# Customizing and Maintaining Your ServiceNow Homepage

## Introduction

## **Homepage Administration**



Note: This article applies to Fuji and earlier releases. For more current information, see Homepage Administration [1] at http://docs.servicenow.com The ServiceNow Wiki is no longer being updated. Visit http://docs.servicenow.com for the latest product documentation.'

#### Overview

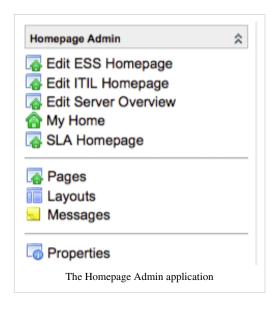
A homepage is a dashboard that consists of navigational elements, functional controls, and system information. When a user logs on ServiceNow, the default homepage defined for their role appears unless the user switched to another homepage, in which case that homepage appears. Administrators can customize several settings for homepages, including settings that control read or write access for any homepage and how homepages render.

Administrators can also:

- Create new global homepages for all users or specific homepages for users with a specified role.
- Specify an alternate login landing page that appears instead of a homepage.
- Configure the homepage splash page, which is a lightweight page that loads before a homepage loads.

#### Menus and Modules

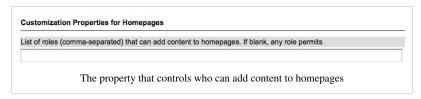
To access homepage administration options, use these modules under the Homepage Admin menu.



- Edit ESS Homepage: Allows you to edit the default homepage set up for users without a role.
- Edit ITIL Homepage: Allows you to edit the default homepage set up for users with the itil role.
- Edit Admin Homepage: Allows you to edit the default homepage set up for
  users with the admin role. This module is no longer available starting with the
  Eureka release.
- Edit Server Overview: Allows you to edit the default ServiceNow Performance homepage.
- My Home: Allows you to edit the homepage that is set as your default homepage.
- SLA Homepage: Allows you to edit the default SLA homepage.
- Pages: Lists all homepage records in the system.
- Layouts: Lists the macros that control the layout of homepages.
- Messages: Lists the homepage-related UI messages on the Message table.
- Properties: Provides access to the properties that control homepage functionality, such as automatic refresh, homepage caching, and parallel rendering.

#### Restricting Who Can Add Content to a Homepage

By default, anyone with a role can add content to a homepage. If the user does not have permission to edit the homepage, the edits are applied to a homepage specific to the user. You can restrict who can add content to homepages by modifying the following property under the **Properties** module.



#### **Securing a Homepage**

Homepages have two types of roles: read and write. Read roles limit who can view the page, and write roles limit

who can make edits to the page rename, such as moving around gauges or deleting the homepage. Administrators can modify the roles for any homepage.

- 1. Navigate to **Homepage Admin > Pages**.
- 2. Select the homepage you want to secure.
- 3. Click the lock icons next to Write roles or Read roles.
- 4. Move the roles you want to restrict homepage access to from the Available column to the Selected column.
- 5. Click Update.

#### **Setting Homepage User Preferences**

After a user has selected a homepage to view, their homepage preference is stored in **User Administration > User Preferences** in a preference for that user named **homepage**. The value of the preference is the sys\_id of the homepage the user sees. You can access a list of homepages by navigating to **Homepage Admin > Pages**.

Users must have at least one role to view homepages.

#### **Adding Homepages to Update Sets and Applications**

Administrators must manually add homepages and content pages to update sets prior to distribution. After inclusion, the update set always uses the current version of the page and does not require additional action. Applications automatically include any homepages and content pages that are created within or associated to an application (starting with the Fuji release). Instances on earlier versions should see the previous version information.

To manually add a page to an update set:

- 1. Navigate to **Homepage Admin > Pages**.
- 2. Right-click a homepage record.
- 3. Select Unload Portal Page.

The page is added to the current update set.

#### Click the plus for versions prior to Fuji

Administrators must manually add homepages and content pages to applications and update sets prior to distribution. This process only stores the version of the page as it existed at the time of inclusion. Any further changes to these pages requires an administrator to manually add them again.

To manually add the current version of a page to an application and update set:

- 1. Navigate to **Homepage Admin > Pages**.
- 2. Right-click a homepage record.
- 3. Select Unload Portal Page.

The current version of the page is added to the current application (starting with the Dublin release) and to the current update set.

#### **Enhancements**

#### Eureka

- Active service catalogs and service catalog categories can be added to any homepage. Catalog categories can
  display the details of the catalog or the items in the category.
- The System Administration homepage has been redesigned to use service catalog categories. These categories
  provide administrators easy access to administrative settings such as user interface properties and email
  notifications.

#### **Dublin**

• Administrators can now add homepages to an application.

#### References

[1] https://docs.servicenow.com/bundle/jakarta-servicenow-platform/page/administer/homepage-administration/concept/c\_HomepageAdministration.html

## **Creating New Homepages**



**Note:** This article applies to Fuji. For more current information, see Homepage Administration [1] at http://docs.servicenow.com The ServiceNow Wiki is no longer being updated. Please refer to http://docs.servicenow.com for the latest product documentation.

#### Overview

Users with at least one role can create homepages that are visible to themselves. These are called *personal homepages* <sup>[1]</sup>. Administrators can create and edit homepages that can be visible to users with specified roles or to everyone. Homepages visible to everyone are called *global homepages*.

### **Creating a Personal Homepage**

You can create a completely new personal homepage with no content on it, or you can create a new homepage that uses the content of an existing page. Either way, the personal homepage is only visible to you by default unless the administrator makes your homepage global.

#### To create a completely new personal homepage:

- 1. Navigate to **Self-Service > Homepage** to open your current homepage.
- 2. In the Switch to page choice list in the header, select New page.

Your new homepage appears with a single dropzone.

3. Add content as needed.

#### To create a new homepage based on an existing homepage:

- 1. Navigate to any existing homepage that you have access to.
- 2. Change the layout of the homepage or add new content.

The system automatically creates a new homepage with the word **My** in front of the title, indicating that the homepage is a personalized one. Any changes you make are applied to the personalized version, not the global version.

#### Creating a Global Homepage or a Homepage for Specific Users

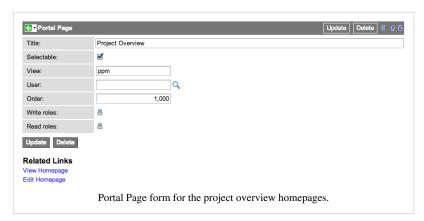
Administrators can create a global homepage accessible to all users or homepages accessible to users with specific roles.

- 1. Navigate to the **Homepage Admin > Pages**.
- 2. Click New.
- 3. Complete the fields on the form (see table).
- 4. Right-click the header and select Save.
- 5. Click the **Edit Homepage** related link to see the homepage.
- 6. Add content as needed.



Note: You must click Edit Homepage to make changes to a global homepage that take effect for all users who can access the homepage. If you click View Homepage and make changes, a personal homepage is automatically created for you and those changes take effect only on that personal homepage. To see the Edit Homepage link, you must enter a unique value in the View field.

The new homepage is available in the **Switch to Page** choice list for the users you specified or for all non-ESS users if the homepage is global.



Field	Description
Title	Enter the title of the homepage that appears at the top.
Selectable	Select this option to make the homepage appear in the <b>Switch to page</b> choice list for users. If you specify a user or a role, only the specified user or the users with the specified role can see the page in the choice list.
View	Enter any value that you can use when referencing the homepage in a URL or module. You must specify a view to be able to edit the homepage for all users who can access it. The View value needs to be unique. Otherwise, if the View is used by multiple homepages, the Edit Homepage link may not redirect to the current homepage record.
User	If you want the homepage to be a personal homepage for a specific user, select it here. Clear this field to keep the homepage global or if you want to specify the roles that are required to access the homepage.
Order	Enter a value that specifies where in the choice list of homepages that this page appears. Lower values move the page up the choice list.
Write roles	Specify the roles you want users to have to edit this homepage.
Read roles	Specify the roles you want users to have to access this homepage. The <b>User</b> field takes precedence over this field. If you specify a user in the <b>User</b> field, only that user can view the homepage, regardless of what roles you add here and regardless of what role that user has.

Related Links	
Edit	Edit the homepage as a global homepage. Any changes you make when editing the homepage are visible to all users who can access
Homepage	it.
View	View the homepage as a user would. Any changes you make when viewing the homepage automatically create a personalized
Homepage	version of the homepage.

You can also add the homepage as a module link in the application navigator. See Administering Menus and Modules for more information.

#### References

 $[1] https://docs.servicenow.com/bundle/helsinki-servicenow-platform/page/administer/homepage-administration/concept/c_HomepageAdministration.html$ 

## Homepage Customization

## **Customizing Homepages**



Note: This article applies to Fuji and earlier releases. For more current information, see Customize Homepages [1] at http://docs. servicenow.com The ServiceNow Wiki is no longer being updated. Visit http://docs.servicenow.com for the latest product documentation.

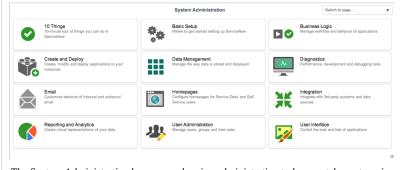
#### **Overview**

Users with at least one role can see a customized homepage when they log in. The content on the homepage comes from a variety of sources, such as:

- · Graphs and charts generated from a report
- · Application modules
- · A service catalog category
- The scrolling news widget (the News knowledge category)

#### **System Administration Homepage**

The System Administration homepage shows administrative tasks as catalog categories that provide administrators with quick access to all the items they need to configure core features, such as homepages, user administration, and email notifications. This homepage design is available starting with the Eureka release.



The System Administration homepage showing administrative tasks as catalog categories

Administrators can customize the System Administration homepage and add homepages to an application.

In versions prior to Eureka, the **Admin** homepage contains gauges displaying user, system definition, and configuration item information. Administrators can customize the contents of this homepage.

#### **Viewing Your Homepage**

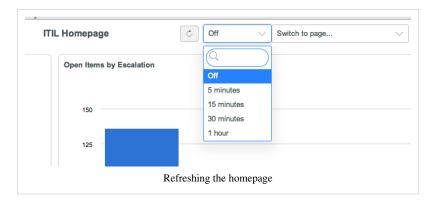
When users log in to the ServiceNow system, their homepage appears. Users who customized their homepage see the customized homepage. Users who did not customize their homepage see the homepage for their role, such as admin or itil. If their role has no homepage, a blank page appears. After logging in, users can return to the last homepage they viewed by clicking the home icon ( ), which is accessed from the gear icon in the banner frame. This icon appears on the right side of the banner frame in versions prior to Eureka.



**Note:** Users see the homepage with the lowest **Order** value of the pages they have roles to see when they log in. See Creating New Homepages for more information.

#### Refreshing the Homepage

Homepage users can specify a refresh time of 5, 15, 30, or 60 minutes, or no refresh. The default is **Off** (no refresh). Users can click the refresh icon ( ) at any time (use the **Refresh** link in versions prior to Eureka).



## Modifying the Number of Records Displayed in List Gauges

List gauges on a homepage display the same number of records as you have configured for other lists. For example, if you display 100 records in lists, a maximum of 100 records appears in list gauges.

To change the number of records displayed in a list gauge:

- 1. Navigate to **System UI > Gauges**.
- 2. Open the list context menu and select **Show**.

To open the context menu, click the menu icon ( ■ in UI14) or the arrow icon ( □ in UI11) beside the list title.

3. Select the number of rows to display.

#### **Customizing a Homepage**

Administrators can customize the default homepages that appear for each user by navigating to **Homepage Admin > Pages** and selecting the homepage. Any user can customize the homepage that is specified for their role by navigating to **Self-Service > Homepage**.

#### **Adding Homepage Items**

To add an item to a homepage, open the homepage and click the add content icon (  $\pm$  ) or link at the top. In the pop-up window, select the homepage item you want to add. Some items pertain to specific features and applications, such as CMS content blocks and the Work Management dispatch map. So the available items varies depending on what is active on your system.



**Warning:** Each gauge on your homepage is the equivalent of running a report. For example, a homepage with 10 gauges runs 10 separate reports each time it refreshes. Keep this in mind when adding content to your homepage. If your homepage consistently loads slowly, try removing gauges to determine why.

- Gadgets: Items like a knowledge search field and sticky notes.
- Knowledge Base: Knowledge base categories.
- Tags: Tags that you use to organize records.

- System Applications: Applications and modules.
- World Clocks: Any available world clock.
- Gauges: All available dashboard gauges. Gauges are defined in System UI > Gauges and can be configured to
  link to an existing report.
- Catalog Categories: Active service catalog categories The homepage uses the category's desktop icon as the homepage icon. This option is called **Service Catalog** in versions prior to Eureka).
- Catalogs: Service catalogs, including all of their active categories (starting with the Eureka release).
- **Diagnostics:** Information you can use for monitoring and troubleshooting the instance, like database connections and JVM garbage collection.
- Live Feed: Your company feed.
- **Text Search:** Lists of top searches in the instance.
- Filters: System definition filters.

For more information on adding content to homepages, see Adding Existing Gauges to a Homepage.

#### **Moving Homepage Items**

Reposition items on a homepage by clicking the item header bar and dragging it to the new location.

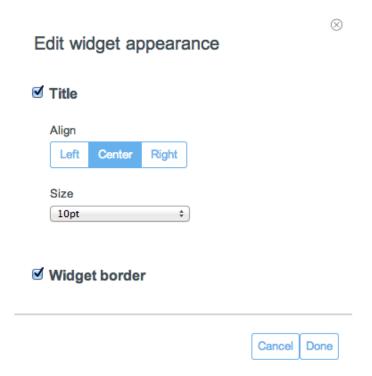
#### **Removing Homepage Items**

To remove a homepage item, click the close icon (X) on the right side of the item header.

#### **Editing Widget Appearance**

To edit the way a homepage item, also called gauge, looks:

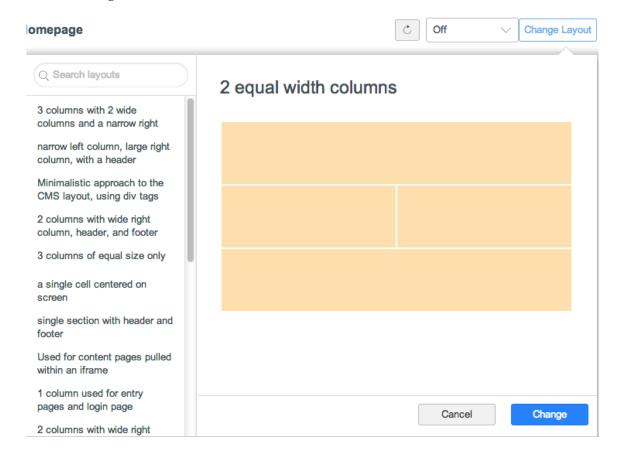
- 1. Click the widget appearance icon ( 
   ) on the right side of the item header.
- 2. Select the **Title** check box to display the title on the homepage item.
- 3. Click **Left**, **Center**, or **Right** to set the title alignment.
- 4. Select the title **Size**, in points.
- 5. Select the **Widget border** check box to display a border around the homepage item.
- 6. Click Done.



#### **Changing the Homepage Layout**

To change the homepage layout:

- 1. In the Switch to page list at the top right of the homepage, select Change Layout.
- Select the layout you want to use.
   Administrators can create or modify layouts by navigating to Homepage Admin > Layouts.
- 3. Click Change.

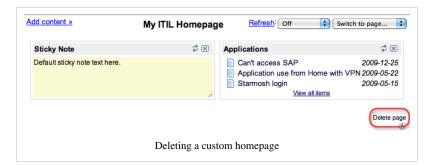


#### **Deleting Custom Homepages**

Users can delete a customized homepage by clicking the **Delete page** link in the bottom right. Deleting a customized page restores the default homepage for that user.



**Warning:** If a user with the admin role clicks **Delete page**, it deletes the homepage from the instance, which affects all users. This action cannot be reverted.



#### **Enhancements**

#### Fuji

 You can search for gauges within a category when adding content to a homepage.

- You can configure the appearance of gauges on homepages.
- You can export homepages to PDF.

#### References

[1] https://docs.servicenow.com/bundle/jakarta-servicenow-platform/page/use/homepages/concept/c\_CustomizeHomepages.html

### **Defining a Layout**



**Note:** This article applies to Fuji. For more current information, see Homepage and Content Page Layouts <sup>[1]</sup> at http://docs. servicenow.com The ServiceNow Wiki is no longer being updated. Please refer to http://docs.servicenow.com for the latest product documentation.

#### **Overview**

Layouts are UI elements that define how blocks of content can be added to a page. Layouts are used for homepages and content pages. Layouts provide the following functionality:

- 1. Administrators can define custom layouts for homepages or content pages.
- 2. Users who are allowed to modify their homepage can select a layout for the homepage.
- 3. Users who are allowed to add content to their homepages can choose where in the layout to add the content.

Most successful websites use a fairly limited number of layouts to define the structure of a much larger number of pages. One might reasonably have several dozen pages, but only two or three layouts.

#### **Layout Concepts**

Layouts define the overall structure of the page by arranging where on the page dropzones appear. The dropzone is where content blocks (which make up the content of the page) can be added. Most content blocks match the width of the dropzone, so the dropzone controls both the location and sizing of the content block.

Defining a custom layout requires knowledge of Jelly script, but there are a number of predefined layouts that can be used in most cases. Once a layout is chosen, the layout dictates where the dropzones on a page will appear. Then content blocks can be added at any dropzone to create the actual content of the site.

#### **Dropzones**

Every layout divides the page into one or more logical areas. In the examples above, the dropzones are the areas labeled Header, One, or Two. The name 'Dropzone' comes from the fact that content blocks can be dropped into any one of these zones.

A number of commonly used predefined layouts are available, but you can also define your own custom layouts.

#### **Custom Layouts**

Users with the admin role can view the list of available layouts by navigating to **Homepage Admin > Layouts**. A homepage layout is just a UI macro whose name begins with "layout\_".

- Layouts are XHTML that contains one or more dropzones.
- Dropzones are TDs (table data cells) within the HTML where pieces of content can be placed.



**Note:** Knowledge of Jelly is required to understand the following example.

For example, here is code for a layout:

#### **Layout Rules**

- 1. A layout must contain at least one table.
- 2. All dropzones must be TDs within a table.
- 3. A dropzone has two key attributes:
  - 1. Its ID starts with "dropzone" (e.g., "dropzone2" or "dropzone3").
  - 2. It has an attribute of **dropzone="true"**.
- 4. Dropzone IDs must be unique (e.g., you can't have two dropzones named "dropzone1").

#### **Optional layout features**

- Nested tables are allowed, so it is possible to have a table within a TD within a table.
- There can be TDs that are not dropzones.
- Styles and formatting elements are acceptable.
- Fixed width TDs (as opposed to variable width) are allowed, although some content, like graphs, must have a significant minimum width.
- Fixed height TDs are allowed.

#### **Layout Hints and Tips**

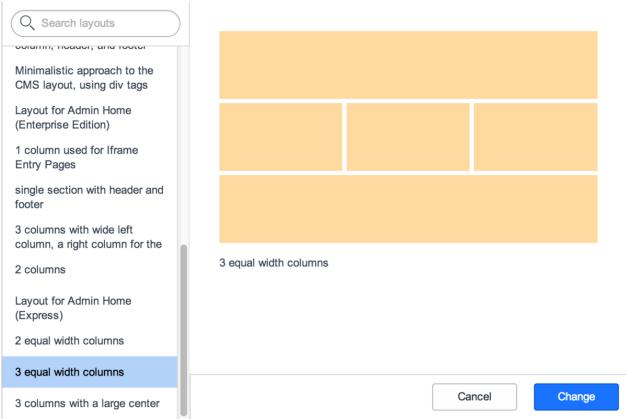
1. If cellspacing and cellpadding are set to zero, the drag-and-drop algorithm may have trouble distinguishing one cell from another, since multiple empty cells can potentially occupy the same point in space. It is still possible to place things via the layout control, and they will render properly. However, to use drag-and-drop to move things around, do not drop both cellspacing and padding to zero.

#### **Choosing a Layout**

The following information is users who have rights to modify their homepage. An ESS user, for example, cannot change the layout of a homepage.

- 1. On the homepage, click the **Switch to page** field in the top right corner.
- 2. Select Change Layout at the bottom of the choice list.

The dialog box that appears contains a list of available layouts and a short description of each. Select a layout to see a simplified preview of the layout.



3. Select a layout and click **Change** to update the layout of the homepage.

#### **Layout Change Notes**

- 1. If the page already has content and the layout changes, the existing content stays in the same dropzones it started in. For example, content in dropzone2 of the old layout appears in dropzone2 of the new layout as well, although the dropzone may be in a significantly different location on the page.
- 2. If the new layout has fewer or different dropzones than the old layout, there may be "orphan" content. For example, if there is content in dropzone5 of the old layout, and the new layout does not have a dropzone5, that content is now "orphaned". Any orphaned content is moved to dropzone1.

#### **Adding Content**

The **Add content** interface enables users to specify which dropzone to place content. For example, clicking the **Add content** link ( + starting with the Fuji release) in the top left of the homepage displays a dialog box similar to this:



Select a piece of content to see a preview in the middle of the dialog box. The bottom of the dialog box displays a model of the current layout with an **Add here** link in each dropzone.

Click **Add here** in the dropzone where the content should be placed. The content is added and the dialog box remains open. The homepage changes in the background.

Users who can change content on a home page can search for gauges within a category when adding content to a homepage, and configure the appearance of gauges on homepages (starting with the Fuji release).

#### References

 $[1] \ https://docs.servicenow.com/bundle/jakarta-servicenow-platform/page/administer/homepage-administration/concept/c_DefineALayout.html$ 

## **Creating a Custom Homepage Widget**



**Note:** This article applies to Fuji. For more current information, see Custom Homepage Widgets [1] at http://docs.servicenow.com The ServiceNow Wiki is no longer being updated. Please refer to http://docs.servicenow.com for the latest product documentation.

#### **Overview**

There are a number of predefined widgets to be added to a homepage, but administrators can also create their own custom widgets. To create a widget, an administrator must first create a UI page to control its functionality. UI pages are coded in either HTML or Jelly script, and will power the functionality of the widget.

Creating a UI page is outside the scope of this article. However, once the UI page exists, it will be used to render the widget. It is very easy to create a trivial UI page named **my\_ui\_page** with a single line of text and see how it renders and can be added to a homepage.

Once the UI page is scripted, use the method below to create a widget which renders the UI page and executes its script.

#### Create a Widget Referencing the UI Page

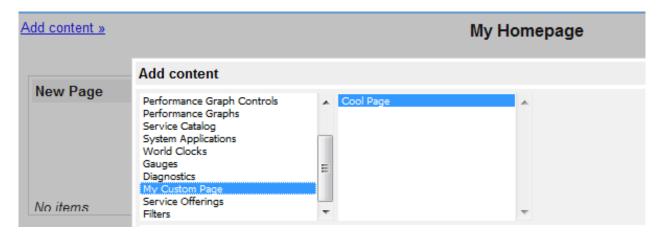
- 1. Navigate to **System UI > Widgets** and click **New**.
- 2. Give the widget a Renderer type value of JavaScript and a Name value of My Custom Page.
- 3. Include the following required functions in the script:
  - The sections () function adds the widget to the **Add Content** section of a homepage.
  - The render () function defines how the widget should be rendered in the homepage.
  - The getEditLink() function defines the target page to use when editing the widget.

#### The sections() Function

The sections() function needs to return a JavaScript array describing how the widget should appear in the homepage **Add Content** UI, and what UI Page should be displayed. Here is a an example:

```
function sections() {
   return {
      "Cool Page" : { "name" : "my_ui_page" }
   };
}
```

The above example will appear in the **Add Content** UI like this, where the Name of the widget appears in the first column, and the *Cool Page* text appears in the second column. The UI page displayed in the preview is **my\_ui\_page**:



#### The render() Function

The render() function defines how the widget should be rendered in the homepage. It can be the same for all custom widgets. This code works with scoped and global applications on Fuji or later versions:

```
function render() {
    var scope = gs.getCurrentScopeName();
    var page = renderer.getPreference('name');
    return renderer.getRenderedPage( scope + page);
}
```

Instances on versions prior to Fuji can use this alternative code:

```
function render() {
  var name = renderer.getPreferences().get("name")
  var gf = new GlideForm(renderer.getGC(), name, 0);
  gf.setDirect(true);
  gf.setRenderProperties(renderer.getRenderProperties());
  return gf.getRenderedPage();
}
```

Both functions use the value of the *name* object returned by the sections () function. In the example, the value is **my\_ui\_page**. This is the name of the UI page that is rendered. If the UI page does not exist, then **Form not found** is displayed.

#### The getEditLink() Function

The getEditLink() function defines the target page to use when editing the widget. It can be the same for all custom widgets. This code works with scoped and global applications on Fuji or later versions:

```
function getEditLink() {
    var scope = gs.getCurrentScopeName();
    var page = renderer.getPreference('name');
    return "sys_ui_page.do?sysparm_query=name=render_gadget_" + scope +
    page;
}
```

Instances on versions prior to Fuji can use this alternative code:

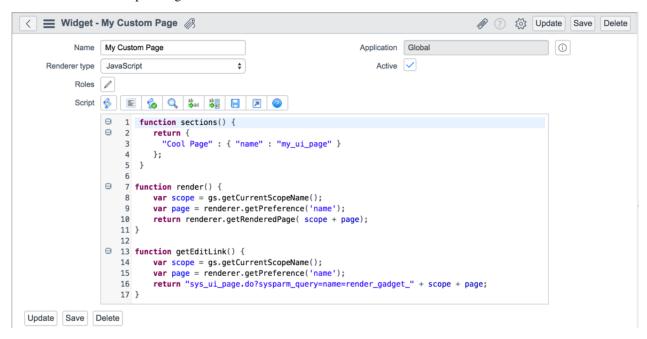
```
function render() {
  var page = renderer.getPreferences().get("name")
```

```
var gf = new GlideForm(renderer.getGC(), name, 0);
gf.setDirect(true);
gf.setRenderProperties(renderer.getRenderProperties());
return "sys_ui_page.do?sysparm_query=name=render_gadget_" + page;
}
```

Both functions use the value of the *name* object returned by the sections () function. In the example, the value is **my\_ui\_page**. This is the name of the UI page that is rendered. If the UI page does not exist, then **Form not found** is displayed.

#### **Example Widget**

Here is the entire example widget with all functions:



#### References

[1] https://docs.servicenow.com/bundle/jakarta-servicenow-platform/page/administer/homepage-administration/concept/c\_CustomHomepageWidgets.html

## Adding Existing Gauges to a Homepage



**Note:** This article applies to Fuji. For more current information, see Discovery [1] at http://docs.servicenow.com The Wiki page is no longer being updated. Please refer to http://docs.servicenow.com for the latest product documentation.

#### Overview

A gauge is visible on a ServiceNow homepage and can contain up-to-the-minute information about current status of records that exists on ServiceNow tables. Gauges can be created by the ServiceNow administrator or by users of ServiceNow with the gauge maker role. Gauges can be created from reports or from lists of records on a table and can be sorted and filtered as needed.

#### Add a Gauge to a Homepage from the Homepage

You can add gauges to a homepage. You can make a report into a gauge from the report form. See this procedure for instructions.

- 1. Navigate to a homepage.
- 2. Click the add content icon ( + ) in top left corner of the homepage.
- 3. Select **Gauges** in the top left column of the **Add content** pop-up window.
- 4. Select a table in the top middle column.
- 5. Select the gauge that you want to add in the top right column.
- 6. Click the appropriate **Add here** button to place the gauge in the corresponding section of the homepage.
- 7. Click the close icon ( $\otimes$ ) in the top right corner when you finish adding gauges.

#### Arranging Gauges on a Homepage

Arrange gauges on custom homepages to customize your ServiceNow experience. You can always restore the homepages to the arrangement your system administrator created.

- · Moving gauges: Click, hold, and drag the top gray bar of a gauge to move it to another area. Gauges in the top or bottom areas display at 100% of the available width. Gauges in the right, left, or center areas display at 50% of the available width. If gauges are added to all these areas, they display at 33% of the available width.
- Removing gauges: Click the close icon ( ) to remove a gauge.

  Automatic refresh: Set gauges to refresh at given intervals by using the selector at the upper right corner. Automatic refresh is off by default.

#### Add a Report to a Homepage from the Report Form

A report must be made into a gauge before it can be added to a homepage. Users with the gauge\_maker, admin, or report\_admin role can make a report into a gauge. Gauges created from list reports do not preserve user list view preferences, such as the option to automatically expand grouped records.

- 1. Navigate to **Reports > View / Run**.
- 2. Open or create a report that you want to access from a gauge.
- 3. Click the down arrow next to the **Save** button and select **Make Gauge**.

**Note:** If the report has already been made into a gauge this option is not available. Continue to the next step.

- 4. Click the down arrow next to the **Save** button and select **Add to Homepage**.
- 5. Select the homepage you want to add the gauge to.
- 6. Click **Add here** where you want to add the report.

#### Creating a New Gauge from a List of Records

In order to create lists of records (for example My Work, My Groups Work and Unassigned Incidents) as a gauge, you will need to have administrator rights.

- 1. Navigate to System UI > Gauges.
- 2. Click New.
- 3. Enter a unique name for your gauge.
- 4. In the **Type** field, select **List**.
- 5. Select a Table.
- 6. In the Aggregate field, select Count.
- 7. In the Query field, define the conditions that records must meet to be included in the gauge.

Other fields on the form are not used when creating a list gauge.

8. Click **Submit** to save the gauge, or click **Try It** to save and view the new gauge.

After you save the gauge, you can add it to a homepage.

#### **URL Gauge Variable Height Workaround**

URL gauges can be used to display a different web page or website as part of a homepage. URL gauges are set with a fixed height, meaning that you may have to scroll to see the entire web page in the gauge. URL gauge widths are controlled by the positioning of the gauge on a particular homepage. You cannot modify URL gauge height, but you can set up an iFrame in a UI page to manage the height.

First, create a UI page. The UI page name must start with render\_gadget\_ (for example, render\_gadget\_iFrameSNC). Add the following to the HTML field, replacing the src with the URL that should appear in the iFrame. The height you specify must be a static value and you must use CSS style tags for this to work.

```
<iframe id="myframe" src="http://www.service-now.com" scrolling="yes" style="height:450px; width:100%"></iframe>
```

Next, navigate to **System UI > Widgets** and create or modify a widget that for selecting your UI page from the **Add content** pop-up window on a homepage. The widget script must reference your UI page. The widget **Name** must be the name of the category in the **Add content** pop-up window. For **Renderer type**, select **JavaScript**. The following script can be added to the **Script** field if you want to create a new widget.

```
function sections() {
  return {'ServiceNow' : { 'type' : 'iFrameSNC' }};
```

```
function render() {
  var type = renderer.getPreferences().get("type");
  var gf = new GlideForm(renderer.getGC(), "render_gadget_" + type, 0);
  gf.setDirect(true);
  gf.setRenderProperties(renderer.getRenderProperties());
  return gf.getRenderedPage();
}

function getEditLink() {
  return "sys_ui_page.do?sysparm_query=name=render_gadget_" +
  renderer.getPreferences().get("type");
}
```

When the widget is saved, go to any homepage and add the new content.

#### **Count Gauge Colors**

In a count gauge, the count item color is based on the upper and lower limit values on the gauge panel. The following colors are used:

- Red: If the count result is greater than or equal to the upper limit.
- Orange: If the count result is between the upper and lower limit.
- Green: If the count result is less than or equal to the lower limit.

You cannot customize these colors.

#### **Configuring Gauge Appearance**

You can configure a gauge to display the report title, control the alignment and text size of the title, and display a border. To configure a gauge, click the widget appearance icon ( ) for that gauge.

#### References

[1] https://docs.servicenow.com/bundle/jakarta-it-operations-management/page/product/discovery/reference/r-discovery.html

Using UI Pages as Gauges 21

## **Using UI Pages as Gauges**



Note: This article applies to Fuji and earlier releases. For more current information, see UI Pages [1] at http://docs.servicenow.com The ServiceNow Wiki is no longer being updated. Visit http://docs.servicenow.com for the latest product documentation.

#### Overview

You can create a widget that displays a ServiceNow UI page. This widget can be added to homepages and dashboards. A UI page is a ServiceNow page that is not a list or a form. Certain UI pages, such as external site widgets or gadgets, may not display properly on a homepage or dashboard.

#### **Using UI Pages as Gauges**

This code works with the scoped API and applies to custom and global applications on Fuji or later versions.

- 1. Identify the UI page that you want to create into a widget and note its name.
- 2. Navigate to **System UI > Widgets** and select **New**.
- 3. Enter a **Name** for the widget. This field defines the first category a user selects when adding the widget to a dashboard or homepage.
- 4. Use the following code, where:
  - Widget is the title of the widget. This title appears on the top of the widget when you add it to a dashboard or homepage.
  - widgetname is the name of the UI page from step 1. This field defines the second or subcategory a user selects when adding the widget to a dashboard or homepage.

```
function sections() {
    return {
          'Widget': {
                'type': 'widgetname'
          }
     };
}

function render() {
    var scope = gs.getCurrentScopeName();
    scope = (scope == "rhino.global"?": scope + "_");
    var page = renderer.getPreference('type');
    return renderer.getRenderedPage(scope + page);
}

function getEditLink() {
    var scope = gs.getCurrentScopeName();
    scope = (scope == "rhino.global"?": scope + "_");
    var page = renderer.getPreference('type');
    return "sys_ui_page.do?sysparm_query=name=" + scope + page;
}
```

#### Using UI Pages as Gauges Versions Prior to Fuji

This code works with versions prior to Fuji before the scoped API was introduced.

- 1. Rename the UI Page or insert a copy with the name render\_gadget\_ followed by the name of the UI page.
- 2. Navigate to **System UI > Widgets** and select **New**.
- 3. Use the following code, where:
  - Widget is the title of the widget.
  - widgetname is the name of the UI page without the render\_gadget\_ prefix you added in a previous step.

```
function sections() {
   return {
        'Widget' : { 'type' : 'widgetname' }
      };
}

function render() {
   var type = renderer.getPreferences().get("type");
   var gf = new GlideForm(renderer.getGC(), "render_gadget_" + type, 0);
   gf.setDirect(true);
   gf.setRenderProperties(renderer.getRenderProperties());
   return gf.getRenderedPage();
}

function getEditLink() {
   return "sys_ui_page.do?sysparm_query=name=render_gadget_" +
   renderer.getPreferences().get("type");
}
```

For information about creating a custom UI page, see Making a UI Page without using the framework page template <sup>[2]</sup> on the ServiceNow Community.

#### References

- [1] https://docs.servicenow.com/bundle/jakarta-servicenow-platform/page/script/server-scripting/reference/r\_UIPages.html
- [2] https://community.servicenow.com/community/develop/blog/2015/02/03/a-ui-page-without-the-framework-page-template

## Homepage Performance

## **Homepage Caching**

#### **Overview**

Complex, frequently visited homepages can slow down instance performance by consuming system resources. Homepage caching can improve performance by using less resources to load homepages. When this feature is enabled, individual homepage widgets are cached and can be used by multiple users until the underlying data they depend upon changes, requiring a re-render.

Administrators can configure properties for homepage caching.

#### **Configuring Homepage Cache Properties**

The render cache is enabled by default with a set of sensible defaults. However, the configuration can be modified by a system administrator based on the needs of a particular customer environment.

This behavior is controlled by a set of three properties available under:

#### **Homepage Admin > Properties**

Enable homepage render cache
▼ Yes   No
Maximum amount of time an entry stays in the render cache (in seconds)
60

Enable aggressive caching. If enabled, entries are removed from the render cache only when they expire from old age, rather than when their underlying data changes. Running in aggressive mode can significantly improve performance, but runs the risk of serving potentially 'stale' charts and graphs.

- Yes I No
- 1. **Enable the homepage render cache:** enables or disables the entire cache. If you disable the cache, then nothing is cached and nothing is retrieved from the cache.
- 2. **Maximum amount of time an entry stays in the cache:** By default, the system will automatically pull an entry out of the cache if its underlying data changes. If, for example, you have a gauge of "incidents by priority" that goes in the cache, the system will automatically remove it from the cache if the underlying incident data is updated. Even if the underlying data, however, has not changed, the system will automatically expire cache entries older than this age. The default is 60 seconds, meaning that, at most, a cache entry will persist for 60 seconds before being expired.
- 3. **Enable Aggressive Caching:** If aggressive caching is turned on, then the only time entries are removed from the render cache is if they expire. Even if the underlying data changes, the system will still return the previously rendered chart/graph/whatever until it expires from old age. Setting this to true can significantly improve performance, but it does so at the expense of serving knowingly 'stale' data. Under some circumstances, however, a combination of aggressive caching and a short maximum cache age (see above), may be appropriate.

Homepage Caching 24

#### **Notes/Limitations**

1. Customers with less than one hundred or so concurrent users should not expect to see a significant benefit to this feature in most real-world scenarios. Homepage visits in these situation are infrequent enough that most widgets will have aged out of the cache prior to a second user visiting a homepage. If you're not seeing performance problems with your home pages as is, tweaking the behavior of this cache is probably going to be counterproductive, or at least not a good use of your time.

- 2. The homepage cache is segmented by company, domain, and roles, so customers with different rights and visibility into the system cannot see each other's data simply by pulling it out of the cache. This does, however, mean that cache efficiency will be lower on customers making extensive use of domain separation.
- 3. In an environment with a cluster of multiple UI nodes (as opposed to a UI node + worker configuration), each node has its own homepage cache. Entries are removed from the homepage cache only when their data changes on the node upon which they are cached. Entries are, of course, still removed from the cache when they expire from old age.

## **Troubleshooting Homepage Performance**

#### **Overview**

To diagnose problems and improve homepage performance, administrators can:

- Turn on homepage debugging
- · Troubleshoot slow reports

Administrators can also tune homepage performance by configuring the properties described on the following pages:

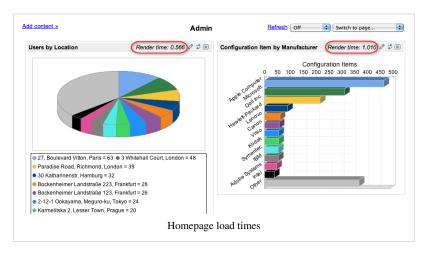
- Parallel homepage rendering
- · Homepage caching

#### **Debugging Homepage Performance**

To see load times on homepage widgets, turn on homepage debugging:

Navigate to System Diagnostics > Debug Homepage Render.

For the remainder of your session, load times appear on homepage widgets and debugging messages appear at the bottom of homepages. Use these times to identify items that may slow down homepage rendering.



## Troubleshooting Reports

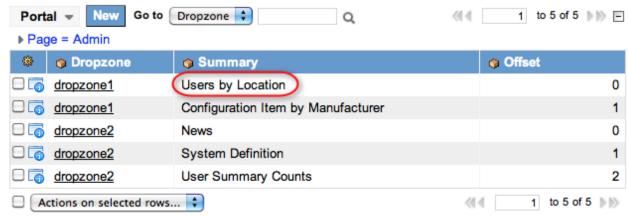
Troubleshoot reports that may be impacting homepage performance by identifying which reports are on the problem homepage, determining which reports are running slowly, and correcting problems in slow reports.

Navigate to Homepage Admin > Pages.

Opening the homepage record

instead of the homepage saves time and system resources.

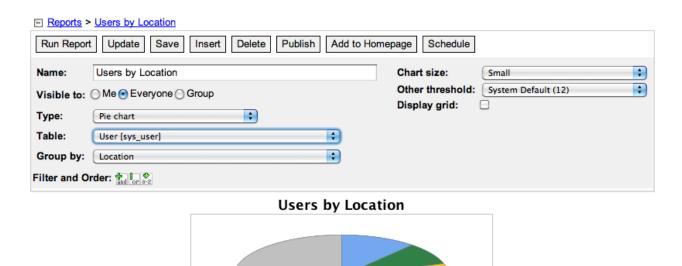
- 2. Open the problem homepage record.
- 3. Scroll down to the **Portal** related list, and note item names in the **Summary** field. Note that these items may not all be reports.



- 4. Enter sys\_report.list in the navigation filter to open a list of all reports.
- 5. Search for a report title that matches an item on the homepage (from the **Summary** field).
- 6. Open the report and run it.



- 7. If the report runs slowly, look for and correct these common reporting mistakes:
  - Returning too many results
  - Grouping by fields such as duration or name
  - Reporting on a user-created table that uses many joins on other table
- 8. If the report runs slowly and correcting common mistakes does not help, examine the type of report and what data it reports. Look for ways to optimize or replace the report.
- 9. Repeat steps 5 8 for each item on the homepage.



## **Parallel Homepage Rendering**

#### **Overview**

The ServiceNow application server uses a parallel rendering algorithm to speed up home page rendering. In testing, the average performance benefit is between 20% to 50% depending on the page in question. Administrators can set parallel homepage rendering properties for optimal performance on an instance.

#### **Setting Homepage Rendering Parameters**

To change the parameters for parallel homepage rendering, add these system properties:

- 1. glide.ui.homepage.parallel:enables or disables parallel homepage rendering (default value is true)
- 2. glide.ui.homepage.parallelism: sets the number of threads to use when rendering a homepage (default value is 2)

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