

OZONE Widget Framework

Administrator's Guide

July 2, 2013

Publication/Revision History

Release	Date
Revised – OWF 7.3 ALPHA	July 2, 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 Purpose	1
1.4 Supported Browsers.....	1
1.5 Related Documents	2
2 Administrator Tools	3
2.1 Administrative Managers.....	3
2.1.1 Manager Panel	4
2.1.1.1 Management Buttons: Create/Delete.....	5
2.1.1.2 Management Buttons: Edit	5
2.1.2 Manager Widgets—Search	9
2.1.3 Manager Widgets—Pagination.....	9
2.2 Configurations: User Accounts & Auditing	9
2.2.1 Auditing Configurations	10
2.2.2 User Account Settings.....	10
2.3 Widget Approval.....	11
2.3.1 Approving Required Widgets	12
3 Default Content.....	14
4 Creating and Editing User Content	16
4.1 Creating Users	16
4.1.1 Adding Widgets to a User Profile	16
4.1.2 Adding Users to a Widget.....	17
4.1.3 Editing User Properties	17
4.1.4 User Preferences	18
4.2 Creating Widgets.....	19
4.2.1 Creating Widget Intents	20
4.2.2 Widget Descriptor URL.....	21
4.2.3 Editing Existing Widget Content	21
4.2.3.1 Updating and Editing Widget Descriptor Data	21
4.2.3.2 Editing Widget Intents	22

4.2.4 Exporting Widgets.....	22
4.3 Creating Groups	23
4.4 Grouping Widgets	24
4.4.1 Adding Widgets to a Group.....	24
4.5 Creating Group Dashboards	24
4.6 Creating Stacks	25
4.6.1 Stack Descriptor URL	26
4.6.2 Editing Stacks	26
4.6.2.1 Updating and Editing Stack Descriptor Data.....	27
4.6.3 Importing Stacks.....	28
4.6.4 Exporting Stacks	28
4.7 Connecting to the Store	29
Appendix A Object Reference	A-1
A.1 Dashboard Object.....	A-1
A.2 Widget Object.....	A-2
A.3 User Preference Object.....	A-5
Appendix B Known Issues	B-1
B.1 Browser Issues	B-1
B.2 User Interface Issues.....	B-1
Appendix C Contact Information	C-1

Tables

Table 1: Tested Browsers	1
Table 2: Related Documents.....	2
Table 3: Edit Button and Editor Widget Fields	6
Table 4: Dashboard Object	A-1
Table 5: Widget Object	A-2
Table 6: Widget Object Placement	A-5
Table 7: Preference Object.....	A-5

Figures

Figure 1: Administrator Tools	3
Figure 2: Users Manager Panel	4
Figure 3: Widgets Tab on the User Editor.....	6
Figure 4: Management Widget Pagination Toolbar	9
Figure 5: Store Approvals.....	11
Figure 6: Approvals Widget.....	12
Figure 7: Required Widget Identifiers.....	13
Figure 8: User Dialog/DEFAULT_USER	14
Figure 9: Default OWF Users Group	15
Figure 10: Preferences Tab	18
Figure 11: Preferences Dialog	19
Figure 12: Reorder Stack Dashboard.....	27

1 Introduction

1.1 Objectives

This guide covers topics relevant to administering the OZONE Widget Framework (OWF).

1.2 Document Scope

This guide is intended for administrators of an OWF instance. An administrator can, for the purpose of this guide, be defined as someone who maintains OWF, as well as handles user and widget settings. 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 Purpose

OWF is a set of tools, generally delivered in the OWF Bundle. When deployed, OWF is used for organizing and displaying Web applications (widgets) in a single browser window.

1.4 Supported Browsers

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

Table 1: Tested Browsers

Browsers	Versions
Internet Explorer	7 & 9
Firefox	17
Chrome	25

1.5 Related Documents

Table 2: Related Documents

Document	Purpose
User's Guide	Understanding the OWF user interface ; adding, deleting, modifying widgets and using widget intents ; accessing and using the Store ; creating, deleting, adding, switching, modifying dashboards ; using stacks ; defining accessibility features such as high-contrast themes and keyboard navigation
Administrator's Guide	Understanding administrative tools : adding, deleting, and editing widgets, users, groups, stacks and group dashboards; creating default content for users, groups and group dashboards
Developer's Guide	Creating Widget applications and integrating existing applications into OWF ; 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 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
Quick Start Guide	Walkthrough of basic OWF functions such as using widgets, dashboards and stacks; instructions for setting up a local instance of OWF , unpacking the OWF Bundle and installing security certificates ; Truststore/Keystore changes

2 Administrator Tools

Administration tools, located by clicking the Administration button on the toolbar, allow an administrator to manage widgets, groups, stacks, users and group dashboards. The Configuration tool allows administrators to change select OWF configuration settings from within the user interface. If Administrators use the Store Approvals Widget, it will appear here by default.

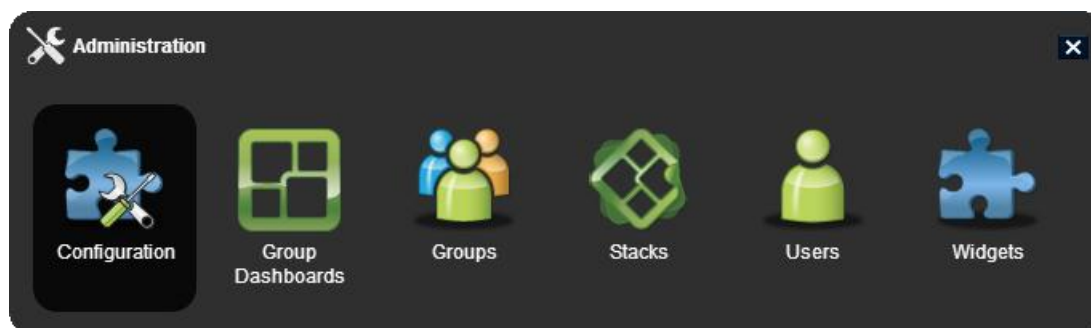


Figure 1: Administrator Tools

2.1 Administrative Managers

The administration managers are used to create, edit and delete users, groups, widgets and group dashboards as well as approve listings imported from the Store(s). While each manager has specific fields that relate to the manager's specific purpose, some of the functions operate identically in each manager. For example, the search feature in the User Manager functions exactly like the search feature in the Widget Manager. Accordingly, search is explained only once in this section.

Also, this document no longer contains definitions regarding basic information that general users should understand. If a topic can be easily defined by Google, it has been removed from this guide. The following section offers a general overview of the administrative managers and their use.

The manager information is broken into sub-sections:

- Panel
- Management buttons
- Search bar and pagination toolbar

2.1.1 Manager Panel

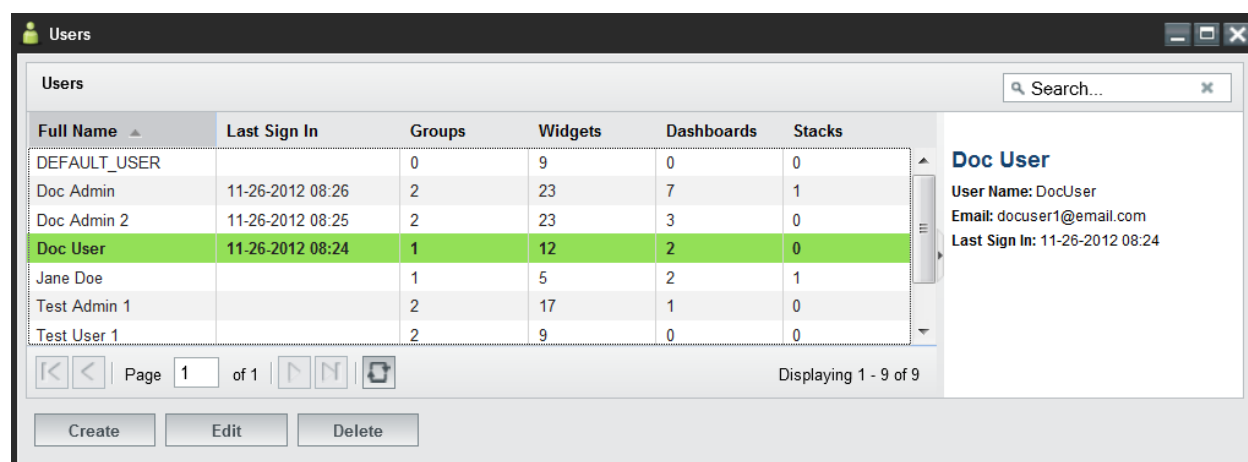


Figure 2: Users Manager Panel

The dashboard, widget, group, stack and user managers open to similar panel views. The panel view described in this section applies to all five managers.

The Panel View:

- Allows the user to create, edit, delete or view an entry.
- Displays the number of users/groups/widgets/dashboards/stacks associated with the specific entry.

Note: When viewing the widget count, only the widgets that a user requests or receives from an administrator appear in the overall count. Widgets associated through groups will NOT appear in the widget count.

- Offers a view of the first fifty results in alphabetical order. Additional results can be viewed using the pagination as described in section [2.1.3: Manager Widgets—Pagination](#). To reduce the number of displayed results: Use the search bar, described in section [2.1.2: Manager Widgets—Search](#).


From the panel, an administrator can:

- **Sort** - Most of the columns in the panel can be sorted in ascending or descending order by clicking on the triangle to the right of the column header and selecting a sorting option.
- **Hide/Show columns** - Columns can be hidden or shown by hovering over a column header, clicking the triangle that will appear, hovering over the columns menu option, and un-checking the columns to be hidden.
- **Reorder columns** - Columns can be reordered by clicking (and holding) a column header down and then dragging it to the desired position.


- **Multiple selection** - Entries can be selected for bulk operations by holding down the CTRL button while clicking multiple entries. The delete, edit, activate and deactivate buttons will perform bulk operations on all selected entries.
- **View the information panel** - To display more information about the entry, single-click the row to open the information panel on the right.

2.1.1.1 Management Buttons: Create/Delete

Administrators use the manager widgets to create and delete users, widgets, groups, group dashboards and stacks. Differences between the five managers are referenced in sub-bullets.

 - Opens the editor widget. From the editor, an administrator can create a new user/widget/group/group dashboard/stack (depending on which editor the administrator opens) and assign related data to the new entry.

- When creating a new entry, only the Properties tab will be active until the administrator saves the user/widget/group/group dashboard/stack via the Apply button.

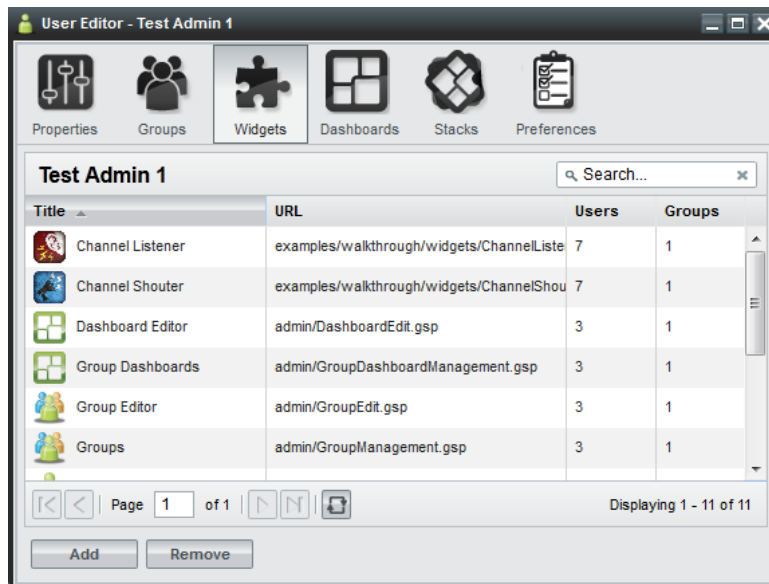
 - Deletes selected entries. Some user/widget/group/group dashboard/stack rules apply:

- Deleting a **group** does not delete the users or widgets assigned to the group. It only deletes the *pairing* of users with widgets in the group.
- Deleting a **widget** removes it from a user's Favorites Menu and the groups to which it was assigned.
- Deleting a **group dashboard** removes it from the group. Individual users can continue to use their copy of the dashboard. However, the user's individual copy will no longer have the option to restore to the group dashboard as described in section [4.5: Creating Group Dashboards](#).
- Deleting a **stack** removes it from the users and groups. Dashboards and widgets that are associated with the stack will also be deleted.

2.1.1.2 Management Buttons: Edit

 - Clicking Edit on any administrative manager will open the respective user/widget/group/group dashboard/stack editor, allowing an administrator to edit the entry.

Note: If an administrator starts the editor widgets in a fit dashboard, the editor widgets will “float” on top of the dashboard. Additional dashboard layout information is found in the User's Guide.

**Figure 3: Widgets Tab on the User Editor**

From the editor widget, administrators can create, edit and delete data assigned to users/widgets/groups/group dashboards/stacks. The following table alphabetically lists editable fields found in the editor widgets. Split Edit button features, located in the manager widgets, are also listed. The last column of the table describes the location of each field.

Table 3: Edit Button and Editor Widget Fields

Field	Purpose	Location
Activate/Deactivate	<p>Users in active groups have full access to their group-assigned widgets. Users in a deactivated group will not have access to any of the widgets which are assigned to them via the deactivated group. When a group becomes deactivated it will appear gray.</p> <p><i>Note: If a user is in Group A and Group B and each group has Widget 1 assigned to it, the user will still have access to Widget 1 if Group A is deactivated and Group B is activated. Additionally, if the user has widget access outside of a group's distribution, the user will not lose access to the widget, even if they lose group access.</i></p>	<p>Group Manager (under the split Edit button);</p> <p>"Active" checkbox in the Group Editor, Properties Tab</p>
Background	<p>Some widgets do not have user interfaces. These widgets are often used to cache or log data. If a widget is set to run in the background, it will not appear in the dashboard foreground. However, it will appear in the</p>	<p>Widget Editor, Properties Tab</p>

Field	Purpose	Location
	Widget Switcher (Alt + Shift + Q). Also, it will appear on the user's Favorites Menu if the "visible" menu flag (described in this table) is turned on.	
Container Icon URL	Defines the location of the icon which appears in widget chrome at 24x24 pixels.	Widget Editor, Properties Tab
Copy To Group	Allows an administrator to copy dashboards to selected groups via the add groups window. Once a dashboard is added to a group, every member of that group will receive their own copy of that dashboard.	User Editor, Dashboards Tab, split Edit button
Definition	A required field in a dashboard that contains the JSON configuration of a dashboard.	Dashboard Editor, Properties Tab
Export	Administrators can export stacks to other users as a descriptor URL. Additional information about stack descriptor URLs is available in the Developer's Guide.	Stack Editor, split Edit button
Display Name	The group name which will appear in grids and tables throughout administrator views.	Group Editor, Properties Tab
GUID	A unique 32-character alpha-numeric code for a particular named widget. If "Widget A" is launched 5 times, all 5 widgets will share the same <code>widgetGuid</code> property.	All Editor Widgets, Properties Tab
Height	Defines the launch height of the widget in pixels. Up and down arrows to the right of the field can be used to modify the overall height.	Widget Editor, Properties Tab
Intents	Widget intents build on OWF's publish/subscribe functionality by allowing users to choose the widget that will use its data. Intents explain the intention for the widget. This binding capability enables two widgets to enhance each other's functionality. <i>Note: Only developers can modify intents via the widget's descriptor file; instructions are available in the OWF Developer's Guide.</i>	Widget Editor, Intents Tab
Favorites Menu Icon URL	Defines the location of the icon which appears in the Favorites Menu (at 128 x 128 pixels), provided the "visible" menu flag (mentioned	Widget Editor, Properties Tab

Field	Purpose	Location
	below) is checked.	
Remove	Separates the selected user/group/widget/dashboard/stack from the selected entry. This does not delete the user/group/widget/dashboard/stack from the system. It only removes the assignment to the selected entry.	All Editors
Singleton	Designates whether a widget can only have one instance opened per dashboard.	Widget Editor, Properties Tab
Universal Name	A value that can be used as a widget's global identifier across all instances of OWF. This differs from a widget GUID which is unique to a specific installation.	Widget Editor, Properties Tab
URL	Defines the location of the web application to which the widget icon will link. This is a required field.	Widget Editor, Properties Tab
URL Name	A unique stack name/identifier appended to the end of the Stack URL. This is a required field.	Stack Editor, Properties Tab
User Management	Defines whether or not the group is an automatic group, being populated and maintained by external sources. This value cannot be modified once the group has been created.	Group Editor, Properties Tab
Version	Displays the version number of the listing. This is completely user-driven and is for informational purposes.	Widget Editor, Properties Tab
Visible	Dictates whether a listing will show in a user's Favorites Menu. This cannot be overridden by the user.	Widget Editor, Properties Tab
Widget Type	A drop-down menu for selecting the widget type which determines where the widget will be located. Only standard widgets appear in the Favorites Menu. Administration widgets will appear under the Administration button on the toolbar. Widgets set to type "Marketplace" will appear under the Store button on the toolbar. Metric widgets appear under the Metric button	Widget Editor, Properties Tab

Field	Purpose	Location
	on the toolbar. <i>Note: Instructions explaining how to associate OWF with a Metrics Service are found in the OWF Configuration Guide.</i>	
Width	Defines the launch width of the widget in pixels. Up and down arrows to the right of the field can be used to modify the overall width.	Widget Editor, Properties Tab

2.1.2 Manager Widgets—Search



- Reduces the entries displayed in the panel to entries containing the specified word or characters entered in the search bar. Clicking the X button will clear the filter and display all entries in the panel. Clicking the search magnifying glass button will apply the search and display the filtered results in the panel.

Note: This is a full-text search and it is NOT case-sensitive.

2.1.3 Manager Widgets—Pagination



Figure 4: Management Widget Pagination Toolbar

- Navigates between pages of results displayed in the search results panel.
- Refreshes the results in the search results panel, maintaining the current filtering and sorting options.
- Displays the number of results being shown against the overall total in the system.

2.2 Configurations: User Accounts & Auditing

Administrators can configure auditing records and manage user accounts from the Configuration Console. To locate the console:

- 1) Click the Administration Manager button on the toolbar.
- 2) Then, select Configuration.

2.2.1 Auditing Configurations

After selecting Configuration from the Administration Manager, the Configuration Console will open to the Auditing section. Click the ON/OFF button to enable or disable auditing.

Common Event Format (CEF) auditing records the following user events: create, edit, delete, sign in, sign out (OWF only), search, import and export. Object Access Auditing will record user's read events. Object Access Auditing is enabled separately from CEF auditing because auditing "read" events creates an abundance of output records. Separating the two audit features allows administrators to choose the level of detail recorded in the audit logs. For more information on CEF auditing, see the OZONE Store Configuration Guide.

- Common Event Format (CEF) Auditing – When enabled, records a log when users perform any of the following common events, sign in/out, create, edit, delete, search, import and export.
- Object Access Auditing – When enabled, records a log when users perform a read event such as reading a listing.

2.2.2 User Account Settings

After selecting Configuration from the Administration Manager, the Configuration Console will open to the Auditing section. Click User Account Settings on the left panel to open the user account configurations. These configuration settings are used to control a user's account:

- **Inactive Accounts**
 - "Disable Inactive Accounts" – A toggle switch to enable user accounts to be disabled after a period of inactivity.
 - "Set Inactivity Period" – Click on the text field and type in the number of days that need to elapse since a user last signed in before the account is disabled.

When a user's account is disabled:

- Widget ownership for the disabled account transitions to "System" so that any widgets the disabled user created will not be removed from the instance of OWF.
- The disabled user's "last sign in" will be removed. Also removed are the user's preferences and any reference to that user.

- If a user signs in after their account is disabled, any of their previous widgets, preferences, etc. will not be recoverable.
- **Session Control**
 - “Session Control” – When set to ON, allows the administrator to set a maximum number of concurrent, active OWF sessions a user can have.
 - “Maximum OWF Sessions per User” – Click on the text field and type in the maximum number of active OWF sessions a user is permitted at one time.

If the Session Control function is turned on and the user exceeds the number of maximum open OWF sessions, the oldest session will be disabled. For example, if the maximum number of active OWF sessions is three and a user opens up four sessions of OWF, the first session the user opened will no longer be active.

2.3 Widget Approval

By default, widgets are automatically added to a user's Favorites Menu when the user adds them from the Store. The widgets will be available for use immediately. However, administrators can configure OWF to store widgets in a pending state until they are approved by an administrator. In that case, widgets will not be available to users until an administrator approves them.

Note: Find instructions for enabling the Widget Approvals feature and adding the Approvals Widget in the OWF Configuration Guide.

To approve pending widgets, an administrator must navigate to the Approvals Widget by clicking the Administration button on the toolbar and then selecting Approvals.

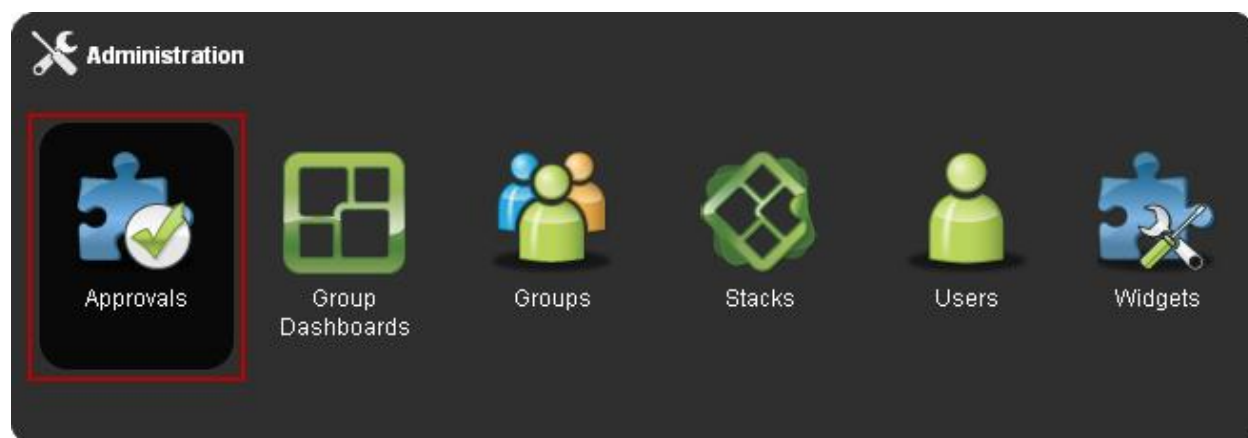


Figure 5: Store Approvals

The Approvals Widget will open, which lists all the widgets pending approval. The list can be sorted by Widget or Requesting User.

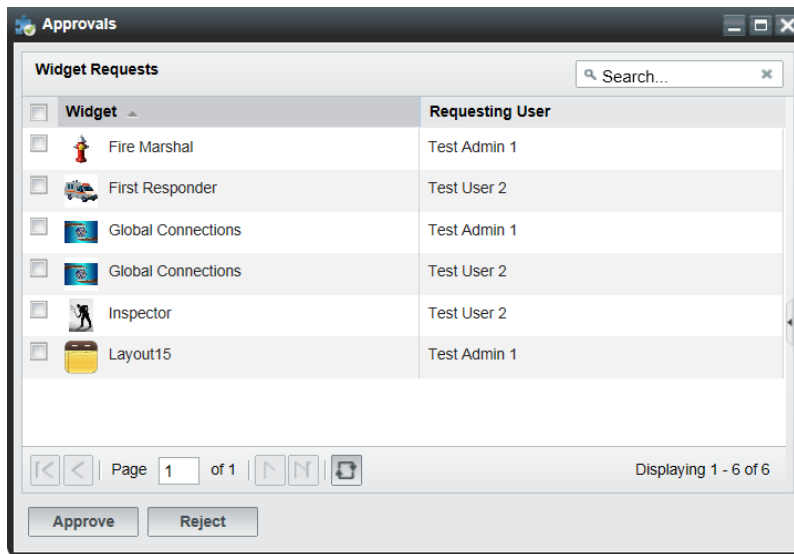


Figure 6: Approvals Widget

To approve or reject widgets:

- 1) Check the checkbox to the left of a pending widget or widgets.
Note: Widgets must be approved or rejected for each user. Approving a widget for one user will not approve it for another.
- 2) Click Approve or Reject at the bottom of the window.
- 3) After approving the widget, it will appear in the requesting user's Favorites Menu. If a widget is rejected, it will be removed from the Approvals Widget.

2.3.1 Approving Required Widgets

A Store listing can require other Store listings. For example, if a user requests Widget A and it requires Widget B, the user automatically requests Widgets A and B. This relationship is further explained in the OWF User's Guide.

If the instance of OWF allows users to bypass the pending approval process, those users will immediately receive all requested Store widgets along with any required widgets that they need.

In the Approvals Widget, an administrator has two ways to identify that a Store listing requires other Store listings. When a listing is selected:

- The details section of the listing will display: **Requires Widgets: true**
- Its requirements will appear below the listing details

Both identifiers are highlighted in the following example:

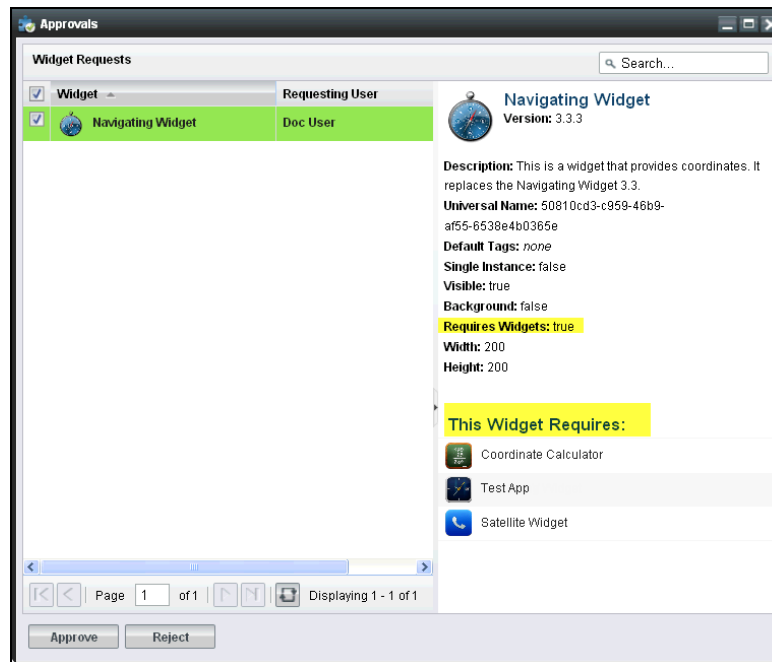


Figure 7: Required Widget Identifiers

If an administrator approves a widget that requires other widgets, the required widgets will be automatically approved.

3 Default Content

OWF ships with a default user profile and default user group. Administrators can use the default profile and default group to add widgets, dashboards and stacks to a user or several users' instance of OWF.

DEFAULT_USER – A default *user* profile that ships with OWF. The DEFAULT_USER data will automatically be assigned to every new user of a particular OWF installation.

When a new user enters OWF for the first time, the DEFAULT_USER data will be applied and copied to that user's profile. After the initial login, any changes that the user makes will only impact their data from that point on. The DEFAULT_USER data remains unchanged and will continue to be applied to all new users.

Note: If an administrator makes changes to the DEFAULT_USER data set, it will only impact the users who log in for the first time, following the change. Any users who received the data prior to the change will not be affected.

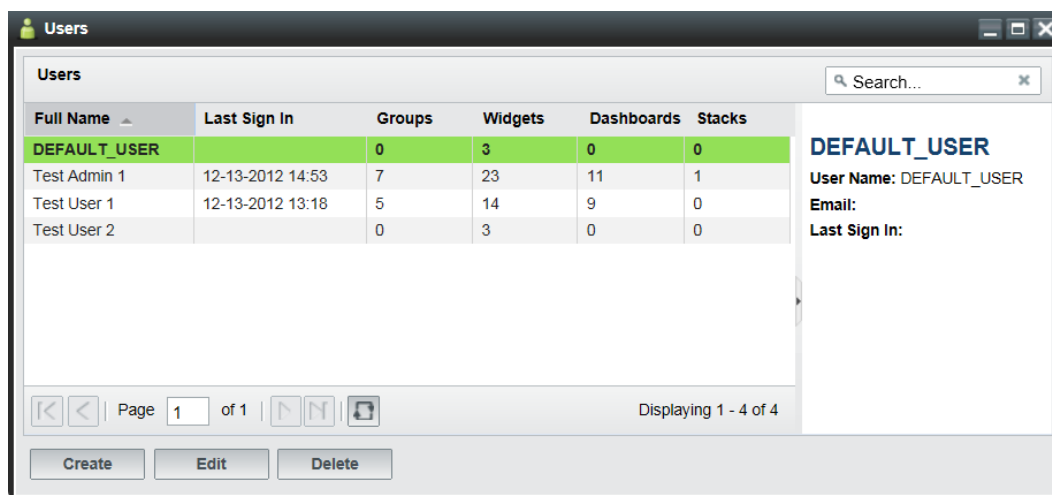


Figure 8: User Dialog/DEFAULT_USER

OWF Users – A default *group* that ships with OWF. Every new user is automatically assigned to it.

When a new user enters OWF for the first time, the OWF Users group data will be applied and copied to that user's profile. After the initial login, any changes that the user makes will only impact their data from that point on. However, if an administrator changes the OWF Users Group, the change will be applied to all users who have access to the group.

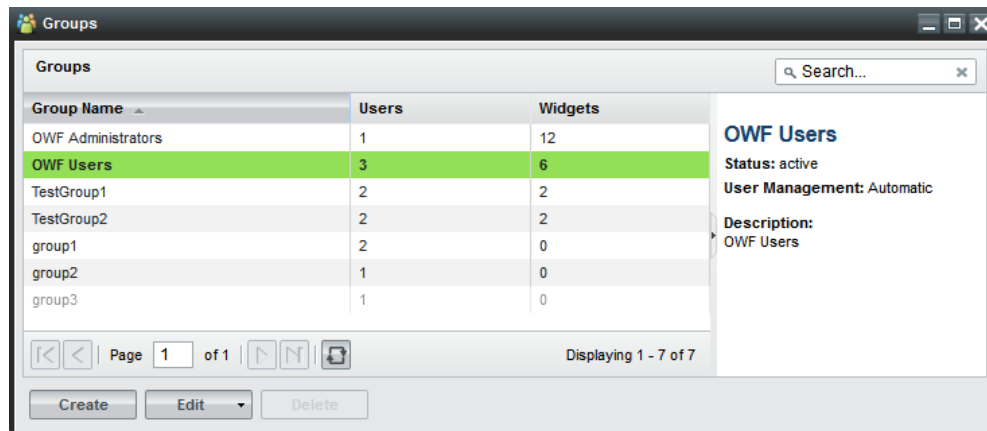


Figure 9: Default OWF Users Group

OWF Administrators - A default *group* that ships with OWF. Every new administrator is assigned to this group.

Data from the OWF Administrators group is automatically applied to the administrator's profile. Users cannot be assigned to this group and administrators cannot delete the editor and manager widgets populating this group.

Note: The OWF Administrators and OWF Users groups cannot be deleted, renamed or deactivated. In the event that either group is single-selected, the delete button will be grayed out. If either (or both) groups are selected along with other manual groups, the delete button will be active. However, upon clicking Delete, only the manual groups will be removed from the system.


4 Creating and Editing User Content

Creating and editing users, widgets, groups, group dashboards and stacks is explained in this section. This includes adding widgets/groups/group dashboards/stacks to user profiles through the User Editor. OWF also allows administrators to add users to widgets/groups/dashboards/stacks through the Users tab on the respective editor widgets. These examples are described in sections [4.1.1: Adding Widgets to a User Profile](#) and [4.1.2: Adding Users to a Widget](#).

4.1 Creating Users

Administrators have the ability to create new user profiles, edit existing user information and add widgets/groups/dashboards/stacks to user profiles.

To create a new user profile:

- 1) Click the  button on the toolbar.
- 2) Choose the Users button to open the User Manager.
- 3) Click on the Create button, opening the User Editor.
- 4) Enter the user's information. Mandatory fields (User Name and Full Name) are denoted with a red asterisk. More information about these fields is found in [Table 3: Edit Button and Editor Widget Fields](#).
- 5) When complete, click Apply. This will activate the additional tabs in the User editor.
- 6) To add widgets, groups, dashboards or stacks to a user account, proceed to the instructions in sections [4.1.1: Adding Widgets to a User Profile](#) or [4.1.2: Adding Users to a Widget](#).

Note: Administrators do not create or maintain user passwords in the OWF interface. Security and authentication are addressed in the OWF Configuration Guide.

4.1.1 Adding Widgets to a User Profile

The following instructions describe how to add widgets to a user account using the Widgets tab found in the User Manager. Administrators can follow this basic formula to add groups, dashboards and stacks to user profiles via the Groups, Dashboards or Stacks tabs in the User Editor widget. When assignments are complete, all of the data applied to the user profile will be instantly available.

To add widgets to a user's account:


- 1) Click the  button on the toolbar.

- 2) Click the Users button to open the User Manager.
- 3) From the manager, select a User. Then, click Edit to open the User Editor.
- 4) Click the Widgets tab at the top of the editor. Widgets that are already associated with the user will display in the window.
- 5) To add widgets, click the Add button. A modal window will display all widgets available to that user. Select a widget, then, click the OK button. The widget will be automatically added to the list of widgets on the user's Widget tab.

4.1.2 Adding Users to a Widget


Another way to give users access to widgets is to add users to widget profile via the Widget Editor. Again, administrators can use this general procedure to add users to groups, dashboards and stacks through the Users tabs in the respective editors. When completed, close the editor window and the data will be updated automatically to the user profile.

To add users to widget profiles:

- 1) Click the  button on the toolbar.
- 2) Click the Widgets button to open the Widget Manager.
- 3) From the manager, select a widget. Then, click Edit to open the Widget Editor.
- 4) Click the Users tab at the top of the editor. Users that are already associated with the widget will display in the window.
- 5) To add users, click the Add button. A modal window will display all users available to that widget. Select a user, then, click the OK button. The user will be automatically added to the list of users on the widget's Users tab and the widget will be available to the user's instance of OWF.

4.1.3 Editing User Properties

To edit existing user content:

- 1) Click  on the toolbar, select Users to open the User Manager.
- 2) From the manager, select the user account that needs to be updated and click Edit.
- 3) Update data on the Properties tab and click Apply. Update each field, then click Apply. For definitions of less common fields, see section [Table 3: Edit Button and Editor Widget Fields](#).

This procedure is also used when editing the properties of widgets, groups, group dashboards and stacks. To edit the content, click on Administration button on the

toolbar and click on the open the respective manager and click Edit to open up the editor. Make changes in the Properties tab and click Apply.

4.1.4 User Preferences

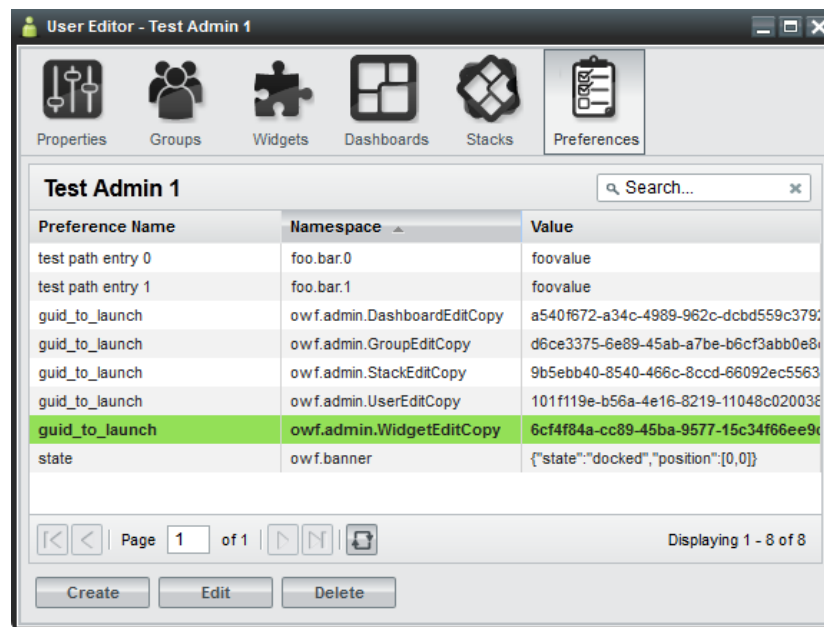


Figure 10: Preferences Tab

Widgets use preferences to store data. Preferences include widget location on the screen, instructions to open it, etc. A preference value can be created and saved any time a widget performs an action. Once that preference is saved to the database, it will appear on the preferences tab in the User Editor. The Preferences tab serves as a table of known preferences. From the tab, administrators can view, create, edit and delete preferences. However, from the Preferences tab, the administrator cannot configure a widget to use a preference. For a widget to respond to preferences, the widget must be configured via the Preference API.

If a widget is configured to use preferences, they can be used to define screen location, widget interaction, etc. For example, the **guid_to_launch** preference is a useful eventing tool. Administrators can use it to make a tracking widget open a map widget. For example, in [Figure 10: Preferences Tab](#), the **guid_to_launch** preference causes the User Manager to open a copy of the Widget Editor.

The Preferences tab includes the following fields:

- Preference Name** - The preference name is referred to as the “key” for the preference item. It lists the name of the preference as dictated by the widget or OWF. If the widget uses preferences, OWF will add the preference name to the table on the Preference tab whenever the action that is associated with the preference is performed.

- **Namespace** - The namespace is the identifier for the widget or system category. Generally these identifiers will describe general functionality for a widget or set of widgets.
- **Value** - Stored inside of the preference, values house the data that the preference uses. An example could be the actual widget GUID value that the preference will use to open a widget. This is a string value but developers can use **JSON** or **REST URIs** as the preference value.

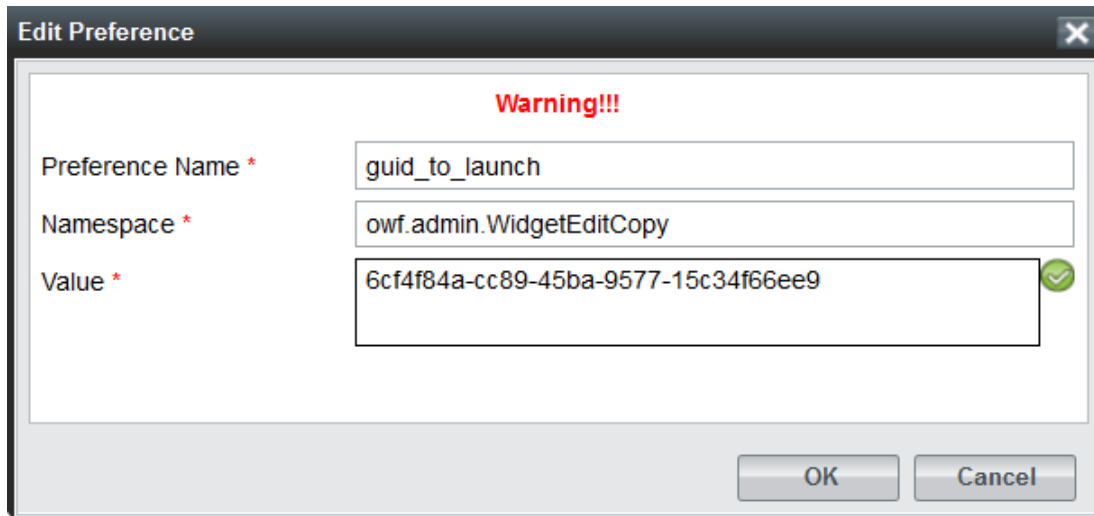



Figure 11: Preferences Dialog

4.2 Creating Widgets

Administrators can **create**, **edit**, **delete**, **import** and **export** widgets. There are two ways to create a widget: importing widget data with a descriptor URL or manually entering widget data. Imported widget data is editable through the Widget Editor (see [4.2.3: Editing Existing Widget Content](#)).

To create a widget, the administrator must complete several mandatory fields in the Widget Editor. Information about each widget data field is found in [Table 3: Edit Button and Editor Widget Fields](#). For example, the Widget Type field is useful for separating widgets on a user's toolbar. Only Standard widgets will appear in the Favorites Menu. Administration widgets will appear under the Administration button on the toolbar. Widgets set to type "Marketplace" will appear under the Store button on the toolbar. Metric widgets will appear under the Metric button on the toolbar.

To create a widget:

- 1) Click the  button on the toolbar.
- 2) Click the Widgets button to open the Widget Manager.
- 3) From the manager, click the Create button to open the Widget Editor.


- 4) From here, there are two ways to create widgets:
 - a) **Import a descriptor URL**—Enter a descriptor URL and click Load. For more information about descriptor URLs see section [4.2.2: Widget Descriptor URL](#).
 - b) **Manually enter data**—If a descriptor URL is not available, click the “Don’t have a descriptor URL?” link and complete the required fields on the Properties tab. Remember that the Widget Type will dictate the location of the widget. For more information about specific entry fields, see [Table 3: Edit Button and Editor Widget Fields](#).
- 5) Click Apply. This will unlock the Users, Groups and Intents tabs on the Widget Editor. Select each tab and click the Add button to add users, groups and intents to the widget. Information about adding Intents to a widget is in section [4.2.1: Creating Widget Intents](#).
- 6) Refresh OWF. The new widget will appear under the respective toolbar button. For more details about connecting to the Store(s), see [4.7: Connecting to the Store](#).

4.2.1 Creating Widget Intents

Widget intents are the instructions for carrying out a widget’s intentions. Intents are comprised of an Action (graph, view, edit, etc.), a Data Type (html, text, image, etc.) and a Send/Receive request. If widgets have identical Action and Data Types, then the widgets that send intents can communicate with the widgets that receive intents. For example, the New York Stock Exchange (NYSE) widget sends an intent to graph (Action) daily stock data (Data Type). The Stock Chart widget, having an intent with the same Action and Data Type, receives this request and graphs the data. This binding capability enables the two widgets to enhance each other’s functionality. Administrators can add, edit and delete widget intents, however, a developer or someone with experience using intents is more likely to perform these tasks.

Note: Find instructions about using intents in the OWF User’s Guide and instructions about creating intents in the OWF Developer’s Guide. OWF follows standard Web Intent specifications documented at Webintents.org.

To add intents to a widget:

- 1) Click  on the toolbar, select Widgets to open the Widget Manager.
- 2) From the manager, select the widget to be updated and click Edit.
- 3) Click the Intents tab. Click Create to open the Create Intent widget.
- 4) Complete the fields, required fields are marked with an asterisk.
 - a) **Action** — The Action field is the instruction the intent will make (ex. graph or view).

- b) **Data Type** — The Data Type field indicates the data that the intent is passing from widget to widget (ex. text/html).
 - c) **Send/Receive** — This tells the widget to send or receive the widget intent.
- 5) Click OK. The intent has been added to the widget and will be displayed in the Intents tab in the Widget Editor.


4.2.2 Widget Descriptor URL

Descriptor URLs allow an administrator to create widgets without entering the widget's information manually. The administrator simply enters a URL and the widget's information is automatically retrieved from a descriptor file from a Web-accessible location. Starting with OWF 7, widgets created with a descriptor URL are editable in the Widget Editor.

Descriptor URLs offer several benefits. They reduce the risk of typing errors when entering widget data. They allow for several installations of OWF to easily share widget information via the descriptor file.

4.2.3 Editing Existing Widget Content

To edit existing widget content:


- 1) Click  on the toolbar, select Widgets to open the Widget Manager.
- 2) From the manager, select a widget and click Edit.
- 3) Edit the widget data on the Properties tab and click Apply. For definitions of less common widget data fields, see [Table 3: Edit Button and Editor Widget Fields](#).

Users and groups assigned to the widget will receive the widget data changes automatically.

4.2.3.1 Updating and Editing Widget Descriptor Data

Starting in OWF 7, administrators can update and edit the widget descriptor data within the OWF interface. Updating the widget descriptor data retrieves the latest data in the widget's descriptor file which is saved in a Web-accessible location. Changes made to the widget prior to the update are lost once the update is performed.

To update the widget descriptor data:

- 1) Click  on the toolbar, select Widgets to open the Widget Manager.
- 2) From the manager, select a widget and click Edit.


- 3) Click Load. The Widget Editor will automatically refresh and display the most recent widget descriptor data.
- 4) Click Apply.

Administrators can edit their copy of the widget descriptor data by following the steps outlined in section [4.2.3 Editing Existing Widget Content](#). Descriptor data changes are sharable after the administrator exports the widget and saves the descriptor file in a Web-accessible location. Individuals who already have access to this widget will have to update their copy of the widget's descriptor data in order to see the widget changes in their OWF instance.

4.2.3.2 Editing Widget Intents


It is recommended that a developer, or an individual experienced with using intents, edits the widget intents.

To edit widget intents:

- 1) Click  on the toolbar, select Widgets to open the Widget Manager.
- 2) From the manager, select a widget and click Edit.
- 3) Click the Intents tab, select an intent and click Edit.
- 4) Once changes have been made, click OK. OWF will automatically update the widget data.
- 5) Close the Widget Editor.

Users assigned to this widget will see the changes automatically.

To delete widget intents:

- 1) Click  on the toolbar, select Widgets to open the Widget Manager.
- 2) From the manager, select a widget and click Edit.
- 3) Click the Intents tab, select an intent and click Delete.

4.2.4 Exporting Widgets

Administrators can export and save widget data as a descriptor file. An administrator needs to host the widget descriptor file in a Web-accessible location to make the file sharable with other administrators that have access to this location. This process is intended to provide a means for administrators from different OWF instances to add/receive identical widgets.

To export a widget:

- 1) Click the  button on the toolbar.

- 2) Click on the Widgets button to open the Widgets Manager.
- 3) Select the widget to export. Click the arrow on the right of the split Edit button and choose Export.
- 4) Enter a File Name that describes the widget, this will become the title of the HTML descriptor file. Then click OK.


Note: If the widget was created by a descriptor file, the File Name field will be prepopulated with the descriptor file name.

- 5) Save the widget descriptor HTML file on a Web-accessible server.

4.3 Creating Groups

Groups allow administrators to easily add or remove widgets, dashboards and stacks to and from multiple users' instances of OWF. For example, by putting 10 employees into a group, the administrator can send 1 dashboard or 1 widget to the group, rather than having to individually add the widget to ten employees.

The following serves as a walkthrough for documentation purposes only. To create groups in OWF and to add users to that group:

- 1) Click the  button on the toolbar.
- 2) Click the Groups button to open the Groups Manager.
- 3) From the manager, click the Create button. This will open the Group Editor.
- 4) Fill in the appropriate data on the Properties tab. Once the Apply button is clicked, the other tabs on the Group Editor will become active. Note the following:
 - a) If the display name field is populated, that is the name which will appear in all administrator panels. The only way for the primary name field to appear is to leave the display name field blank.
 - b) If an administrator checks the automatic box in the User Management field, the following will happen:
 - i) The name of the group will not be editable.
 - ii) The users tab will remain grayed out as users can only be added via external sources, such as a security plug-ins.
- 5) Add users to the group by selecting the Users tab, clicking the Add button and selecting users from the grid.
- 6) The Widgets and Dashboards tabs behave the same way and can be used to populate groups accordingly.


4.4 Grouping Widgets

The group widget and group dashboard functions allow administrators to quickly and easily give a group of users access to several widgets at one time. Widgets can be added to a group (see section [4.4.1: Adding Widgets to a Group](#)) and any user added to the group automatically receives access to the group widgets. Alternatively, widgets can be added to a group dashboard (see section [4.5: Creating Group Dashboards](#)); any user added to the group that has access to this dashboard will also have access to the group dashboard widgets.


4.4.1 Adding Widgets to a Group

When a user is part of a group, for example Group A, the user's Favorites Menu will display the widgets assigned to Group A in the main section of the Favorites Menu. Only an administrator can make changes to widgets that are part of a group. Users cannot edit or delete the group or the widgets in it.

To add widgets to a group:


- 1) Click the  button on the toolbar.
- 2) Click the Groups button, select an existing group and click Edit.
- 3) The Group Editor will open. Select the Widgets tab.
- 4) Click Add and select widgets to assign to the group. Click OK.
- 5) Close the Group Editor.

4.5 Creating Group Dashboards

Group dashboards allow members of a group to have identical copies of a dashboard. Similar to the OWF Users Group, administrators can use group dashboards to give different groups of users the same starting screen or access to widgets. Each user can customize their instance of the group dashboard. Those changes will **ONLY** affect that user's instance of the dashboard. Users can return their dashboard to the *current state* of the group dashboard by clicking the  button (found by clicking Manage on the Switcher, then choosing the dashboard). If an administrator changed the group dashboard *after* it was added to a user's instance of OWF, the *current state* of the dashboard may be different than the one that originally appeared on the user's navigation bar.

Note: If a group dashboard is deleted by an administrator, the users' copies of that dashboard will remain available to the users. However, the restore feature will no longer be available for the dashboard.

To create a group dashboard:

- 1) Click the  button on the toolbar.
- 2) Open the Group Dashboards Manager.
 - a) Select an existing dashboard and click Edit.
 - b) Click Create to make a new dashboard.
- 3) Customize the fields on the Properties tab, then click Apply.
- 4) To add a group, select the Groups tab and click Add. Select the group you want to add, then click OK.
- 5) Close the window. Each user in the selected group will see the dashboard in the dashboard switcher on their toolbar.


4.6 Creating Stacks

Stacks are a collection of dashboards assigned to multiple OWF users and groups. Administrators have the ability to **create**, **edit**, **delete**, **import** and **export** stacks.


Creating, editing and deleting a stack is similar to creating, editing and deleting other features in OWF. Stacks are exported as descriptor files, for instructions see [4.6.3: Importing Stacks](#).

There are several reasons why an administrator may want to share an exported stack. For example, an administrator at Branch A may create a Human Resources Stack. Since this stack is beneficial to everyone at the company, the administrators at other branches may want to use it. Export allows the administrator at Branch A to easily send the stack to administrators from other OWF instances.

From a user's standpoint:

- Users can add a stack from their franchise store if their OWF is configured to work with the Store.
- Users can **customize**, **restore** and **delete** any stack assigned to them. Those changes will ONLY affect that user's copy of the stack. Like group dashboards, users can return their stack to the *current state* of the stack by clicking the  button (found by clicking Manage on the Switcher, then choosing a stack).
- If a stack is deleted by an administrator, the user will no longer have a copy of the stack and the dashboards and widgets included in the stack.
- Users cannot delete individual dashboards that are part of a stack, they can only delete an entire stack.
- If an administrator changed the stack and the content of its dashboards *after* it was added to a user's instance of OWF, the *current state* of the stack may be different than the one that originally appeared on the user's Switcher.

To create a stack:

- 1) Click the  button on the toolbar.
- 2) Click on the Stacks button to open the Stacks Manager. Click Create to make a new stack.
- 3) From here there are two ways to create stacks:
 - a) **Import from descriptor URL**—Enter a stack descriptor URL and click Load. For more information about stack descriptor URLs see section [4.6.1 Stack Descriptor URL](#).
 - b) **Manually enter data**—If a descriptor URL is not available, click the “Don’t have a stack descriptor?” link and complete the fields on the Properties tab. For more information about specific entry fields, see [Table 3: Edit Button and Editor Widget Fields](#).
- 4) Click Apply. This will unlock the Groups, Dashboards, Users and Widgets tabs.
Note: The Widgets tab in the Stacks Editor is for informational purposes only. It displays the widgets available in the stack based on the associated users, groups and dashboards.
- 5) To add an existing dashboard, select the Dashboards tab in the Stacks Editor. Click the Add button. Select a dashboard, then click OK. This method also works for adding users and groups via the Users and Groups tabs in the Stacks Editor.
- 6) Close the Stacks Editor.

Note: Adding an existing dashboard to a stack creates a copy of the dashboard that appears in the Switcher under the same name as the original dashboard. To avoid the confusion of having two dashboards in the Switcher with the same name, administrators are advised to rename duplicate stack dashboards.

4.6.1 Stack Descriptor URL

Like widgets, stacks can be created via a descriptor URL. When stacks are created with a stack descriptor URL, OWF automatically retrieves the stack data from a descriptor file saved in a Web-accessible location. Descriptor URLs allow an administrator to quickly create stacks that have been prepopulated with dashboards and widgets.

Stack descriptor URLs offer several benefits. They can bundle large amounts of stack data (ex. dashboard and widget JSON) into an HTML file. Descriptor URLs allow several installations of OWF to share the same stack information.

4.6.2 Editing Stacks



To edit existing stack content:

- 1) Click  on the toolbar, select Stacks to open the Stacks Manager.
- 2) From the manager, select a stack and click Edit.

3) Edit the stack data and click Apply.

Users and groups assigned to the stack will receive the stack data changes when the stack is restored via the Switcher.

Administrators can edit the order dashboards appear in a stack. To reorder a stack dashboard:

1. Go to the Stack Editor, and click the Dashboards tab.
2. Select a dashboard.
3. Click  or  to change the dashboard's position as shown in [Figure 12: Reorder Stack Dashboard](#).

Users assigned to the stack will see the changes in their Switcher when they log in to OWF or, if they are already signed in, when they Restore the stack.

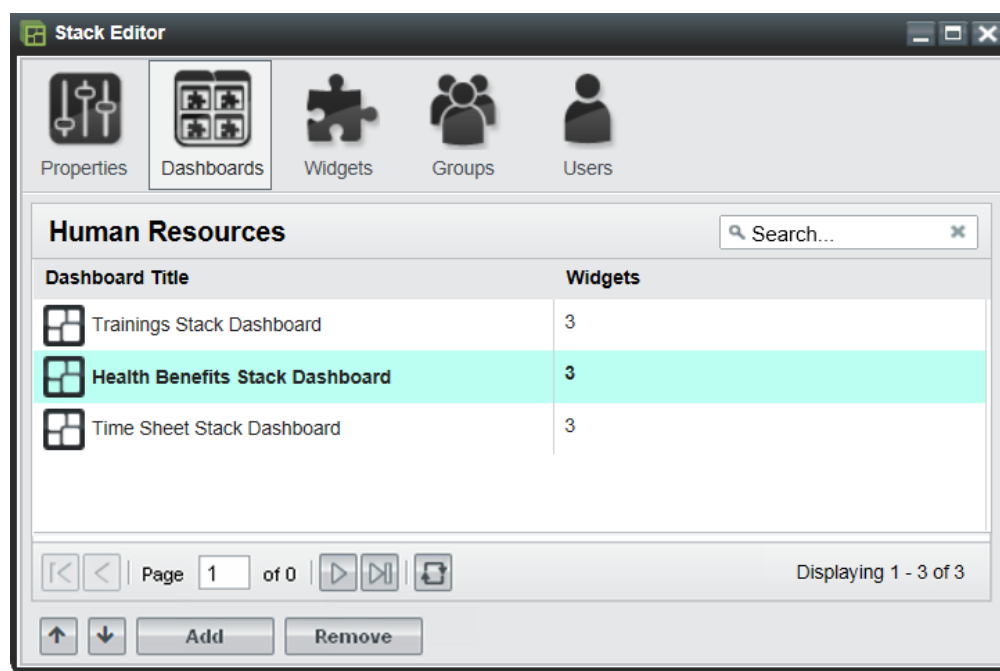


Figure 12: Reorder Stack Dashboard

4.6.2.1 Updating and Editing Stack Descriptor Data

Administrators who create a stack via a descriptor URL can update and edit the imported stack descriptor data within the OWF interface. Updating the stack descriptor data will retrieve the latest data stored in the stack's descriptor file. Any changes made to the stack prior to the update are lost.

To retrieve the latest stack descriptor data:

- 1) Click  on the toolbar, select Stacks to open the Stack Manager.


- 2) From the manager, select a stack and click Edit.
- 3) Click Load. The Widget Editor will automatically refresh and display the most recent widget descriptor data.
- 4) Click Apply.

Administrator can edit their copy of the stack by following the steps outlined in section [4.6.2: Editing Stacks](#).

4.6.3 Importing Stacks

When any user adds a Stack from the Store, a copy of the stack is added to the OWF Stack Manager. Using this feature might be a timesaving way to add existing stacks to other users' instances in OWF.


To import a stack:

- 1) Click the  button on the OWF Toolbar to open the Store.
- 2) In the Store, use the Search Toolbar at the top of the screen to search for "Stack."
- 3) Click on a stack listing icon and then click Add button. This action adds the Stack to OWF. One copy of the stack will appear in the Switcher on the toolbar, a master copy will appear in the Stack Manager.
- 4) To add a copy of the imported stack to a user's account, follow the procedure in section [4.6: Creating Stacks](#).

4.6.4 Exporting Stacks


Administrators have the ability to export and save stack data as a descriptor file. An administrator or developer must host the descriptor file in a Web-accessible location to share the file with other administrators. Sharing a stack descriptor URL allows administrators on different OWF systems to have a copy of the same stack.


To export a stack:



- 1) Click the  button on the toolbar.
- 2) Click the Stacks button to open the Stacks Manager.
- 3) Click the arrow on the right of the split Edit button and choose Export.
- 4) Enter a File Name, then click OK.
- 5) Move the stack descriptor HTML file to a Web-accessible location, like a shared wikis or company Intranet sites.
- 6) Share the descriptor file URL with other OWF administrators.

*Note: Administrators are advised **not** to edit the stack descriptor file once exported from OWF. Modifying a stack's descriptor file may introduce code errors that are difficult to identify and will prevent the user from creating the stack.*

4.7 Connecting to the Store

The Store, similar to a commercial application store, operates as a thin-client registry of applications and services. The Store allows administrators to connect to multiple Stores by creating widgets that are stored under the  button on the toolbar.

To enable the  button on the toolbar, an administrator has to create a “Marketplace” widget. To do this, follow these instructions:

- 1) Sign in to OWF as an administrator.
- 2) Click the  button on the toolbar and select Widgets.
- 3) Click Create and complete all the fields, **change the Widget Type field to “Marketplace.”**
- 4) Click Apply.
- 5) When you refresh OWF, the  button will appear on the toolbar. Repeat the process for each different Store connection.

Appendix A Object Reference

A.1 Dashboard Object

Table 4: Dashboard Object

Property	Sample Value	Description
guid	1d789781-e4e5-5acb-f9c5-eae28adf7699 (A unique 32-character alpha-numeric code)	A unique identifier for the dashboard. <i>Note: The guid is only required to be unique within the dashboard table.</i>
columnCount	0	Deprecated
isdefault	True/False	Legacy Code. This is no longer applicable.
layoutConfig	{ "xtype": "desktoppane", "flex": 1, "height": "100%", "items": [], "paneType": "desktoppane", "widgets": [] }	Holds the various panes on a dashboard and the widgets inside of the panes, including the widget states. <i>Note: Appendix A.2: Widget Object describes the content of "widgets".</i>
layout	N/A	Deprecated
EDashboardLayoutList	N/A	Deprecated
name	Customizable	This is a User-driven field. Even if a Dashboard loads a default name, the User can modify it at will.
state	N/A	Deprecated
groups	Customizable	When a group is associated with the dashboard, it becomes the value for the "Groups" attribute.
isGroupDashboard	True/False	Identifies if the dashboard is associated with a group.
description	Customizable	A description of the dashboard.

Property	Sample Value	Description
defaultSettings	N/A	Deprecated
createdDate	02/09/2012 11:48 AM EST	Date when the dashboard was created.
editedDate	02/09/2012 11:48 AM EST	Date when the dashboard was last edited.
createdBy	userId: "" userRealName: ""	The user name and id of the dashboard creator.
user	Customizable	When a name is used to validate a security protocol, it becomes the value for the "User" attribute.
alteredByAdmin	True/False	If a user's dashboard has been modified via the Administration UI, this value will appear as true.

A.2 Widget Object

Table 5: Widget Object

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
uniqueId	1d789781-b4a5-512b-ea59-eae28adf7699	A unique 32-character alpha-numeric code, representing a widget's state as it exists on a dashboard instance	All dashboards which contain widgets <i>Note: This value is not associated with a widget's state within a dashboard until the widget is launched – then the uniqueId is created.</i>
widgetGuid	1a718777-b4a5-512b-ea59-eae28adf7699 (A unique per widget 32-character alpha-numeric code)	A unique 32-character alpha-numeric code for a particular named widget. If "Widget A" is launched five times, all five widgets will share the same widgetGuid.	All Widgets

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
universalName	Ozone.OWF.ChannelShouter	A user-generated, custom identifier which is a permanent element of the widget across multiple instances. This differs from a widgetGuid which is unique to a specific installation.	All Widgets
widgetVersion	1.0	A string which indicates the software version of the Widget.	All Widgets
name	"Widget B"	Up to 50 alpha numeric characters.	All Widgets
active	True/False	Dictates which particular Widget on a dashboard is active upon launch.	Tabbed Desktop
width	225	Widget width in pixels.	All Widgets
height	400	Widget height in pixels.	All Widgets
minimized	True/False	Dictates whether a Widget is at its minimized size.	Tabbed Desktop Floating Widgets
maximized	True/False	Dictates whether a Widget is at its maximized size.	Tabbed Desktop Floating Widgets
pinned	True/False	Denotes whether a Widget is pinned in place or not.	Accordion
collapsed	True/False	Denotes whether a Widget is collapsed to its chrome. Dashboard types (on right) are what differentiate this attribute from the minimized definition.	Portal Accordion
floatingWidget	True/False	Denotes whether a Widget is floating over an entire dashboard and not constrained to a single	Fit

Property	Sample Value	Description	Dashboard Layout Type: Accordion, Tabbed, Desktop, Portal, Fit
		layout type. Example: Widgets launched from a widget in a fit pane open as floating widgets.	
Column	N/A	Deprecated	N/A
buttonID	N/A	Deprecated	N/A
buttonOpened	N/A	Deprecated	N/A
region	N/A	Deprecated	N/A

The following three values are stored in the database for stateful purposes but are not part of the widget definition or widget creation process. They are used to determine widget placement on a dashboard.

Table 6: Widget Object Placement

Property	Sample Value	Description	Dashboard Layout Type :Accordion, Tabbed, Desktop, Portal, Fit
X	200	The 'X' value represents the physical location (from the upper left-hand corner of OWF) in which the widget will spawn.	Tabbed Desktop Floating Widgets
y	500	The 'Y' value represents the physical location (from the upper left corner of OWF) in which the widget will spawn.	Tabbed Desktop Floating Widgets
zIndex	Variable number	A relative number representing which widget is "on top" of an overlapping cluster of widgets – thus making it the visible widget.	Tabbed Desktop Floating Widgets

A.3 User Preference Object

Table 7: Preference Object

Property	Sample Value	Purpose
Preference Name	ClockWidgetSettings	User driven – defines the overall preference description. This is the effective key of the preference object that identifies the specific preference.
namespace	TimeType	Used to uniquely identify a widget preference. The OWF team recommends using namespaces similar to java packages, i.e. com.mycompany.widgetname.
value	24hrMilitary	This value is used to store individual preferences that will be recalled by widget developers. It may consist of any value from a string to a JSON object or REST URI.
userId	testUser1	The unique identifier of the user to whom this preference belongs.

Appendix B Known Issues

B.1 Browser Issues

Launching any of the Editors (as well as many 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

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.

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.

Appendix C Contact Information

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.

Bundle Name / Version	OWF-bundle-7.3.zip
CAS.WAR	cas.war
OWF.WAR	owf.war
Current Version	OWF 7.3