hbc.tac.support@honeywell.com

1-Year Limited Warranty

Honeywell warrants this product to be free from defects in the workmanship or materials, under normal use and service, for a period of one (1) year from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, Honeywell shall repair or replace it (at Honeywell's option).

If the product is defective,
(i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or

(ii) call Honeywell Customer Care at 1-800-468-1502. Customer Care will make the determination whether the product should be returned to the following address:

Honeywell Return Goods

Dock 4 MN10-3860

1985 Douglas Dr. N.

Golden Valley, MN 55422

or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Honeywell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

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