

# **OZONE Widget Framework**

## **User's Guide**

**September 28, 2012**

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# 1 Introduction

## 1.1 Objectives

The purpose of this guide is to explain how to use the OZONE Widget Framework (OWF). This is including, but not limited to, the use of widgets, dashboards, and their configuration settings.

## 1.2 Document Scope

This guide is written for users of the OWF application.

## 1.3 OWF Overview

### 1.3.1 Widgets

A widget is a lightweight, single-purpose application that offers a summary or limited view of a larger application. In OWF, a widget is a global description for a piece of Web content that can be configured by the user and displayed within a dashboard. Find information about adding, deleting, and customizing them in section [3: Widgets](#).

### 1.3.2 Dashboards

A dashboard is a user-defined layout of widgets in accordance with the guidelines of a template. This template is referred to as a dashboard. In simple terms, a dashboard is a screen where a user can customize (for the most part) which widgets to load, which layout types to use, and the arrangement of widgets within each specified layout.

Once saved, each time a specific dashboard loads, the screen and widget layout maintain the same look and feel as the last time it was accessed by a specific user. The group dashboard feature provides identical dashboards for each member of a group. Each group member can customize their instance of a pre-configured dashboard. Dashboards and their respective configurations are limitless; a user can have any number of dashboards, all of which render and function independently. Find information about adding, deleting, and customizing dashboards in section [4: Dashboards](#).



## 1.4 Related Documents

**Table 1: Related Documents**

Document	Purpose
User's Guide	Understanding the <b>OWF user interface</b> ; adding, deleting, modifying <b>widgets</b> and using <b>widget intents</b> ; accessing and using <b>Marketplace</b> ; creating, deleting, adding, switching, modifying <b>dashboards</b> , defining accessibility features such as <b>high-contrast themes and keyboard navigation</b>
Administrator's Guide	Understanding <b>administrative tools</b> : adding, deleting, and editing widgets, users, groups, and group dashboards; <b>creating default content</b> for users, groups and group dashboards
Developer's Guide	<b>Creating Widget applications and integrating existing applications into OWF</b> ; widget upgrade instructions; walkthroughs for creating widgets; adding the following components to widgets: intents, descriptor URLs, preference API; logging and launching API
Configuration Guide	Overview of <b>basic architecture and security</b> ; OWF <b>installation</b> instructions; defining and instructions for modifying default settings; <b>database</b> set up and logging guidance; <b>framework and theme</b> customization instructions; OWF <b>upgrade instructions</b> , directions for adding and deleting <b>help</b> content
Quick Start Guide	Walkthrough of <b>basic OWF functions</b> such as using widgets and dashboards; instructions for <b>setting up a local instance of OWF</b> , unpacking the OWF bundle and installing <b>security certificates</b> ; Truststore/Keystore changes

## 2 Toolbar Elements

From the OWF toolbar, users can launch widgets, change dashboards, connect to a Marketplace (if configured), adjust settings and open a help menu. The user identification drop-down, located on the right, displays the last login date, profile information, log out option, and about OWF information.



**Figure 1: Toolbar**

### 2.1 Toolbar



**Figure 2: Detachable Toolbar**

The following buttons comprise the toolbar:



- Opens the launch menu which is used to find, launch and manage widgets. Use the launch menu to search for widgets by title, group, intent, or tag. Widget display toggles between icon and grid views. In icon view, a slider appears below the grid/icon buttons. Use it to resize the icons. For more information about the launch menu see section [3.2.1: Launching Widgets](#).

*Note: There is memory-based issue with launching JavaScript heavy widgets in some versions of Internet Explorer. Please see Appendix [B.1: Browser Issues](#) for more details.*



- Known as the dashboard switcher, this button displays available dashboards. For more information see section [4: Dashboards](#).





- Connection to Marketplace. When launched, a user can browse from an assortment of available widgets and add any of those widgets to their launch menu. See section [3.4: Accessing Marketplace](#) for more details. Depending on the version of Marketplace, this button opens the Marketplace widget switcher or the Marketplace window. (Icon will only appear if a Marketplace is available.)

*Note: The Marketplace button will only appear in the toolbar if it has been configured by a system administrator.*




- Opens the Metrics Switcher where widgets that have been designated as Metric Widgets reside. (Icon will only appear if Metrics widgets are available.)

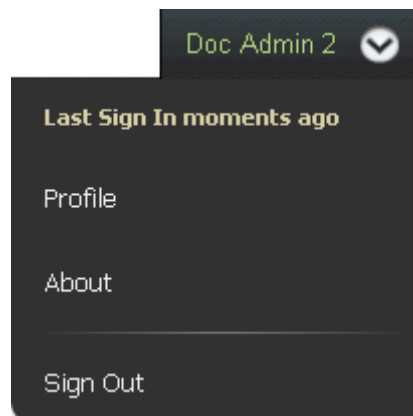
 - Controls dashboards, themes and widget settings. Use this button to create/edit dashboards, and change widget settings including name and visibility in the launch menu.

 -Use it to approve widgets, create group dashboards, and edit users, groups, and widgets. (Icon will only appear to those with Administrator privileges.)

 - This button houses customizable online help including keyboard navigation shortcuts.

 - This button pops out the detachable section of the toolbar and hides the OWF Banner which gives users more screen space to work with. To reattach the toolbar, click the button again.

## 2.2 Toolbar – User Drop-down



**Figure 3: Toolbar – Drop-down User Menu**

The following elements reside under the drop-down user menu:

- **Last Sign In** – Text displaying the approximate time the user last entered OWF. For the exact date and time, hover over the approximate date.
- **Profile information** – User identification including the username, full name, e-mail, and list of groups of which the user is a member.
- **About** – Displays the OWF build information.
- **Sign out** – Used to log out of the framework in accordance with the security protocols that were used for the initial login.

*Note: This feature is configurable by an administrator and may not appear on individual versions of OWF.*

## 3 Widgets

### 3.1 Overview

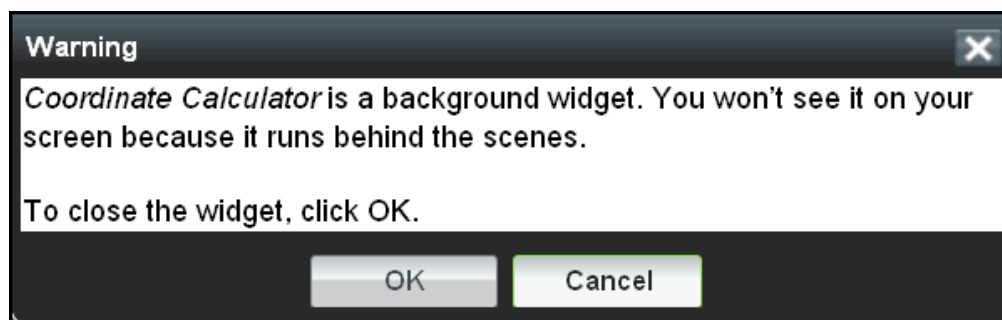
A widget is a lightweight, single-purpose application that offers a summary or limited view of a larger application. In OWF, a widget is a global description for a piece of Web content that can be configured by the user and displayed within a dashboard.

#### 3.1.1 Singleton Widgets

Singleton widgets allow only one instance of the widget to launch on a dashboard. (Users can open multiple instances of regular widgets on each dashboard.) If a singleton widget is open on a dashboard and a user tries to open another instance of the widget, the open instance will move to the forefront of the screen. System administrators may make a widget a singleton for numerous reasons. For example, preventing users from launching multiple instances per dashboard may reduce confusion, increase performance (if the widget uses a substantial amount of memory), or address another need.

#### 3.1.2 Background Widgets

Background widgets run but do not appear on a user's dashboards. They often serve as caching and logging tools that do not have a user interface. Background widgets can be obtained from a Marketplace server or configured by an OWF administrator. Most users will not be aware that background widgets are running in their instance of OWF. However, background widgets will appear on the widget switcher. Closing them may interrupt data transfer from other widgets. Use the Widget Switcher (Alt + Shift + Q) to close background widgets. After selecting a background widget, a warning message will appear. To close the widget, select OK. If the background widget is visible (an administrator has not hidden it from the launch menu), a user can restart it by dragging it from the launch menu to the dashboard.



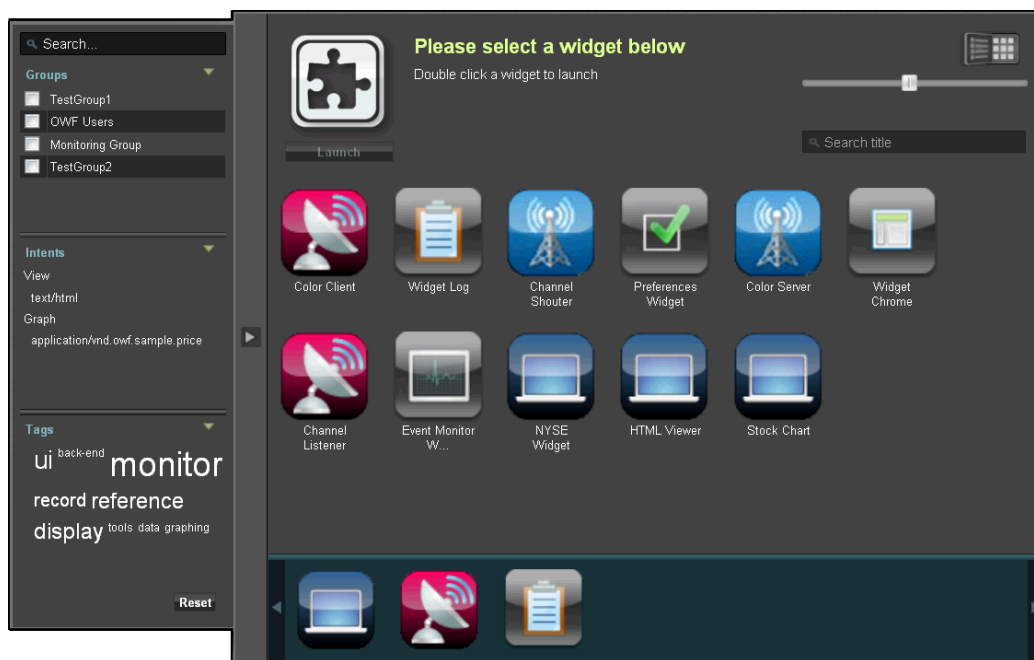
**Figure 4: Background Widget Warning Message**

## 3.2 Searching for Widgets

OWF provides two search options. From the launch menu, users can search using:

- **Widget Title Search** - Located in the upper-right portion of the launch menu, this field allows users to filter the list of widgets by title. A user cannot type search queries into the title search if a search query is typed into the advanced search.
- **Advanced Search** – Collapsed by default, the advanced search features appear when a user clicks the arrow located in the center of the left side on the launch menu. The advanced search panel includes several searching features:
  - **Advanced search box** – Searches widgets by name. Users can type multiple search queries into the box and they will display below the advanced search box. To use it, press enter after entering each search term. To remove a search term, click the red circle to the right of the term. To clear the entire search, click reset at the bottom of the panel.
  - **Groups** – Filter widgets by group, see section [3.3.2.2: Groups](#).
  - **Intents** – Clicking an intent will filter the launch menu to display only widgets that can send or receive that intent, see section [3.2.1.1: Widgets Intents \(Widgets launching widgets\)](#). Clicking an intent highlights it. To deselect it, click on it again to remove the filter.
  - **Tags** – Displays all the tags that are associated with the user's widgets in a tag cloud formation (Tags that are used more often are bigger.). Clicking a tag will filter the launch menu to only display widgets that use that tag. See section [3.3.2.1: Tags](#).
  - **Reset** – Clears all search filters.

### 3.2.1 Launching Widgets



**Figure 5: Launch Menu**

To launch a widget: First, open the launch menu by clicking the first button on the toolbar. Then, double-click the desired widget, select it and click the launch button at the top of the menu or drag the widget from the launch menu to the dashboard. Repeat this action for each widget. Starting with OWF 6, the launch menu includes a Favorites pane used for quick access to some widgets and several advanced searching features, see section [3.3: Customizing and Categorizing Widgets](#). Also, users can launch multiple instances of a widget unless the widget is a singleton, as described in section [3.1.1: Singleton Widgets](#).

#### 3.2.1.1 Widgets Intents (Widgets launching widgets)

Widget intents are the instructions for carrying out a widget's intentions. One widget requests an action (Think of actions as verbs like view, share, edit, etc.) then another widget receives that request and performs the action. Intents build on OWF's publish/subscribe feature by allowing users to choose the widget(s) that will use data. This binding capability enables two widgets to enhance each other's functionality.

For example, the NYSE Widget charts data about the stock exchange. Some users may want to view that data as a Web page. This is possible if the NYSE Widget has an intent that tells it to send data to widgets that display data in a Web format.

*Note: Widgets may have multiple intents associated with them. Users cannot create widget intents. Developers add the intents when they create widget descriptor URLs. OWF follows standard Web Intent specifications documented at [Webintents.org](http://Webintents.org).*

**How to use intents:**

If a widget uses intents, the launch menu will pop up when a user clicks on data in that widget. The launch menu will only display widgets and intents that can use the data for an intended purpose (graphing, displaying, etc.).

The left-navigational panel displays all the intents that are in OWF, the intent types (graphing, display, etc.) separate the widgets. Only the widgets that are associated with the specific intent are selectable.


To choose a widget: Select it, then click launch or double-click the widget. The data from the first widget will appear in the second widget. Checking the “Remember this decision” box beside the launch button will cause the selected widget to automatically open the data with the selected widget until a user breaks the connection by closing either the widget sending the intent or the widget receiving the it.

### 3.2.2 Removing Widgets

#### 3.2.2.1 Deleting Widgets

Users can remove widgets from their instance of OWF. This action will not delete the widget from OWF, it will only delete the Widget for that user. Only system administrators can delete widgets from the system.

To delete a widget from a user's instance of OWF:

- 1) Click the  button on the toolbar. Then click Widgets to launch the Widget Settings window.
- 2) From the widget settings window, select a widget and check the delete checkmark. Click OK. This removes a widget from a user's launch menu and their instance of OWF. If a deleted widget is needed at a later date, it can only be restored by an administrator.


*Note: Widgets which are pending approval cannot be deleted from the widget settings window.*

#### 3.2.2.2 Hiding/Showing Widgets in the Launch Menu

By default, all widgets that are assigned to a user are visible in that user's launch menu unless an administrator hid the widget from the launch menu.


Hiding widgets from the launch menu will NOT remove them from a user's instance of OWF. This feature is meant to reduce clutter in the launch menu.

To hide a widget from the launch menu:

- 1) From the toolbar, click the  button and then choose Widget to open the Widget Settings window.
- 2) From the widget settings window, uncheck the show checkbox, and click OK. The widget will be hidden from the launch menu but still associated with the user.


### 3.2.2.2.1 Showing Widgets in the Launch Menu

To show a widget in the launch menu:

- 1) From the toolbar, click the  button then choose Widgets to open the Widget Settings window.
- 2) From the Widget Settings window, check the show checkbox for a specific widget, click any other row, and then click OK. After refreshing, the widget will be visible in the launch menu.

### 3.2.2.2.2 Reordering Widgets in the Launch Menu


To reorder widgets in the launch menu's main panel or favorite's pane:

- 1) Open the launch menu by clicking the  button on the toolbar.
- 2) Switch to the icon view using the display buttons in the upper-right corner of the launch menu.
- 3) Click a widget then drag it left, right, up, or down. Release the mouse to complete the move.

## 3.3 Customizing and Categorizing Widgets

### 3.3.1 Renaming Widgets

To change the name of a widget:

- 1) From the toolbar, click the  button, then choose widgets to open the widget settings window.
- 2) Click on the name of a widget, which will open an editable field.
- 3) Type a new name for that widget.
- 4) To save the change, press the enter key and click OK.

*Note: If a user clicks OK while the editable field is active, changes in that field may not be saved.*

Until the change is saved and applied to the launch Menu, a red triangle will appear in the upper-left corner of the widget name:



**Figure 6: Unsaved Name Change Indicator**



The custom widget names only appear for the authenticated user's instance of OWF (The name will not change system-wide). Also, the new name will only apply on widgets that are launched after the name change. To rename widgets that are open on a dashboard, the user must close the widget and reopen it.

### 3.3.1.1 Renaming a Widget Instance on a Dashboard

It is possible for a dashboard to have multiple instances of the same widget open at the same time (unless the widget is a singleton, see section [3.1.1: Singleton Widgets](#)). Accordingly, a user may want to rename one or more instances of that widget. The title for each instance of an open widget on a dashboard is customizable per instance.

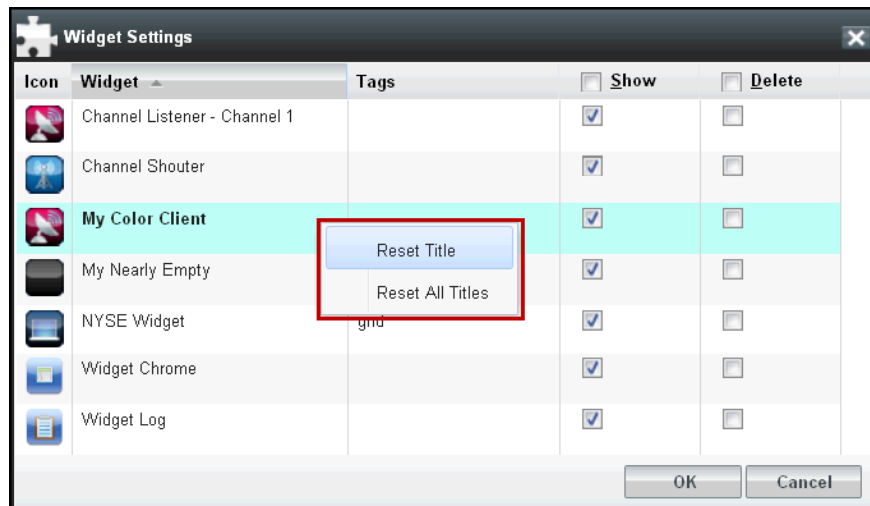
The widget name/title can be edited by double-clicking the widget name in the widget header. The title will change to an input field where the user can modify the title. Pressing the ENTER key on the keyboard or clicking anywhere on the dashboard will save the new title for the current instance. Regardless of the number of times the widget appears on the currently active (or any other) dashboard, the change will only impact that single widget.



Figure 7: Renaming a Widget

### 3.3.1.2 Reverting to default name of Widgets

To restore the default name of a widget, open the widget settings window by clicking the settings button in the toolbar and then choosing widgets. Then, right-click on the widget and choose reset title. The widget will return to its default name.

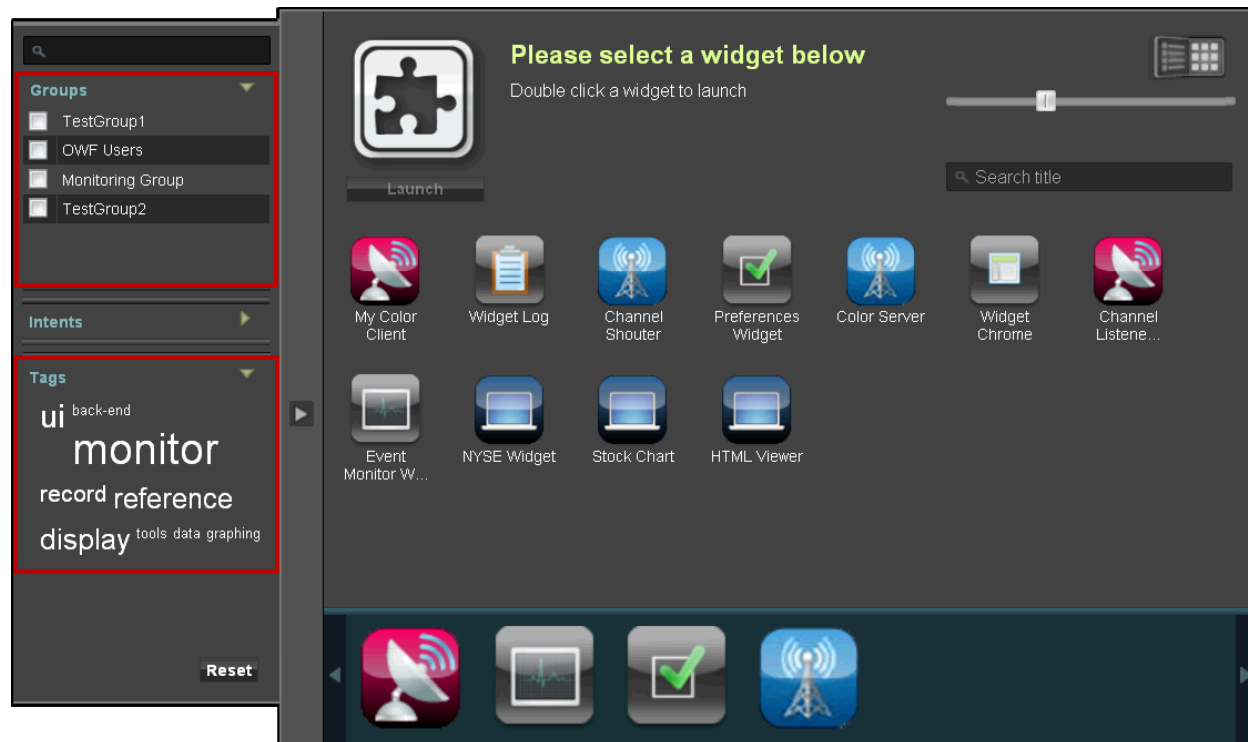


**Figure 8: Restoring Default Widget Name**

To revert all custom named widgets (this does not apply to widgets that are open on the dashboard) to their default names, right-click on any widget on the manage widgets screen, select reset all titles and click OK.

### 3.3.2 Categorizing Widgets

Users have two tools to categorize and separate widgets in their launch menu: tags and groups. Widgets can have several tags or be part of several groups. While a user or an administrator can add tags to a widget, only an administrator can add a widget to a group. Both tools are visible when the advanced search pane is expanded in the launch menu.




**Figure 9: Widget Groups and Tags**

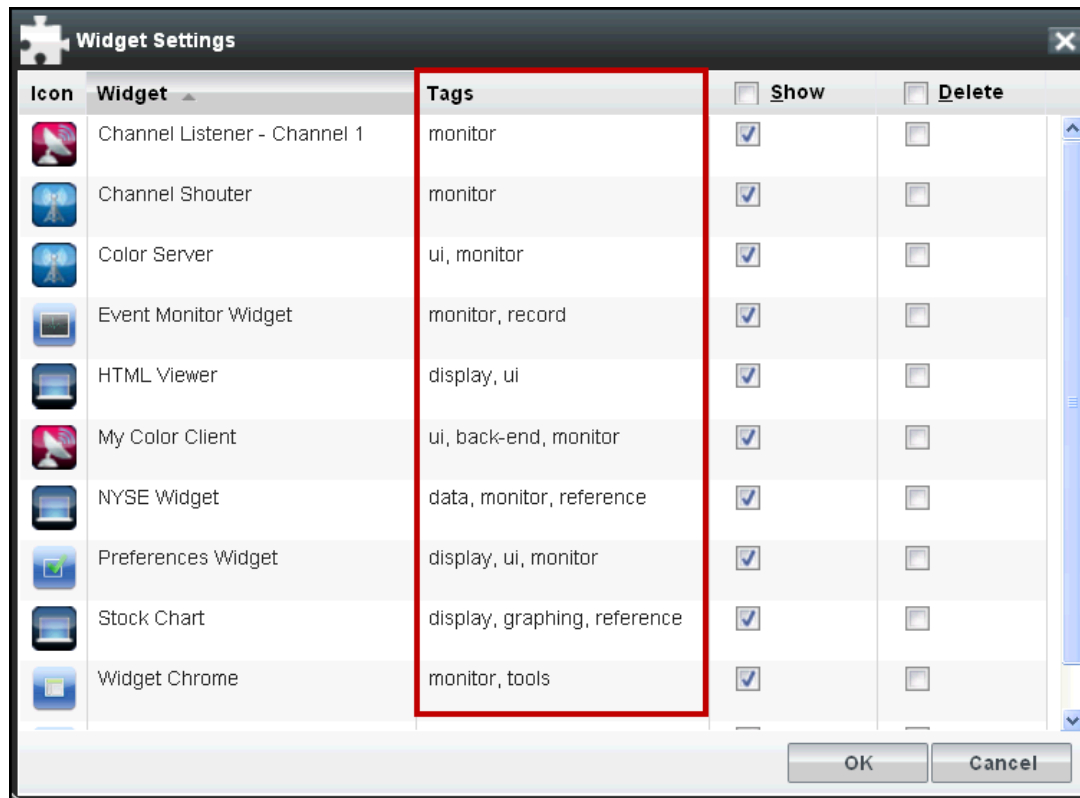
### 3.3.2.1 Tags

Widget tags are used to group, categorize and separate widgets. They display in a tag cloud formation in the left panel of the launch menu. Tags that are used more frequently (by an administrator or user) appear in a larger font. To refine a search using tags, click on the tag and the launch menu will filter to only display widgets that include that tag. Administrator tags will automatically appear in the tag cloud.

To add tags to a widget:

- 1) From the toolbar, click the  button and choose the widgets button. This will open the Widget Settings window.
- 2) Click the tags column which will open a text box.
- 3) Type the word that will be used to categorize widgets. (To add several tags, separate them with commas.)
- 4) Click away from the text box, and then click OK.

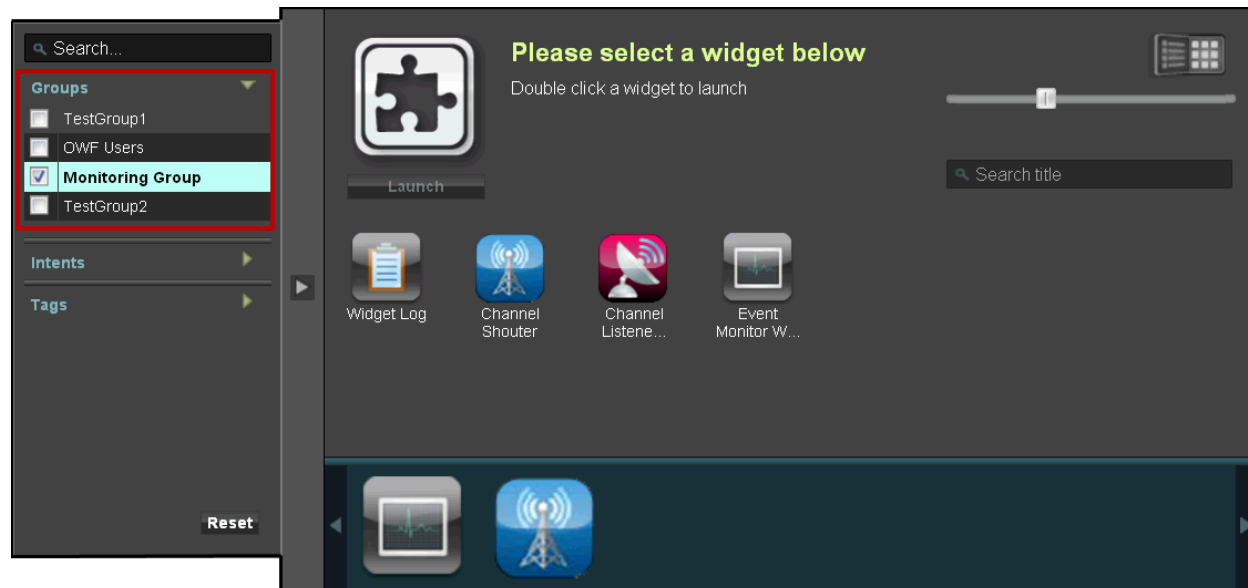
For example, a user can tag widgets with the word “monitor.” When a user clicks on the word monitor in the tag cloud, only widgets with this tag will display in the center section of the launch menu.



**Figure 10: Applying Widget Tags**

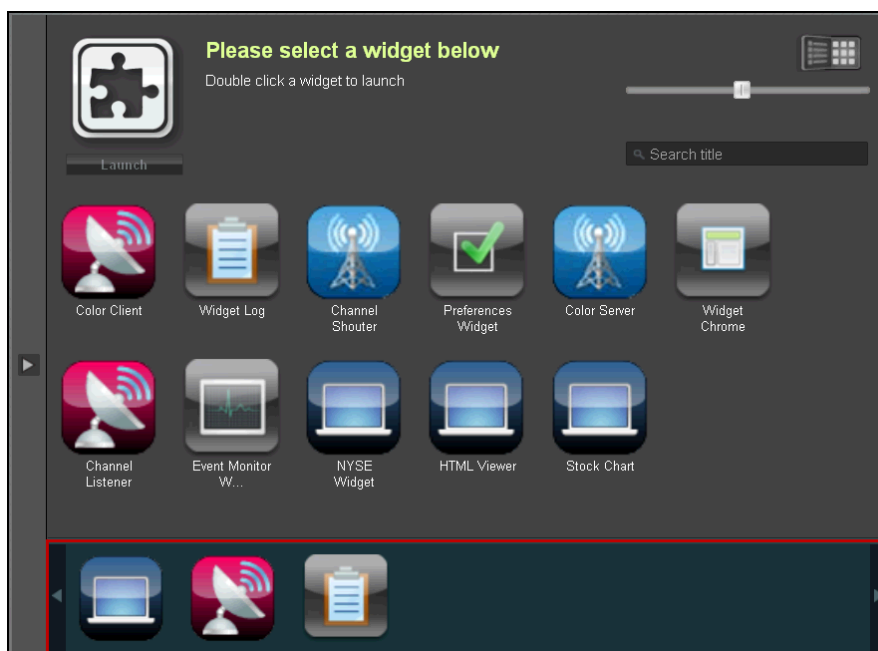
### 3.3.2.2 Groups

All of the user's groups are listed on the left panel of the launch menu. Administrators assign users to groups to provide access to widgets and dashboards. By checking the box to the left of the group name, the launch menu and favorites pane will only display widgets that are associated with the group. To remove the filters, click reset at the bottom of the left panel.



**Figure 11: Launch Menu filters by Group**

### 3.3.2.3 Favorites Pane



**Figure 12: Favorites Pane**

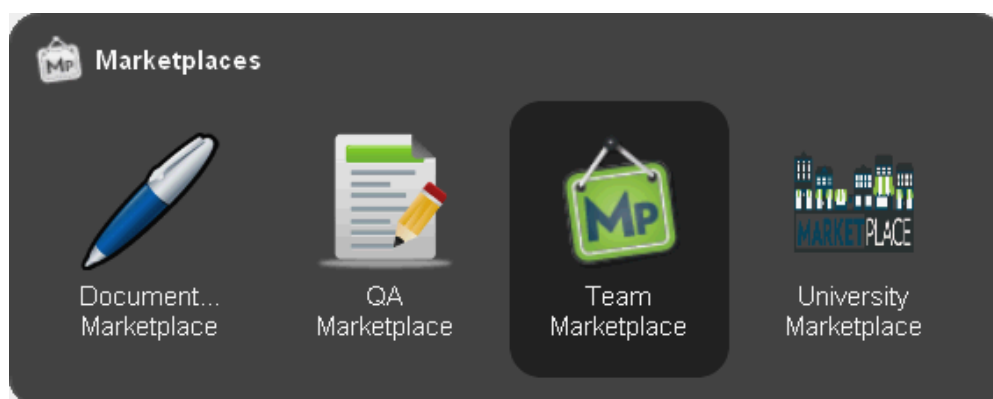
The Favorites Pane comprises the lower portion of the launch menu. Users can move widgets into it and access them without searching through all the widgets in the launch menu. To add widgets to the favorites panel, drag them from the main section of the launch menu to the pane. Widgets will appear in the pane when the launch menu opens.

- To resize the Favorites Pane, drag the top bar up or down.

- To reorder widgets in the pane, drag them left or right.
- To view widgets that cannot fit on the screen, click the left or right arrows.
- To remove widgets from the pane, drag them back to the main section of the launch menu.

### 3.4 Accessing Marketplace

Provided that OWF has been configured to recognize an instance of Marketplace, clicking the Marketplace button on the toolbar will open the Marketplace widget switcher which may offer connections to multiple Marketplaces.



**Figure 13: Marketplace Widget Switcher**

The Marketplace widget switcher will launch when a user clicks the Marketplace button on the toolbar. Users must choose a Marketplace and click to launch it. Following proper authentication, the user can browse listings and add any of the listings that have been designated OWF aware. For listings to appear in OWF, they must be approved and enabled in Marketplace:

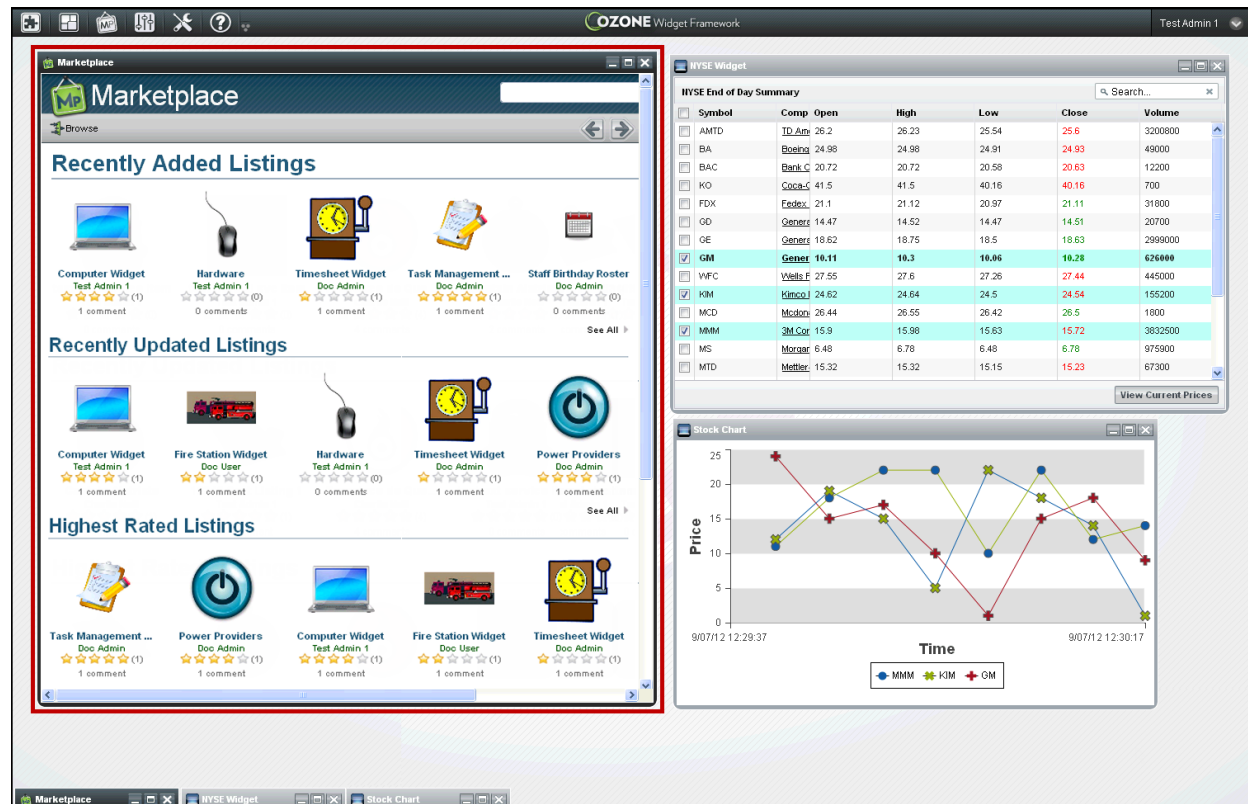


Figure 14: OWF Marketplace Window

### 3.4.1.1 Adding Widgets from Marketplace

Users can add a Marketplace listing to their own instance of OWF by selecting the listing, clicking the actions drop-down button and selecting add widget.



Figure 15: Adding Widgets to OWF

### 3.4.2 Pending Approval Widgets

Widgets that have been selected by a user are automatically added to the user's launch menu. Until an administrator approves the addition of a widget, it will be visible but grayed out as shown in the following figure. Once approved, the gray shadow will be removed.

*Note: If a user tries to launch a pending widget, an error message will appear.*

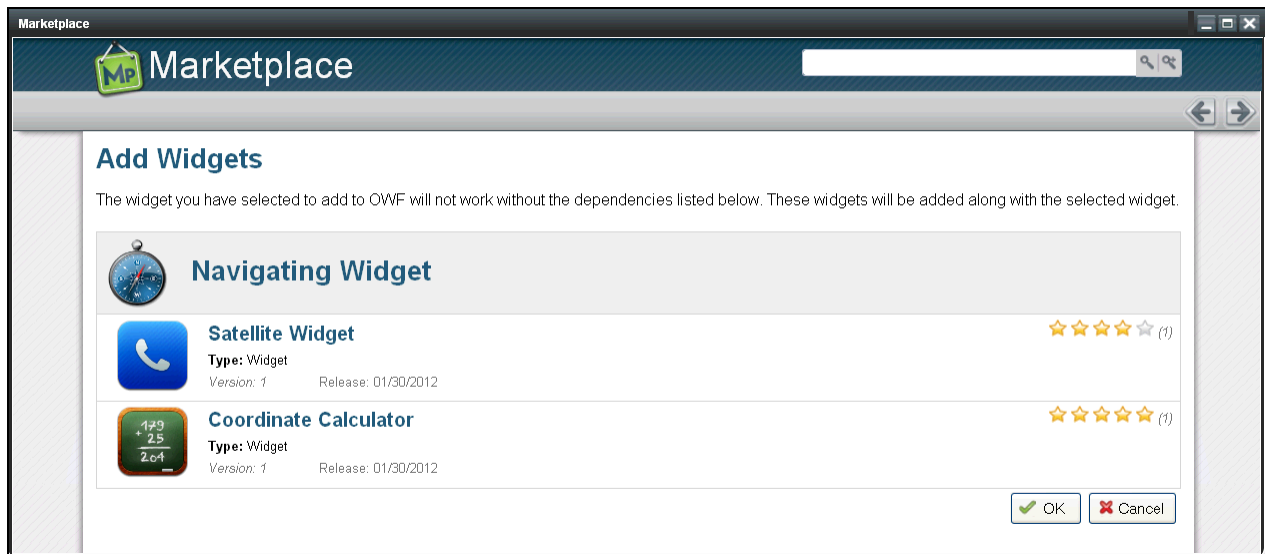


**Figure 16: Launch Menu Displaying a Pending Listing**

### 3.4.3 Required Widgets

Some widgets will not function (or will have limited functionality) if they launch without other widgets. OWF automatically adds required widgets when a user adds a widget that needs them. For example: A user adds the Navigating Widget. The Navigating Widget requires the Satellite Widget and the Coordinate Calculator Widget. The user has not requested the other two widgets but they are automatically added because the Navigating Widget requires them.





**Figure 17: Adding Required Widgets**

Some things to consider:

- A user must add all required widgets from the Marketplace window. Users do not have the option to deselect any of the required widgets.
- A widget's required widgets will appear in the launch menu if its visible menu field is set to true.

### **3.4.3.1 Deleting Required Widgets**

Like any other widget, required widgets can be deleted from the widget settings window which is located by clicking the Settings button on the toolbar and then choosing Widgets. However, if a user or administrator deletes a required widget, any widgets that require that widget will automatically be deleted after the system displays a warning notification. Other widgets that are related to the dependent widgets will remain. For example, the Navigating Widget requires the Satellite Widget and the Coordinate Calculator Widget. If the Coordinate Calculator is deleted, the Navigating Widget will be deleted but the Satellite Widget will remain because it does not require the Coordinate Widget.

## 4 Dashboards

### 4.1 Overview

Starting in OWF 6, users can include multiple layouts on one dashboard using the dashboard designer. In simple terms, a dashboard is a screen where a user can dictate (for the most part) which widgets to load, which layouts to use, and the arrangement of the widgets within the specified layouts.

Once saved, each time a specific dashboard loads, the screen and widget layout maintain the same look and feel as the last time the dashboard was accessed by a specific user. The group dashboard feature provides identical dashboards for each member of a group. Each group member can customize their instance of a pre-configured dashboard. Dashboards and their respective configurations are limitless; a user can have any number of dashboards, all of which render and function independently.

### 4.2 Dashboard Layouts and Configurations

OWF provides a set of standard layout options for organizing and displaying widgets in a browser window. Where applicable, widgets can be re-ordered by dragging and dropping them in place, elsewhere in the row/column of widgets. Descriptions and instructions for adding widgets to the five layouts are explained in the following sections. If a dashboard has more than one layout, users can resize the layout panes by dragging the border between them.

*Note: Background widgets do not appear on OWF dashboards. These widgets will often interact with other widgets and can be used for caching and logging.*

#### 4.2.1 Accordion Dashboards

**Accordion dashboards** display widgets in equal horizontal panes. When a widget is added to the dashboard, all the widgets are resized to display equally in the OWF window. The OWF window does not scroll. Each individual widget (as shown below) will scroll using its own scroll bar.



Figure 18: Accordion Dashboard

### 4.2.2 Desktop Dashboards

**Desktop dashboards**, similar to the desktop on most personal computers, allow the user to open widgets from a taskbar and place widgets freely in the dashboard.

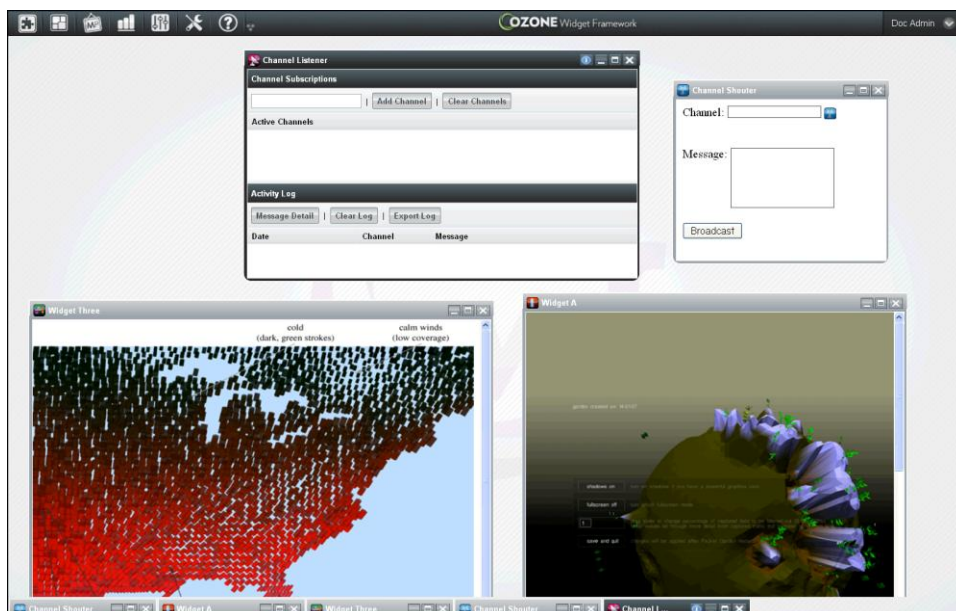


Figure 19: Desktop Dashboard

### 4.2.3 Portal Dashboards

**Portal dashboards** comprise a column-oriented layout that organizes widgets of varying heights. Each new widget loads above the first one on the screen. The user drags a dividing bar to specify widget height. The widgets and the OWF window scroll.

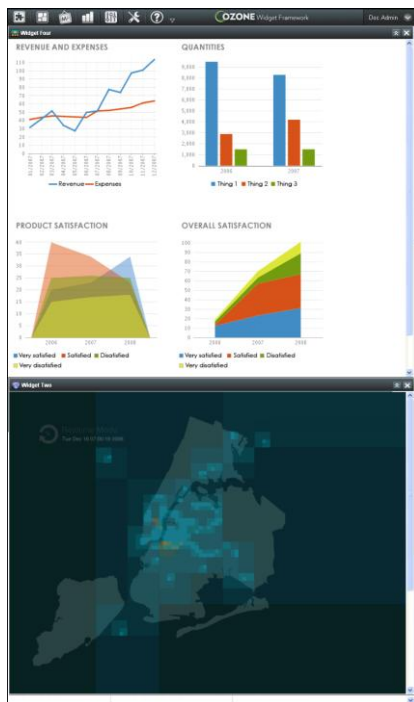


Figure 20: Portal Dashboard

### 4.2.4 Tabbed Dashboards

**Tabbed dashboards** display one widget per screen. Like browser tabs, the tabs at the top of the screen switch from one widget to another.

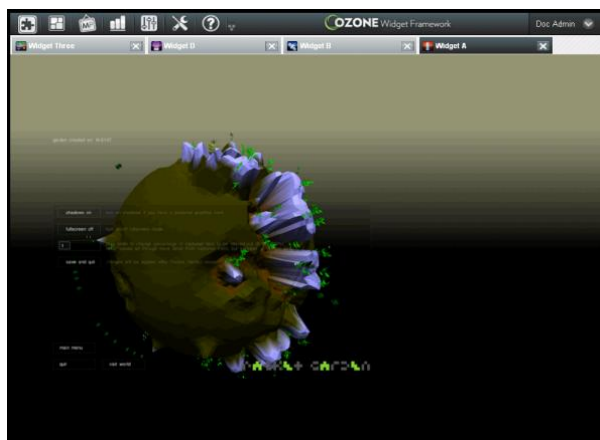
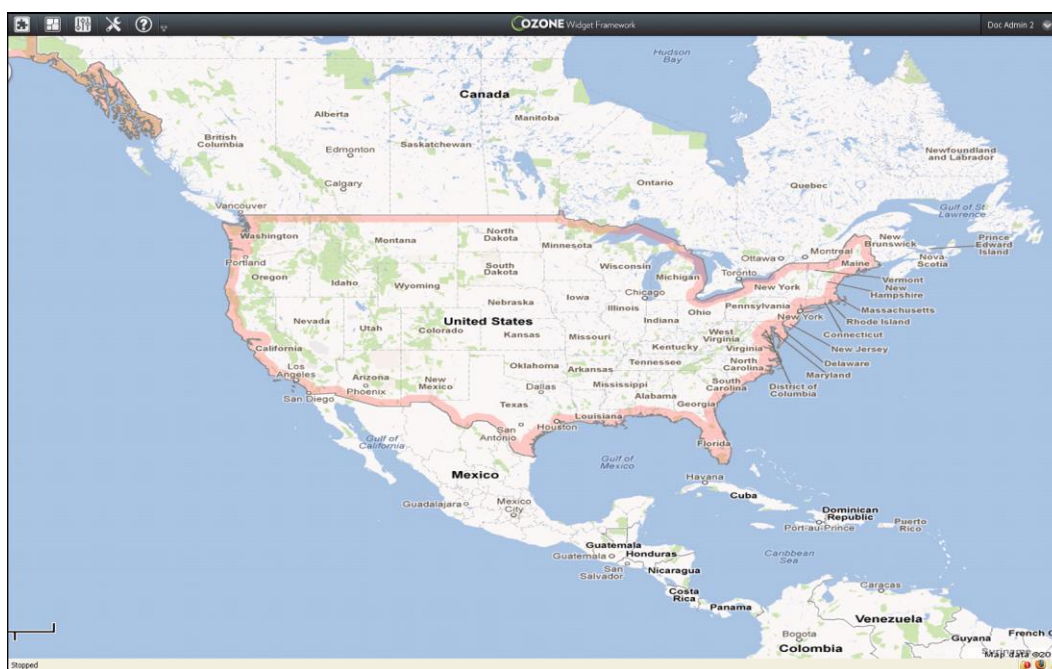


Figure 21: Tabbed Dashboard

### 4.2.5 Fit Dashboard

**Fit dashboards** allow a user to place a single widget on the screen. A launched widget shows no border or chrome and will occupy the full size of the available framework. If a user wishes to launch an additional widget, they will be notified that the initial widget will be replaced by the new one.

*Note: Some widgets are automatically launched by other widgets. In these cases, the widgets will “float” on top of the dashboard.*



**Figure 22: Fit Dashboard**


### 4.2.6 Group Dashboards

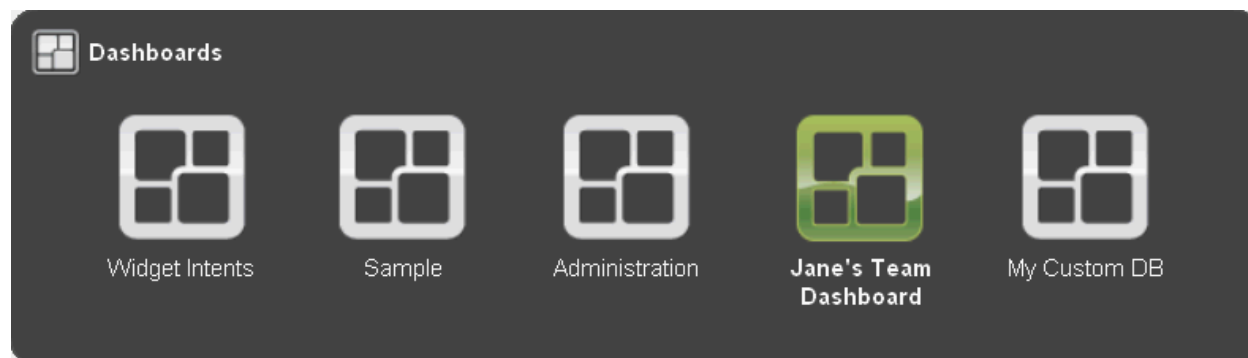
Group dashboards allow members of a group to have identical copies of a dashboard. These dashboards are assigned to a group by an administrator. A user can customize their instance of the group dashboard. Those changes will **ONLY** affect that user's instance of the dashboard. For information about restoring a dashboard to the current default group dashboard layout see section [4.6.3: Restore a Group Dashboard](#).

*Note: If a group dashboard is deleted by an administrator, the users' copies of that dashboard will remain available to each user. However, the ability to restore that dashboard will be removed because it will no longer be a group dashboard.*

## 4.3 Launching/Switching Dashboards


### 4.3.1 Launching a Saved Dashboard

After a user creates and saves a dashboard, a link to that dashboard will appear as one of the choices under the  button on the toolbar.

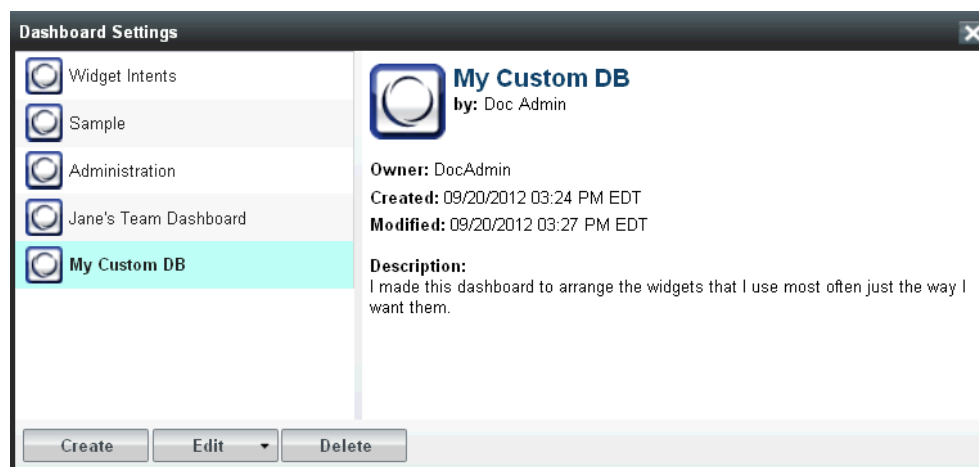


**Figure 23: Dashboard Switcher**

To launch a saved Dashboard:

- 1) Click the  button in the toolbar.
- 2) Select the desired dashboard. It will automatically open.


## 4.4 Creating Dashboards



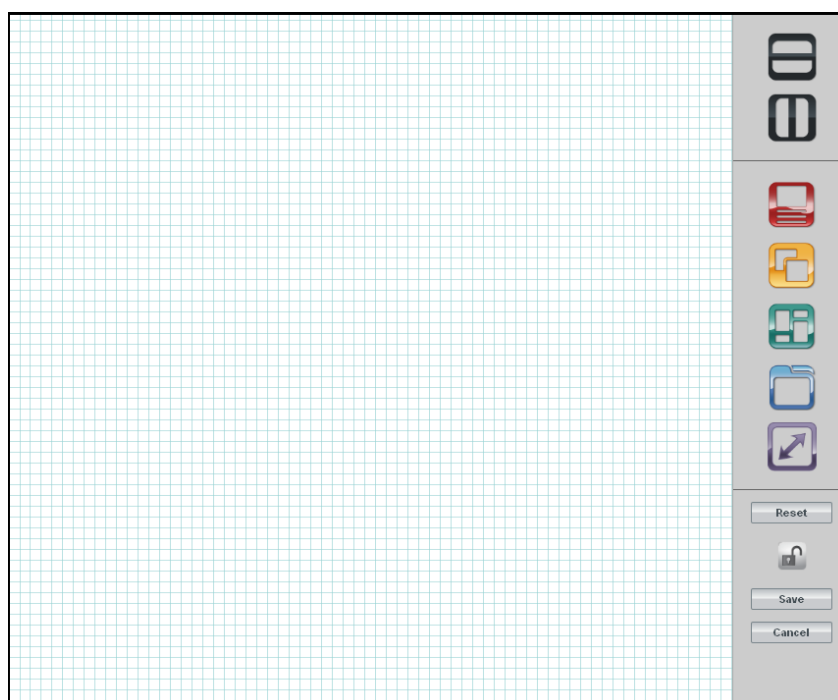
**Figure 24: Dashboard Settings Window**

### 4.4.1 Creating Dashboards with the Dashboard Designer

To create a new dashboard or to build a new dashboard based on the layout and widget settings of one that already exists:

- 1) Click the  button on the toolbar, choose dashboards, then select the Create button on the Dashboard Settings window.
- 2) Name the dashboard.  
*Note: The Dashboard cannot be saved until it has been named.*
- 3) Provide an optional description.
- 4) Optionally, a user can select from the following radio buttons:
  - Create from existing and select the dashboard layout from the drop-down selector.
  - Import a dashboard by browsing to and importing a saved JSON configuration file.
- 5) Click OK.

This will load the Dashboard designer, shown below:





**Figure 25: Dashboard Designer**

From the dashboard designer, the following tools can be used:






#### 4.4.1.1 Rule Boxes

When using the dashboard designer, there are two ways to cut the dashboard into sections, referred to as panes:

-  - Horizontal Rule Box can be used to cut the dashboard (or sub-sections of the dashboard) into upper and lower panes.
-  - Vertical Rule Box can be used to cut the dashboard (Or sub-sections of the dashboard) into left and right-side panes


#### 4.4.1.2 Dashboard Types

There are currently five types of dashboard layouts. During the design process, any of the dashboard layouts can comprise a whole dashboard or be placed into sections of a dashboard:

-  - Accordion Layout. See section [4.2.1: Accordion Dashboards](#) for more details.
-  - Desktop Layout. See section [4.2.2: Desktop Dashboards](#) for more details.
-  - Portal Layout. See section [4.2.3: Portal Dashboards](#) for more details.
-  - Tabbed Layout. See section [4.2.4: Tabbed Dashboards](#) for more details.
-  - Fit Layout. See section [4.2.5 Fit Dashboard](#) for more details

### 4.5 Using the Dashboard Designer

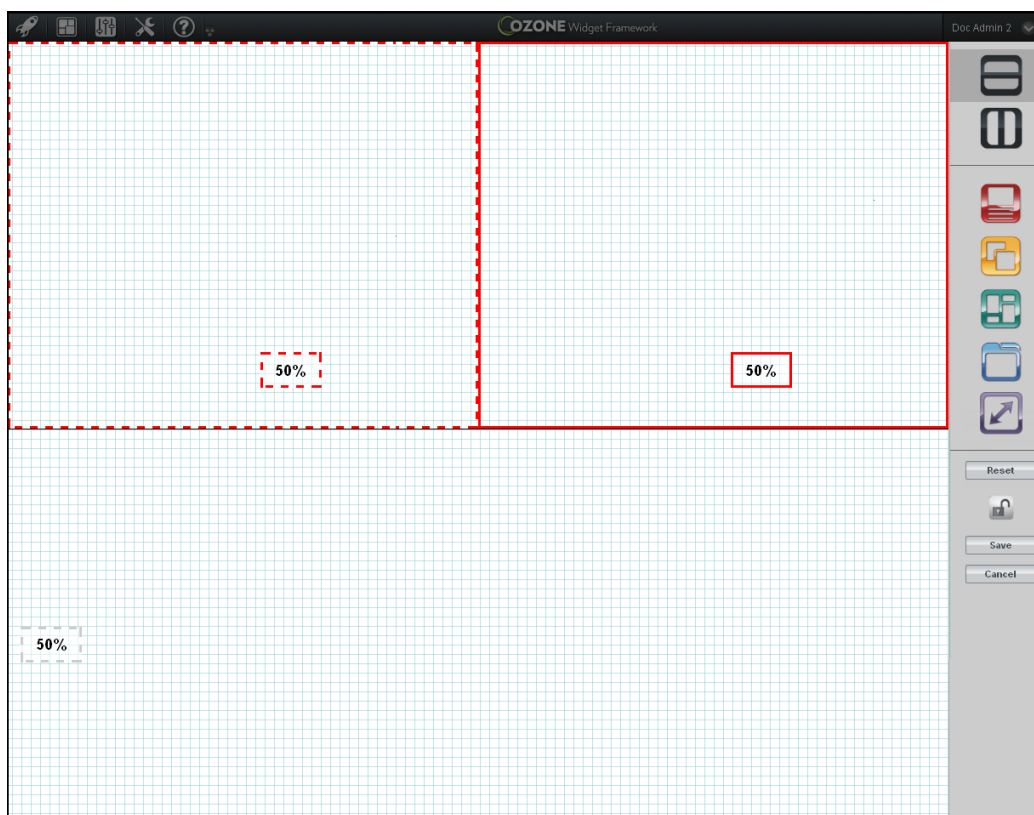
The Following walkthrough will show how to build a new dashboard with Accordion, Desktop, and Tabbed dashboard sections:

- 1) Click the  button in the toolbar, choose dashboards, then select the Create button on the Dashboard Settings window.
- 2) Name the dashboard.



*Note: The Dashboard cannot be saved until it has been named.*

- Provide an optional description.
  - Optionally, a user can select from the following radio buttons:
    - i. Create from existing and select the dashboard layout from the drop-down selector.
    - ii. Import a dashboard by browsing to and importing a saved JSON configuration file.
- 3) Click OK.
  - 4) Drag the Horizontal Rule Box onto the Designer; the screen will divide.
  - 5) Drag the Vertical Rule Box onto the upper level of the Designer. The Dashboard section of the Designer should look as it does in the image below:



**Figure 26: Divided Dashboard Designer**

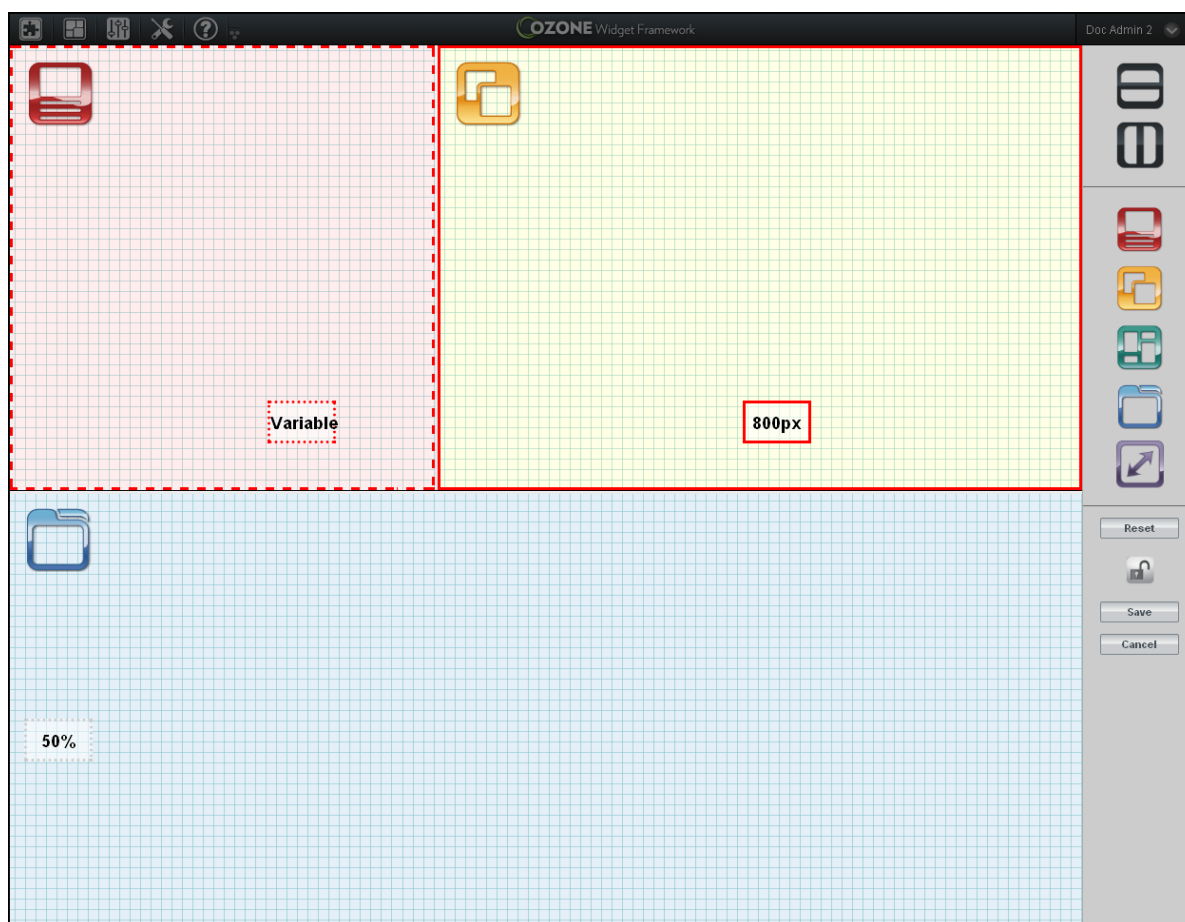
The Dashboard is now divided into multiple panes. Each section can be further divided, or can have a dashboard type dragged into it. To resize the panes, drag the dividing line between them or type a different value into one of the pane's screen percentage box. The related pane will automatically adjust. At any point during the dashboard creation, it can be saved, reset, or cancelled.

When a section of the dashboard is clicked, it will be surrounded in a solid border. The child sections of the dashboard will highlight in a broken line. These combined sections (solid red border and broken red border) make up 100 percent of a viewing area.

In the image above, the right-side 50% is surrounded by a solid red line. The left-side 50% is surrounded by a broken red border. Together, they make up 100 percent of the upper pane of the dashboard.

*Note: A user can also use pixels values instead of a percentage value when they need to make a more precise cell size. In the image above, a user would be able to make either of the 50% cells an exact number, 250px, for example. When this happens, the remaining 50% presents the label “variable.” Entering a number and using a P or a PX will designate pixels.*


Once the layout is finished, the user can drag dashboard type icons into the panes of the dashboard.







**Figure 27: Dashboard Designer with Type Icons**

In the image above, each section of the dashboard has a type icon in place.


The upper-left section contains the Accordion-type icon and has changed to a red background. The upper-right section contains the Desktop-type icon and has changed to

a yellow background. The lower section has changed to a blue background. Each individual section allows for the layout of widgets in accordance with the properties of the type icon. Once the icons are in place, the user can save the dashboard. After saving the dashboard, it will launch automatically. It can also be launched from the dashboard switcher by using the  button. Individual dashboard panes can now be populated from the Launch Menu.

-  - Clears the modifications to the dashboard; the user dashboard is returned to a new/clean slate.
-  - Lock/Unlock dashboard – once a dashboard is created, the creator can launch the dashboard, place widgets on it, and then return to the dashboard designer and lock the widgets in place. Once locked, widgets cannot be added or removed, and panes cannot be edited.
-  - Saves the dashboard, closes it, and launches it.
-  - Cancels changes made since the last save or since entering the editor.

### 4.5.1 Importing a Dashboard


To import a dashboard:

- 1) Click the  button on the toolbar. Then, choose the dashboards button.
- 2) Select Create at the bottom of the window.
- 3) From the radio buttons, select: Import.
- 4) Browse to and select a saved JSON dashboard file.
- 5) Click OK.

*Note: OWF 6 does not support backwards compatibility for imports. Only dashboards created with/for OWF 6 will successfully import.*

### 4.5.2 Deleting a Dashboard

To delete a dashboard:

- 1) Click the  button on the toolbar. Then, choose Dashboards to open the Dashboard Settings window.
- 2) Select a Dashboard and then click delete at the bottom of the screen.
- 3) A warning message will appear.

- 4) Click OK.

## 4.6 Customizing Dashboard


Use the Dashboard Designer to assign layouts to a dashboard. To add widgets to the dashboard:

- 1) On the OWF interface, go to the dashboard.
- 2) Open the launch menu and add widgets from the menu to the dashboard. To add widgets to a dashboard using keyboard navigation, use the launch menu [6.2.2: Launch Menu Navigation](#).

### 4.6.1 Editing a Dashboard

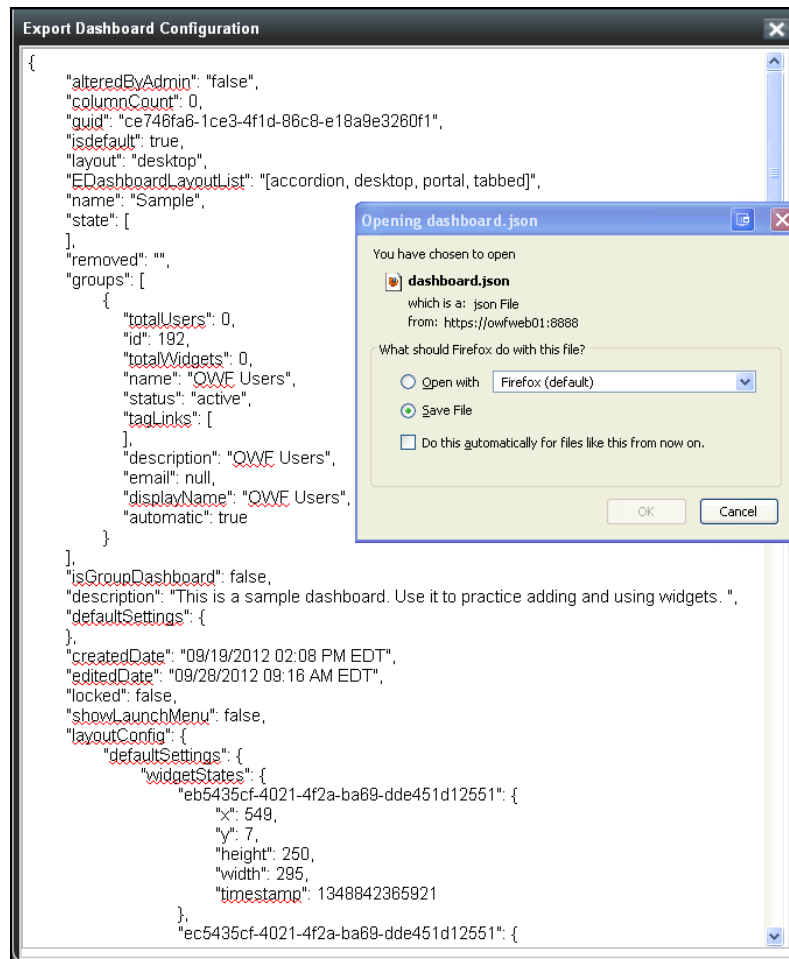
The edit dashboard option allows users to change a dashboard's name, layout, description and position within the Dashboard Settings window.

To edit a dashboard:

- 1) Click the  button in the toolbar. Then, choose dashboards to open the Dashboard Settings window.
- 2) From the Dashboard Settings window, select a dashboard and click edit.
- 3) Make changes then click the Save button.


### 4.6.2 Sharing

The share feature allows a user to send their dashboard configuration to another user.



**Figure 28: Share View Dialog**

To share a dashboard:

- 1) Click the  button on the toolbar. Then, choose dashboards to open the Dashboard Settings window.
- 2) From the Dashboard Settings window, select a dashboard and click the arrow on the edit button.
- 3) A drop-down menu will appear. Select share. This action launches the export dashboard configuration window. In supported browsers, a dialog window will appear, prompting the user to save a file. The dialog window may not appear in unsupported browsers; if this is the case, copy the content into a text file and save it for later use.

*Note: If using Internet Explorer, saved dashboards are open to custom naming conventions. If using Firefox, OWF will default to saving all dashboards with a .JSON extension.*


*Note: Due to updates, OWF 6 will not accept imported files from earlier versions.*

### 4.6.3 Restore a Group Dashboard

Group dashboards allow members of a group to receive identical versions of a dashboard. From their instance of OWF, a user can customize their version of the group dashboard. The restore feature allows the user to cancel their customizations and returns the dashboard to its *current default state*. If the group dashboard was upgraded after it was added to a user's instance of OWF, the current default state of the dashboard may be different than the one that originally appeared in the user's dashboard switcher.

*Note: If a group dashboard is deleted by an administrator, a user's copy of that dashboard will NOT be deleted. However, the restore feature will no longer be available for the dashboard.*


To restore a group dashboard to its *current default state*:

- 1) Click the  button in the toolbar and then choose the dashboards button to open the Dashboard Settings window.
- 2) From the Dashboard Settings window, select the dashboard and click the arrow on the edit button.
- 3) Choose restore.

### 4.6.4 Changing a Dashboard Layout

If a user has set up a specific dashboard with all the widgets they need, but they would like to see the widgets displayed in a different layout, they can easily switch layouts.

To change a dashboard layout:

- 1) Click the  button in the toolbar, and then choose the dashboards button to open the Dashboard Settings window.
- 2) From the Dashboard Settings window, select a dashboard and click the edit button at the bottom of the screen.


*Note: To save the change as a new dashboard, give the dashboard a different title when the edit dashboard window launches.*

- 3) The Dashboard Designer window will launch. From there, the layout can be changed.
- 4) Click Save.

*Note: While all widgets will be present in the new dashboards, specific ordering of widgets will differ based on the layout of the dashboard that is loaded.*

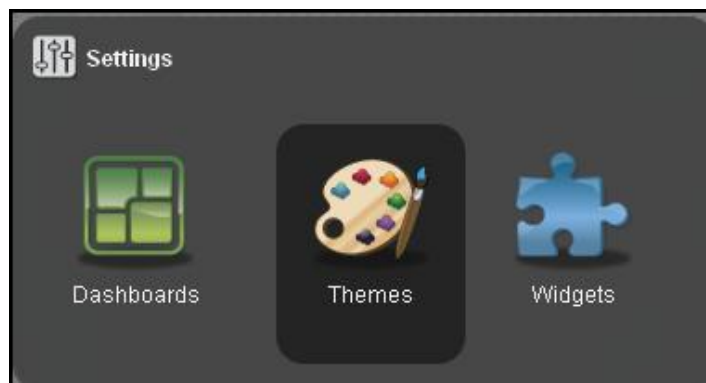
### 4.6.5 Renaming a Dashboard

To rename a dashboard:

- 1) Click the  button in the toolbar, and then choose the dashboards button to open the Dashboard Settings window.
- 2) From the Dashboard Settings window, select a dashboard and click edit at the bottom of the window.
- 3) Change the dashboard name.
- 4) Click OK.
- 5) The Dashboard Designer window will launch. From the right-navigation panel, click Save.

## 5 Themes: High Contrast and Large Text

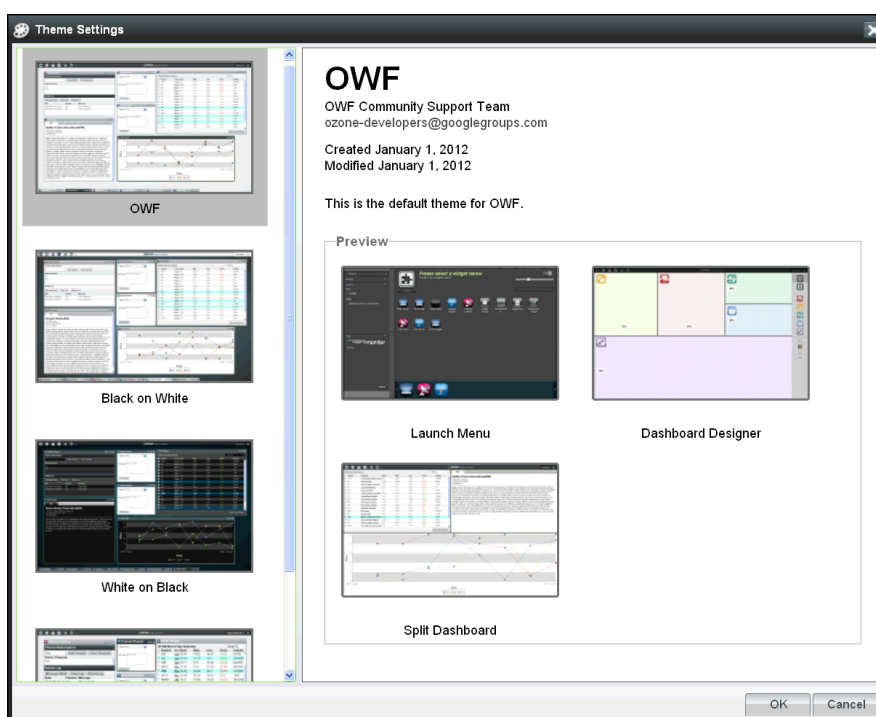
In addition to the default theme, OWF provides three accessibility themes to accommodate users with vision challenges.



**Figure 29: Settings Controls with Themes Selected**

*Note: OWF now ships with Eventing disabled / hidden, hence the lack of inclusion in the default image above. See the OWF Administrator if this needs to be enabled.*


### 5.1 Selecting a Theme



**Figure 30: Theme Settings Window**



To select a theme:

- 1) Click the  button in the toolbar, and then click the themes button.  
The theme selector window will open. Theme options will appear in the left column. The current theme will display in the right column.
- 2) Select a theme in the left column, then click apply. The theme will automatically change to the new selection.

## 5.2 Accessible Themes

OWF ships with the following themes that were specifically designed for accessibility:

- **Black on White** - A high contrast theme with white backgrounds and dark text.
- **Large Text** - A large text theme that includes 24px font size, which is the largest size supported by OWF.
- **White on Black** - A high contrast theme with dark backgrounds and light text.

## 6 Keyboard Navigation

### 6.1 Overview

#### 6.1.1 508 Compliance

The OWF team is striving toward creating an accessible product for people with disabilities. To meet federal accessibility standards the OWF team added two high-contrast background themes and one large text theme. OWF also provides keyboard navigation that enables users to navigate the framework without a mouse. The OWF bundle includes supporting documentation that is provided in Adobe Acrobat PDF file format. All changes are done in accordance with [Section 508 of the U.S. Rehabilitation Act](#). For accessibility issues that cannot be remedied by a system administrator, contact [the OWF Community Support Team](#).

*Note: While OWF created an accessible framework, it is the responsibility of each organization's widget developers (not the OWF team) to create and maintain widgets that meet accessibility requirements.*

#### 6.1.2 Keyboard Navigation

**Keyboard navigation** – the users' ability to interact with an application using only a keyboard for input (no mouse).

OWF supports keyboard navigation in the toolbar, all dashboard layouts and content fields in widgets.

This section explains:




















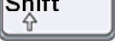


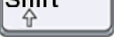


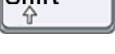







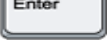

- **Global Keyboard Combination and Navigation**
- **Widget Switcher** – The widget switcher (accessed by Alt + Shift + Q) lists active widgets on a dashboard.
- **Dashboard Layout Specific Navigation** – Special key combinations that support OWF specific dashboard layouts (Tabs, Accordion, Desktop, and Portal).
- **Widget Focus** – An overview about focusing widgets and the tools used to do it.

### 6.2 Global Key Combinations and Navigation

OWF's global key mapping feature is based on key sequences Alt + Shift + any predetermined hot key. The OWF team purposely chose this key sequence to avoid combinations that are commonly used in well-known operating systems and browsers.

## 6.2.1 List of OWF Global Hot Keys
















**Table 2: Global Hot Keys**

Key combination	Action
 +  + 	Open/Close the widget administration window
 +  + 	Open/Close the dashboard switcher
 +  + 	Open/Close the help window
 +  + 	Open/Close the launch menu
 +  + 	Open/Close the Marketplace connection
 +  + 	Signs out the user
 +  + 	Open/Close the widget switcher
 +  + 	Open/Close the metric switcher
 +  + 	Open/Close the settings window
 +  + 	Closes the active widget and moves focus to the last widget that was used.
	Select to the next element
 + 	Select to the previous element
	Activate the selected element
	Return to the widget or window header (when inside a widget or window). Esc returns to the toolbar header from anywhere else. To move to the toolbar from a widget header, press Esc.

### 6.2.2 Launch Menu Navigation

The OWF launch menu consists of a few standard buttons and text boxes and a custom data view component in which all available widgets are displayed in groups. Primarily, the launch menu contains widget icons. To navigate through the launch menu, use the conventional navigation system of the arrow keys and tab keys identified below:

**Table 3: Launch Menu Keyboard Navigation**

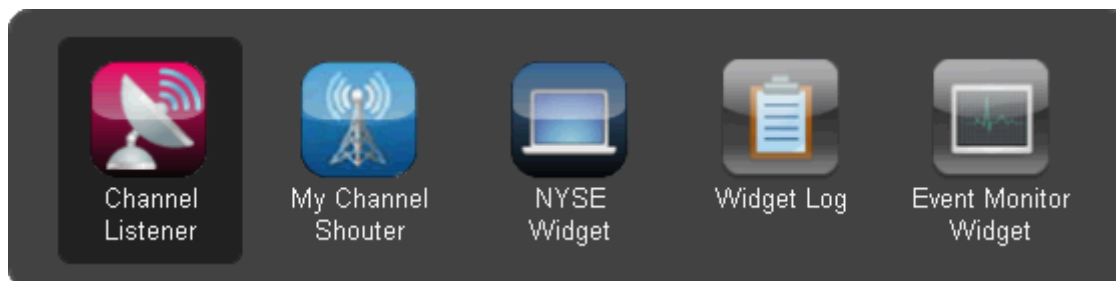
Key combination	Action
 +  + 	Toggles the launch menu
 OR  OR  OR 	Select next widget
 +  OR  OR  OR 	Select previous widget
	Launch the selected widget
	Adds a focused widget to the favorites pane
	Removes a focused widget from the favorites pane

Launch menu reminders:

To open the advanced search panel, tab to the arrow button located in the center of the left side of the launch menu. When the arrow is focused, click enter. Users can tab through the search filters. To select a group, click enter. To unselect it, click space bar.

### 6.2.3 Widget Navigation

The widget switcher allows users to navigate between open widgets on their dashboards. To activate the widget switcher press the global hot keys: Alt + Shift + Q. It displays in the center of the screen as shown in [Figure 31: Widget Switcher](#).













**Figure 31: Widget Switcher**

### 6.2.3.1 The Widget Switcher

The widget switcher lists widgets that are open on the dashboard. Use the arrow keys or the Tab key to navigate through the widgets. To add widgets to the switcher, navigate to the launch menu (Alt + Shift + L) and open the widget there. After launching the widget to the dashboard, it will appear as a choice in the widget switcher.

**Table 4 : Widget Switcher Keyboard Navigation**




Key combination	Action
 +  + 	Toggle Open/Close the widget switcher
 or 	Select the next active widget
 +  or 	Select the previous active widget
	Switch to the selected widget
	Close the widget switcher (without making a selection)

After selecting a widget, the widget switcher disappears and the selected widget moves to the foreground in the dashboard.

### 6.2.3.2 Closing widgets

To close a widget:

- 1) Focus the widget.

Press  +  + .


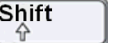


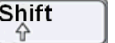


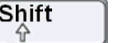












- 2) The widget will close and focus will move to the last widget that was used.

## 6.3 Dashboard Layout Specific Controls

The following table lists keyboard combinations for each dashboard layout. To create, edit or delete dashboards, select the settings button on the toolbar and then choose dashboards. To change the screen display from one dashboard to another, use the dashboard switcher (Alt + Shift + C).

*Note: For the keyboard combinations to register, a field in the widget must be focused.*

**Table 5: Dashboard Keyboard Navigation**

Applicable Dashboard(s)	Keyboard combination	Action
Accordion/Portal	 +  + 	Expands the focused widget
Accordion/Portal	 +  + 	Collapses the focused widget
Desktop	 +  + 	Maximize the focused widget
Desktop	 +  + 	Minimize the focused widget <i>Note: If current widget is maximized, this will restore the widget to the previous size. Pressing this combination again will perform the minimized action.</i>
Desktop, Portal	 + 	Move the focused widget up
Desktop, Portal	 + 	Move the current focused widget down
Desktop, Portal	 + 	Move the focused widget left
Desktop, Portal	 + 	Move the focused widget right

## 6.4 Widget Focus

### 6.4.1 Defining Widget Focus

Focus refers to the element on the screen that is active. In a word processing document, the blinking cursor cues the user as to where the document is focused. To focus using a mouse, the user clicks. This section explains how focus passes through each element in a widget using keyboard navigation via the Tab key.

#### 6.4.1.1 Focus Frame Visibility

Through keyboard navigation, OWF identifies focused elements while hiding unnecessary focus borders. Generally, focus will move clockwise through the window.

However, some components in the interface use other methods of focusing, as denoted in the following sections.

### 6.4.1.2 Grids

When working in grids, focus is denoted by showing the active style on the selected row of the grid. If a row was NOT previously selected, the first row will be selected by default.

### 6.4.1.3 Widget Icons

In all places in the OWF user interface where widgets are referenced by their icon, the “selected” style also functions as the focus style shown below:



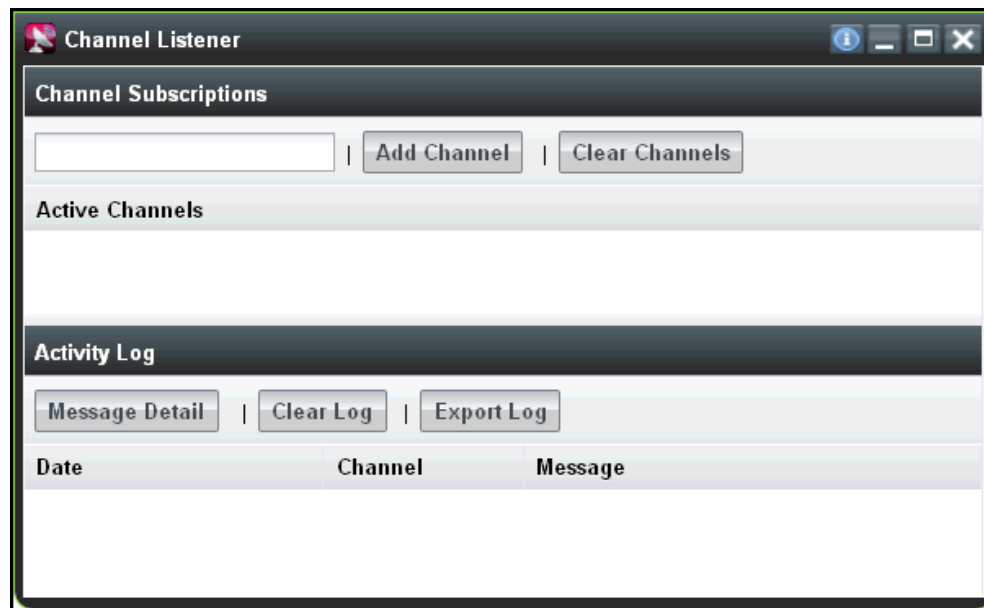
**Figure 32: Channel Shouter Widget focused in Launch Menu**

## 6.4.2 Widget Focus Instructions

In OWF, a user can focus several parts of a widget. Generally, users can use standard navigate (Shift + Tab or Tab) to navigate to the different parts. Elements in a widget usually focus in this order:

- 1) Widget Title
- 2) Widget Chrome Buttons (close, maximize, minimize, etc). This includes buttons and menus added using the Widget Chrome API

- 3) Any other elements within the widget that are focusable
- 4) Widget Body (as shown below)
- 5) Return to the Widget Title



**Figure 33: Focus on Widget Body**

#### **6.4.2.1 Widget Focus Tips**

- To activate elements within the widget header (the title and chrome buttons): Focus on the element and then press the enter button.
- To quickly navigate in a clockwise direction through the widget body: Use the Tab key.
- To switch from the widget body to the widget title: Press Esc.
- To leave the widget: Press Alt + Shift + W or Press Esc twice or select a different widget from the widget switcher (Alt + Shift + Q) or the launch menu (Alt + Shift + L).
- To return to the toolbar: Press Esc twice.

#### **6.4.2.2 Expanding a Minimized or Collapsed Widget**

To expand a widget after it has been minimized to the taskbar or collapsed in a dashboard; select it using the widget switcher (Alt + Shift + Q). When a widget is restored from a minimized or collapsed state, the widget body focuses.



## 6.5 Toolbar Focus








### 6.5.1 Toolbar buttons

The OWF toolbar spans the length of the browser window. The left portion of it is detachable. From there, users can launch widgets, switch dashboards, connect to Marketplace (if one is configured), change their settings, access help, and detach/reattach the toolbar. The right portion of the toolbar consists of the drop-down user menu which includes the last sign in time, user profile information and OWF product information and the sign out feature.

Important things to remember about the toolbar:

- Pressing Esc from anywhere in the application will return the user to the toolbar. (If a widget or window is in focus, the user may have to press Esc twice to return focus to the toolbar.)
- The toolbar focuses in a circular repetition. After cycling through the last choice on the user menu drop-down, focus returns to the launch menu.
- The following table lists keyboard combinations for the detachable toolbar elements (including administration controls that are only visible to an administrator) and sign out. Other toolbar elements (the profile and about windows) are only accessed by tabbing through the other toolbar.

**Table 6: Toolbar Keyboard Combinations**

Location	Icon	Keyboard Combination
Launch Menu		Alt + Shift + L
Dashboard Switcher		Alt + Shift + C
Marketplace(s)		Alt + Shift + M
Settings		Alt + Shift + S
Administration		Alt + Shift + A
Metric Switcher		Alt + Shift + R
Help		Alt + Shift + H
Sign out	n/a	Alt + Shift + O

*Note: While not part of the toolbar, the widget switcher (Alt + Shift + Q) is an important tool that should be referenced near these other keyboard elements.*

## 6.6 Dashboard Settings Window

The Dashboard Settings window allows the user to create, edit, and delete dashboards. To open the Dashboard Settings window: From the settings button (Alt + Shift + S) on the toolbar, select dashboards and press the enter button. This will open the Dashboard Settings window which consists of simple form elements that exhibit the standard keyboard interaction patterns for elements of their layout. Navigate it using the tab button and the up and down arrow keys.

From the Dashboard Settings window users can:

- Design and delete dashboards.
- Edit existing dashboards (Edits include adding panels and layout types on a dashboard as well as changing the dashboard name and description).
- Reorder dashboards on the dashboard switcher.
- Share the dashboard JSON files.

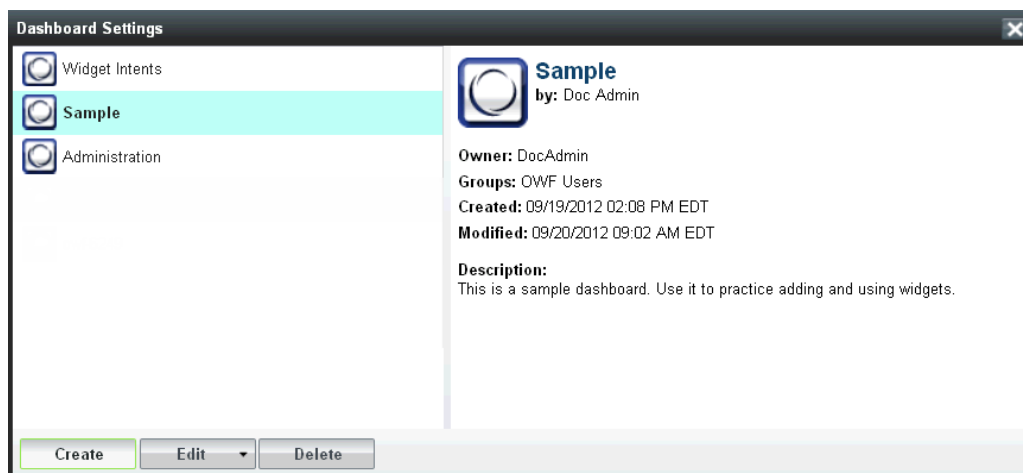


Figure 34: Dashboard Settings Window

### 6.6.1 Dashboards: Focusing, Configuring, and Customizing

#### 6.6.1.1 Creating a Dashboard

To create a dashboard:

- 1) Use the Dashboard Settings window which is located by opening the settings window (Alt + Shift + S) on the toolbar, selecting dashboards, and pressing enter.
- 2) Tab to the create button and then press enter.
- 3) Populate the dashboard name and description.

- To use an existing dashboard as a template, tab to the create from existing radio button, press enter and use the arrow keys to select an existing dashboard to copy.
  - To import a dashboard .json file, tab to the import radio button, press enter, tab to the browse button, press enter and navigate to the file.
  - To create a new dashboard, tab directly to the OK button.
- 4) Tab to the OK button, press enter and the dashboard designer will launch.

### 6.6.1.2 Editing a Dashboard

The edit feature allows a user to change the dashboard name, description, and layout. Users can also share the dashboard JSON and reorder dashboards on the dashboard switcher.

To edit a dashboard:

- 1) From the Dashboard Settings window which is located by opening the settings window (Alt + Shift + S) on the toolbar, select dashboards by pressing enter.
- 2) If a dashboard is focused, it will be highlighted. To move focus into the grid, press tab. Use tab or the up and down arrow keys to highlight the dashboard that will be edited.
- 3) While the dashboard name is highlighted, tab to the edit button at the bottom of the window.
- 4) To edit the dashboard's name, description, or layout(s), press enter and proceed to step 5. Use the up and down arrows to navigate to the following editing options:
  - To create an exportable JSON file: Select share and press enter.
  - To reorder dashboards on the dashboard switcher: Select the “move up” or “move down” options and press enter.
  - To reset a group dashboard, select restore and press enter. Restore will only affect group dashboards, see section [4.2.6: Group Dashboards](#).
- 5) Tab to change the dashboard name or description in the module, then select OK and press enter.
- 6) The Dashboard Designer will launch. The horizontal divider which is the first tool in the right-side panel will be selected. Use tab to move through the panel. To add a divider or layout to the dashboard:
  - a) Select a divider or layout.
  - b) Press enter, this will move focus to the grid. If the selected divider or layout is the first element on the page, it will automatically divide the screen or become the layout. If the dashboard is already divided, tab through the sections to focus them.

- c) Press enter to add the divider or layout to the dashboard.
- 7) After completing edits, tab to the save button and press enter.
- 8) To add widgets to the dashboard:
  - a) Select the dashboard from the dashboard switcher (Alt + Shift + C).
  - b) Use the launch menu (Alt + Shift + Q) to add widgets to the dashboard.  
See section [6.2.2: Launch Menu Navigation](#) for keyboard instructions.

### 6.6.1.3 Deleting a Dashboard

To delete a dashboard:

- 1) Use the Dashboard Settings window which is located by opening the settings window (Alt + Shift + S) on the toolbar and selecting dashboards.
- 2) Press tab to enter the grid, then use the up and down arrow keys to select a dashboard.
- 3) After the dashboard is selected, tab to the delete button and press enter.
- 4) A warning message will appear, tab to the OK button. Pressing enter will permanently delete the dashboard.

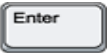


## 6.7 Widget Settings Window




The Widget Setting Window lists all the widgets that are assigned to the user. From there, users can edit the names of their copies of widgets, tag widgets, show or hide them in the launch menu, and delete them from their instance of OWF. Again standard navigation shortcuts apply. Specific functionality is listed in the table below:

To open the Widget Settings Window:

- 1) Select the settings button on the toolbar (Alt + Shift + S).
- 2) Tab to the widgets button and press enter. The widget settings window will launch.
- 3) To enter the grid, press tab.

**Table 7: Manager Widgets Keyboard Navigation**

Key combination	Action
	Activates an editor box in which the widget name can be changed. Pressing enter again saves and closes this box.
	Close the editor box without saving the content
	(When the name editor is open and focused) Closes the Name editor and automatically opens the Tags editor for a row

Key combination	Action
	Toggles the delete checkbox for the row
	Toggles the show checkbox for the row
	Toggles the context menu of a widget inside the widget settings window, allowing an administrator to revert any or all widget names which have been changed.

## 6.8 Changing Themes

OWF ships with four themes: OWF (default), black on white, large text, and white on black). To change themes:

- 1) Select the settings button on the toolbar (Alt + Shift + S).
- 2) Tab to the themes button and press enter. The theme settings window will launch with the theme selection menu already in focus.
- 3) Use the up and down arrow keys to navigate to a theme. After focusing on the theme, tab to OK or cancel.
- 4) Press OK to change the theme and close the window.

## 6.9 About Window

To open the About window, press Esc to move focus to the toolbar. (If the toolbar is detached, reattach it.) Use the arrow keys or tab to the user menu drop-down. Tab to the about selection in the drop-down. Press enter to open it.

The About Window's only interaction is that it can be closed. This can be accomplished using the keyboard by pressing Esc while the window is in focus.

## Appendix A Supported Browsers

OWF supports Internet Explorer 7 and higher and Firefox 3.6 and higher. OWF is tested against the following browsers:

**Table 8: Tested Browsers**

Browsers	Versions
Internet Explorer	7 & 9
Firefox	3.6 & 13

## Appendix B Known Issues

### B.1 Browser Issues

Launching JavaScript-heavy widgets in certain versions of Internet Explorer consumes system memory that won't be flushed or released until Internet Explorer is exited and restarted. Again, this is currently only an Internet Explorer issue.

### B.2 User Interface Issues

#### ***Importing Invalid .JSON forces a browser restart***

Importing invalid .JSON information into OWF will cause a dialog window to launch and block the application. Closing the browser and re-launching the session will remedy this situation. To ensure that valid .JSON is being imported, only import .JSON which has been exported from an OWF instance.

*Note: Due to updates, the most recent version of OWF may not accept imported file from earlier versions.*

#### ***Changes in screen resolution may render widgets unviewable.***

The positioning of the Widgets is absolute. This means that when changing from a larger monitor to a smaller monitor, or when changing from a higher screen resolution to a lower screen resolution, some floating windows may be either partially or fully off the viewable region of the screen. Currently there is no remedy for this issue; however, closing a Widget and re-adding it (from the Launch Menu) will reset their position and, therefore, render it viewable again.

#### ***Internet Explorer users may experience degraded performance.***

The latest release of Sencha's ExtJS 4 JavaScript framework is known to have performance issues in Internet Explorer browsers. The Sencha team is actively working to release a patch to address these issues. Once the patch is released, the OWF team will integrate it into the codebase.

#### ***Dashboard Configuration Manager windows may not populate.***

Occasionally, Dashboard Configuration Managers may not populate with Widgets or regions. This can be easily remedied by changing the Layout Type within the Dashboard Configuration Manager.

### B.3 Widget Technology Issues

#### ***Java Applet Widgets always sit on top of other widgets (z-index issue).***

There is a documented Java/Sun/Oracle bug where Java applets not obeying proper z-indexing, the effect being that an applet will appear over everything else in OWF:

[http://bugs.sun.com/bugdatabase/view\\_bug.do;jsessionid=6a434ce1408465ffffff87e84af5d233a32?bug\\_id=6646289](http://bugs.sun.com/bugdatabase/view_bug.do;jsessionid=6a434ce1408465ffffff87e84af5d233a32?bug_id=6646289)

***Flex Widgets always sit on top of other widgets (z-index issue).***

Flex has a known issue with DHTML and z-index ordering. The default wmode for flex is window with two other options; transparent and opaque. In order for flex widgets to adhere to the proper z-index ordering the wmode must be set to something other than the default.

***Silverlight Widgets always sit on top of other widgets (z-index issue).***

Silverlight has a known issue with DHTML and z-index ordering. The default windowless mode for Silverlight is false. In order for Silverlight widgets to adhere to the proper z-index ordering the windowless mode must be set to true.

***Google Earth Plugin Widgets always sit on top of other widgets (z-index issue).***

The Google Earth browser plugin currently does not conform to the normal z-index rules of html. This will cause the plugin to remain on top of any other floating windows that may be on the screen. If you are using this plugin, it is recommended not to utilize it in the desktop layout. It can be used in any of the other static layouts but windows launched from the toolbars may be rendered unreachable by the plugin.



## Appendix C Contact Information

### ***C.1 Discussion Group***

The OZONE Developers Discussion Group is hosted through Google Groups at <http://groups.google.com/group/ozone-developers>. This forum is for the distribution of release announcements, Q&A related to OWF and for additional inquiries about widgets and features being developed across the user base. To access the group, request an invitation at <http://groups.google.com/group/ozone-developers> or contact the Community Support Team at [goss-support@owfgoss.org](mailto:goss-support@owfgoss.org).

### ***C.2 Additional POCs***

For information about the OZONE Widget Framework or access to its resources, please email [goss-support@owfgoss.org](mailto:goss-support@owfgoss.org). Additional resources can be found at <http://owfgoss.org>.