

Ozone Widget Framework

User's Guide

October 25, 2013

Publication/Revision History

Release	Date
Revised – OWF 7.4.0	October 25, 2013
Revised – OWF 7.3	October 8, 2013
Revised – OWF 7.3	August 13, 2013
Revised – OWF 7.2	June 11, 2013
Revised – OWF 7	December 21, 2012
Revised – OWF 6	September 28, 2012
Revised – OWF 5	June 29, 2012
Initial Document – OWF 4.0	March 30, 2012

Contents

1 Introduction	1
1.1 Objectives	1
1.2 Document Scope	1
1.3 OWF Overview	1
1.3.1 Applications	1
1.3.2 Application Pages	2
1.3.3 Application Components	2
1.4 Related Documents	2
2 Toolbar Elements	4
2.1 Overview	4
2.2 Toolbar	4
2.3 Drop-down User Menu	5
3 Applications	7
3.1 Overview	7
3.2 My Apps Menu	7
3.2.1 Opening an Application	9
3.3 Application Pages	9
3.3.1 Opening an Application Page	10
3.4 Application Layouts and Configurations	11
3.4.1 Accordion Layout	12
3.4.2 Desktop Layout	13
3.4.3 Portal Layout	15
3.4.4 Tabbed Layout	15
3.4.5 Fit Layout	16
3.5 Creating an Application	17
3.5.1 Application Builder	18
3.5.1.1 Dividers	18
3.5.1.2 Application Layout Types	18
3.6 Walkthrough: Using the Application Builder	19

3.7 Managing an Application.....	22
3.7.1 Add a Page.....	23
3.7.2 Push an Application to the Store	24
3.7.2.1 Ownership in the Store	25
3.7.2.2 Pushing an App update to the Store	25
3.7.3 Restoring an Application/Page.....	25
3.7.4 Editing an Application/Page	25
3.7.5 Deleting an Application/Page	26
3.8 Customizing Applications and Pages	26
3.8.1 Adding App Components to an Application.....	26
3.8.2 Changing a Page's Layout.....	27
3.8.3 Renaming an Application	27
3.8.4 Reordering Applications and Pages	28
4 Application (App) Components.....	29
4.1 Overview.....	29
4.1.1 Singleton Application Components.....	29
4.1.2 Background Application Components	29
4.2 App Components Menu	30
4.2.1 Adding an App Component to an Application.....	31
4.2.2 Searching for Application Components	32
4.2.3 Intents (Launching App Components)	32
4.2.4 App Component Visibility.....	33
4.2.4.1 Deleting App Components	33
4.2.4.2 Reordering App Components in the App Components Menu	34
4.3 Accessing The Store	34
4.3.1 Adding Listings to the Store.....	36
4.3.2 Adding Listings from the Store	36
4.3.2.1 Adding OZONE Apps from the Store	36
4.3.2.2 Starting Web Apps from the Store.....	37
4.3.2.3 Adding App Components from the Store.....	37
4.3.3 Required App Components	38
4.3.3.1 Deleting Required App Components.....	38
5 Themes: High Contrast.....	40

5.1 Selecting a Theme	40
5.2 Accessible Themes	40
Appendix A Supported Browsers	42
Appendix B Known Issues	B-1
B.1 Browser Issues	B-1
B.2 User Interface Issues.....	B-1
B.3 Technology Issues.....	B-1
Appendix C Contact Information	C-1
C.1 Discussion Group	C-1

Tables

Table 1: Related Documents	2
Table 2: Tested Browsers	42

Figures

Figure 1: OZONE Toolbar	4
Figure 2: Toolbar	4
Figure 3: OWF Drop-down User Menu	5
Figure 4: OWF/Store Drop-Down User Menu	6
Figure 5: My Apps Menu	8
Figure 6: Application Details Window	9
Figure 7: Pages Associated with an Application	11
Figure 8: Premade Layout Templates.....	12
Figure 9: Accordion Layout	13
Figure 10: Desktop Layout.....	14
Figure 11: Portal Layout.....	15
Figure 12: Tabbed Layout	16
Figure 13: Fit Layout	16
Figure 14: Application Builder	18
Figure 15: Creating an Application Layout.....	20
Figure 16: Application Builder with Layout Icons	21

Figure 17: Application Manager Tools	22
Figure 18: An Application with three pages	23
Figure 19: App Components Carousel.....	30
Figure 20: App Components Menu Information Window	31
Figure 21: Instructional Window for Intent	32
Figure 22: Send information to a different App Component	33
Figure 23: Store Switcher.....	34
Figure 24: Accessing the Store from OWF	35
Figure 25: Add OZONE App from the Store	37
Figure 26: Add App Components to OWF from the Store	37
Figure 27: Adding Required App Components	38
Figure 28: Delete App Component Warning	39
Figure 29: Theme Settings Window	40

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 application components, full applications and their configuration settings.

1.2 Document Scope

This guide is written for users of the OWF application. In this document, the term **“Store” refers both Marketplace and AppsMall**. Both applications share features described in this guide and both may be configured to OWF.

1.3 OWF Overview

1.3.1 Applications

An application, also referred to as an app, is a user-defined template where application components are added, arranged and used by the user. Applications have a customized layout or layouts that serve to organize loaded application components, helping the function of a user's workflow. Once saved, an application will load with the same interface and application component layout as the last time it was accessed by a specific user.

Think of an OWF application like an Internet browser window. A user can have a browser with one tab that contains everything they need to accomplish a task. For another task, the user may need another browser window comprised of multiple tabs, with each tab dedicated to a different part of the user's workflow. Like Internet browser windows, OWF applications can comprise one layout or they can have two or more layouts. Page is the term used for an additional layout in a single application. Going back to the Internet browser example with multiple tabs, the window is the OWF application and the tabs are the application pages.

All applications and their respective configurations are limitless; a user can have any number of applications, all of which render and function independently. More information on adding, deleting and customizing applications is found in section [3: Applications](#).

1.3.2 Application Pages

Application pages are individual layouts associated with an application. Application pages can be created, added, restored and deleted by the user. Users can customize application pages to include user preferred layouts and app components. For more information, see section [3.3: Application Pages](#).

1.3.3 Application Components

Previously referred to as a widget, an application component, or app component, is a lightweight, single-purpose Web application that offers a summary or limited view of a larger Web application. In OWF, an app component is a global description for a piece of Web content that can be configured by the user and displayed within an application. Additional information on app components is available in section [4: Application \(App\) Components](#).

1.4 Related Documents

Table 1: Related Documents

Document	Purpose
User's Guide	Understanding the OWF user interface ; adding, deleting, modifying application components and using intents ; accessing and using the Store ; creating, deleting, adding, switching, modifying applications ; defining accessibility features such as high-contrast themes
Administrator's Guide	Understanding administrative tools : adding, deleting, and editing application components, users, groups and applications; creating default content for users, groups and applications
Developer's Guide	Creating application components and integrating existing applications into OWF ; application component upgrade instructions; walkthroughs for creating application components; adding the following elements to application components: intents, descriptor URLs, preference API; logging and launching API
Configuration Guide	Overview of basic architecture and security ; OWF installation instructions; instructions for modifying default settings; database set up and logging guidance; framework and theme customization instructions; OWF upgrade instructions , directions for adding and deleting help content

Document	Purpose
Quick Start Guide	Walkthrough of basic OWF functions such as using application components and applications; instructions for setting up a local instance of OWF , unpacking the OWF Bundle and installing security certificates ; Truststore/Keystore changes

2 Toolbar Elements

2.1 Overview

From the OZONE Toolbar, users can open application components and applications, connect to a Store (if configured), adjust settings and open a Help menu. The drop-down User Menu, located on the right, displays the last sign-in date, profile information, theme options, sign-out option and About OWF window.



Figure 1: OZONE Toolbar

2.2 Toolbar



Figure 2: Toolbar

The following buttons are found on the toolbar:



- **My Apps:** Opens the My Apps Menu used to find, start and manage applications. Use the menu to get details about an applications and application pages, discover new applications in the Store and access the App Builder. For more information about the My Apps Menu, see section [3.2: My Apps Menu](#).



- **App Components:** The App Components window displays all available application components. Use this feature to start or add components to an application. For more information see section [4: Application \(App\) Components](#).

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



- **Store:** Connects the user to a Store or Stores. When launched, a user can search from an assortment of available listings and add any of those listings to their App Components menu. See section [4.3: Accessing The Store](#) for more details.

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



- **Online Help:** Repository of instructional guides and video tutorials.

2.3 Drop-down User Menu

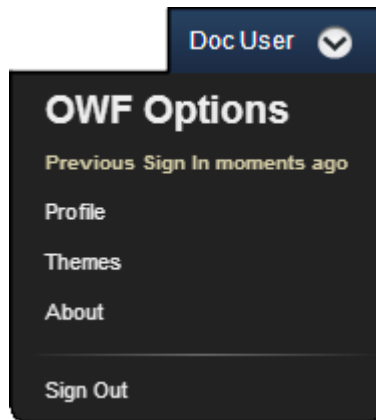


Figure 3: OWF Drop-down User Menu

Access the drop-down User Menu by clicking on the username in the upper-right of the page. The following elements reside in the OWF User Menu:

- **Last Sign In** – Text displaying the approximate time the user last entered OWF.
- **Profile** – Find User identification including the username, full name, e-mail and list of groups of which the user is a member. Under the User Preferences heading, the user can also enable OWF animations by clicking the “Enable animations” checkbox.

Note: Enabling animations may cause issues with third-party plug-ins like Google Earth.

- **Themes** – Opens the Theme Settings window. More information on themes is found in section [5: Themes: High Contrast](#).
- **About** – Displays the OWF build information.
- **Sign out** – Used to sign out of the framework in accordance with the security protocols that were used for the initial sign-in.

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

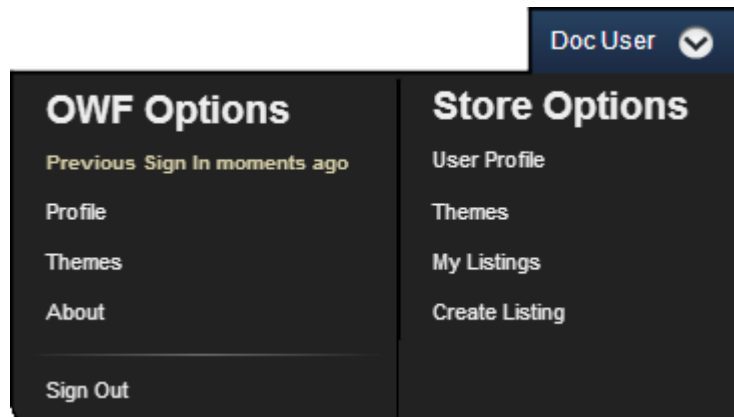


Figure 4: OWF/Store Drop-Down User Menu

When a user accesses a Store in OWF and opens the User Menu, two user menus will appear (Figure 4). The left menu is the OWF User Menu described earlier and the right menu is the Store User Menu. The following elements reside under the Store User Menu Options:

- **User Profile** – Allows the user to navigate directly to their Store profile. Users can enable Store animations by clicking the “Enable animations” checkbox under the User Preferences tab.
- **Themes** – Allows the user to change the Store theme.
- **My Listings** – Displays the user’s recent activity. Also lists non-approved and approved Store listings.
- **Create Listing** – Allows the user to create a new Store listing.

More information about the Store User Menu elements is found in the OZONE Store User’s Guide.

3 Applications

3.1 Overview

In simple terms, an application is a screen where a user can dictate (for the most part) which application components to load, which layouts to use and the arrangement of the app components within the specified layouts. Users can include multiple layouts on one application using the Application Builder (section [3.5.1: Application Builder](#)).

Each time a saved application loads, the screen and app component layout maintain the same look and feel as the last time the application was accessed by the user.

Applications and their respective configurations are limitless; a user can have any number of applications, all of which render and function independently.

Users can receive applications by the following methods:

- Create their own
- Add from the Store
- Assign to individual user by an administrator
- Assign to a group by an administrator

Group assigned applications provide identical applications for each member of a group. Each group member can customize their instance of a pre-configured application. Applications that have not been created by the user can be restored to their default states.

3.2 My Apps Menu

The My Apps Menu lists all of the user's applications. Applications included here are OZONE Apps, either created in OWF or obtained from the Store, and Web apps. From the My Apps Menu, users can start an application, create new ones or search for applications in the Store. Applications can be shared, restored, edited or deleted through the manager buttons in the My Apps Menu.

To open the My Apps menu, click **My Apps** in the OZONE Toolbar.

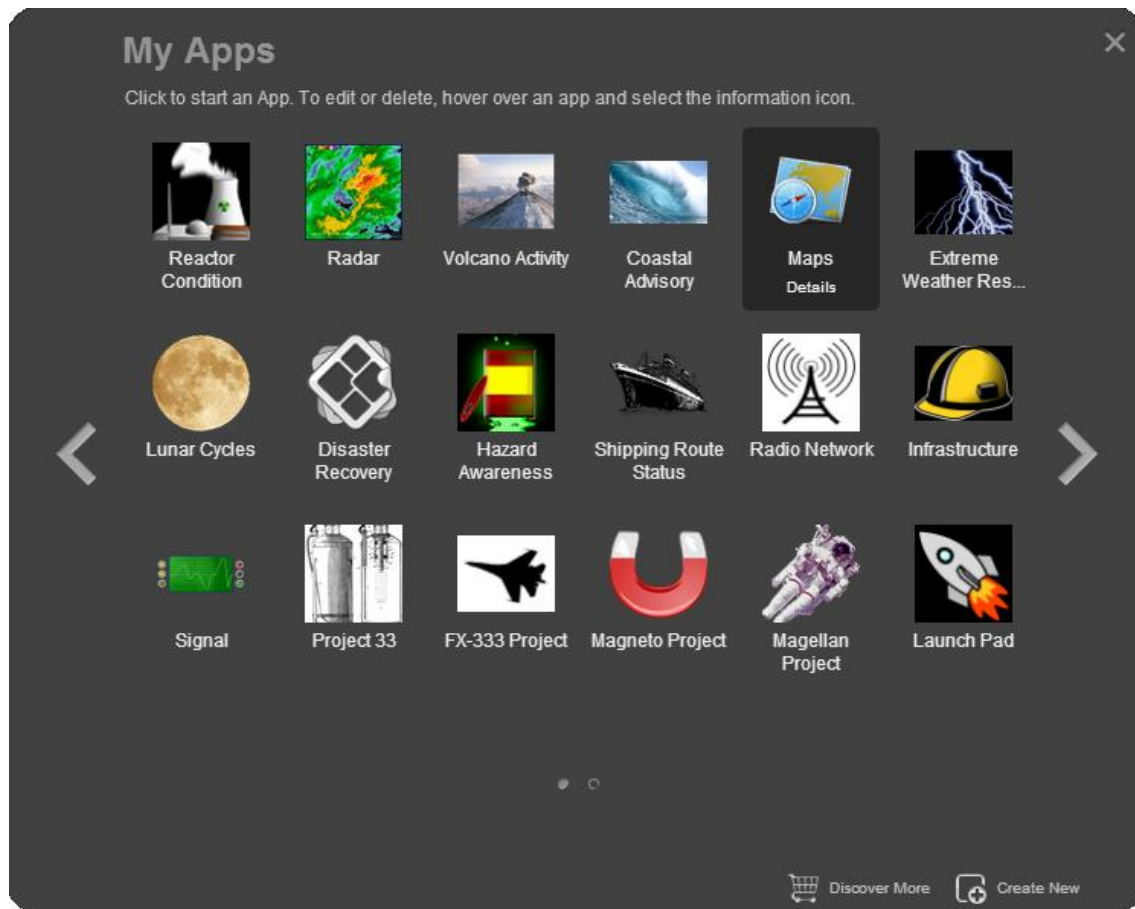


Figure 5: My Apps Menu

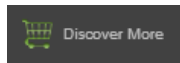
The My Apps Menu contains the following features:



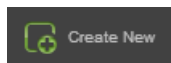
- **Pagination Arrows:** Is used to navigate through more than one page of applications.



- **Pagination Dots:** Displays the number of pages of application available. The highlighted dot indicates the page currently displayed in the carousel. Navigate to a page of application by clicking on the corresponding dot.



- **Discovery More:** Takes the user to the Store. Users can search for new OZONE Apps and Add them to their OWF. More information about adding application from the Store to OWF is in the Store User's Guide.



- **Create New:** Enables the user to create a new application. More information about creating an application is found in section [3.5: Creating an Application](#).

Details

- **Details:** On hover, this link appears below an application's title and icon. Clicking the link open a details window and displays the manager buttons.

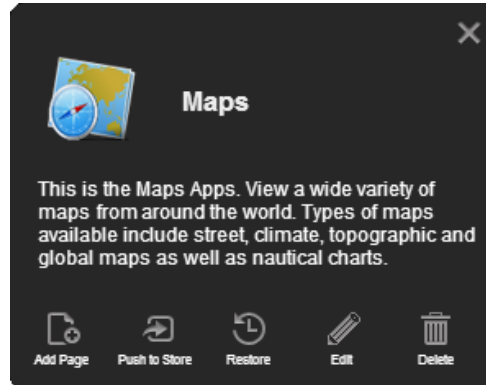


Figure 6: Application Details Window

Each application has its own details window (Figure 6). This window includes a description of the application and five manager buttons: Add Page, Push to Store, Restore, Edit and Delete. More information on managing an application is found in section [3.7: Managing an Application](#).

3.2.1 Opening an Application

Applications can contain one or more layouts called Pages. If an application has only one page, then clicking its icon in the My Apps Menu will start it.

To open an application:

- 1) Click the **My Apps** button in the toolbar to open the My Apps Menu.
- 2) Click an application, it will automatically open.

If the application has more than one page, then clicking the application's icon will open a carousel displaying all the application's pages. More information about application pages including open an application page is in section [3.3: Application Pages](#).

3.3 Application Pages

OZONE Apps can have multiple pages. Think of App Pages like tabs on a browser in Internet Explorer or Firefox. Pages allow administrators or users to group applications together. Application pages can compile resources and make them easy to access. Applications and their associated pages appear in the My Apps menu. Consider using pages to divide an application into specific sub-tasks. For example, the Disaster Recovery application has pages filled with useful tools related to disaster recovery. A user who needs this application to do their job might need the data from the following pages:

- Fire and Rescue Units
- Water and Food Supplies and Distribution Centers
- Traffic and Road Monitoring Services

To save time searching for individual applications, a user can create one application that becomes a “book” with pages of related or useful tools. This provides one access point for all of a user’s tools relating to a task.

Users can receive an application with pages three ways:

- Create their own
- Add it from the Store
- Receive it through administrator assignment

Users can **Restore**, **Edit** and **Delete** their personal copies of a page. For more information on managing applications and pages see [3.7: Managing an Application](#).

- Users assigned to an application with pages can customize the page layouts and add or remove associated app components. Those changes will only affect the user’s instance of the application page.
- If the owner updates an application page and pushed the page to the Store, users who have this page will receive the change(s) automatically.
- Restoring an application page returns it to its *current* default state. If the application owner updated the application after it was added to a user’s instance of OWF, the restored version may look different than the one the user originally received.

3.3.1 Opening an Application Page

To see pages in an application, click once on the application. If the application only has one page, clicking on the application will cause it to start. Pages in an application appear in a carousel below the application icon as shown below:

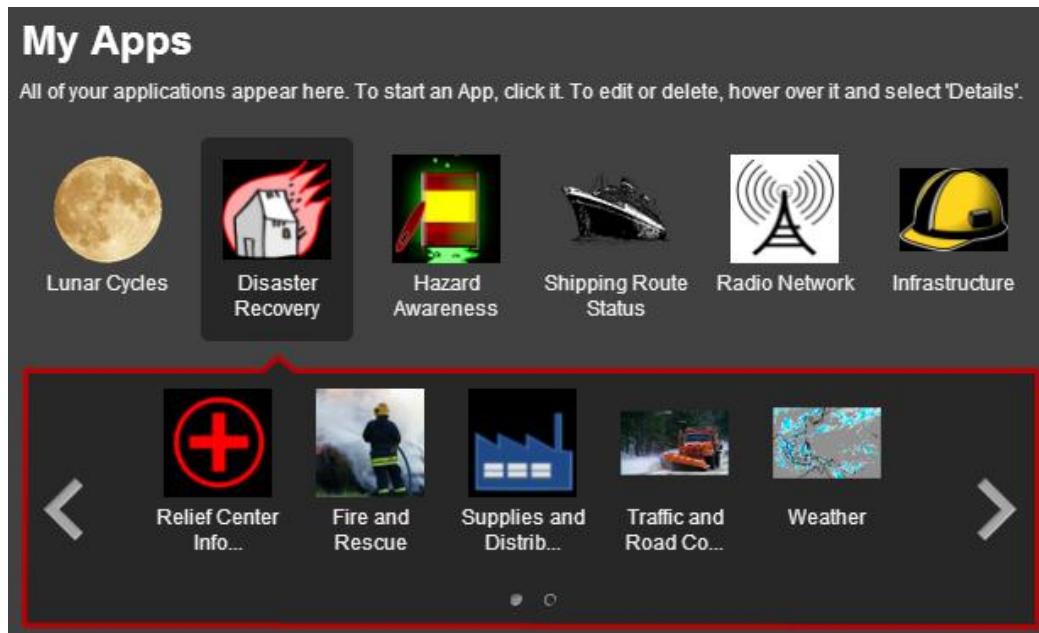



Figure 7: Pages Associated with an Application

To open an application page:

- 1) Click  in the toolbar to open the My Apps.
- 2) Click an application to reveal the page carousel.
- 3) Click a page icon from the carousel.
- 4) The page will automatically start.

The application page carousel mimics the function of the My Apps Menu carousel. Use the pagination arrow or dots to navigate to additional page panes.

3.4 Application Layouts and Configurations

When a user opens an App, it has the potential to display a variety of information. What the user sees depends on the application layout. There are five layout types. Each type can be used as the only layout for the App or used as a portion of the application configuration. The five types are included in a list of application layout templates users can select from when creating their own Apps:

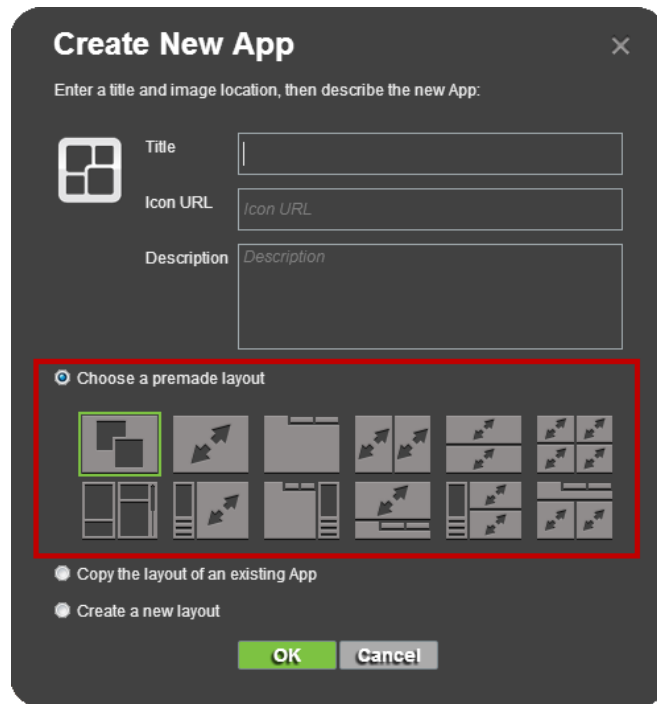


Figure 8: Premade Layout Templates

Descriptions and instructions for adding app components to the five layouts are explained in the following sections. Information on customizing application layouts can be found in section [3.8: Customizing Application](#).

3.4.1 Accordion Layout

Accordion layouts display app components in equal, horizontal panes. When an app component is added to the application, all the app components are resized to display equally in the OWF window. The OWF window does not scroll. Each individual app component (as shown below) will scroll using its own scroll bar.

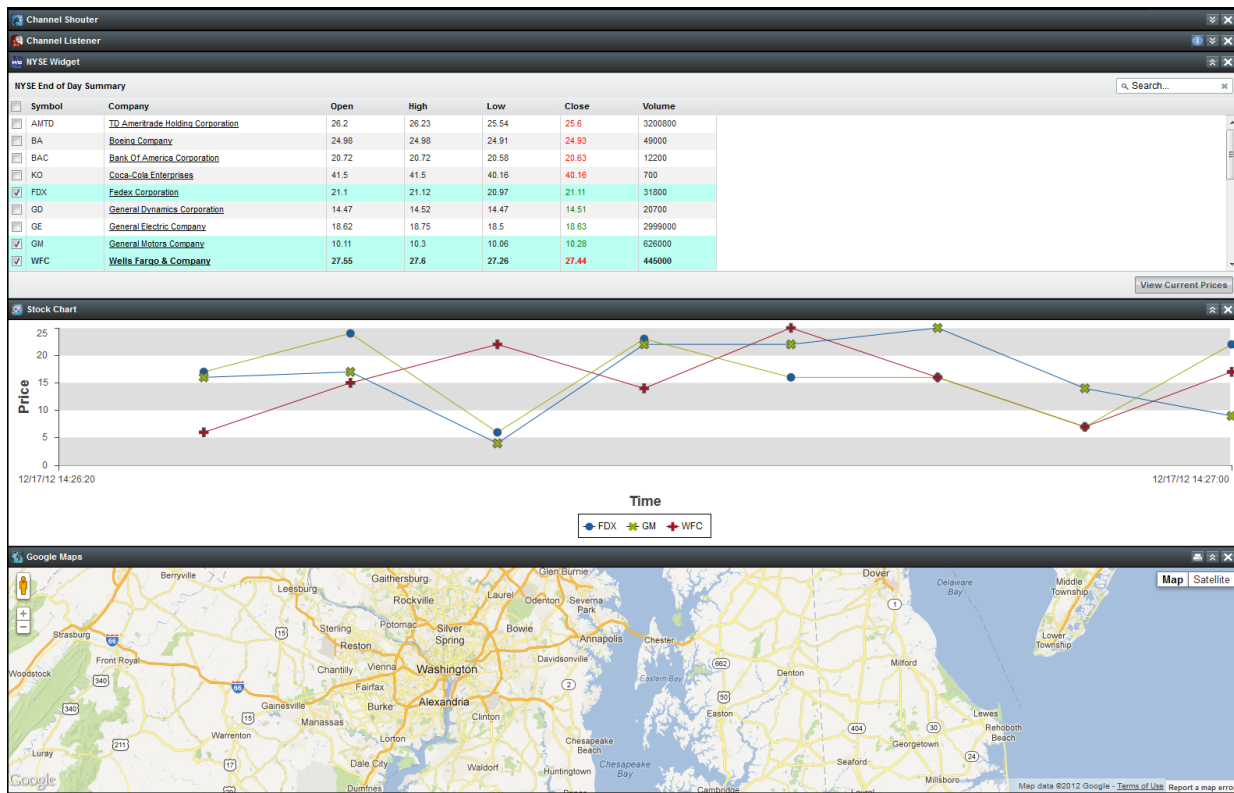
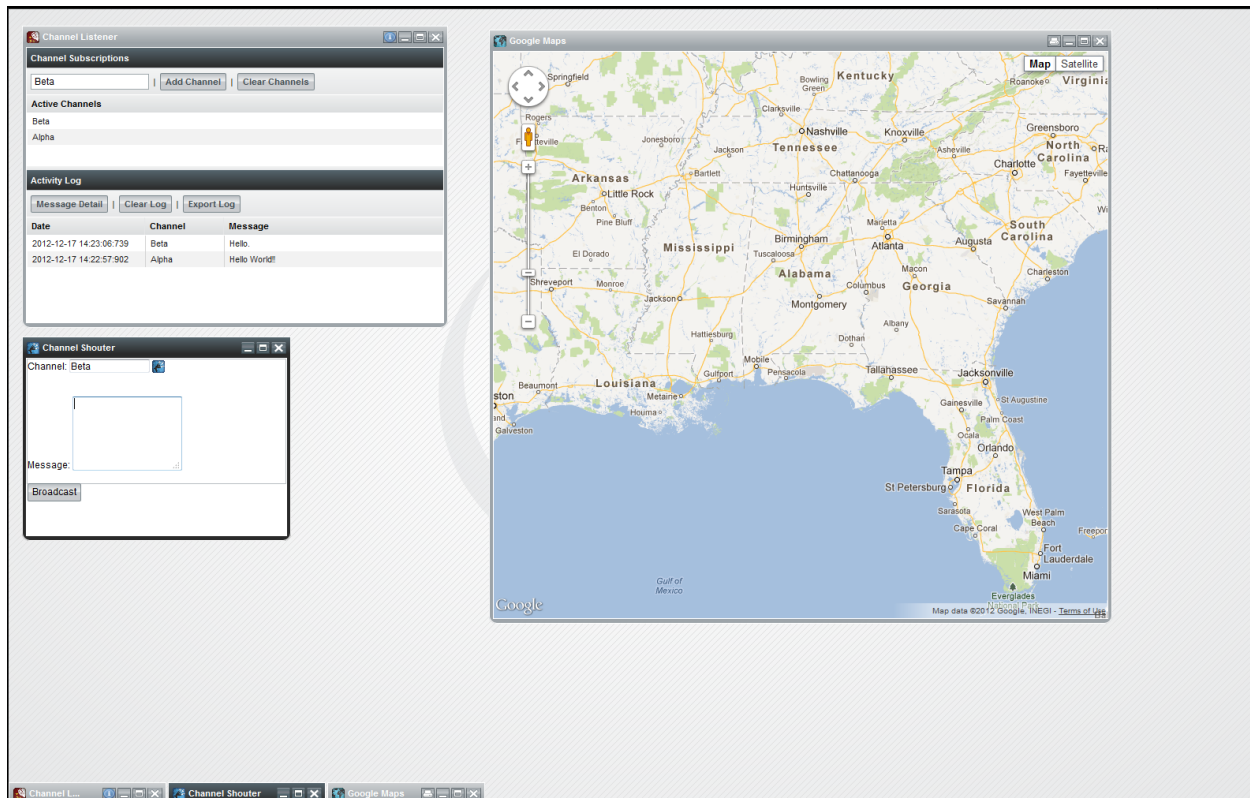


Figure 9: Accordion Layout

3.4.2 Desktop Layout

Desktop layouts, similar to the desktop on most personal computers, allow the user to open app components from the My Apps menu and place app components freely in the window and minimize them on a taskbar.

**Figure 10: Desktop Layout**

3.4.3 Portal Layout

Portal layouts comprise a column-oriented layout that organizes app components of varying heights. Each new app component loads above the first one on the screen. The user drags a dividing bar to specify app component's height. The app components and the OWF window scroll.

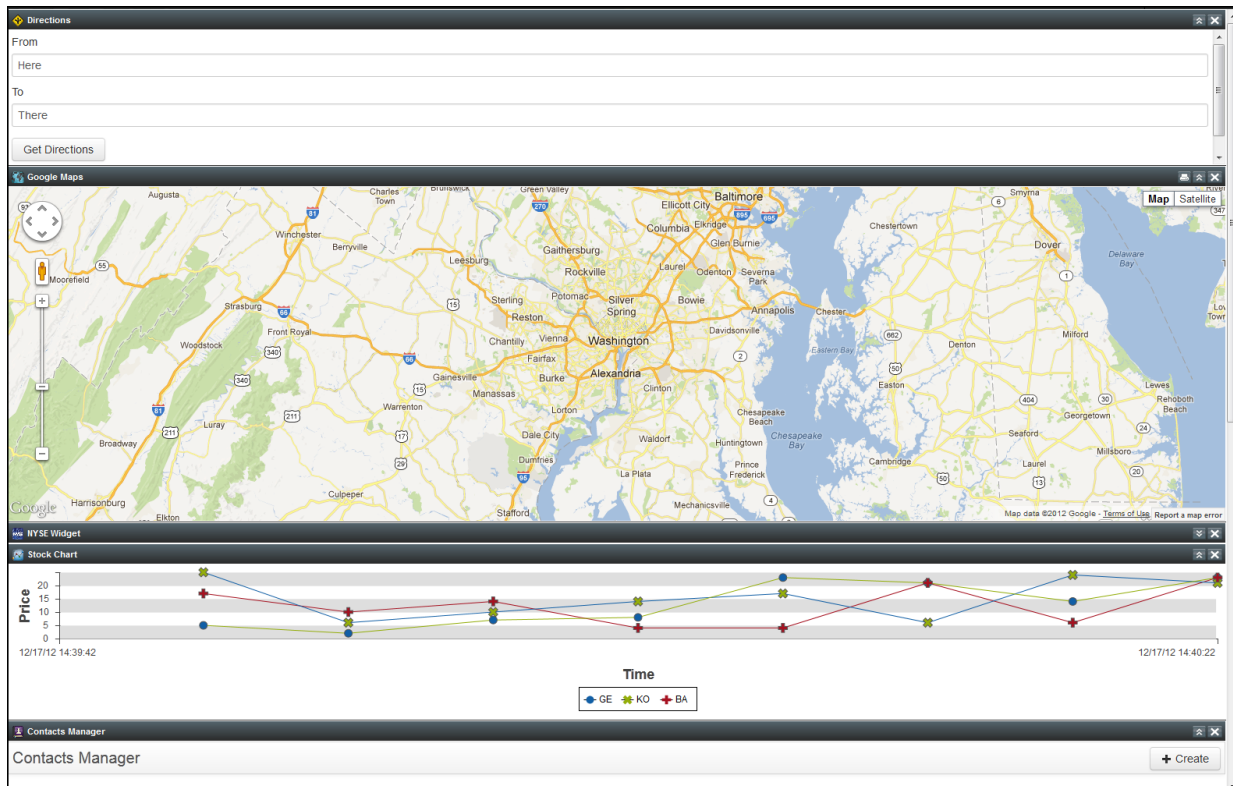


Figure 11: Portal Layout

3.4.4 Tabbed Layout

Tabbed layouts display one app component per screen. Like browser tabs, the tabs at the top of the screen switch from one app component to another.

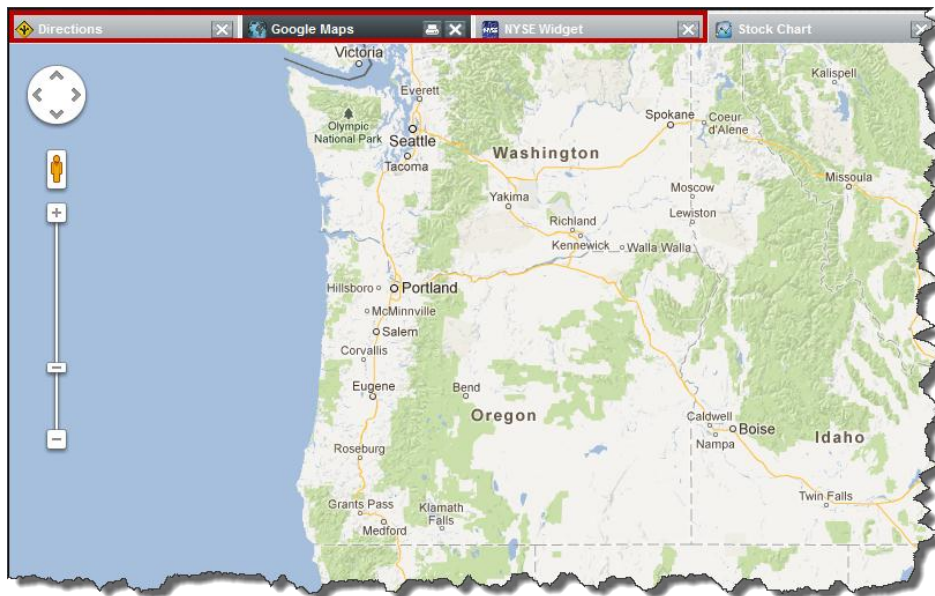


Figure 12: Tabbed Layout

3.4.5 Fit Layout

Fit layouts allow a user to place a single app component on the screen. An open app component shows no border or chrome and will occupy the full size of the available framework. Think of it like making a PowerPoint presentation fullscreen within the designated OWF window. If a user wishes to open an additional app component, they will be notified that the initial app component will be replaced by the new one.

Note: Some app component s are opened automatically by other app components. In these cases, the app component s will “float” on top of the application.

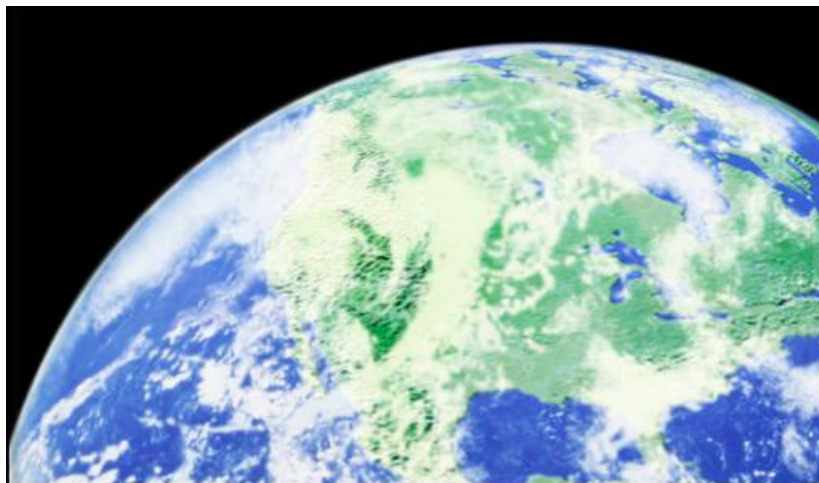



Figure 13: Fit Layout

3.5 Creating an Application

To create a new application:

- 1) Click  in the toolbar to open the My Apps.
- 2) Click “Create New” at the bottom of the screen to open the Create New App window.
- 3) Give the application:
 - a) A title (required)
 - b) An image URL (optional) that appears in the My Apps window.
 - c) A description (optional)

Note: The application cannot be saved without a title.

- 4) Choose a layout for the application. Click the radio button beside the selected layout method. Layout options include:
 - a) **Choose a template** – Choose one of twelve premade layouts.
 - b) **Copy the layout of an existing App** – Clicking this causes a drop-down menu to appear below the selection title. Choose an application from this menu. The new application will adopt the layout of the selected application. However, it will not copy the app components associated with that layout.
 - c) **Create a new layout** – Opens the Application Builder allowing the user to create a new layout. More information on creating a new layout is found in section [3.5.1: Application Builder](#).
- 5) Click OK. The application will automatically open unless you selected “Create a new layout,” if that is the case proceed to section [3.5.1: Application Builder](#).
- 6) To add application components to the App, click the App Component button on the OZONE Toolbar and select components by clicking them. If the App has more than one pane, click the pane where the component will open.

Next time the My Apps menu is opened, it will contain this app. This app belongs to the user who created it and it cannot be shared with other OWF users until it is shared with the Store. To do this, open My Apps and click the Details button on the App, then, select Push to Store.

Note: Creating a new application, in effect, creates a one-page application. The application and the single page share the same title, description and icon. The layout assigned to this application applies to the single page rather than the application. Users can add additional pages, and therefore additional layouts, to this application. When more than one page is added to an application, the user has the ability to change the single page's properties. Also each page is edited independent from other pages or the parent App.

3.5.1 Application Builder

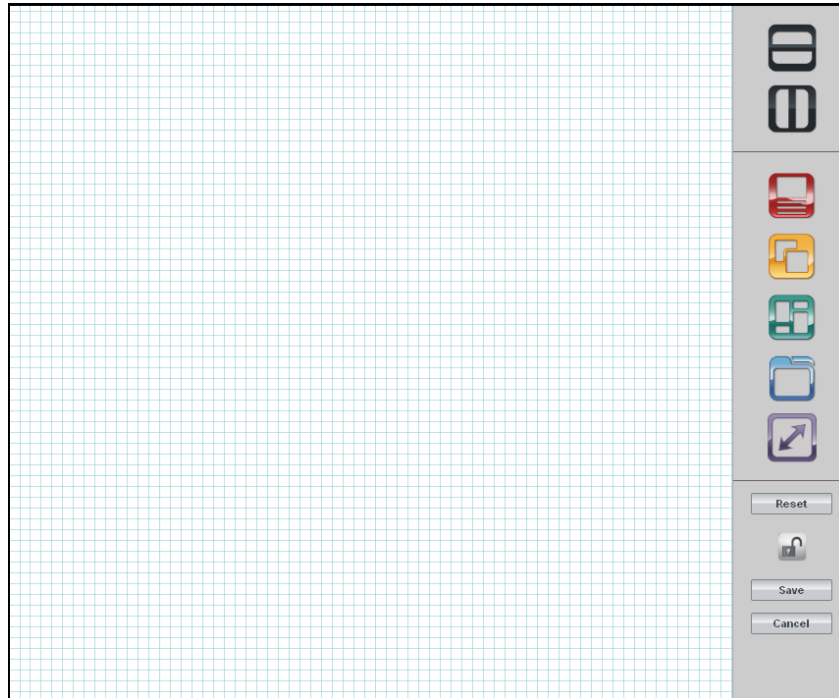




Figure 14: Application Builder

Formerly known as the Dashboard Designer, the Application Builder allows users to create custom layouts for their applications. From the Application Builder, the following tools can be used:






3.5.1.1 Dividers

When using the Application Builder, there are two ways to divide the application into sections:

-  - Horizontal Dividers are used to divide the application (or sub-sections of application) into upper and lower panes.
-  - Vertical Dividers are used to divide the application (Or sub-sections of the application) into left and right-side panes






3.5.1.2 Application Layout Types

There are currently five types of applications layouts. During the design process, any of the layouts can comprise a whole application or a pane within application:

-  - Accordion Layout. See section [3.4.1: Accordion Layout](#) for more details.
-  - Desktop Layout. See section [3.4.2: Desktop Layout](#) for more details.
-  - Portal Layout. See section [3.4.3: Portal Layout](#) for more details.
-  - Tabbed Layout. See section [3.4.4: Tabbed Layout](#) for more details.
-  - Fit Layout. See section [3.4.5: Fit](#) for more details

3.6 Walkthrough: Using the Application Builder

The following walkthrough will explain how to build a new application with Accordion, Desktop and Tabbed layout sections:

- 1) Click  on the toolbar to open the My Apps menu.
- 2) Click “Create New App” button to open the Create New App window.
- 3) Enter a title (required), image location (optional) and description (optional) for the new application.
- 4) Select a layout from the three layout choices. For this walkthrough, click the radio button next to the “Create a new layout” link.
- 5) Click OK. This will open the Application Builder.
- 6) Divide the screen horizontally by:
 - a) Dragging the  button to the Application Builder grid.
 - b) Clicking the  button.
- 7) Divide the upper grid section vertically by:
 - a) Dragging the  button to the upper level of the designer.
 - b) Clicking the upper portion of the Application Builder to highlight the top section. Click the  to divide the highlighted section vertically.

Following steps 1 through 7 correctly, the screen should mirror the image below:

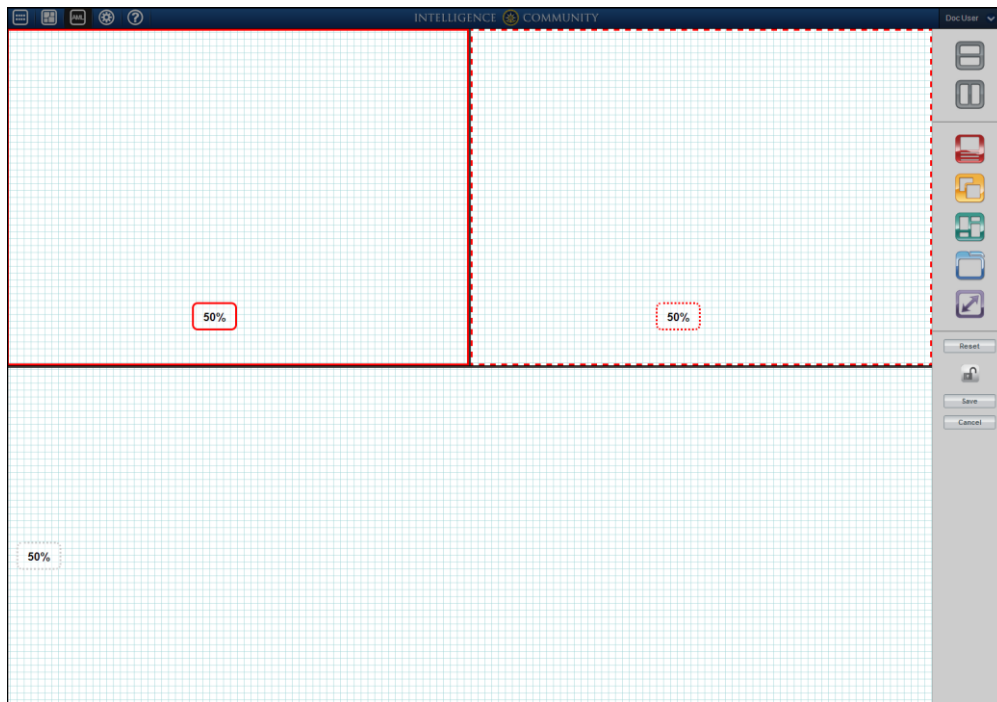


Figure 15: Creating an Application Layout

The application's layout is now divided into multiple sections. Each section can be divided further or assigned a layout.

To divide a section:

- Drag the Vertical or Horizontal Divider into the section.
- Select a section and then click the Vertical or Horizontal Divider.

Note: Clicking the Vertical or Horizontal Divider to split a pane leaves the top/left pane in focus as indicated by a solid red border. If a user then clicks on a layout type, the layout would be assigned to this pane because it is in focus. To change focus to another pane, click on the pane or use the Tab keyboard navigation to first select a pane and then press Enter to focus on it.

To assign a layout to a section:

- Drag a layout type icon from the sidebar into the section.
- Click the section and then click a layout type.

When a section of the application is clicked, it is in focus indicated by solid red border. Its partner section of the application is highlighted with a broken red border; the combined sections (solid red border and broken red border) equal 100 percent of a viewing area. For example in Figure 15, the top right portion is surrounded by a solid red line. The top left portion is surrounded by a broken red border. Together, they equal 100 percent of the upper pane of the application.

To resize sections, drag the Divider between them or type a different value into one of the section's screen percentage box. The related pane will automatically adjust. At any point during the application creation, it can be saved, reset or cancelled.

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 application sections an exact number, 250px, for example. When this happens, its partner presents the label "Variable". Entering a number and using a P or a PX will designate pixels.

Continuing the walkthrough, the user can drag in or click on the layout type icons to assign layout types to a section.

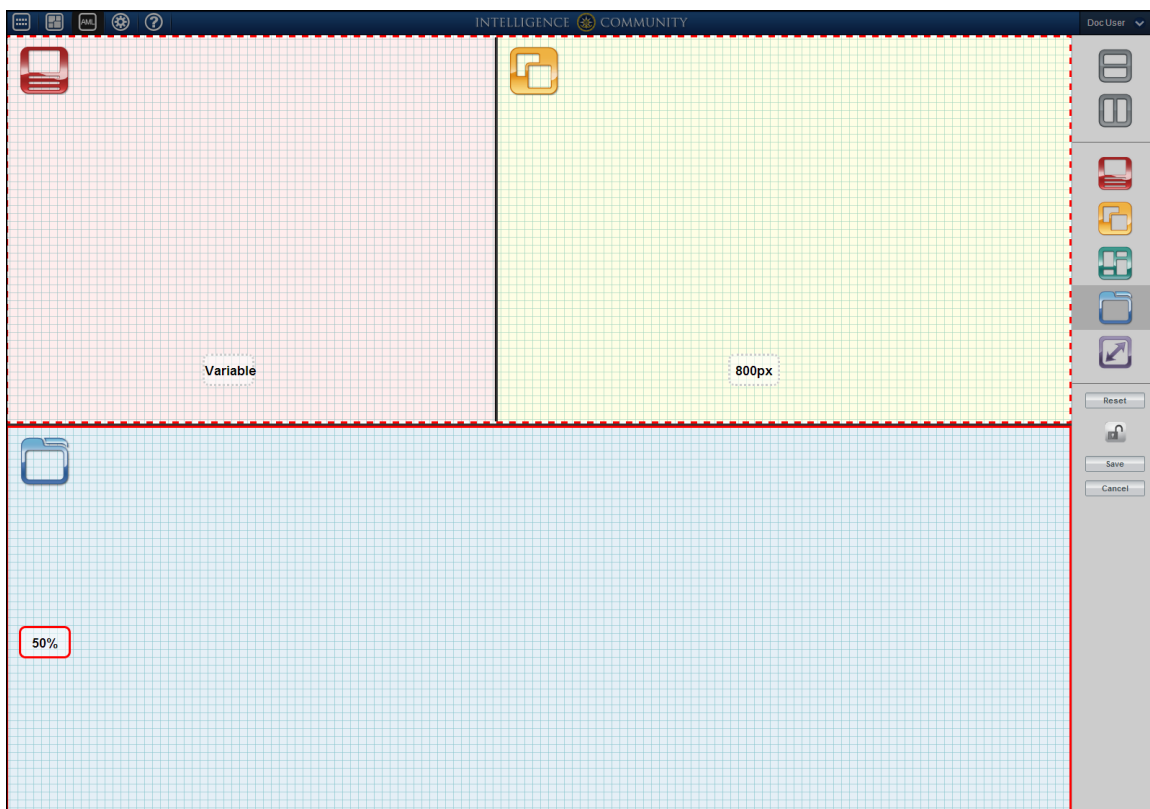






Figure 16: Application Builder with Layout Icons

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


The upper-left section contains the Accordion layout icon and has changed to a red background. The upper-right section contains the Desktop layout icon and has changed to a yellow background. The lower section is a Tabbed layout and has changed to a blue background. Each individual section allows for the layout of app components in accordance with the properties of the layout icon. Once the layout icons are in place, the user can save the application. After saving the application, it will open automatically. It can also be opened from the My Apps Menu by clicking the **My Apps** button. Application panes can now be populated with app components from the App Components carousel.

For more information about adding app components to an application, see section [4.2.1: Adding an App Component to an Application](#).

Additional Application Builder tools are:

-  - Clears layout modifications to the application.
-  - Lock/Unlock application – Use this button to restrict changes to the application layout and the app components displayed on it. When the application is locked, app components cannot be added or removed and sections cannot be edited, however, the layout of a locked application is still editable.
-  - Saves the application, closes the Application Builder and then opens the application.
-  - Cancels changes made since the last Save or since entering the Application Builder.

3.7 Managing an Application

From the My Apps menu, users can **Create**, **Edit**, **Delete** and **Restore** applications and **Push** any application they own to the Store. Access these features by hovering over an application in the My Apps menu and click on the . This opens a detail window displaying these manager tools as shown below:

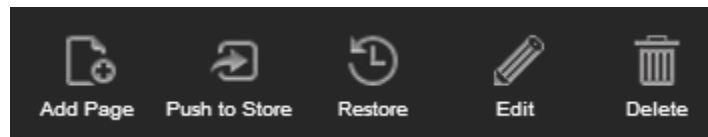





Figure 17: Application Manager Tools

The Manage button allows users to:

 - **Add Page:** Opens the Create New App window. From here, users create a new page and adds it to an application.

 - **Push to Store:** Application owners can share their apps by pushing it to the Store. Once approved, users can search for this application in the Store and add it to their OWF.

 - **Restore** an application or page to its default state. This feature applies to both application and pages.



- **Edit** the title, icon and description for applications and pages. In addition, page layouts are editable through this feature.



- **Delete** an application or page from OWF.

3.7.1 Add a Page

All applications created in OWF start as one-page applications. The Add a Page feature allows users to add a page to the application. By adding a page, the user is adding another layout and therefore a means to add more application components thus increasing the usability of the application:

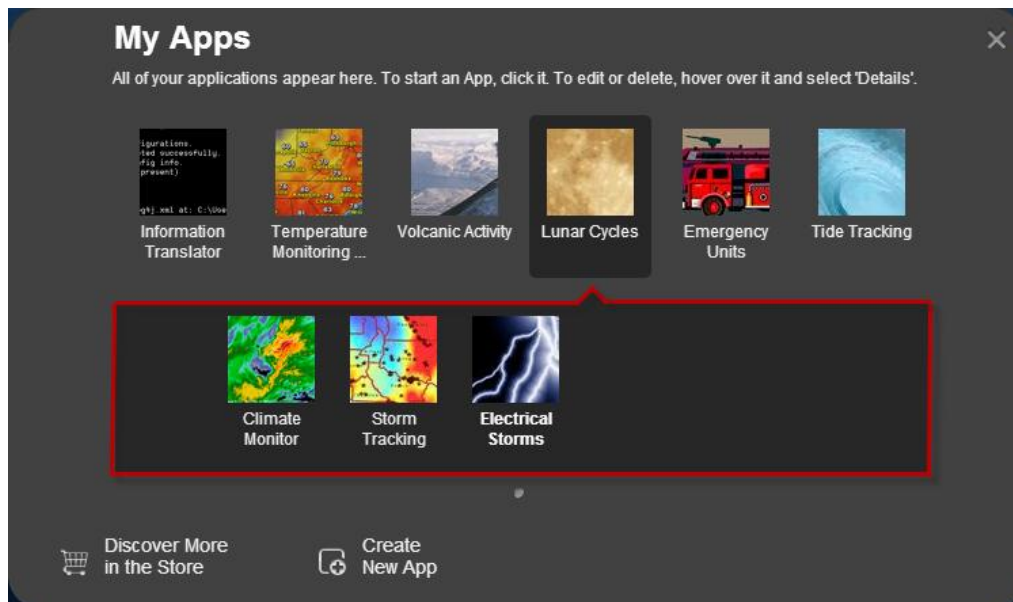



Figure 18: An Application with three pages

To add a page to an application:

- 1) Click the  button on the toolbar to open the My Apps Menu.
- 2) Hover over the application and click the Details link.
- 3) Click the Add a Page button. A dialog window will open identical to the Create New App dialog described in section [3.5: Creating an Application](#).
- 4) Give the page a title (required), icon URL (optional) and a description (optional) and choose a layout.
- 5) When finished, click OK. OWF will open the page automatically.

When the My Apps Menu is re-opened, the page will appear in a carousel below the parent application's icon. To access this carousel, click once on the parent application.

3.7.2 Push an Application to the Store

The Push to Store feature sends application data from OWF to a connected Store. The data is sent as a JSON and contains the following application information:


- Application and Page title, icon and description
- Page layout data
- App component(s) definition(s)

In order to push to the Store, OWF must be connected to a Store and the user must be the owner of the application. If the user is not the owner, the “Push to Store” button will not appear as one of the Application Manager Tools because users can only push applications to the Store that they own.

Note: Administrators can change ownership using the App Editor. For more information, see the OWF Administrators Guide.

Note: To use this feature, sync with the Store must be enabled. This should be enabled by default. If it is not, see instructions in the OWF Configuration Guide.

To push an application to the Store:

- 1) Click the  button on the toolbar to open the My Apps Menu.
- 2) Hover over an application and click the Details link.
- 3) Click the Push to Store button. This action sends the application data to the Store. *Note: If OWF is connected to more than one store, the user must click on the Store where they intend to send the app.*
- 4) If the app is successfully added to the Store, the screen will switch to the app's listing page in the Store and one of the following messages will appear:
 - You added a new App to the Store.
 - The App is already in the Store (i.e. no change).
 - The App is already in the Store and has been updated.

Note: If an error occurs, ask an administrator to check its app components' URLs first. The Store requires that app components use fully qualified URLs (i.e. `https://myserver.com:8443/owf/path-to-appcomponent/appcomponent`).

- 5) Click the Submit button to send the App listing and any of its required app component listings to a Store administrator for approval.
 - After a Store administrator approves the application, it will be available in search results for Store users.
 - For more information about editing the App in the store, see the Store User's Guide.

3.7.2.1 Ownership in the Store

If an app requires app components that are already owned by someone else in the Store, ownership of the app components will NOT change when the app is pushed to the Store. Thus, the app owner may not have permission to edit some of the components used in the app.

3.7.2.2 Pushing an App update to the Store


If an App is updated after it is added to the Store, follow the steps in section [3.7.2: Push an Application to the Store](#) to send the update to the Store. As a best practice, App Components should have a universal name defined. If they do not, then every time they are pushed to the store, the App Components with no universal name are added to the store as new App Components. Thus, the same app component may clutter the store with multiple copies.

3.7.3 Restoring an Application/Page

A user can receive an application through administrator assignment or through the Store. Once added, the user can modify their personal copy of the application in OWF. The Restore feature reverses these changes and returns the application to the *current default state*. If the application's owner made changes after the user received the application, then the restored version of the application will differ from the one that originally appeared in the user's My Apps Menu.

If a user restores an application with multiple pages, then all of the pages in the application are restored. Pages in an application can be individually restored.


To restore an application or a page to its *current default state*:

- 1) Click the  button on the toolbar to open the My Apps Menu.
- 2) Hover over an application (or page) and click the Details link.
- 3) Click the Restore button.
- 4) The application and all associated pages will return to its *current default state*.

3.7.4 Editing an Application/Page

The edit application feature allows users to change an application's title, icon and description. Layouts are only editable for pages in an application; single page application layouts are not editable. If a single page application added a page, then the layout for either page (the original and the added page) are editable.

To edit an application:


- 1) Click the  button on the toolbar to open the My Apps Menu.
- 2) Hover over an application (or page) and click the Details link.

- 3) Click the Edit button.
- 4) A Dialog window will open.
 - a. Update the Title, icon URL or description
 - b. Click OK. If editing a page, this will load the Application Builder. See section [3.5.1: Application Builder](#) for instructions.
- 5) Make changes to the page's layout, then click the Save button.

Changes made to an application or page only affect the user's personal copy of the application or page. If the user is the application's owner and makes changes to the application or its pages, then the next time they push the application to the Store the changes are sent to the Store. Users who have this application will see these changes applied to their personal copies of the application and pages.

3.7.5 Deleting an Application/Page

To delete an application or a page:

- 1) Click the  button on the toolbar to open the My Apps Menu.
- 2) Hover over an application (or page) and click the Details link.
- 3) Click the Delete button.
- 4) A warning message will appear.
- 5) Click OK to confirm the deletion.


If the application is used by only the owner, the application will be deleted from the system along with all associated pages. If the application has more than one user (i.e. other OWF users received this application through the Store) the user deleting the application is deleted from the list of the application's users and the application remains in the OWF system.



If the application owner deletes a page, other users of this application will not be affected by this change until the owner pushes the application to the Store. When an application with deleted pages is pushed to the Store, all the application's users will see the pages disappear from their copies of the application.

3.8 Customizing Applications and Pages

3.8.1 Adding App Components to an Application

To add app components to an application:


- 1) Click the  button on the toolbar to open the My Apps menu, select an application to modify.

- 2) Click the  button on the toolbar to open the App Component carousel.
- 3) Click to place or drag app components from the carousel into the application. The app components will start in the highlighted application pane.
- 4) When finished, close the App Components Menu by clicking the X in the upper-right corner or clicking the  on the toolbar.

3.8.2 Changing a Page's Layout

Use the Application Builder to make a custom layout for an application page. Using the Application Builder, a user can modify the layouts of any page. Users cannot modify the layout of a single page application.


To change a page layout:

- 1) Click the  button on the toolbar to open the My Apps menu.
- 2) Hover over the application to modify, click the Details button below the application title.
- 3) Click the Edit button.
- 4) This opens the Application details window. Reviewing the Title and Description fields, edit if necessary and click OK.
- 5) The Application Builder window will open.
- 6) From here, change the layout. Click to place or drag and drop a layout into an application pane.
- 7) When finished, click Save.

Note: An error message will appear if the user attempts to save the application with an unauthorized layout assignment. An example of an unauthorized layout assignment is if the user has a Tabbed layout pane with multiple app components and then attempts to assign a Fit layout to that pane. The multiple app components cannot fit into one Fit pane and the user will receive an error when attempting to Save the layout.

3.8.3 Renaming an Application

To rename an application:

- 1) Click the  button on the toolbar to open the My Apps menu.
- 2) Hover over the application to modify, click the Details button below the application title.
- 3) Click the Edit button.

- 4) This opens the Application details window. Modifying the Title field, click OK.
- 5) The Application Builder window will open. Click Save.

3.8.4 Reordering Applications and Pages

To reorder applications in the My Apps Menu, select an application icon and drag it to the new location within the carousel. A green line appears in the My Apps Menu to indicate where the application is placed on drop. This feature also applies to pages in an application's page carousel, select the page icon and drag it to a new location. If the My Apps Menu or a page carousel contains more than one page of items, click and drag the intended item over the left and right arrows on either side of the carousel to place the item on the next page.

4 Application (App) Components

4.1 Overview

An application (app) component is a lightweight, single-purpose application that offers a summary or limited view of a larger application. In OWF, an application component is a global description for a piece of Web content that can be configured by the user and displayed within an application.

4.1.1 Singleton Application Components

Singleton app components allow only one instance of the app component to open in an application. (Users can open multiple instances of regular app components on each application.) If a Singleton app component is open on an application and a user tries to open another instance of the app component, the open instance will move to the forefront of the screen. Administrators may make an app component a Singleton for numerous reasons. For example, preventing users from opening multiple instances per application may reduce confusion, increase performance (if the app component uses a substantial amount of memory), or address another need.

4.1.2 Background Application Components

Background app components run but do not appear on a user's application. They often serve as caching and logging tools that do not have a user interface. Background app components can be obtained from a Store server or configured by an OWF administrator. Most users will not be aware that Background app components are running in their instance of OWF. However, Background app components will appear on the Application Component Switcher. Closing them may interrupt data transfer from other app components. Use the Application Component Switcher to close Background app components. After selecting a Background app component, a warning message will appear. To close the app component, select OK. If the Background app component is visible (an administrator has not hidden it from the App Components menu), a user can restart it by dragging it from the App Component menu to an application.

Note: Background app components do not appear on OWF applications. These app components will often interact with other app components and can be used for caching and logging.

4.2 App Components Menu


Users can access of their app components from the App Components Menu by clicking the  button in the toolbar. Once open, the App Components Menu appears as a carousel.



Figure 19: App Components Carousel

The App Components carousel contains the following features:



- **Pagination Arrows** - Used to navigate through more than one page of app components.



- **Pagination Dots** - Displays the number of pages of app components available. The highlighted dot indicate which page is currently displayed in the carousel.



- **Expander Tool** – Click the expander and drag down to increase the size of the App Component display window.




- **Search** - Type in an app component title to search for it. This search is **not** case sensitive.



- **Pinning Tool** – Click the pinning tool to make the carousel remain open on the screen. To allow the carousel to close after selecting an app component, click the pinning tool again.



- **Close Menu** - Exits the App Component window.

The App Components Menu displays the app component's title and icon. For more information about the app component, hover over the app component icon to reveal the Information link. Clicking the  opens the Information Window ([Figure 20](#)) which provides a description of the app component and a Remove link. Clicking the Remove link will delete the app components from the user's OWF and it is no longer displayed in

the App Components menu. More information on deleting app components is in section [4.2.4.1: Deleting App Components](#).

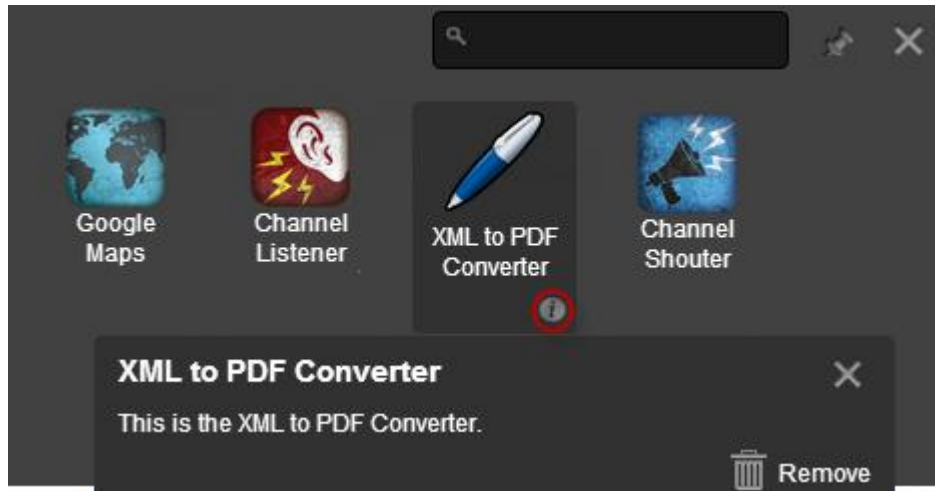



Figure 20: App Components Menu Information Window

4.2.1 Adding an App Component to an Application

To start an app component in an application:

- 1) Open the App Components Menu by clicking the  button in the toolbar.
- 2) Start an app component using one of the following methods:
 - Click the app component.
 - Drag the app component from the App Components Menu into the current application.
- 3) The App Components Menu disappears revealing the current, open application. If the application is a Fit layout, click or drop the app component in the location where it should open. Otherwise, select the pane to place the app component; the app component will open in the highlighted pane.
- 4) The app component will automatically start in the selected pane and the App Components Menu will reappear.
- 5) Repeat this action to open another app component.
- 6) When finished, close the App Components Menu by clicking the X in the upper-right corner.

Users can start multiple instances of an app component unless the app component is a singleton, as described in section [4.1.1: Singleton Application Components](#).

4.2.2 Searching for Application Components

OWF provides a search feature allowing users to search for app components in the App Components Menu. Located in the upper-right portion, this field allows users to filter the list of app components by title. Users can search the app components title or description; the search feature is case insensitive. The App Components Menu will refresh and display all app components that meet the search criteria.

4.2.3 Intents (Launching App Components)

Intents are the instructions for carrying out an app component's intentions. One app component requests an action (think of actions as verbs like view, share, edit, etc.), then another app component receives that request and performs the action. Intents build on OWF's publish/subscribe feature by allowing users to choose the app component(s) that will use data. This binding capability enables two app components to share data in a way that improves their function.

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

Note: App Component s may have multiple intents associated with them. Users cannot create app component intents. Administrators and developers (logged in as administrators) add app component intents through the OWF interface. Developers also add the intents through app component descriptor URLs. OWF follows standard Web Intent specifications documented at Webintents.org.

How to use intents:

When an app component sends an intent request, a pop up window appears displaying all of the open app components that can receive the requested intent action and data for an intended purpose (graphing, displaying, etc.).

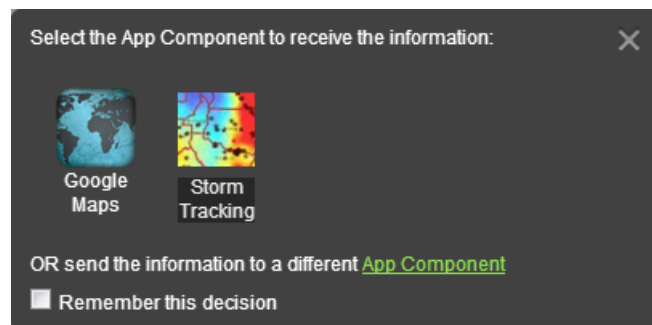


Figure 21: Instructional Window for Intent

Select an app component to accept the requested intent:

- Click one of the app components displayed on the window OR

- OR click the App Component link to send the information to an App Component that is not open on the screen:

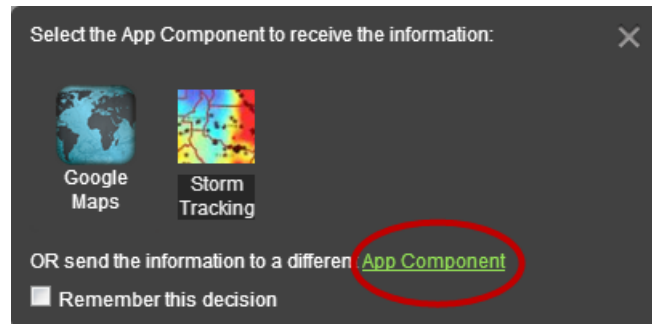


Figure 22: Send information to a different App Component

Note: Checking the “Remember” box will allow the selected app component to automatically open the requesting app component’s data. This function will continue until the user breaks the connection by closing either the sending app component or the receiving app component.



After a user selects a receiving app component, the intent data is automatically sent to and processed by the receiving app component. To place the app component on the App, click or drag it from the menu into the application. If every pane in the application is occupied by other app components, then selecting a pane to place this app component will replace the app component currently there. Once the receiving app component is in place and open in the application, it will receive the sending app components intent request.

4.2.4 App Component Visibility

4.2.4.1 Deleting App Components

Users can remove any directly assigned app components from their instance of OWF. This action will not delete the app component from OWF, it only deletes the app component for that user. Only administrators can delete app components from the system.


To delete an app component from a user’s instance of OWF:

- 1) Open the App Components Menu by clicking the  button in the toolbar.
- 2) Hover over the app component to reveal the , then click it.
- 3) Click Remove in the Information Window.
- 4) Click OK on the warning pop-up.

Note: Users cannot delete app components that have been given to them through a group assignment.

4.2.4.2 Reordering App Components in the App Components Menu

To reorder app components in the App Components Menu's:


- 1) Open the App Components Menu by clicking the  button on the toolbar.
- 2) Click an app component, then drag it left or right in the carousel. Release the mouse to complete the move.

Note: Users can reorder the App Components Menu in carousel and expanded view.

4.3 Accessing The Store

In this section, the term “**Store**” refers both **Marketplace** and **AppsMall**. Both share features described in this guide and can be configured to OWF.

The Store, similar to a commercial application store, operates as a thin-client registry of applications and services. The Store provides search and discovery functionality that enables OWF users to find, add and share useful tools including but not limited to applications, app components and Web Apps.

Provided OWF has been configured to recognize an instance (or instances) of the Store, clicking  on the toolbar opens the Store Switcher and connects users to multiple Stores. Unlike application listed in the My Apps Menu, the Store is only accessible through the Store Switcher.

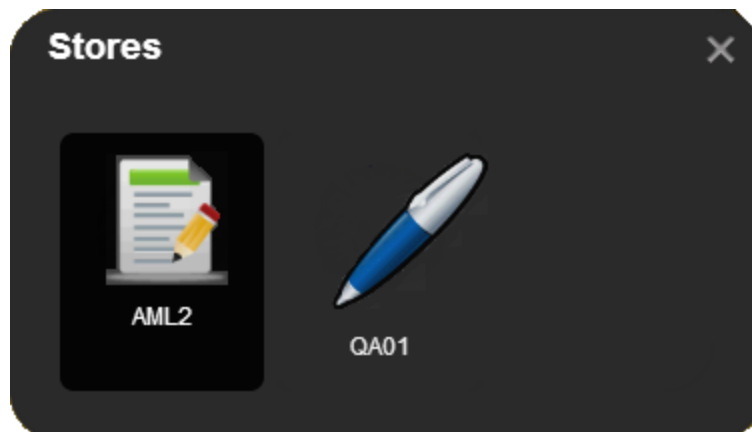




Figure 23: Store Switcher

Opening a single Store:

In the Store Switcher, a user must click on a Store to open it. If only one Store is available, it will open automatically when  is clicked. To close the Store and return to the previous application, click  on the toolbar.

Following authentication, the user can browse Store listings and add any of the listings that have been designated OWF aware. For listings to be added to OWF, they must be approved and enabled in Store.

Opening more than one Store:

- 1) Click  on the toolbar to open the Store Switcher.
- 2) Select a Store to open. This Store will open in a tab in a new application.
- 3) Double-click  on the toolbar. This action closes the Store application, brings the user back to the previous application and then re-opens the Store Switcher.
- 4) Select a second, different Store to open. This Store will automatically open in a new tab on the Store application.
- 5) Repeat steps 3 and 4 to open additional Stores.

Note: Only one instance of each Store will open in OWF. If a user attempts to re-start an opened Store, the user will be taken to the open Store's tab on the Store application.

To close a Store:

To close the Store application, click  on the toolbar.

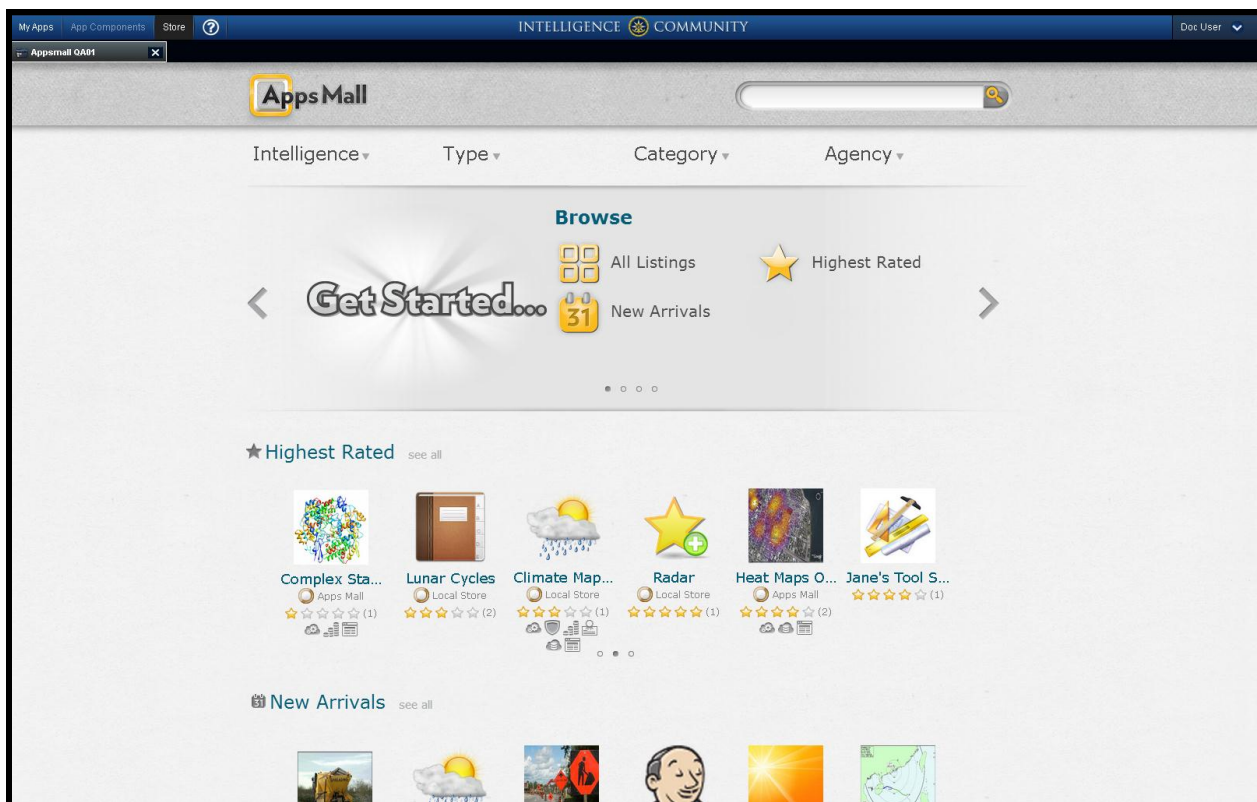


Figure 24: Accessing the Store from OWF

4.3.1 Adding Listings to the Store

To add an application and its components to the Store, please see section [3.7.2: Push an Application to the Store](#).

4.3.2 Adding Listings from the Store

The Store provides access to many OZONE Apps (OZONE compatible applications), App Components, Web Apps and other listings. The following sections will explain how to add each type of listing to your OWF.

4.3.2.1 Adding OZONE Apps from the Store

To add an application to OWF from the Store, the synchronization configuration setting must be enabled. Synchronization settings in both the OWF and Store products must be enabled for synchronization to function. To synchronize OWF with a Store, please contact your administrator. Information on synchronization is found in the OWF Configuration Guide and the Store Administrator's Guide.

To add an application from the Store into OWF:

- 1) Go to the Store:
 - Click the Store button in the toolbar OR
 - Click the “Discover More Apps” button in the My Apps Menu.
- 2) In the Store, use the search tool or filter listing to find an OZONE App. OZONE Apps are applications that are compatible in OWF. For more information on searching for listings in the Store, see the Store User's Guide.
- 3) Click the icon of the application to open the application's detailed listing page.
- 4) Click the Add button to add the application to OWF.

Note: If the synchronization configuration is not enabled, users will not see the Add button.



Figure 25: Add OZONE App from the Store

- 5) The user will receive a notification, either an animation or a pop-up message, indicating the application was added to their My Apps menu.

4.3.2.2 Starting Web Apps from the Store

Web Apps are programs that cannot interact with other OWF app components, thus, they automatically open in their own application. Users cannot edit, push to store or restore Web Apps. The only change a user can make to a Web App is deleting it from their My Apps Menu.

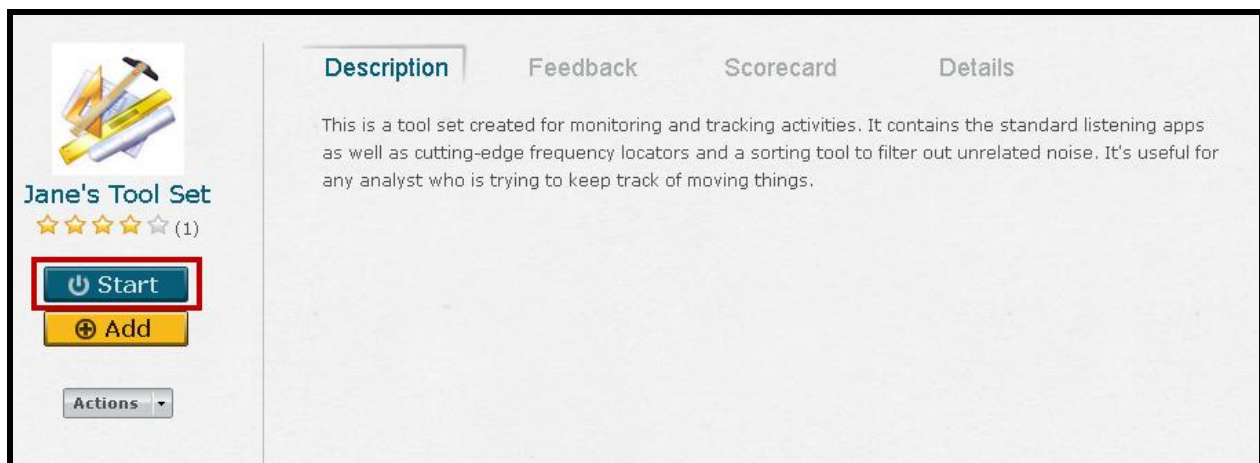
To open a Web App from the Store:

- 1) Go to the Store:
 - Click the Store button in the toolbar.
 - Click the Discover More in the Store button in the My Apps Menu.
- 2) In the Store, use the search tool or filter listing to find a Web App type listing. For more information on searching for listings in the Store, see the Store User's Guide.
- 3) Click the icon of the application to open the application's detailed listing page.
- 4) Click the Start button to start the Web App in OWF and add it to the user's My Apps Menu.

The user is automatically taken back to OWF to the open Web App.

4.3.2.3 Adding App Components from the Store

Users can add an app component to their instance of OWF by selecting the listing and clicking the Add button. Once clicked, the user will receive a notification, by either an animation or a pop-up message, indicating the Store listing was added successfully to the user's App Components Menu.

**Figure 26: Add App Components to OWF from the Store**

4.3.3 Required App Components

Some app components will not function (or will have limited functionality) if they open without other app components. OWF automatically adds Required app components when a user adds a app component that is dependent on them. For example: A user adds the Jane's Tool Set app component. Jane's Tool Set app component requires the Search Filtering Tool, the Chat Client and the Traffic Monitoring app components. The user has not requested the additional app components, but these app components are automatically added because the Jane's Tool Set app component requires them.

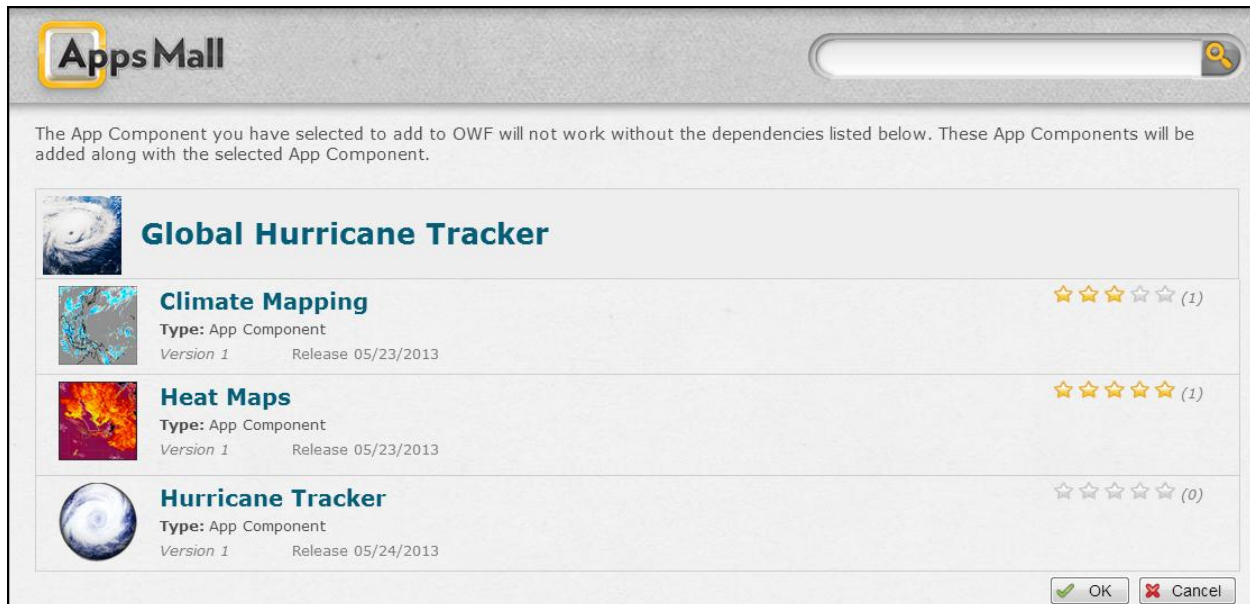


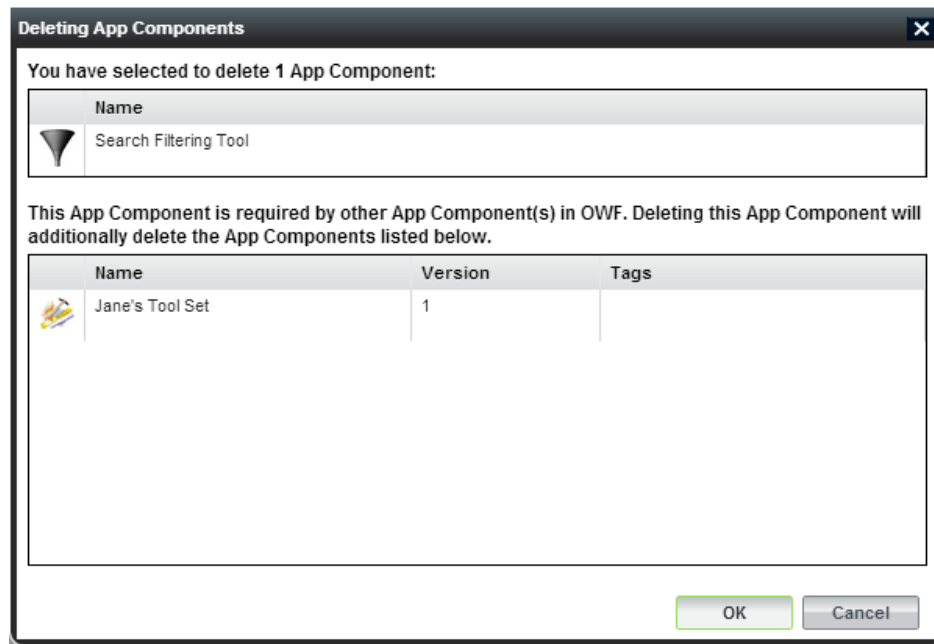
Figure 27: Adding Required App Components

Some things to consider:

- A user must add all Required app components from the Store. Users do not have the option to deselect any of the Required app components.
- An app component's Required app components will appear in the App Components menu

4.3.3.1 Deleting Required App Components

Like any other app component, required app components can be deleted from the App Components Menu. If a user deletes a Required app component, any app components that require the deleted app component will automatically be deleted after the system displays a warning notification (Figure 28). Other app components that are related to the dependent app components will remain. For example, Jane's Tool Set requires the Search Filtering Tool, the Chat Client and the Traffic Monitoring app components. If the Search Filtering is deleted, the Jane's Tool Set will be deleted.

**Figure 28: Delete App Component Warning**

5 Themes: High Contrast

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

5.1 Selecting a Theme

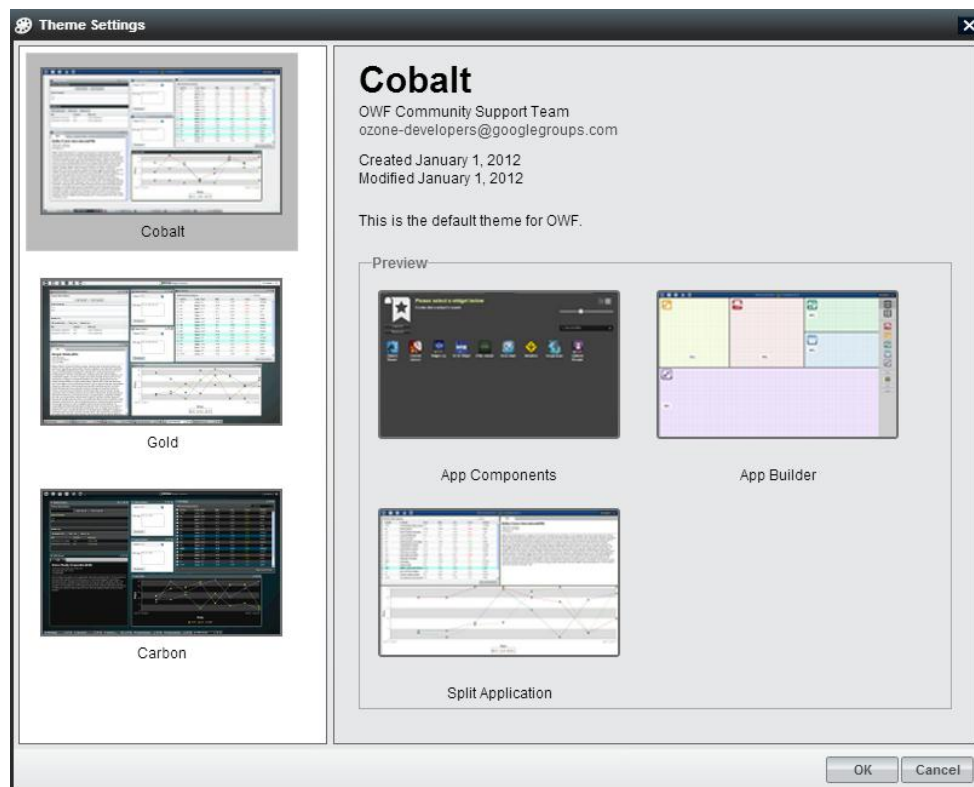


Figure 29: Theme Settings Window

To select a theme:

- 1) Open the drop-down User Menu in the toolbar, and then click the Themes button.

The Theme Settings 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 OK. 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:

- **Gold** - A high contrast theme with white backgrounds and dark text.
- **Carbon** - A high contrast theme with dark backgrounds and light text.

Appendix A Supported Browsers

OWF supports Internet Explorer 7 and higher and Firefox 17 and higher. OWF is tested against the following browsers:

Table 2: Tested Browsers

Browsers	Versions
Internet Explorer	7 & 9
Firefox	17
Chrome	25

Appendix B Known Issues

B.1 Browser Issues

Launching JavaScript-heavy app components 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 app components unviewable.

The positioning of the app component 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 an app component and re-adding it (from the App Component 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 app components or regions. This can be easily remedied by changing the Layout Type within the Dashboard Configuration Manager.

B.3 Technology Issues

Java Applet App Components always sit on top of other app components (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

Flex App Components always sit on top of other app components (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 app components to adhere to the proper z-index ordering the wmode must be set to something other than the default.

Silverlight App Components always sit on top of other app components (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 app components to adhere to the proper z-index ordering the windowless mode must be set to true.

Google Earth Plugin App Components always sit on top of other app components (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 use 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

For information about OZONE or access to its resources, please open a ticket regarding the AppsMall Service at

<http://www.intelink.ic.gov/ticket/secure/CreateIssue!default.jspa> and then, email the team at AppsMall@intelink.gov.