London Platform User Interface
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# Contents

<table>
<thead>
<tr>
<th>Now Platform User Interface</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UI16</td>
<td>5</td>
</tr>
<tr>
<td>Comparison of UI16 and UI15 styles</td>
<td>8</td>
</tr>
<tr>
<td>Activate UI16</td>
<td>10</td>
</tr>
<tr>
<td>Switch between UI16 and UI15</td>
<td>14</td>
</tr>
<tr>
<td>UI16 application navigator</td>
<td>14</td>
</tr>
<tr>
<td>System settings for the user interface (UI)</td>
<td>24</td>
</tr>
<tr>
<td>UI15</td>
<td>27</td>
</tr>
<tr>
<td>UI15 application navigator</td>
<td>29</td>
</tr>
<tr>
<td>UI15 banner frame and Edge buttons</td>
<td>30</td>
</tr>
<tr>
<td>Define a menu category in UI15</td>
<td>35</td>
</tr>
<tr>
<td>Keyboard shortcuts</td>
<td>36</td>
</tr>
<tr>
<td>Generally supported browsers</td>
<td>37</td>
</tr>
<tr>
<td>Navigate to a record or module using a URL</td>
<td>38</td>
</tr>
<tr>
<td>Enable tiny URL support</td>
<td>38</td>
</tr>
<tr>
<td>Examples of navigating by URL</td>
<td>39</td>
</tr>
<tr>
<td>Common UI elements</td>
<td>40</td>
</tr>
<tr>
<td>Log in to an instance</td>
<td>41</td>
</tr>
<tr>
<td>Application navigator</td>
<td>42</td>
</tr>
<tr>
<td>The Edge</td>
<td>54</td>
</tr>
<tr>
<td>Forms</td>
<td>56</td>
</tr>
<tr>
<td>Lists</td>
<td>90</td>
</tr>
<tr>
<td>Tree picker</td>
<td>156</td>
</tr>
<tr>
<td>Selecting fields on related tables using dot-walking</td>
<td>158</td>
</tr>
<tr>
<td>Configure items on forms or in lists using a slushbucket</td>
<td>171</td>
</tr>
<tr>
<td>Activity streams</td>
<td>174</td>
</tr>
<tr>
<td>Create a condition statement using the condition builder</td>
<td>176</td>
</tr>
<tr>
<td>Tags</td>
<td>189</td>
</tr>
<tr>
<td>User presence</td>
<td>199</td>
</tr>
<tr>
<td>User interface configuration</td>
<td>202</td>
</tr>
<tr>
<td>Response time indicator</td>
<td>202</td>
</tr>
<tr>
<td>Navigation stack</td>
<td>205</td>
</tr>
<tr>
<td>Navigation action cancellation</td>
<td>206</td>
</tr>
<tr>
<td>Context-sensitive help</td>
<td>211</td>
</tr>
<tr>
<td>Embedded help and guided tours</td>
<td>219</td>
</tr>
<tr>
<td>Overview help pages</td>
<td>271</td>
</tr>
<tr>
<td>System user guide</td>
<td>271</td>
</tr>
<tr>
<td>Manage audio files</td>
<td>292</td>
</tr>
<tr>
<td>Storing images in the database</td>
<td>292</td>
</tr>
<tr>
<td>User preferences</td>
<td>297</td>
</tr>
<tr>
<td>View management</td>
<td>297</td>
</tr>
<tr>
<td>Welcome pages</td>
<td>322</td>
</tr>
<tr>
<td>Enabling accessibility features</td>
<td>333</td>
</tr>
<tr>
<td>Using accessibility features</td>
<td>336</td>
</tr>
<tr>
<td>Map pages</td>
<td>341</td>
</tr>
<tr>
<td>Customizing instance appearance</td>
<td>355</td>
</tr>
<tr>
<td>Create a company profile</td>
<td>374</td>
</tr>
<tr>
<td>Comparing field values</td>
<td>379</td>
</tr>
<tr>
<td>Add help to a field label on a form</td>
<td>382</td>
</tr>
<tr>
<td>Mobile navigation and configuration</td>
<td>385</td>
</tr>
</tbody>
</table>
Now Platform User Interface

The user interface (UI) is the main way to interact with the applications and information in a ServiceNow instance.

Watch this five-minute video for more information about the Now Platform® user interface.

The following versions of the user interface are available. Each new version is intended to provide an updated look and usability improvements.

UI16

The UI16 interface provides an updated look and usability improvements. Notable features include real-time form updates, user presence, a redesigned application navigator with tabs for favorites and history, and enhanced activity streams. UI16 is the default user interface for new instances. For upgraded instances, an administrator must activate UI16.
Figure 1: UI16 user interface
Features introduced in the UI15 interface include redesigned icons, the ability to specify when related lists load with a form, other new options on the system menu, and form personalization.

Figure 2: UI15 user interface

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner frame</td>
<td>Runs across the top of every page and contains a logo, global navigation controls, and tools. See [System settings for the user interface (UI)](page 24) on page 24, [UI15 banner frame and Edge buttons](page 30).</td>
</tr>
<tr>
<td>Component</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Application navigator</td>
<td>Also called the left-navigation bar. Provides links to all applications and modules. See <em>UI16 application navigator</em> on page 15 or <em>UI15 application navigator</em> on page 29.</td>
</tr>
<tr>
<td>Content frame</td>
<td>Displays information such as lists, forms, homepages, and wizards.</td>
</tr>
<tr>
<td>The Edge</td>
<td>A toolbar on the left side of the UI15 interface that provides quick links to commonly used features. See <em>The Edge</em> on page 54.</td>
</tr>
<tr>
<td></td>
<td>In UI16, the Favorites tab of the application navigator, represented by a star, replaces the Edge. The collapsed view of the UI16 application navigator is similar to the Edge.</td>
</tr>
</tbody>
</table>

**UI16**

The UI16 interface provides an updated look and usability improvements.

Notable features include real-time form updates, user presence, a redesigned application navigator with tabs for favorites and history, and enhanced activity streams. UI16 is the default user interface for new instances. For upgraded instances, an administrator must activate UI16.
Figure 3: UI16 user interface
### Table 2: UI16 components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner frame</td>
<td>Runs across the top of every page and contains a logo and the following information, controls, and tools.</td>
</tr>
<tr>
<td></td>
<td>• User menu provides options to access your profile and preferences. Administrators can impersonate users and elevate their security role.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Connect sidebar icon</strong> ( ): Lets you begin or continue conversations. This icon is available if Connect is enabled.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Global text search</strong> icon ( ): Finds records from multiple tables.</td>
</tr>
<tr>
<td></td>
<td>• Help icon ( ): Opens the help panel with embedded help, where available. If there is no embedded help, it offers help search options.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Gear icon</strong> ( ): Opens the System settings for the user interface (UI) on page 24.</td>
</tr>
<tr>
<td>Application navigator</td>
<td>Also called the left-navigation bar. Provides links to all applications and modules. See Application navigator on page 42.</td>
</tr>
<tr>
<td>Content frame</td>
<td>Displays information such as lists, forms, homepages, and wizards.</td>
</tr>
<tr>
<td>The Edge</td>
<td>The Edge is removed in UI16. The collapsed view of the UI16 application navigator is similar to the Edge.</td>
</tr>
</tbody>
</table>

---

**Comparison of UI16 and UI15 styles**

Review the basic style differences between UI16 and UI15 styles in the ServiceNow platform.

**Banner frame comparison**

In UI16, the banner information and controls are in different places. The search box in the UI16 header opens when you select it. The help icon is available from the banner frame, instead of being accessed from the Settings menu. Because the UI16 banner is narrower, there is no control to collapse it.
Figure 4: Banner frame differences

For more information about the UI16 changes, see System settings for the user interface (UI) on page 24.
Application navigator

In UI16, modules that you select are not automatically marked as favorites as illustrated by the blue stars in the UI15 image. Any menu or module can be marked as a favorite, and it appears when you click the Favorites tab represented by the star. The other tab displays items you recently accessed.

For more information, see UI16 application navigator on page 15. The navigation filter works the same in both UI versions, by entering text in the navigation filter to show matching applications, modules, and favorites.

Another difference in the UI16 navigator menu is that you can no longer right-click an application menu name to edit the application menu. Navigate to System Definition Application Menus to add or modify modules.

The Edge

The Edge in UI15 is replaced in UI16 by the Favorites tab, represented by the star. Any item you could place on the Edge can be marked as a favorite. When you switch to UI16, all bookmarks on the edge are migrated to favorites and are listed on the Favorites tab. For more information, see Use the UI16 navigator on page 18. The List and Form View option is no longer available in UI16.
System settings

UI16 System Settings appear in a pop-up window with subtabs to make it easier to update your settings. The Split Layout setting available in UI15 was removed. For more information, see System settings for the user interface (UI) on page 24.

![System Settings](image)

Figure 5: UI16 system settings

Basic configuration and the company logo

The banner size and color scheme has changed significantly in UI16. Therefore, there is a set of system properties for UI16 to set up your logo and branding before you switch to UI16. For more information, see Configure logo, colors, and system defaults for UI16 on page 364.

The banner in which your logo appears is narrow, and your logo image is scaled based on the aspect ratio. A wider image scales better than a smaller one and is more readable, as in the following example. It is also recommended that you create a logo image with a transparent background.
Activate UI16

UI16 is the default user interface for new instances. For upgraded instances, you can activate the UI16 plugin (com.glide.ui.ui16) if you have the admin role.

Confirm that the instance upgrade completed successfully by visiting the upgrade monitor.

Role required: admin

1. Navigate to System Definition Plugins.
2. Find and click the plugin name.
3. On the System Plugin form, review the plugin details and then click the Activate/Upgrade related link.
   - If the plugin depends on other plugins, these plugins are listed along with their activation status.
   - If the plugin has optional features that depend on other plugins, those plugins are listed under Some files will not be loaded because these plugins are inactive. The optional features are not installed until the listed plugins are installed (before or after the installation of the current plugin).
4. If available, select the Load demo data check box.
   - Some plugins include demo data—Sample records that are designed to illustrate plugin features for common use cases. Loading demo data is a good practice when you first activate the plugin on a development or test instance.
   - You can also load demo data after the plugin is activated by clicking the Load Demo Data Only related link on the System Plugin form.
5. Click Activate.

Switch between UI16 and UI15

You can switch between the UI16 and UI15 user interface versions.

Role required: admin

After UI16 is activated, all users see the enhanced UI16 user interface. By default, administrators see a button at the top of the System Settings window that lets them switch between UI16 and UI15. The administrator can add a system property to configure other roles that see the button.

1. Click the gear icon in the banner frame to open the System Settings window.
2. Click Switch to UI15 or Switch to UI16.
   - The button that appears is based on which UI version you are using when you open System Settings.
   - The application refreshes with the selected UI. Your homepage appears in the content frame. You can access your favorites on the Edge (UI15) or in the Favorites tab of the application navigator (UI16).
Configure roles allowed to switch between UI16 and UI15

After you enable UI16, users with the admin role see a button in the System Settings window that allows them to switch between UI16 and UI15. You can add a system property to configure other roles that are allowed to switch UI versions.

Role required: admin

You may need to allow users who develop or configure applications to view the changes in both versions of the user interface. You list the roles in the new system property, and users with one of the roles see the switch button at the top of the System Settings window.

1. **Add a new system property** with the following field values:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui.ui15_switch_roles</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
</tr>
<tr>
<td>Value</td>
<td>Enter a comma-separated list of roles that are allowed to switch between UI16 and UI15. If you set the value to Public, all users are able to switch between the UI versions.</td>
</tr>
</tbody>
</table>

2. Click Submit.

   Test the new system property by impersonating a user with one of the roles and verifying that the switch button appears when the user opens the System Settings window.

**UI16 application navigator**

The UI16 application navigator appears at the left of the interface and provides access to all available applications and modules, favorites, and recently viewed items.

Use the application navigator to quickly find information and services.

The application navigator consists of a navigation filter and the following tabs.
<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All applications</td>
<td>Displays all application menus and modules. Each application appears as a section in the application navigator denoted by an application label. The tab lists modules by name under each application label.</td>
</tr>
</tbody>
</table>

![Figure 8: All applications tab](image-url)
<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorites</td>
<td>Displays items you have added as favorites. If you upgrade to UI16 from a previous interface, any <em>bookmarks</em> you created are automatically converted to favorites.</td>
</tr>
</tbody>
</table>

![Filter navigator](image)

Figures 9: Favorites tab
<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>Displays items you have recently accessed.</td>
</tr>
</tbody>
</table>

Enter text in the navigation filter to show matching applications, modules, and favorites. Matching favorites appear at the top of the results. You can also use the navigation filter to quickly access a specific table. For more information, see *Navigate directly to a table* on page 42.

## Use the UI16 navigator

Everyone can collapse and expand the navigator, work with favorites, and view navigation history in UI16. Complete any of the following tasks to work with the navigator in UI16.

### Collapse or expand information in the UI16 application navigator

You can collapse or expand information in the application navigator to display only what you want to see. Role required: none

Perform one of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collapse or expand an application or application section</td>
<td>Click the application or application section label.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Collapse or expand all applications</td>
<td>Double-click the all applications tab icon ( ).</td>
</tr>
<tr>
<td>Collapse or expand the application navigator</td>
<td>Click the arrow icon at the bottom of the application navigator. In the collapsed view, the application navigator displays favorites only. Click the filter icon or the arrow icon in the collapsed view to expand the application navigator.</td>
</tr>
</tbody>
</table>

**Figure 11: Collapsed navigator**

**Add or edit favorites in UI16**

You can add, edit, or delete favorites for frequently accessed items in the application navigator.

Role required: none

Items you add as favorites appear in the favorites tab of the application navigator, represented by a star icon.
Favorites also appear in the collapsed view of the application navigator as icons.

**Note:** Any bookmarks you created in a previous version of the UI are automatically converted to UI16 favorites. However, UI15 favorites are not converted to UI16 favorites and must be recreated manually.

1. Add a favorite in one of the following ways.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a module as a favorite</td>
<td>In the application navigator, click the star icon by a module.</td>
</tr>
<tr>
<td>Add all the modules under an application as favorites</td>
<td>In the application navigator, click the star icon by an application.</td>
</tr>
</tbody>
</table>
| Add a list as a favorite using the list context menu | 1. Open a list.  
   2. Click the list context menu icon ( ) by the list title.  
   3. Select Create Favorite.  
   4. In the flyout, edit the name and icon as needed. |
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Add a list as a favorite by dragging and dropping** | 1. Open a list.  
2. Drag a breadcrumb to the Favorites tab of the application navigator.                                                                 |
| **Add a record as a favorite using the form context menu** | 1. Open a record.  
2. Click the form context menu icon (/widget) by the form title.  
3. Select Create Favorite.  
4. In the flyout, edit the name and icon as needed. |
| **Add a record as a favorite by dragging and dropping** | 1. Open a record.  
2. Drag the record title to the Favorites tab of the application navigator.                                                                 |
| **Add a different type of link as a favorite**     | Drag a supported link type to the Favorites tab of the application navigator. You can drag any of the following links:  
• Breadcrumbs  
• Links in lists  
• Reports  

**Note:** You may not be able to create bookmarks with other types of links. |
| **Add a knowledge base article as a favorite**     | 1. Open a knowledge article.  
2. In the header at the top left, click the star icon.  
3. In the Create Favorite dialog box, edit the name and icon as needed.  
4. Click Done. |

You can add a different favorite for each view of a list or form.  
The favorite is added to the Favorites tab of the application navigator.  
2. To edit or delete a favorite, complete any of the following actions.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Reorder favorites in the list** | 1. At the bottom of the application navigator, click Edit Favorites.  
2. Drag a favorite to a new location in the list.  
3. Click Done or Edit Favorites. |
| **Customize the name or icon for a favorite** | 1. At the bottom of the application navigator, click Edit Favorites.  
2. Click a favorite.  
3. Customize the name and icon as needed.  
4. Click Done or Edit Favorites. |
| **Delete a favorite**       | 1. Point to the favorite.  
2. Click the remove favorite icon ( ). |

**View your navigation history**

In UI16, you can view your navigation history in the application navigator.

Role required: none

Items you have accessed recently appear in the history tab of the application navigator, which is represented by a clock icon. Items appear in chronological order from most to least recently accessed.
History entries are stored in the Navigator History [sys_ui_navigator_history] table. The system creates history entries for many types of content, including lists, records, and homepages. Some content types are not tracked in the history, such as UI pages and other non-standard interfaces.

1. In the application navigator, click the history tab, which is represented by a clock.
2. Click an item to open it.

Configure the number of history entries displayed in the application navigator

A system property sets the maximum number of history entries displayed in the history tab of the application navigator.

Role required: admin

By default, the application navigator shows 30 history entries. You can configure the glide.ui.nav.history_length property to change this value.

1. Navigate to sys_properties.list.
2. Locate the glide.ui.nav.history_length property.
3. Edit the property Value.
System settings for the user interface (UI)

You can define system settings to customize the UI for yourself. The gear icon, located within the banner frame, displays the system settings pop-up window.

The system settings are organized by tab. At the top, administrators (admin role) see the Switch to UI button if UI is activated.

Table 4: System settings

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General tab</td>
<td></td>
</tr>
<tr>
<td>Accessibility enabled</td>
<td>More advanced accessibility features are activated when this setting is enabled. The platform is designed to be accessible by default. Enabling this feature makes more accessibility features available.</td>
</tr>
<tr>
<td>Accessible tooltips on forms</td>
<td>Displays a help icon next to each field that has a hint. This user preference can only be enabled if Accessibility is also enabled.</td>
</tr>
<tr>
<td>Compact the user interface</td>
<td>The UI is optimized to display more information in the browser window when this setting is enabled.</td>
</tr>
<tr>
<td>Compact list date/time</td>
<td>Date and time values appear in a compact format when this setting is enabled. The year is not shown for date values within the current year, and seconds are not shown for time values. This setting is not available if the Date/Time selection is Time Ago.</td>
</tr>
<tr>
<td>Home</td>
<td>Determines whether the Home module opens Homepages or Dashboards. The user must have the pa_viewer role or the glide.cms.enable.responsive_grid_layout property must be set to true to see this setting.</td>
</tr>
<tr>
<td>Date/Time</td>
<td>The format in which dates and times appear depends on this setting. Select Calendar (for example, 2015-11-13, 15:58:58), Time Ago (for example, 11 minutes ago), or Both.</td>
</tr>
<tr>
<td>Language</td>
<td>Select a language or return to the default language ( ). This setting is available if a language plugin is activated.</td>
</tr>
<tr>
<td>Time zone</td>
<td>Select a time zone or return to the default time zone for the current session. Upon the next login, the time zone setting reverts to the system default, or user profile setting for time zone.</td>
</tr>
<tr>
<td>Control</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td>Specifies the currently selected domain for organizations that are using domain separation. The user must have the domain_admin or admin role to see this setting.</td>
</tr>
<tr>
<td><strong>Show domain picker in header</strong></td>
<td>Places a domain picker in the banner frame, next to the user menu, when this setting is enabled.</td>
</tr>
<tr>
<td><strong>Printer friendly version (🖨️)</strong></td>
<td>Opens a printer friendly version of the current content frame.</td>
</tr>
<tr>
<td><strong>Theme tab</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td>Select a theme for the user interface. Select the System theme to return to the default theme.</td>
</tr>
<tr>
<td><strong>Lists tab</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Wrap longer text in list columns</strong></td>
<td>Long strings wrap in list columns instead of appearing as one long line when this setting is enabled.</td>
</tr>
<tr>
<td><strong>Striped Table Rows</strong></td>
<td>List v3 rows alternate between contrasting shades of gray when this setting is enabled. This setting is available if List v3 is activated.</td>
</tr>
<tr>
<td><strong>Modern Cell Styles</strong></td>
<td>List field status indicators use modern cell styles when this setting is enabled. This setting is available if List v3 is activated, though it applies to v2 lists as well.</td>
</tr>
<tr>
<td><strong>Forms tab</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Tabbed forms</strong></td>
<td>Form sections and related lists appear in tabs when this setting is enabled.</td>
</tr>
<tr>
<td><strong>Related list loading</strong></td>
<td>Determines when related lists load on forms. This setting applies only when List v3 is disabled for related lists. For more information, seeConfigure when a related list loads on page 68.</td>
</tr>
<tr>
<td><strong>Notifications tab</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Search**                                   | Search bar for finding notifications.
To find a notification:
• Enter the name of the notification you are searching for. When you type the first three characters, the system automatically returns a list of notifications matching the characters entered.
• Enter two asterisks to return a list of all notifications in alphabetic order (the notifications are not organized by category). |
<p>| <strong>Allow notifications</strong>                      | Global switch for enabling or disabling all notifications.                  |</p>
<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
</table>
| Notification channels          | List of your channels for receiving notifications. Use this section to:  
  • Enable or disable a channel by using its toggle switch. If you disable a channel, notifications are not delivered through that channel.  
  • Add channels using the Create Channel option.  
  • Modify channel information. Click the channel row or the right arrow (>) next to the appropriate channel to edit or delete it. |
| Notifications by category      | List of notification categories that identify and group related notifications. Each category contains the notifications that you can subscribe to.  
  To view the notifications in a given category, click the category row or the right arrow (>) next to the appropriate category. You can:  
  • Edit settings for a notification:  
    • Enable or disable channels for the selected notification.  
    • Apply notification conditions, such as schedules and filters, that affect the delivery of the notification.  
  • Create personal notifications, which are subscriptions to specific notifications that matter to you. |
| Developer tab                  |                                                                                                                                                                                                             |
| Application                    | (Administrators only) Provides a link to the application picker, the Applications list ( ), and the currently selected application ( ).                                                                                     |
| Show application picker in header | Places an application picker in the banner frame, next to the user menu, when this setting is enabled.                                                                                                           |
| Update Set                     | (Administrators only) Provides a link to the update sets list, the update set picker, and the currently selected update set.                                                                                      |
| Show update set picker in header | Places the update set picker in the banner frame, next to the user menu, when this setting is enabled.                                                                                                         |
| JavaScript Log and Field Watcher | (Administrators only) Opens the client-side JavaScript Debug window.                                                                                                                                          |
Figure 13: System Settings window, General tab

UI15

The UI15 interface provides an updated look, usability improvements, and redesigned icons. UI15 is the default user interface for upgraded instances.
Table 5: UI15 components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner frame</td>
<td>Runs across the top of every page and contains a logo, global navigation controls, and tools. See <em>UI15 banner frame and Edge buttons</em> on page 30.</td>
</tr>
<tr>
<td>Application navigator</td>
<td>Also called the left-navigation bar. Provides links to all applications and modules. See <em>Application navigator</em> on page 42.</td>
</tr>
<tr>
<td>Content frame</td>
<td>Displays information such as lists, forms, homepages, and wizards.</td>
</tr>
</tbody>
</table>
### The Edge

A toolbar on the left side of the interface that provides quick links to commonly used features. See *The Edge* on page 54.

### UI15 application navigator

The application navigator appears at the left of the interface and provides access to all available applications and modules. You can collapse and expand all items, and switch perspectives to a specified role.

Each application appears as a section in the application navigator denoted by an application label. The application navigator lists modules by name under each application label. Use the application navigator to quickly find information and services.

**Figure 15: UI15 application navigator**

Enter text in the navigation filter to show matching applications and modules. You can also use the navigation filter to quickly access a specific table. For more information, see *Navigate directly to a table* on page 42.
In the UI15 application navigator, a star appears by each module. For more information, see *Use favorites in UI15* on page 30.

**Collapse or expand information in the UI15 application navigator**

You can collapse or expand information in the application navigator to display only what you want to see.

- To collapse or expand an application or application section, click the application or application section label.
- To collapse all applications, click the application menu icon and select Collapse All Applications.
- To expand all applications, click the application menu icon and select Expand All Applications.
- To collapse or expand the application navigator, in the edge, click Toggle Navigator.

**Switch perspectives in the UI15 application navigator**

You can switch role perspectives to show different views of the application navigator. A perspective filters the available applications by that role. For example, select ITIL to show only ITIL items such as Incidents, and filter out asset management items such as Asset Portfolio. This option is available only if you have access to more than one role perspective.

To switch perspectives, in the application navigator, click the menu icon (Application navigator menu icon). Select Roles, and then select a perspective.

**Use favorites in UI15**

In UI15, you can select modules as favorites to quickly filter out modules you do not use often.

Role required: none

Each module in the application navigator has a star icon to the left of the module name that can be selected (⭐️) or deselected (⭐️).

**Note:** If you upgrade to UI16, you must recreate any UI15 favorites manually.

1. Click the star icons to select and deselect modules as favorites.
2. Click the filter favorites icon (⭐️) next to the navigation filter to toggle between showing only the favorite modules and showing all modules.

By default, a module is automatically selected as a favorite when you open the module. To disable this setting, click the menu icon (🥞) in the application navigator header and select Automatically Add Favorites.

**UI15 banner frame and Edge buttons**

The banner frame runs across the top of every page. In UI15, buttons on the Edge provide shortcuts to work with bookmarks and the user interface.

The banner frame for UI15 contains a logo and the following information, controls, and tools.
Table 6: UI15 banner frame controls

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome message</td>
<td>Shows the name of the current user and provides a link to the user's profile.</td>
</tr>
<tr>
<td>Impersonation key icon</td>
<td>(Administrators only) Allows the administrator to switch user views without logging out; useful for testing security and role-specific setup functions.</td>
</tr>
<tr>
<td>Elevate privileges icon</td>
<td>(Elevated privilege roles only) Allows the user to elevate to a higher security role when needed and then return to their normal role.</td>
</tr>
<tr>
<td>Global text search icon</td>
<td>Global text search finds records from multiple tables.</td>
</tr>
<tr>
<td>Collapse/Expand banner icon</td>
<td>Alters the amount of space the banner frame occupies.</td>
</tr>
<tr>
<td>Logout</td>
<td>Returns to the Welcome page for subsequent login.</td>
</tr>
<tr>
<td>Gear icon</td>
<td>Displays the system menu with additional settings and controls.</td>
</tr>
</tbody>
</table>

The gear icon, located within the banner frame, displays the system menu.

Table 7: System menu controls

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>What's new</td>
<td>Opens a slideshow of UI15 highlights.</td>
</tr>
<tr>
<td>Help icon</td>
<td>Opens the ServiceNow Wiki in another window or tab.</td>
</tr>
<tr>
<td>Home icon</td>
<td>Provides links to available dashboards.</td>
</tr>
<tr>
<td>Wrap Longer Text in List Columns</td>
<td>Long strings wrap in list columns instead of appearing as one long line when this setting is enabled.</td>
</tr>
<tr>
<td>Compact View</td>
<td>The UI is optimized to display more information in the browser window when this setting is enabled.</td>
</tr>
<tr>
<td>Accessibility Enabled</td>
<td>Section 508 accessibility features are activated when this setting is enabled.</td>
</tr>
<tr>
<td>Tabbed forms</td>
<td>Form sections and related lists appear in tabs when this setting is enabled. This setting previously appeared as an icon in the form header.</td>
</tr>
<tr>
<td>Control</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Alt/#+Click Opens List Links in Form Pane</td>
<td>Pressing Alt (PC) or Command (Mac) and clicking the record name in a list, opens the record in a new form pane tab when this setting is enabled.</td>
</tr>
<tr>
<td>Date/Time</td>
<td>The format in which dates and times appear depends on this setting. Select Calendar (for example, 2014-11-13, 15:58:58), Time Ago (for example, 11 minutes ago), or Both.</td>
</tr>
<tr>
<td>Compact list date/time</td>
<td>Date and time values appear in a compact format when this setting is enabled. The year is not shown for date values within the current year, and seconds are not shown for time values. This setting is not available if the Date/Time selection is Time Ago.</td>
</tr>
<tr>
<td>Split Layout</td>
<td>Splits the content frame into two panes, either Vertical or Horizontal. In a vertical split, the list pane is on the left and the form pane is on the right. In a horizontal split, the list pane is on the top and the form pane is on the bottom. Select None to disable the split layout.</td>
</tr>
<tr>
<td>Related List Loading</td>
<td>Determines when related lists load on forms. For more information, see Configure when a related list loads on page 68.</td>
</tr>
<tr>
<td>Application</td>
<td>(Administrators only) Provides a link to the Applications list ( ), the application picker, and the currently selected application ( ).</td>
</tr>
<tr>
<td>Update Set</td>
<td>(Administrators only) Provides a link to the update sets list, the update set picker, and the currently selected update set.</td>
</tr>
<tr>
<td>Language</td>
<td>Select a language or return to the default language ( ). This option is available if a language plugin is activated.</td>
</tr>
<tr>
<td>Time zone</td>
<td>Select a time zone or return to the default time zone ( ).</td>
</tr>
<tr>
<td>Theme</td>
<td>Select a theme for the user interface or return to the system theme ( ).</td>
</tr>
<tr>
<td>Domain</td>
<td>Specifies the currently selected domain for organizations that are using domain separation. The user must have the domain_admin role for this setting to appear.</td>
</tr>
<tr>
<td>Control</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>Printer friendly version (_print icon)</td>
<td>Opens a printer friendly version of the current content frame.</td>
</tr>
<tr>
<td>JavaScript Log and Field Watcher (_debug icon)</td>
<td>(Administrators only) Opens the client-side JavaScript Debug window. This icon is commonly called the debug icon.</td>
</tr>
</tbody>
</table>
Figure 16: System menu
Table 8: UI15 Edge buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toggle navigator</td>
<td>Shows or hides the application navigator.</td>
</tr>
<tr>
<td>List and form view</td>
<td>Splits the content frame into two vertical panes, with the list pane on the left and the form pane on the right. To split the pane horizontally, click the gear icon in the banner frame and then click Split Layout Horizontal.</td>
</tr>
<tr>
<td>Tagged documents</td>
<td>Displays the Tagged Documents page.</td>
</tr>
<tr>
<td>All bookmarks</td>
<td>Provides a list of all bookmarks in the Edge. Users can create, customize, and delete bookmarks. For more information, see Bookmarks on page 54.</td>
</tr>
<tr>
<td>Bookmark and pane-based UI help</td>
<td>Displays the Edge help window.</td>
</tr>
</tbody>
</table>

Define a menu category in UI15

Menu categories allow administrators to change the appearance of application menu labels. Use menu categories to make certain application menus stand out.

Role required: admin

1.  *Add a property* with the following specifications.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui14.navigator.use_border_color</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Type</td>
<td>true</td>
</tr>
<tr>
<td>Value</td>
<td>true</td>
</tr>
</tbody>
</table>

2. Navigate to System Definition Menu Categories.
3. Click New or open an existing menu category.
4. In the Style field, define the border-color using an HTML color name, hexadecimal (hex) value, or RGB color value. For example, enter border-color: blue.
5. Enter a Default order.

If you create an application without specifying an order, the default order of the category is used to determine the relative position in the application navigator.

**Note:** You may need to clear the instance cache and refresh the page after saving the menu category to see CSS changes.

**Keyboard shortcuts**

You can use keyboard shortcuts to quickly perform common actions in the user interface.

*Access keys* depend on the browser and operating system you are using. Available keyboard shortcuts are based on the UI version.

**Table 9: UI16 keyboard shortcuts**

<table>
<thead>
<tr>
<th>Action</th>
<th>Windows keyboard shortcut</th>
<th>Mac keyboard shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate global search field</td>
<td>Access key + Ctrl + G</td>
<td>Access key + G</td>
</tr>
<tr>
<td>Toggle application navigator</td>
<td>Access key + Ctrl + C</td>
<td>Access key + C</td>
</tr>
<tr>
<td>Activate navigation filter field</td>
<td>Access key + Ctrl + F</td>
<td>Access key + F</td>
</tr>
<tr>
<td>Impersonate user</td>
<td>Access key + Ctrl + I</td>
<td>Access key + I</td>
</tr>
</tbody>
</table>

**Table 10: UI15 keyboard shortcuts**

<table>
<thead>
<tr>
<th>Action</th>
<th>Keyboard shortcut</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate global search field</td>
<td>Access key + S</td>
<td></td>
</tr>
<tr>
<td>Toggle banner frame</td>
<td>Access key + B</td>
<td>Ensure that the page focus is on the content frame</td>
</tr>
<tr>
<td>Toggle application navigator</td>
<td>Access key + N</td>
<td></td>
</tr>
<tr>
<td>Activate navigation filter field</td>
<td>Access key + F</td>
<td></td>
</tr>
<tr>
<td>Toggle list and form view</td>
<td>Access key + V</td>
<td></td>
</tr>
<tr>
<td>Toggle horizontal split</td>
<td>Access key + H</td>
<td></td>
</tr>
<tr>
<td>Maximize the current pane</td>
<td>Access key + M</td>
<td></td>
</tr>
<tr>
<td>Send email</td>
<td>Access key + S</td>
<td></td>
</tr>
</tbody>
</table>
### Generally supported browsers

Browser support varies for each version of the user interface (UI). Most major browsers are supported. Some features have additional browser requirements, which are noted in the appropriate documentation.

**Note:** UI11 is no longer supported. All instances have been upgraded to UI15 or UI16.

#### Table 11: Browser support for each UI version

<table>
<thead>
<tr>
<th>UI version</th>
<th>Chrome support</th>
<th>Firefox support</th>
<th>Internet Explorer support</th>
<th>Microsoft Edge support</th>
<th>Safari support</th>
<th>Tablet mobile browser</th>
<th>Phone mobile browser*</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI16</td>
<td>Latest public release</td>
<td>Latest public release of Firefox or Firefox ESR</td>
<td>11 and up • Edge mode is supported</td>
<td>Latest public release</td>
<td>9.1 and up</td>
<td>Supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>UI15</td>
<td>Latest public release</td>
<td>Latest public release of Firefox or Firefox ESR</td>
<td>11 and up • Edge mode is supported</td>
<td>Latest public release</td>
<td>9.1 and up</td>
<td>Supported</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

*Mobile phone browsers do not support the desktop version of the UI. Instead, mobile browsers use the **mobile UI**.

#### Internet Explorer web browser notes

**Important:** Due to significant performance issues, ServiceNow recommends that customers utilize a modern browser for its products and migrate away from Internet Explorer 11. For more information, refer to [KB0683275](https://www.service-now.com).

- Internet Explorer 11 is susceptible to memory leaks, which may impact performance, especially in Windows 7.
- In Jakarta and later, Internet Explorer versions prior to IE11 are no longer supported.
- Compatibility mode is not supported.
- Setting Security Mode to High (via Internet Options Security tab) is not supported.
Safari web browser notes

- There is a security issue in some versions of Safari. User credentials may be disclosed to an unexpected site via auto-fill. For more information, see the [Apple security update](#).
- Starting with Safari 9.1 and future versions of Safari, the leave page / stay on page pop-up message only displays once.

Exceptions to browser support

For information on product-specific browser requirements, refer to the Browser requirements for all London features and products.

Navigate to a record or module using a URL

The basic schema for a system URL is: https://<base URL>/nav_to.do?uri=<page name>.do?sys_id=<sys_id>&<page parameters>. The URL schema consists of the following elements.

Role required: admin

**Note:** The sysparm_query page parameter behaves differently for a list versus a form.
- List: Returns records that match the query conditions.
- Form (with sys_id=1 specified): Applies the values to the new record.

1. To access the unique, secure web address for each instance, enter the default format: https://<instancename>.service-now.com.

**Note:** To display a custom base URL in email notifications, set the glide.email.override.url property. For more information, see Additional email properties.

2. For other URL displays, enter one of the following schemas:

<table>
<thead>
<tr>
<th>Action</th>
<th>Schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display the page in the standard interface, with the banner frame on top and the application navigator on the left</td>
<td>nav_to.do?uri=</td>
</tr>
<tr>
<td>To open a form, list, UI page, or other page</td>
<td>&lt;page name&gt;.do?</td>
</tr>
<tr>
<td>To view a list</td>
<td>&lt;table name&gt;_list.do</td>
</tr>
<tr>
<td>To open a record in form view</td>
<td>&lt;sys_id&gt;</td>
</tr>
<tr>
<td>To create a new record</td>
<td>sys_id is -1.</td>
</tr>
<tr>
<td>Action</td>
<td>Schema</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>To specify a query, view, redirection page, and more.</td>
<td>&lt;page parameters&gt;</td>
</tr>
</tbody>
</table>

Parameters include the following examples:

- `sysparm_view=ess`: Specifies a view (ess).
- `sysparm_query=number=INC00040`: Specifies a query (number is INC00040).
- `sysparm_query=priority=2^active=true`: Specifies a complex query with two terms (priority is 2 and active is true).
- `sysparm_query=priority=2^active=true^EQ^GROUPBYcategory`: Groups query results (by category).
- `sysparm_order=number`: Specifies the field by which to sort (number).
- `sysparm_order_direction=desc`: Specifies a sort order (descending).
- `sysparm_force_row_count=5`: Limits the maximum number of results (5 records).
- `sysparm_result_view=viewname`: Specifies the view for search results.

| To specify a file format. (CSV, XML, PDF, or UNL (Unload)) | %26CSV |
| To separate page parameters | & |
| To build multiple term queries or specify multiple field values | ^ (carat) |

**Enable tiny URL support**

The default URLs by which the system renders pages may exceed the character limit of Microsoft Internet Explorer, resulting in an error message. To prevent this error, you can enable tiny URL support, which generates shortened internal URLs.

Role required: admin

The Tiny URL Support plugin is activated automatically but is not enabled. Activate this plugin if Microsoft Internet Explorer displays failure to open page errors during routine operations in the Now Platform.

**Note:** The system does not convert all URLs to tiny URLs. Only some URLs the system generates as redirects are converted. For example, a URL the browser generates when a user opens a record is not converted to a tiny URL.

1. Navigate to System Properties System.
2. Select the Use tiny URLs when a redirect URL becomes too large. This ensures that URLs that are too long for IE (greater than 2083) are not used. Instead, they are converted to a tiny URL to work around the IE issue. (glide.use_tiny_urls property).
3. Update the value in the Minimum length of a redirect URL that is turned into a tiny URL (default=1024) (glide.tiny_url_min_length property), if desired.
Examples of navigating by URL

A list of example URLs that demonstrate ways to open pages in the ServiceNow application.

**Open a form with preset values**

Schema: https://<baseURL>/nav_to.do?url=<table name>.do?sys_id=-1%26sysparm_query=<field=value>

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens a new Incident form in the standard interface with a priority of 1 and an incident state of Awaiting Problem.</td>
<td>https://&lt;instance name&gt;.service-now.com/nav_to.do?uri=incident.do?sys_id=-1%26sysparm_query=priority=1^incident_state=3</td>
</tr>
<tr>
<td>You can also use JavaScript to access GlideSystem methods. The following example creates the same type of incident as above, and also populates the caller ID with the current user ID.</td>
<td>https://&lt;instance name&gt;.service-now.com/nav_to.do?uri=incident.do?sys_id=-1%26sysparm_query=priority=1^incident_state=3^caller_id=javascript:gs.getUserID()</td>
</tr>
</tbody>
</table>

**Open an existing record with preset values**


<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens the incident record with the sys_id 966c9a414f5593001f6eac118110c75c</td>
<td>https://&lt;instance name&gt;.service-now.com/incident.do?sys_id=966c9a414f5593001f6eac118110c75c</td>
</tr>
<tr>
<td>Opens the incident record with the number INC0010001</td>
<td><a href="https://demonightlyus.service-now.com/incident.do?sysparm_query=number=INC0010001">https://demonightlyus.service-now.com/incident.do?sysparm_query=number=INC0010001</a></td>
</tr>
</tbody>
</table>

**View a list of incidents**

Schemas for the following examples:
- https://<baseURL>/nav_to.do?url=<table name>_list.do
- https://<baseURL>/<table name>_list.do

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens a list of all incidents with (example 1) the navigation frame.</td>
<td>https://&lt;instance name&gt;.service-now.com/nav_to.do?url=incident_list.do</td>
</tr>
<tr>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Opens a list of all incidents without the navigation frame.</td>
<td>https://&lt;instance name&gt;.service-now.com/incident_list.do</td>
</tr>
</tbody>
</table>

**View a list of attachments**

Schema: https://<baseURL>/nav_to.do?uri=<table name>_list.do

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens the Attachments table in list view.</td>
<td>https://&lt;instance name&gt;.service-now.com/sys_attachment_list.do</td>
</tr>
</tbody>
</table>

**View a filtered list**

Schema: https://<baseURL>/nav_to.do?uri=<table name>_list.do?sysparm_query=<field=value>

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returns a list of active incidents with high escalation in the standard interface.</td>
<td>https://&lt;instance name&gt;.service-now.com/nav_to.do?uri=incident_list.do?sysparm_query=active=true^escalation=2</td>
</tr>
</tbody>
</table>

**Return a file**

Schema: https://<baseURL>/nav_to.do?uri=<table name>_list.do?sysparm_<sysparmTypeOrField=value>%26CSV

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returns a comma-separated value file of records in the Incident table that meet the query conditions.</td>
<td>https://&lt;instance name&gt;.service-now.com/nav_to.do?uri=incident_list.do?sysparm_query=active=false%26CSV</td>
</tr>
</tbody>
</table>

**Common UI elements**

This page lists common UI elements for the standard user interface.

**Log in to an instance**

Each ServiceNow instance has a unique, secure web address. The base URL for each instance has the default format: https://<instancename>.service-now.com.

Role required: none

Users log in to the instance from a web browser. Administrators can associate a custom URL, such as support.myurl.com, that resolves to point to instancename.service-now.com.
Note: ServiceNow does not support any other methodologies to associate a custom or vanity URL. If you have a custom or vanity URL associated with an instance prior to the London release, contact Support.

1. Enter the base URL in any web browser.
   - If your system uses external authentication, you are automatically logged in. For example, you may log in to company services when you log in to your computer.
   - If your system does not use external authentication, the Welcome page appears.

2. Enter your user name and password.

3. Select the Remember Me check box to remain logged in until you manually log out.
   The administrator can enable or disable this option. For more information, see Change settings for the Remember me check box and cookie.

4. Press the Enter key or click Login.

Application navigator

The application navigator, or left navigation bar, provides access to all applications and the modules they contain, enabling users to quickly find information and services.

An application is a group of modules, or pages, that provide related information and functionality in an instance. For example, the Incident application contains modules for creating and viewing incidents. The Configuration Management application contains modules for configuring servers, databases, and networks.

In UI16, the application navigator also provides access to favorites and recently viewed items.

Administrators can customize the application navigator to provide different modules by user role, modify or define applications and modules, and change its appearance.

The following video provides more information on the application navigator:

Navigate directly to a table

You can use commands in the navigation filter to navigate directly to the list, form, or configuration view of a table.

Role required: none

Commands work only for tables you are permitted to access.

Note: The table name must match the name in the dictionary entry for the table.

1. In the navigation filter of the application navigator, enter one of the following commands.

<table>
<thead>
<tr>
<th>Command</th>
<th>Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;table name&gt;.list</td>
<td>Opens the list view of the table in the same window or tab.</td>
</tr>
<tr>
<td>&lt;table name&gt;.LIST</td>
<td>Opens the list view of the table in a new window or tab.</td>
</tr>
<tr>
<td>&lt;table name&gt;.form or &lt;table name&gt;.do</td>
<td>Opens the form view of the table in the same window or tab.</td>
</tr>
</tbody>
</table>
Create or modify a menu list

In UI15, it is possible to switch menu lists, providing different perspectives of the applications and modules. You can create or edit these menu lists using the Menu List table.

Role required: admin

Menu lists are not used in UI16.

1. Navigate to System UI Menu Lists.
2. Select a menu list to modify, or click New to create a new menu list.
   - The applications that appear on the form are listed in the Applications field, one per line. Applications use the name of the application record, not the human-readable record that appears in the left navigation bar.
   - The roles that are able to see the form are listed in the Roles field.
     - Specifying no roles creates a global menu list.
     - A menu list displays only the applications and modules the role has permissions to see.
     - If a role is specified to see a menu list, but role cannot view any of the applications within it, they do not see the menu list.
3. Adjust the information in the menu list as desired.
4. Click Update.

Enable or disable an application menu or module

You can enable (show) or disable (hide) an application menu or module in the application navigator.

Role required: admin

1. Navigate to System Definition Application Menus.
2. If you are enabling an application menu, click All in the breadcrumbs to display both active and inactive application menus (remove the default filter condition).
3. Click the desired title. The application menu record opens and the Modules related list shows the modules that appear in the application navigator.
4. Enable or disable the application menu and modules as desired.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| Enable or disable a specific module in the application | 1. Double-click the Active field beside the module name in the Modules related list.  
2. Set Active to true (show) or false (hide). |
| Enable or disable multiple modules at the same time | 1. Select the check boxes next to the module names.  
2. Select Change active state from the Actions choice list. |
| Enable or disable the entire application menu (for example, Incident or Service Catalog) | Select or clear the Active check box.                                                                                                          |
| Restrict the application menu to specific roles | Use the Roles field.                                                                                                                      |

5. Click Update.  
When you change application menus or modules, the application navigator automatically refreshes to display the changes.

Add an application menu to a category

There are two methods for adding an application menu to a category.  
Role required: admin

**Note:** Menu categories are deprecated in UI16. The following procedure has no effect in UI16.

Use one of the following methods to add an application menu to a menu category.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| In the menu category record, add the application menu to the Application Menus related list. | 1. Navigate to System Definition Menu Categories.  
2. Open a menu category.  
3. In the Application Menus related list, click Edit.  
4. Use the slushbucket to add the application menu to the category.  
5. Click Save. |
| In the application menu record, enter the menu category in the Category field. | 1. Navigate to System Definition Application Menus.  
2. Open an application menu.  
3. In the Category field, select the menu category.  
4. Click Submit. |
Create an application menu

Application menus define the main content that users can access in the application navigator. You can configure which applications appear in the application navigator.

Role required: admin

1. Navigate to System Definition Application Menus.
2. Click New.
3. Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Defines the display name of the application menu.</td>
</tr>
<tr>
<td>Roles</td>
<td>Restricts access to the specified roles. All users can view the application menu when it is active.</td>
</tr>
<tr>
<td>Category</td>
<td>Specifies the menu category that defines the navigation menu style (default value is Custom Applications).</td>
</tr>
<tr>
<td>Hint</td>
<td>Defines the text that appears in a tooltip when a user points to this application menu.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to activate the application menu. Only active application menus appear in the application navigator.</td>
</tr>
<tr>
<td>Description</td>
<td>Provide a more detailed explanation of what this application does.</td>
</tr>
<tr>
<td>Other fields</td>
<td></td>
</tr>
<tr>
<td>Order</td>
<td>Defines the relative position of the application menu in the application navigator. If you do not specify an order, the default order of the menu category is used.</td>
</tr>
<tr>
<td>Default device type</td>
<td>This field is not used. You can define application menus for mobile devices in a separate table. See Define a new smartphone application menu.</td>
</tr>
</tbody>
</table>

Note: You may need to configure the form to see all fields.

4. Click Submit.
5. Create modules to appear in the application menu.
   Only application menus that contain modules appear in the application navigator.

Create a module

Modules are the children, or the second tier navigation options to the applications in the application navigator. Modules often link to other pages or records in the platform. You can configure which modules appear in the application navigator using Application Menus module.
Role required: admin

1. Open the application menu record using one of the following methods.
   - Navigate to System Definition Application Menus and select the application menu from the list.
   - In UI16, point to the application menu and click the edit application (pencil) icon.
   - In UI15, right-click the application label in the application navigator and select Edit Application.
Figure 18: Two methods for creating a module
2. Scroll down to the Modules related list and click New.
3. Define the module by completing the fields on the form.

### Table 13: Module form

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Defines the module name. Choose a title that clearly identifies the module.</td>
</tr>
<tr>
<td>Application menu</td>
<td>Specifies the name of the application menu under which the module appears.</td>
</tr>
<tr>
<td>Hint</td>
<td>Defines the tool tip that appears when a user points to the module name.</td>
</tr>
</tbody>
</table>

**Note:** Module Hints are deprecated in UI16

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order</td>
<td>The order in which the module displays in relation to other modules.</td>
</tr>
<tr>
<td>Visibility</td>
<td></td>
</tr>
<tr>
<td>Roles</td>
<td>Restricts module access to the specified roles. If this field is left blank, the module is visible to all users who have access to the application menu.</td>
</tr>
<tr>
<td>Active</td>
<td>Defines whether the module appears in the application navigator.</td>
</tr>
<tr>
<td>Override application menu roles</td>
<td>Allows users to access this module even if they do not have permission to view the containing application menu. Users must still meet the role requirements for this module.</td>
</tr>
</tbody>
</table>

### Link Type

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link type</td>
<td>Specifies what type of link this module opens. You must specify additional information based on the link type. See Module link types.</td>
</tr>
<tr>
<td>Table</td>
<td>Specifies the table used by the module.</td>
</tr>
</tbody>
</table>

**Note:** The list shows only tables and database views that are in the same scope as the module.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order</td>
<td>Specifies the order in which the modules appear under the application.</td>
</tr>
</tbody>
</table>

### Module link types

The Link type field on the Module form specifies what type of link the module opens.
### Table 14: Module link types

<table>
<thead>
<tr>
<th>Link Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Links to the assessment-based survey you select in the Assessment reference field. See <a href="#">Create a survey module</a>.</td>
</tr>
<tr>
<td>Content Page</td>
<td>Displays the content page you select in the Content page reference field. See <a href="#">Create a content page</a>.</td>
</tr>
<tr>
<td>Documentation Link</td>
<td>Links to a documentation page and opens in a new tab or window. This link type is used with embedded metadata in documentation topics. To open an internal document from a module, use the URL (from Arguments) module link type.</td>
</tr>
<tr>
<td>Homepage</td>
<td>Displays the homepage you select in the Homepage reference field.</td>
</tr>
<tr>
<td>HTML (from Arguments)</td>
<td>Places HTML in the application navigator. This link type is used for more complicated links, where a flat URL is not customizable enough. Note:</td>
</tr>
<tr>
<td></td>
<td>• The HTML (from Arguments) link type is supported in UI15 and UI11 only. In UI16, use the URL (from Arguments) link type instead.</td>
</tr>
<tr>
<td></td>
<td>• Enter a value for the Arguments field.</td>
</tr>
<tr>
<td>List Filter</td>
<td>Displays an unpopulated list view for the table you select in the Table field. Allows users to specify a filter without loading the list first. Use the Filter field to define the default filter for the list. Use the View name field to specify a view.</td>
</tr>
<tr>
<td>List of Records</td>
<td>Displays the list view for the table you select in the Table field. Use the Filter field to define the default filter for the list. Use the View name field to specify a view.</td>
</tr>
<tr>
<td>Map Page</td>
<td>Displays the map page you select in the Map page reference field.</td>
</tr>
<tr>
<td>New Record</td>
<td>Displays a form for creating a record in the table you select in the Table field.</td>
</tr>
<tr>
<td></td>
<td>• Use the View name field to specify a view.</td>
</tr>
<tr>
<td></td>
<td>• Use the Arguments field to apply a template. See <a href="#">Create a module for a template</a>.</td>
</tr>
<tr>
<td>Run a Report</td>
<td>Runs the saved report you select in the Report field.</td>
</tr>
<tr>
<td>Link Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Script (from Arguments)</td>
<td>Runs a script, as defined in the Arguments field.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enter a value for the Arguments field.</td>
</tr>
<tr>
<td>Search Screen</td>
<td>Link that displays a blank form for searching records in the table. Use the View name field to specify a view.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Use the parameter &amp;sysparm_result_view=view_name to define the view the results are rendered in.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> All searches use a [starts with] query to search for matching text. Other query types are not supported in search screens.</td>
</tr>
<tr>
<td>Separator</td>
<td>Creates a division between modules. Enter a name in the Title field to add a section name that users can collapse or expand.</td>
</tr>
<tr>
<td>Single Record</td>
<td>Displays a form for a single record on the table. Use the View name field to specify a view.</td>
</tr>
<tr>
<td>Survey</td>
<td>Links to the legacy survey you select in the Survey reference field. Use the Survey overwrite check box to determine whether the survey can be taken multiple times.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The Survey link type is for use with legacy surveys only, which assessment-based surveys replace. Select the Assessment link type to link the module to an assessment-based survey.</td>
</tr>
<tr>
<td>Timeline Page</td>
<td>Displays the timeline page you select in the Timeline Page reference field. See Timeline pages.</td>
</tr>
<tr>
<td>Link Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>URL (from Arguments)</td>
<td>Opens any URL, as defined in the Arguments field.</td>
</tr>
<tr>
<td></td>
<td>[Optional] Use the Window name field to define a link that opens in a new window.</td>
</tr>
</tbody>
</table>

**Note:**
- For internal links, always use a relative link such as ./catalog_home.do?sysparm_view=catalog_default or catalog_home.do?sysparm_view=catalog_default. Do not use an absolute link to a ServiceNow instance. It creates problems when you move an update set from a development instance to a production instance because the URL still references the development instance.
- Enter a value for the Arguments field.

**Additional queries and examples**
The administrator can append queries to the List of Records module link type value. The URL (from Arguments) link type can be used to provide a custom filter or open the page in a new window.

**Appending queries to list view modules**
For List of Records module link types, you can append additional queries to the module to further define the filter for the returned list. For example, to filter active incidents that are assigned to the currently logged in user, use the following argument query:

```javascript
active=true^assigned_to=javascript:gs.user_id()
```

**Example URL module that opens in a new window**
You can configure a module to open an external URL in a new browser window.

Role required: admin

1. Open the application menu record using one of the following methods.
   - Navigate to System Definition Application Menus and select the application menu from the list.
   - Point to the application menu and click the edit application (pencil) icon. This action is possible in Istanbul UI16 only.
   - Right-click the application label in the application navigator and select Edit Application. This action is possible in UI15 only.

2. Scroll down to the Modules related list and click New.
3. If the Window name field is not displayed, configure the form and add this field.
4. Select URL (from Arguments) from the Link type list.
5. Add the complete web address to the Arguments field.
6. Select an icon for the module in the Image field.
7. Enter _blank in the Window name field. If this field is empty, the page opens in the content frame, which is the default behavior.

Example URL module that opens a list with a custom filter URL
To create a module that opens a list with a custom filter, sort order, and grouping, use a link type of URL (from Arguments) and create a link to a custom URL.

Role required: admin

Use the following shortcut to determine the arguments for your custom URL.

1. Navigate to the list by URL, without loading it in the standard interface.
   For example, navigate to the Incident list by entering `<base URL>/incident_list.do`.
2. Apply the desired filter, sort order, and grouping.
3. Copy the resulting URL from the browser address bar.
   For example, if you apply a filter of active=true with an ascending sort on priority, a descending sort on opened_on, and grouped by assignment_group, the address bar reads: `incident_list.do?sysparm_query=active=true^EQ^ORDERBYpriority^ORDERBYDESCopened_at^GROUPBYassignment_group`

   **Note:** Do not copy the base URL (the `http://instance_name.service-now.com/` portion). Always use a relative link to prevent problems when you move an update set from a development instance to a production instance.

4. Define a module with a Link type of URL (from Arguments).
5. Paste the custom URL from **step 3** into the Arguments field.
6. Click Submit.
   The module now opens the custom list in the content frame.

Creating a change password module
To allow users to change their own password, you can create a simple module in Self-Service.

Prerequisites

Role required: admin
Create a module in the Self-Service application called Change Password, give it a Type of URL, and give it an Argument of login_cpw.do. The module presents the user with a password change form and has them validate the new password by typing it twice.

**Figure 19: Change password module**
The Edge

The Edge is a toolbar on the left side of the screen which provides quick access to features such as bookmarks and flyout windows.

The Edge is available in UI15. The collapsed view of the UI16 application navigator is similar to the Edge.

Bookmarks

A bookmark is a link to information in the ServiceNow system, such as a record or a module, that is stored on the Edge.

All users create and manage their own bookmarks.

Bookmarks are available in UI15. Favorites replace bookmarks in UI16. For more information, see Use the UI16 navigator on page 18.

Create a bookmark

You can create bookmarks by dragging links to the Edge.

Role required: none

You can create a bookmark from any of the following links:

---

Figure 20: Changing Your Password
• Modules in the application navigator
• Breadcrumbs
• Links in lists (including lists displayed in flyouts)
• Reports

---

**Note:** You may not be able to create bookmarks with other types of links. To request this functionality for another type of link, you can log an enhancement request with the ServiceNow customer support system.

Drag a link to the Edge.
The bookmark for the link appears on the Edge. Each bookmark includes an image and a title, both of which can be customized.

### Customize a bookmark

You can customize bookmark appearance and behavior.

**Role required:** none

1. Open the bookmark settings window from any of the following locations in the interface.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Bookmark tooltip** | 1. Point to the bookmark in the Edge.  
2. In the tooltip window, click Edit Bookmark.         |
| **Bookmarks list**  | 1. Point to the all bookmarks icon in the Edge (All Bookmarks).             |
|                  | 2. Point to a bookmark in the list.                                         |
|                  | 3. Click the edit bookmark icon ( ) by the bookmark name.                   |
| **Bookmark flyout** | 1. Open a flyout bookmark.                                                  |
|                  | 2. Click the edit bookmark icon in the corner of the flyout.                |

2. Enter a Title.

3. To open the bookmark link in a flyout window, select the Flyout check box and clear the Open in form pane check box.

By default, the bookmark opens in the content pane. Selecting Flyout opens a window on top of the current screen without navigating away from your working panes.

**Note:** Do not add homepages that are set to refresh automatically as flyout bookmarks. These homepages refresh in the background, which can slow down performance for you and other users.

4. Select the Show on edge check box to display the bookmark as a button on the Edge. Clear the check box to remove the button from the Edge. The bookmark still appears in the bookmark list.

5. To change the bookmark image, click Image and then select from the list of available images.
6. Click Update.

Open a bookmark

When you open a bookmark, it appears in the content pane or as a flyout.

Role required: none

Open a bookmark in one of the following ways.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open the bookmark as defined in the bookmark settings</td>
<td>Click the bookmark.</td>
</tr>
<tr>
<td>Open the bookmark in a flyout</td>
<td>Hold Ctrl (Windows) or Command (Mac) and click the bookmark.</td>
</tr>
<tr>
<td>Open the bookmark in the content pane</td>
<td>Hold Shift and click the bookmark.</td>
</tr>
</tbody>
</table>

Delete a bookmark

You can delete a bookmark.

Role required: none

When you delete a bookmark, it is removed from the Edge.

Delete the bookmark from either of the following locations in the interface.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| Bookmark tooltip | 1. Point to the bookmark in the Edge.  
|               | 2. In the tooltip window, click Edit Bookmark.  
|               | 3. In the edit bookmark window, click Delete.                               |
| Bookmarks list | 1. Point to the all bookmarks icon in the Edge (All Bookmarks).  
|               | 2. Point to a bookmark in the list.                                      |
|               | 3. Click the remove bookmark icon (trash can) by the bookmark name.       |

Forms

A form displays information from one record in a data table.

The specific information depends on the type of record displayed. Users can view and edit records in forms. Administrators can configure what appears on forms.
Table 15: Form elements

<table>
<thead>
<tr>
<th>Form element</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form header</td>
<td>Provides navigation tools and actions related to the record.</td>
</tr>
<tr>
<td>Fields</td>
<td>Stores specific data about the record.</td>
</tr>
<tr>
<td>Sections</td>
<td>Groups related information on the form. To enable or disable form tabs,</td>
</tr>
<tr>
<td></td>
<td>click the gear icon in the banner frame and toggle the Tabbed forms option.</td>
</tr>
<tr>
<td></td>
<td>Users can use icons to collapse or expand form sections when tabbed forms are disabled. When you collapse or expand a form section, your selection is saved as a user preference. The next time you access a record that uses the same form, the same sections are collapsed or expanded.</td>
</tr>
<tr>
<td>Related links</td>
<td>Provides access to additional functions based on record type and system setup. Administrators can add related links to forms using UI actions.</td>
</tr>
<tr>
<td>Related lists</td>
<td>Displays records in other tables that have relationships to the current record.</td>
</tr>
<tr>
<td>Embedded lists</td>
<td>Allows for editing related lists without having to navigate away from the form. Changes are saved when the form is saved.</td>
</tr>
<tr>
<td>Response time indicator</td>
<td>Appears at the bottom of some forms to indicate the processing time required to display the form.</td>
</tr>
</tbody>
</table>

Form headers for UI versions

UI16 and UI15 each have a different form header that offers different navigation icons. Learn about form header navigation by selecting the form header topic that corresponds to the UI version your organization uses.

UI16 form header

The form header displays the title of the form (table) and provides several controls. The UI16 form header includes the following controls.
Figure 22: Form header UI16

<table>
<thead>
<tr>
<th>Control</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back</td>
<td>![Back icon]</td>
<td>Navigates to the previously viewed page without saving changes.</td>
</tr>
<tr>
<td>Form context menu</td>
<td>![Form context menu icon]</td>
<td>Appears when a user clicks the menu icon beside the form title or right-clicks the form header. This menu is also called a right-click menu.</td>
</tr>
<tr>
<td>Attachments</td>
<td>![Attachment icon]</td>
<td>Allows users to view and add attachments to the record. For more information, see Add and manage attachments on page 84.</td>
</tr>
<tr>
<td>Show activity stream</td>
<td>![Activity stream icon]</td>
<td>Moves focus to the journal entry section of the form. If the journal fields are not on the form, the activity stream opens in a fly-out window.</td>
</tr>
<tr>
<td>Personalize form</td>
<td>![Personalize icon]</td>
<td>Opens the form personalization menu. For more information, see Personalize a form on page 82.</td>
</tr>
<tr>
<td>More options</td>
<td>![More options icon]</td>
<td></td>
</tr>
</tbody>
</table>
## UI15 form header

The form header displays the title of the form (table) and provides several controls. The UI15 form header includes the following controls:

<table>
<thead>
<tr>
<th>Control</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td><img src="Image" alt="Email icon" /></td>
<td>Opens an email window.</td>
</tr>
<tr>
<td>Template bar</td>
<td><img src="Image" alt="Template bar icon" /></td>
<td>Opens a bar at the bottom of the form and lists available templates.</td>
</tr>
<tr>
<td>Annotations</td>
<td><img src="Image" alt="Annotation icon" /></td>
<td>Displays on-form annotations. For more information, see Administering form annotations.</td>
</tr>
<tr>
<td>Tags</td>
<td><img src="Image" alt="Tag icon" /></td>
<td>Displays the option to create custom tags and categorize documents. For more information, see Tags on page 189.</td>
</tr>
<tr>
<td>Remaining controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit or Update</td>
<td></td>
<td>Saves changes and returns to the previously viewed page.</td>
</tr>
<tr>
<td>Related actions</td>
<td></td>
<td>Provides standard actions in the form header for some tables, such as Close Incident or Resolve Incident in incident.</td>
</tr>
<tr>
<td>Delete</td>
<td></td>
<td>Deletes the record from the list.</td>
</tr>
<tr>
<td>Previous and Next</td>
<td><img src="Image" alt="Previous and Next icon" /></td>
<td>Opens the previous and next record on the list from which the record was accessed.</td>
</tr>
</tbody>
</table>
Figure 23: Form header UI15

Table 17: UI15 form header controls

<table>
<thead>
<tr>
<th>Control</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back</td>
<td><img src="image" alt="Back Icon" /></td>
<td>Navigates to the previously viewed page without saving changes.</td>
</tr>
<tr>
<td>Form context menu</td>
<td><img src="image" alt="Form Context Menu Icon" /></td>
<td>Appears when a user clicks the menu icon beside the form title or right-clicks the form header. This menu is also called a right-click menu.</td>
</tr>
<tr>
<td>Edit tags</td>
<td><img src="image" alt="Edit Tags Icon" /></td>
<td>Displays the Add tag field below the form header, which allows users to create custom tags and categorize documents. For more information, see <a href="#">Tags</a> on page 189.</td>
</tr>
<tr>
<td>Attachments</td>
<td><img src="image" alt="Attachments Icon" /></td>
<td>Allows users to view and add attachments to the record. For more information, see <a href="#">Uploading Attachments</a>.</td>
</tr>
<tr>
<td>Annotations</td>
<td><img src="image" alt="Annotations Icon" /></td>
<td>Displays on-form annotations. For more information, see <a href="#">Administering form annotations</a>.</td>
</tr>
<tr>
<td>Email</td>
<td><img src="image" alt="Email Icon" /></td>
<td>Opens an email window.</td>
</tr>
<tr>
<td>Show activity stream</td>
<td><img src="image" alt="Show Activity Stream Icon" /></td>
<td>Opens the document feed for this record in a flyout window.</td>
</tr>
<tr>
<td>Control</td>
<td>Icon</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Personalize form</td>
<td><img src="image" alt="gear" /></td>
<td>Opens the form personalization menu. For more information, see <em>Personalize a form</em> on page 82.</td>
</tr>
<tr>
<td>Submit or Update</td>
<td></td>
<td>Saves changes and returns to the previously viewed page.</td>
</tr>
<tr>
<td>Related actions</td>
<td></td>
<td>Provides standard actions in the form header for some tables, such as Close Incident or Resolve Incident in incident.</td>
</tr>
<tr>
<td>Delete</td>
<td></td>
<td>Deletes the record from the list.</td>
</tr>
<tr>
<td>Previous and Next</td>
<td><img src="image" alt="arrow" /></td>
<td>Opens the previous and next record on the list from which the record was accessed. These controls save changes to the record.</td>
</tr>
</tbody>
</table>

**Form context menu**

The form context menu provides controls based on the table and user access rights. Administrators can customize some of the options available on a context menu using UI actions.

Access the form context menu by clicking an icon beside the form title or by right-clicking the form header.
Save
Add to Visual Task Board
Create Outage
Create Request
Create Normal Change
Create Emergency Change
Metrics Timeline
Follow on Live Feed
Show Live Feed

Configure
Export
View

Create Favorite
Copy URL
Copy sys_id
Show XML
History
Reload form

Figure 24: UI16 form context menu

The form context menu includes the following options.

Note: Some of the options displayed on the form context menu depend on the user role, installed applications, and version of the UI.

Table 18: Form context menu options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save</td>
<td>Saves changes without leaving the form view.</td>
</tr>
<tr>
<td>Related actions</td>
<td>Provides standard actions in the form context menu for some tables, such as Add to Visual Task Board or Create Change in incident.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Insert</td>
<td>Saves the data as a new record and returns to the previously viewed page.</td>
</tr>
<tr>
<td>Insert and Stay</td>
<td>Saves and displays the new record. For more information about inserting records, see <em>Edit a form</em> on page 79.</td>
</tr>
<tr>
<td>Configure</td>
<td>Provides administrative functions, such as configuring forms.</td>
</tr>
<tr>
<td>Toggle Template Bar</td>
<td><em>(UI15 only)</em> Shows or hides the template bar. For more information, see <em>Toggle the template bar</em>.</td>
</tr>
<tr>
<td>Export</td>
<td>Exports data to PDF. Administrators can also export to XML. For more information, see <em>Exporting data</em>.</td>
</tr>
<tr>
<td>View</td>
<td>Changes fields to a predefined layout. Switching views submits the form, which saves all changes. Administrators can customize views.</td>
</tr>
<tr>
<td>Create Favorite</td>
<td><em>(UI16 only)</em> Adds the current record to your favorites list, represented by a star icon on the tab.</td>
</tr>
<tr>
<td>Assign Tag</td>
<td><em>(UI15 only)</em> Allows the user to assign a new or existing tag to a record, which provides quick access to frequently referenced or urgent information. When tag is assigned to a record, the record is displayed on the Tagged Documents page. For more information, see <em>Tags</em> on page 189.</td>
</tr>
<tr>
<td>Copy URL</td>
<td>Copies to the clipboard the URL for the form view of the record. Follow browser instructions if browser security measures restrict this function.</td>
</tr>
<tr>
<td>Copy sys_id</td>
<td>Administrators only. Copies to the clipboard the sys_id of the record. Follow browser instructions if browser security measures restrict this function.</td>
</tr>
<tr>
<td>Show XML</td>
<td>Administrators only. Displays record data in XML format.</td>
</tr>
<tr>
<td>History</td>
<td>Administrators only. Displays audit history for the record, which must be enabled for the table. For more information, see <em>Enable auditing for a table</em>.</td>
</tr>
<tr>
<td>Reload Form</td>
<td>Reloads information from the database to refresh the form view.</td>
</tr>
</tbody>
</table>

**Form fields**

A field represents an individual item of data on a record.

Users can view and modify field data on a form. For more detailed information, see *Field administration*. 
Field status indicators

Indicators are used on some fields to denote a special field type.

A field status indicator is a colored asterisk that may appear to the left of mandatory fields. Field status indicators change colors to represent different states of mandatory fields.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpopulated</td>
<td>Required field is empty. The user must enter a value to save the form. Default color is red.</td>
</tr>
<tr>
<td>Populated — saved</td>
<td>Required field contains a value that was saved or must be saved. Default color is gray.</td>
</tr>
<tr>
<td>Populated — unsaved</td>
<td></td>
</tr>
</tbody>
</table>

Figure 25: UI16/UI15 field status indicators

Configure the activity filter

The activity formatter contains a filter that lets users select which of the available fields to show in the activity list.

Role required: none

All fields on the activity list display in alphabetical order by default. You can change the order that fields appear on the form by using the Configure available fields option in the activity formatter.

Use the activity filter

Use the activity filter to show or hide fields that you want to display activity.

1. Open the filter by clicking the activity filter icon (шей) in the Activity header.
2. Select the fields for which you want to display activity.

Fields are added or removed dynamically as the selection is made.
3. Click the activity filter icon again to close the filter.

Embedded lists

Some forms may show related lists as embedded. Changes to embedded lists are saved when the form is saved.

**Note:** Embedded lists are not supported in List v3. Embedded lists always display in List v2.

Use these controls to work with an embedded list. For more information, see *Edit a form* on page 79.

Table 20: Working with embedded lists

<table>
<thead>
<tr>
<th>Task</th>
<th>Icon</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand an embedded list</td>
<td>![+]</td>
<td>Click the expand icon in the list header.</td>
</tr>
<tr>
<td>Collapse an embedded list</td>
<td>![−]</td>
<td>Click the collapse icon in the list header.</td>
</tr>
<tr>
<td>Insert a new row</td>
<td></td>
<td>Double-click Insert a new row...</td>
</tr>
<tr>
<td>Edit a row</td>
<td></td>
<td>Double-click in an empty area of that field. See <em>Use the list editor</em> on page 135.</td>
</tr>
<tr>
<td>Delete a row</td>
<td>![×]</td>
<td>Click the delete icon beside the row. New rows are removed immediately. Existing rows are designated for deletion when the record is saved. To clear this designation, click the delete icon again.</td>
</tr>
</tbody>
</table>
Related lists appear on forms and show records in tables that have relationships to the current record. Users can view and modify information in related lists like any other list. Administrators can configure related lists to appear on forms and in hierarchical lists by configuring a form. Related lists do not have a size limit.

By default, all related lists display in List v2, even when List v3 is activated. An administrator can enable List v3 for related lists. The same List v3 compatibility rules apply to related lists as to standard lists.

Select or create records in a related list

When a form contains a related list, such as the Incidents related list in the problem form, you can select existing records or add new ones in the related list.

Role required: none

1. Open the record to work with records in a related list, such as a problem record.
2. Locate the related list, for example, Incidents.
3. To select existing records, complete the following steps.
   a) Click Edit.
b) Using the slushbucket, select the records to associate with the current record.
   When you select a record, information about it appears below the Collection list to help you
   identify the record to select.

c) Click Save.

4. To create a new related record, complete the following steps.
   a) Click New.
      A new form for the related table opens, for example, the incident form.
   b) Complete the form and click Submit.
      The new record is added to the related table and to the related list of the record.

Configure when a related list loads

If there are many related lists on a form or many records in the related lists, the form may load slowly.
In UI16 and UI15, you can improve form response times by configuring related lists to load manually, on
demand, or automatically, after the rest of the form loads.

Role required: none

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the Form</td>
<td>Related lists load when you open the form, which is the default setting.</td>
</tr>
<tr>
<td>After Form Loads</td>
<td>Related lists load after the rest of the form loads.</td>
</tr>
<tr>
<td>On-demand</td>
<td>Related lists load on demand. When this option is selected, a Load Related Lists button appears at the bottom of each form that contains related lists. Click the button to load related lists.</td>
</tr>
</tbody>
</table>

3. Close the system settings menu.

Create a default filter for a related list

You can create a default filter that is applied to a related list when a form loads.

Role required: admin

<table>
<thead>
<tr>
<th>Note: This functionality is not supported in List v3 related lists.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Navigate to the related list (example, Incidents on a problem record).</td>
<td></td>
</tr>
<tr>
<td>2. Create the desired filter using the condition builder (example, [Active] [is] [true]).</td>
<td></td>
</tr>
</tbody>
</table>
3. Click Set as Default Filter.

Configure the edit option

You can configure the edit option that allows users to add records to related lists in forms.

Role required: admin

The Edit button is available for related lists that represent many-to-many and one-to-many relationships. Defined related lists may not have an Edit button, as related records are added to these lists automatically based on the relationship between the records.

1. Navigate to the related list, such as the Incidents related list on a problem record.

2. Perform the appropriate action for the list version.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Right-click any column heading and select Configure List Control.</td>
</tr>
<tr>
<td>List v3</td>
<td>Open the list title menu and select List Control.</td>
</tr>
</tbody>
</table>

3. Perform one of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show the Edit option</td>
<td>Clear the Omit edit button check box.</td>
</tr>
<tr>
<td>Hide theEdit option</td>
<td>Select the Omit edit button check box.</td>
</tr>
<tr>
<td>Show the Edit option if the check box is cleared and the button does not appear</td>
<td>Click Enable Edit.</td>
</tr>
</tbody>
</table>

4. If the list represents a one-to-many relationship (example, incidents can be associated with only one problem, but problems can be associated with many incidents), complete the following steps.

a) Open a record in the target table (example, Incident).

b) Right-click the header and select Configure Dictionary.

c) Open the dictionary entry for the reference field (example, Problem ID on Incident).

d) In the Reference Specification section, select the Reference floats check box.
5. Click Update.

Create defined related lists

You can add default related lists to the form for all users to see when viewing records.

Role required: admin

For example, you may include a list of related incidents at the bottom of a problem record, or a list of members at the bottom of a group record. This functionality depends on reference fields or many-to-many table relationships. If two tables are related via the system dictionary, one can appear as a related list on the other.

Defined related lists allow relationships between arbitrary tables to be expressed as a related list. Any two tables that can have a logical relationship can appear as a parent/child pair via a related list. The following are some examples.

- On an incident record, show all incidents opened by the same caller.
- On a user record, show the last 20 transactions that user has made.
- On an incident record, show all problems opened on the reported CI.
These relationships are beyond the relationships normally defined in the system dictionary through reference fields and many-to-many relationships.

Every related list requires a relationship record. Before creating a relationship, verify that there is not an existing relationship record that already provides the needed information. Use the following steps to create a relationship record.

1. Click System Definition Relationships.
2. Click New.
3. Specify the relationship record fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Type the name of the related list. The form configuration page displays this name in the list of available lists.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Select this check box to use JavaScript in place of the Applies to table and Queries from table fields.</td>
</tr>
<tr>
<td>Applies to table</td>
<td>Select the table on which the related list appears. This field is hidden in Advanced relationship records.</td>
</tr>
<tr>
<td>Queries from table</td>
<td>Select the table from which this related list retrieves data. This field is hidden in Advanced relationship records.</td>
</tr>
<tr>
<td>Apply to</td>
<td>Type a script to specify the table on which the related list appears. This field is only visible with the Advanced check box selected.</td>
</tr>
<tr>
<td>Query from</td>
<td>Type a script to specify the table from which this related list retrieves data. This field is only visible with the Advanced check box selected.</td>
</tr>
<tr>
<td>Query with</td>
<td>Type a script to specify the records to include from the table the relationship queries.</td>
</tr>
<tr>
<td>Insert Callback</td>
<td>Type a script to run after a successful insert action. This field is only visible with the Advanced check box selected.</td>
</tr>
</tbody>
</table>

4. Click Submit.

*Add incidents by same caller related list*

This example adds the existing relationship, Incidents by Same Caller, to incident forms.

- Applies to table: This list appears as an available related list when viewing an incident record.
- Queries from table: This list displays a list of incidents.
- Query with: This script selects records where the caller_id matches the caller_id of the parent record (the incident you are viewing).
1. Open an incident.
2. Right-click the header and select Configure Related Lists.
   The name of the existing relationships appears in your list of available lists.
3. Move the Incidents by Same Caller list to the Selected list.
4. Click Save.
Notes and limitations:

- If you click the New button on one of these new relationships, the system attempts to ensure that the new record matches the list conditions. For example, clicking New on the example list results in an incident where the caller_id is pre-populated with Bud Richman.
- When scripting your condition, current is the record to which you want to add queries while parent is the main record being displayed.
- These relationships do not refresh until you update a form. In the example, if you changed the caller from Bud Richman to Fred Luddy, the list at the bottom of the screen still displays the incidents belonging to Bud Richman until you save the incident.
- You are not limited to a single query condition. It is, for example, possible to have a related list of all incidents opened by the same caller in the last week, or all open incidents opened by the same caller.
- The current and parent objects cannot be used with the Queries from field. Instead, the gs object is available for GlideSystem calls.
- The Edit button is not available on defined relationships, as the relationship is scripted.

Additional use case: You can enable a similar relationship for the Request table to display Requests by the Same Caller using Requested For on the Request table.

**Add transactions by user related list**

This example adds a relationship, Last 20 transactions, to the user form.

Role required: admin

The new relationship creates a list of task records opened by the current user.

1. Navigate to System Definition Relationships.
2. Click New.
3. Create a relationship with the following values.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Last 20 transactions</td>
</tr>
<tr>
<td>Applies to table</td>
<td>User [sys_user]</td>
</tr>
<tr>
<td>Queries from table</td>
<td>Task [task]</td>
</tr>
<tr>
<td>Queries with</td>
<td>current.addQuery('opened_by', parent.sys_id);</td>
</tr>
</tbody>
</table>

4. Click Submit.
5. Navigate to User Administration Users.
6. Select any user.
   For example, select David Loo.
7. Configure the related lists for the user form and add the related list Last 20 transactions.
9. Select any user.
   For example, select David Loo.
10. The Last 20 transactions related list displays all task records opened by the current user.

Notes and limitations:

- This query returns all task records opened by the user. The related list defaults to displaying 20 task records per page.
- The parent variable refers to the Applies to table. In this case, it applies to the User [sys_user] table.
- Querying against a record sys_id is a common query method for relationships.
Add fields to selections in a related list

When you click Edit in a related list and select an item, information about the item appears below the list. You can expand the fields that appear for the item to provide more information.

Role required: admin
Figure 27: Fields listed for selected record
To add fields to selections in a related list, record the exact field name, or element, not the label name. This example demonstrates adding fields to the Groups related list [sys_user_group].

1. Navigate to System UI Views.
2. Select sys_ref_list.
3. To add fields from the Group table, in the Lists related list, select sys_user_group.
4. In the List Elements related list, click New.
5. Enter the field name and its relative position when it appears in the description.
   Fields appear from top to bottom, lowest to highest number.
6. Click Submit.

Create a default related record selection filter for a related list

You can set a default filter to restrict which related records users can select. Default filters are simple to set up but lack a dynamic filtering element, which prevents the end user from changing the default filter.

Role required: personalize_list

A filter is used to restrict the records that are listed in the slushbucket that displays when a user clicks Edit in a related list.
1. Perform the appropriate action for the list version.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Right-click any column heading and select Configure List Control.</td>
</tr>
<tr>
<td>List v3</td>
<td>Open the list title menu and select List Control.</td>
</tr>
</tbody>
</table>

2. Configure the List Control form to add the Edit default filter field, if necessary.
3. In the Edit default filter field, use the condition builder to create a default filter.
4. Click Update.

When users click the Edit button in the related list, the list of records they can select is filtered according to the default filter.
Edit a form

You can edit a record in the form view. You can also insert a record, apply a template, and cancel changes to the record.

Role required: none

1. Navigate to the form.
   
   If another user is looking at the same record, you see their avatar with a green dot in the form header. If more than one user is viewing the record, the avatar is a number, and you can point your cursor to it to see the names.

2. Enter appropriate data.
   
   Depending on system setup, the data entered in a form can affect other options on the form or change its appearance. For example, if you select a status of Closed for an incident, a required Close Notes field may appear. Administrators can create custom form effects in various ways, including UI policies and client scripts.

3. Save the record using one of these methods:
   
   - Click Submit or Update to save changes and return to the previously viewed page.
   - Right-click the form header and select Save to save changes without leaving form view.

On UI16 forms, fields update dynamically and display a field update icon to indicate changes made by other users. You can point to the field update icon to see which user made the update. This dynamic indication helps to prevent users from accidentally overwriting each other’s work.

**Note:** If you entered a different value from the value saved by the other user, the system does not update the field automatically. Change your value manually to match value entered by the other user. Otherwise, you overwrite the change when you save the record.
Insert a record

Insert provides a method for creating multiple similar items, such as email notifications, users, groups, or business rules.

Role required: none

Administrators can enable the Insert function for task records. For more information, see Advanced form configuration.

1. Open a similar item.
2. Edit the item and give it a new Name.
3. Right-click the form header and select one of the following options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert</td>
<td>Saves the item as a new record and returns to the previously viewed page.</td>
</tr>
<tr>
<td>Insert and Stay</td>
<td>Saves and views the new record.</td>
</tr>
</tbody>
</table>

Apply a template in a form

Your organization may use templates to help with frequently requested tasks. A template contains prepopulated fields that default when the template is selected.

Role required: none

1. Navigate to the form.
2. Do the appropriate action for your version of the UI.

| UI16                      | 1. Click the more options icon in the form header.                                                                 |
|                          | 2. Select Toggle Template Bar.                                                                                       |
1. Right-click the form header.

2. Select Toggle Template Bar.

3. Select the template to apply.

If there is a conflict between the selected template and the form, a conflict message appears with a link to view the details of the conflict. For example, if a field that does not appear on the form is populated in the template, the conflict message details identify the missing field and the value is not set. If you have a conflict message, review the details and notify your administrator if necessary.

Specific fields are populated with values from the template.

4. Complete the form.

You can change any value that was populated from the template.

5. Click Submit to create the record.

Cancel changes to a form

Cancel changes to a form by navigating away from the form without saving.

Role required: none

1. Navigate away from the form view without saving the record.

2. If a message appears, click Leave this Page to confirm cancellation.

   Note: Administrators can disable the confirmation message by setting the glide.ui.dirty_form_support property to false.

Use form pane tabs in UI15

When using the split screen feature, you can open multiple forms in the form pane. Form pane tabs are available in UI15 only.

Form pane tabs appear above the form header. The current tab is highlighted.
1. View a list in the content frame, for example, the Incident list.
2. Click the List and Form View button on the Edge to split the screen. The list is displayed in the list pane on the left and an empty form pane with a new highlighted tab is displayed on the right.
3. Select an incident record in the list pane to display the incident in the highlighted tab. The incident number appears in the tab at the top of the form pane.
4. Click the + tab to add a tab to the form pane. The new tab is added to the right of the current tabs and has the generic name New Tab until you select another incident from the list pane.
5. To remove a tab, select the tab to be deleted and click the x.

**Personalize a form**

When the form personalization feature is activated, users can personalize fields to appear on a specific form view according to individual preferences. Form personalization is available in UI16 and UI15.

Role required: itil, personalize_form, or admin

Personal form customizations do not affect what other users see on their forms.

In contrast to configuring a form, personalizing a form does not enable users to perform the following actions:

- Change the order of fields on the form.
- Add fields that are not configured to appear on the form.
- Hide mandatory fields.
**Note:** Personalizing a form in this way modifies the form for you only. To make changes to a form that are visible to all users, you must configure the form.

1. Open any record.
2. In the form header, click the personalize form icon. The Personalize Form menu appears and hide field icons appear on the form.

![Personalize Form Menu](image)

**Figure 30: Personalize the form**

A cleared gray check box indicates fields that you previously hid.

**Note:** Only the fields that the form is configured to display are available in the Personalize Form menu. To add fields to the form, you must configure the form layout.

3. Clear a check box or click the hide field icon by a field. Some check boxes are gray and selected. These check boxes indicate fields that cannot be hidden because they are required or are already hidden by UI policies or client scripts.
4. Click outside the Personalize Form menu to save your changes.
If you navigate away from the form, the next time you personalize the form you must reset your customizations to show fields that you have hidden.

5. To restore the default form view, personalize the form and click Reset.

Add and manage attachments

You can upload a file as an attachment to an incident, a knowledge article, a change request, or to another type of record.

Administrators can configure attachments and how they work in the system. For more information, see Administering attachments.

Attachment file size is not limited by default. However, uploading large attachments can cause issues with the user's active session on the instance. Empty attachments (file size of 0 kb) are not supported.

**Note:** Do not use the Upload File module in the System Definition application. It is not compatible with multi-node instances.

1. Navigate to the record. For example, an incident record.
2. Click the attachments icon (_attach_icon). 
3. Click Choose Files or Browse, depending on your browser, and navigate to a file.
4. Upload multiple files in one of the following ways.
   - Select multiple files at the same time in the file browser. Internet Explorer does not support this feature.
   - Add each file on a separate line by clicking Add Another Attachment, and then clicking Choose Files on the next line. Repeat until all desired files are selected. This feature is available in all supported browsers.
5. Click Attach.
   Attached files appear in the Current file attachments list and at the top of the form. A message appears if a file is not attached because it is too large or is a restricted file type. Administrators can configure these limits.
6. Close the pop-up window to return to the form.

Limit the users who can view attachments by applying ACL rules. For more information on ACL rules, see Access control list rules.

Manage attachments

You can view, rename, and remove the attachments on a record, and add additional attachments.

1. Navigate to the record (example, an incident record).
2. Click the attachments icon (_attach_icon) or the Manage Attachments link if files are already attached.
   The number of attachments for a record is listed on the Manage Attachments link.
3. To rename an attachment, complete the following steps.
   a) Click [rename] beside the file name at the top of the form or in the pop-up window.
   a) Edit the file name and press the Enter key.

   **Note:** Press the Esc key instead of the Enter key to undo your changes and cancel rename.

4. To remove attachments, click the Manage Attachments link and complete the following steps.
   a) Select the check boxes next to the attachments to delete.
   b) Click Remove.
      The attachment disappears and the pop-up window remains open.

   **Note:** After a record has been closed, you cannot delete the attachments for that record.

5. To add additional attachments, complete the following steps.
   a) Click Choose Files.
   b) Select the file to attach and click Open.
   c) Click Attach.

6. Close the pop-up window to return to the form.

**Attach files with drag-and-drop**

You can drag files from your local computer into your browser window to attach them to the current record.

This functionality is supported in Firefox 3.6 or later and Chrome. Support will be added for other web browsers as they implement the HTML5 specification.

1. Navigate to the record.
2. On your computer, browse to the files to attach.
3. Select the files in the file browser, and then drag them over the form. 
4. Release the mouse button to begin the upload. 

When the upload is complete, the file name is added to the attachments header. Upload speed depends on the file size and the speed of your network connection. 

⚠️ **Warning:** Do not navigate away from the record while an upload is in progress. The upload must be completed for the file to be attached. 

### Checklists 

Checklists provide a simple way to track the progress of tasks without creating additional records. Checklists can be added to the form view of any table that extends Task [task]. 

For example, if a support agent is assigned an incident task to investigate a wireless issue, a checklist can be used to document the individual steps taken. 

Checklists are added to records after they are submitted. You cannot add a checklist as you create a record.
Enabling checklists in forms

To enable checklists, navigate to the form and add the Checklist formatter. For instructions, see Add a formatter with the form designer.

Figure 32: Sample checklist
Using checklists

You can add, remove, or rearrange checklist items. You can also save a checklist as a template for future use on other records. Any user can create or edit a checklist and check off completed items.

Activate checklists

Checklists are active by default on new instances. For instances upgrading from a previous version, the Checklist plugin must be activated.

Role required: admin

For evaluation, you can activate the plugin for an application that requires a purchased subscription on a non-production instance. To activate the plugin on production instances, you must purchase the subscription. To purchase a subscription, contact your ServiceNow account manager. For details on purchasing a plugin, see Purchase a plugin.

Some plugins require activation by ServiceNow personnel. Request these plugins through the HI Customer Service System instead of activating them yourself. For details, see Request a plugin.

For plugins that you can activate yourself, continue with the following steps.

1. Navigate to System Definition Plugins.
2. Find and click the plugin name.
3. On the System Plugin form, review the plugin details and then click the Activate/Upgrade related link.
   - If the plugin depends on other plugins, these plugins are listed along with their activation status.
   - If the plugin has optional features that depend on other plugins, those plugins are listed under Some files will not be loaded because these plugins are inactive. The optional features are not installed until the listed plugins are installed (before or after the installation of the current plugin).
4. If available, select the Load demo data check box.
   - Some plugins include demo data—Sample records that are designed to illustrate plugin features for common use cases. Loading demo data is a good practice when you first activate the plugin on a development or test instance.
   - You can also load demo data after the plugin is activated by clicking the Load Demo Data Only related link on the System Plugin form.
5. Click Activate.

Create a checklist

You can create a unique checklist for each task record. You can quickly create a checklist from a previously created template.

The Checklist formatter must be added to the form by a user with the personalize_form role.

Role required: for the write role, read role, and delete role, the logged in user must be sys_created_by.

**Note:** If the Explicit roles plugin is installed, the sn_internal role is required by the Customer Service Management and the Vendor Risk Management plugins (and possibly others.) The Explicit roles plugin automatically creates the sn_internal role and assigns it to all users.

A template saves time by creating checklist items automatically. You can add, edit, or remove checklist items without impacting the template. You can use any checklist template, even if it was created on a different table.

1. Navigate to a record that does not already contain a checklist.
2. Click the down arrow beside the Checklist formatter.
3. Complete one of the following steps.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To create a new checklist</td>
<td>Select Create new.</td>
</tr>
<tr>
<td>To create a checklist by using a template</td>
<td>Under Create from template, select a template. The checklist items in the</td>
</tr>
<tr>
<td></td>
<td>template appear. Use any of the following steps to manage items in the checklist.</td>
</tr>
</tbody>
</table>

4. Click Add Item.
5. Enter text for the checklist item.
6. Press the Enter key to add the checklist item.
7. Create as many additional checklist items as desired.
8. Click the minus (-) icon to delete a checklist item.
9. Click the drag icon and drag a checklist item to a different position in the list.
10. Save the checklist as a template for easy reuse.
   a) Click the down arrow beside the Checklist formatter.
   b) Select Save as Template.
      A dialog box appears.
   c) Enter a descriptive template name to identify the checklist.
      When a user creates a checklist from a template, all templates are listed in alphabetical order and there is no way to filter which templates appear. To provide a better user experience, consider implementing a naming system for checklist templates. For example, include the name of the table or another identifier to clarify how the checklist should be used.
   d) From the User Group list, select a group to limit the checklist template to.
      Only members of the selected group and the user who created the checklist can use the checklist as a template. Leaving this field blank prevents anyone but the template creator from using the checklist template.
   e) Click Save.

11. Save the form.

Delete checklist or a template

You can remove a checklist from a record, and delete checklist templates you no longer need.

Role required: for the write role, read role, and delete role, the logged in user must be sys_created_by.

**Note:** If the Explicit roles plugin is installed, the sn_internal role is required by the Customer Service Management and the Vendor Risk Management plugins (and possibly others.) The Explicit roles plugin automatically creates the sn_internal role and assigns it to all users.

Deleting a checklist template has no effect on checklists created from that template.

1. To delete a checklist, navigate to the record that contains the checklist.
2. Click the down arrow beside the Checklist formatter.
3. Select Remove Checklist.
   A confirmation dialog box appears.
4. Click Delete.
5. Complete the following steps to delete a checklist template.
   a) In the navigation filter, enter checklist_template.list.
   b) Select the check box by the checklist template you want to delete.
   c) In the actions choice list, select Delete.
   d) In the confirmation dialog box, click Delete.

Lists

A list displays a set of records from a table.

Users can search, sort, filter, and edit data in lists. Lists may be embedded in forms and may be hierarchical (have sublists).

The list interface consists of a title bar, filters and breadcrumbs, columns of data, and a footer. Each column in a list corresponds to a field on the table.

A response time indicator (🕒) may appear at the bottom right of some lists to indicate the processing time required to display the list.

There are two versions of lists available. Companies with large or complex datasets, or those accustomed to the features in List v2 should avoid activating the list v3 plugin. For more information, see Comparison of List v2 and List v3 on page 143.
List features and actions

The list interface consists of a title bar, filters and breadcrumbs, and columns of data. Each of these components provides features and lets you act on the list and the displayed records. There are two list versions: List v2 and List v3.
Hierarchical lists

Hierarchical lists allow users to view records from related lists directly from a v2 list without navigating to a form.

Note: Hierarchical lists are not supported in List v3. Tables that have hierarchical lists enabled always display in List v2.

Lists can have sublists in a hierarchy that can also be accessed in list view. To expand or collapse the related lists on a record in a hierarchical list, click the arrow.
beside the reference icon.

Figure 35: Hierarchical list

Administrators can enable hierarchical lists for a table. For more information, see *Enable a hierarchical list*.

**Detail rows**

Detail rows, when enabled, appear below the field row for each record and display the value of a specified field. For example, the detail row might display the short description for each incident in a list. Detail rows support the same functionality as fields, including links, editing capabilities, and access to the context menu.

**Note:** When a field is designated as the source for the list detail rows, the system hides the list column for that field.
Administrators can enable detail rows and add them to v2 lists (UI15 or later required). For more information, see *Administer detail rows*. Detail rows are not supported in List v3.

**List fields**

Fields display data and provide certain functions.

---

**Note:** Some of the options displayed in the field context menu depend on the user role and the installed features.

---

**Table 22: Field functions**

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links</td>
<td>Open the associated record in form view. Click the first column field to open the current record. You can also click a link to a related record in other columns to go to that record.</td>
</tr>
<tr>
<td>Editing</td>
<td>Changes the information in one or more records. For more information, see <em>Methods for list edits</em> on page 134.</td>
</tr>
<tr>
<td>Reference icon (i)</td>
<td>Provides a preview of the record. Click the icon to open a preview of the record. To open or edit the record, click the Open Record button in the record preview. Pressing shift and pointing to the reference icon only displays the tool tip for the reference icon.</td>
</tr>
<tr>
<td>Title</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Context menu</td>
<td>Also called a right-click menu, offers several options, including:</td>
</tr>
<tr>
<td></td>
<td>• <em>Quick filter</em> options, such as Show Matching and Filter Out.</td>
</tr>
<tr>
<td></td>
<td>• The option to copy the record URL to the clipboard.</td>
</tr>
<tr>
<td></td>
<td>• The option to copy the sys_id of the record to the clipboard (administrators only).</td>
</tr>
<tr>
<td></td>
<td>• <em>Quick edit</em> options, such as Assign to me, Approve, and Reject.</td>
</tr>
<tr>
<td></td>
<td>• The option to edit the record <em>tags</em>, which provide quick access to frequently referenced or urgent information. When a tag is assigned to a record, the record is displayed on the Tagged Documents page.</td>
</tr>
<tr>
<td></td>
<td>• Options specific to features such as <em>Live Feed</em> and <em>Visual Task Boards</em>.</td>
</tr>
</tbody>
</table>

**Configure and use list functions**

All users can interact with lists for the tables their role permits them to access. Some list and column header menu options are controlled by permissions granted to the user role.

The following procedures describe functions that users can configure or use with lists.

**Sort a list**

You can quickly find information in a list by sorting the list. The method that the system uses to sort a list depends on the type of record in the sort column.

Role required: none

Consider the example record: Label=Requested Item; Value= sc_req_item. Field types other than choice list types are sorted based on the label. The example record label, Requested Item, would be sorted with records whose labels start with "r."

A choice list field lets the user select from a pre-defined set of choices. Choice list fields are sorted by the underlying dictionary entry value of the field, not by the label. The example record value, sc_req_item would be sorted with records whose values start with "s."

Sorting by value can be useful. For example, choices for the State of tasks are ordered New Work in Progress Closed. Based on the label, the sort would be Closed New Work in Progress.

An arrow next to the column name indicates the current sort order. A downward pointing arrow indicates that the column is sorted in descending order. Only the primary sort order is indicated.

**Note:** The following sorting rules apply to lists:

- In a translated instance, only translated_text, translated_field, and translated_html type columns support sorting.
- The column label should be created in English first then translated accordingly.
- You cannot sort a list by an array-based field, such as a Glide list.
To sort a list, use one of the following methods:

- Click a column name to sort the list in ascending order. Click again to sort in reverse order.
- Right-click a column name and select Sort (a to z) or Sort (z to a) to sort in ascending or descending order, respectively.
- Specify a sort order with a filter. Filters provide for sorting by more than one column (for example, by Category and then Subcategory).

Configure field status indicators

You can enable or disable modern cell coloring for list field status indicators. In List v2, this setting is available when you personalize a list. This setting is available in your system settings.

Role required: none

Field status indicators on lists are displayed with modern cell coloring, as a colored circle on the left side of the field. You can select the style of the field status indicator. You can revert to using a field background color by disabling modern cell coloring.

Field status indicators on lists are displayed with modern cell coloring, as a colored circle on the left side of the field. You can select the style of the field status indicator. You can revert to using a field background color by disabling modern cell coloring.

Figure 37: Modern cell coloring on

The process depends on the version:

<table>
<thead>
<tr>
<th>Version</th>
<th>Procedure</th>
</tr>
</thead>
</table>
| List v3  | 1. In the banner frame, click the gear icon.  
          | 2. On the System Settings window, click the Lists tab.  
          | 3. Toggle the Modern Cell Styles switch to enable or disable modern cell coloring.  
| List v2  | 1. Click the personalize list icon ( gear ) in the list.  
          | 2. Select the Modern cell coloring check box to use the style field status indicator.  
          | 3. Click OK. |

For more information, see Creating Personal Lists.

Customize the number of list rows per page

You can customize the number of records, or rows, to display on each page of a list. The default is 20 rows per page.

Role required: none

When you customize the number of rows, it applies to all lists that you can access.
For information about the performance impact of displaying more rows, see the blog post *Improve performance by displaying "just enough" data* by a ServiceNow employee in the ServiceNow Community.

1. Open a list.
2. Perform the appropriate action for the list version.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v3</td>
<td>In the list footer, click the <code>&lt;Number&gt;</code> rows per page button and select the number of rows you want to display.</td>
</tr>
<tr>
<td>List v2</td>
<td>Right-click the list title and select Show <code>&lt;Number&gt;</code> rows per page.</td>
</tr>
</tbody>
</table>

The list refreshes to display the number of records selected, or, if there are fewer than the number of rows you are displaying, the total number of records. The page control is updated to show your selected number of records (1 to 50 of 59).

Switch between list views

A view defines the elements that appear when a user opens a list.

Role required: none

You can switch between list views to which you have access.

1. Open the list.
2. Select the view to configure by performing the appropriate action for your list version.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List V2</td>
<td>Open the list title menu and select View (view name) .</td>
</tr>
<tr>
<td>List v3</td>
<td>Open the list title menu and select Change View, and then click the name of the view.</td>
</tr>
</tbody>
</table>

The page refreshes with in the selected view.

Perform actions on selected items in a list

Action check boxes enable you to perform actions on one or more items in a list.
1. Select the check boxes beside the records you want to affect.
   To select all records on the page in List v3, select the check box at the top of the list just under the list filter. To select all records on the page in List v2, select the check box at the bottom of the list.

2. Apply the desired action.
   • List v2: In the column context menu, select Update Selected to update all the selected records.
   • List v3: In the list title menu, select Update Selected to update all the selected records.
   • In the action choice list below the list, select an action such as Delete (administrators only), or Add to Visual Task Board. The available actions vary depending on the list and which plugins are activated. In List v3, the action choice list appears after you select one or more check boxes.

Use embedded lists

Some lists may be embedded in forms when List v2 is in use. Use list controls to work with records in an embedded list within a form.

Role required: none

Note: Embedded lists are not supported in List v3. Embedded lists always display in List v2.

Changes to embedded lists are saved when the form is saved. For more information, see Edit a form on page 79.

Use the following controls to work with an embedded list.

• To expand or collapse an embedded list, click the expand (⊕) or collapse (⊖) icon in the list header.
• To add a new row, double-click Insert a new row...
• To edit a row, double-click in an empty area of the field. See Use the list editor on page 135.
• To delete a row, click the delete icon (✗) beside the row.
New rows are removed immediately and existing rows are designated for deletion when the record is saved. To clear this designation, click the delete icon again.

<table>
<thead>
<tr>
<th>Number</th>
<th>CHG0000008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requested by</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Hardware</td>
</tr>
<tr>
<td>Configuration item</td>
<td></td>
</tr>
<tr>
<td>Priority</td>
<td>1 - Critical</td>
</tr>
<tr>
<td>Risk</td>
<td>Moderate</td>
</tr>
<tr>
<td>Impact</td>
<td>3 - Low</td>
</tr>
<tr>
<td>Approval</td>
<td>Requested</td>
</tr>
<tr>
<td>Type</td>
<td>-- None --</td>
</tr>
<tr>
<td>State</td>
<td>Open</td>
</tr>
<tr>
<td>Conflict status</td>
<td>-- None --</td>
</tr>
<tr>
<td>Conflict last run</td>
<td></td>
</tr>
<tr>
<td>Assignment group</td>
<td></td>
</tr>
<tr>
<td>Assigned to</td>
<td>ITIL User</td>
</tr>
</tbody>
</table>

Figure 39: Embedded list

Activity streams in list view

If UI16 or UI15 is enabled, you can stream live activity information for all records on the current list.
Figure 40: Activity stream window
To view the activity stream information, click the list activity stream icon ( ) in the list title bar. This icon appears in the title bar for all task tables.

The activity stream information appears in a flyout window, and is the same information that appears in the activity formatter for a record. The short description appears as the title for the entry. Activity stream items on the task table use the task number as the title. The information in the flyout window updates automatically with audit and journal entries. Click the >> icon at the top to close the activity stream.

You can add a comment to any item in the activity stream. When you point to the item with your cursor, a Comment button appears.

You can click an item to open the activity stream for that record. The record activity stream lets you open the task record, post additional comments or work notes, or preview images. Click the < icon at the top to close the record activity screen.

Search a list

You can search a list to find information quickly. The list title bar includes options for searching the list. Administrators can enable text searches for any list.

Role required: none

There are two options for searching the list: for a string in a selected field, or for a text string found in any field. In List v2, these options are labeled Go to and Search. In List v3, the search fields appear with no label.

- The Go to option sorts the list by the selected field and returns records where the field value is equal to or greater than the search term. For the Number field, which is a string type field, it finds the records that have a number ending with the number that you enter. For example, searching a list of incidents by selecting Number and entering 4 shows records with numbers like INC0000004 and INC0000014.
- The Search option appears when you select for text. It returns records that contain the search term in any field in the list table. If you added a related list condition, the search does not include records in the related table.

Each option in a choice list is defined with a column label and a value. For example, the incident Statefield contains several options, such as New and Closed. These labels are column labels, and each one has an underlying value. For incidents, the default value for New is 1 and the default value for Closed is 7. You can search a column for either the column label or the value with the following results.

- Enter the column label to list matching records, for example, all incident records in the New state.
- Enter the value to find records that have a state greater than or equal to (=>) the specified value. For example, enter 6 to list incident records in the Resolved and Closed states.

1. Navigate to a list of records.
2. If necessary, personalize the list to add the desired fields.
3. Select a field or select for text.
4. Enter the search text. Use wildcards to further refine list searches.
5. Press the Enter key to execute the search.

Search by one or more columns in a list

In addition to searching by field or for text, you can search by one or more individual columns in a UI16 or UI15 list.

Role required: none

![Figure 41: Column search (List v2)](image)

This search supports queries that include AND, but does not support OR. You cannot search in a column that uses the List field type, for example, watch lists.

1. Click the search icon to expand the column headers and add a search field to each column.
2. To search a single column, enter the search text in the desired column search field and press the Enter key.
   Use wildcards to further refine column searches. For example, use the * to define a contains search.
3. To search multiple columns, perform one of the following actions.
   • Enter the search text in each of the desired column search fields and press the Enter key.
   • Search an individual column and then search additional columns based on the results of the first search.

The search returns records that match the search term.

To clear a column search, complete one of the following actions.

• Delete the text in the search field for the desired column and press the Enter key. This returns results for any remaining column search criteria.
• Delete the text in all the column search fields to return all records in the list.
Available list search wildcards

The platform supports several wildcard characters to expand and refine search results.

<table>
<thead>
<tr>
<th>Wildcard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*search-term</td>
<td>Search for values that contain search-term.</td>
</tr>
<tr>
<td>%searchterm%</td>
<td></td>
</tr>
<tr>
<td>%search-term</td>
<td>Search for values that end with search-term.</td>
</tr>
<tr>
<td>search-term%</td>
<td>Search for values that start with search-term.</td>
</tr>
<tr>
<td>=search-term</td>
<td>Search for values that equal search-term.</td>
</tr>
<tr>
<td>!*searchterm</td>
<td>Search for values that do not contain search-term.</td>
</tr>
<tr>
<td>!%searchterm</td>
<td>Search for values that do not end with search-term.</td>
</tr>
<tr>
<td>!=searchterm</td>
<td>Search for values that do not equal search-term.</td>
</tr>
</tbody>
</table>

Configure the default search behavior

The default search behavior in a list is to search for values that are greater than or equal to the value you enter. Administrators can add properties to change the search behavior to use either a contains search or a starts with search by default, instead of a greater than search.

If you enter text in the search box without using a wildcard, the search is performed for values greater than or equal to the value you enter. For text data-type-fields, this means that the search first sorts the records on the selected field, then finds the first record that starts with the text and all following records. For numeric data-type-fields, this means that the search finds all records where the number field ends with the entered number.

Note: The system treats some string fields that contain record numbers as numeric fields. Any field named number or u_number is treated as a numeric field.

Changing the default search behavior to contains or starts with can cause performance issues as both search options return more results than a greater than search.

Role required: admin

1. Navigate to the list of system properties by typing sys_properties.list into the navigation filter.
2. Add one of the following properties depending on your default search behavior preferences.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>glide.ui.goto_use_contains</td>
<td>Changes the default search behavior for a list to a contains search.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Value: true</td>
</tr>
</tbody>
</table>
### Name Description

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>glide.ui.goto_use_starts_with</td>
<td>Changes the default search behavior for a list to a starts with search.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Value: true</td>
</tr>
</tbody>
</table>

3. Click Submit.

**Configure default search behavior using a dictionary attribute**

Change the default search behavior at the field level by adding an attribute to a field using the system dictionary.

**Role required:** admin

1. Navigate to System Definition Dictionary.
2. Search for the field in a table that you want to apply the default search attribute to.
3. In the Attributes field, add one of the following attributes.

---

**Note:** You may need to switch to the advanced view for the dictionary entry to see the attributes field.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>goto_use_starts_with=true</td>
<td>Changes the default search behavior to use the starts with operator for a specific field. Applying starts with to a non-text field returns any data starting with that search, which can cause performance degradation.</td>
</tr>
</tbody>
</table>

---

**Grouped lists**

Grouping aggregates a list by a field and displays the record count per group. Grouping can help you find data quickly by organizing and providing a summary of search or filter results.

For example, this picture shows active incidents grouped by caller.
Groups are named for the values of the field selected for grouping. For example, if you group by the assigned user, each group is a user's name.

- The record count for each group appears next to the group name.
- The total number of items in the list (all groups combined) appears near the paging controls in the list. This total displays only when the list is grouped on a field.

List v3 provides extended grouping capabilities.

**Figure 42: List grouped by caller (List v2)**

- Use one of the following methods to group and ungroup items in a list.
  - On the title bar, click the context menu and select Group By. Select the field by which to group the list. To remove a grouping, select -- None --.
  - Right-click the column name and select Group By. To remove a grouping, select Ungroup.

For example, this picture shows active incidents grouped by caller.
Figure 43: Group by

2. Use any of the following actions to expand the groups.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To expand or collapse a group</td>
<td>Click the arrow (↑) next to the group name.</td>
</tr>
<tr>
<td>To expand or collapse all groups</td>
<td>Click the arrow at the top of the list.</td>
</tr>
<tr>
<td>To open the full list for a group</td>
<td>Click the group name.</td>
</tr>
<tr>
<td>To see all records for a given group</td>
<td>Open the full list.</td>
</tr>
</tbody>
</table>

*Note:* The maximum number of records shown per group is the number of records per page in list view.

Use a grouped list in List v3

You can find information by grouping a list by a particular field. In the grouped by list view, you can change the grouped list focus, hide the visualization panel, or switch the graph view.

Role required: none

1. Right-click the column heading for the column to group by, and then select Group By <column name>.
   To undo a grouping, click Ungroup in the list footer.
The system groups the list by the column values and opens the grouping panel. Grouped order displays highest to lowest.
2. Use any of the following actions to work with grouped records.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Show or hide a group</strong></td>
<td>In the Show All tab of the grouping panel, clear or select the check box by a group.</td>
</tr>
<tr>
<td><strong>Focus on specific groups</strong></td>
<td>In the Show Selected tab of the grouping panel, clear the check boxes of any groups you do not want to see.</td>
</tr>
<tr>
<td><strong>Switch the graph view between a pie graph and a bar graph</strong></td>
<td>In the grouping panel, use the graph toggle.</td>
</tr>
<tr>
<td><strong>Show or hide the grouping panel</strong></td>
<td>In the list footer, click Toggle group by.</td>
</tr>
</tbody>
</table>

**Note:** The maximum number of records shown per group is the number of records per page in list view.

Filters and breadcrumbs

A filter is a set of conditions applied to a table to help you find and work with a subset of the data in that table.

You can apply, modify, create, and save filters. A hierarchical list of conditions at the top of the table — breadcrumbs — indicates the current filter.

Breadcrumbs offer a quick form of filter navigation. They are ordered from left to right. The left condition is the most general, and the right condition is the most specific. Clicking a breadcrumb removes all the conditions to its right. Clicking the condition separator (>) before a condition removes only that condition.

By default, a user with no roles cannot see the breadcrumbs or filter. Administrators can configure the ESS portal to allow unauthenticated users to see breadcrumbs and filters by using a script include. For more information on using script includes to suppress breadcrumbs and filters, see *Use script includes to suppress filters and breadcrumbs*.

**Note:** In List v3 split mode, you cannot edit the filter from the breadcrumb. Click the filter icon in the left pane to open the filter conditions in the right pane for editing.

![Breadcrumbs](image)

*Figure 44: Breadcrumbs, List v2*
Figure 45: Breadcrumbs, List v3

Examples:

- Clicking Priority = 2 removes the condition Category = Software and returns all active incidents with a priority of 2.
- Clicking the condition separator (>) before Priority = 2 removes the condition Priority = 2 and returns all active incidents in the software category.
- Clicking All removes all conditions and returns all incidents in the system.

Click a breadcrumb to refresh the list of records and show the latest information for those records.

**Note:** Clicking the New button in a filtered list automatically applies the same filter to the new record. For example, clicking New in the Resolved Incidents list opens a record preset with State set to Resolved. In a list filtered for active, priority 1 incidents, clicking New opens a record preset with Active selected and Priority set to 1 - Critical.

You can change the preset values on the form as needed. If there is a field you do not want to have populated in this way, you can add the following dictionary attribute to the field: `ignore_filter_on_new=true`.

Additional navigational functions are available when you right-click a breadcrumb.

**Table 25: Breadcrumb right-click options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open new window</td>
<td>Opens the results list for the breadcrumb in a new tab or window.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Copy URL</td>
<td>Copies the URL to the clipboard for the results list of the breadcrumb. Follow browser instructions if browser security measures restrict this function.</td>
</tr>
</tbody>
</table>
| Copy query   | Copies the encoded query to the clipboard for the breadcrumb. You can use this query in the URL of an instance or in the reference qualifier field of a dictionary entry.  
  For example, if you are viewing a list of all active incidents with a high or medium impact, right-click the breadcrumb and copy the query `active=true^impact=1^ORimpact=2`. You can append this query to the end of the instance URL as follows:  
  `https://{instance_name}/incident_list.do?sysparm_query=active=true^impact=1^ORimpact=2`  
  This selection is not available for the All breadcrumb.                                                                 |

**Quick filters**

To quickly filter a list using a value in a field, right-click in the field and select Show Matching or Filter Out. For date fields, choose from Show Before, Show After, and Filter Out.

These functions add a condition to the right in the breadcrumb of the current filter.

![Figure 46: Quick filter](image)

In this example, right-clicking In Progress and selecting Show Matching adds the condition `State = In Progress` as the most specific condition of the filter. By contrast, right-clicking In Progress and selecting Filter Out adds the condition `State != In Progress` as the most specific condition of the filter.

For date and date-time fields, you can also use Show After or Show Before to define a time-based filter.

Using the quick filter method to filter out a particular value builds the following conditions: `[field] [is not] [value]` or `[field] [is] [empty]`. Records that contain empty or null values still display in the filtered list. If you manually create a filter, it does not automatically include the OR condition `[field] [is] [empty]`, so records that have an empty or null value do not display in the filtered list.
Filters

A filter restricts what records appear in a list by providing a set of conditions each record must meet to be included in the list.

A condition consists of the following parts.

- **Field**: Each field contains data from a particular column in the table. Selecting a reference field allows you to dot-walk to data from other tables.
- **Operator**: Each field type has its own set of valid operators. The operator determines if a value is needed.
- **Value**: Each field has its own set of valid values determined by the field type. Reference fields have access to auto-complete, and choice lists provide a list of options.
- **Grouping**: Each condition line is grouped with either an AND or OR connector. The filter requires all condition lines linked with an AND connector to be met. The filter separately evaluates each condition line linked with an OR connector.

List v3 provides the Related Lists Conditions section that allows you to include a condition based on a related table.

Create filters on a list using the condition builder.

**Related list conditions in List v3**

By default, all lists allow you to filter on the current table data, which includes dot-walking to fields in referenced tables. In v3 lists, another type of condition, Related Lists Conditions, is available in the condition builder. For more information, see *Add related list conditions* on page 115.

**Pin a filter in List v2**

To make the condition builder appear every time you open the list, click the pin/unpin filter icon ( ). This functionality is not supported in List v3.

*Create a filter in List v2*

You can create a filter to restrict what records appear in a list by providing a set of conditions. When you run the filter, only records that meet the specified conditions are listed.

Role required: none

1. Open the condition builder by clicking the show/hid filter icon ( ).
   
   If the icon is disabled and the breadcrumb has a related list condition in it, you must remove the related list condition to open the filter. The condition was created when the List v3 was enabled for this list. List v2 does not support related list conditions. For more information about related list conditions, see *Add related list conditions* on page 115.
2. Select a field from the list.
   The field type determines the available operators and values. For example, the Active field can
   have a value of true, false, or empty, while a text field can have many different values. Similarly, the
   greater than operator does not apply to the Active field, but it does apply to the Priority field. For more
   information, see *Condition builder* on page 178.

3. Select an operator from the list.

4. Select or enter a value, if appropriate.

5. Add or remove conditions to construct the desired filter by completing one or more of the following
   steps.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To add a top-level condition</td>
<td>Click AND or OR on the condition builder toolbar, above the conditions.</td>
</tr>
<tr>
<td>To add a dependent condition</td>
<td>Click AND or OR beside the condition.</td>
</tr>
<tr>
<td>To remove a condition</td>
<td>Click x beside the condition.</td>
</tr>
</tbody>
</table>

   **Note**: To find all records that do not contain the specified value, create a filter with two
   conditions: `[field] is not [value]` or `[field] is [empty].`

6. To specify the sort order of the results, click Add Sort and then select a field to sort by and a sort
   order.

7. Click Save to keep the filter for future use. For more information, see *Save and use filters in a list view*
   on page 125.

8. Click Run to apply the filter.

*Create a filter in List v3*

You can create a filter to restrict what records appear in a list by providing a set of conditions. When you
run the filter, only records that meet the specified conditions are listed.

**Role required**: none

The filter can include conditions from a related list. For example, you filter the problem list to show high-
priority problems. You can add a related list condition to include only those high-priority problems that have
one or more related incidents.

   **Note**: List v3 is supported only in UI16.

1. Click the show / hide filter icon ( ) beside the breadcrumbs in UI16.

2. Select a field from the first choice list.

   You can dot-walk to a field on a referenced table, as shown in the following example. An arrow icon
   appears beside each reference field. Click the arrow to open additional reference fields to the right to
   find the field to use.
3. Select an operator from the next choice list. The field type determines the available operators and values. For example, the Active field can have a value of true, false, or empty, while a text field can have many different values. Similarly, the greater than operator does not apply to the Active field, but it does apply to the Priority field. For more information, see Condition builder on page 178.

4. Select or enter a value, if appropriate.

5. Add or remove conditions to construct the desired filter by completing one or more of the following steps.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a top-level condition</td>
<td>Click New Criteria below the condition builder.</td>
</tr>
<tr>
<td>Add a dependent condition</td>
<td>Click AND or OR beside the condition.</td>
</tr>
<tr>
<td>Remove a condition</td>
<td>Click the remove condition icon (#) beside the condition.</td>
</tr>
</tbody>
</table>
### Option: Add a related list query

Click RELATED LISTS CONDITIONS below the condition builder. Select a relationship from the Table choice list and the number of records to include in the result. Optionally, select the field, operator, and value for the related table.

Related list queries add the ability to quantify the related list query, which you cannot do if you dot-walk to the related field. For more information, see Add related list conditions on page 115.

**Note:** To find all records that do not contain the specified value, create a filter with two conditions: [field] [is not] [value] or [field] [is] [empty].

---

6. To specify the sort order of the results, click Add Sort, and complete the following steps.
   a) Select a field to sort by and select a sort order.
   b) Click the add condition icon (+) beside the sort condition to add an extra level of sorting.
      For example, you can sort a list of incidents by state, then sort incidents of the same state by date opened.
   c) Click the remove condition icon (-) beside a sort condition to remove it.
   d) Click Run Sort.

You cannot add Keywords to the filter more than once.

7. Click Save Filter to keep the filter for future use. For more information, see Save and use filters in a list view on page 125.

8. Click Run to apply the filter.

---

**Add related list conditions**

Related list conditions allow you to include a relationship with another table in the filter. Related list conditions are supported only in List v3.

**Role required:** none

You can optionally include conditions on the related table. For example, you can filter active problems with one or more related incidents that are in the Canceled state. Another example is to filter incidents with a breached service level agreement (SLA).

The List v3 filter contains two sections, one for the current table conditions and one for related lists conditions. You can include only one related table in the query, however, you can add multiple conditions for that table.
The easiest way to understand the parts of a related list condition is to use an example. The steps below use the example of open problems with some number of related incidents. You can perform these steps for any list view that supports List v3.

1. For this example, navigate to Problems Open .
2. Open the list filter and select the conditions for the current (Problem) table.
   The [State] [is] [Open] condition is already added.
3. Click RELATED LISTS CONDITIONS to expand the section.
4. From the choice list, select the table relationship to include in the query.
   For this example, select Incident>Problem. You can select any table that you have access to view.
5. To select a quantifier, click Greater Than Or Equal To 1.
   The Quantity popover opens.
6. Select a quantity, enter number of records in the related table that must match, and then click X to close the popover.

The default number is 1. Following are descriptions and examples of each quantifier for this example.

- **Greater Than Or Equal To**: Returns problem records where the number of related incidents is greater than or equal to the number you enter. A value of 5 includes problems with five or more related incidents. Problem records with 4 or fewer incidents are not returned.
- **Greater Than**: Returns problem records that have more than this number of related incidents.
- **Less Than Or Equal To**: Returns problem records that have the number or fewer than the specified number of related incidents. A value of 1 includes problem records with one or no related incidents.
- **Less Than**: Returns problem records with fewer than the number of related incidents. A value of 1 returns problems with no related incidents.
- **Equal To**: Returns problems with this number of related incidents. A value of 5 includes problem records with exactly five related incidents.
- **None**: Returns problems that do not match the specified table relationship. A selection of None returns problems with no related incidents.
- **Between**: Returns problems with any number of related incidents that is between the two numbers you enter. Between values of 5 and 10 include problem records with 5, 6, 7, 8, 9, or 10 related incidents.

7. Enter one or more conditions for the related table. Click New Criteria to add another condition.

The following image shows the example of filtering for problem records with more than two related incidents that are critical priority.
Note: You cannot perform a keyword search in a related table condition.

8. Click Run to execute the filter query.

The breadcrumb displays Related List condition.... Open the filter to view the related list query statement.

Figure 48: List breadcrumb and the related list condition query statement

Note: If List v3 is disabled for a list with a related list condition query in the default filter, the filter edit function is disabled. Remove the related list condition to enable list filter editing.
OR conditions

The condition builder uses two different types of OR conditions: top-level and dependent.

Using a dependent OR condition, you can specify alternative criteria to a single operation. Dependent OR conditions work in the manner A and (B or C). When you have an OR condition in the query, the magnifying glass is no longer available. The conditions you put in the quick search headers are ANDed together. Having an OR makes it ambiguous as to where the new condition should go, for example before the OR, or after the OR.

For example, to return a list of all unassigned problem and incident records from the Task table, create a filter with a dependent OR on the Number field.

- [Assigned to] [is] [empty] AND [Number] [begins with] [PRB] OR [Number] [begins with] [INC].

Figure 49: Dependent OR List v2
A top-level OR condition allows you to display the results of multiple filter criteria in a single list. Top level OR conditions work in the manner (A and B) or (C and D).

For example, to return a single list of all active incidents with a category of hardware, and all inactive incidents with a category of software, create two condition sets separated by a top-level OR condition.

- [Active] [is] [true] AND [Category] [is] [Hardware]
- Top level OR condition
- [Active] [is] [false] AND [Category] [is] [Software]
In List v3, select the New Criteria button in the condition builder to create a new top-level OR condition.
Top-level and dependent OR conditions can be used together. Filters using both types of OR conditions work in the manner (A or B) or (C or D). By mixing AND conditions with top-level and dependent OR conditions, you can create very specific filters.

**Filter on multiple string values**
For a string field, you can create a filter that searches for multiple values by creating a comma-delimited list.

This feature enables administrators to copy and paste search criteria from a Microsoft Excel spreadsheet into a filter, for example.

---

**Note:** Do not use the [is one of] operator on fields that contain commas, as the query does not return the expected set of records. Instead, create a filter using multiple [or] statements.

1. Create the filter with the [is one of] or [is not one of] operator.
   Depending on the selected field, a choice list or a text box appears.

2. Select one or more of the options by using multiple selection key commands.
   The choice list remains visible.
Alternatively, for text or number fields, type your search options. Separate the options by commas or put each option on a separate line, and do not enclose the selections in brackets.

3. Click Run to filter the list.
   The filter conditions appear as a comma-delimited string at the top of the results list.
Dynamic operators
The dynamic operator, is (dynamic), lists predefined dynamic filter options where the condition value is computed from a value in a reference field.

The following dynamic filter options are available by default.

<table>
<thead>
<tr>
<th>Target table of reference field</th>
<th>Option label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User [sys_user]</td>
<td>Me</td>
<td>The reference field contains the current user.</td>
</tr>
<tr>
<td></td>
<td>One of My Assignments</td>
<td>The reference field contains the current user or someone for whom the current user is a delegate for assignments.</td>
</tr>
<tr>
<td></td>
<td>One of My Approvals</td>
<td>The reference field contains the current user or someone for whom the current user is a delegate for approvals.</td>
</tr>
</tbody>
</table>
The following table contains examples and descriptions of dynamic filter conditions.

**Table 27: Example of using the dynamic operator**

<table>
<thead>
<tr>
<th>Field</th>
<th>Operator</th>
<th>Dynamic filter option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caller</td>
<td>is (dynamic)</td>
<td>Me</td>
<td>Computes the value of Caller based on the current user viewing the list.</td>
</tr>
<tr>
<td>Assignment group</td>
<td>is (dynamic)</td>
<td>One of My Groups</td>
<td>Computes the value of Assignment group based on the current user viewing the list.</td>
</tr>
</tbody>
</table>

**Save and use filters in a list view**

Depending on your access rights, you may save filters for everyone, a user group, or yourself. You can apply saved filters and edit or delete them.

Role required: varies depending on action. See procedure.

**Note:** A new Create ACL allows all users to save filters by default. This overrides any custom ACLs in place if administrators are restricting filter access. The new ACL gives all users access to the User field by default, and access to the Group field only if users have the filter_group role and are in the currently selected group.

1. Create or modify a filter in the filter interface.
2. Click Save... (or Save Filter in List v3).
3. Enter a name for the filter.
4. Select one of the following visibility options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>Creates a personal filter, which only you can access. If you do not have Write access to the User field, this option will not be available. See your administrator for more information.</td>
</tr>
<tr>
<td>Everyone</td>
<td>Creates a global filter, which all users can access. This option is available to users with the filter_global role.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Group</td>
<td>Creates a group filter, which only members of the user group you select can access. This option is available to users with the filter_group role. If you do not have Write access to the Group field, this option will not be available. See your administrator for more information.</td>
</tr>
</tbody>
</table>

5. Click Save (or Submit in List v3).

**Note:** In UI15, click the Save button that appears to the right of the visibility options, as opposed to the Save... button at the top.

6. To use a saved filter, select the filter name in the list title menu. The filter runs and the breadcrumbs appear.

![List title filters](image)

Figure 54: List title filters

7. Click Save (or Submit in List v3).

8. To use a saved filter, select the filter name in the list title menu (List v2) or open the filter interface and select Load Filter (List v3).

The filter runs and the breadcrumbs appear.
9. To edit or delete personal filters, complete the appropriate action for your list version.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Select Edit personal filters from the title menu.</td>
</tr>
<tr>
<td>List v3</td>
<td>Select the edit filter icon, click Load Filter, and then click Manage Filters.</td>
</tr>
</tbody>
</table>

10. Complete the following steps.
    a) Click the title of the filter to edit.
    b) Update the filter title or add or remove conditions.
    c) To delete the filter, click Delete and confirm deletion.
    d) If you edited the filter, click Update.

Filter admin functions

Administrators can work with filters in the Filters table [sys_filter], including creating, editing, and deleting filters.

Administrators can also create scripted filters that cannot be created in the condition builder. Scripted filters required a knowledge of JavaScript. Scripted filters can be used to create additional dynamic filter options.

Create and edit filters
Administrators can create and edit any saved filter.

Role required: admin

1. Navigate to System Definition Filters.
2. To create a filter, complete the following steps.
   a) Enter a Title and select the Table.
   b) Add filter conditions.
   c) Click Submit.
3. To edit a saved filter, select the filter to edit and complete the following steps.
   a) Modify the Filter conditions as necessary.
   b) Click Update.

Delete filters
You can delete any saved filter, including global, group, or personal filters.

Role required: admin

1. Navigate to System Definition Filters.
2. To see who created the filter and when, personalize the list to add the created_by and created fields to the list.
3. To see who has access to the filter, configure the list to add the user, group, or domain fields.
   Filters that are not assigned to a user or group are global.
4. Select the filter to delete.
5. Click Delete and confirm the deletion.

Create scripted filters
The condition builder alone cannot create some filters, such as displaying a record set that depends on an unrelated table. If you know JavaScript, you can create JavaScript functions for use in advanced filters.

Role required: admin

1. Create a new script include.
2. In the Script field of the script include, create a JavaScript function that returns an array of sys_ids.
   • Ensure that the function uses the same name as the script include.
   • Ensure that the script include is Active and Client callable.
3. Call the JavaScript function from the condition builder.
   For more information, see GlideRecord queries and Script includes.

A company provides intensive care for a group of customers. To track these services, the service manager needs a high-level journal and links to all incidents that the customers raise.

The company creates an application, Intensive Care, and a table, [u_intensive_care]. While the table contains a reference field for the customer name, there is no direct link to the user table. Thus, the manager cannot set up an incident list filter using the condition builder for customers who are under intensive care.

The solution is to write a JavaScript function that uses a GlideRecord query to build an array of user sys_ids in the [u_intensive_care] table, as shown in the sample code below. Call the function from the condition builder in the Incident table ([Caller] [is [javascript:myFunction()].

```javascript
function myFunction ( ) {
    var arrUsers = [ ];
    gr = new GlideRecord ( 'u_intensive_care' );
    gr. query ( );
    while (gr. next ( ) ) {
        arrUsers. push (gr. u_customer. toString ( ) );
    }
    return arrUsers;
}
```
**Create a dynamic filter option**
Dynamic filter options enhance filtering by allowing users to run existing script includes or JavaScript against a reference field within condition builders and dynamic reference qualifiers.

Role required: admin

This task describes how to create a new dynamic filter option and an associated script include.

Dynamic filter options "objectize" script includes/JavaScript, enabling them to be reused in multiple condition builders and dynamic reference qualifiers. This type of filter enables you to modify a script once and have the changes automatically take effect everywhere the dynamic filter option is used.

When defining a dynamic filter, you can:
- use an existing is (dynamic) dynamic filter option (condition builder only)
- use an existing dynamic filter option (OOB or custom)
- create a new dynamic filter option and script include/JavaScript

All condition builder dynamic filters use the is (dynamic) operator and call a dynamic filter option. In the following example, the pre-existing dynamic filter option Me is being used. For a list of available pre-existing condition builder dynamic filter options, see Dynamic operators.

---

**Note:** Dynamic filters are not supported in scoped applications or UI policy conditions.

---

**Figure 56: Dynamic operands**

1. Create a scripted filter as a client-callable script include or business rule.
2. Navigate to System Definition Dynamic Filter Options.
3. Click New.
4. Complete the form.
Table 28: Dynamic filter options

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Enter a descriptive name for the dynamic filter option.</td>
</tr>
<tr>
<td>Script</td>
<td>Enter the name of the function you created, JavaScript (no script included), or the complete script include/business rule call, such as new GlobalCanvasUtil().refQualPaTabs().</td>
</tr>
<tr>
<td>Field type</td>
<td>Select Reference.</td>
</tr>
<tr>
<td>Referenced table</td>
<td>Select the table to which this dynamic filter option applies.</td>
</tr>
<tr>
<td>Order</td>
<td>Enter a number to designate the placement of this dynamic filter option in the filter option choice list.</td>
</tr>
<tr>
<td>Roles</td>
<td>Select the role a user must have to see this option.</td>
</tr>
<tr>
<td>Active</td>
<td>Enable or disable the option.</td>
</tr>
<tr>
<td>Reference script</td>
<td>Optional. Select the client-callable script include or business rule you created for the scripted filter. If the Script field contains JavaScript, an encoded query, or the entire script include/business rule reference, this field can be empty.</td>
</tr>
<tr>
<td>Available for filter</td>
<td>Select this option to display the dynamic filter option as a filter breadcrumb.</td>
</tr>
<tr>
<td>Available for default</td>
<td>Select this option to allow dynamic filter option to be a default in a dictionary entry.</td>
</tr>
<tr>
<td>Available for ref qual</td>
<td>Select this option to allow dynamic filter option to be selected as a dynamic reference qualifier.</td>
</tr>
</tbody>
</table>

5. Click Submit.

Encoded query strings

An encoded query string represents a complex filter on a list of records.

Use encoded query strings to include a filter as part of a URL parameter, such as the Navigate to a record or module using a URL on page 38, or as a reference qualifier to restrict the data that is selectable for a reference field.

You can create encoded query strings manually or copy them from list filters.
Table 29: Encoded query string examples

<table>
<thead>
<tr>
<th>Title</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referring to Boolean or string values</td>
<td>To create a query string on Boolean fields, use this syntax: field=true or field=false. For example, to return only active records in a table, use: active=true</td>
</tr>
<tr>
<td></td>
<td>To create a query string with a field that has a specific string value, use this syntax: field=value. For example, to return incident records where the category is network, use: category=network</td>
</tr>
<tr>
<td>Referring to reference fields</td>
<td>To create a query string that refers to a reference field in another table, use this syntax: field_in_referenced_table=value. For example, to return users with the itil role in the Assigned to reference field on the Incident form, use: roles=itil</td>
</tr>
<tr>
<td>Referring to choice list values</td>
<td>To create a query string that refers to a choice list option, use the value of the choice list, not the label, with this syntax: choice list field=value. For example, to return configuration items (CIs) with the status Installed, which has a value of 1 in the choice list, use: install_status=1</td>
</tr>
<tr>
<td></td>
<td>See Values to associate with choice labels for scripting to find the options for the values.</td>
</tr>
<tr>
<td>Title</td>
<td>Example</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| Using multiple conditions | To use two conditions joined by an AND operator, use the carat `^` symbol in this syntax: `field1=value1^field2=value2`. For example, to return all active users with the "itil" role, use: `active=true^roles=itil`  
To use two conditions joined by an OR operator, use the carat symbol with OR with this syntax: `field1=value1^ORfield1=value2`. For example, to return all users with either the "itil" or "admin" roles, use: `roles=itil^ORroles=admin`  
To add multiple conditions where one condition is a JavaScript function, use this syntax: `javascript:'field=value^' + function()`. The function must return a string that can be concatenated with the first string to produce a valid query string. For example, to return all active users and meet the conditions of the `getGroupQualifier()` function, use: `javascript:'active=true^' + getGroupQualifier()` |
| Listing values in order | To sort data by a specific field, use the `ORDERBY` condition with the following syntax: `field1=value^ORDERBYfield2`.  
For example, to return the days of the week in order from the Day of the Week [sys_cal_unit] table, use: `unit_name=day^ORDERBYvalue`  
In the Day of the Week table, `unit_name` is the field that specifies day, week, or month, and `value` is a numerical value for each day from 1 (Monday) to 7 (Sunday). The query string returns a list of the days of the week in order from the lowest value, which represents Monday, to the largest value, which represents Sunday.  
**Note:** Reference qualifiers do not support the `ORDERBY` condition. In reference qualifiers, you can sort the reference lookup list by using standard list controls. To specify the order of an auto-complete list for a reference field, use the `ref_ac_order_by` dictionary attribute. |
<table>
<thead>
<tr>
<th>Title</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including a related list query</td>
<td>At the end of the query statement, enclose the related list information with ^RLQUERY and ^ENDRLQUERY and the quantity. For example, in a query on the Problem table that includes problems with at least one related incident, use: ^RLQUERYincident.problem_id,&gt;=1^ENDRLQUERY</td>
</tr>
<tr>
<td></td>
<td>You can also specify conditions on the related table. For example, to include the condition that at least one of the related incidents is critical priority, use: ^RLQUERYincident.problem_id,&gt;=1^priority=1^ENDRLQUERY</td>
</tr>
</tbody>
</table>

**Note:** Related list queries must be enabled in System PropertiesList v3. Select the Allow related list query conditions to be added through the filter check box to enable it.

You can build a related list query for a list that uses List v2, however, the filter conditions cannot be modified until you removed the related list condition in the breadcrumb.

---

*Generate an encoded query string through a filter*

You can generate an encoded query string through a filter on any list and paste the string into a URL query or a reference qualifier.

**Role required:** none

1. Open a list of records.
2. *Construct the filter.*
3. Click Run.
4. Right-click the end of the filter breadcrumb and select Copy query from the context menu.
Copy the query to your system clipboard.

5. Use the query string to Navigate to a record or module using a URL on page 38 or an advanced reference qualifier. When you use the CONTAINS operator on a list filter, the system translates the filter to a LIKE query. For example, if you filter for active records with numbers that contain 123, the URL is `https://InstanceName.service-now.com/incident_list.do?sysparm_query=active%3Dtrue%20%5EGOTOnumberLIKE123`.

Methods for list edits

Users can edit data in lists using various methods.

Quick edit functions

To edit a record in a list using quick edit functions, right-click a field and select the appropriate function.

**Assign to me**

For records that use assignments, places the name of the logged-in user into the Assigned to field.

**Approve**

For records that use approvals, changes the approval state of the record to Approved.

**Reject**

For records that use approvals, changes the approval state of the record to Rejected.

**Assign tag**

For records you want to track based on a user-defined label, lets you select an existing tag or add a tag.
**List editor**

The list editor lets you edit field values in a list without opening a form. Administrators can configure the list editor. By default, list editing is disabled for some tables. Fields of *certain types* cannot be edited from lists.

**Multiple record edits**

You can edit more than one record at the same time using the list editor or an editing form.

**Use the list editor**

The list editor allows you to edit field values directly from a list without navigating to a form.

**Role required: none**

The list editor lets you edit field values in a list without opening a form. Administrators can configure the list editor. By default, list editing is disabled for some tables. Fields of *certain types* cannot be edited from lists.

Before the list editor opens, access rights to edit the field are verified. If this process takes longer than expected, a loading indicator appears. In List v2, if the field has a dependency relationship (for example, Category and Subcategory), then a composite editor opens to allow editing of all dependent fields. You must have rights to edit all dependent fields to use the list editor.

1. Double-click in an empty area of the field. The appropriate editor for the field type opens.
   - For v2 lists, you can enable single-click editing from the *list personalization interface*. You can also use keyboard navigation to access the list editor.
2. Enter the appropriate values.
3. Save the records by performing the appropriate action for your list version.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **List v2** | Click the save icon (✓) .

   - Click the cancel icon (x) .
   - or press the Escape key to retain the original value.

| List v3 | Click Save. Press the Escape key or click outside the dialog box to retain the original value. |
4. To use keyboard navigation in List v2, press the Tab key until the first field in the list is selected, and then select the field to edit in one of the following ways.
   - Move right: Tab or the Right Arrow key.
   - Move left: Shift + Tab or the Left Arrow key.
   - Move down: the Down Arrow key.
   - Move up: the Up Arrow key.

To select multiple fields in the same column, hold Shift and press the Down Arrow or the Up Arrow key.

5. Press the Enter key to open the list editor.

6. Enter a new value. To add another line in a multi-line text field, press Shift + Enter.

7. Save or cancel your changes in one of the following ways:
   - Press the Enter key. The new value is saved and the field below the edited field becomes selected.
   - Press the Tab key. If the list is configured to save immediately, the new value is saved. If the list is configured to save data by rows, an indicator appears beside the value and the list editor opens for the next field. The row is saved only when you navigate away from the row or click the check mark icon beside the row.
   - Press Ctrl + Enter keys. If the list is configured to save immediately, the new value is saved. If the list is configured to save data by rows, an indicator appears beside the value and the current field remains selected.
   - Press the Esc key. The list editor closes without saving changes and the field remains selected.

---

**Note:** Certain browsers use different key combinations to edit certain field values. For example, to edit a choice list using Chrome, press the Spacebar.

---

*Create a record from a list row*

Users can create records by inserting a new row in the list.

**Role required:** any role required to create records on the table

Administrators can configure the list editor to enable this feature for lists.
1. Navigate to the empty row at the bottom of the list.
2. Open the list editor for a field in the row and enter a value.
3. Save or cancel your changes.

![Figure 59: Insert a new row (record)](image)

**Edit multiple records in a list using the list editor**

You can edit multiple records at the same time using the list editor. If you want to update a single field on multiple records to have the same value, the list editor is the quickest method.

Role required: none

1. Select the records you want to edit by performing one of the following actions.
   - To select multiple consecutive fields, hold Shift and drag in the desired fields, or select a cell and then press Shift + Up Arrow or Shift + Down Arrow.
   - To select multiple non-consecutive fields, press Shift and click in one of the desired fields, then hold Shift + Ctrl (Shift + Command on Mac), and click in the desired fields.

2. Open the list editor by double-clicking (or clicking, depending on setup) in an empty area of the field. The number of selected rows that you are editing is indicated. If any rows cannot be edited due to security constraints, that is indicated.
3. Enter the appropriate values and click Save.

Edit multiple records in a list using an editing form

You can edit multiple records at the same time using an editing form. If you want to edit multiple fields or fields that do not appear in the list view, use an editing form.

Role required: list_updater

Depending on your ACL settings, some of these options might not be available even with the right role. For example, if the list is task.list and users try to select multiple incident records from that task list, the form uses the task form and not the incident form so ACLs on task are enforced instead. Since users would not have access to task specifically, the form would not show any fields.

1. Perform one of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update selected records</td>
<td>1. Select the check box by each row you want to edit.</td>
</tr>
<tr>
<td></td>
<td>2. Perform the appropriate action for the list version:</td>
</tr>
<tr>
<td></td>
<td>• List v3: Open the list title menu and select Update Selected.</td>
</tr>
<tr>
<td></td>
<td>• List v2: Right-click any column header and select Update Selected.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Update all records in the list</strong></td>
<td>1. Filter the list so it contains only the rows you want to edit.</td>
</tr>
<tr>
<td></td>
<td>2. Perform the appropriate action for the list version:</td>
</tr>
<tr>
<td></td>
<td>• List v3: Open the list title menu and select Update All.</td>
</tr>
<tr>
<td></td>
<td>• List v2: Right-click any column header and select Update All.</td>
</tr>
</tbody>
</table>

An editing form opens.

2. Enter appropriate values in any of the fields and click Update to save your changes in all selected records.

### Personal lists

Users can create personal lists to customize which columns appear and the order in which they appear. Personal lists modify a specific list view according to individual preferences.

Personal list customizations do not affect what other users see in their lists. Administrators can manage the personal lists function.

**Note:** In List v2, some general list preferences are available in the list personalization interface. The List v3 list personalization interface does not contain these preferences. Some of the preferences are located in the Lists section of the system settings. Others do not apply to List v3 or are not supported.

### Personalize a v2 list

In List v2, you can personalize a specific list view based on individual preferences.

1. Open the list.

2. Click the personalize list icon (⚙️) in the upper left corner. The Personalize List Columns window opens.
3. Use the slushbucket to select the columns and the desired order. Values in the first column appear as links. If the first column is not a reference field, the link opens the record from the list, as expected. If the first column is a reference field, the link opens the record from the referenced table. This behavior can be confusing. For this reason, avoid using a reference field as the first column.

4. Select display options.

   **Note:** These options apply to all v2 lists, not just the view you are personalizing.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display long text on more than one line</td>
<td>Select the Wrap column text check box. Clear the check box to display text on one line.</td>
</tr>
<tr>
<td></td>
<td>In UI16, this option is also available in the Lists section of the <strong>system settings</strong>.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Condense the vertical space between rows</td>
<td>Select the Compact rows check box. Clear the check box to use standard row spacing.</td>
</tr>
<tr>
<td>Highlight list rows as the cursor passes over them</td>
<td>Select the Active row highlighting check box. Clear the check box to restore the static, alternate row highlighting.</td>
</tr>
<tr>
<td>Use updated field status indicators</td>
<td>Select the Modern cell coloring check box. In UI16, this option is also available in the Lists section of the system settings.</td>
</tr>
</tbody>
</table>

5. Select list editing options (requires you to configure the list editor).

**Note:** These options apply to all v2 lists, not just the view you are personalizing.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow the list editor to open for the list</td>
<td>Select the Enable list edit check box. Clear the check box to prevent the list editor from opening for the list.</td>
</tr>
<tr>
<td>Open the list editor with a double-click</td>
<td>Select the Double click to edit check box. Clear the check box to open the list editor using a single click.</td>
</tr>
</tbody>
</table>

6. Click OK.
   The list reloads to show the changes. If you personalized the columns, an indicator appears on the personalize list icon (⚙).

To reset a list to the default layout, click the personalize list icon and click the Reset to column defaults button.

**Personalize a v3 list**

In List v3, you can personalize a specific list view based on individual preferences.

Role required: none

1. Open the list.
2. Click the list title menu icon and select Personalize List Columns.
   The Personalize Columns window appears.
Perform any of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Add columns</strong></td>
<td>In the Available section, select the check box by each column you want to add. Use the search field to find a specific column.</td>
</tr>
<tr>
<td><strong>Remove columns</strong></td>
<td>In the Available section, clear the check box by each column you want to remove. Alternatively, in the Selected section, point to a column and click the delete icon (X).</td>
</tr>
<tr>
<td><strong>Rearrange columns</strong></td>
<td>In the Selected section, drag columns in the desired order.</td>
</tr>
</tbody>
</table>
Values in the first column appear as links, which open the record from the list. If the first column is a reference field, the open reference value icon (🔗) appears by the value. Click the icon to open the record from the referenced table.

4. Click Save.
The list reloads to display the changes.

To reset a list to the default layout, open the list personalization interface and click the Reset Columns button.

Comparison of List v2 and List v3

There are several differences between List v2 and List v3. List v3 is no longer available for new deployments. If you are already using list v3, you may continue to do so.

List v2 is the default version of lists and is supported in all versions of the UI. Even when List v3 is activated, some UI16 lists may display in List v2. For details, see List v3 compatibility.

List v3 performance is different from performance in List v2. Based on your instance configuration and the complexity of the query, List v3 may load records more slowly than List v2.

In List v2, the list editor does not enforce client scripts or UI policies. In List v3, the list editor enforces UI policies and mandatory dictionary attributes, but not client scripts. Allowing list editing with client scripts running on fields in a form can result in incorrect data being saved to the record. For more information on list administration and using business rules and client scripts, see List editor administration.

Visual differences between List v2 and List v3

If you are unsure whether a list is v2 or v3, look for the following identifiers.

- The personalize list gear icon appears in the upper left corner of v2 lists. The personalize list option is located in the List title menus on page 146.
- Page controls appear in the list title bar of v2 lists.
- The list mode toggle appears in the list title bar of v3 lists. You can switch between the standard list mode, called Grid mode, and a Split list and form mode.
- Avatars appear by user names in v3 lists.
- Page controls appear in a footer at the bottom of the page for v3 lists.
- The response time indicator does not appear on the bottom, right of v3 lists. You can create a property to display the response time in milliseconds (ms) on the lower left in the List v3 footer.
Figure 61: List v2 identifiers
List features

Most List v2 features are supported in List v3 as well, with the following exceptions.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hierarchical lists</td>
<td>Tables that have hierarchical lists enabled display in List v2.</td>
</tr>
<tr>
<td>Embedded lists</td>
<td>Embedded lists display in List v2.</td>
</tr>
<tr>
<td>Create a list report in the Report Designer</td>
<td>List reports display in List v2.</td>
</tr>
<tr>
<td>Customizing list title or list column heading menus</td>
<td>Options added to list context menus using the Context Menu [sys_ui_context_menu] table do not appear in List v3.</td>
</tr>
<tr>
<td></td>
<td>Because it is only possible to customize the list title menu or list column heading menu by editing records on the Context Menu table, it is not possible to customize these menus in List v3. Administrators can customize list field menu options by editing UI actions.</td>
</tr>
<tr>
<td>Detail rows</td>
<td>Detail rows do not appear in List v3.</td>
</tr>
<tr>
<td>Composite fields</td>
<td>Links do not display in composite fields, and the different field values may appear on the same line in List v3.</td>
</tr>
<tr>
<td>Limiting access to list column personalization</td>
<td>Administrators cannot disable list column personalization or control which user roles can personalize list columns in List v3.</td>
</tr>
<tr>
<td>Administering certain list editor capabilities</td>
<td>Administrators cannot configure which field types are editable and cannot enable single-click list editing for v3 lists. In List v3, the list editor enforces UI policies and mandatory dictionary attributes.</td>
</tr>
<tr>
<td>Configuring when related lists load</td>
<td>When List v3 is enabled for related lists, all related lists load asynchronously after the form loads, even if there are no v3 related lists on the form.</td>
</tr>
<tr>
<td>Creating default filters for related lists</td>
<td>The Set as Default Filter button is not available in the filter interface for v3 related lists.</td>
</tr>
</tbody>
</table>

List title menus

The list title menu contains several options related to the list.

Some of the options displayed in the list title menu depend on the list version, the user role, and the installed applications. The List v3 list title menu contains several options that appear in the list column context menu in List v2.

To open the list title menu, click the menu icon ( ) by the list title.

List title menu in List v2

You can click the title of the list to access options related to viewing and filtering the entire list.
**Note:** Administrators can *customize* which options appear in the list title menu.

**Table 31: Context menu list title**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>Changes the view of the list by presenting different information.</td>
</tr>
<tr>
<td>Filters</td>
<td>Changes the values in the filter. Some of the choices are: None, Active, and Edit personal filters.</td>
</tr>
<tr>
<td>Group by</td>
<td>Groups records in a list by the values in a selected field from that table. Any field from the table can be used as a group filter, whether or not it appears in the list.</td>
</tr>
<tr>
<td>Show</td>
<td>Changes the number of rows shown on each page of the list.</td>
</tr>
<tr>
<td>Refresh List</td>
<td>Refreshes the list to show changes immediately.</td>
</tr>
<tr>
<td>Create Favorite</td>
<td>Adds a link to this list to your favorites.</td>
</tr>
</tbody>
</table>
List title menu in List v3

The options that appear are based on the user’s role. Pictured are the options that administrators see. Administrators can customize which options appear in the list title menu.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalize List Columns</td>
<td>Configures which columns appear and the order in which they appear for a user.</td>
</tr>
<tr>
<td>Change View</td>
<td>Changes the view of the list by presenting different information.</td>
</tr>
<tr>
<td>List Layout</td>
<td>Configures the list view for all users (requires access rights).</td>
</tr>
</tbody>
</table>

Table 32: List title menu options
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List Calculations</td>
<td>Configures list calculations for columns, which calculate column totals, minimums, maximums, and averages (requires access rights).</td>
</tr>
<tr>
<td>List Control</td>
<td>Configures list controls, such as buttons and filters (requires access rights).</td>
</tr>
<tr>
<td>Configure</td>
<td>Provides administrative functions related to the information displayed and how it is controlled (requires access rights).</td>
</tr>
<tr>
<td>Import</td>
<td>Import data from an Excel template file.</td>
</tr>
<tr>
<td>Export</td>
<td>Exports data to Excel, CSV, XML (administrators only), or PDF.</td>
</tr>
<tr>
<td>Create Favorite</td>
<td>Adds a link to this list to your favorites.</td>
</tr>
<tr>
<td>Update All</td>
<td>Perform updates to multiple records at once.</td>
</tr>
<tr>
<td>Update Selected</td>
<td></td>
</tr>
<tr>
<td>Create Application Files</td>
<td>Creates demo data from the current list of records that can be included when you install or update the application on another instance (administrators only). Used with custom application development.</td>
</tr>
<tr>
<td>Import XML</td>
<td>Imports a set of records that were exported from a source instance, for example, a developer instance (administrators only).</td>
</tr>
</tbody>
</table>

Column headings

Column headings appear at the top of each list column.
These headings display column names and provide some list actions. The available actions are different for v3 and v2 lists. In List v3, several of the actions are moved to the list title menu.

Column headings in List v2

These headings display column names and provide some list options. Column headings are stationary at the top of the list and do not scroll with list content.

Note: Some of the options displayed in the list context menu depend on the user role and the installed applications.
Table 33: Column heading controls

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting</td>
<td>Click the column name to sort the list in ascending order. Click again to sort in reverse order. An arrow by the column name indicates the column currently being sorted as well as the sort direction. A downward pointing arrow indicates that the column is sorted in descending order.</td>
</tr>
<tr>
<td>Title</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>List column context menu</td>
<td>Access this menu, also called a right-click menu, by clicking the menu icon (≡) at the top of a list column (UI16/UI15) or by right-clicking the column heading (any UI version). The list context menu offers the following controls.</td>
</tr>
<tr>
<td>• Sort (a to z) and (z to a): Sort in ascending or descending order.</td>
<td></td>
</tr>
<tr>
<td>• Show Visual Task Board: Create a <a href="#">Visual Task Board</a> based on the current list.</td>
<td></td>
</tr>
<tr>
<td>• Group By: Aggregate records by a field. For more information, see <a href="#">Use a grouped list in List v2</a> on page 105.</td>
<td></td>
</tr>
<tr>
<td>• Bar Chart and Pie Chart: Create quick bar and pie chart reports based on the filter criteria of the list. Users can then modify these reports or create gauges (depending on access rights).</td>
<td></td>
</tr>
<tr>
<td>• Launch Interactive Analysis (requires Performance Analytics): Enables you to quickly explore data using visualizations.</td>
<td></td>
</tr>
<tr>
<td>• Time Series Chart (available on columns with MetricBase data; requires MetricBase): Shows a basic report on the MetricBase data.</td>
<td></td>
</tr>
<tr>
<td>• Time Series Chart Designer (available on columns with MetricBase data; requires MetricBase): Launches the Report Designer to that you can configure a time series report for the metric in the column. For more information, see <a href="#">Create time series reports from MetricBase data</a></td>
<td></td>
</tr>
<tr>
<td>• Configure (requires access rights): Provides administrative functions related to the information displayed and how it is controlled. For more information, see <a href="#">List configuration</a>.</td>
<td></td>
</tr>
<tr>
<td>• Import (administrators only): Import data from an Excel template file.</td>
<td></td>
</tr>
<tr>
<td>• Export: Exports data to Excel, CSV, XML (administrators only), or PDF. For more information, see <a href="#">Exporting data</a>.</td>
<td></td>
</tr>
<tr>
<td>• Update Selected and Update All: Perform updates to multiple records at once. For more information, see <a href="#">Edit multiple records in a list using the list editor</a> on page 137. These options require the list_updater role.</td>
<td></td>
</tr>
<tr>
<td>• Create Application Files (administrators only): Creates demo data from the current list of records that can be included when you install or update the application on another instance. Used with custom application development.</td>
<td></td>
</tr>
<tr>
<td>• Import XML (administrators only): Imports a set of records that were exported from a source instance, for example, a developer's instance.</td>
<td></td>
</tr>
</tbody>
</table>
Column headings in List v3

These headings display column names and provide some list options. Column headings are stationary at the top of the list and do not scroll with list content.

**Note:** Some of the options displayed in the list context menu depend on the user role and the installed applications.

<table>
<thead>
<tr>
<th>Table 34: Column heading controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
</tr>
<tr>
<td>Sorting</td>
</tr>
</tbody>
</table>
| List column context menu         | Access this menu, also called a right-click menu, by clicking the menu icon at the top of a list column or by right-clicking the column heading. The list context menu offers the following controls.  
  • Sort (a to z) and (z to a): Sort in ascending or descending order.  
  • Group By: Aggregate records by a field. For more information, see *Use a grouped list in List v3* on page 106.  
  • Bar Chart and Pie Chart: Create quick bar and pie chart reports based on the filter criteria of the list. Users can then modify these reports or create gauges (depending on access rights).  
  • Show Visual Task Board: Create a *Visual Task Board* based on the current list. |
| Search                           | Enables the column search. For more information, see *Search by one or more columns in a list* on page 102. |

List v3 split mode

In List v3, split mode lets users view a list and form side by side, in a split pane layout.

List v3 is no longer available for new deployments. If you are already using list v3, you can continue to do so.

Split mode differs from the standard list mode, called grid mode. In grid mode, lists display records in a table view, with several columns.
List v3 split mode is similar to the list and form view available in UI15. However, List v3 split mode consolidates information from multiple columns into a single row. List v3 split mode does not support multiple form tabs.

**Note:** Users with the personalize_control role can make split mode the default view for a list, by configuring the list control and setting the Default view mode field to Split.

When you open a record in split mode, Display type business rules are evaluated twice, once for each pane. This double evaluation might have an impact on performance. Consider this impact when creating business rules.

**List pane configuration**

![List pane configuration](image)

In split mode, the title of the list card is either a default value or it is configured in System Mobile UI Table Titles.

**Important:**

Table title records are used in the mobile application as well as in the list pane. You can change the title for any table or add a title record for a different table, however, the change affects the mobile user interface (UI).

For example, in split mode the default title for the Departments [cmn_department] table is the department Name. If you create a table title record to display the Description field as the Department list card title, the Departments list appears in the mobile application.

Other fields that appear in the list card are specified in the base system and cannot be modified.

**Use List v3 split mode**

In List v3, you can view lists and forms side by side in split mode.

Role required: none
In split mode, you can select a record from a compact view of the list, to open it in the adjacent form pane.

1. Open a v3 list.
2. In the list title bar, select Split in the list mode toggle.

**Note:** The list mode toggle is not available in grouped or related lists.

The list reloads in split mode.
3. Perform any of the following actions to filter the list.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Edit the filter conditions** | 1. Click the filter icon ( ) to open the filter condition builder in the right pane.  
                                  2. Add, remove, or edit conditions as you would in the standard List v3 filter interface. For more information, see Create a filter in List v3 on page 113.  
                                  3. Load or save the filter, or add a sort order.  
                                  4. Click Run.                                                                                                                                 |
| **View all breadcrumbs**      | 1. Click the filter icon ( ) to open the filter condition builder in the right pane.  
                                  2. Add or remove conditions using the breadcrumbs.  
                                  3. Right-click a breadcrumb to access the breadcrumb context menu. For more information about breadcrumb conditions and the breadcrumb context menu, see Filters and breadcrumbs on page 109. |
| **View the breadcrumb right-click options** | 1. Right-click the blue filter text in the left pane.  
                                  2. Select any of the following options.  
                                  • Open new window: Opens the results list for the breadcrumb in a new tab or window.  
                                  • Copy URL: Copies the URL to the clipboard for the results list of the breadcrumb.  
                                  • Copy query: Copies the encoded query to the clipboard for the breadcrumb.  
                                  4. Right-click a record in the list to access the following options.  
                                  • Copy URL  
                                  • Copy sys_id  
                                  5. Click a record in the list to open it in the adjacent form pane.                                                             |

**Tree picker**

The tree picker is a special reference lookup that you can add as an attribute to a form.  
The tree picker is a special reference lookup for the following items.  
• Configuration Items (CIs) for a field that depends on another CI field.
• Reference elements for any hierarchical table. A hierarchical table is any table that has a parent field pointing back at itself.
• Values for a user reference that depends on the group.

Add the tree picker attribute

A limit of 1000 has been placed on the number of nodes returned to the tree picker. This limit is configurable with the glide.ui.group_heirarchy.max_nodes property.

Role required: personalize_dictionary

1. Modify the dictionary entry for the field.
2. Add tree_picker=true to the Attributes field.

If there are multiple attributes, use a comma to separate them without any spaces between.

![Attributes: tree_picker=true]

Tree picker examples

The sections below include tree picker examples.

Simple dependent fields

It is also possible to add the tree-picker attribute on a reference field that depends on a reference field of a different type. For example, if Assigned to depends on Assignment group, it is possible to add the tree picker attribute on Assigned to. The result is a one-node tree for the group and its members.

![Group Hierarchy]

Figure 64: Tree picker on a reference field

Dependent fields

In this example, there are two CI reference fields, and one depends on the other. The dependent one has the tree_picker attribute:
Figure 65: Tree picker on a dependent field

For this example, the configuration item is Bond Trading. The tree picker for the Dependent CI field shows all downstream and upstream relationships for that CI. The small orange square icon above a relationship indicates that the CI, lawson, already has an open task against it. Pointing to the orange square displays a pop-up window with information about the open task.

**Note:** Dependencies for CIs are enforced only when the dictionary entry for the reference field has `tree_picker=true` in the Attributes field.

Selecting fields on related tables using dot-walking

Dot-walking provides access to fields on related tables from a form, list, or script.

If the current table contains a reference to another table, any field on the referenced table can be accessed using dot-walking.

Dot-walking references a field by building a chain of field names separated by dots (periods). For instance, `incident.assigned_to.company` references the company of the user assigned to an incident. The recommended limit for chain length is three levels.
Dot-walking examples

Dot-walking can be performed in several ways. Examples of each are provided.

**Tree pickers**

The tree picker interface presents an expandable, hierarchical view that may be used when selecting fields. It provides a special reference lookup for the following items.

- Configuration Items (CIs) for a field that depends on another CI field.
- Reference elements for any hierarchical table. A hierarchical table is any table that has a parent field pointing back at itself.
- Values for a user reference that depends on the group.

For example, the following Users glide list field has a select fields icon (©):  

![Figure 66: List field](image)

Clicking this icon presents a list of fields available on the current record:
Reference fields have + icons next to their name. Clicking the + expands a list of the fields on that referenced field. In this example, expanding the Assigned To field shows the User fields for that record:
Selecting the Manager field adds the variable \${assigned_to.manager}:

![Dot-walked variable]

**Figure 69: Dot-walked variable**

**Note:** A limit of 1000 has been placed on the number of nodes returned to the tree picker. This limit is configurable with the glide.ui.group_hierarch.max_nodes property. To set the property, *Modify the dictionary entry* for the field, and add tree_picker=true to the Attributes field. If there are multiple attributes, use a comma to separate them without any spaces between.

**Choice list fields**

Users can dot-walk to related fields in a choice list, such as the field list in a filter. This example demonstrates how to filter the incident table by the company of the caller who registered the incident.
First, open the choice list of fields to filter by. This action presents a list of the fields that are present on the Incident [incident] table. Reference fields are followed by related fields, which are presented in blue. For instance: Caller is followed by Caller User fields. This means that Caller is a reference field, and the related fields are User fields on the Caller record. If the blue related fields are not present in the list, select Show Related Fields in blue at the bottom of the list:

![Image of field selection]

Figure 70: Show related fields

When the related fields are present, select a set of related fields.
Figure 71: Related fields

After the related field is selected, the menu reloads with the fields of the related table.
The new field is: caller.company.

When looking at the list, it is easy to see where in the dot-walk the user currently is. Each selected reference is stored at the top, and the number of dots in front indicate how many dots from the initial record the user has reached.
In this picture, the user is at incident.caller.company. It is possible to return to higher levels in the hierarchy by selecting the blue records. For instance, selecting Incident fields returns to the list of incident fields.

The related fields can be dismissed by selecting Remove Related Fields in blue at the bottom of the list:

Figure 73: Dot-walked field
List collectors

When selecting a list of fields from a list collector (for example, when you are configuring a form), it is also possible to dot-walk to fields from other forms.

To see which fields are reference fields and can be dot-walked, look for green fields with a plus symbol.
**Figure 75: Reference fields for dot-walking**

Once a reference field is highlighted, the expand icon appears above the add icon.
<table>
<thead>
<tr>
<th>Available</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Number</td>
</tr>
<tr>
<td>Activity due</td>
<td>Caller</td>
</tr>
<tr>
<td>Approval</td>
<td>Location</td>
</tr>
<tr>
<td>Approval history</td>
<td>Configuration item</td>
</tr>
<tr>
<td>Approval set</td>
<td>Impact</td>
</tr>
<tr>
<td>Assigned to [+]</td>
<td>Urgency</td>
</tr>
<tr>
<td>Assignment group [+ ]</td>
<td>Priority</td>
</tr>
<tr>
<td>Business duration</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Business resolve time</td>
<td></td>
</tr>
<tr>
<td>Caller [+ ]</td>
<td>Opened</td>
</tr>
<tr>
<td>Caused by Change [+ ]</td>
<td>Opened by</td>
</tr>
<tr>
<td>Close notes</td>
<td>Incident state</td>
</tr>
<tr>
<td>Closed</td>
<td>Category</td>
</tr>
<tr>
<td>Closed by [+ ]</td>
<td>Escalation</td>
</tr>
<tr>
<td>Company [+ ]</td>
<td>Assignment group</td>
</tr>
<tr>
<td>Configuration item [+ ]</td>
<td>Assigned to</td>
</tr>
<tr>
<td>Contact type</td>
<td>[-<em>and_split</em>-]</td>
</tr>
<tr>
<td>Contract [+ ]</td>
<td>Short description</td>
</tr>
</tbody>
</table>

**Figure 76: Expand icon**

Selecting the expand icon opens the list of fields from the related list in the Available pane. In this picture, the user has opened the Assigned to fields. As in other examples, the previous lists of fields appear at the top of the list in blue.
Figure 77: Lists of fields

Once the field is added to the Selected pane, it appears with its full dot-walked syntax. In the next picture, the user has selected Assigned_to.active.
You can dot-walk within a script by invoking the dot-walk syntax. This functionality requires a knowledge of JavaScript.

For scripts that run on the server side, such as business rules, it is necessary to add `current`. The following script, for example, is a scripted approval rule that requests an approval from the manager of the user who opened the ticket.

```javascript
try {
    current.opened_by.manager;
} catch (err) {
}
```

For scripts that run on the client side, such as client scripts, `current` is not necessary. For instance, the following Highlight VIP Caller script runs on the client side.

```javascript
function onChange(control, oldValue, newValue, isLoading) {
    // wait until there is a valid record in the field if (newValue) {

        // get the caller object so we can access fields var caller = g_form.getReference('caller_id');
    }
}
var callerLabel = document.getElementById('label.incident.caller_id');
var callerField = document.getElementById('sys_display.incident.caller_id');

// check for VIP status
if (caller.vip == 'true') {
  // change the caller label to red background
  if (callerLabel)
    document.getElementById('label.incident.caller_id').style.backgroundColor = 'red';
  // change the caller's name field to red text
  if (callerField)
    document.getElementById('sys_display.incident.caller_id').style.color = 'red';
} else {
  // not a VIP, remove temporary styles
  if (callerLabel)
    document.getElementById('label.incident.caller_id').style.backgroundColor = '';
  if (callerField)
    document.getElementById('sys_display.incident.caller_id').style.color = '';
}

---

**Variables**

Often, you can add variables into templates, notifications, or other forms where a value is being called from the form.

For example, $\{assigned_to\}$ is the variable for the Assigned to field.

As illustrated above, it is possible to dot-walk to fields on the original record of any reference field. In the case above, it is possible to dot-walk to any field on the assigned_to record, for example, $\{assigned_to.manager\}$.

As is always the case with dot-walking, this can be a longer chain if needed, as in this example: $\{assigned_to.department.manager.mobile_phone\}$.

Sometimes this variable can be selected from a tree picker.

---

**Configure items on forms or in lists using a slushbucket**

Use a slushbucket to add, remove, or move items in a form or list. Slushbuckets allow you to select multiple items from a list of available items and to remove items from a list of selected items. Some slushbuckets provide filter and search controls for available items, such as adding items to related lists.

Use slushbuckets to personalize lists, add items to related lists, and Service Catalog list collector variables. Some slushbuckets allow users to customize the order of selections, such as when you are configuring a form or list.

The slushbucket interface has two columns: the available items on the left and the selected items on the right.

Information fields for the highlighted available item appear beneath some slushbuckets. The information fields are the same as the reference lookup for a reference field on a form. To modify which fields appear, configure the reference lookup list.

- To add items to the selection, double-click an available item on the left or select an item and click the add icon (►). The new item is added at the bottom of the selected items column on the right.
- To remove items from the selection, double-click the item on the right, or select the item and click the remove icon (◄).
- To select multiple consecutive items, hold the Shift key and click the first and last item.
- To select multiple non-consecutive items, hold the Ctrl key (Command key on Mac) and click the desired items.
To accessibly select multiple items, tab to each item and press the spacebar to select each item. Use the arrow key or tab to the Add button to move items from one list to another.

To filter available items, create conditions using the condition builder and click Run filter.

To search available items, enter text in the Search field. The list of available items is filtered as you type.

- **Figure 79: Filter Items**

  - To move items one position, select the items and click the up or down icon.
  - To move an item multiple positions, select consecutive items above or below the item then click the up or down icon. In this example, to move Assigned to to the top of the selections order, complete the following steps.
    a) Hold the Shift key and click Short description then Number.
    b) Click the down icon.

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Figure 80: Arrange items

Set the number of slushbucket items visible in the available column

You can modify the glide.xmlhttp.excessive property to change the number of items that appear in the Available column of the slushbucket.
Role required: admin

1. Add the property to the System Properties [sys_properties] table.
2. Change the Type to Integer.
3. Enter a number in the Value field. The default value is 100.

**Warning:** Selecting a number significantly higher than 100 can lead to performance issues on your instance as the data is loaded into the slushbucket.

4. Save the property.

### Activity streams

An activity stream is a list of entries in records and conversations. Examples of activity streams include journal fields like comments and work notes that display in task records and Connect Chat conversations. Activity streams are available in UI15 and UI16.

There are three types of activity streams.

- **List activity stream**
  Streams live activity information for all records on the current list. For more information, see Activity streams in list view on page 99. Click an item to open the record activity stream without opening the record.

- **Record activity stream**
  Appears in forms that are configured with the activity formatter. You can customize the activities to include.

  When you follow a record to view it in the Connect Chat interface, the conversation contains the same information as the record activity stream. Comments entered in the Connect Chat window update the record activity stream.

- **Visual Task Boards**
  Streams live activity information for all task cards in the current task board. Click an item in the activity stream to open the task card and view the activity stream of the record.

### @Mentions

Get someone's attention on a record by mentioning them with the @ character in an activity stream.

**Note:** Emails sent for @Mention run against live_notification table and are not added to the journal field of the parent table.

Any user can use activity stream mentions in the following places:

- On a form, in the activity formatter (UI16 only).
- In a list, in the activity stream for a specific record.
- On a Visual Task Board card, in the card details.
- In a Connect record conversation.
To mention someone, enter the @ character in a supported activity stream. Next, select a user from the suggestion list, which allows you to select any user in the instance. You can see which users have access to the record and, if presence is enabled, who is online. Enter any other text and post to the activity stream.

Figure 81: Activity stream mention on a form

By default, you receive an email notification when someone mentions you. You can disable this behavior by unsubscribing from the Activity Stream @Mention Email notification on your notification preference page.

If Connect is enabled, you can receive additional notifications, depending on whether you follow the record in Connect. When someone mentions you in a record you do not follow in Connect, you receive whichever Connect notifications you enabled globally, as well as the Activity Stream @Mention Email notification. If you do follow the record in Connect, you only receive notifications according to your notification preferences for the record conversation. In this case, you do not receive the Activity Stream @Mention Email notification.

Note: The system creates a record on the Notification [live_notification] table each time a user is mentioned. The record stores the information required to generate notifications.
Create a condition statement using the condition builder

A condition builder constructs a condition statement with a series of contextually generated fields. Condition builders are used in many operations, such as creating filters, administering surveys, and administering access control.

Role required: admin

A condition consists of three parts.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field</td>
<td>A choice list based on the table and user access rights. The choice list can include fields on related tables by dot-walking.</td>
</tr>
<tr>
<td>Operator</td>
<td>A choice list based on the field type. For example, in the Incident [incident] table, the greater than operator does not apply to the Active field but it does apply to the Priority field.</td>
</tr>
<tr>
<td>Value</td>
<td>A text entry field or a choice list, depending on field type. For example, in the Incident [incident] table, the Active field offers a choice list with the values true, false, and empty, while the Short Description field offers a text entry field.</td>
</tr>
</tbody>
</table>

Note: The condition builder in the list filter has a different appearance in List v2 and List v3. In UI16, condition builders in forms can be configured to look and work like the List v3 condition builder.

1. To add a dependent condition, click AND or OR next to the condition.
2. To add a top-level condition:

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>• Click AND or OR on the condition builder toolbar above the conditions.</td>
</tr>
<tr>
<td>List v3</td>
<td>• Click New Criteria.</td>
</tr>
</tbody>
</table>
3. To remove a condition:

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>• Click the delete icon (X) next to the condition.</td>
</tr>
<tr>
<td>List v3</td>
<td>• Click the remove condition icon (#) next to the condition.</td>
</tr>
</tbody>
</table>

Figure 82: Example AND condition in List v2 filter

Figure 83: Example OR condition in List v3 filter
Condition builder

A condition builder constructs a condition statement with a series of contextually generated fields. Condition builders are used in many operations, such as creating filters, administering surveys, and administering access control.

Condition builder format

A condition consists of three parts:

- **Field**: a choice list based on the table and user access rights. The choice list can include fields on related tables by dot-walking.
- **Operator**: a choice list based on the field type. For example, in the Incident [incident] table, the greater than operator does not apply to the Active field but it does apply to the Priority field.
- **Value**: a text entry field or a choice list, depending on field type. For example, in the Incident [incident] table, the Active field offers a choice list with the values true, false, and empty, while the Short Description field offers a text entry field.

The condition builder in the list filter has a different appearance in List v2 and List v3. In UI16, condition builders in forms can be configured to look and work like the List v3 condition builder.

Condition builder actions

You can add a dependent condition by clicking AND or OR next to the condition. You can add a top-level condition by clicking AND or OR on the condition builder toolbar above the conditions (List v2) or clicking New Criteria (List v3). You can remove a condition by clicking the delete icon (X) next to the condition (List v2). In List v3, you click the remove condition icon (#) next to the condition.

![Figure 84: Example AND condition in List v2 filter](image)
Filtering on empty fields

Most filter operations do not return empty fields in their result set. You can create a filter that displays records with an empty field value in addition to records that match the initial filter conditions.

For example, when viewing all records that are assigned to the Hardware group, to include records with an empty Assignment group field, complete the following steps.

1. Create the filter condition [Assignment group] [is] [Hardware].
   
   **Note:** This condition does not return those records where the Assignment group field is empty.

2. Click OR next to the original filter condition.
3. Create another filter condition of [Assignment group] [is empty].
4. Run the filter.

Values for date/time fields

When you filter on fields of type date/time, such as the Created field on any task record, several time-related options are available, such as Today, This week, Last 3 months, and so on.

For example, at 12:00 on June 1, a user in New York filters a list of incidents using the Created on Today condition. The resulting list shows all incidents created during the last six hours: between midnight (00:00:00) and the user's current time, noon (12:00:00), on June 1. A filter for This week returns incidents created between the previous Monday at midnight to the current day and time.

A filter for Last 3 months returns incidents between midnight on the first of the month three full months ago and the current day and time. For example, if you choose the Last 3 months filter on April 15, the results show records created since January 1 up until April 15. A filter for Last 12 months returns records created from midnight on the first of the month 12 months ago and the current day and time.

A filter for Last week returns incidents from midnight on Sunday the week previous ending the following Sunday at midnight. It does not include up to the present day. For example, if you choose the Last week filter on Thursday August 17, the results show records created Sunday August 6 up until Sunday August 13.
For the at or before and at or after filters, use midnight as a start or end point. For example, if you filter a list of incidents created [at or after] [Yesterday], the resulting list shows all incidents created at midnight yesterday or later. If it is Thursday, August 7, and you filter a list of incidents created [at or before] [Last week], the resulting list shows all incidents created at and before midnight on Sunday August 3, which is the end of last week.

**Operators and values available for date and time fields**

You can filter date and time fields using the operators and values listed here.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>after</td>
<td>Returns records after the specified time period.</td>
<td>A filter run [after] [Next Month] on April 18, 2018 will return records from June 1 and later.</td>
</tr>
<tr>
<td>at or after</td>
<td>Returns records during and after the specified time period.</td>
<td>A filter run [at or after] [Next Month] on April 18, 2018 will return records from May 1 and later.</td>
</tr>
<tr>
<td>at or before</td>
<td>Returns records during and before the specified time period.</td>
<td>A filter run [at or before] [Next Month] on April 18, 2018 will return records from May 31 and earlier.</td>
</tr>
<tr>
<td>before</td>
<td>Returns records before the specified time period.</td>
<td>A filter run [before] [Next Month] on April 18, 2018 will return records from before May 1.</td>
</tr>
<tr>
<td>between</td>
<td>Returns records between to specified dates.</td>
<td>A filter run [between] April 18, 2018 (00:00:00) and April 19, 2018 (23:59:59) will return records on or between the two dates.</td>
</tr>
<tr>
<td>is anything</td>
<td>Returns all records, including records with empty values in the specified field.</td>
<td>A list of incident records filtered on [Created] [is anything] returns all incidents.</td>
</tr>
<tr>
<td>is different</td>
<td>Returns records within a different time frame from another field.</td>
<td>A list of incident records filtered on [Created] [is different] [year] from [Closed] returns records where the values in the [Created] and [Closed] field are in different years.</td>
</tr>
<tr>
<td>is empty</td>
<td>Returns records where the specified field has no value.</td>
<td>A list of incident records filtered on Closed [is empty] returns records where the Closed field has no value.</td>
</tr>
<tr>
<td>is less than</td>
<td>Returns records where a field is within specified time frame when compared to another field.</td>
<td>A list of incident records filtered on [Closed] [is less than] [2] [hours] [after] [Created] will return results where the [Closed] value is less than 2 hours after the [Created] value.</td>
</tr>
<tr>
<td>Operator</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>is more than</td>
<td>Returns records where a field is beyond the specified time frame when compared to another field.</td>
<td>A list of incident records filtered on [Closed] [is more than] [2] [hours] [after] [Created] will return results where the [Closed] value is more than 2 hours after the [Created] value.</td>
</tr>
<tr>
<td>is not empty</td>
<td>Returns records where the specified field has a value.</td>
<td>A list of incident records filtered on [Closed] [is not empty] returns results where the Closed field has a value.</td>
</tr>
<tr>
<td>is same</td>
<td>Returns records where the two fields share a specified time frame.</td>
<td>A list of incidents filtered on [Created] [is same] [hour] as [Closed] returns records where the record [Created] and [Closed] fields are within the same hour.</td>
</tr>
<tr>
<td>not on</td>
<td>Returns records that do not match the specified value.</td>
<td>A filter of [not on] [Today] returns records that do not match the current date.</td>
</tr>
<tr>
<td>on</td>
<td>Returns records on the specified value.</td>
<td>A filter run [on] [Today] on April 18, 2018 will return records from April 18.</td>
</tr>
<tr>
<td>relative</td>
<td>Returns records with a specified time frame before or after the current time.</td>
<td>A filter run on [Created] [relative] [before] [5] [minutes] [ago] run at 12:00:00 returns records from before 11:55:00 of the same date.</td>
</tr>
<tr>
<td>trend</td>
<td>Returns records on, after and/or before a specified hour of the day, day of the week, week of the year, month, quarter, or year.</td>
<td>A filter of [Created] [trend] [Monday] returns records where the [Created] date falls on a Monday.</td>
</tr>
</tbody>
</table>

Table 36: Values available for date/time fields

<table>
<thead>
<tr>
<th>Value</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current hour/minute</td>
<td>Returns records matching the current hour or minute</td>
<td>A filter run [on] [Current hour] on April 18 (12:02:00), would return records from April 18 (12:00:00) to April 18 (12:59:59)</td>
</tr>
<tr>
<td>Last n minutes/hours/days/weeks/months/quarters/years</td>
<td>Returns records within the previous selected time period, starting with the beginning of that time frame.</td>
<td>A filter run [on] [Last 3 months] on April 18, would return records from January 1 up until April 15.</td>
</tr>
<tr>
<td>Value</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Next n weeks/months/quarters/years</td>
<td>Returns records within the next selected time period, including records with values up to the end of that time frame.</td>
<td>A filter run [on] [Next year] on April 18, 2018 will return any records with a date in 2019, including dates in 2019 after April 15.</td>
</tr>
<tr>
<td>One year ago</td>
<td>Returns records from the current time, one year ago to the end of the current month</td>
<td>A filter run [on] [One year ago] on April 18, 2018 (12:00:00) will return records from April 18, 2017 (12:00:00) to April 30 (23:59:59)</td>
</tr>
<tr>
<td>This week/month/quarter/year</td>
<td>Returns records with the current selected time period.</td>
<td>A filter run [on] [This week] on April 18, 2018 will return records from April 16 (00:00:00) to April 20 (23:59:59)</td>
</tr>
<tr>
<td>Today</td>
<td>Returns records between midnight of the current day and midnight of the next day</td>
<td>A filter run [on] [Today] on April 18, 2018 will return records from April 18 (00:00:00) to April 18 (23:59:59)</td>
</tr>
<tr>
<td>Tomorrow</td>
<td>Returns records between midnight (00:00:00) and the current time.</td>
<td>A filter run [on] [Tomorrow] on April 18, 2018 will return records from April 19 (00:00:00) to April 19 (23:59:59)</td>
</tr>
<tr>
<td>Yesterday</td>
<td>Returns records between midnight of the previous day and midnight of the current day.</td>
<td>A filter run [on] [Yesterday] on April 18, 2018 will return records from April 17 (00:00:00) to April 17 (23:59:59)</td>
</tr>
</tbody>
</table>

Operators available for filters and queries

The system provides a set of operators for use with filters, condition builders, and encoded queries. The data type of a field determines what operators are available for it.

Table 37: Operators available for condition builders

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>[Active][is][True][AND] [Caller][is not empty]</td>
<td>^</td>
<td>active=true^CallerISNOTEMPTY</td>
</tr>
<tr>
<td>OR condition</td>
<td>[Short description][is empty] [OR][Description][is empty]</td>
<td>^OR</td>
<td>short_descriptionISEMPTY^ORdescriptionISEMPTY</td>
</tr>
</tbody>
</table>
### Table 38: Operators available for string fields

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR filter</td>
<td>All these conditions must be met OR all these conditions must be met</td>
<td>^NQ new query</td>
<td>short_descriptionISEMPTY^NQdescriptionISNOTEMPTY</td>
</tr>
<tr>
<td>starts with</td>
<td>[Short description][starts with][SAP]</td>
<td>STARTSWITH</td>
<td>short_descriptionSTARTSWITHSAP</td>
</tr>
<tr>
<td>ends with</td>
<td>[Short description][ends with][outage]</td>
<td>• % • ENDSWITH</td>
<td>short_descriptionENDSWITHoutage</td>
</tr>
<tr>
<td>contains</td>
<td>[Short description][contains] [SAP]</td>
<td>• * • LIKE</td>
<td>short_descriptionLIKESAP</td>
</tr>
<tr>
<td>does not contain</td>
<td>[Short description][does not contain][SAP]</td>
<td>• !* • NOTLIKE</td>
<td>short_descriptionNOT LIKESAP</td>
</tr>
<tr>
<td>is</td>
<td>[Short description][is][Network storage unavailable]</td>
<td>=</td>
<td>short_description=Network storage unavailable</td>
</tr>
<tr>
<td>is not</td>
<td>[Short description][is not][Network storage unavailable]</td>
<td>!=</td>
<td>short_description!=Network storage unavailable</td>
</tr>
<tr>
<td>is empty</td>
<td>[Short description][is empty]</td>
<td>ISEMPTY</td>
<td>short_descriptionISEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[Short description][is not empty]</td>
<td>ISNOTEMPTY</td>
<td>short_descriptionISNOTEMPTY</td>
</tr>
<tr>
<td>is anything</td>
<td>[Short description][is anything]</td>
<td>ANYTHING</td>
<td>short_descriptionANYTHING</td>
</tr>
<tr>
<td>is empty string</td>
<td>[Short description][is empty string]</td>
<td>EMPTYSTRING</td>
<td>short_descriptionEMPTYSTRING</td>
</tr>
<tr>
<td>less than or is</td>
<td>[Short description][less than or is][s]</td>
<td>&lt;=</td>
<td>short_descriptionlt;=s</td>
</tr>
<tr>
<td>greater than or is</td>
<td>[Short description][greater than or is][s]</td>
<td>&gt;=</td>
<td>short_description&gt;=s</td>
</tr>
<tr>
<td>Operator label</td>
<td>Example condition</td>
<td>Equivalent query operator</td>
<td>Example query</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------</td>
<td>---------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>between</td>
<td>[Short description] between[q] and [t]</td>
<td>BETWEEN</td>
<td>short_descriptionBETWEENq@t</td>
</tr>
<tr>
<td>is same</td>
<td>[Short description][is same] as [Description]</td>
<td>SAMEAS</td>
<td>short_descriptionSAMEASdescription</td>
</tr>
<tr>
<td>is different</td>
<td>[Short description][is different] from [Description]</td>
<td>NSAMEAS</td>
<td>short_descriptionNSAMEASdescription</td>
</tr>
</tbody>
</table>

Table 39: Operators available for reference fields

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>is</td>
<td>[Caller][is][Don Goodliffe]</td>
<td>=</td>
<td>caller_id=9ee1b13dc6112271007f9d0efdb69cd0</td>
</tr>
<tr>
<td>is not</td>
<td>[Caller][is not][Don Goodliffe]</td>
<td>!=</td>
<td>caller_id!=9ee1b13dc6112271007f9d0efdb69cd0</td>
</tr>
<tr>
<td>is empty</td>
<td>[Caller][is empty]</td>
<td>ISEMPTY</td>
<td>caller_idISEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[Caller][is not empty]</td>
<td>ISNOTEMPTY</td>
<td>caller_idISNOTEMPTY</td>
</tr>
<tr>
<td>starts with</td>
<td>[Caller][starts with][Don]</td>
<td>STARTSWITH</td>
<td>caller_idSTARTSWITHDon</td>
</tr>
<tr>
<td>ends with</td>
<td>[Caller][ends with][liffe]</td>
<td>%</td>
<td>caller_idENDSWITHliffe</td>
</tr>
<tr>
<td>contains</td>
<td>[Caller][contains][on]</td>
<td>*</td>
<td>caller_idLIKEon</td>
</tr>
<tr>
<td>does not contain</td>
<td>[Caller][does not contain][on]</td>
<td>!*</td>
<td>caller_idNOT LIKEon</td>
</tr>
<tr>
<td>is anything</td>
<td>[Caller][is anything]</td>
<td>ANYTHING</td>
<td>caller_idANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[Caller][is same] as [Assigned to]</td>
<td>SAMEAS</td>
<td>caller_idSAMEASSpecified_to</td>
</tr>
<tr>
<td>is different</td>
<td>[Caller][is different] from [Assigned to]</td>
<td>NSAMEAS</td>
<td>caller_idNSAMEASSpecified_to</td>
</tr>
<tr>
<td>is empty string</td>
<td>[Caller][is empty string]</td>
<td>EMPTYSTRING</td>
<td>caller_idEMPTYSTRING</td>
</tr>
<tr>
<td>is (dynamic)</td>
<td>[Caller][is (dynamic)][Me]</td>
<td>DYNAMIC</td>
<td>caller_idDYNAMIC54635e965f965f101009aa2572f2b4774</td>
</tr>
</tbody>
</table>

Note: Not all operators are available for all reference types. Depending on the reference you select, you may see a shorter list of operators.
### Table 40: Operators available for choice fields containing strings

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>is</td>
<td>[Subcategory][is][Email]</td>
<td>=</td>
<td>subcategory=email</td>
</tr>
<tr>
<td>is not</td>
<td>[Subcategory][is not][Email]</td>
<td>!=</td>
<td>subcategory!=email</td>
</tr>
<tr>
<td>is one of</td>
<td>[Subcategory][is one of][DB2, MS SQL Server, Oracle]</td>
<td>IN</td>
<td>subcategoryINdb2,sql server,oracle</td>
</tr>
<tr>
<td>is not one of</td>
<td>[Subcategory][is not one of][DB2, MS SQL Server, Oracle]</td>
<td>NOT IN</td>
<td>subcategoryNOT INdb2,sql server,oracle</td>
</tr>
<tr>
<td>contains</td>
<td>[Subcategory][contains][Em]</td>
<td>LIKE</td>
<td>subcategoryLIKEem</td>
</tr>
<tr>
<td>starts with</td>
<td>[Subcategory][starts with][Em]</td>
<td>STARTSWITH</td>
<td>subcategorySTARTSWITHem</td>
</tr>
<tr>
<td>ends with</td>
<td>[Subcategory][ends with][il]</td>
<td>• %</td>
<td>subcategoryENDSWITHil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ENDSWITH</td>
<td></td>
</tr>
<tr>
<td>does not contain</td>
<td>[Subcategory][does not contain][Em]</td>
<td>NOT LIKE</td>
<td>subcategoryNOT LIKEem</td>
</tr>
<tr>
<td>is anything</td>
<td>[Subcategory][is anything]</td>
<td>ANYTHING</td>
<td>subcategoryANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[Subcategory][is same] as [Category]</td>
<td>SAMEAS</td>
<td>subcategorySAMEAScategory</td>
</tr>
<tr>
<td>is different</td>
<td>[Subcategory][is different] from [Category]</td>
<td>NSAMEAS</td>
<td>subcategoryNSAMEAScategory</td>
</tr>
</tbody>
</table>

### Table 41: Operators available for choice fields containing integers

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>is</td>
<td>[Impact][is][1 - High]</td>
<td>=</td>
<td>impact=1</td>
</tr>
<tr>
<td>is not</td>
<td>[Impact][is not][1 - High]</td>
<td>!=</td>
<td>impact!=1</td>
</tr>
<tr>
<td>is one of</td>
<td>[Impact][is one of][1 - High, 2 - Medium]</td>
<td>IN</td>
<td>impactIN1,2</td>
</tr>
<tr>
<td>is not one of</td>
<td>[Impact][is not one of][1 - High, 2 - Medium]</td>
<td>NOT IN</td>
<td>impactNOT IN1,2</td>
</tr>
<tr>
<td>is empty</td>
<td>[Impact][is empty]</td>
<td>EMPTY</td>
<td>impactISEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[Impact][is not empty]</td>
<td>NOTEMPTY</td>
<td>impactISNOTEMPTY</td>
</tr>
<tr>
<td>less than</td>
<td>[Impact][less than][2 - Medium]</td>
<td>&lt;</td>
<td>impact&lt;2</td>
</tr>
<tr>
<td>Operator label</td>
<td>Example condition</td>
<td>Equivalent query operator</td>
<td>Example query</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------</td>
<td>---------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>greater than</td>
<td>[Impact][greater than][2 - Medium]</td>
<td>&gt;</td>
<td>impact&gt;2</td>
</tr>
<tr>
<td>less than or is</td>
<td>[Impact][less than or is][2 - Medium]</td>
<td>&lt;=</td>
<td>impact&lt;=2</td>
</tr>
<tr>
<td>greater than or is</td>
<td>[Impact][greater than or is][2 - Medium]</td>
<td>&gt;=</td>
<td>impact&gt;=2</td>
</tr>
<tr>
<td>between</td>
<td>[Impact][between][1 - High] and [2 - Medium]</td>
<td>BETWEEN</td>
<td>impactBETWEEN1@2</td>
</tr>
<tr>
<td>is anything</td>
<td>[Impact][is anything]</td>
<td>ANYTHING</td>
<td>impactANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[Impact][is same] as [Urgency]</td>
<td>SAMEAS</td>
<td>impactSAMEASurgency</td>
</tr>
<tr>
<td>is different</td>
<td>[Impact][is different] from [Urgency]</td>
<td>NSAMEAS</td>
<td>impactNSAMEASurgency</td>
</tr>
</tbody>
</table>

**Note:** The operators ‘less than or is’ and ‘greater than or is’ are not supported for integer fields in the condition builder. Use a scripted condition instead.

### Table 42: Operators available for date-time fields

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>on</td>
<td>[SLA due][on][Today]</td>
<td>ONToday</td>
<td><a href="mailto:sla_dueONToday@js.eval">sla_dueONToday@js.eval</a>('daysAgoStart(0)') @javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>not on</td>
<td>[SLA due][not on][Today]</td>
<td>NOTONToday</td>
<td><a href="mailto:sla_dueNOTONToday@js.eval">sla_dueNOTONToday@js.eval</a>('daysAgoStart(0)') @javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>before</td>
<td>[SLA due][before][Today]</td>
<td>&lt;</td>
<td>sla_due&lt;javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>at or before</td>
<td>[SLA due][at or before][Today]</td>
<td>&lt;=</td>
<td>sla_due&lt;=javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>after</td>
<td>[SLA due][after][Today]</td>
<td>&gt;</td>
<td>sla_due&gt;javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>at or after</td>
<td>[SLA due][at or after][Today]</td>
<td>&gt;=</td>
<td>sla_due&gt;=javascript:gs.daysAgoStart(0)</td>
</tr>
<tr>
<td>between</td>
<td>[SLA due][between][Yesterday] and [Today]</td>
<td>BETWEEN</td>
<td><a href="mailto:sla_dueBETWEEN@js.eval">sla_dueBETWEEN@js.eval</a>('daysAgoStart(1)') @javascript:gs.daysAgoEnd(0)</td>
</tr>
<tr>
<td>trend (on or after)</td>
<td>[SLA due][trend][on or after][Monday]</td>
<td>DATEPART</td>
<td><a href="mailto:sla_dueDATEPART@js.eval">sla_dueDATEPART@js.eval</a>('dayofweek','monday','GE')</td>
</tr>
<tr>
<td>trend (on or before)</td>
<td>[SLA due][trend][on or before][Monday]</td>
<td>DATEPART</td>
<td><a href="mailto:sla_dueDATEPART@js.eval">sla_dueDATEPART@js.eval</a>('dayofweek','monday','LE')</td>
</tr>
<tr>
<td>trend (after)</td>
<td>[SLA due][trend][after][Monday]</td>
<td>DATEPART</td>
<td><a href="mailto:sla_dueDATEPART@js.eval">sla_dueDATEPART@js.eval</a>('dayofweek','monday','GT')</td>
</tr>
<tr>
<td>trend (before)</td>
<td>[SLA due][trend][before][Monday]</td>
<td>DATEPART</td>
<td><a href="mailto:sla_dueDATEPART@js.eval">sla_dueDATEPART@js.eval</a>('dayofweek','monday','LT')</td>
</tr>
<tr>
<td>Operator label</td>
<td>Example condition</td>
<td>Equivalent query operator</td>
<td>Example query</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------</td>
<td>---------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>trend (on)</td>
<td>[SLA due][trend][on] [Monday]</td>
<td>DATEPART</td>
<td>sla_dueDATEPARTMonday@javascript:gs.datePart('day',@uppercase,1)</td>
</tr>
<tr>
<td>relative (on or after)</td>
<td>[SLA due][relative][on or after][1][Hours][ago]</td>
<td>RELATIVEGE</td>
<td>sla_dueRELATIVEGE@hour@ago@1</td>
</tr>
<tr>
<td>relative (on or before)</td>
<td>[SLA due][relative][on or before][1][Hours][ago]</td>
<td>RELATIVELE</td>
<td>sla_dueRELATIVELE@hour@ago@1</td>
</tr>
<tr>
<td>relative (after)</td>
<td>[SLA due][relative][after][1][Hours][ago]</td>
<td>RELATIVEGT</td>
<td>sla_dueRELATIVEGT@hour@ago@1</td>
</tr>
<tr>
<td>relative (before)</td>
<td>[SLA due][relative][before][1][Hours][ago]</td>
<td>RELATIVELT</td>
<td>sla_dueRELATIVELT@hour@ago@1</td>
</tr>
<tr>
<td>relative (on)</td>
<td>[SLA due][relative][on][1][Hours][ago]</td>
<td>RELATIVEEE</td>
<td>sla_dueRELATIVEEE@hour@ago@1</td>
</tr>
<tr>
<td>is empty</td>
<td>[SLA due][is empty]</td>
<td>IEMPTY</td>
<td>sla_dueIEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[SLA due][is not empty]</td>
<td>NOTEMPTY</td>
<td>sla_dueNOTEMPTY</td>
</tr>
<tr>
<td>is anything</td>
<td>[SLA due][is anything]</td>
<td>ANYTHING</td>
<td>sla_dueANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[SLA due][is same] as [Activity due]</td>
<td>SAMEAS</td>
<td>sla_dueSAMEASActivity_due@day</td>
</tr>
<tr>
<td>is different</td>
<td>[SLA due][is different] from [Activity due]</td>
<td>NSAMEAS</td>
<td>sla_dueNSAMEASActivity_due@day</td>
</tr>
<tr>
<td>is more than</td>
<td>[SLA due][is more than][1][Days][before][Activity due]</td>
<td>MORETHAN</td>
<td>sla_dueMORETHANActivity_due@day@before@1</td>
</tr>
<tr>
<td>is less than</td>
<td>[SLA due][is less than][3][Days][before][Activity due]</td>
<td>LESSTHAN</td>
<td>sla_dueLESSTHANActivity_due@day@before@3</td>
</tr>
</tbody>
</table>

Table 43: Operators available for numeric fields

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>is</td>
<td>[Reassignment count][is][0]</td>
<td>=</td>
<td>reassignment_count=0</td>
</tr>
<tr>
<td>is not</td>
<td>[Reassignment count][is not][0]</td>
<td>!=</td>
<td>reassignment_count!=0</td>
</tr>
<tr>
<td>is empty</td>
<td>[Reassignment count][is empty]</td>
<td>EMPTY</td>
<td>reassignment_countISEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[Reassignment count][is not empty]</td>
<td>NOTEMPTY</td>
<td>reassignment_countISNOTEMPTY</td>
</tr>
<tr>
<td>less than</td>
<td>[Reassignment count][less than][2]</td>
<td>&lt;</td>
<td>reassignment_count&lt;2</td>
</tr>
<tr>
<td>greater than</td>
<td>[Reassignment count][greater than][2]</td>
<td>&gt;</td>
<td>reassignment_count&gt;2</td>
</tr>
<tr>
<td>Operator label</td>
<td>Example condition</td>
<td>Equivalent query operator</td>
<td>Example query</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------</td>
<td>----------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>less than or is</td>
<td>[Reassignment count][less than or is][2]</td>
<td>&lt;=</td>
<td>reassignment_count&lt;=2</td>
</tr>
<tr>
<td>greater than or is</td>
<td>[Reassignment count] [greater than or is][2]</td>
<td>&gt;=</td>
<td>reassignment_count&gt;=2</td>
</tr>
<tr>
<td>between</td>
<td>[Reassignment count] [between][1] and [2]</td>
<td>BETWEEN</td>
<td>reassignment_countBETWEEN1@2</td>
</tr>
<tr>
<td>is anything</td>
<td>[Reassignment count][is anything]</td>
<td>ANYTHING</td>
<td>reassignment_countANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[Reassignment count][is same] as [Reopen count]</td>
<td>SAMEAS</td>
<td>reassignment_countSAMEASreopen_count</td>
</tr>
<tr>
<td>is different</td>
<td>[Reassignment count][is different] from [Reopen count]</td>
<td>NSAMEAS</td>
<td>reassignment_countNSAMEASreopen_count</td>
</tr>
<tr>
<td>greater than field</td>
<td>[Reassignment count][greater than field][Reopen count]</td>
<td>GT_FIELD</td>
<td>reassignment_countGT_FIELDreopen_count</td>
</tr>
<tr>
<td>less than field</td>
<td>[Reassignment count][less than field][Reopen count]</td>
<td>LT_FIELD</td>
<td>reassignment_countLT_FIELDreopen_count</td>
</tr>
<tr>
<td>greater than or is field</td>
<td>[Reassignment count][greater than or is field][Reopen count]</td>
<td>GT_OR_EQUALS_FIELD</td>
<td>reassignment_countGT_OR_EQUALS_FIELDreopen_count</td>
</tr>
<tr>
<td>less than or is field</td>
<td>[Reassignment count][less than or is field][Reopen count]</td>
<td>LT_OR_EQUALS_FIELD</td>
<td>reassignment_countLT_OR_EQUALS_FIELDreopen_count</td>
</tr>
</tbody>
</table>

Table 44: Operators available for boolean fields

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>is</td>
<td>[Active][is][true]</td>
<td>=</td>
<td>active=true</td>
</tr>
<tr>
<td>is not</td>
<td>[Active][is not][true]</td>
<td>!=</td>
<td>active!=true</td>
</tr>
<tr>
<td>is empty</td>
<td>[Active][is empty]</td>
<td>ISEMPTY</td>
<td>activeISEMPTY</td>
</tr>
<tr>
<td>is not empty</td>
<td>[Active][is not empty]</td>
<td>ISNOTEMPTY</td>
<td>activeISNOTEMPTY</td>
</tr>
<tr>
<td>is anything</td>
<td>[Active][is anything]</td>
<td>ANYTHING</td>
<td>activeANYTHING</td>
</tr>
<tr>
<td>is same</td>
<td>[Active][is same] as [Made SLA]</td>
<td>SAMEAS</td>
<td>activeSAMEASmade_sla</td>
</tr>
<tr>
<td>is different</td>
<td>[Active][is different] from [Made SLA]</td>
<td>NSAMEAS</td>
<td>activeNSAMEASmade_sla</td>
</tr>
</tbody>
</table>
Table 45: Operators available for email notifications

<table>
<thead>
<tr>
<th>Operator label</th>
<th>Example condition</th>
<th>Equivalent query operator</th>
<th>Example query</th>
</tr>
</thead>
<tbody>
<tr>
<td>changes</td>
<td>[State][changes]</td>
<td>VALCHANGES</td>
<td>stateVALCHANGES</td>
</tr>
<tr>
<td>changes from</td>
<td>[State][changes from] [Awaiting User Info]</td>
<td>CHANGESFROM</td>
<td>stateCHANGESFROM4^EQ</td>
</tr>
<tr>
<td>changes to</td>
<td>[State][changes to] [Awaiting User Info]</td>
<td>CHANGESTO</td>
<td>stateCHANGESTO4^EQ</td>
</tr>
</tbody>
</table>

Tags

Tags are text labels that you can associate with items like records and pages. Tags enable you to group and organize the items. Tags can be visible to any user (global), visible only to specific groups or users (shared), or visible to a single user (private).

Tag sharing levels

The tag sharing level enables other users to use the tag. The Viewable by property setting for a tag controls the sharing level.

<table>
<thead>
<tr>
<th>Sharing level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>Private tag, visible only to the owner.</td>
</tr>
<tr>
<td>Groups and Users</td>
<td>Shared tag, visible to the owner and specific groups or users.</td>
</tr>
<tr>
<td>Everyone</td>
<td>Global tag, visible to everyone. This option is available to users with the admin or tags_admin role.</td>
</tr>
</tbody>
</table>

Tag name conflicts

Conflicts can occur if multiple tags have the same name.

- If a private tag and a shared or global tag have the same name, the system appends [private] to the name of the private tag. For example, Sample tag [private].
- There cannot be multiple shared or global tags with the same name. If a user attempts to create a shared or global tag with a name that is already in use, an error message appears and the system prevents the tag from being saved.

Administering tags

If you have an administrator role, you can configure and manage all tags, even tags created by other users. You can also configure notifications, auto-assignment, and Zing indexing for tags.

You must have the tags_admin role for these administrative tasks.

Create a tag from the Tags list

You can create a tag directly from the Tags list.
Role required: tags_admin

1. Navigate to System Definition Tags or Self-Service My Tags.
2. Click New.
3. Enter a name for the tag in the Name field.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>Specifies the owner of the tag. Users are allowed to change the ownership of the tag to someone else.</td>
</tr>
<tr>
<td>Type</td>
<td>Specifies the type of tag.</td>
</tr>
<tr>
<td></td>
<td>• Standard: is controlled by users who have access to the tag. These users can add or remove records from the tag.</td>
</tr>
<tr>
<td></td>
<td>• Most Active: displays the most frequently accessed modules and is automatically maintained by the system. There is no maximum duration a module can remain as most active.</td>
</tr>
<tr>
<td></td>
<td>• Most Recent: displays the most recently accessed modules and is automatically maintained by the system.</td>
</tr>
<tr>
<td></td>
<td>• Most Active Record: displays the most frequently viewed records and is automatically maintained by the system. There is no maximum duration a record can remain as most active.</td>
</tr>
<tr>
<td></td>
<td>• Most Recent Record: displays the most recently viewed records and is automatically maintained by the system.</td>
</tr>
<tr>
<td></td>
<td>Only tags of the Standard or Most Recent Record types appear on the Tagged Documents page. You can view other types of tags by adding them to a homepage. For more information, see Add a tag to a homepage on page 192.</td>
</tr>
<tr>
<td>Viewable by</td>
<td>Specifies the sharing level. By default tags are visible only to the user (Me), but you can share tags with Groups and Users. Users with the tags_admin role are the only users who can create global tags shared with Everyone.</td>
</tr>
<tr>
<td>Active</td>
<td>Specifies whether the tag is enabled or disabled.</td>
</tr>
</tbody>
</table>

Edit tags from the Tags module

From the Tags module, you can edit all tags.

Role required: tags_admin
Note: Tag names are case-insensitive and must not include punctuation.

1. Navigate to System Definition Tags.
2. Open a tag.
3. Make the necessary changes.
4. Click Update.

Configure tags to assign automatically

You can configure the system to automatically assign a tag to records that match conditions defined in the tag record.

Role required: tags_admin

For example, you can create tags that group high urgency incidents, overdue incidents, canceled changes, or any other set of records. The system automatically assigns the tag to records that match the criteria and removes the tag from records that no longer match the criteria.

1. Navigate to System Definition Tags.
2. Open the tag that you want to assign automatically.
3. Configure the form to add the Conditions for Labels embedded list.
4. Create a row in the Conditions for Labels list.
5. Click the reference icon in the Table column. The Label Table list opens in a pop-up window.
6. Click New.
7. Enter a Name, select a Table, and add conditions for the automatic assignment of the tag.
8. Click Submit.
9. Click the check mark icon to save the new row.
10. Click Update.

Configure notifications for tagged records

You can enable the system to send a notification when a record with a certain tag is updated.

Role required: tags_admin

1. Navigate to System Definition Tags.
2. Open a tag.
3. In the Label Entries related list, open the record for which you want notifications.
4. Select the Notify onchange check box to be notified any time the record is modified.
5. Use the Notify when condition builder to specify the conditions that must be true to trigger the notification.
6. Select a business rule in the Notify script field.
7. Save the record.

Configure Zing tag indexing for text search

Zing text indexing is available for tags on records.

Role required: admin
No tags are indexed by default. You can enable text indexing of tags on a table-by-table basis. Private tags are never indexed.

1. Navigate to the dictionary entry for the table you want to turn on indexing for.
2. In the Attribute related list, click New.
3. Click the reference icon to see available attributes.
4. Select the Text Index Tags attribute (text_index_tags).
5. For the attribute value, enter one of the following options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>everyone_only</td>
<td>Only tags shared with everyone are indexed.</td>
</tr>
<tr>
<td>all_shared</td>
<td>All shared tags (Everyone, Groups and Users) are indexed.</td>
</tr>
</tbody>
</table>

6. Click Submit.
7. Under Related Links, click Generate Text Index to reindex the table.

After you turn on text indexing for tags on records, records are reindexed when any of the following actions occurs.

- When you add or remove tags.
- When you modify a tag, as long as fewer than 100 records are affected. If there are more records, you must manually reindex.
- When you manually reindex an entire table (required after initial tag indexing setup).

Assigning tags

You can assign tags to records from the form or list view. You can also add tags to a homepage.

The list view provides multiple ways of assigning tags. You can assign tags with inline field editing, the action menu, the context menu, or the edit tags icon.

**Note:** Tag names are case-insensitive and must not include punctuation.

Add a tag to a homepage

You can add a tag to a homepage to view records to which the tag has recently been assigned.

Role required: none

You might want to do this task for tags of a Type other than Standard or Most Recent Record, as they do not appear on the Tagged Documents page.

1. Open a homepage to which you have permission to add content.
2. Click the add content icon (+).
3. Select Labels in the left column of the Add content window.
4. Select the tag you want to show on the homepage.
5. Click the appropriate Add here button.
6. Close the Add content window.

Assign a tag from the list view using inline field editing

You can assign one or more tags to a record directly from the list view.
Role required: none

1. Navigate to a list.
2. Personalize the list to display the Tags column.
3. In List v2, complete the following steps.
   a) Click in the Add Tag field.
   b) To assign an existing tag, begin typing the tag name, select the tag from the choice list, and press the Enter key.
   c) To create a new tag, enter a new tag name and press the Enter key.

4. In List v3, complete the following steps.
   a) Double-click in the Tag field.
      The Edit Tags dialog opens.
   b) To assign an exist tag, select one of the recent tags or click the lookup icon and select the tag.
   c) To create a new tag, enter a new tag name and press the Enter key.
   d) Click X to close the dialog.

The tag is added to the record.

Assign a tag from a list using the action menu

You can assign one or more tags to a record using the action menu in a list.

Role required: none

1. Navigate to a list.
2. Select the check box beside one or more records.
3. Click Actions on selected rows and complete the appropriate steps for the list version.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **List v2** | 1. Scroll to the Assign tag listing.  
2. To assign an existing tag, select the tag listed.  
3. To create a new tag, select New, enter the tag name, select the sharing level, and then click Save. |
| **List v3** | 1. Select Assign a tag to open the Edit Tags dialog.  
2. To assign an existing tag, select one of the recent tags or click the lookup icon and select the tag.  
3. To create a new tag, enter a new tag name and press the Enter key.  
4. Click x to close the dialog. |
The tag is added to the record.

Assign a tag from the list context menu

You can assign one or more tags from the list context menu.

Role required: none

1. Navigate to a list.
2. Right-click a record.
3. To assign an existing tag, complete the appropriate steps for the list version.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Select Assign Tag [Tag Name].</td>
</tr>
</tbody>
</table>
| List v3 | 1. Select Edit Tags and select one of the recent tags or click the lookup icon and select the tag.  
2. Click x to close the dialog. |

4. To create a new tag, complete the appropriate steps for the list version.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| List v2 | 1. Select Assign Tag New Tag.  
2. Enter a new tag name and select the appropriate sharing level.  
3. Click Save. |
| List v3 | 1. Enter a new tag name and press the Enter key.  
2. Click x to close the dialog. |

Note: In List v3, the sharing level defaults to Me. To change the sharing level, edit the tag from the form view or edit the tag record directly.

Assign a tag using the edit tags icon

You can assign one or more tags to a record using the edit tags icon in the form header.

Role required: none

1. Navigate to a form.
2. Perform the appropriate action for your version of the UI.
<table>
<thead>
<tr>
<th>UI version</th>
<th>Action</th>
</tr>
</thead>
</table>
| UI16       | 1. Click the more options icon ( ) in the form header.  
2. Select Add Tag. |
| UI15       | Click the edit tags icon ( ). |

3. Click in the Add Tag field.  
4. Perform one of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign an existing tag</td>
<td>Begin typing the tag name and select the tag.</td>
</tr>
<tr>
<td>Create a new tag</td>
<td>Enter a new tag name and press the Enter key.</td>
</tr>
</tbody>
</table>

The tag is added to the record.

**Editing tags**

You can edit tags that you created from the list and form views, the My Tags module, and the Tagged Documents page. You can also merge tags from the My Tags module.

**Note:** Tag names are case-insensitive and must not include punctuation.

**Edit tags from the list view**

In the list view, you can edit tags that you created.  
Personalize the list to display the Tags column.  
Role required: none  

1. Navigate to a list that contains records you have previously tagged.  
2. Click the edit tag audience icon ( ) beside the tag name.  
   The Tag Details dialog box opens.  
3. Edit the Name field as necessary.  
4. Select an option for the Viewable by field to set the sharing level.  
5. Click Save.  
   All records associated with the tag are updated to reflect the change.

**Edit tags from the form view**

From the form view, you can edit tags that you created.  
Role required: none  

1. Navigate to a record you have tagged.  
2. Perform the appropriate action for your version of the UI.
### Edit tags from the My Tags module

From the My Tags module, you can edit tags you created.

**Note:** Tag names are case-insensitive and must not include punctuation.

1. Navigate to Self-Service My Tags.
2. Open a tag.
3. Make the necessary changes.
4. Click Update.
   All records associated with the tag are updated to reflect the change.

### Edit tags from the Tagged Documents page

You can edit tags from the Tagged Documents page.

Role required: none

1. Navigate to Self-Service My Tagged Documents.
   Alternatively, in UI15 you can click Tagged Documents in the Edge.
2. Click Edit Tags.
   A list of tags you have created appears.
3. Open a tag.
4. Make the necessary changes.
5. Click Update.
   All records associated with the tag are updated to reflect the change.

### Merge tags

You can merge one or more tags with another tag. For example, when you merge Tag A with Tag B, Tag A is deleted and all associated records are reassigned Tag B.
Role required: A user with the admin or tags_admin role can merge any tag into any other tag. All other users can merge tags they created into tags that are visible to them.

1. Navigate to Self-Service My Tags.
2. Select the check box for each tag you want to merge with another tag.
3. Select Actions on selected rows Merge Tags.
4. Enter the tag to merge other tags with.
5. Click OK.

Using tags

Use tags to filter records and view tagged documents. Remove a tag when it is no longer useful.

Filter records by tag

You can filter records on a table by tags you have access to.

Role required: none

Filter records by tag in any of the following ways.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter from the form view</td>
<td>Perform the appropriate action for your version of the UI.</td>
</tr>
<tr>
<td></td>
<td>• UI16: Click the more options icon ( ), and then click the tag in the menu that opens. A new tab or window opens and displays a list of</td>
</tr>
<tr>
<td></td>
<td>records that contain the tag.</td>
</tr>
<tr>
<td></td>
<td>• UI15: Click the edit tags icon ( ), and then click the tag.</td>
</tr>
<tr>
<td>Filter from the list view using the Tags column</td>
<td>With the Tags column visible, click the tag name. Clicking two or more tags filters the tags together with the AND operator and shows records</td>
</tr>
<tr>
<td></td>
<td>containing all the selected tags. This functionality is not available in List v3.</td>
</tr>
<tr>
<td>Filter from the list view using the list filter</td>
<td>Click the show/hide filter icon ( ), select Tags from the field choice list and enter the tag name.</td>
</tr>
</tbody>
</table>

View tagged documents

The Tagged Documents page displays recently viewed documents or user-tagged documents in the content frame.

Role required: none

An administrator can configure the fields that appear on the tagged document cards by configuring the mobile view of the task, for example, the mobile view of the Incident form. If there is not a mobile view available for the page, the record reverts to the default view. For more information, see Create and delete views on page 326.

1. Navigate to Self-Service My Tagged Documents.
Alternatively, in UI15 you can click Tagged Documents in the Edge.

2. Click Show Global Tags to display global tags.

3. Perform one of the following actions:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display most recently viewed documents</td>
<td>Click Most Recent in the sidebar.</td>
</tr>
<tr>
<td>Display documents associated with a tag</td>
<td>Click the tag name in the sidebar.</td>
</tr>
<tr>
<td>Remove a tag from a record</td>
<td>Click the x in the corner of the document preview.</td>
</tr>
<tr>
<td>Open the form for a tagged document</td>
<td>Click the title of the document preview.</td>
</tr>
</tbody>
</table>

Remove a tag from a record

There are many ways to remove a tag from a record.

Role required: none

Perform any of the following actions.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove a tag from a record in the list view using the Tags column</td>
<td>Perform the appropriate action for your list version.</td>
</tr>
<tr>
<td></td>
<td>• List v2: Ensure that the Tags column is visible and click the remove tag icon (x) beside the tag name.</td>
</tr>
<tr>
<td></td>
<td>• List v3: Double-click the tag in the column to open the Edit Tags dialog. Click the remove tag icon (x) beside the tag name.</td>
</tr>
<tr>
<td>Remove a tag from one or more records in the list view using the action menu</td>
<td>Select the check box for one or more records, then click Actions on selected rows Remove Tag: [Tag name].</td>
</tr>
<tr>
<td></td>
<td>This functionality is not available in List v3.</td>
</tr>
<tr>
<td>Remove a tag from a record in the form view</td>
<td>Perform the appropriate action for your version of the UI.</td>
</tr>
<tr>
<td></td>
<td>• UI16: Click the more options icon ( ) in the form header, then click the remove tag icon (x).</td>
</tr>
<tr>
<td></td>
<td>• UI15: Click the edit tags icon ( ), then click the remove tag icon (x).</td>
</tr>
<tr>
<td>Remove a tag from a record in the Tagged Documents page</td>
<td>Click the remove tag icon (x) in the corner of the document preview.</td>
</tr>
</tbody>
</table>

If a tag is automatically applied to a record based on specific conditions, the tag is automatically removed when those conditions no longer apply. For more information, see Administering tags on page 189.
User presence

User presence is a UI16 feature that lets you see who is online when you are working in an instance.

Your avatar appears in the form header next to your name, and in multiple other places such as in activity streams, Visual Task Boards, live feeds, and Connect conversations. A dot on the avatar of the user represents online status.

- Green dot if the user is logged in.
- No dot if the user is not logged in.
- Orange dot if the user recently logged out.

The user avatar is the image uploaded to the user record [sys_user]. If no image is uploaded, the avatar is the user's initials.

**Note:** Users can add an avatar image to their live feed profile. If no image is uploaded to the user record, the system uses the live feed avatar.

When you are viewing a record in a form, such as an incident, you can see if other users are viewing the same record.

![Figure 86: User presence in a form](image)

If multiple users are viewing the record, the avatar is represented by the number of users. Point your cursor to the number to see the names and avatars of the users.

When you are in a Connect conversation or entering comments in an activity stream, you can see information about the activity of the other participant, for example if they are viewing or typing.
An administrator can disable user presence globally.

Disable user presence

You can disable user presence globally by enabling a system property.

Role required: admin

Enabling the property turns off all user presence features.

1. Navigate to sys_properties.list.
2. Locate the property named glide.ui.presence.disabled.
3. Set the Value to true.
Disable live form features

User presence includes several new live form features. You can show or hide these features using the glide.ui16.live_forms.enabled property.

Role required: admin

The glide.ui16.live_forms.enabled property is included automatically with UI16 as part of the com.glide.ui.form_presence plugin. It controls the following form features:

- Live form updates
- Form presence
- Activity formatter appearance
- Attachments displaying in the activity stream

1. Enter sys_properties.list in the Navigation filter.
2. In the system properties list, search for the glide.ui16.live_forms.enabled property.
3. In the Value field, type false.

Configure time intervals for user presence

User presence shows that users are viewing a record sometimes after they have already left. The system only checks for user presence every two minutes by default. You can allow the system to check more frequently by configuring some system properties.

Role required: admin

These properties control how often the system checks for updates or caches user presence.

- glide.ui.presence.cache_seconds
- glide.ui.presence.time_back_minutes

You can configure each property to check more or less frequently. Checking more frequently might slow performance.

1. Navigate to the system properties list by typing sys_properties.list in the navigation filter.
2. Search for each of the properties to make sure they do not already exist in the list.
3. Click New.
4. To control how often the system checks for updates, configure the following property.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui.presence.time_back_minutes</td>
</tr>
<tr>
<td>Type</td>
<td>integer</td>
</tr>
<tr>
<td>Value</td>
<td>How often in minutes you want the system to check for user presence. The default number is 2.</td>
</tr>
</tbody>
</table>

5. To control how often the system caches logged in user information, configure the following property.
Table 47: Cache property

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui.presence.cache_seconds</td>
</tr>
<tr>
<td>Type</td>
<td>integer</td>
</tr>
<tr>
<td>Value</td>
<td>How often in seconds, the system caches the user presence information. The default number is 5.</td>
</tr>
</tbody>
</table>

6. Click Submit.

User interface configuration

Change appearance, navigation menus, CSS, and utilize cutting edge interface tools.

Response time indicator

A response time indicator may appear at the bottom right of forms and in the list view for List v2.

This indicator provides the processing time, including the total time and the time for each step, for a completed transaction. In List v3, the administrator can add the `glide.ui.list_v3.client.timings.roles` property to allow specified roles to see the response time.

The following example shows the response time for retrieving a filtered v2 list in a demo instance.

![Response time](image)

**Response time text:**

Response time (ms): 985, Network: 22, server: 849, browser: 114

In this example, the transaction took the following amount of processing time.

- 985 milliseconds total time
- 22 milliseconds moving data across the network
- 849 milliseconds on the server
- 114 milliseconds in the browser, rendering the HTML and parsing and executing JavaScript

Use the expand option to see more details for the response time indicator.
In List v3, the response time appears on the lower left for users whose role is specified in the system property.

Response time appears on most pages. However, it does not appear for simple operations, such as paging through a set of records or changing the sort order of a list, or for the first transaction in a session.

To hide the response time in List v2 or forms, click the clock icon. Click the clock icon again to show the response time.

Point to the clock to view a tooltip with the response time.

To view a detailed breakdown of the browser processing time on forms, click browser.
Administrators can disable the response time by setting the `glide.ui.response_time` property to false.

**Add a property to display response time in List v3**

The response time indicator that displays in List v2 is not supported in List v3. You can add a property to show the display time in milliseconds (ms).

You determine which roles can view the response time. It appears in the lower left corner of the list footer.

1. **Add a property** with the following settings.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui.list_v3.client.timings.roles</td>
</tr>
<tr>
<td>Description</td>
<td>For specified roles, show in milliseconds the length of time it takes for the list to load in List v3. Separate each role with a comma.</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
</tr>
<tr>
<td>Value</td>
<td>Enter a comma-separated list of roles.</td>
</tr>
</tbody>
</table>
2. Click Submit.

Navigation stack

The navigation stack is the portion of the ServiceNow suite of applications that determines where a user is redirected after the update of a record.

An administrator can cause page references to be manually inserted into the navigation stack when a link in the Navigation Page is clicked. This is done by modifying a module definition to include an argument of `sysparm_stack` with a string value equal to the URL reference to the page to be inserted into the stack. The administrator can also override the redirection determined by the stack by creating a business rule or editing an existing one to include `gs.setRedirect("http://redirect_page.com")`.

Operating parameters of the navigation stack

The navigation stack can be thought of a user's navigation history in the instance. It is updated every time a user views a new page. The navigation stack is referenced when users press the page back button. It is also referenced when a user submits or updates a record, at which point users are redirected to their last page in the navigation stack.

Inserting pages to the navigation stack

The administrator can insert page references manually into the navigation stack when a link in the navigation page is clicked. The module definition is modified to include an argument of `sysparm_stack` with a string value equal to the URL reference to the page to insert into the stack. The following image shows the system definition for the Incident Create New module. By passing an argument of "sysparm_stack=incident_list.do", the list view of incidents (incident_list.do) is added to the stack. After submitting an incident, the user is directed to this page.
### Overriding the redirection behaviors of the navigation stack with onEvent business rules

The redirection behaviors that occur as a result of navigation stack behaviors can be overridden using onEvent business rules. This override is performed by using the function gs.setRedirect. Doing so overrides the redirection as determined by the navigation stack, when the specified event occurs. The function gs.setRedirect takes a string argument that is a URL for the page that the user is redirected to. This URL can be external, for example: `gs.setRedirect('http://www.google.com')`.

### Navigation action cancellation

The Request Manager allows users to cancel any navigation action they select from the application navigator by clicking another application navigator link. System properties work with settings for the table to allow navigation action cancellation.
This allows users to cancel slow loading transactions without having to wait for the previous transaction to complete.

One of the following conditions must be true for the Request Manager to cancel a transaction.

- Both the original transaction and new transaction are cancelable (both transactions have the setting `sysparm_cancelable=true`).
- The original transaction is a member of the always cancelable white list (the module is listed in the `glide.request_manager.always_cancel` system property) and the new transaction is cancelable (has the setting `sysparm_cancelable=true`).
- Both the original and new transaction produce an auto-completer query in a reference field.

**Cancellation workflow**

The Request Manager uses the following workflow to determine whether to cancel a transaction.
Figure 95: Cancel navigation actions
Table 48: Navigation cancellation system properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>glide.request_manager.cancel_other_transaction</td>
<td>Enables or disables automatic cancellation behaviors. When true, users can cancel one navigation action with another navigation action.</td>
</tr>
<tr>
<td></td>
<td>Type: true</td>
</tr>
<tr>
<td></td>
<td>Default value: true</td>
</tr>
<tr>
<td></td>
<td>Location: sys_properties table</td>
</tr>
<tr>
<td>glide.request_manager.always_cancel</td>
<td>A comma-separated list of URIs that users can always cancel by clicking another navigation action. Typically items on this list are modules that provide read-only data such as homepages, reports, or knowledge articles.</td>
</tr>
<tr>
<td></td>
<td>Type: string</td>
</tr>
<tr>
<td></td>
<td>Default value: home, sys_report_template</td>
</tr>
<tr>
<td></td>
<td>Location: sys_properties table</td>
</tr>
<tr>
<td>glide.request_manager.cancel_reference_completer</td>
<td>Cancels a user query in a reference field when the user enters more information. For example, if the user starts an AJAX search in the Problem number field by entering PRB and then enters PRB000, the second query cancels the first query.</td>
</tr>
<tr>
<td></td>
<td>Type: true</td>
</tr>
<tr>
<td></td>
<td>Default value: true</td>
</tr>
<tr>
<td></td>
<td>Location: sys_properties table</td>
</tr>
</tbody>
</table>

Use cases

There are three use cases where administrators can control user cancellation actions.

1. A user clicks a module, such as the homepage (home.do), and while waiting for the module to load decides to navigate to another module, such as the list of open incidents (incident_list.do). The system property glide.request_manager.cancel_other_transaction controls this use case.

2. A user clicks a module that displays read-only data, such as a report (sys_report_template.do? sysparm=sysid), and while waiting for the module to load decides to navigate to another module, such as the list of open incidents (incident_list.do). The system properties glide.request_manager.cancel_other_transaction and glide.request_manager.always_cancel control this use case.

3. A user starts typing a query in a reference field, such as entering PRB in the related Problem field and while waiting for the auto-completer to display results, decides to enter more information, such as PRB000. The system properties glide.request_manager.cancel_other_transaction and glide.request_manager.cancel_reference_completer control this use case.
Add sites to the always cancel white list

You can add UI pages or other links to the always cancel white list so that users can cancel actions on these pages by navigating to another module or link.

Role required: admin

User actions can always cancel items on the white list. You should only add items to the white list that provide read-only data to the user, such as a homepage or a report.

1. Enter sys_properties.list in the navigation filter and press the Enter key.
2. In the Go to field, select Name, enter glide.request_manager.always_cancel, and click Go.
3. Click the property name to open it.
4. In the Value field, add a comma-separated list of URIs you want to allow users to cancel.
5. Click Update.

Prevent users from canceling module transactions

You can explicitly prevent users from canceling the activity of a module by updating the module definition.

Role required: admin

1. Perform the appropriate action for your version of the UI:

<table>
<thead>
<tr>
<th>UI16</th>
<th>UI15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point to the application menu you want to add the module to and click the edit application (pencil) icon.</td>
<td>Right-click the application menu you want to add the module to and select Edit Application Menu.</td>
</tr>
</tbody>
</table>

2. In the Modules related list, click the module you want to prevent users from canceling.

3. Configure the form layout and add the field Uncancellable by Other Modules.

4. Select the check box for Uncancellable by Other Modules.

5. Click Update.

Context-sensitive help

By default, the help link available in the product opens the welcome page of the help system, allowing you to enter search criteria for the information you want to find. With context-sensitive help, you can set a base
URL for an external help system. The context-sensitive system properties define the base URLs for the default and custom help systems.

The ServiceNow system provides several preconfigured help contexts connected to this link that display the exact information you need for the current list, form, or record. You can define your own help topics and configure them to appear when you click the help icon in a ServiceNow record.

Users click the help icon to open the default help pages provided in the base system. For any page that does not have context-sensitive help defined, the instance displays the help system welcome page. Users can use the search feature or the index to find the correct help topic. The location of the help icon depends on the user interface version you are using.

**UI15**

Click the gear icon in the banner frame to open the menu containing the help icon. The appearance of the menu and icons might be different, depending on the UI scheme you have configured for your instance.

![Figure 96: Context help access in UI15](image)

**UI16**

Click the help icon in the right corner of the header bar and select Search Product Documentation from the menu.
Alternatively, administrators can create custom context-sensitive help to suit the needs of their organizations. Create a help context that links the help icon to a topic describing a list, form, or specific record. You may initially want to set a base URL to direct to a help system other than the default ServiceNow help system.

**Set base URLs**

To create numerous help contexts that direct to a single server other than the ServiceNow help system, enter the base URL in the help.base.default property.
Figure 98: Base URL for custom help contexts

On the Help Context form, when the ServiceNow Product Documentation check box is cleared and you enter a value in the URL or page name field that does not contain the string ://, that value is appended to the base URL defined by help.base.default property.
Note: When the ServiceNow Product Documentation check box is cleared and the URL or page name field contains an absolute URL (distinguished by the string :// in the value), the value in the help.base.default property is ignored. This allows you to create help contexts that link to several different servers.

Context-sensitive help properties

To access the context-sensitive help properties, navigate to sys_properties.list and filter by Name. You can edit a property value from the list or by opening the property record.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>glide.help.default.page</td>
<td>The default URL the help icon directs to when no help context is specified. This is the base URL of the ServiceNow help system and opens to the welcome page. Do not change this value.</td>
<td><a href="http://docs.servicenow.com/">http://docs.servicenow.com/</a></td>
</tr>
<tr>
<td>help.base.default</td>
<td>The base URL for custom help contexts in which the ServiceNow Product Documentation check box is cleared, and an absolute URL is not specified. When the base URL is set, the system creates the address of a help context record by appending the target page or file name to the base URL. Custom help contexts using this base URL overwrite the help provided by default in your instance for the same table. For details, see set base URLs.</td>
<td><a href="http://docs.servicenow.com/?context=">http://docs.servicenow.com/?context=</a></td>
</tr>
<tr>
<td>help.base.servicenow</td>
<td>The base URL for help contexts in which the ServiceNow Wiki check box is selected. This is the base URL for the help provided in your instance by default. Do not change this value. For details, see Create a new help context on page 215.</td>
<td><a href="http://docs.servicenow.com/?context=">http://docs.servicenow.com/?context=</a></td>
</tr>
</tbody>
</table>

Create a new help context

You can create new help contexts to supplement or replace the default help contexts. For example, if your organization has heavily customized a form, you might create a new help context for that form. The
customized help context could link to more relevant information, such as a company knowledge base article.

1. Navigate to System UI Help Contexts.
2. Click New.
3. Complete the Help Context form from the fields in the table.

Table 49: Help context form

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Select Form, List, or Record. If you select Record, the Table name field is</td>
</tr>
<tr>
<td></td>
<td>replaced by the Document field.</td>
</tr>
<tr>
<td>Table name</td>
<td>Select the table for which the help context is being defined. If the Type</td>
</tr>
<tr>
<td></td>
<td>is Record, this field is replaced by the Document field. Note: The list</td>
</tr>
<tr>
<td></td>
<td>shows only tables and database views that are in the same scope as the help</td>
</tr>
<tr>
<td></td>
<td>context.</td>
</tr>
<tr>
<td>Document</td>
<td>Click the reference lookup icon (🔍) to open the document selection dialog</td>
</tr>
<tr>
<td></td>
<td>box (pictured). Select the table and document (record) for this help context.</td>
</tr>
<tr>
<td></td>
<td>This field is only visible if you have selected Record as the Type.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>Select the language of the help page to which you are linking. The choices available depend on the internationalization plugins active on your instance. If you might have two help contexts for Form X: one for English and the other for Spanish. If a user whose language is set to Spanish clicks the help icon while viewing Form X, the help page defined in the Spanish help context opens.</td>
</tr>
<tr>
<td>Active</td>
<td>Select this check box to have the system use the help context. This check box is selected by default for new help contexts.</td>
</tr>
<tr>
<td>ServiceNow Product Documentation</td>
<td>Indicates if this help was created by a customer or was provided by ServiceNow. Clear this check box to create custom help for your organization. Do not attempt to modify existing help topics provided by ServiceNow for your own use. The system is configured to use your custom records rather than the default help contexts, even when they are created on the same table.</td>
</tr>
<tr>
<td>URL or page name</td>
<td>Identifies the topic to display when a user clicks the help icon while viewing a form, list, or record. You can enter the complete URL of the help page or just the target file name if you set a base URL in the help.base.default system property.</td>
</tr>
</tbody>
</table>

**Note:** If you reconfigure the fields on the form, you see the available fields Plugin ID and System Property Base URL. Do not use these fields. They are for internal use only.

4. Click Submit.

### Help context types and prioritization

You can create a help context with the type Form, List, or Record, and link it to a particular table in your ServiceNow instance. If you have multiple help contexts, prioritization determines which help contexts apply to what a user views.
Help context types

When a user clicks the help icon, the system analyzes the relevant help contexts to determine which help page to display.

- Record-level help applies to only one specific record, not the list or form for that table.
  For example, if a Record type help context exists for the Validate Number record in the Business Rule table, the help icon only directs to the page specified when a user views that record.
- List-level help applies to the list for a table. If no form-level help is defined, list-level help also applies to the form for the same table.
  For example, if a List type but not a Form type help context exists for the Business Rule table, the help icon directs to the page specified by the List type help context when a user views any list or record (if record-level help is not defined for it) in the Business Rule table.
- Form-level help applies to the form for a table. If no list-level help is defined, the form-level help also applies to the list for the same table.
  For example, if a Form type but not a List type help context exists for the Business Rule table, the help icon directs to the page specified by the Form type help context when you view any record (if record-level help is not defined for it) in the Business Rule table.
- If both list- and form-level help are defined for a table, the appropriate help is displayed for the list and the form.
  For example, if a List type and a Form type help context exist for the Business Rule table, the help icon directs to the page specified by the List type help context when you view a record in the cmdb_ci_linux_server table.

Important: If you create a help context for a base table list or record, the help system opens that target topic for any list or record in a table that extends the base table if no other help context is created in that extended table.

Help context prioritization

When there are several matching help context records, the following rules determine which help context is used, in descending order of priority.

1. A customer-created help context is used instead of a default help context provided in the instance for the same table.
2. A help context that matches the user's language setting is used instead of a help context in the default language of the instance. See the Language field on the Help Context form.
3. A help context for a closer table in an extended table hierarchy is used instead of a help context for a further table.
   Consider the case of the Linux Server [cmdb_ci_linux_server] table, which has the following parentage: cmdb_ci > cmdb_ci_hardware > cmdb_ci_computer > cmdb_ci_server > cmdb_ci_linux_server. If help contexts exist for both the cmdb_ci_server table and the cmdb_ci table, the help icon directs to the page specified by the cmdb_ci_server help context when you view a record in the cmdb_ci_linux_server table.
Embedded help and guided tours

Embedded help and guided tours provide just-in-time assistance to your users within the instance. Some content is provided in the base system, and an administrator can add or modify content.

Embedded Help (com.glide.embedded_help), Guided Tour (com.glide.guided Tours), and Guided Tour Designer (com.glide.sn_tourbuilder) are active by default in all instances. You can use these applications to create customized content for your organization.

Embedded help

Embedded help provides targeted help content to a user in a UI page, based on their role. Some embedded help content comes with the base instance. Your organization can add or replace embedded help content.

Note: Embedded help is only available in UI16. It is not compatible with UI15. For more information, see Activate UI16 on page 14.

The Embedded Help plugin (com.glide.embedded_help) is active by default for all new and upgraded instances. Embedded help content appears in the right sidebar when the user clicks the help icon. If embedded help exists for the current UI page, the help icon has an indicator ( ).
Figure 99: Embedded help for the Catalog Task page
If there is no embedded help, the sidebar displays links to the User Guide and the documentation site search. If the user clicks the Search Documentation link, a documentation search is performed for the page the user originated from. For example, if the user clicks Search Documentation from the Catalog Tasks list view, the search term is Catalog Task and matching topics are listed.

Users with the embedded_help_admin or admin role are able to add content when no help article is associated with the page. They can also copy and customize or edit custom content that appears for a page. The following illustration shows what the admin sees when there is no help article, and how to open an existing article. If it is base system help content, follow the steps in Add custom embedded help from a copy on page 234.

![Embedded help administrator features in the help pane](image)

**Figure 100: Embedded help administrator features in the help pane**

If there is embedded help, it appears based on the user's role. If the content has no associated role, all users see it. If the role is one other than admin, such as itil, then users with the specified role and above see the content. For example, content with the itil role appears for itil, itil_admin, and admin.

**Working with embedded help content**

You can add new embedded help content or replace content. Replacing content involves inactivating the existing topic and adding a topic.

Following are some of the reasons for your organization to add or replace embedded help content.

- To provide help for custom applications.
- To provide more specific instructions or embedded videos to describe your business process.
- To provide embedded help content where none exists for a page.
- To provide embedded help content in languages other than English (default).
- To provide different content for different roles.
The UI page name identifies embedded help content, and you cannot edit the content in a base system topic. In base system topics, the read-only ServiceNow Help check box is selected. If you edit the content and try to save changes, you see an error message.

To replace a topic with custom content, copy the base system topic, which clears the ServiceNow Help check box. Modify the topic with your content and save it. If customized content exists, it is displayed when a user opens help in that UI page.

**Embedded help and domain separation**

If your organization uses domain separation, you can create custom embedded help for each domain. To associate help content with a domain, the administrator configures the Help Content form to include the Domain field. When custom content is created, the author selects the domain to which the content applies.

Considerations include the following list:

- Content with no specified domain is in the global domain.
- If domain-specific content does not exist for a user in a domain, the user sees the global help content.
- Users in the global domain only see global help content. An administrator who wants to test domain-specific help must impersonate a user in that domain.

**Embedded help process**

The ServiceNow datacenter contains the Content Delivery Network (CDN) where embedded help content is stored. Topics in the local (instance) Embedded Help Content [sys_embedded_help_content] table are populated from the CDN. Help content in the CDN is refreshed every 30 days.

When a user accesses a UI page, the embedded help process displays a custom topic if one exists for the user's role. If there is no custom topic, the following steps are performed.

1. Checks the browser cache first, and displays the content if found in the cache. It then checks the Embedded Help Content [sys_embedded_help_content] table for the corresponding embedded help topic with the role and qualifier, if applicable.
   - If a topic is found, it checks the date in the Last sync field. If the date is 15 or more days old, it places a request in the Embedded Help Queue [sys_embedded_help_queue] table with the last sync date and the resource ID.
   - If a topic is not found, it places a request in the Embedded Help Queue [sys_embedded_help_queue] table with the current date and the resource ID.

2. Within a minute of the page being viewed, the system processes the request and checks the CDN. In the first case, it checks whether the topic was updated since the Last sync date. In either case, after a minute, refresh the page to see the content.
   - If the topic was updated, it pulls the updated topic into the table and updates the Last sync date.
   - If the topic was not updated, it displays the local cached or database topic, and updates the Last sync date.

3. If the topic was not in the local database, it pulls the topic into the table if it exists on the CDN. If it does not exist, there is no action.

The administrator can modify the default 15-day synchronization duration in system properties

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Embedded help is active by default on your instance. The administrator can change system properties to modify how the instance interacts with embedded help. The administrator navigates to Embedded Help Properties to change these properties.

Table 50: Embedded help system properties

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>com.glide.embedded_help.auto_close</td>
<td>Auto-closes the help pane when the user clicks Start a Tour or Back To Guided Setup.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Default value: true</td>
</tr>
<tr>
<td>com.glide.embedded_help.cdn_timeout</td>
<td>Duration in milliseconds at which a content pull from the Content Delivery Network (CDN) is timed out.</td>
</tr>
<tr>
<td></td>
<td>• Type: integer</td>
</tr>
<tr>
<td></td>
<td>• Default value: 2000</td>
</tr>
<tr>
<td>com.glide.embedded_help.enabled</td>
<td>Enables the embedded help plugin for activation.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Default value: true</td>
</tr>
<tr>
<td>com.glide.embedded_help.enable_video</td>
<td>Enables users to see embedded videos in help content. The administrator can embed video and a description, but if this property is false, the video and description are hidden in the help pane.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Default value: true</td>
</tr>
</tbody>
</table>

**Note:** When you embed video content, enclose the video embed code and description inside a `<div class="video">` tag. If you disable the property, the content inside the `<div class="video">` tag is hidden when the content is displayed.
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>com.glide.embedded_help.sync</td>
<td>Enables the instance to look in the CDN for updated content when a user accesses a UI page. The instance checks the Last sync date in the topic against the specified frequency to determine whether to look in the CDN for updated content.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Default value: true</td>
</tr>
<tr>
<td></td>
<td>If the property is disabled (false), the embedded help content is never synced with CDN topic updates.</td>
</tr>
<tr>
<td>com.glide.embedded_help.sync_frequency</td>
<td>Specifies how many days must pass from the Last sync date in the topic for the embedded help process to look for updated content in the CDN.</td>
</tr>
<tr>
<td></td>
<td>• Type: integer</td>
</tr>
<tr>
<td></td>
<td>• Default value: 15</td>
</tr>
<tr>
<td>com.glide.embedded_help.sync_self_hosted</td>
<td>Specifies whether a self-hosted instance syncs content with the CDN.</td>
</tr>
<tr>
<td></td>
<td>• Type: true</td>
</tr>
<tr>
<td></td>
<td>• Default value: false</td>
</tr>
<tr>
<td>com.glide.embedded_help.url</td>
<td>Lists the location from where embedded help is dynamically retrieved.</td>
</tr>
<tr>
<td></td>
<td>• Type: string</td>
</tr>
<tr>
<td></td>
<td>• Default value: varies</td>
</tr>
<tr>
<td>com.glide.embedded_help.version</td>
<td>Specifies the instance version for which help is displayed.</td>
</tr>
<tr>
<td></td>
<td>• Type: string</td>
</tr>
<tr>
<td></td>
<td>• Default value: Jakarta</td>
</tr>
<tr>
<td></td>
<td>If blank, displays the help for the version the instance is currently running.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| com.glide.embedded_help.guided_setup.persist_actions | Enables Guided Setup actions in the embedded help panel that are based on states to display on all pages. An example is the Mark as Complete action. The default behavior (false) is to only show actions on the initial Guided Setup page.  
  - Type: true | false  
  - Default value: false |

**Embedded help planning**

Before writing custom embedded help, plan the content and note the information used in the Embedded Help form. Careful planning ensures that the topic appears for the right page and role.

Each UI page can display embedded help, specified in the Page field as shown in the following example.
Figure 101: Embedded help topic for the Catalog Items list view
In planning for embedded help topics, consider how the following fields are used and note the values that you need for your custom topics.

**Page**

Identify and note the UI page name which is found in the URL when the page is displayed as shown. If the page name begins with a dollar sign, such as $mid_server_user, include the dollar sign in the page name. Before you write an embedded help topic for the page, search for the page name to locate a file you can copy.

**Modifier**

- Normal content appears for any user with the appropriate role who navigates to the page.
- Setup content appears when the page is accessed from a link in Guided Setup.

Many embedded help topics in the base system are for Guided Setup. You can copy Setup content and change the Modifier to Normal to quickly provide help for all users.

**Qualifier**

Identify pages you want custom help for that are used in many applications. For example the home.do page opens for every Homepage module and for many Dashboard modules. The embedded help administrator can use qualifiers to customize content for a common page in the instance.

**Role**

Specify the lowest level role to provide access to this embedded help topic. All roles that contain the role also see the content, unless another topic targeted to their role exists for the same page.

For example, if you add embedded help content for the itil role that describes your business process for entering incidents, the itil_admin role also sees the content. If you write a different topic with the itil_admin role, the itil_admin sees that content instead of the itil content.

**Product**

Write content only for the Enterprise topic. You can copy an Express topic and change this field to Enterprise if appropriate.

**Version**

Base system content is typically specified to the current software version. If you are editing the content for a custom application or to provide information relevant to your organization business process, select All.

**Domain**

If your organization uses domain separation and customizes help content, specify the domain the content applies to.

**ServiceNow Help**

If the check box is selected, this field indicates a base system topic. You cannot edit a base system topic, but you can create a copy to add custom content.
Content

You can use the formatting tools to format the content. The following list describes the limitations.

- You cannot include images in embedded help content.
- To embed video, you must code the video information in the source code <video> view. Video content from YouTube and Vimeo are supported.
- To add a related information link, you must use a full URL, not a relative URL.
- Best practice is not to use the highlight text tool, as the color may make text unreadable depending on the theme the user has selected.

Use embedded help qualifiers
The embedded help administrator can use qualifiers to customize content for a common page in the instance. An example of a common page is home.do.

Role required: embedded_help_admin

The home.do page is opened for every Homepage module and for many Dashboard modules. The specified query parameters in the URL define which homepage to open.

Imagine that your organization wants to provide specific instructions for the SLA homepage. You can write custom embedded help content and use a qualifier to accomplish that goal. Create the qualifier, and then associate it with custom embedded help content that you write.

1. To get the information for the qualifier, open the module in a new browser window and record the query parameter.
   You can also select the query parameter from the module link type by opening the module record. To open the module record, click the pencil icon beside the module.

   ![The query parameter in the URL](https://myinstance.service-now.com/home.do?sysparm_view=SLA)

   The query parameter in the URL

   ![The query parameter in the link type argument.](image)

   ![Visibility](image)

   ![Link Type](image)

   ![Link type](image)

   ![URL (from Arguments):](image)

   ![Arguments](image)

2. Navigate to Embedded Help Help Qualifiers, and then click New.
3. Complete the form.

Table 51: Embedded help qualifier form

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path</td>
<td>Enter the page to display the embedded help content. Do not include .do. For example, for the SLA homepage, enter home.</td>
</tr>
<tr>
<td>Query params</td>
<td>Enter the query parameters or the link argument.</td>
</tr>
<tr>
<td>Fragment</td>
<td>Enter the #&lt;string&gt; at the end of the URL. This is rarely found in the URL of a page in the instance. If you want custom help for a page that ends with #&lt;string&gt;, place it into this field.</td>
</tr>
</tbody>
</table>

Note: The proven practice is to include at least a query parameter. If you do not, the custom help appears for every home.do page. You can use either the query parameter, the fragment, or both.

| Qualifier   | Enter the qualifier to use, for example sla-homepage. Record the qualifier to use in the embedded help content record. |

4. Click Submit.

5. Follow the steps in *Add custom embedded help content* on page 236 to create the content, and include the following information.
   - Name and Page: The page you created the qualifier for, for example, home.
   - Qualifier: The qualifier you entered, for example sla-homepage.

Note: You can also copy an existing embedded help topic and enter the qualifier in the copied record.

6. Test the qualifier by opening the page you added the content for, and then opening the help panel.

Note: If you added a role to the embedded help content, ensure that you are logged in as a user with the role, or impersonate a user with that role.

*Embedded help roles*

Embedded help content can be targeted to users with a specified role who access the UI page. All roles that contain the role also see the content, unless another topic targeted to their role exists for the same page.

For example, if you add embedded help content for the itil role that describes your business process for entering incidents, the itil_admin role also sees the content. If you write a different topic with the itil_admin role, the itil_admin sees that content instead of the itil content.
Embedded help role priority

The embedded help role priority is stored in the Embedded Help Role Priority [sys_embedded_help_role] table. Each role is assigned a default priority order number based on the role name in the Roles [sys_user_role] table.

Table 52: Default embedded help priority order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Role name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>admin</td>
</tr>
<tr>
<td></td>
<td>Examples: admin, chat_admin, pa_admin,</td>
</tr>
<tr>
<td></td>
<td>survey_admin</td>
</tr>
<tr>
<td></td>
<td>Exception: itil_admin</td>
</tr>
<tr>
<td>100</td>
<td>manager or itil_admin</td>
</tr>
<tr>
<td></td>
<td>Examples: itil_admin, catalog_manager,</td>
</tr>
<tr>
<td></td>
<td>content_manager, sla_manager</td>
</tr>
<tr>
<td>300</td>
<td>itil (only)</td>
</tr>
<tr>
<td>1000</td>
<td>All other roles or no role (ESS user)</td>
</tr>
<tr>
<td></td>
<td>Examples: approver_user, financial_management_user, personalize_form, template_editor</td>
</tr>
</tbody>
</table>

The priority executes from the lowest number to the highest, meaning that embedded help content with no role displays only if no other content is available for the UI page and the user's role. All base system content is targeted to a role unless the content is intended for all users, including ESS users. When you add a role, such as a role for a custom application, it is automatically added to the Embedded Help Role Priority [sys_embedded_help_role] table with the appropriate default order. You can modify the order of priority as needed.

If a page requires different help content for different roles, separate topics must be added. For example, users with any role can access the incident.do page, and it opens with a view appropriate for their role.

The following list describes how content for different roles can be targeted for the Incident form.

**Admin**
Provides information and links to help with configuring the Incident form.

**itil_admin**
Describes how to monitor the progress of the incident.

**itil**
Describes how to work on an incident.

**No role**
Explains what the user can review and modify in the Self-Service view of the Incident form.

Modify embedded help role priority

You can modify the default order of priority that is assigned to a role in the Embedded Help Role Priority [sys_embedded_help_role] table. The priority order determines what embedded help content a user accesses on a UI page, based on roles assigned to the user.

Role required: embedded_help_admin or admin
When you add a role, such as a role for a custom application, it is automatically added to the Embedded Help Role Priority [sys_embedded_help_role] table with the appropriate default order. You can modify the role priority, including adding priority numbers between the default priority numbers, if appropriate.

1. Navigate to Embedded Help Role Priority and locate the role to modify the priority.
2. Double-click the value in the Order column to open the list editor.
3. Enter the new priority order number and click the green check mark to save it.

**Embedded help internationalization**

Embedded help internationalization provides the ability for you to localize your embedded help content to a variety of languages to meet global user needs. You can write your embedded help content in a language of your choice and decide what languages to display.

Existing embedded help content records are written in English by default. You can translate the English embedded help content provided with the base system into other languages to meet your needs. You can also create custom embedded help content in the language of your choice.

**Understanding localized embedded help content**

To translate English embedded help content into another language or to create embedded help content in a language other than English, your working session must be configured to the language in which you want to write. For example, you must be working in a French session if you want to write embedded help content in French. Refer to *Localization settings* for more information.

Configure embedded help content to display in the language of your choice by accessing the Language field on the Embedded Help Queue [sys_embedded_help_queue] table. Depending on the foreign language translations activated on your instance, you can choose which language to display your embedded help content.

If embedded help content is available in a particular language and users are working in an instance with that language, they will see available embedded help in the desired language.

**Working with localized embedded help content**

When a user requests an embedded help content record, the associated embedded help queue record populates accordingly and the language specified in the embedded help queue record is set to the current session language.

When embedded help content is available in a user’s session language, content will be shown in that same language. If embedded help content is not available in the user’s session language, than English content is shown. However, if you do not want to see English content in a non-English session, you can configure the sys_property to False (default is True).

**Embedded help content prioritization**

Displaying embedded help content in the user’s session language takes priority over all other mechanisms, such as role, whether content is user-created, and the latest content version.

When a user is in a non-English working session, the priority for embedded help content display is as follows:

1. Working-session language (other than English) content displays, if available.
2. User-created content displays when working-session language content is not available.
3. Version-related content displays when working-session language and user-created content are not available.

For example, if an admin user is in a French working session and requests embedded help content, but French content is not available for the admin role, the same-language content for a lower role is displayed if available.

If there is no embedded help content for the French admin role, but there is content for the French itil role and English admin role, the French itil role takes priority over the English admin role. The French-language content will display at the itil-role level.

Create internationalized embedded help
Translation provided English embedded help content into other languages or create custom embedded help content in the language of your choice.

Role required: embedded_help_admin or admin

All embedded help content records are in English by default. To create a non-English embedded help content record, there must first be an English content record in the Embedded Help [sys_embedded_help_content] table. The English embedded help content record is parent to all other language embedded help content records. Once you create a non-English embedded help content record, it resides in the Translated Texts [sys_translated_text] table.

To translate provided English content into another language, create a copy of the English content record and save the edited, non-English, copy record. The new record is saved to the Translated Texts [sys_translated_text] table. Refer to Add custom embedded help from a copy on page 234 to translate available embedded help content.

To create a non-English custom embedded help content record, your working instance must be configured to the same language you intend to write in. You create custom non-English embedded help content when English embedded help content is not available to copy.

After creating a non-English embedded help content record, you must create the same content record in English and store it in the Embedded Help [sys_embedded_help_content] table. The English embedded help content record is parent to all other languages.

1. Navigate to Embedded Help Help Content.
2. Open the embedded help topic to copy.
   You can also open an embedded help topic by selecting Edit Help Article from the menu in the embedded help pane.
3. Update the fields as appropriate.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The embedded help topic name.</td>
</tr>
<tr>
<td>Page</td>
<td>The UI page this topic corresponds to. Typically, you do not change the page name.</td>
</tr>
</tbody>
</table>
| Modifier  | • Normal content appears for any user with the appropriate role who navigates to the page.  
• Setup content appears when the page is accessed from a link in Guided Setup. |
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role</td>
<td>The role that the topic is written to assist. Users assigned to the role see the content when they navigate to the associated UI page. All roles that contain the role also see the content, unless another topic targeted to their role exists for the same page. For more information, see <em>Embedded help roles</em> on page 229.</td>
</tr>
<tr>
<td>Active</td>
<td>Specifies whether this content displays for the UI page. Clear the check box to prevent the content from being available.</td>
</tr>
<tr>
<td>Product</td>
<td>Enterprise is the default, and should not be changed.</td>
</tr>
<tr>
<td>Qualifier</td>
<td>The qualifier that provides custom embedded help for a common UI page. For example, the home.do page is opened for every Homepage module and for many Dashboard modules. Create the qualifier before you enter it into this embedded help record.</td>
</tr>
<tr>
<td>Version</td>
<td>The version this topic is appropriate for. If you are editing the content for a custom application or to provide information relevant to your organization business process, select All.</td>
</tr>
</tbody>
</table>
| Last sync | The last date and time that the CDN was checked for updated content. When a user accesses this UI page, the platform determines whether the last sync date and time are more than 15 days ago. If it is, the CDN is checked for updated content and the date is refreshed.  

**Note:** The administrator can change the last sync duration in system properties. |
| Order | The order defaults based on the role, and determines what content to display when the user has an assigned role. For more information, see *Embedded help roles* on page 229. |
4. In the Content field, update the text using the HTML formatting tools as needed. If you add a link, enter the full URL to the web page. A good practice is to select New window (\_blank) as the Target.

**Note:** Do not add images in an embedded help topic. Images are removed from the content section when the record is saved.

To add an embedded video, see *Embed video content in help topics* on page 238.

5. To add another line below tables, videos, or related links, click the newline icon (#).

6. Click Copy in the form header.

The edited topic is saved and the list redisplays. The ServiceNow Help check box is cleared in the saved topic.

### Add custom embedded help from a copy

To customize embedded help for your organization, you can edit a topic in the base system and save it as a copy.

**Role required:** embedded\_help\_admin or admin

In base system topics, the read-only ServiceNow Help check box is selected. When you create a copy, the ServiceNow Help check box is cleared, allowing you to modify the content.

When a user navigates to a UI page for which custom content exists, the custom content displays instead of the base system content.

1. Navigate to Embedded Help Help Content.
2. Open the embedded help topic to copy.
   You can also open an embedded help topic by selecting Edit Help Article from the menu in the embedded help pane.
3. Update the fields as appropriate.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The embedded help topic name.</td>
</tr>
<tr>
<td>Page</td>
<td>The UI page this topic corresponds to. Typically, you do not change the page name.</td>
</tr>
</tbody>
</table>
| Modifier  | • Normal content appears for any user with the appropriate role who navigates to the page.  
  • Setup content appears when the page is accessed from a link in Guided Setup. |
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role</td>
<td>The role that the topic is written to assist. Users assigned to the role see the content when they navigate to the associated UI page. All roles that contain the role also see the content, unless another topic targeted to their role exists for the same page. For more information, see <em>Embedded help roles</em> on page 229.</td>
</tr>
<tr>
<td>Active</td>
<td>Specifies whether this content displays for the UI page. Clear the check box to prevent the content from being available.</td>
</tr>
<tr>
<td>Product</td>
<td>Enterprise is the default, and should not be changed.</td>
</tr>
<tr>
<td>Qualifier</td>
<td>The qualifier that provides custom embedded help for a common UI page. For example, the home.do page is opened for every Homepage module and for many Dashboard modules. Create the qualifier before you enter it into this embedded help record.</td>
</tr>
<tr>
<td>Version</td>
<td>The version this topic is appropriate for. If you are editing the content for a custom application or to provide information relevant to your organization business process, select All.</td>
</tr>
<tr>
<td>Last sync</td>
<td>The last date and time that the CDN was checked for updated content. When a user accesses this UI page, the platform determines whether the last sync date and time are more than 15 days ago. If it is, the CDN is checked for updated content and the date is refreshed.</td>
</tr>
<tr>
<td>Order</td>
<td>The order defaults based on the role, and determines what content to display when the user has an assigned role. For more information, see <em>Embedded help roles</em> on page 229.</td>
</tr>
</tbody>
</table>
4. In the Content field, update the text using the HTML formatting tools as needed. If you add a link, enter the full URL to the web page. A good practice is to select New window (_blank) as the Target.

   **Note:** Do not add images in an embedded help topic. Images are removed from the content section when the record is saved.

To add an embedded video, see *Embed video content in help topics* on page 238.

5. To add another line below tables, videos, or related links, click the newline icon (#).

6. Click Copy in the form header. The edited topic is saved and the list redisplay. The ServiceNow Help check box is cleared in the saved topic.

---

### Add custom embedded help content

You can create a new custom embedded help topic, for example, if you have a custom application and you want to provide help to users.

Role required: embedded_help_admin or admin

When you write content for your users, keep the following limitations in mind.

- You cannot include images in embedded help content.
- To embed video, you must code the video information in the source code <>>> view. Video content from YouTube and Vimeo are supported.
- To add a related information link, you must use a full URL, not a relative URL.
- Best practice is not to use the highlight text tool, as the color may make text unreadable depending on the theme the user has selected.

1. Navigate to Embedded Help Help Content.

2. Click New.

3. Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the embedded help topic name. A typical name is the title of the page to which it applies.</td>
</tr>
<tr>
<td>Page</td>
<td>Enter the UI page this content provides help for, without the .do file extension.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| Modifier   | Select the modifier, typically Normal.  
  • Normal content appears for any user with the appropriate role who navigates to the page.  
  • Setup content appears when the page is accessed from a link in Guided Setup. |
| Role       | Select the role that the topic is written for.  
  All roles that contain the role also see the content, unless another topic targeted to their role exists for the same page. For more information, see Embedded help roles on page 229 |
| Active     | Select the check box to make this content appear. Clear the check box to prevent the content from being available, for example, to have someone review it before it is accessed on the UI page. |
| Product    | Enterprise is the default, and should not be changed. |
| Qualifier  | The qualifier that provides custom embedded help for a common UI page.  
  For example, the home.do page is opened for every Homepage module and for many Dashboard modules. Create the qualifier before you enter it into this embedded help record. |
| Version    | Select a version, if different from the current version of your instance. To provide content for a custom application or information relevant to your organization business process, select All. |
| Order      | Change the default role, if needed. The order defaults based on the selected role. For more information about default order priority numbers, see Embedded help roles on page 229. |
| Domain     | Specify the domain this content is used for, if applicable.  
  This field appears in the form if the administrator configured the form to display it. |

4. In the Content field, enter the text using the HTML formatting tools as needed.  
If you add a link, enter the full URL to the web page. A good practice is to select New window (_blank) as the Target.
To add an embedded video, see Embed video content in help topics on page 238.

5. To add another line below tables, videos, or related links, click the newline icon (#).

6. Click Submit.

Embed video content in help topics

You can embed a link to video content in a custom embedded help topic. YouTube and Vimeo video content is supported.

Role required: embedded_help_admin or admin

You cannot use the insert/edit video icon in the HTML editor to embed the video. You must enter the source code.

![HTML editor icons](image)

Figure 102: HTML editor icons

The administrator can disable the ability for users to see embedded video in the Embedded help system properties on page 223.

1. Complete the following steps to obtain the embed code for the video.
   a) Navigate to the location of the video on YouTube or Vimeo.
   b) Open the Share option for the video.
      In YouTube, the text appears below the video. In Vimeo, click the share icon beside the video.
   c) Under Embed, select the code and paste it into a text editor.
   d) Modify the code to enclose it in a `<div>` and remove elements that do not get rendered in the embedded help content page.
      For example, here is the embed code for a YouTube video. The modified code also contains a title for the embedded video enclosed in a `<p>` tag.

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/bqh-5yew2yQ"
frameborder="0" allowfullscreen></iframe>

After modification, the code looks like this.

```
<div class="video"><iframe src="https://www.youtube.com/embed/bqh-5yew2yQ"
allowfullscreen"></iframe>
<p class="p">Video: Work at Now</p>
```

Vimeo embed code has more attributes. Strip them out so it looks like the following example. Notice the difference between YouTube and Vimeo for the allowfullscreen attribute.

```
<div class="video"><iframe src=https://player.vimeo.com/video/67392563" frameborder="0"
allowfullscreen></iframe>
<p class="p">Video: Work at Now</p>
```
Note: As shown in the examples, enclose the `<iframe>` and the `<p>` tags within a `<div class="video">` tag. If the administrator disables the property to display video content, all content within the `<div class="video">` tag are hidden.

2. Navigate to Embedded Help Help Content, and then open the custom help topic to embed a video.
3. Click the source code icon `<>`.
4. Position your cursor at the end of the line above the location of the video.
5. Press the Enter key to move to a blank line enter the embed code you modified.
6. Click OK, and then click Update.
7. To test that the video appears, open the page that displays the content you just updated, and then open the help panel.

Guided tours

Use the Guided Tour Designer to create tours that demonstrate to users how to use a feature. For example, an administrator can create a task demo with callouts to demonstrate how to perform the task.

See the Guided Tour Designer release notes.

Guided tours help train and onboard users within the ServiceNow user interface (UI). Each tour contains a series of interactive steps that help users complete online tasks within their browser window. Administrators can create tours for ServiceNow applications, service portals, and custom applications. For example, you can create a tour to represent a training model for specific policies and processes, such as creating a new incident or reviewing change requests.

Guided tours use a series of steps that may span multiple pages. You can create purely informational steps that users read through and acknowledge, which result in no change to the ServiceNow instance. Alternatively, you can provide users with an interactive experience where they click through and actively work with the application at hand. For example, an “Introduction to Incidents” tour may simply show them the key features of the Incidents table, while a “Create your first incident” tour may actually walk them through creating a real incident, which results in a new record in the Incidents list.

Note: The Guided Tour Designer is only available in UI16. The designer is not compatible with UI15. For more information, see Activate UI16 on page 14.

Several guided tours are provided in the base system for particular applications, for example, Performance Analytics. As an administrator, you can edit existing tours or create new tours. You can also assign one or more roles to a tour to control access.

The guided tours feature uses these two plugins: Guided Tour (com.glide.guided_tours) and Guided Tour Designer (com.glide.sn_tourbuilder).

Navigating to guided tours

Guided tours run on two types of UI: Standard and Service Portal. Tours launch differently when accessed based on each tour type as follows.

**Standard UI:**

Users access a guided tour by navigating to a page that has one. If they have one or more of the roles that the tour is targeted to, they can click the
icon so the GTD panel opens to show the Take a Tour button. If more than one tour is available to a user on a page, the Select Tour choice list appears so they can select which tour to launch.

Service Portal UI:

Users access a guided tour by navigating to a page that has one. When a user accesses a Service Portal page that has a guided tour on it, no GTD panel is present. Instead, the menu item appears on the banner indicating a tour is available. If a blue icon with ellipses appears, more than one tour is available. When the user clicks Tours, all available tours for the page appear. If a page has no Service Portal Header Menu, the Tours menu item is not accessible to the user. In this case, the tour is accessible to users only via auto-launch. See Configure auto-launch for guided tours on page 263.

When you add at least one role to a tour, it limits the audience to those users who have that role. For more Service Portal guided tour information, see Activate guided tours.

Guided Tour Designer support

The Guided Tour Designer (GTD) supports most of the standard platform UI areas and their content, such as lists, forms, and the elements they reference. It also supports Service Portal pages, including those that have custom UI elements.

The GTD does not currently support the following areas.

Standard UI:
• Visual Task Boards
• Flow Designer
• PA Dashboards
• Service Catalog
• Popup windows
• Connect Chat and Embedded Help on the GTD sliding panel
• Select2 elements
• Standard UI pages that have custom UI elements

Service Portal:
• Service Portal pages that contain IFRAMES
• The Service Portal Branding Editor, which also contains IFRAMES

Guided tour example and outline

Guided tours are composed of the following components that function as building blocks for the tours that you create.

Table 53: Guided tour components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Shows an introductory message to your users.</td>
</tr>
<tr>
<td>Step</td>
<td>A discrete component of a guided tour that implies an order. A step can provide a definition, an instruction, or both.</td>
</tr>
<tr>
<td>Callout</td>
<td>Shows the definition and instruction about the current step in the tour. The callout includes the instruction to proceed to the next step. It points to the element that the instruction describes.</td>
</tr>
<tr>
<td>Element</td>
<td>The objects that the tour points to, such as a record in the database, or a widget on a page. Elements require formatting so that the tour can link to them.</td>
</tr>
<tr>
<td>Trigger</td>
<td>Moves the tour to the next step. Triggers include pressing the Enter key, clicking or right-clicking a UI element, or clicking a Next button in the callout.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Shows a closing message to your users at the end of the guided tour.</td>
</tr>
</tbody>
</table>

Guided tours require careful planning before entering the tour into the instance. You can create an outline and include any assumptions to guide you when you create the guided tour. List each step, callout, and trigger.

Table 54: Sample guided tour outline: Set a vacation delegate

<table>
<thead>
<tr>
<th>Step</th>
<th>Callout</th>
<th>Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>This tour assumes that the user has navigated to User Administration Delegates. The UI page is sys_user_delegate_list.do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Callout</td>
<td>Trigger</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
</tbody>
</table>
| Open the Delegate form to enter a new record. | • Points to the New button in the Delegates list view.  
• Text: Click New to set up a delegate who receives your notifications while you are on vacation. | Click the element: New button     |
|                                           |                                                                         |                                   |
| Describe the User field.                  | • Points to the User field.  
• Text: Your name defaults as the user who wants to delegate to another user. If you are setting up a delegate for someone else, you can select a different user. | Next button                       |
|                                           |                                                                         |                                   |
| Select the delegate                       | • Points to the Delegate field.  
• Text: You specify who you want to delegate to. Type the user’s name, and select it when it appears. | Next button                       |
|                                           |                                                                         |                                   |
| Set the start date                        | • Points to the Starts field.  
• Text: Enter the date and time to start forwarding notifications. Click away from the field to proceed. | Change the Value: Starts field    |
|                                           |                                                                         |                                   |
| Set the end date                          | • Points to the Ends field.  
• Text: Select the date and time to stop forwarding notifications. Click away from the field to proceed. | Change the Value: Ends field      |
|                                           |                                                                         |                                   |
| Describe the delegate options             | • Points up from below the Meeting invitations field.  
• Text: If you do not want these notifications forwarded to your delegate, you can clear any of these fields. | Next button                       |
|                                           |                                                                         |                                   |
| Submit the delegate record                 | • Points to the Submit button  
• Text: Click Submit to add the delegate. | Click the element: Submit button  |
Activate guided tours

Use this task to enable guided tours for Service Portal pages as well as the standard platform UI.

Role required: admin

The Guided Tour Designer was first introduced in the Jakarta release. For new instances created in Jakarta and beyond, guided tours are active by default. For instances originating from pre-Jakarta, guided tours are inactive by default.

With the London release, you can also enable guided tours to run on Service Portal pages. When you upgrade your instance to London, the following results occur.

- For instances that are new in London, the Guided Tours for Service Portal feature is active by default.
- For pre-London instances that you upgrade to London, the Guided Tours for Service Portal feature is inactive by default.

Use the following steps to enable one or both of these features.

**Note:** The Service Portal application provides a framework that enables you to customize your portal user experience. It interacts with parts of the system so that your users can access specific platform features presented in a custom context. You can create a guided tour for a Service Portal page to further enrich that experience by guiding your users through its content step by step.

1. Enter sys_properties.list in the application navigator and press Return.

   The System Properties list appears.

2. Enter com.snc.guided_tours in the Name search box and press Return.

3. Set the com.snc.guided_tours.standard_ui.enable property to True.

   This property enables guided tours across the instance, and is required to build tours that run on the standard platform UI.

4. Set the com.snc.guided_tours.sp.enable property to True.

   This property only controls guided tours that run on Service Portal pages.

   You can create and publish tours for standard UI pages regardless of this property setting.

5. Ensure that the com.snc.guided_tours.enable property is also set to True.

6. Click Update.

You can create, update, and play guided tours that reference both standard platform UI elements and tours that reference custom UI elements on a Service Portal page. Your end users can play these tours.

Start planning, outlining, and drafting your guided tours. If you are drafting Service Portal guided tours, keep the following in mind.
<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided tour callout steps</td>
<td>Guided tours must be able to recognize every element that they point to so they can locate it after a callout step is created on the element. Therefore, Service Portal page creators must ensure that every custom element they create has a unique name to help validate it as a record in the database. For example, if you create two widgets on a Service Portal page, you must assign them unique names, such as Widget1 and Widget2. You can customize the elements further by appending additional attributes to the HTML and unique values to their properties. For example, the system currently uses data-gtd-eid and data-id attributes to identify the elements as unique.</td>
</tr>
<tr>
<td>Service Portal pages</td>
<td>In the base system, tours can only be manually launched from pages that use the SP Header Menu. Manually launched tours do not display on pages with custom header menus. If your guided tour is on a Service Portal page that does not use the SP Header Menu, you must configure your tour for auto-launch so the tour is visible to your users. See Configure auto-launch for guided tours on page 263. If your Service Portal uses Page Route Maps, tours may not show when expected. For example, you may not see a tour when expected if the tour is configured for a redirected page. For more information, see Redirect a reference to a page ID.</td>
</tr>
<tr>
<td>Service Portal branding</td>
<td>When you update the branding for a Service Portal page, the callouts in the guided tour for that page also update accordingly. For example: You update your Service Portal panel background theme color to yellow, and its primary color to red. Result: Your guided tour callout panel background becomes yellow and the callout text field becomes red.</td>
</tr>
</tbody>
</table>

**Service Portal guided tour callout colors**

You can customize your guided tour callout colors or use the guided tour defaults.

<table>
<thead>
<tr>
<th>Default</th>
<th>Custom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided tour callouts use the following Service Portal properties:</td>
<td>To explicitly set callout color independently of the Service Portal colors, the following CSS variables may be applied:</td>
</tr>
</tbody>
</table>
Planning the guided tour

Before you begin outlining the details of a guided tour, answer the following questions.

- What is the purpose of the tour? Do you want to show the features of a UI page with descriptive callouts? Or do you want the user to learn how to perform a task, such as how to create a new incident? It is important to be clear before you begin to plan the tour so you can properly break down the steps.
- On what environment should the tour be available? If you intend to guide users to complete real world tasks, such as ordering an item from the service catalog or creating an incident, then it makes sense to make the tour available on your production instance. If you intend to train users to explore these tasks without creating true records in the system, consider making the tour available on a non-production instance for training purposes instead. Both scenarios are valid and depend on the situation at hand.
- What should you name your tour? Upon tour creation, you are prompted to provide a Tour Name. The name must be a unique and is visible your end users. Names should be intuitive so users can understand the purpose of the tour. For example, use “Create a New Incident” or “Incident List Overview”.
- What assumptions are you making regarding what the user already knows about the page or task? Do all users who can take the tour have the same level of understanding? Use this information to decide how much description to provide at the beginning so that any user who takes the tour understands the content.
- If the purpose of the tour is to perform a task, how can you personalize the instructions so that each user who takes it creates a different record? For example, if the tour walks the user through creating a group called Facilities, the first user creates the record and the subsequent users get a duplicate name error.

One approach to planning your tour is to start with a simple template that helps answer these important questions.

- What is the goal of my tour?
- What page should my tour start on?
- What steps are important to accomplishing my objective?
- How should the user navigate from one step to the next?
Guided tour plan

Review the following sample template for a guided tour whose objective is to explore the Service Portal home page.

Key information:
- Tour Name: Service Portal Overview
- Goal: Users should have a good understanding of how to navigate key elements of the Service Portal home page
- Portal Name: Service Portal
- Starting Page: Service Portal: ID Index
- Roles: All

Table 55: Sample guided tour plan: Service Portal home page overview

<table>
<thead>
<tr>
<th>Step</th>
<th>Callout</th>
<th>Trigger</th>
</tr>
</thead>
</table>
| Introduction | • Title: Service Portal Overview  
• Text: Welcome to this guided tour of your new Service Portal home page! | Next button |
| 1 | • Points to this element: How can we help?  
• Placement: Below  
• Text: We begin with the How can we help? search bar. If you cannot find what you are looking for, enter it here, then click the Search icon, or press Enter on your keyboard. For now, let’s take a look at some other areas first. | Next button |
| 2 | • Points to this element: Order Something  
• Placement: Top  
• Text: If you would like to order something, such as a new phone, select Order Something. | Next button |
<table>
<thead>
<tr>
<th>Step</th>
<th>Callout</th>
<th>Trigger</th>
</tr>
</thead>
</table>
| 3    | • Points to this element: Knowledge Base  
      • Placement: Top  
      • Text: If you would like to search the knowledge base, select Knowledge Base. | Next button |
| 4    | • Points to this element: Get Help  
      • Placement: Top  
      • Text: If you would like to get help for an issue, select Get Help. | Next button |
| 5    | • Points to this element: Community  
      • Placement: Top  
      • Text: If you would like to ask your colleagues a question, select Community. | Next button |
| 6    | • Points to this element: Knowledge in title bar  
      • Placement: Left  
      • Text: You can also check the Knowledge base, order something, look at requests you have logged, and other options up here in the title bar. | Next button |
| 7    | • Points to this element: Your name  
      • Placement: Left  
      • Text: View your profile or logout by clicking your name. | Next button |
| 8    | • Points to this element: Logo top-left  
      • Placement: Below  
      • Text: To navigate back to the Service Portal home page, click your company logo. | Next button |
Selecting triggers

If the purpose of the tour is to describe the features of a page, such as a custom dashboard, then the appropriate trigger is the Next button. If the purpose is to accomplish a task, such as creating a record, keep the following considerations in mind.

- To populate a field with a lookup element, such as a reference field or a date field, do not use a trigger that opens the lookup window. The tour ends when the lookup window opens. Use one of the following triggers:
  - Next button: The user can type the value or look it up and select it, and then click Next.
  - Change Element Value trigger: After the user selects the value and clicks outside the field, the trigger moves to the next step.

- For some UI elements, the Right click the Element trigger is available. Typically, the right-click action is used to open a menu, however, you cannot place a callout on a right-click menu option. You can use this trigger in a descriptive guided tour where you want to describe right-click menu options. Put the descriptive information into the callout text, and at the end, tell them to right-click the element to look at the menu. Following is an example of this type of callout.

When the user right-clicks, this instruction disappears, and the next one appears.

- The Mouse over the Element trigger is similar. When the user points to the element, the callout disappears. For example, if you demonstrate that a hint appears when you point to a field label, the callout step disappears before the hint text appears. This can seem disruptive to the guided tour flow.
Callouts

A callout must be placed on top of an element to interact with it. The element is highlighted in blue when it is selected as the target. In the following example, it looks like the callout is pointing to the context menu icon, but notice that the header bar is highlighted blue.

Figure 103: Incorrect callout placement for the context menu

This example depicts the correct placement of the callout for the context menu. Notice that the context menu icon is highlighted blue.

Figure 104: Correct callout placement for the context menu

The following considerations may also be helpful:

• When placing a callout on a form that contains tabs, consider that a user may not have the tab open for viewing. Create a new callout that instructs the user to first open the tab before proceeding with the rest of the tour.
• Minimize callouts on fields associated with dynamic content. A delayed page refresh may prematurely end the tour if the associated tour element cannot be found.
• When guiding a user through popup windows, add your callout the originating page on or near the popup icon. Within the callout instructions, guide your user through the steps intended for the popup window, since callouts cannot be added to the popup window itself.
• While the look-and-feel of a callout is static in the standard Platform UI, you can customize callouts on Service Portal. Consider using this capability to ensure a consistent look-and-feel between your callouts and your Service Portal pages. For more information on Service Portal guided tours, see Request guided tours.

Auto-launching your tour

Consider auto-launching a tour if you want your end users to take the tour on their first page visit.

In some cases, you may choose to auto-launch multiple tours from a single starting page. In this case, you can apply the auto-launch order to each tour successively so that users begin the second tour upon their
second page visit, their third tour upon their third page visit, and so forth. This option may be beneficial if you intend to start your end users with an introductory tour and add increasing levels of complexity or different areas of focus with followup tours.

**Testing your tour**

To ensure your guided tour meets the intended objective, you can test it in the following ways.

- Use an impersonator role to verify the tour through the eyes of the intended user. By impersonating a user that holds a role targeted by the tour, or multiple users if the tour targets multiple roles, you can experience the tour just as the end user does.
- Send the tour URL link to colleagues to review the tour and provide feedback. See [Create a guided tour](#) on page 253.
- Once the tour is published, review any tour failures from the Guided Tours Overview page. These failures can provide insight into which users experienced problems with the tour, on which step the tour failed, and what the error message was. You can then use this information to troubleshoot and resolve issues as needed.

**Guided tour triggers**

Each callout in a guided tour step has a defined action that triggers the next step to occur. You specify the trigger for each callout. Only applicable triggers appear based on the UI element the callout points to.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
</table>
| Next Button             | Places a Next button in the callout, which the user clicks to progress to the next step. This trigger is useful for the following steps:  
  - The callout describes the element it points to and the user does not have to click a UI element.  
  - To enter information in a reference or date picker field. Users can use the lookup function, enter the data, or select it from a list. They can proceed when they have completed the entry for the step.  |
<p>| Click the Element       | Progresses to the next step when the element that the callout points to is clicked.  |
| Mouse over the Element  | Progresses to the next step when the user points the cursor at the element.  |
| Right-click the Element | Progresses to the next step when the element that the callout points to is right-clicked.  |
| Press Enter Key         | Progresses to the next step when the user presses the Enter key. Use this trigger to acknowledge that the user has entered something, such as in a text box.  |
| Change Element Value    | Progresses to the next step when the user enters or selects a value in a field and clicks outside the field.  |</p>
<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press any key</td>
<td>Progresses to the next step when the user presses any key.</td>
</tr>
</tbody>
</table>

Guided Tour Designer interface

The Guided Tour Designer (GTD) is a simplified way to create a guided tour. You can drag a callout to the element, and enter the step instructions and trigger in one step. You can test the steps as you build them, and modify them as needed.

**Note:** The Guided Tour Designer is only available in UI16. The designer is not compatible with UI15. For more information, see *Activate UI16* on page 14.

The GTD has the following features:
Guided tour actions (A)

The icons on the upper right are used to perform the following actions.

- Copy a link to the tour so you can share it with another user, such as a tester.
Dock or undock the steps panel. This action is useful if your tour is for a wide page, such as a dashboard or a list view.

**Callouts (B)**

When you build a tour, select each callout based on the direction it is pointing. The point must touch the element you are assigning it to.

**Steps (C)**

The numbers of the steps are colored or not based on whether they appear on the current page. In this example, Step 1 takes place on the Delegates list view. The instance is fully interactive. To change the first step, you can click the back arrow on the upper left and open the list view where the step appears.

**Note:** Do not put more than one interaction with a field in a step. Each step should describe or provide an interaction with just one field or other object.

**Step interaction (D)**

As pictured, when you point to a step, its corresponding number in the page is enlarged. Click the step to edit the text or change the trigger. Drag it to a different position as needed. Click the (-) icon to delete it.

If you make a mistake with a step, such as pointing it to the wrong element, you must delete it. Then you can add it with the correct information and drag it into place.

**Tour action buttons (E)**

Click Exit to close the GTD. The browser tab or window closes and changes you made are automatically saved.

Click Play to open the instance and designated UI page in a new browser tab or window and proceed through the steps. When you finish, close the tab or window to return to the GTD.

### Create a guided tour

After you outline the guided tour, use the Guided Tour Designer (GTD) to enter the steps using callouts and triggers.

Role required: guided_tour_admin and embedded_help_admin, or admin

**Note:** The Guided Tour Designer is only available in UI16. The designer is not compatible with UI15. For more information, see *Activate UI16* on page 14.

**Note:** This task is an example that illustrates how to create a guided tour for assigning a vacation delegate.

1. Navigate to Embedded Help Guided Tour Designer Create Tour.
2. Complete the form.
### Field 
#### Name
Enter a name for the tour that describes what the user accomplishes by completing it. In this example, we use Set a vacation delegate.

### Field 
#### Tour Type
Select:
- Standard UI for tours that start from system platform content, such as a list or a form.
- Service Portal for tours that start from a Service Portal page.

**Note:** When you select Service Portal, a Portal option appears, where you choose a record from the Service Portals table.

### Field 
#### Starting Page
Select the page the tour starts on.
- If your Tour Type is Standard UI, your choices include pages that show lists and forms.
- If your Tour Type is Service Portal, your choices include Service Portal pages.

**Note:** In the base system, tours can only be manually launched from pages that use the SP Header Menu. Manually launched tours do not display on pages with custom header menus.

You can begin typing the UI page name to show a list of matching pages, and then select it from the list.

### Field 
#### Roles this tour is for
Select the roles that can access this guided tour and move them to the Selected Roles list.

**Note:** When you add at least one role to a tour, it limits the audience to only those users who have that role. If you do not assign any roles to the tour, it is active by default for all roles.

---

3. Click Create.
The Guided Tour Designer opens in draft status in a new tab or window. In this example task that uses the Delegates List, only one delegate record appears as it is the only one created in the instance.
<table>
<thead>
<tr>
<th>Start</th>
<th>End</th>
<th>Delegate</th>
<th>Approvals</th>
<th>Assignments</th>
<th>CC</th>
<th>Invitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-05-21</td>
<td>2019-01-01</td>
<td>Abraham Lincoln</td>
<td>true</td>
<td>true</td>
<td>true</td>
<td>true</td>
</tr>
</tbody>
</table>
4. Click Create Introduction.
   a) Enter an optional introductory title for your guided tour, such as Cover your approvals during your vacation.
   b) Type a message to your end users introducing the goal of the demo, such as Join this tour to learn how to create a vacation delegate.

You can edit and delete introductions, conclusions, and callouts at any time while your tour is in draft status. You can also insert HTML markup into your Conclusions and Introductions.

5. Complete the following steps to add a tour step with a callout and trigger.
   a) Drag a callout shape from the upper right and drop it on top of the UI element. The element is highlighted when the callout is positioned correctly.
   b) In the callout that appears, enter the instructions. In this example, we enter instructions for the first step of setting up a delegate.
   c) Select the trigger. Only triggers that you can use for the selected element appear in the list.
   d) To apply text formatting, such as bold or italic, add html tags around the text to format.
For example, enter Click <b>New</b> to set up a delegate.... You can add other HTML tags, including tags for images.

e) Click Save.

Your first step label appears.

6. Continue adding steps until you have completed the tour.
   The tour is saved as you save each step.

7. Click Create Conclusion.
   Enter a message to your end users that concludes the demo, and summarizes what they accomplished. For example, enter Congratulations! You just created a delegate to take care of things while you're on vacation. Have fun!.

8. Click Save.
Your Conclusion message appears after your last tour step, showing the final result of the tour. When users click Complete, the tour ends.

9. To test the steps, click Preview at any time. Make any final revisions to the tour until you are satisfied. Note the steps that are not working properly or that need correction. Edit the tour or the steps as described in Edit a guided tour on page 259.

10. To share your draft or published tour with internal colleagues for review, you can:
    a) Click ![link icon](image) to copy the tour URL.
    b) Send the URL to reviewers.
11. To make your guided tour visible to your end users, click Publish. When users access a starting page that has a guided tour, they can access the tour from the following:
   - If the tour type is Standard UI, they click Take a Tour in the GTD pane.
   - If the tour type is Service Portal, they click Tours on the banner of the page.

**Edit a guided tour**

You can modify the settings of a guided tour, such as the roles that access the tour. You can also edit, add, delete, and reorganize the guided tour steps, and apply additional formatting to the instructional text.

Role required: guided_tour_admin and embedded_help_admin, or admin

Use the Guided Tour Designer (GTD) to add, delete, and reorganize guided tour steps. Use the Guided Tour form only to perform tasks you cannot do easily from the GTD. For demonstration purposes, we begin with edits to the form that appears when you open the guided tour record, and continue with edits you can make in the GTD itself. You can invoke the GTD from the Edit with Designer button located in the form.

1. Navigate to Embedded Help Guided Tour Designer Guided Tours, and open the tour to edit.
2. In the Guided Tour form, take any of the following actions.
   - Edit the name.
   - Enter a different page name in the Context field. For example, if the form page is listed and you want the user to start on the list view to enter a new record.
   - Choose a different tour type. If the tour type is Standard UI, the Type field cannot be changed. If the tour type is Service Portal, both the SP Portal and SP Page values can be changed.
   - Enter or edit the Description.
   - Start a Service Portal tour from a specific widget, record, or view within a page instead of the page itself. You can enter URL parameters that point to the item in the Add Additional URL Parameters field. For example, enter the section of the URL that contains the sys-id of a widget, or type parameters for a specific record or view, such as sys_id=abc123&view=myView.
   - Clear the Active check box to disable the guided tour, which sets it to read-only status, where it cannot be edited, and renders it invisible to end users. If you want to use the tour in the future but keep it unavailable to end users, consider setting it back to draft status for further revision. Select the check box to re-enable the tour.

3. To view the starting page for the tour while you test and refine its steps, click Edit with Designer in the form header. The starting page opens in the GTD in a new tab or window.
4. Having exited the form view, you can perform any of the following steps in the GTD.

<table>
<thead>
<tr>
<th>To do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit the text or trigger in a step</td>
</tr>
<tr>
<td>Navigate to the UI page the step is in and click the step in the list on the right. For example, if the tour starts in the list view but you want to edit a step in the form, open the form. The steps in the current view are numbered inside a red circle. Complete your changes and click Save.</td>
</tr>
<tr>
<td>Delete an introduction, step, or conclusion</td>
</tr>
<tr>
<td>To</td>
</tr>
<tr>
<td>-------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Place the callout on a different page element**                | 1. Click the # icon to delete the step with the incorrect placement.  
2. Create a step on the correct page element.  
3. Drag the step into the correct position in the order of steps.  

| **Apply text formatting in the step instructions**              | In the Guided Tour Steps related list, click the step number.  
1. Scroll to the Content HTML formatter.  
2. Edit the content and apply formatting as appropriate.  

**Note:** Do not add images or video to the text. These media types are not supported in callouts.  
3. Click Update.  

| **Rearrange steps**                                             | Drag the steps to the desired order.                                                                                                                                                                |
| **Test the tour**                                               | Click Preview if the tour is in draft status. Click Play if it is published. The page opens in a new list or tab and you can test each step. Note any steps that need corrections. |
| **Change the guided tour status**                              | If the tour is in draft status, click Publish. If the tour is published, click Draft. Consider setting the tour to draft status until you are finished editing it. |

**Guided Tour Designer accessibility**

The Guided Tour Designer has accessibility features so that users can design tours using screen readers and keyboard navigation.

For the most part, accessibility functionality is the same for the Guided Tour Designer accessibility is the same as platform accessibility. See Enabling accessibility features on page 333.  

**Use the Guided Tour Designer with accessibility enabled**

The Guided Tour Designer has extended the accessibility features of the ServiceNow platform.

Role required: guided_tour_admin and embedded_help_admin, or admin

**Note:** The Guided Tour Designer is only available in UI16. The designer is not compatible with UI15. For more information, see Activate UI16 on page 14.

1. If accessibility features are not enabled, navigate to User Administration User Preferences and enable the preference glide.ui.accessibility.
2. Navigate to Application Module.
3. Navigate to Embedded Help Guided Tour Designer Create Tour.
4. Tab to the Tour Name field and enter a unique name for the guided tour.
5. Tab to the Application Page Name field. Enter part of the name to open a list of pages to scroll through and choose from.

6. Tab to the Roles this tour is for slushbucket and use skip links to select roles.

7. Click Create.

The selected application page opens in the Guided Tour Designer.

8. Tab to the field you want to add a step to. Tab again and then press Enter to open the Editing window for the Guided tour step.

The editing window has the following features:

- An icon for placing the callout. Press Enter to open a list to choose the callout’s placement. Only viable callout locations are enabled.
- The number of the guided tour step and how many steps have been created. When you create your first step this is step 1/1.
- A text box to instruct the user what to do at this step.
- A choice list to select the trigger. Only triggers that you can use for the selected element appear in the list.
- Cancel and Save buttons.

9. Continue adding steps until you have completed the tour.

The tour is saved as you save each step.

10.

Tab to the panel on the right side to edit the name of the tour, copy the tour’s URL, and rearrange the tour’s steps.

Use a view with a guided tour

You can assign a list or form view to a guided tour step if you are changing from the Default view view to a different view, such as Self-Service.

Role required: guided_tour_admin and embedded_help_admin, or admin

To assign a view to a tour step, you must know the view name. The name you see in the context menu View option is the title of the view. Look up the view name before you assign it to a tour step.

Figure 106: Context menu view options

**Note:** You can add a view to only one tour step in a guided tour, and only if the step starts on the default view. When the tour is played and the step is executed, the UI page refreshes with the new view.

1. Complete the following steps to locate the view name.
a) Navigate to System UI Views.  
   The first two columns are Name and Title.  
b) Locate the view by its Title, and note the value in the Name column.

2. Navigate to Embedded Help Guided Tours.  
3. Open the tour to be modified with a view.  
4. In the Guided Tour Steps related list, open the tour step to add a view.  
5. In the Tour Step form section, enter the view name in the View field.  
6. Click Update.  
7. Complete the following steps to test the tour with the view.  
a) In the Guided Tour form, click Edit with Designer.  
b) In the Guided Tour Designer tab or window, click Play below the list of steps.  
c) Verify that the step you modified displays the correct view.

Guided tours dashboard  
Guided tour administrators can use the Guided Tours Overview dashboard to review statistics related to guided tour usage. Navigate to Embedded Help Guided Tour Designer Guided Tours Overview.

Overall Statistics tab  
This tab shows three single-score widgets, two bar charts, and a heatmap.

<table>
<thead>
<tr>
<th>Widget</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>Single Score</td>
<td>The number of users who have taken guided tours.</td>
</tr>
<tr>
<td>Sessions</td>
<td>Single Score</td>
<td>How many guided tours have been taken</td>
</tr>
<tr>
<td>Avg. Session Duration (sec)</td>
<td>Single Score</td>
<td>The average duration of a tour before completion, dismissal, or failure.</td>
</tr>
<tr>
<td>Overall Tour Completion</td>
<td>Horizontal Bar</td>
<td>The number of completed, dismissed, and failed tours.</td>
</tr>
<tr>
<td>Top 10 Tour Completions</td>
<td>Horizontal Bar</td>
<td>The top ten tours that have been completed measured by number of completions</td>
</tr>
<tr>
<td>Top Watched Pages</td>
<td>Heatmap</td>
<td>The top 10 pages on which users have taken guided tours sorted by completions, dismissals, and failures.</td>
</tr>
</tbody>
</table>
Tour Statistics tab

This tab contains a list of tours sorted by context. The Tour Statistics list has the following columns:

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>The name of the UI page on which the tour starts.</td>
</tr>
<tr>
<td>Tour</td>
<td>The name of the tour. A context can contain multiple tours. The list contains an entry for each time an individual tour was run.</td>
</tr>
</tbody>
</table>
| Last Status   | How the tour ended. Possible values are:  
- Completed  
- Dismissed  
- Failed |
| User          | The user name of the user who took the tour. |
| Session Duration | How long the user stayed in the tour, measured in seconds. This measurement includes completion of the tour, dismissal of the tour by the user, and failure (if something goes wrong in the tour). |

Configure auto-launch for guided tours

Configure one or more tours to launch automatically when a user lands on a page.

Role required: guided_tour_admin and embedded_help_admin, or admin

You can choose to configure auto-launch for any guided tour starting page. Choose this option if you want to ensure that users take the tour on their first page visit.

1. Navigate to Embedded Help Guided Tour Designer Configure Auto Launch.
   
   The Configure Auto Launch page appears, showing tiles for each page on which one or more tours are configured. You can filter the tiles by part or all of the page name, and sort the tiles by name, or by the most recently edited tours.

2. Select a tile that represents the page where you want a tour to launch automatically.
The tour for the page appears as a row on the Configure Auto Launch screen.
You can enable or disable auto-launch on the tour whether it is in draft or published status. When you enable auto-launch:

- Tours in published status launch automatically when users access the starting page associated with the tour.
- Tours in draft status do not launch automatically. When a tour in draft state is configured for auto-launch and is published later on, it starts auto-launching.

3. Click the Auto Launch toggle so it switches to the right.

The toggle color changes to green, indicating auto-launch is enabled on the tour. If you want to disable auto-launch, switch the toggle to the left.

4. Configure auto-launch for more than one tour on a page.
If you have more than one tour enabled on a page, they appear as additional rows. For further context on multiple pages, see Guided tour advice on page 245.

- Repeat steps 2–3 for additional tours that you want to enable for auto-launch. The tours move to the top of the list in the order that you enable them.

- Drag rows to reorder the tours so they appear in the order you want users to see when they visit the page successive times. For example, the first tour may provide an overview of a page while the second tour guides the user through a specific task.

When users access a page that has a guided tour enabled for auto-launch, the tour begins immediately. If they stop the tour by clicking the X icon on a tour step, a message appears that provides them the option to stop both the current tour and other tours from auto-launching the next time they access the page.
<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Unit</th>
<th>Key</th>
<th>Frequency</th>
<th>Indicator Source</th>
<th>Publish on Scorecards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>% of incidents resolved by first assign...</td>
<td>%</td>
<td>true</td>
<td>Daily</td>
<td></td>
<td>true</td>
</tr>
<tr>
<td>2</td>
<td>Average age of last update of open incident</td>
<td>Days</td>
<td>true</td>
<td>Daily</td>
<td></td>
<td>true</td>
</tr>
<tr>
<td>3</td>
<td>PK: Daily Updates</td>
<td>#</td>
<td>false</td>
<td>Daily</td>
<td>Analytics Data Collector Executions</td>
<td>false</td>
</tr>
<tr>
<td>4</td>
<td>Benchmark: % of emergency changes</td>
<td>%</td>
<td>false</td>
<td>Daily</td>
<td></td>
<td>true</td>
</tr>
<tr>
<td>5</td>
<td>% of incidents resolved on same day opened</td>
<td>%</td>
<td>false</td>
<td>Daily</td>
<td></td>
<td>false</td>
</tr>
<tr>
<td>6</td>
<td>Benchmark: % of duplicate cis</td>
<td>%</td>
<td>false</td>
<td>Daily</td>
<td>Benchmark CMOB Health Scorecard</td>
<td>true</td>
</tr>
<tr>
<td>7</td>
<td>Benchmark: Total time to resolve an incident</td>
<td>Hours</td>
<td>false</td>
<td>Daily</td>
<td>Benchmark Incidents Resolved</td>
<td>true</td>
</tr>
</tbody>
</table>
Domain separation in guided tours

Domain separation allows you to separate data, processes, and administrative tasks into logical groupings called domains. You can then control several aspects of this separation, including which users can see and access data. You can create and modify guided tours that apply to specific domains in your instance as well as tours that are available to users globally.

Create domain-separated guided tours

Once you create a guided tour, you can specify a domain to which it applies. You can also copy the tour so that you can modify it for a specific domain.
Role required: guided_tour_admin or admin. To use domain separation in guided tours, Request domain separation.

**Note:** The Guided Tour Designer requires UI16. For more information, see Activate UI16 on page 14.

1. Navigate to Embedded Help Guided Tour Designer Guided Tours.
2. Click the gear icon to personalize list columns and add the Domain and Overrides columns. The Domain column indicates the domain to which a tour belongs, either Global, or the domain specified for the tour.
3. Click the gear icon next to the user name to open System Settings.
4. Enable the Show domain picker in header option.

This option is enabled when the switch appears green and is toggled to the right.

5. Use the domain picker to select the domain to add the modified tour to.

6. Select the guided tour.

You can edit the tour here or simply

7. Click Update to create the domain-specific version of the tour.

In the specified domain, the saved version of the tour overrides the original for users in that domain. You can edit this tour to be specific for that domain. For more information, see Edit a guided tour on page 259.
Overview help pages

The overview help feature included with the base system displays slides with introductory information on new features offered in the ServiceNow® platform. An administrator can hide the option from the help menu.

To learn about the latest features in your version, click the What's New link in the UI16 help sidebar.

![Overview help link](image)

Figure 107: Overview help link

The Overview Help Page [sys_ui_overview_help] table contains the records for each panel that appears, including images, icons, descriptions, and condition statements that control display. By default, the instance displays panels describing notable features of the current release, but users can modify this page to display panels for customized features in their own instance and then define who can see these panels.

Users scroll through the panels by clicking the buttons provided or by clicking the directional arrows at the bottom of the page, depending on how the page was configured.

**Note:** Administrators can edit the default help page to modify, add, or delete existing panels from this page to match the features in your system.
More Powerful Visual Task Boards

Visual Task Boards are faster and more customizable than ever before. Work with thousands of cards and change filter conditions on the fly.

Get Started
Hide the What's New option

Administrators can hide the What's New option using a system property.

To find the property, type `sys_properties.list` in the application navigator. Find the `glide.product.show_what_is_new` property and change the value to `false`.

![Figure 109: What's New option hidden](image)

Create custom overview help

You can edit existing overview help pages to display your own custom panels to selected users.

Role required: admin

1. Navigate to System UI Overview Help and edit the help page for your version.
2. Modify the Overview Help Page form using the fields in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Unique title of this page.</td>
</tr>
<tr>
<td>Subtitle</td>
<td>General introduction for the subject of this page. This content appears as</td>
</tr>
<tr>
<td></td>
<td>the description of the first panel that users see.</td>
</tr>
<tr>
<td>Application</td>
<td>Scope of this help page. All overview help pages are created in the global</td>
</tr>
<tr>
<td></td>
<td>scope, so that they are visible from anywhere in the system. This field</td>
</tr>
<tr>
<td></td>
<td>is read-only.</td>
</tr>
</tbody>
</table>

3. Save the page.
Figure 110: Overview Help Page form

4. Click New in the Overview Help Panel related list and complete the form using the fields in the table.
Figure 111: Overview Help Panel form

5. Click Submit.

Table 60: Overview help panel fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Unique name for this panel. This name is the title of the panel shown to users.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Page</td>
<td>Names the overview page to which this panel is connected.</td>
</tr>
<tr>
<td>Order</td>
<td>Controls the sequence of the panels in the page. When using icon buttons, the button for the lowest order number appears on the left, and the button for the highest order number appears on the right. When icon buttons are disabled, the lowest order number panel begins the scrolling sequence.</td>
</tr>
<tr>
<td>Roles</td>
<td>Names all the user roles that are entitled to see this panel.</td>
</tr>
<tr>
<td>Condition</td>
<td>Defines the conditions under which this panel is viewable. For example, you can configure this panel to display only when a specific plugin is activated.</td>
</tr>
<tr>
<td>Image</td>
<td>Background image to use when this panel is displayed. Supported image formats are:</td>
</tr>
<tr>
<td></td>
<td>• .jpg</td>
</tr>
<tr>
<td></td>
<td>• .png</td>
</tr>
<tr>
<td></td>
<td>• .bmp</td>
</tr>
<tr>
<td></td>
<td>• .gif</td>
</tr>
<tr>
<td></td>
<td>• .jpeg</td>
</tr>
<tr>
<td></td>
<td>• .ico</td>
</tr>
<tr>
<td></td>
<td>• .svg</td>
</tr>
<tr>
<td>Icon</td>
<td>Icon used as the access button for this panel from the page. This field is read-only. You cannot specify an icon for your custom panels.</td>
</tr>
<tr>
<td>Is title</td>
<td>Controls the display of the title on the initial slide. The field is not used for panels.</td>
</tr>
<tr>
<td>Show title</td>
<td>Controls the display of the title on the initial slide. This field is read-only and is not available for panels.</td>
</tr>
<tr>
<td>Text</td>
<td>Text describing what is shown in the image for this panel. This content appears below the panel title.</td>
</tr>
</tbody>
</table>

Example of adding a panel to an existing overview help page

This example adds panels to the existing overview help page that display only for users with specific roles and when a specific plugin is activated.

Role required: admin
You can create a panel that displays a screenshot of auditing gauges to users with the sn_audit.manager role, when the GRC: Audit Management plugin is activated. Create another panel visible only to users with the activity_admin role that displays a view of the Custom tab in the Workflow Editor. Add the panels to the overview help page for the current version. Use the condition on a panel to specify the plugin and a slushbucket to select the roles required for access.

1. Navigate to System UI Overview Help.
2. Open the help page for the current version.

Figure 112: Overview help page record

3. In the Overview Help Panels related list, click New.
4. Create a panel with these values:
   - Title: Custom Orchestration Activities. The title is the label that appears on the panel when it is displayed to the user.
   - Order: 20. This order number is the lowest for any of the panels in this page, and means that this button appears on the left side of the page.
   - Roles: activity_admin. Only users with this role are able to see this panel.
   - Image: This is a view of the Workflow Editor and the Custom tab that best introduces the feature to users.
• Text: Enter a description of the feature, emphasizing the highlights in this version. In this example, the text describes the ability to create activities and share them in the ServiceNow store.

**Note:** Buttons for custom panels do not have icons on them.

---

**Figure 113: Workflow editor panel**

5. Save the record.
6. Create another panel with these values:
   - **Title:** Assessment Reports. The title is the label that appears on the panel when it is displayed to the user.
   - **Order:** 60. This order number is the highest for any of the panels in this page, and means that this button appears on the right side of the page.
   - **Roles:** assessment_admin. Only users with this role are able to see this panel.
   - **Image:** This is an example of a bubble chart that you want the assessment administrators to see.
   - **Text:** Enter a description of the chart to display to the users, emphasizing the advantages of this type of chart.
Figure 114: Assessment reports panel

7. Save the record.
8. Log in as a user with the assessment_admin role.
9. Click the help icon in the form header, and then click What's New in the help sidebar.
   The overview help page for the current version appears, with the control button for the auditing dashboard displayed for the user in the order configured.
10. Click the button to display the assessment report panel. The image you selected for your custom panel appears with the title and description you defined.
Log out and log in again as a user with the activity_admin role.

Click the help icon in the form header, and then click What's New in the help sidebar.

The overview help page for the current version appears, with the control button for the Workflow Editor tabs displayed for the user in the order configured.
Figure 117: Overview help page for the Orchestration user

13. Click the button to display the Orchestration activities panel.
The image you selected for your custom panel appears with the title and description you defined.
System user guide

The system user guide enables you to create end user help documentation that is specific to the policies and procedures of your organization. A default help page is provided in the base system that displays UI16 help documents for system navigation and other basic operations.

The user guide provides the tools for designing help portal pages containing feature-specific help documents. You can create custom help pages and deploy them in various ways using controls in the system. User guide documents are grouped in relevant sections on a help page, using a two-column format. You can display the sections and the documents within them in any order. You can display a section on more than one help page. The user guide is supported in UI16 and UI15.
A default help page is provided in the base system that displays help documents for system navigation and other basic operations. This page is accessible from the help icon in the header bar for UI16 users. To make this page available to users of other supported UI versions, you must create a programmatic entry point.

**Note:** The default help page can be used as a template for your own help content. To personalize pages, sections, or documents in the User Guide, simply edit the ServiceNow® records to suit your needs. Remember that any records you customize are not updated when you upgrade your instance to a new version. Review any changes on a development system first and then decide whether to accept the updated content into your customized User Guide.
Create user guide help

User guide help documents are grouped in appropriate sections on the page and listed in a configurable order. Add your sections to a help page.
Create all your help documents from within the section record. This allows you to refine their titles, adjust their placement, and decide if they are appropriate for the section.

Role required: admin

1. Create a page.
   b) Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Page identification used by the system to create a help URL.</td>
</tr>
<tr>
<td>Application</td>
<td>Application scope for this help page.  This field is read-only and defaults to the Global scope.</td>
</tr>
<tr>
<td>Title</td>
<td>Display title for this page.</td>
</tr>
</tbody>
</table>

2. Create help page sections and associate them with the page.
b) Give your section a unique and concise title, and then click Submit. The view returns to the list of sections.

c) Create additional sections for your help page.

d) Navigate to System User Guide Administration Help Pages and open your new page.

e) In the Page to Sections related list, click New.

f) Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
<td>Column location on the page for this section. The first column is designated as 0 and the second column is designated as 1. There must be at least one entry for column 0 for the sections to display.</td>
</tr>
<tr>
<td>Order</td>
<td>Order in which the sections display in the columns on the page. If no order number is defined, the system lists the sections in alphabetical order.</td>
</tr>
<tr>
<td>Application</td>
<td>Application scope for this record. This field is read-only and defaults to the Global scope.</td>
</tr>
</tbody>
</table>
g)  Click Submit.

h)  Add sections to the help page as needed.

3.  Create one or more documents.
   b)  Open a section record you created.
   c)  In the Help related list, click New to create a help document for that section.
   d)  Complete the form.

Table 63: Help document field definitions

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Document number generated automatically by the system.</td>
</tr>
<tr>
<td>Section</td>
<td>Section in which this document appears.</td>
</tr>
<tr>
<td>Order</td>
<td>Listing order for this document in the selected section.</td>
</tr>
<tr>
<td>Published</td>
<td>Date this document was created.</td>
</tr>
<tr>
<td>Updated</td>
<td>Date this document was last updated.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Short description</td>
<td>Brief description of the content of this document. This description is used as the title for the document on the help page.</td>
</tr>
<tr>
<td>Text</td>
<td>Document content, including graphics and tables. You can format your entry, create bulleted or numbered lists, and attach images.</td>
</tr>
</tbody>
</table>
To view your queue and take a survey:

1. Navigate to Self-Service > My Assessments & Surveys.
2. Click Take Survey on a survey card to open the questionnaire.
e) Click Submit.
f) Repeat the process to create the necessary help documents for that section.

User guide help URLs

You can create entry points in your instance for help generated with the system user guide by providing the correct address parameters in the target URL.

Help pages generated with the user guide can be displayed to end users from configurable entry points in the system, including application modules and UI actions. To create these entry points, you must express a target URL using these parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Provides</th>
</tr>
</thead>
<tbody>
<tr>
<td>$h.do</td>
<td>Processor that renders the banner frame at the top of the page.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Provides</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>$sys_product_help_do</td>
<td>Displays a page containing links to all the help in the user guide. This includes the basic help system and any custom help pages you have created. An example URL would be <a href="https://myinstance.service-now.com/$sys%5C_product%5C_help%5C_do">https://myinstance.service-now.com/$sys\_product\_help\_do</a>.</td>
</tr>
<tr>
<td>$h_do?sysparm_id=basics</td>
<td>Displays the basic help page included with the system. To create a target for a custom user guide, replace id=basic with the ID for your custom page, such as id=surveys. An example of this would be <a href="https://myinstance.service-now.com/$h%5C_do?sysparm%5C_id=surveys">https://myinstance.service-now.com/$h\_do?sysparm\_id=surveys</a>.</td>
</tr>
<tr>
<td>$h_do?sysparm_doc=&lt;document number&gt;</td>
<td>Displays help for a specific document. This URL displays the help document in the basic page that provides instructions for using ServiceNow forms: <a href="https://myinstance.service-now.com/$h%5C_do?sysparm%5C_doc=DOC0010005">https://myinstance.service-now.com/$h\_do?sysparm\_doc=DOC0010005</a>.</td>
</tr>
</tbody>
</table>

Manage audio files

You can upload and store .mp3 or .ogg audio files. Once uploaded, you can reference audio files using HTML.

Role required: image_admin

The Database Storage for Audio Files (com.glide.db_audio) feature must be activated to store audio files. The plugin is activated by default on new instances. For upgraded instances, you can activate the plugin if you have the admin role. For more information on activating a plugin, see Activate a plugin.

1. Navigate to System UI Audio Files.
2. Click New.
3. Enter a Name for the audio file, including the file extension.
4. Add the Audio file.
5. Save the record.
6. Complete the following steps to reference audio files using HTML:
   a) Use the <audio> HTML tag and set the src attribute to the name of the file as set by the Name field of the Audio record.
   b) Use the controls attribute to display the audio controls.
   Use the following HTML:
   `<audio src="Beep.mp3" title="Beep" control="control"/>`

Storing images in the database

Administrators and users with the image_admin or content_admin role can upload and store images in the database. These images are saved in the Images [db_image] table. Uploading an image to the database allows it to be referenced from HTML fields by appending the name of the image to the URL of the instance.
Note: The db_image table is a public table that does not have any security restrictions. Unauthenticated users have full access to images uploaded to the db_image table.

Images vs attachments

If you want to access an image from a record, or if you want to prevent users from appending the image name to the URL of the instance, upload it as an attachment instead. When you upload an image as an attachment, the image is saved in the Attachments [sys_attachment] table. See Administering attachments and Add and manage attachments on page 84 for more information.

Acceptable image file types

Upload image files with the following extensions:

- .gif
- .jpg
- .png
- .bmp

Note: The system does not support uploading zip files that contain .bmp images.

If you upload an image that may not be supported in Internet Explorer browsers, a warning message appears.

The system does not support uploading images in the .ico format through this interface. Microsoft Internet Explorer requires the .ico format for favorite icons. To upload an .ico image, attach the .ico image to a record instead of using the standard image upload interface.

To understand how to insert an image into a form record, see the Insert an image into your article, incident, or other form record blog post in the ServiceNow Community.

Update an existing image

You can change an existing image to an updated version.

Role required: image_admin or content_admin

1. Navigate to System UI Images.
2. In the Images list, click the name of the image to be replaced.
3. In the Image field, click the [Update] link.
4. Click Browse and navigate to the desired image file.
5. Click Open, and then click OK.

The new file is uploaded into the instance database, replacing the previous file. It is used in all locations that reference the file name.

Note: If the new image does not appear as expected, clear the browser cache.

Upload one or more images

You can upload one image or multiple images at one time.
Role required: image_admin or content_admin

1. To upload one image at a time, complete the following steps:
   a) Navigate to System UI Images to see the list of images stored in the database.
   b) Click New to add a new image.
   c) Complete the form.

### Table 65: Images form

<table>
<thead>
<tr>
<th>Field</th>
<th>Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the file name by which to reference the image in HTML.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to allow the image to be referenced in HTML.</td>
</tr>
<tr>
<td>Category</td>
<td>Select a category in which to organize the image file.</td>
</tr>
<tr>
<td>Image</td>
<td>Select Click to add... to upload an image. If an image is already uploaded, click [Update] to upload a new version of the image or [Delete] to remove the image.</td>
</tr>
<tr>
<td>Format, Size bytes, Height, and Width</td>
<td>View current image metadata. This information is automatically populated when the image is uploaded.</td>
</tr>
</tbody>
</table>
2. To upload multiple images at once, complete the following steps:
   a) Create a .zip file that contains only acceptable image file types.
      
      **Note:** The system does not support uploading zip files that contain .bmp images.
   b) Navigate to System UI Image Zip Upload.
   c) Click Choose File then select the file.
   d) Click Upload.

**Figure 120: Upload image**
A message indicates that the files are uploaded to the database, and the images list is sorted by updated date in descending order (the uploaded images appear first).

**Note:**

- If the .zip file contains a folder structure, the resulting image names are the path name with underscores in place of the slashes. For example, if the .zip contains myimages/image1.gif then the resulting image is named myimages_image1.gif.
Restrict file extensions

Use the glide.ui.strict_content_types to restrict the image file extensions that appear in the UI.

Role required: admin

1. Enter sys_properties.list in the Navigation filter.
2. Verify that the property does not exist by searching for the property name.
3. Click New.
4. Complete the system property using the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.ui.strict_content_types</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
</tr>
<tr>
<td>Value</td>
<td>Comma-separated list of acceptable image file names. Use any of the following file types: ico,gif/png,jpg,jpeg,bmp,js,css,htm,html,ogg,mp3,eot,woff,woff2,svg,ttf,swf,cur,map</td>
</tr>
</tbody>
</table>

**Note:** Any files that use a file extension that is not included in the list of values appear broken in the UI.

User preferences

Individual users can configure many UI features, such as the number of rows per page in a list or whether the response time displays at the bottom of a v2 list or form.

These user customizations are stored as records in the User Preference [sys_user_preference] table, and are updated each time the user changes the setting.

The UI displays according to each user's preferences.

For example, by default the response time may appear at the bottom of v2 lists and forms. If a user hides the response time, a user preference record is created showing the response time indicator as hidden. During the user's future sessions, the response time indicator is hidden. If the same user later displays the response time, the user preference record is updated appropriately and future sessions open with the response time indicator visible.

Navigate to User Administration User Preferences for a list of user preference records. Click a preference name to display that preference in form view.
**Note:** Having more than 10,000 user preferences causes system degradation and UI performance issues.

![User Preferences form](image)

**Figure 121: User Preferences form**

**Table 67: User preference fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of the feature or functionality.</td>
</tr>
<tr>
<td>Description</td>
<td>An optional short description of the feature or functionality.</td>
</tr>
<tr>
<td>System</td>
<td>Shows whether this record indicates the system-wide default (TRUE), or not (FALSE).</td>
</tr>
<tr>
<td>Type</td>
<td>Shows the data type of entry accepted for the Value. For example, you can select string or integer.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>User</td>
<td>Shows the name of the user for whom the setting is customized. If User is blank, the record is for a system-wide default.</td>
</tr>
<tr>
<td>Value</td>
<td>The current setting for this record. Compare this value to the User field and System field to determine whether the value shown is a system-wide default or a specific user's preference.</td>
</tr>
</tbody>
</table>

Records for the system-wide value, which applies to users who have not customized the feature, have these values: System=True and User=blank. For each user who customizes the features, a separate record is created with these values: System=False and User=<username>. As a result, the same customizable UI feature may have multiple user preference records.

For some features, the system-wide record does not appear in the User Preferences module initially. The system-wide record may be added to the User Preferences list when a user record is created for the same feature.

When an administrator manually changes a user's preference value through this module, the user's next session uses the administrator's setting. However, the user can customize the features again through the UI, which updates their user preference record. If the administrator deletes the user preference record for a particular user, that user's next session uses the system-wide value for that feature. When the user later customizes the feature, the system creates a user preference record for the user.

**User preferences and update sets**

User preference records for system-wide values, also called the default or global values, are stored in update sets. Any changes are implemented when you import the update set and affect all users who have not customized the feature. User preference records for specific users are not stored in update sets, so user customizations are retained when you import an update set.

**Troubleshooting user-specific UI differences**

If a user encounters an unexplained behavior in the user interface, an administrator can check their user preferences. Navigate to User Administration User Preferences. Search for the user name to find all that user's records. Delete the record that affects the behavior in question.

The system-wide preference is active during the user's next session. If the user customizes the behavior, a new user preference record is created and used for subsequent sessions.

**User preference settings**

User preferences primarily track the way individual users interact with various features so that new sessions activate the user's last settings. For example, user preferences track whether the user activates the tabbed or scrolling interface for multi-section forms. Other user preference records allow administrators to adjust certain feature settings.

**View settings**

To view the user preference settings, navigate to User Administration User Preferences.
User preference list

This list describes user preference records in the base system. It provides the default value and a description for each. The Updated By column indicates how the preference is set.

<table>
<thead>
<tr>
<th>User preference record</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Only</td>
<td>User action sets and updates the value. Manual changes through the User Preference record do not affect the user experience.</td>
</tr>
<tr>
<td>Admin Only</td>
<td>The administrator can change the value through the User Preference record to modify the user experience.</td>
</tr>
<tr>
<td>Admin or User</td>
<td>User action sets and updates the value, but the administrator can change the user experience by manually updating the User Preference record.</td>
</tr>
<tr>
<td>System Only</td>
<td>The system sets and updates the value. Administrators should not modify these records.</td>
</tr>
</tbody>
</table>

Table 68: User preferences

<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;table&gt;.autocomplete.contains</td>
<td>Search</td>
<td>Admin Only</td>
<td>If the glide.ui.ref_ac.startswith property (System Properties All Properties) is set to false, autocomplete.contains determines whether reference fields for the named table use a contains or a starts with search to provide auto-complete text. True = use a contains search to auto-complete reference fields. False = use a starts with search to auto-complete reference fields. Type: True/False Default value: False</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-----------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| `<table>.db.order`      | List Sort| Admin or User   | For the identified table, indicates which column is used to sort the records in a list. This record updates automatically each time the user changes the sort order for the table. Type: String  
                                       |                                      | Default value: User selection or the Number column if the user does not select a column. If the Number column is empty, the Name field is used to sort the records. |
| `<table>.db.order.direction` | List Sort| Admin or User   | For the identified table, indicates whether the list shows records in ascending (ASC) or descending (DESC) order by the field identified in `<table>.db.order`. This record updates each time the user changes the sort direction for the table. Type: String  
                                       |                                      | Default value: None |
| bsm_map.default_ci      | BSM      | User Only       | Contains the sys_id of the last configuration item the user viewed in the business service management (BSM) map. This record updates automatically each time the user views a new configuration item in the BSM map. Type: String  
<pre><code>                                   |                                      | Default value: None |
</code></pre>
<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ci_manage_relationships_filter_hint.cmdb_ci</td>
<td>CMDB</td>
<td>Admin Only</td>
<td>Constrains what appears in the Available CIs side of the slushbucket when defining a relationship for a configuration item. The value is in the format of an encoded query string. Type: String Default value: locationANYTHING^operational_statusANYTHING</td>
</tr>
<tr>
<td>ci_manage_relationships_filter_hint.sys_user</td>
<td>CMDB</td>
<td>Admin Only</td>
<td>Constrains what appears in the Available User side of the slushbucket when defining a relationship for a configuration item. The value is in the format of an encoded query string. Type: String Default value: active=true</td>
</tr>
<tr>
<td>ci_manage_relationships_filter_hint.sys_user_group</td>
<td>CMDB</td>
<td>Admin Only</td>
<td>Constrains what appears in the Available Groups side of the slushbucket when defining a relationship for a configuration item. The value is in the format of an encoded query string. Type: String Default value: active=true</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| collapse.<related table>,<related field> | Forms    | User Only  | Indicates that a related list is collapsed. The same related list will be collapsed when the user's next session begins. This record updates automatically whenever the user expands or collapses the same related list.  
True = collapse the identified related list.  
False = expand the identified related list.  
Type: String  
Default value: None                                                                 |
| collapse.section.<sys_id> | Forms    | User Only  | Indicates the sys_id of a form section that is collapsed. The same form section will be collapsed when the user's next session begins. This record updates automatically whenever the user expands or collapses the same section of the same form.  
True = collapse the identified section.  
False (or blank) = expand the identified section.  
Type: True/False  
Default value: False or blank                                                      |
<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>glide.ui11.use</td>
<td>UI11</td>
<td>Admin or User</td>
<td>Indicates whether UI11 is active for this user. This record updates automatically when the user clicks the Switch to the new UI or the Switch to the old UI link near the top right of the screen. Manual changes made by the administrator through User Administration User Preferences are implemented in the user's next session. True = UI11 is active. False = UI11 is not active. Type: True/False Default value: False</td>
</tr>
<tr>
<td>glide.ui.navpage_state</td>
<td>Menus</td>
<td>System Only</td>
<td>DO NOT MODIFY. Indicates the user's UI11 configuration. Type: String Default value: None</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>glide.ui.javascnpt_editor</td>
<td>UI</td>
<td>Admin or User</td>
<td>Indicates whether the JavaScript editor and formatting controls are enabled or disabled for the user. The JavaScript editor icon and formatting controls are available only in instances where the Syntax Editor plugin is active. This record updates automatically when a user clicks the icon to enable or disable script editing. For more information, see Syntax editor. True = enable script editor. False = disable script editor. Type: True False Default value: True (if syntax editor feature is active)</td>
</tr>
<tr>
<td>glide.ui.response_time</td>
<td>UI</td>
<td>Admin or User</td>
<td>Determines whether the response time information is expanded or collapsed at the bottom of a list or form. This record updates automatically whenever the user clicks the response time indicator icon (clock) at the bottom of a v2 list or form. True = expand the response time information. False = collapse the response time information. Type: String Default value: False</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>homepage</td>
<td>Homepages</td>
<td>Admin or User</td>
<td>Indicates which dashboard appears when a user first logs in to the instance or clicks the homepage icon. The value indicates the sys_id of the selected dashboard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Type: String</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: None</td>
</tr>
<tr>
<td>knowledge.search.sort.field</td>
<td>List Sort</td>
<td>Admin or User</td>
<td>Determines the sort order for results when searching the knowledge base. This record updates each time the user selects a different Sort by option in the search results header. Available options are: Number of Views (views), Relevancy (relevancy), and Last Modified (sys_updated_on).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Type: String</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: views</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>list_edit_double</td>
<td>Lists</td>
<td>Admin or User</td>
<td>Indicates what action opens the list editor in List v2. This record updates automatically when the user personalizes any v2 list and changes the Double click to edit setting. For more information, see List editor administration. This preference does not apply to v3 lists. Single-click list editing is not supported in List v3. True = open the list editor when the user double-clicks a field in a v2 list. False = open the list editor when the user single-clicks a field in a v2 list. Type: True/False Default value: True</td>
</tr>
<tr>
<td>list_edit_enable</td>
<td>Lists</td>
<td>Admin or User</td>
<td>Indicates whether the list editor is available for editing fields directly in a list. This record updates automatically when the user personalizes any list (gear icon above the first column in the list) and changes the Enable list edit setting. This preference does not apply to v3 lists. True = enable use of the list editor. False = disable use of the list editor. Type: True/False Default value: True</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>live_message.feed.last_display</td>
<td></td>
<td>Admin or User</td>
<td>Stores the last feed the user viewed: My Feed (sysparm_feed_type=myfeed) or Company Feed (sysparm_feed_type=company_feed). This record updates automatically each time the user selects a different feed. Type: String Default value: sysparm_feed_type=company_feed</td>
</tr>
<tr>
<td>live_tag.feed.order</td>
<td>Live</td>
<td>Admin or User</td>
<td>Tracks the user's choice of sorting for tag display. This record updates automatically when a user selects a different Tag Option in Live. Available options are Order by Created(sys_created_on) and Order by Last Activity (last_activity). Type: String Default value: None (defaults to sys_created_on)</td>
</tr>
<tr>
<td>menu.&lt;identifier&gt;.expanded</td>
<td></td>
<td>User Only</td>
<td>Indicates the sys_id of a section of the application navigator menu that is open (expanded) for the user. The same section will be open when the user's next session begins. This record updates automatically each time the user expands or collapses the same section of the application navigator. Type: String Default value: None</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| mobile_rowcount       | Mobile     | Admin or User     | Indicates the number of rows displayed in a list on a mobile device. This record updates automatically each time the user chooses a different number of rows per page from the mobile screen.  
Type: Integer  
Default value: 20 |
| mobile_use_full.android | Mobile     | Admin or User     | Indicates which user interface appears on the user's Android mobile device. This record updates automatically each time the user clicks the gear icon above the mobile homepage to display the full desktop interface or clicks the cell phone icon in the welcome bar to display the mobile interface.  
True = display the full desktop interface on Android mobile devices.  
False = display the mobile interface on Android mobile devices.  
Type: True/False  
Default value: False |
<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>mobile_use_full.iphone</td>
<td>Mobile</td>
<td>Admin or User</td>
<td>Indicates which user interface appears on the user's iPhone mobile device. This record updates automatically each time the user clicks the gear button above the mobile homepage to display the full desktop interface or clicks the cell phone icon in the welcome bar to display the mobile interface. True = display the full desktop interface on an iPhone mobile device. False = display the mobile user interface on an iPhone mobile device. Type: True/False Default value: False</td>
</tr>
<tr>
<td>module</td>
<td>Menus</td>
<td>User Only</td>
<td>Records the sys_id of the last module the user accessed. Type: String Default value: sys_id</td>
</tr>
<tr>
<td>owned_by_indicator.form</td>
<td>Update Sets</td>
<td>Admin Only</td>
<td>Shows or hides the update indicator icon in form headers when customer updates to that form are being tracked by update sets. True = show the customer updates indicator icon. False = hide the customer updates indicator icon. Type: True/False Default value: False</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------</td>
<td>------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| recent.impersonations | Administration | User Only | DO NOT MODIFY. Shows who the administrator most recently impersonated. For more information, see [Impersonate a user](#). Type: String  
<p>|                 |             |            | Default value: None |</p>
<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>report.expanded</td>
<td>Reporting</td>
<td>Admin or User</td>
<td>Works with the UI property List of roles (comma-separated) that can expand the report header to determine whether the report header is open when viewing a report. For users whose role permits them to access the report header, the report.expanded user preference indicates whether reports open with the header expanded or collapsed. Expanding the report header reveals the report builder which is used to modify the report definition. This user preference record updates automatically each time the user expands or collapses the report header. If the user's role does not have permission to view the report header, the report header is never accessible, regardless of this user preference setting. True = expand the report header when displaying a report. False = collapse the report header when displaying a report. Type: String Default value: True</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| rowcount         | Lists            | User Only  | Indicates the maximum number of rows that display on a single page in a list. This value also determines the maximum number of records that display in a list report on a dashboard. This record updates automatically when a user chooses a different number.  
Type: Integer  
Default value: 20                                                                 |
| sys_update_set   | Update Sets      | User Only  | DO NOT MODIFY. Indicates the update set that is currently active. This value update automatically when a user selects a different update set.  
Type: GUID  
Default value: sys_id of default update set                                                                                           |
| tabbed.forms     | Forms            | User Only  | Indicates whether forms that contain more than two sections use a tabbed interface or a scrolling list of sections. This setting applies to all forms. It is not set on a form-by-form basis. This record updates automatically when a user clicks the Toggle Tabs icon in the banner bar. For more information, see Configuring the form layout.  
True = display multi-section forms as tabs.  
False or blank = display multi-section forms as a scrolling list of sections.  
Type: True/False  
Default value: False                                                                                                                  |
<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>table.compact</td>
<td>Lists</td>
<td>User Only</td>
<td>Indicates whether lists appear with more or less blank space above and below each row. This setting applies to all lists. It is not set on a list-by-list basis. This record updates automatically when a user personalizes any list and changes the Compact rows option. True = reduce the blank space above and below each row in a list to show more rows on the screen at one time. False = add blank space above and below each row in a list to improve readability. Type: True/False Default value: False</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>table.wrap</td>
<td>Lists</td>
<td>User Only</td>
<td>Indicates whether long text in a list is wrapped onto multiple lines or truncated. This setting applies to all lists. It is not set on a list-by-list basis. This record updates automatically when a user changes the Wrap column text option in the List v2 personalization interface or the Wrap longer text in list columns option in the UI16 system settings. True = wrap long text in a list. All text is seen in list view, but each row may occupy more vertical space. False = do not wrap the long text in a list. Text is truncated in list view, but each row takes less vertical space. Full text can be seen in form view. Type: True/False Default value: True</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>top_searches.period</td>
<td>Homepages</td>
<td>User Only</td>
<td>Indicates the default time period (hour, day, week, or month) covered by top searches widgets on a dashboard. When this record exists for individual users, it indicates the current time period for the Top Searches — All widget. The time period setting for top searches widgets on individual tables is stored in the top_searches.period.&lt;table&gt; user preference. For more information, see Top Searches homepage on page 519. Type: String Default value: Day</td>
</tr>
<tr>
<td>top_searches.period.&lt;table&gt;</td>
<td>Homepages</td>
<td>User Only</td>
<td>Indicates the time period (hour, day, week, or month) covered by top searches widgets for the specified table. This record updates automatically when a user chooses a different time period in a top searches widget for the specified table. If no record exists for a specific table, top searches widgets for that table use the time period set in the top_searches.period user preference where System=true. Type: String Default value: Day</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts.match</td>
<td>Text Search</td>
<td>Admin or User</td>
<td>Indicates whether the task record should be returned by a global text search in which the search text exactly matches a task number. This record updates automatically when a user clicks the Search tips and preferences link on the search results page and changes the Return task record if searching for exact number setting. For more information, see <a href="#">Global text search finds records from multiple tables</a>. True = return the task record. A link is provided for full search results. False = return full search results, even if the search term matches a task number. Type: True/False Default value: True</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------</td>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ts.remember.expanded</td>
<td>Text Search</td>
<td>Admin or User</td>
<td>Indicates whether to remember which search groups were expanded and collapsed during the previous search. The search groups available depend on the user's access rights and selections. This record updates automatically when the user clicks the Search tips and preferences link on the search results page and changes the Use remembered expand / collapse preferences setting. True = remember the expand/collapse setting and use it for subsequent searches. False = do not remember the expand/collapse setting. Expand all groups for subsequent searches. Type: String Default value: True</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Preference</th>
<th>Category</th>
<th>Updated by</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts.show_empty_groups</td>
<td>Text Search</td>
<td>Admin or User</td>
<td>Indicates whether global text search results include groups with no matches. The search groups available depend on the user's access rights. This record updates automatically when the user clicks the Search tips and preferences link on the search results page and changes the Show groups with no search matches setting. True = include empty groups when displaying global text search results. False = hide empty groups when displaying global text search results. Type: String Default value: True</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ts.show_negative_result</td>
<td>Text Search</td>
<td>Admin or User</td>
<td>Indicates whether group headers in the global text search results page should identify tables that had no matches. The search groups available depend on the user's access rights. This record updates automatically when the user clicks the Search tips and preferences link on the search results page and changes the In search group header, list tables with no search matches setting. True = show tables that returned no matches in the group header. False = hide tables that returned no matches in the group header. Type: String Default value: True</td>
</tr>
<tr>
<td>Preference</td>
<td>Category</td>
<td>Updated by</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ts.show_search_groups</td>
<td>Text Search</td>
<td>Admin or User</td>
<td>Indicates whether the global text search results page includes check boxes that let the user indicate which groups to search and display. The search groups available depend on the user’s access rights and settings. This record updates automatically when the user clicks the Search tips and preferences link on the search results page and changes the Show selectable search groups setting. True = show the check boxes for enabling or disabling individual search groups. False = hide the check boxes for enabling or disabling individual search groups. Type: String Default value: True</td>
</tr>
<tr>
<td>user.can.logout</td>
<td>Security</td>
<td>Admin Only</td>
<td>Indicates whether users see a Logout button. If this is False, users are automatically logged out when their session times out. For more information, see Remove the Logout button. This user preference does not apply to UI16. True = show the Logout button, which enables manual logout. False = hide the Logout button, which disables manual logout. Type: True/False Default value: True</td>
</tr>
</tbody>
</table>
## Remove the welcome splash screen

You can create a user preference to turn off visibility to the welcome splash screen that introduces a new version of the ServiceNow® platform. This preference is useful if you are waiting to roll out features that are described in the welcome content.

**Role required:** admin

1. Navigate to User Administration User Preferences.
2. Click New.
3. Enter the following values.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Remove the welcome splash screen</td>
</tr>
<tr>
<td>Name</td>
<td>overview_help.visited.helsinki</td>
</tr>
<tr>
<td>System</td>
<td>Select this field</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
</tr>
<tr>
<td>Value</td>
<td>true</td>
</tr>
</tbody>
</table>

4. Click Submit.

The welcome splash screen is marked as Visited for every user.

## View management

A view defines the elements that appear when a user opens a form or a list, and you can switch the view from the default for lists and forms.

When the system displays a form or list it usually displays only a subset of the fields belonging to the underlying table. For example, this is the Incident form in the Self-Service View:
Figure 122: Self service view

This is the Incident form in the Metrics View:
Administrators and users with the personalize role have permission to perform the key tasks related to views:
• create views for any list and form
• determine which view is visible by default
• delete views they have created
• create and modify view rules determining which views are available depending on the values of the fields of the underlying table
• create rules that determine which views pertain to specific user roles

Users with the admin or view_changer roles can change views.

Views included with the base system

Several views are included with the base system, including the Default view and Advanced view.

**Warning:** Do not delete any of the base system views.

Switching views

To switch between list views, click the list context menu at the top left corner of the list, and then select Views [Desired View].

![List view list](image)

*Figure 124: List view list*

To switch between the list view in list v3, click the context menu, then select Change view [Desired View].

To switch between form views, click the context menu at the left side of the form header, and then select Views [Desired View]:

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Switching views submits the form, which saves all changes and triggers any onSubmit client scripts that apply. You cannot switch form views on a new form that has not been saved yet.

When a user switches views, the selected view is saved as a user preference so the user sees the same view by default when the form opens. When a user has a view saved as a user preference and then opens a URL to a record that specifies another view, the form displays in the view saved in the user preference, not the URL. For example, if a user selects the Mobile view on an Incident record and then tries to open the following link, which specifies the visual task board view, the form still opens in the Mobile view: https://{instance}/nav_to.do?uri=incident.do?sys_id={sys_ID}sysparm_view=vtb

The sysparm_view parameter specifies the view to be used for a list or a form, and can be overwritten by a user’s stored preference for a view. You can override this behavior by setting the sysparm_view_forced parameter to true.

Create and delete views

Administrators can create views and delete any views they have created. You can create or delete views from either the list view or the form view.

Role required: admin

1. Navigate to the application or module you want to create or delete the view for.
2. If you are creating a view for a list, perform the appropriate action for your list version.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Right-click the header and select <strong>Configure List Layout</strong>.</td>
</tr>
<tr>
<td>List v3</td>
<td>Open the context menu and select List Layout.</td>
</tr>
</tbody>
</table>

3. If you are creating a view for a form, open a record, then right-click the header and select **Configure Form Layout**.

4. Under the List View section, select the view on which you want to base your new view.

5. From the choice list, select New.

6. Enter the descriptive name of the view.

   View names should be unique and cannot use special characters or spaces, only the characters A-Z, a-z, 0-9 and _.

7. Click OK.

   The fields in the Available column are the same as the first view you based the new view on.

8. Select the fields to appear in this view by adding or removing the fields from the Selected column. You can also adjust the order they appear on the form by moving the fields up or down.

   If you are creating a view for a form, you can select a form section and configure the fields for that section. You can also create views in the same manner when you configure a related list.

9. To delete a view, navigate to **System UI Views**.

10. Click the view to delete.

11. Click Delete on the form header.

   **Warning:** In the views list, you may see multiple entries formatted as rpt-temp<sys_id><user>. The instance creates these views to store the current state of reports. Avoid deleting these records, as it may impact the state of active reports.

   **Warning:** Do not delete the base system views.

---

### Create a view rule

When a user switches views, the selected view is saved as a user preference so the user sees the same view by default when the form opens. You can override this functionality to force a specified view to be used.

**Role required:** admin

View rules do not apply to users who have no role. View rules do not always apply if there are existing user preference entries on the instance. Delete the user preference entry and clear the system cache to make sure the respective view rule applies. You can clear the system cache by appending cache.do to the instance URL. For example, instance_name.service-now.com/cache.do.

1. Navigate to **System UI View Rules**.
2. Click New.
3. Complete the form, using the fields in the table.
Control when the system displays a view

Administrators can create rules that determine the conditions for when the system should display a form or list in a specified view. Administrators can also restrict views by user role.

Role required: admin

To create a view rule to control when the system displays a specified view:

1. Navigate to System UI View Rules.

4. Click Submit.

Table 69: View rule form

<table>
<thead>
<tr>
<th>Field</th>
<th>Input value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Specify an identifying name for the rule. This field is case-sensitive and must match exactly the view name.</td>
</tr>
<tr>
<td>Active</td>
<td>Select this option to apply the view rule according to the conditions you specified. If unchecked, the view rule is not be applied.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Select this option to specify a code-based condition instead of using the condition builder. Selecting this option displays the Script field and hides the Match conditions, Conditions, and View fields.</td>
</tr>
<tr>
<td>Match Conditions</td>
<td>Select whether Any or All of the conditions need to be met. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Conditions</td>
<td>Use the condition builder to determine when the view is applied. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Application</td>
<td>Displays the application to which the View Rule record belongs.</td>
</tr>
<tr>
<td>Table</td>
<td>Select the table on which this view rule will be applied. The list shows only tables and database views that are in the same scope as the view rule</td>
</tr>
<tr>
<td>Device type</td>
<td>Select which interface this view rule applies to.</td>
</tr>
<tr>
<td>View</td>
<td>Enter the name of the View you are creating a rule for. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Script</td>
<td>Enter a script to determine when to display a particular view. The system only displays this field when you create an advanced View Rule.</td>
</tr>
</tbody>
</table>
2. Click New.
3. Complete the form.

Table 70: View rule form

<table>
<thead>
<tr>
<th>Field</th>
<th>Input value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Specify an identifying name for the rule. This field is case-sensitive and must match exactly the view name.</td>
</tr>
<tr>
<td>Active</td>
<td>Select this option to apply the view rule according to the conditions you specified. If unchecked, the view rule is not be applied.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Select this option to specify a code-based condition instead of using the condition builder. Selecting this option displays the Script field and hides the Match conditions, Conditions, and View fields.</td>
</tr>
<tr>
<td>Match Conditions</td>
<td>Select whether Any or All of the conditions must be met. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Conditions</td>
<td>Use the condition builder to determine when the view is applied. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Application</td>
<td>Displays the application to which the View Rule record belongs.</td>
</tr>
<tr>
<td>Table</td>
<td>Select the table on which this view rule is applied. The list shows only tables and database views that are in the same scope as the view rule</td>
</tr>
<tr>
<td>Device type</td>
<td>Select which interface this view rule applies to.</td>
</tr>
<tr>
<td>View</td>
<td>Enter the name of the View you are creating a rule for. The system hides this field when you create an advanced View Rule.</td>
</tr>
<tr>
<td>Script</td>
<td>Enter a script to determine when to display a particular view. The system only displays this field when you create an advanced View Rule.</td>
</tr>
</tbody>
</table>

4. Click Submit.

Restrict view by role

You can use a script to control the form view used by different roles.

Caution: The customization described here was developed for use in specific instances, and is not supported by ServiceNow Customer Support. This method is provided as-is and should be tested.
thoroughly before implementation. Post all questions and comments regarding this customization to our community forum.

Name: Restrict View by Role
Type: System UI View Rules
Table: Any
Description: Generally the view used on a form is controlled by either specifying the sysparm_view parameter in the url or module properties, or by inheriting the view from the previous form or list. Sometimes this does not apply, such as when opening a referenced field form from a record producer. In this case, you may want to control the view of the form based on roles. This script assumes there is a view called ess available to the current table.

Parameters:
- view - A string containing the name of the current view.
- is_list - A Boolean value indicating whether this is a list view.

Script:

(function overrideView(view, is_list) {
  // Force non-itil users to use the ess view
  if (gs.hasRole("itil"))
    {return;}
  if (view.startsWith("ess"))
    {return;}
  // do not change view if it starts with sys_ (e.g. sys_ref_list)
  if (view.startsWith("sys_"))
    {return;}
  answer = "ess"; // set the new view to answer
})(view, is_list);

Navigation Handler

A Navigation Handler is essentially a scripted View Rule and runs each time data from the specified table is requested in the form view.

The following script, which is a navigation handler included with the HR plugin, forces the ESS view for users with no roles, and uses the default view for all other users.

```javascript
var gr = new GlideRecord(hr.TABLE_CASE);
if (gr.get(g_uri.get('sys_id'))) {
  if (!gs.getUser().hasRoles())
    g_uri.set('sysparm_view', 'ess');
  else
    g_uri.set('sysparm_view', '');
}

answer = g_uri.toString('hr_case.do');
```

Use the glide.ui.view_rule.check_after_nav_handler system property to control the order in which View Rules and Navigation Handlers are applied. Set the property value to True to process view rules after navigation handlers. If the system property does not exist in your instance, the navigation handler always takes precedence.

The system property only overrides the Navigation Handler if the Navigation Handler scripted function does not return an answer. In the example script above, the property will have no effect as the Navigation Handler will always return an answer due to the answerline being outside of the if statement.
To force the Navigation Handler Script above to honor View Rules for the table, add the property above, set it to true, and update the code to only return an answer when the view needs to be changed or forced.

```javascript
var gr = new GlideRecord(hr.TABLE_CASE);
if (gr.get(g_url.get('sys_id'))) {
    if (!gs.getUser().hasRoles()) {
        g_url.set('sysparm_view','ess');
        answer = g_url.toString('hr_case.do');
    }
}
```

### Welcome pages

The welcome page contains instructions and any important information you would like to convey to your customers each time they log in to use the system.

The base system login page content is customizable by the administrator of the system.

#### Welcome page sections

Welcome pages can contain different sections, including:

- **Welcome**: General information
- **Using**: Some tips and tricks for using the system
- **Login**: Login information
- **Demonstration**: Information about logging in to a base system demo system
- **More Information**: A link to the ServiceNow documentation

View, create, and configure the welcome page sections by navigating to **System UI > Welcome Page Content**. You can edit any item by clicking its short description. Sections that are not needed can be removed.

#### Table 71: Welcome page section fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Description</td>
<td>A description of the section.</td>
</tr>
<tr>
<td>Active</td>
<td>Mark the section active to display it on the welcome page. Inactive sections are not visible.</td>
</tr>
<tr>
<td>Display order</td>
<td>A number representing the order in which sections are displayed. Lower numbered sections are displayed above higher numbered sections.</td>
</tr>
<tr>
<td>Application</td>
<td>The application to which the section belongs.</td>
</tr>
<tr>
<td>Language</td>
<td>The section appears when the logged in users language matches this value. If no user is logged in, the guest user's language preference is used.</td>
</tr>
<tr>
<td>Condition</td>
<td>The section appears on the welcome page when the script in this field evaluates to true.</td>
</tr>
<tr>
<td>Published</td>
<td>The published date of the section.</td>
</tr>
<tr>
<td>Text</td>
<td>The content of the section.</td>
</tr>
</tbody>
</table>
Selecting a language on the welcome page

Users can select a language on the welcome page in the login section, enabling them to start their session in the language of their choice.

![Login](image)

Figure 126: Choosing language on login

**Note:** Before a user logs in, the welcome page is displayed in the default language of the guest user.

Create company-specific welcome page content

You can create company-specific welcome page content.

Role required: admin

1. Navigate to System UI Welcome Page Content.
2. To create a new section, click New.
3. Enter the following in the Condition field, where Company is the name of the company whose users see this section.

   ```java
   gs.getUser().getCompanyRecord().name.toString() == "Company"
   ```
4. Complete the form.
5. Click Submit.

Enabling accessibility features

You can configure accessibility features globally or for specific users. Users can also individually enable user preferences for themselves to meet their specific accessibility needs.

The platform includes features that support Web Content Accessibility Guidelines (WCAG) 2.0 level A to make the interface more accessible to all users. These features improve the user experience when accessing the instance with screen readers and keyboard navigation.

Accessibility features are not enabled by default because some features are user specific. Administrators have the flexibility to enable features globally or for individual users.

All of these options can be configured globally or for specific users.

- Enable the accessibility option.
- Disable the list editor feature.
- Enable the high contrast theme.
- Use skip links.
- Disable first field focus

Enable accessibility mode

Enable accessibility mode on your instance.

Administrators can enable accessibility mode for specific users by navigating to User Administration User Preferences and searching for the glide.ui.accessibility user preference. For more information on configuring user preferences, see User preferences.

1. Navigate to User Administration User Preferences.
2. Click the gear icon ( ) in the banner frame to open the System Settings window.

3. From the General tab, select the Accessibility enabled option.
   Accessible tooltips on forms is enabled automatically the first time you enable accessibility mode.

Alternatively, enable accessibility mode using the Enable Accessibility skip link. For more information on skip links, see Use skip links on page 337.

Enable the high contrast theme

In UI16, administrators can enable the Contrast UI theme for users who need a greater contrast in color.

Role required: admin

Individual users can enable the contrast theme for themselves by navigating to System settings Theme then selecting Contrast UI.

1. Navigate to User Administration User preferences .
2. Click New then configure the following fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.css.theme.ui16</td>
</tr>
<tr>
<td>System</td>
<td>Make sure that the check box is cleared.</td>
</tr>
<tr>
<td>User</td>
<td>Name of the user you want to enable the contrast UI theme for. Add a user preference for each user you want to enable the theme for.</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
</tr>
<tr>
<td>Value</td>
<td>The sys_id of the contrast UI theme. You can find the sys_id by navigating to System UI Themes . Then right-click Contrast UI and click Copy sys_id.</td>
</tr>
</tbody>
</table>

3. Click Submit.
   The user may have to sign out and sign back in for the theme to take effect.

Disable first field focus

When a form loads, the system automatically sends focus to the first field on the form. For accessibility reasons, you can disable this option so that focus starts on the first element on the top of the page.

Sending focus to the first field on a form is useful to most users however, it presents challenges for users with certain disabilities. For example, a user using the system with a screen reader may not realize there is additional content above the field that receives focus.

Role required: admin

1. Navigate to User Administration User Preferences .
2. Search for glide.ui.accessibility.focus_first_field.
3. Set the Value field to false.
4. To change this setting for a specific user, clear the System check box, then add a user in the user field.
   Set up a new preference for each user you want to configure this option for.

Enable the accessible form tooltips feature

The accessible tooltips user preference adds a tooltip icon that users can tab to, to view a tooltip for a field. Some fields on forms have associated tooltips that contain additional information. By default, these tooltips are accessible by pointing to the field label or mandatory indicator asterisk. However, a user who relies on keyboard navigation cannot point to the field to access the tooltip. The accessible form tooltip feature solves this problem by adding a keyboard-accessible icon next to each field that has a tooltip. Tabbing or pointing to the icon shows the tooltip.

Administrators can enable accessible form tooltips for specific users by navigating to User Administration User Preferences and searching for the glide.ui.accessibility.accessible.tooltips user preference. For more information on configuring user preferences, see User preferences.

Accessibility must be enabled for the accessible form tooltips user preference to work.

1. Click the gear icon in the banner frame to open the System Settings window.
2. From the General tab, select the Accessibility enabled option.
   The Accessible tooltips on forms option is enabled automatically the first time you enable accessibility mode.
3. Clear the Accessible tooltips on forms option to disable the accessible tooltips.
   If you disable accessibility mode and re-enable it, Accessible tooltips on forms will remain disabled.

Configure a Windows 64-bit host to use 32-bit NVDA with Java applications

The NVDA Assistive Technology screen reader is a 32-bit application that, when the Java Access bridge has been enabled, reads aloud Java applications built to support accessibility. If you encounter a problem using NVDA to access Java applications on a 64-bit Windows host, you must configure the Java Access bridge.

Role required: local or domain administrator on the host Windows machine

The following example assumes:

• The 32-bit and 64-bit Oracle Java jdk versions 8u171 are being installed in the default location.
• A Windows command prompt with administrative privileges is used to execute command line utilities.
• Executable statements are prefixed with the PROMPT> string.

Note:

• The above configuration was used on a Windows 7 VM host to test the NVDA and JAWS screen readers.
• This example refers to Java version 8u171. If you are using a later version of Java, substitute that version.

1. Go to the Oracle Java SE downloads page and download the Oracle Java jdk for 32-bit and 64-bit Windows environments:
   • 32-bit: jdk-8u171-windows-i586.exe
To access and download the files listed in the above example, go to the Oracle Java SE jdk download page.

2. Install the 64-bit version of the Oracle Java jdk in the default location.
   
PROMPT> jdk-8u171-windows-x64.exe
   
Verify that the installation process installed the following:
   
- Java 64-bit jdk in the C:\Program Files\Java\jdk1.8.0_171 directory.
- WindowsAccessBridge-64.dll in the C:\Windows\System32 directory.

3. Enable the Java Access bridge for 64-bit applications using the 64-bit jabswitch application located in the 64-bit Java jdk bin directory.
   
PROMPT> cd "C:\Program Files\Java\jdk1.8.0_171\bin"
PROMPT> jabswitch -enable

4. Copy the WindowsAccessBridge-64.dll located in the C:\Windows\System32 directory to the 32-bit C:\Windows\SysWOW64 directory.
   
PROMPT> cd C:\Windows\System32
PROMPT> copy WindowsAccessBridge-64.dll C:\Windows\SysWOW64
   
Verify that the copied WindowsAccessBridge-64.dll exists in the 32-bit C:\Windows\SysWOW64 directory.

5. Install the 32-bit version of the Oracle Java jdk in the default location.
   
PROMPT> jdk-8u171-windows-i586.exe
   
Verify that the installation process installed the following:
   
- Java 32-bit jdk in the C:\Program Files (x86)\Java\jdk1.8.0_171 directory.
- WindowsAccessBridge-32.dll in the C:\Windows\SysWOW64 directory.

6. Enable the Java Access bridge for 32-bit applications using the 32-bit jabswitch application located in the 32-bit Java jdk bin directory.
   
PROMPT> cd "C:\Program Files (x86)\Java\jdk1.8.0_171\bin"
PROMPT> jabswitch -enable

7. Restart the NVDA Assistive Technology software using the NVDA shortcut pinned to the task bar, pinned to the start menu, or located on the desktop. You can also use the Start All Programs NVDA NVDA menu selection.

8. On an administrative command prompt terminal, launch the Edge Encryption Interactive Installer.
   
PROMPT> java -jar <edge encryption interactive file name>.jar

Using accessibility features

Accessibility features include keyboard navigation, color and style settings, using a screen reader, and search methods.

Keyboard accessibility

The Now Platform is designed to be as accessible as possible without user modification or setting changes. Users can tab through the platform UI without enabling accessibility. However, without accessibility enabled, tabbing goes from input to input and skips other items on a form, such as reference icons.
Tab-through provides the following options:

- Use skip links to shift focus to different parts of the page without tabbing through every element.
- On edit pages such as forms, the keyboard focus starts at the first editable field on the page.
- If the glide.ui.accessibility.focus_first_field user preference is enabled, page focus starts at the first input field at the top of the page content section. In a table, this field is usually the search option. In a form, the field is the first input field in the form.
- Use tab-through and arrow keys to move items around in a slushbucket.
- When focused on tabs, use right/left arrow keys to switch tabs.
- Arrows keys work within menus to navigate between entries.
- On tab-through for a list, the option to enable the Edit table data inline appears, so you can use the list editor, rather than opening the form.
  - When inline edit mode is enabled, screen focus shifts to the first cell in the table.
  - Press the Escape key while a cell is selected to exit inline edit mode. Focus remains on the cell.
  - Press the spacebar to open the context menu for the selected item.
  - Use the arrow keys (in addition to tabbing) to move around the list in inline edit mode.
- Properties pages, such as System Properties UI Properties, include an icon with the property name. Screen readers read the property name when the icon is in focus.
- Fields on a form include a tooltip icon. Screen readers read the tooltip when the icon is in focus.
- In the application navigator when accessibility is enabled, tabbing moves you through each element for every module, including the Edit application/module and Add to favorites icons. Use the arrow keys to move through the application navigator without focusing on these additional elements.
- If accessibility is enabled, a help icon appears with the HTML field. The help icon indicates how to access and escape the HTML field toolbar.

Use skip links

Skip links allow users to quickly navigate to the main content on a page, list, or form, bypassing icons, banner text, navigation links, and other elements. Skip links are not visible until you tab to them.

The user interface includes skip links to the navigation menu, and the main content pane. If accessibility is not enabled, users can also use skip links to activate accessibility.

![Figure 127: Skip link](image)

- Enable Accessibility: Enables accessibility. This skip link only appears if the user has not yet enabled accessibility. Pressing enter prompts you to reload the page with accessibility mode enabled.
- Skip to navigator: Skips to the navigation filter in the application navigator.
- Skip to main content: Skips to the main content page.
- Edit table data inline: Skips to the first field in a table. When the field is selected, press Enter to edit the field. Press the spacebar to open the field context menu. Press the Escape key to exit inline edit mode.

Skip links are usually the first item in the tab order for a page or frame.

- Use the Tab and Shift+Tab keys to move forward and back through the skip links and other selectable fields.
• When a skip link receives focus, press Enter to select the link.

Color and style accessibility

There are several color and style changes that make the platform more accessible.

Enable the Contrast UI theme

In the system settings, on the themes tab, select the Contrast UI theme. The Contrast UI theme provides a higher contrast range of colors for the platform UI.

In Service Portal, you can apply the Stock — High Contrast theme to a portal for a higher contrast color range. Portal users can enable a contrast theme using the Accessibility option in the User Profile widget.

Patterned charts and graphs

View charts and graphs that rely heavily on color with patterns in addition to colors. Navigate to System settings General, then select Data visualization patterns enabled.
Data visualization patterns enabled
Screen reader accessibility

Screen elements in the platform have enhancements that make them accessible to screen readers.

Use NVDA, JAWS, or VoiceOver for non-visual access to the platform.

Skip links allow you to tab straight to the main content instead of tabbing through all the other elements on the page.

When a page reloads or search results display, screen readers inform the user.

Important images and field indicators (for example, status indicators for avatars in list v3) have alternative text for screen readers to read.

To reduce confusion when tabbing through modules, the edit application/edit module and add to favorites icons are accessible to screen readers by tabbing. To skip the Edit application/module and Add to favorites icons, use the up and down arrows on the keyboard.

In Service Portal, users can add alternative text to containers in their own portal for screen readers to read.

Elements such as links or button are listed as such for screen reader awareness.

Properties pages, such as System Properties UI Properties, include an icon with the property name. Screen readers read the property name when the icon is in focus.

Forms include accessible tooltips that screen readers read when the tooltip is in focus.

Accessibility search methods

There are several ways to search for information in the user interface.

- When a list opens, focus starts in the search field. Tab or shift+tab to navigate away from the search, or start typing while focus is in the search field.
- List views include a Go to search field in the list title bar. Using the * wildcard character in the search text allows you to perform a contains search rather than a starts with search. This type of query may take longer to run but can save keystrokes. You can also use several other wildcards with list searches.
- The navigation filter in the application navigator filters the applications and modules that appear in the navigator based on the entered text. Tab through or use skip links to navigate directly to the navigation filter. To open a module, click the module name, or press the Down Arrow to highlight the module name, and then press Enter.

See Available search options for more information about these search methods.

View card details in a task board

With accessibility mode enabled, tab through cards in a task board. Use the card details button to view task card details.

Enable accessibility from the General tab of the system settings menu.

Role required: none

2. Open an existing task board.
3. Tab through the board to get to a task card.
4. Tab through the card until the Open Card Details button appears.
5. Press Enter to open the card.
6. To exit the card, press Escape.

Map pages

Map pages display ServiceNow data graphically on a Google map page based on location data that you provide.

You can create as many map pages as required to define the types of data to display, the links to show, and the appearance of the map. After creating the map pages, you can create modules to display the map pages.

**Note**: Map pages are subject to the non-production access limitations. See *Set up Google Maps API* on page 343 for details.

Map locations

Locations are used by various applications to locate users, facilities, or configuration items (CI) and are stored in the Location [cmn_location] table. You can configure different levels of location in a parent-child hierarchy. For example, an email server might be associated with a location of Second Floor, whereas the email business service might be associated with New York City.
Each level of this hierarchy contains a separate location record, with the next higher level specified as a parent. In this example each location is selectable as a hierarchy from reference fields:

![Location hierarchy diagram]

**Figure 130: Location hierarchy**

The location is also used to generate a full identifier in the Full name field, which is available by configuring the form as follows.

![Full name field example]

**Figure 131: Location Full name**

**How locations are defined**

To create a location, navigate to User Administration Locations and click New.

**Table 73: Define a location**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of the location. This name is the display value that the system uses when referencing this location on a form.</td>
</tr>
<tr>
<td>Street</td>
<td>The street address of the location.</td>
</tr>
<tr>
<td>City</td>
<td>The city of the location.</td>
</tr>
<tr>
<td>State / Province</td>
<td>State or province of the location.</td>
</tr>
<tr>
<td>Zip / Postal Code</td>
<td>The zip or postal code of the location.</td>
</tr>
<tr>
<td>Country</td>
<td>The country of the location.</td>
</tr>
<tr>
<td>Contact</td>
<td>Name of a user who is the contact for this location.</td>
</tr>
<tr>
<td>Phone</td>
<td>The phone number for the location.</td>
</tr>
<tr>
<td>Fax phone</td>
<td>The fax number for the location.</td>
</tr>
<tr>
<td>Parent</td>
<td>Name of the parent location for this location. Location hierarchies are described above.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>The latitude of the location. The <code>get_lat_long</code> business rule automatically populates this field and the Longitude field described below when the form contains enough information, such as an address or city name and a postal code. Deactivate this business rule to prevent the system from overwriting any values entered manually into these fields.</td>
</tr>
<tr>
<td>Longitude</td>
<td>The longitude of the location.</td>
</tr>
</tbody>
</table>

Fields that can be added by configuring the form:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>A reference field to the Company [core_company] table.</td>
</tr>
<tr>
<td>Full name</td>
<td>A read-only, calculated field that assembles the parent hierarchy of the location into a full name.</td>
</tr>
<tr>
<td>Stock room</td>
<td>A boolean field that identifies whether the location is being used as a stock room.</td>
</tr>
<tr>
<td>Time zone</td>
<td>The time zone of the location. By default, the location uses the system time zone.</td>
</tr>
</tbody>
</table>

### Latitude and longitude

When a Company or Location record is created, or has one of its address fields changed [street, city, state, zip or country], the `get_lat_long` business rule is triggered. This business rule uses the GoogleMapsHelper script include to create `sys_geocoding_request` records.

A scheduled job called Process Geocoding Request runs every 10 minutes, and processes `sys_geocoding_request` records. Process Geocoding Request uses Google Map service to populate the latitude and longitude fields of the changed or created Company and Location records.

After the latitude and longitude are populated, Map Pages can be defined that display locations in an interactive map.

**Note:** Latitude and longitude are expressed as a floating point data type. Previous releases expressed this information as a string. During an upgrade, the system converts the data where possible.

### Set up Google Maps API

Map pages enable you to graphically display data on a Google map page based on location data.

**Role required:** admin

Maps can be generated using basic JavaScript, but are flexible enough to display even the most complicated of queries. The maps you generate use standard Google Maps API mapping features, including various link types to records in your instance. This feature requires the Google Maps plugin.
1. If necessary, obtain a Google Maps for Work license key to cover development use of the Google Maps API.
   See the Getting Started Guide on the Google web site for details on obtaining a key, using the API, and relevant terms of service.

2. When you receive your key, enter it in the System Properties Google Maps property form, and configure your maps using the property definitions from the table.

3. After you complete the configuration, create map pages or use the default pages included with the plugin.

Map pages define what data is displayed on the map and the appearance of the links. For a tutorial on how to display all markers that link to your records, see the Display Map Markers on Google Maps blog post on the ServiceNow Community.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>google.maps.auto_close</td>
<td>If true, automatically closes a map information window before opening a new one.</td>
</tr>
<tr>
<td></td>
<td>• Type: true/false</td>
</tr>
<tr>
<td></td>
<td>• Default value: true</td>
</tr>
<tr>
<td></td>
<td>• Location: System Properties Google Maps</td>
</tr>
<tr>
<td>google.maps.client</td>
<td>Client ID for Google Maps API for Work.</td>
</tr>
<tr>
<td></td>
<td>• Type: string</td>
</tr>
<tr>
<td></td>
<td>• Default value: gme-servicenow</td>
</tr>
<tr>
<td></td>
<td>• Location: System Properties Google Maps</td>
</tr>
<tr>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>google.maps.private.key</td>
<td>Private key for Google Maps API for Work. This key activates the geolocation feature, which locates users in the system precisely, using data from their mobile devices.</td>
</tr>
</tbody>
</table>
|                        | • Type: string  
|                        | • Default value: empty  
|                        | • Location: System Properties Google Maps  |
| google.maps.version    | Version number of the current installation of Google Maps API.  |
|                        | • Type: string  
|                        | • Default value: current version number  
|                        | • Location: System Properties Google Maps  |
| google.maps.key        | The Google Maps API key that is tied to the URL of the server. This key authorizes development use of Google Maps API.  |
|                        | • Type: string  
|                        | • Default value: empty  
|                        | • Location: System Properties Google Maps  |
| google.maps.latitude   | Starting latitude of the map. This value determines the starting position displayed in Google Maps.  |
|                        | • Type: string  
|                        | • Default value: 36.008522  
|                        | • Location: System Properties Google Maps  |
| google.maps.longitude  | Starting longitude of the map. This value determines the starting position displayed in Google Maps pages.  |
|                        | • Type: string  
|                        | • Default value: -95.221764  
|                        | • Location: System Properties Google Maps  |
| google.maps.max_items  | Maximum number of items to display on the map.  |
|                        | • Type: integer  
|                        | • Default value: 500  
<p>|                        | • Location: System Properties Google Maps  |</p>
<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>google.maps.table</td>
<td>Table used by the map. The table needs the following fields: name, longitude, latitude.</td>
</tr>
<tr>
<td></td>
<td>• Type: string</td>
</tr>
<tr>
<td></td>
<td>• Default value: cmn_location</td>
</tr>
<tr>
<td></td>
<td>• Location: System Properties Google Maps</td>
</tr>
<tr>
<td>google.maps.zoom</td>
<td>Starting zoom level of the map (1 is the lowest)</td>
</tr>
<tr>
<td></td>
<td>• Type: string</td>
</tr>
<tr>
<td></td>
<td>• Default value: 4</td>
</tr>
<tr>
<td></td>
<td>• Location: System Properties Google Maps</td>
</tr>
</tbody>
</table>

Create a map page

Your ServiceNow instance provides several default map pages. You can also create custom map pages with the script examples described in this page.

Role required: admin

The default map page record displays critical incidents on a Google map page.
1. Navigate to System UI Map Pages.
2. Click New.
3. Complete the form, using the fields in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a unique name to identify the map.</td>
</tr>
<tr>
<td>Center map on</td>
<td>Enter the location for centering the map using the decimal form of latitude and longitude. For example, to center the map on the statue of liberty, enter 40.689865, -74.045235.</td>
</tr>
<tr>
<td>Initial zoom</td>
<td>Set the zoom level of the map on opening.</td>
</tr>
<tr>
<td>Controls size</td>
<td>Select whether the Google navigation icons on the map should be large or small.</td>
</tr>
<tr>
<td>Type</td>
<td>Select a map background style: Satellite, Hybrid, Normal, or Terrain.</td>
</tr>
</tbody>
</table>
Create a map page module

You can create a new application module for desktop or smartphone users to display a Google map page.

Role required: admin

To create a desktop module that opens a map page:

1. Navigate to System Definition Modules and click New.
2. Select the appropriate application for the module.
   For example, if you are planning to display critical incidents, add a module to the Incident application menu.
3. Perform the appropriate action for your version of the UI:
   - UI16: Point to the application menu you want to add the module to and click the edit application (pencil) icon.
   - UI15: Right-click the application menu in the application navigator and select Edit Application Menu.
4. Select the Link Type tab and select the type of link you want for the module.
   For example, you can create a module that opens a map page directly, or one that links through a URL.
5. Complete the form, as appropriate.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application menu</td>
<td>Select the application menu where you want this module to appear. By default, this field displays the application menu that you opened to create the module.</td>
</tr>
<tr>
<td>Hint</td>
<td>Enter a brief description to display when a user points to the module name in the application navigator.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to activate this module. Only active modules appear in the application menu.</td>
</tr>
<tr>
<td>Image</td>
<td>Select an icon to display with this module in the application navigator. If this field is blank, a default icon is used.</td>
</tr>
<tr>
<td>Link type</td>
<td>Select the desired link type from the list. This selection changes the available fields in the form.</td>
</tr>
<tr>
<td>Map page</td>
<td>Select the pre-configured map page to use for this module. For example, Critical Incidents.</td>
</tr>
<tr>
<td>Roles</td>
<td>Select the roles that are permitted to access this module. If this field is blank, all roles can access the module.</td>
</tr>
</tbody>
</table>
| Arguments     | Define the URL for this module in the format map_page.do?sysparm_name=<map page name>. This field is available when the Link type is URL (from Arguments). **Note:** If the map page title has a space in it, replace the space with %20 for the correct syntax. For example, a map page called Critical Incidents becomes Critical%20 Incidents%20 in a URL.
6. Click Submit.

Create a smartphone map page module

You can create a custom smartphone module that links directly to a map page.

Role required: admin

1. Obtain the sys_id of the map page.
   The sys_id is required when you create the module.
2. Navigate to System Mobile UI Navigator Apps.
3. Open the application menu where you want the new module to appear.
4. In the Modules related list, click New.
5. Complete the form, as appropriate.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name for the module.</td>
</tr>
<tr>
<td>Order</td>
<td>Enter a number to specify the order of the module within the application menu. For example, an entry of 100 would place this module before one with an Order entry of 200.</td>
</tr>
<tr>
<td>Application menu</td>
<td>Select the application menu where you want this module to appear. By default, this field displays the application menu that you opened to create the module.</td>
</tr>
<tr>
<td>Table</td>
<td>Do not select a table.</td>
</tr>
<tr>
<td>Updated</td>
<td>Displays the date and time when the module record is updated.</td>
</tr>
</tbody>
</table>
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roles</td>
<td>Select the roles that are permitted to access this module. If this field is blank, all roles can access the module.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to activate this module. Only active modules appear in the application menu.</td>
</tr>
<tr>
<td>Filter</td>
<td>Do not add a filter condition.</td>
</tr>
<tr>
<td>Path</td>
<td>Enter map/ followed by the sys_id of the map page. For example: map/ c86c5feac0a80a6600706f0102968196</td>
</tr>
</tbody>
</table>

6. Click Submit.

### Scripting for map pages

The Script field on the Map Page form allows the use of attributes or custom code to define map characteristics, such as marker appearance, display information, and more.

### Scripting map item attributes

The following attributes are available.

**Note:** To create an item on the map, use the map.addItem(glideRecord) method. Pass a valid GlideRecord to addItem().

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name used for identification.</td>
</tr>
<tr>
<td>latitude</td>
<td>If you define an address, latitude is not necessary.</td>
</tr>
<tr>
<td>longitude</td>
<td>If you define an address, longitude is not necessary.</td>
</tr>
<tr>
<td>icon</td>
<td>URL of the icon to display for the marker. If a custom icon is not specified, the default Google marker is used.</td>
</tr>
<tr>
<td>icon_width</td>
<td>Width of the icon. The default is 32.</td>
</tr>
<tr>
<td>icon_height</td>
<td>Height of the icon. The default is 32.</td>
</tr>
<tr>
<td>table_name</td>
<td>Table whose records display when the marker icon is clicked. Used with the sys_id attribute.</td>
</tr>
<tr>
<td>sys_id</td>
<td>Sys_id of the record that displays when the marker icon is clicked. Used with the table_name attribute.</td>
</tr>
<tr>
<td>view</td>
<td>View of the form displayed in the dialog box when the marker icon is clicked.</td>
</tr>
</tbody>
</table>
### Attribute Table

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>html</td>
<td>Arbitrary HTML code for the pop-up window. If used, this value overrides the dialog box.</td>
</tr>
<tr>
<td>marker_label</td>
<td>Optional marker icon label text.</td>
</tr>
<tr>
<td>label_offset_left</td>
<td>Optional attribute that is used with marker_label to define the horizontal position of the marker label. The default is 0.</td>
</tr>
<tr>
<td>label_offset_top</td>
<td>Optional attribute that is used with marker_label to define the vertical position of the marker label. The default is 0.</td>
</tr>
</tbody>
</table>

---

### Scripting custom map page behavior for smartphone

If you plan to access the map page from a smartphone, you may want to set custom smartphone interface behavior using the isMobile variable. You can use the isMobile variable to set custom behavior for the smartphone view of the map. For example, you might set different values for the icon_width and icon_height attributes when isMobile is true.

### Basic map page script

This script displays all active, critical incident locations.

```javascript
//setup new GlideRecord query on the incident table
var gr = new GlideRecord("incident");
//add condition for priority 1
gr.addQuery('priority', '1');
//add condition for active incidents
gr.addActiveQuery();
//execute the query
gr.query();

//loop through the list of incidents returned by the query
while (gr.next()) {

  //create a new map item to display - linked to the current incident record
  var item = map.addItem(gr);
  //add the latitude value from the incident's location
  item.latitude = gr.location.latitude;
  //add the longitude value from the incident's location
  item.longitude = gr.location.longitude;
  //link to the icon image
  item.icon = "http://maps.google.com/mapfiles/kml/pal3/icon51.png";
  //set the icon size
  item.icon_width = "16";
  item.icon_height = "16";
}
```

### isMobile map page script

This script displays all active, critical incident locations with custom settings for smartphone users.

```javascript
//setup new GlideRecord query on the incident table
var gr = new GlideRecord("incident");
//add condition for priority 1
```
gr.addQuery('priority', '1');
//add condition for active incidents
gr.addActiveQuery();
//execute the query
gr.query();

//loop through the list of incidents returned by the query
while (gr.next()) {

    //create a new map item to display - linked to the current incident record
    var item = map.addItem(gr);
    //add the latitude value from the incident's location
    item.latitude = gr.location.latitude;
    //add the longitude value from the incident's location
    item.longitude = gr.location.longitude;
    //link to the icon image
    item.icon = "http://maps.google.com/mapfiles/kml/pal3/icon51.png";

    //set the icon size (use smaller icons for smartphone users)
    if (isMobile) {
        item.icon_width = "12";
        item.icon_height = "12";
    }
    else {
        item.icon_width = "16";
        item.icon_height = "16";
    }
}

Advanced map page script
This script displays the number of open incidents by location. It varies the size of the icon based on the
number of open incidents for the location. Using the html parameter, it also displays the location name and
number of incidents, as well as a link to the list of related incidents.

//get the instances url so we can link back to it
var uri = gs.getProperty("glide.servlet.uri");
//create an aggregate query on the incident table
var count = new GlideAggregate('incident');
//set condition for active incidents
count.addQuery('active', 'true');
//set aggregate field to location to get count by location
count.addAggregate('COUNT', 'location');
//execute the query
count.query();

//loop through the results
while (count.next()) {

    //get the current record's location
    var loc = count.location;
    //get the count of incidents for this location
    var locCount = count.getAggregate('COUNT', 'location');
    //only display location is there are active incidents
    if (locCount > 0) {
        //create new new map item for this location
        var item = map.addItem(count);
        //set lat/long from the location record
        item.latitude = loc.latitude;
        item.longitude = loc.longitude;
        //build the link to the list of incidents for the location
var link = 'href=' + uri + 'incident_list.do?sysparm_query=active%3Dtrue^location%3D' + loc;
//build the html value to be displayed when you click the map icon
item.html='&lt;a ' + link + '&gt;' + loc.getDisplayValue() + '(' + locCount + ')&lt;/a&gt;';
//link to the icon image
item.icon = "http://maps.google.com/mapfiles/kml/pal3/icon51.png";
//set the size of the icon based on the number of active incidents
if (locCount < 5) {
    item.icon_width = "12";
    item.icon_height = "12";
}
else if (locCount < 15) {
    item.icon_width = "16";
    item.icon_height = "16";
}
else {
    item.icon_width = "32";
    item.icon_height = "32";
}
}

Map page marker label script

Marker labels allow you to add dynamic text to markers. This example displays the active incident count at each location.

Figure 133: Map marker labels

//get the instances url so we can link back to it
var uri = gs.getProperty("glide.servlet.uri");
//create an aggregate query on the incident table
var count = new GlideAggregate('incident');
//set condition for active incidents
count.addQuery('active', 'true');
//set aggregate field to location to get count by location
count.addAggregate('COUNT', 'location');
//execute the query
count.query();

//loop through the results
while (count.next()) {
    //get the current record's location

var loc = count.location;
//get the count of incidents for this location
var locCount = count.getCount('location');
//only display location is there are active incidents
if (locCount > 0) {
    //create new new map item for this location
    var item = map.addItem(count);
    //set lat/long from the location record
    item.latitude = loc.latitude;
    item.longitude = loc.longitude;

    //create a marker label with the count
    item.marker_label = locCount;
    //define label offset for proper position
    item.label_offset_left = -4;
    item.label_offset_top = -20;

    //option to define table and record for label hyperlink
    //setting table and sys_id will override the use of html parameter
    //item.table = 'cmn_location';
    //item.sys_id = loc;

    //build the link to the list of incidents for the location
    var link = 'href=' + uri + 'incident_list.do?sysparm_query=active
        %3Dtrue^location%3D' + loc;
    //build the html value to be displayed when you click the map icon
    item.html='&lt;a ' + link + '+'&gt;' + loc.getLabelValue() + '&lt;/a&gt;';

    //link to the icon image
    item.icon = "images/red_marker.png";
    //set the size of the icon based on the number of active incidents
    item.icon_width = 24;
    item.icon_height = 24;
}

Customizing instance appearance

An administrator can change global CSS or system properties to alter the look and feel of the default instance interface. Functionality is not affected.

For example, organizations often use multiple instances to separate development, testing, and production activities. To help users avoid accidentally changing the wrong instance, administrators can configure each with a visually distinct theme. Several approaches are available for defining an instance theme.

CSS Properties

Navigate to System Properties CSS.

The following properties are available through CSS Properties.

Note: Colors are specified using predefined color names, RGB decimals, or RGB hexadecimals.

- Banner text color
- Banner and list caption background color
- Font used in forms and lists (this is a global font setting)
- Button styles (background color, border color, border width, text color)
Field status indicator colors (including the indicators for Changed, Mandatory Populated, Mandatory Unpopulated, and Read-only)
- List cell vertical alignment
- Navigator menu styles (text font size, background color, text color)
- Header font name and size
- List and form caption color override
- Global text search background color (both for catalog results and knowledge base results)

**UI properties**

Navigate to System Properties UI Properties.

The following properties are available through UI Properties.
- Icons used in the activity formatter
- Background colors for Additional Comments and Work Notes
- Button placement on forms
- Icons used in the Task Activity formatter
- Background colors for Incident Additional Comments and Work Notes

**CSS class support**

In UI16, CSS properties and how they affect the platform UI change depending on the release.

<table>
<thead>
<tr>
<th>CSS class</th>
<th>Description</th>
<th>How to configure</th>
<th>Affected area</th>
</tr>
</thead>
<tbody>
<tr>
<td>$navpage-header-bg</td>
<td>Header background color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$navpage-header-color</td>
<td>Color for header text and the global search icon</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$navpage-header-button-color</td>
<td>Color for logged in user name text and Connect, Help, and settings icons</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <a href="#">Create or customize a theme</a> on page 372.</td>
<td></td>
</tr>
<tr>
<td>$navpage-header-divider-color</td>
<td>Header divider color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>$navpage-button-color</td>
<td>Color for the following icons in the sidebars:</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <em>Create or customize a theme</em> on page 372.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Expand/collapse</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Create a conversation (in the Connect sidebar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Open Connect workspace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$navpage-button-color-hover</td>
<td>Color for the following icons when a user points to the control:</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <em>Create or customize a theme</em> on page 372.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Global search</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Help</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Settings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clear text icon in the navigation icon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$search-text-color</td>
<td>Color of the search text, both in the navigation filter and the global search fields</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <em>Create or customize a theme</em> on page 372.</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-border</td>
<td>Border color for the navigation filter</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>$nav-highlight-main</td>
<td>Highlights the module after the user has clicked it and in the Connect workspace, highlights the selected conversation.</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see Create or customize a theme on page 372.</td>
<td></td>
</tr>
<tr>
<td>$subnav-background-color</td>
<td>Background for expanded navigation items</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see Create or customize a theme on page 372.</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>$navpage-nav-bg</td>
<td>Header and footer for navigator and sidebars and the timestamp header background in the History tab.</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>CSS class</th>
<th>Description</th>
<th>How to configure</th>
<th>Affected area</th>
</tr>
</thead>
<tbody>
<tr>
<td>$navpage-nav-bg-sub</td>
<td>Background for navigator and sidebars</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-color-sub</td>
<td>Text color in main navigation</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see Create or customize a theme on page 372.</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>$navpage-nav-mod-text-hover</td>
<td>Text color when hovering over items in the main navigation</td>
<td>Not supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>$nav-hr-color</td>
<td>Navigator separator color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$nav-highlight-bar-active</td>
<td>Line under the active tab in the application navigator</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see Create or customize a theme on page 372.</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>$nav-highlight-bar-inactive</td>
<td>Line under the inactive tabs in the application navigator</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see Create or customize a theme on page 372.</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-selected-bg</td>
<td>Navigation selected tab background color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-selected-color</td>
<td>Currently selected Navigation tab icon color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-unselected-color</td>
<td>Unselected navigation tab icon and favorite icons color</td>
<td>Navigate to System Properties Basic Configuration UI16</td>
<td></td>
</tr>
<tr>
<td>CSS class</td>
<td>Description</td>
<td>How to configure</td>
<td>Affected area</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>$connect-latest-message</td>
<td>Color of the latest message in the Connect workspace</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <em>Create or customize a theme</em> on page 372.</td>
<td></td>
</tr>
<tr>
<td>$nav-timeago-header-color</td>
<td>Timestamp header backgrounds in History tab</td>
<td>Not supported</td>
<td>Not supported</td>
</tr>
</tbody>
</table>
Configure logo, colors, and system defaults for UI16

You can use the Basic Configuration UI16 module to brand your instance with your company logo and colors and set basic system defaults. This place is the best starting point if you are setting up your instance for the first time or if you have recently enabled UI16.

To prepare for completing basic configuration, gather the following information.

<table>
<thead>
<tr>
<th>CSS class</th>
<th>Description</th>
<th>How to configure</th>
<th>Affected area</th>
</tr>
</thead>
<tbody>
<tr>
<td>$navpage-nav-app-text</td>
<td>Core content text color</td>
<td>Add the CSS property to the CSS field of a theme. For more information, see <em>Create or customize a theme</em> on page 372.</td>
<td></td>
</tr>
<tr>
<td>$navpage-nav-app-text-hover</td>
<td>Core content text color when a user points to the main text</td>
<td>Not supported</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

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• Obtain the company banner image to use in the header. The image can be high resolution, but when it displays it is scaled based on the aspect ratio. It scales to a maximum of 20px high.
• Get the brand color hex or RGB numbers of your company, typically from your marketing department. Use them to decide how to configure the UI background colors.

Role required: admin

Each color selection option provides a color picker to select a color. The text box beside the color picker lets you enter the value of the color as any of the following CSS formats.
• Name: predefined color names, such as red, green, blue
• RGB decimal: RGB(102, 153, 204)
• RGB hex: #223344

Refer to HTML Color Names (W3CSchools) for information about HTML color names.

1. Navigate to System Properties Basic Configuration UI16
2. Complete the configuration by changing any of the following settings.

<table>
<thead>
<tr>
<th>Label</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page header caption</td>
<td>glide.product.description</td>
<td>Change the text that appears next to your logo.</td>
</tr>
<tr>
<td>Browser tab title</td>
<td>glide.product.name</td>
<td>Change the text that appears on the browser tab</td>
</tr>
<tr>
<td>System timezone for all users unless overridden in the user's record</td>
<td>glide.sys.default.tz</td>
<td>Select the timezone in the choice list. Click Configure available time zones to select the time zones that your users can select from in user preferences.</td>
</tr>
<tr>
<td>Banner image for UI16</td>
<td>glide.product.image.light</td>
<td>Click + next to the image and upload your logo.</td>
</tr>
<tr>
<td>Date format</td>
<td>glide.sys.date_format</td>
<td>Select the date and time formats from the choice lists.</td>
</tr>
<tr>
<td>Time format</td>
<td>glide.sys.time_format</td>
<td></td>
</tr>
<tr>
<td>Header background color</td>
<td>css.$navpage-header-bg</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Banner text color</td>
<td>css.$navpage-header-color</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Label</td>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Header divider stripe color</td>
<td>css.$navpage-header-divider-color</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Navigation header/footer</td>
<td>css.$navpage-nav-bg</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Navigation selected tab background color</td>
<td>css.$navpage-nav-selected-bg</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Navigation separator color</td>
<td>css.$nav-hr-color</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Label</td>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Background for navigator and sidebars</td>
<td>css.$navpage-nav-bg-sub</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Unselected navigation tab icon and favorite icons color</td>
<td>css.$navpage-nav-unselected-color</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Currently selected Navigation tab icon color for UI16</td>
<td>css.$navpage-nav-selected-color</td>
<td>Select or enter the color.</td>
</tr>
<tr>
<td>Module text color for UI16</td>
<td>css.$navpage-nav-color-sub</td>
<td>Select or enter the color.</td>
</tr>
</tbody>
</table>
Configure logo, colors, and system defaults for UI15

You can use the Basic Configuration module to brand your instance with your company logo and colors and set basic system defaults. This place is the best starting point if you are setting up your instance for the first time.

To prepare for completing basic configuration, gather the following information.

- Obtain the company banner image to use in the header. The image can be high resolution, but when it displays it is scaled based on the aspect ratio. It scales to a maximum of 50px high.
- Decide whether to change the banner and list header background color, and the banner text color. If you plan to do so, obtain the brand color hex or RGB numbers of your company. Typically, this information comes from your marketing department.

Role required: admin

This procedure applies to configuring UI15.

1. Navigate to System Properties Basic Configuration
2. Complete the configuration by changing any of the following settings.

Table 76: Basic system configuration properties

<table>
<thead>
<tr>
<th>Label</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page header caption</td>
<td>glide.product.description</td>
<td>Change the text that appears next to your logo.</td>
</tr>
<tr>
<td>Label</td>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Banner and list caption background color</td>
<td>css.base.color</td>
<td>Click the color picker and select the color to use. You can also enter the name, RGB decimal, or RGB hex number of the color. Refer to <a href="https://www.w3schools.com/html/html_color_names.asp">HTML Color Names (W3CSchools)</a> for information about HTML color names.</td>
</tr>
<tr>
<td>Browser tab title</td>
<td>glide.product.name</td>
<td>Change the text that appears on the browser tab</td>
</tr>
<tr>
<td>Banner image</td>
<td>glide.product.image</td>
<td>Click + next to the image and upload your logo.</td>
</tr>
<tr>
<td>System timezone for all users unless overridden in the user's record</td>
<td>glide.sys.default.tz</td>
<td>Select the timezone in the choice list. Click Configure available time zones to select the time zones that your users can select from in user preferences.</td>
</tr>
<tr>
<td>Date format</td>
<td>glide.sys.date_format</td>
<td>Select the date and time formats from the choice lists.</td>
</tr>
<tr>
<td>Time format</td>
<td>glide.sys.time_format</td>
<td></td>
</tr>
<tr>
<td>Banner text color</td>
<td>css.banner.description.color</td>
<td>Click the color picker and select the color to use. You can also enter the name, RGB decimal, or RGB hex number of the color.</td>
</tr>
</tbody>
</table>

As you make changes, the page refreshes with a preview of the change. Only you see these changes.

3. Click Save at the top or bottom of the page.

After you save the configuration changes, all users who select the System theme in their UI personalization options see the new configuration colors.

**Customize menu categories**

Use menu categories to apply CSS styles to application labels.

Role required: admin

1. Navigate to System Definition Menu Categories.
2. Fill in the fields on the form, as appropriate.
<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
</tr>
<tr>
<td>Applications in this category have a light blue background.</td>
</tr>
<tr>
<td>Style: border-color: #a7cded; background-color: #e3f3ff;</td>
</tr>
<tr>
<td>Custom Applications</td>
</tr>
<tr>
<td>Applications in this category have a light gray background.</td>
</tr>
<tr>
<td>border: 1px solid #96bcdc; background-color: #FBFBFB;</td>
</tr>
<tr>
<td>Label</td>
</tr>
<tr>
<td>Applications in this category have a blue background.</td>
</tr>
<tr>
<td>border-color: blue; background-color: rgb(102, 153, 204); color: white</td>
</tr>
<tr>
<td>Maint</td>
</tr>
<tr>
<td>Applications in this category have a blue background.</td>
</tr>
<tr>
<td>Style: border-color: blue; background-color: rgb(102, 153, 204); color: white</td>
</tr>
<tr>
<td>SocialIT</td>
</tr>
<tr>
<td>Applications in this category have a blue background.</td>
</tr>
<tr>
<td>border-color: blue; background-color: rgb(102, 153, 204); color: white</td>
</tr>
</tbody>
</table>

3. To add an application to a category, add it in the related list of applications at the bottom of the category record, or specify the category on the application record.

Change survey question header colors

All the lists and forms draw the color of their headers from the base color, which allows theming from the CSS properties.

One notable exception is the survey, which has its own CSS. It is possible to change the CSS by adding a property.

1. Enter sys_properties.form into the navigation filter and press the Enter key. A new Property form displays.
2. Name the new property css.list.row.survey.background.color.
3. Enter the hexadecimal value of the desired color into the Value field.
4. Click Submit. The survey should now use the desired color.

CSS theme support

Themes give the user interface a specific look and feel by using different color combinations. System administrators can create themes or customize the existing themes for an instance. To see existing themes, navigate to System UI Themes.
Activating CSS theme support

There are different plugins that activate CSS themes support.
Activate one of the following plugins to use themes, based on the version of the UI you use.

- UI16: CSS Theme support — UI15 is activated automatically with UI16
- UI15: CSS Theme support — UI14 is activated automatically with UI15

See Activate a plugin.

Enable the theme picker (UI15)

The theme picker adds a field to the system menu that allows the user to quickly switch between CSS themes during the current browser session.

Role required: admin

You can enable the theme picker by activating the ui_theme_changer UI macro.

1. Navigate to System UI UI Macros.
2. Locate the ui_theme_changer UI macro.
3. Set the Active field to true.

Select a theme

You can switch between different themes for the user interface.

Themes are user-specific. Each user can select a different theme and the selection is stored as a user preference.

Select a theme by performing the appropriate action for your version of the UI.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI16</td>
<td>Click the gear icon in the banner frame to access the System Settings window. Select the Theme tab, and then select the theme.</td>
</tr>
<tr>
<td>UI15</td>
<td>Click the gear icon in the banner frame to access the system menu. Then select a theme from the Theme picker.</td>
</tr>
</tbody>
</table>

Configure a company theme

You can configure a default CSS theme for a particular company in UI15. The theme appears for all users associated with the company unless they select a different theme.

Role required: personalize_form

Specify a company theme on the company record.

Note: In UI16, the basic configuration is used instead of the theme selected in the company record.

1. Navigate to System Properties My Company.
2. Configure the form and add the Theme field.
3. In the Theme field, select a theme.
Create or customize a theme

You can create themes or customize existing themes.

Role required: admin

1. Navigate to System UI Themes.

2. To create a new theme, click New. To customize an existing theme, click the theme name.

3. Enter a name for the theme in the Name field.

4. Add any of the default CSS styles in the CSS field. Sometimes the default style is not the only style definition for an object. In such cases, you can use the CSS important rule format to override any other style definitions with the default definition. For example, this definition overrides the text color in the main navigation: $navpage-nav-color-sub: #fff ! important.

5. Select the Active check box.

6. Select one of the following from the Device choice list to identify the user interface version for the theme.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browser</td>
<td>Identifies a Legacy: UI11 theme.</td>
</tr>
<tr>
<td>Doctype</td>
<td>Identifies a UI15 theme.</td>
</tr>
<tr>
<td>Concourse</td>
<td>Identifies a UI16 theme.</td>
</tr>
</tbody>
</table>

7. Click Submit.

Refresh the page to see the new theme in the theme picker. The theme picker displays only themes that are compatible with the current version of the UI.

Default CSS styles

You can use CSS styles to control the appearance of elements in a theme.

Your version of the UI determines which CSS styles you can use.

Default CSS styles for UI16

```css
$search-text-color: #e7e9eb
$navpage-header-bg: #303a46
$navpage-header-color: #ffffff
$navpage-header-divider-color: #455464
$nav-highlight-main: #3d4853
$subnav-background-color: #455464
$navpage-nav-bg: #303a46
$navpage-nav-bg-sub: #455464
$navpage-nav-color-sub: #bec1c6
$nav-hr-color: #303a46
$nav-highlight-bar-active: #278efc
$nav-highlight-bar-inactive: #828890
$navpage-nav-selected-bg: #4b545f
$navpage-nav-selected-color: #ffffff
```
$navpage-nav-unselected-color: #bec1c6
$connect-latest-message: #cfd4d8
$navpage-nav-app-text: #cfd4d8
$navpage-nav-border: #ddd
$navpage-button-color: #fff
$navpage-button-color-hover: #7EC24F

**Default CSS styles for UI15**

base.color: rgb(102, 153, 204)
base.font-family: arial

/color-darkest: #343d47
/color-dark: #81878e
/color-light: #bdc0c4
/color-lighter: #e6e8ea
/color-lightest: #ffffff

/color-positive: ${color-green}
/color-warning: ${color-orange}
/color-negative: ${color-red}
/color-info: ${color-blue}

/color-text: ${color-darkest}
/color-accent: ${color-blue}
/color-accent-light: ${color-blue-lighter}
/color-primary: ${color-accent}

# Banner branding styles
banner.background.attachment: scroll
banner.background.color: #FFF
banner.background.image: url("../images/s.gifx")
banner.background.position: center bottom
banner.background.repeat: repeat-x

# UI15 with Bootstrap
$navbar-default-bg: #f8f8f8
$navbar-default-color: #777777
$brand-warning: #df8a13
$brand-primary: #428bca
$brand-info: #5bc0de
$jumbotron-bg-color: #428bca
$panel-bg: #ffffff

$state-success-text: ${g_darken($color-positive, 25%)}
$state-success-bg: ${g_lighten($color-green-lighter, 20%)}
$state-success-border: ${g_lighten($color-positive, 30%)}

$state-info-text: ${g_darken($color-info, 25%)}
$state-info-bg: ${g_lighten($color-blue-lighter, 8%)}
$state-info-border: ${g_lighten($color-info, 30%)}

$state-warning-text: ${g_darken($color-warning, 25%)}
$state-warning-bg: ${g_lighten($color-orange-lighter, 10%)}
$state-warning-border: ${g_lighten($color-warning, 30%)}
Create a company profile

To customize the ServiceNow instance for your company, you can enter information such as contact phone numbers, street address, and additional notes. You can also customize the company logo and banner text your end users see at the top of each page.

Role required: admin

Much of the company information that you enter is reference information that administrators can view. All users see the company logo and banner text. To see all company information, verify that you are in the My Company view.

Figure 134: My Company view selection

1. Navigate to System Properties My Company.
2. To change the banner text, update the Banner text field.
3. Select the Primary check box to indicate if this company is the primary company.
   If needed, configure the form to add the Primary check box. Designate only one company in your system as the primary company.
4. To upload your company logo, complete one of the following steps for your version of the UI.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI16</td>
<td>Click to add or Update beside UI16 Banner Image.</td>
</tr>
<tr>
<td>UI15</td>
<td>Click to add or Update below the Banner image field.</td>
</tr>
</tbody>
</table>

If you leave the banner image blank for either UI16 or UI15, the system uses the image used in System Properties Basic Configuration Banner image [glide.product.image] as the default.

5. Click Choose file and select the file, and then click OK.
   To use an image URL instead of a file on your hard drive, enter the URL in the file upload window.
6. Complete the form with remaining company information.
7. Click Update.

Banner logo link

Properties are available to control the URL and target frame used when clicking the banner logo.

- glide.banner.image.url: URL used when clicking the banner image
- glide.banner.image.url_target: Target frame used when clicking the banner image
  - gsft_main for the main frame
  - _top to replace the current browser window
  - _blank for a new window/tab

Customize the banner logo

Use the glide.product.image and glide.product.description properties to change the banner logo and description.

Role required: admin

To update the banner image in the System Properties System page, you must first upload the image.

1. To upload the image, complete the following steps.
   a) Navigate to System UI Images and click New.
   b) Enter a Name for your image.
      Valid names must end in .gif, .png, .jpg, or .bmp.
   c) Click the Click to add link in the Image field, and select and upload the image.
   d) Click Update.

2. To set the uploaded image to the banner image, complete the following steps.
   a) Navigate to System Properties System.
   b) In the Banner image field, enter the file name of the uploaded image.
   c) Click Save.
Customize the favicon

Use the glide.product.icon property to change the icon that appears in bookmarks and the browser address bar.

Before you can update the favicon, you must upload the image into the database.

Role required: admin

1. To upload the image, complete the following steps.
   a) Navigate to System UI Images and click New.
   b) Enter a Name for your image.
      Valid names must end in .gif, .png, .jpg, .ico, or .bmp.
   c) Click the Click to add link in the Image field, then select and upload the image.
   d) Click Update.

2. To set the uploaded image to the favicon, complete the following steps.
   a) Navigate to System Properties System.
   b) In the Icon image displayed in the bookmarks and browser address bar field, enter the file name of the uploaded image.
   c) Click Save.

The favicon appears in the bookmarks and browser address bar for the platform or the Content Management System (CMS). For more information on how to change the favicon for Service Portal, see Create a portal.

Examples of how to modify the banner

There are various ways that you can modify the banner on your instances.

Label multiple instances differently

- On all instances, leave glide.product.description <blank>
- On PROD instance, set glide.product.name to <My Company>
- On DEV instance, set glide.product.name to <My Company - DEV>

Control the window title

Since the window title is composed of glide.product.name and glide.product.description, the following gives you complete control over the banner and the window title.

- glide.product.name set to <Window Title that you want>
- glide.product.name.style set to <display: none>
- glide.product.description set to <blank>
The company record Banner Image and Banner Text are used to set the banner image and text since the company banner text is not used in the window title.

**Use HTML in the banner text**

- glide.product.name set to <My Company>
- glide.product.name.style set to <display: none>
- glide.product.description set to <Some text <a href="some_url">Click here</a>>

**Position banner text over the banner image**

- glide.product.name set to <My Company>
- glide.product.name.style set to <display: none>
- glide.product.image set to <your company logo.gif>
- glide.product.description set to <Some text for the description>
- glide.product.description.style set to <position:absolute; top:5px; left:100px> (position values may vary based on specified needs)

**Apply a background image to the banner**

Often corporate guidelines require more in-depth branding of the ServiceNow interface. Using the tiling technique, you can modify your logo image to have a transparent background, so that you can apply another image to the banner beneath the logo.

Upload an image to the image manager and then create a new property named css.banner.background.image, so that you can call the image. The value should look like this.

- css.banner.background.image value url('./images/MasterBG.jpg')

**Write CSS rules that apply this change**

```css
/** BACKGROUND - These properties allow you to add a background tile to the header of the instance *****************************/
TD.bannerLeft, TD.bannerCenter, TD.bannerRight, TR#banner_row{background-color: ${banner.background.color};
background-image: ${banner.background.image};
background-position: ${banner.background.position};
background-repeat: ${banner.background.repeat};}
```

**Note:** The banner image and banner text associated with the primary company or specific companies may be used instead of the glide.product.image and glide.product.description properties to get the same effect.

**Modify the banner**

The banner is displayed at the top of the page and is rendered using certain system properties.

- glide.product.image
- <div>glide.product.name</div>
• `<div>glide.product.description</div>`

The DIV that contains the `glide.product.name` property is only shown if the property contains a value, otherwise, it is not used when rendering the banner. Also, the property `glide.banner.image.title` controls the tooltip that appears when the cursor is over the banner.

**Note:** The My Company record overrides the properties.

![Figure 135: Banner](image)

### Window title

These properties are used to set the window title as follows:

`glide.product.name` `glide.product.description`

If `glide.product.name` is blank, then the ServiceNow name is used as the product name for the window title.

### My Company

The banner text and banner image defined for the Company that a user is assigned to may be used to override the `glide.product.image` and `glide.product.description`. The banner text, if specified, is used instead of the `glide.product.description` property. The banner image, if specified, is used instead of the `glide.product.image` property.

### Style the banner in UI15

The `glide.product.description` property and the company banner text field may contain HTML if necessary to allow links, color, and so on, to be shown in the banner.

**Role required:** admin

Use the `glide.product.name.style` property to set CSS properties for the DIV used to display the product name in the banner. Often, this style is set to display: none so that the product name is not displayed, but is still used as part of the window title.

Use the `glide.product.description.style` property to set CSS properties for the DIV used to display the product description in the banner, or company banner text.

You can also use CSS properties to change the banner background and text color by completing the following steps.

1. Navigate to System Properties CSS.
2. In the Banner and list caption background color field, enter the color you want to apply to the banner.
3. In the Banner text color field, enter the color you want to apply to the banner text.
4. Click Save.
Comparing field values

Field comparison allows users to evaluate equality between fields on the same table or on related tables by using operators in the condition builder.

Also, you can compare date type fields to determine whether the values are within a certain range of each other. For example, you can compare the planned start date of a task to the actual start date. You can use field comparisons in a list view and to generate reports.

The primary function of field comparison is evaluating whether two fields on a record or related record have identical values. For example, you can create a filter to display all incidents whose Caller field references the same user record as the Closed by field.

Available operators

Field comparison provides several filter operators for comparing field values.

- [is same] if two field values are the same, evaluates to true.
- [is different] if two field values are not the same, evaluates to true.
- [is less than] if two date values are within a user-defined range of each other, evaluates to true.
- [is more than] if two date values are not within a user-defined range of each other, evaluates to true.

Comparing choice list values

Field comparison compares the dictionary Value field of a choice list, not the Label value. For example, a high priority incident has a priority value of 1, not 1 - High. To find the Value of a choice, right-click the field label and select Configure Dictionary. The Choices related list shows the Value for each choice.

Comparing empty fields

By default, most filter operations do not return empty fields in their result set. To include records with empty fields in a result set, add a filter condition for the left operand with an operator of [is empty]. For more information, see Filtering on empty fields on page 179.

Using operators and operands

When comparing fields, the two fields being compared are called the left operand and right operand. The type of field selected in the left operand, and the operator selected, determine which right operands are available. When using the [is same] or [is different] operators, the right operand choices include only fields of the same field type, such as String or Integer, as the left operand.

For example, a filter on the Task [task] table with a left operand of [Opened by] and an operator of [is same], only allows you to choose user reference fields, such as the [Closed by] field, in the right operand.

The [is more than] and [is less than] operators are only available with date type fields.

This example filter returns records where the user who opened the record also closed the record.
Comparable fields

Field comparison supports the comparison of several fields. The fields that are comparable include the following types:

- String, choice, integer, and boolean fields: Return true if both values match.
- Reference fields: Return true if both reference fields refer to the same record.
- Date and time fields: Can match date values based on hour, day, week, month, quarter, or year. Also, you can evaluate whether two dates fall within a certain range of each other.

**Note:** Field comparison does not support journal, keyword, script, duration, list, or HTML fields.

Comparing dates

Date comparison allows you to evaluate equality between two components of the date, such as the hour of the day or the date within a month. Also, you can evaluate if two dates fall within a certain range of each other.

Date comparisons are based on the active user's time zone. For example, as a user in the PST time zone, a filter of [Created] [is same] [Day] as [Closed] evaluates true for an incident created at 6 AM PST and closed at 3:00 PM PST as both times are within the same day. However, a user in the GMT time zone would not see this same incident record in response to the example filter; in GMT those times do not fall on the same date.

You can **Evaluate equality between date values** on page 381 and you can evaluate unequal dates within a range.

Evaluate unequal dates within a range

You can compare unequal date field values by evaluating whether two dates fall within a certain range of each other. For example, you can create a filter of [Created on] [is more than] [3] [Months] [before] Closed to display all records that were created at least three months before they were closed. The numerical value specified, such as the value 3 in the example, must be an integer of no more than two digits. For evaluations of differences larger than 99 units, select a less granular unit of time, such as Months instead of Days.
**Figure 137: Unequal dates field comparison**

**Table 77: Choice field date comparison choices**

<table>
<thead>
<tr>
<th>Choice field</th>
<th>Date Comparison Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>is more than, is less than</td>
</tr>
<tr>
<td>Unit of time</td>
<td>Hours, Days, Weeks, Months, Quarters, Years</td>
</tr>
<tr>
<td>Relative position of dates</td>
<td>before, after, before or after</td>
</tr>
</tbody>
</table>

**Evaluate equality between date values**

Date comparison evaluates a match for one of several date increments.

You can specify granularity to the hour, day, week, month, quarter, or year. For example, the filter [Created on] [is same] [Week] as [Closed] returns records that were closed in the same week that they were opened. When you run this type of filter, be sure to specify the year in an additional filter condition of [Created] [is same] [Year] as [Closed] to eliminate records that were created a year before they were closed.
Figure 138: Date field comparison

1. In the condition builder, create a new condition.
2. Select a date field from the left operand choice list.
3. Select [is same] or [is different] from the operator choice list. An additional choice list appears.
4. Select the granularity from the date range choice list.

Table 78: Date range descriptions

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour</td>
<td>Filters on the hour of the day.</td>
</tr>
<tr>
<td>Day</td>
<td>Filters on the day of the month, not the date. For example, a Day value of the 1 of August matches with a Day value of the 1 of September.</td>
</tr>
<tr>
<td>Week</td>
<td>Filters on the week of the year. ServiceNow defines a week as Sunday through Saturday for the purposes of Field Comparison.</td>
</tr>
<tr>
<td>Month</td>
<td>Filters on the month of the year. For example, any date within December returns the 12 month of the year.</td>
</tr>
<tr>
<td>Quarter</td>
<td>Filters on the quarter of the year.</td>
</tr>
<tr>
<td>Year</td>
<td>Filters on the year.</td>
</tr>
</tbody>
</table>

5. Select a different date field from the right operand choice list.
6. Click Run.

Add help to a field label on a form

You can create field-level help in forms by placing help icons in individual fields and converting the field labels to links to external or internal URLs.

Role required: personalize_dictionary
You can link to any type of file, document, or wiki, and open it in a separate browser window. The following is an example of a form with field label help enabled.

**Figure 139: Field label help enabled**

1. Open the form.
2. Right-click the label for the field and select Configure Label. The Field Label form appears. The fields in the top portion of the form are pre-populated. The Help field is not currently used.
3. Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Input value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hint</td>
<td>Type text to use as a tooltip that appears when a user places the cursor on the field label.</td>
</tr>
<tr>
<td>URL</td>
<td>Enter the URL of the target file to open when the field label or icon is clicked. This can be a complete URL to a file outside the instance, or a relative URL to a target on the instance.</td>
</tr>
<tr>
<td>URL target</td>
<td>Not used. The help file opens in a new tab regardless of the URL target value.</td>
</tr>
</tbody>
</table>

4. Click Update.
Mobile navigation and configuration

Manage incidents, collaborate with your team, respond to approval requests, access the knowledge base, and receive push notifications all on the go with your mobile device.

Depending on your device, go to the iTunes store or the Google Play store and search for ServiceNow to download the native mobile app.

Explore
- Upgrade to London
- Domain separation in the Mobile application on page 458

Set up
- Configure authentication
- Customize mobile lists
- Configure Connect chat for mobile

Use
- Get started with a ServiceNow instance on your mobile device on page 459
- Log in on a mobile device on page 460
- Use the application navigator on page 467
- Mobile lists on page 471
- Mobile favorites on page 490
- Navigate the mobile service catalog on page 504

Develop
- Mobile client scripting
- Mobile UI Actions
- Script items in a mobile list on page 431
- Developer training
- Developer documentation

Troubleshoot and get help
- Ask or answer questions in the community
- Search the HI knowledge base for known error articles
- Contact ServiceNow Support

Accessing an instance on a mobile device

Access an instance from anywhere using your mobile device. Connect using a mobile web browser or on the native mobile app.

The mobile UI is consistent across most platforms with a few minor differences depending on the browser or the device. Mobile themes and mobile home pages are both configurable by administrators. Any configuration changes apply to both the native app and the mobile web on a smartphone. The tablet browser interface mimics the standard browser interface, so theme changes do not apply to the tablet browser.

Native mobile app on iOS and Android

The native mobile app has the same functionality across platforms.

Android and iOS mobile apps are similar with a few minor differences to make the experiences unique to each platform. Any differences between the two platforms are designed to make the app accessible to a user on either device. For example, the location of the Navigation Menu varies between the two platforms to stay consistent with the platform-specific UI.
**Note:** If your company uses multi factor authentication (MFA), when you sign in on the native mobile app, append the MFA code to your password.
iOS app UI

Android app UI

Good Afternoon,
System Administrator

Active
Software
Hardware
Others

My Approvals
My Incidents
Critical inciden...

19

Connect

Location

Good Afternoon,
System Administrator

Active
Create New
Knowledge

My Approvals
My Incidents
Critical incidents

Location

Connect

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Not supported

- Custom app configuration parameters
- Custom buttons
- Deep linking to the mobile app
- Formatters
- Form Templates
- Internal distribution
- Knowledge v2
- Connect Support
- UI Scripts
- UI macro variables in the mobile Service Catalog

Limited support

- List filtering: Several of the following fields have limited support on mobile devices. You can still create a complex filter in a desktop instance and open it in the mobile app. However, you will not be able to edit any of the limited fields.
  - between
  - dates
  - tags
  - related fields
- Visualizations are specific to a device. If you set up a visualization in the app on your iPhone, then view the app on an iPad, the visualization may not be the same.

Mobile web

Access an instance using the browser on your mobile device.

The mobile web UI is similar to the native mobile app. Some features are optimized more for the native app and may not perform as well on a mobile browser.

Administrators can configure home pages by role so different users may see different mobile experiences depending on their role.

Mobile web unsupported features

The following capabilities are not currently supported in mobile browsers, though they may work to varying degrees.
- Switching to the standard browser interface from the mobile interface
- HTML fields
- CODE tags to render HTML in Journal Fields
- UI Scripts
- Legacy Chat
- Field styles
- Formatters
- Form Templates
- Timeline visualizations
• Embedded lists
• Assessments, surveys, and legacy surveys
• Mobile service catalog features
  • Order guides
  • Wizards
  • Content items
• These variable types:
  • Macro With Label
  • UI Page
  • List Collector
  • HTML
  • Macro
  • Label
  • Break
• Data lookup rules
• Custom auto-complete scripts

Tablet interface

Use a tablet to access your instance either from a browser or from the native app.

Use the native tablet app for an experience similar to the native mobile app. Applications or modules that you have favorited in a desktop instance appear as tiles on your mobile app homescreen.

The tablet web UI mimics the desktop experience in UI16. $tablet.do has been disabled in UI16 because the tablet interface is the same as the desktop.

Connect to an instance using the browser on your tablet for an experience similar to the standard desktop user interface.

Tablet features with limited support

• Editing lists: You cannot edit field values in a record from the list view. Access the record form to modify any field values.
• Dependency Views map, schema map, graphical Workflow Editor, Gantt chart, and visual dispatch tool: Graphics-based tools can be viewed but not modified from the tablet interface. Data presented by these tools is read-only when accessed through the tablet interface.
• Calendars: You can access calendar reports but scrolling around the calendar as you would on the desktop interface is not supported.
• Video and image attachment upload: Attach videos and images with both iOS 9 and Android. Other file type attachments are not allowed.

Unsupported tablet features

• Field watcher: Administrators must use the desktop version to access the Field Watcher.
• JavaScript debugger: Administrators must use the desktop version to access the JavaScript debug window.
• Language picker: Even if the internationalization plugin is enabled, the language picker does not appear in the tablet UI toolbar. Language selected through the desktop interface applies to the tablet UI.
• Domain picker: Tablet users cannot select any other domains that administrators configure for domain-specific personalizations. To select a new domain, use the desktop interface.
• Slushbucket feature: Any lists, fields, or filters that use the slushbucket feature are unsupported on a tablet device. Slushbuckets are only supported in the desktop interface.
• Suffix in the navigation filter: You can use the .list, .do, or .form shortcuts to access a list of records in a table or a new form from the desktop version only.
• Support chat: End users cannot request a chat session nor can support technicians respond to chat requests when using the tablet interface. Help desk chat is only supported in the desktop interface.
• Printer friendly view: This view, which shows the current screen in a pop-up window without frames and the application navigator, is not available from the tablet.
• Timeline sliders and the Timeline Metrics UI actions: Features that use timelines, such as the workflow timeline and the Gantt chart are not supported from the tablet.

Legacy mobile UI

Use the classic Dublin mobile web UI for a classic ServiceNow mobile experience.

The new mobile web UI, which is similar to the native mobile app, is automatically enabled when you upgrade to the Jakarta release.

Administrators can revert to the classic legacy mobile web experience, by setting the glide.ui.m.helsinki_mobile_enabled property in the sys_properties table to false.
Mobile supported devices

Specific devices and operating systems are supported by the mobile app.
Table 79: Devices supported by the mobile app interface

<table>
<thead>
<tr>
<th>Device</th>
<th>Supported versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple® iPhone®</td>
<td>Version 6.0 and higher of the iOS app requires iOS 10 and above for all models of iPhone. Previous versions of the iOS app support all models of iPhone running iOS 9 and above.</td>
</tr>
<tr>
<td>Apple® iPod® touch</td>
<td>Version 6.0 and higher of the iOS app requires iOS 10 and above for all models of iPod. Previous versions of the iOS app support all models of iPod running iOS 9 and above.</td>
</tr>
<tr>
<td>Apple® iPad®</td>
<td>Version 6.0 and higher of the iOS app requires iOS 10 and above for all models of iPad. Previous versions of the iOS app support all models of iPad running iOS 9 and above.</td>
</tr>
<tr>
<td>Apple® watch</td>
<td>All models of watch running iOS 2 and above</td>
</tr>
<tr>
<td>Android™ mobile devices</td>
<td>All models of Android phone running KitKat (4.4) and above.</td>
</tr>
</tbody>
</table>

Limitations

The platform does not have a native Blackberry or Windows phone app. Use the mobile web experience on these devices.

The mobile apps do not give access to dashboards as dashboards are not optimized for mobile screen sizes. You can access dashboards on a tablet using the standard web interface.

Supported devices for the mobile web interface

Mobile browser interfaces support certain devices, operating systems, and browsers.

Table 80: Devices supported by the mobile browser interface

<table>
<thead>
<tr>
<th>Device</th>
<th>Supported versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple iPhone®</td>
<td>All models of iPhone running iOS 7 and above. Safari is supported.</td>
</tr>
<tr>
<td>Apple® iPod®</td>
<td>All models of iPod running iOS 7 and above. Safari is supported.</td>
</tr>
<tr>
<td>Apple® iPad®</td>
<td>All models of iPad® running iOS 9 and above are supported. Safari® is supported.</td>
</tr>
<tr>
<td>Android™</td>
<td>Android version 4.0/Ice Cream Sandwich and above. Use the latest available version of Chrome to access the mobile browser interface on Android devices. Native browsers and older versions of Chrome support major interface functionality, but have some known issues.</td>
</tr>
<tr>
<td>Device</td>
<td>Supported versions</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Android™ tablet</td>
<td>Any Android tablet running 4.4 (KitKat) and above with the latest available version of Chrome™. Native browsers and older versions of Chrome support major tablet interface functionality, but have some known issues. Tablet UI is optimized for the iPad form factor and resolution. Not all Android tablets have the same form factor and resolution. Gesture-based zoom functionality is not supported.</td>
</tr>
<tr>
<td>BlackBerry®</td>
<td>All Blackberry devices running Blackberry 10 and above. Some configuration is required.</td>
</tr>
</tbody>
</table>

In UI16, tablets use the same interface as the desktop browser. Smartphones do not support the UI16 interface. Instead they use the same interface as the native mobile app.

**Note:** Do not use the mobile interface on a desktop browser except for testing purposes.

## Supported tablets, operating systems, and browsers

Supported tablets, operating systems, and browsers are listed on this page.

- **Apple® iOS:** All models of iPad® running iOS 9 and above are supported. Safari® is supported.
- **Android™:** Any Android tablet running 4.4 (KitKat) and above with the latest available version of Chrome™. Native browsers and older versions of Chrome support major tablet interface functionality, but have some known issues. Tablet UI is optimized for the iPad form factor and resolution. Not all Android tablets have the same form factor and resolution. Gesture-based zoom functionality is not supported.

## Mobile device security

This document applies to the current ServiceNow iOS and Android offering. This document may be subject to change for future mobile releases and re-platforming efforts.

## Components and architecture

The ServiceNow solution consists of the ServiceNow server instance and the iOS and Android hybrid apps. A hybrid app includes both native and web components. The mobile client applications communicate over a wireless connection with the server and pull live data for the end user.

### Component explanations

**iOS App**

The ServiceNow iOS app is a hybrid application that can be used on iPhone, iPad, and Apple Watch. Most components are native, however, there are web components, such as forms. It can be downloaded from the app store directly by a user, or can be pulled, dynamically configured, and distributed using MDM (more information available...
ServiceNow does not currently distribute the IPA file to customers.

**Android app**

The ServiceNow Android app is a hybrid application that can be used on Android devices. Most components are native, however, there are web components, such as forms. It can be downloaded from the app store directly by a user, or can be pulled, dynamically configured, and distributed using MDM (more information available in EMM section). ServiceNow does not currently distribute the APK file to customers.

**Identity and access management**

Control user access with user authentication, session timeout, and termination.

**User authentication**

The mobile app supports platform authentication using OAuth 2.0. Authentication mechanisms include multi provider SSO, MFA, LDAP, Local DB, and Digest.

**Multi Provider SSO**

The mobile app uses federated login when using the multi provider SSO plugin [com.snc.integration.sso.multi.installer]. For more information on configuring multi provider SSO, see Mobile single sign on on page 419.

**Multifactor authentication**

Users can access the instance via Multifactor Authentication using the MFA plugin [com.snc.integration.multifactor.authentication]. For more information on MFA configuration, see mobile multifactor authentication.

**LDAP**

Use LDAP authentication to access using LDAP credentials. For more information on LDAP configuration, see LDAP integration and authentication.

**Local DB**

The user name and password in the user record in the instance database.

**Digest**

The digest token authentication passes user credentials and a digest token within an unencrypted HTTP header. For more information on digest configuration, see Digest token authentication.
Not supported

- SAML 2.0 plugin, however SAML with the Multi-provider SSO plugin is supported.
- Kerberos
- Certificate-based authentication

Storage/Keychain
When you sign in to the app on your mobile device, the app uses your credentials to negotiate an OAuth Token with the instance. The iOS Keychain stores the token and Android uses KeyStore. The keychain encryption is AES 128 in Galois/Counter Mode (GCM).

The mobile app never stores the user password.

Session length and timeout
The session length and timeout is configurable by the organization. For more information on configuring session time out, see mobile session app timeout.

User termination
When an administrator deletes or removes a user from the system, they are logged out of the mobile client.

Mobile data flow
Data can be retrieved, downloaded from, and written back to a mobile device.

Retrieval
The following describes how data is retrieved from the ServiceNow mobile app.

Read data
When a user requests to view information on the mobile app, the following steps occur.

1. The mobile app sends a request to access data from the instance.
   The request includes the token and any relevant data field needed for the request.
2. The instance receives the request and checks if the Token is valid.
3. If the token is valid, the request is directed to the relevant API to fetch the information.
4. The information is returned to the mobile app.

Downloading documents
When a user requests to download documents from the app, the following steps occur.

1. The mobile app sends a request to access the document.
   The request includes the Token.
2. The instance receives the request and checks if the Token is valid.
3. If valid, the document becomes available to view or take further actions on the device.

Write-backs
The following describes how data is written back from the ServiceNow mobile app.
Updating fields

When a user updates a field in the mobile app, the following steps occur.
1. The mobile app sends the Token and the action metadata, for example the ID, or the field to be updated, to the instance.
2. The instance directs the action based on the relevant API.
3. The instance completes the action and sends a response to the mobile app.
4. Based on the response, the mobile app reflects the field changes and action availability in the UI.

Attaching documents

When attaching documents, the following steps occur.
1. The mobile app asks the user to attach a document, for example, an image.
2. The mobile app sends the document and Token to the instance.
3. The instance places the document based on the relevant API.
4. The instance sends a response back to the mobile app.

Internal mobile app distribution

Internal distribution of the ServiceNow app is supported through all major EMM vendors. Customers are able to pull the iOS or Android app from the Apple App store and Google Play respectively, dynamically configure the apps to point to the correct ServiceNow instance, and distribute using the EMM hub. This way, the MDM can fully manage the app as part of a customer portfolio.

Note: ServiceNow does not currently distribute the IPA/APK files, or any other unpublished app to customers as it breaches the Apple Enterprise Developer License Agreement.

Mobile app distribution providers:
- AirWatch Mobile Device Management (MDM) on page 399
- BlackBerry Unified Endpoint Management (UEM) on page 403
- Citrix XenMobile on page 407
- Intune mobile device management (MDM) on page 410
- Jamf Pro mobile device management (MDM) on page 413
- IBM MaaS360 mobile device management (MDM) on page 408
- MobileIron Mobile Device Management (MDM) on page 414

Data security

The ServiceNow app uses SSL/TLS for Over-the-Air communication encryption. The OAuth authorization endpoints are HTTPS.
Data at rest

Application preference data such as favorites, home screen, and the mobile navigator items are stored and cached locally on the device. The mobile app does not store record data such as incidents, problems, etc. on the device unless the organization has specifically enabled offline syncing for Field Services. The record data is encrypted with AES 128.

Data in motion

Data in motion is over a secure SSL/TLS channel and encrypted with HTTPS.

Offline access and data cache configuration

Some field service tables are available to cache locally on the device at the customer’s discretion.

Push notifications

Administrators create push notifications and users are able to receive them.

Cloud

For more information on the push notification system including process, configuration, and architecture, see Push notification system. Administrators can configure push notification delays using scheduled jobs. To view an example included with the base system, navigate to System Scheduler Scheduled jobs, then search for a job with the name Push. 5 seconds is the minimum time allowed for the push delay.

Mobile security practices

Mobile security practices include mobile-specific system properties, attachment control, password reinforcement, security patching, and controlling shared data.

Security controls

Configure security controls to restrict copy/paste, enable biometric controls, enforce passwords, or control attachment functionality.

Restrict copy/paste

Copy/paste restrictions are defined in the system properties [sys_properties] table. There are two applicable security properties.

- glide.ui.m.clear_pasteboard_when_backgrounded: Clears the copy/paste clipboard when the ServiceNow app enters the background.
- glide.ui.m.blur_ui_when_backgrounded: Forces the app to blur the screen when the app enters the background on iOS. This property prevents users from being able to take screenshots and also blurs the screen when in app switcher on Android.
Enable biometric controls for ReAuth

Determine whether biometric controls are allowed for approval re-authentication using the following system property in the system properties [sys_properties] table.

- glide.ui.m.auth.allow.biometrics

Enabling this property does not allow users to sign in to the mobile app using biometrics, it is restricted to only work with the e-signature plugin for approvals.

PIN/Password reinforcement

Standard platform password requirements are enforced. Any additional device hardening is the responsibility of the customer.

Attachment control

Use an ACL to block specific access on mobile. Use the isMobile method to check if a request comes from a mobile device. For example, you could add an ACL for the sys_attachment table where the read and write scripted ACLs includes the following check.

```java
(gs.isMobile()) {
    return false;
}
```

**Note:** You need elevated privileges to create ACLs.

Security patching

In the event a security patch is needed, the mobile development team aligns with standard SDLC properties in order to patch.

User data collection

The mobile app does not specifically collect any user data.

Any user transactions or usage within the app is tracked on the ServiceNow instance just as it is on the web. For user credentials, after a user logs in, the mobile app negotiates an OAuth Token that is stored in the Apple Keychain or the Android Keystore. User credentials are never saved. If the user opts in, the following information is collected:

- Location
- Access to camera

Shared data

The mobile app communicates with a third party Google program called Fabric for app crash reporting. No customer information is shared.

Incident reporting

Mobile app issues should be reported through the standard support channels. You can report incidents by contacting ServiceNow support.
Enterprise mobility management (EMM)

Use an EMM suite to distribute the ServiceNow mobile apps. You can only distribute the iTunes or Google Play store versions of the mobile app. The .ipa and .apk files are not publicly available so the apps cannot be re-signed for internal distribution. You can find more information on using an EMM suite in the documentation for the EMM suite of your choice. Internal distribution is not supported.

App Config

When you distribute the app through an EMM suite, such as AirWatch, you can use App Config to pre-configure the default instance URL. Use the following key/value pairing:

- Key: SNDefaultInstanceURL
- Value: URL for your instance

AirWatch Mobile Device Management (MDM)

Use VMware AirWatch to distribute and manage the ServiceNow mobile app on user devices. Use the following steps to configure the ServiceNow mobile app for iOS and Android. You should have access to AirWatch before attempting any configuration.

Add the ServiceNow iOS app to AirWatch

Configure the ServiceNow iOS app for AirWatch distribution.

Role required: admin

1. Sign in to the AirWatch portal.
3. Click Add Application.
4. In the Platform field, select Apple iOS.
5. In the Source field, select Search App Store then search for ServiceNow.
6. Next to the ServiceNow App search result, click Select.
7. Click Save & Assign.
8. Click Add Assignment.
9. Click Assignment Group.
10. From the Assignment Group list, select Application Configuration Policy.
11. From the Application Configuration field, select Enabled.
12. In the Application Configuration section, enter the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration key</td>
<td>SNDefaultInstanceURL</td>
</tr>
<tr>
<td>Value type</td>
<td>String</td>
</tr>
<tr>
<td>Configuration value</td>
<td>https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>
Would you like to enable Data Loss Prevention (DLP)?

DLP policies provide controlled exchange of data between managed and unmanaged applications on the device.

To prevent data loss on this application, make it "Managed Access" and create "Restriction" profile policies for desired device types.

Managed Access: Disabled
Remove On Unenroll: Disabled
Prevent Application Backup: Disabled
Make App MDM Managed if User Installed: Disabled
App Tunneling: Disabled
Application Configuration: Disabled

Enter Key-Value pairs to configure applications for users:

Configuration Key: SNDefaultInstanceURL
Value Type: String
Configuration Value: https://<instance name>.aervil

Add
13. Click Add.
14. Click Save & Publish.
15. Click Publish.

After adding the app to AirWatch, it appears in the Apps & Books Applications Native Public section of the AirWatch portal. Mobile users can download the app from the AirWatch App Catalog app.

Add the ServiceNow Android app to AirWatch

Configure the ServiceNow Android app for AirWatch distribution.
Role required: admin
1. Sign in to the AirWatch portal.
3. Click Add Application.
4. In the Platform field, select Android.
5. In the Source field, select Search App Store then search for ServiceNow.
   If the search cannot find the ServiceNow application, the app might not be approved for your organization. You can approve the app in the Google Play store.
6. Next to the ServiceNow App search result, click Select.
7. Click Save & Assign.
8. Click Add Assignment.
9. Click Assignment Group.
10. From the Assignment Group list, select Application Configuration Policy.
11. From the Application Configuration field, select Enabled.
12. In the Application Configuration section, enter the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Server URL</td>
</tr>
<tr>
<td>Description</td>
<td>The full ServiceNow instance URL</td>
</tr>
<tr>
<td>Value</td>
<td>https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>
Adaptive Management Level: Managed Access

Apply policies that give users access to apps based on administrative management of devices.

Would you like to enable Data Loss Prevention (DLP)?

DLP policies provide controlled exchange of data between managed and unmanaged applications on the device.
To prevent data loss on this application, make it "Managed Access" and create "Restriction" profile policies for desired device types.

Managed Access

App Tunneling

Application Configuration

Enter Key-Value pairs to configure applications for users:

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server URL</td>
<td>The full ServiceNOW Instance URL</td>
<td>https://&lt;instance name&gt;.service-now</td>
</tr>
</tbody>
</table>

Add Cancel
13. Click Add.
14. Click Save & Publish.
15. Click Publish.

After adding the app to AirWatch, it appears in the Apps & Books Applications Native Public section of the AirWatch portal. Mobile users can download the app from the AirWatch App Catalog app.

If your instance is on an internal network, you might need to configure the VPN. For more information on configuring the VPN, see the AirWatch documentation on configuring per-app tunnel profiles.

For more information on app distribution with AirWatch, see the official AirWatch documentation.

BlackBerry Unified Endpoint Management (UEM)

Use BlackBerry UEM as a mobile device management system to distribute and manage the ServiceNow mobile app on user devices.

Before adding the ServiceNow app to BlackBerry UEM, complete the BlackBerry UEM setup procedures.

Add the ServiceNow iOS app to BlackBerry UEM

Configure the ServiceNow iOS app for BlackBerry UEM management and distribution.

Role required: admin

1. Sign in to BlackBerry UEM.
2. In the menu bar, click Apps.
3. Click the Add an app icon (***).
4. Click App Store.
5. From the country list, select United States.
6. In the search field, type ServiceNow.
7. In the search results list, click the add button next to the ServiceNow app.
8. In the app options page, in the app configuration section, click the add icon to add a default instance.
9. Click Configure manually.
10. In the name field for the app configuration, type a name for the configuration. For example, Default Instance.

11. Click + and add the following key/value pairing.
Table 83: App configuration fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration key</td>
<td>SNDefaultInstanceURL</td>
</tr>
<tr>
<td>Value type</td>
<td>String</td>
</tr>
<tr>
<td>Configuration value</td>
<td>The URL for the instance. For example, https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>

12. Click Save.
13. Click Add.
14. Assign the app to users or groups. When you assign the app, make sure you select the name of that you assigned in the App Configuration section.

Figure 143: BlackBerry iOS app assignments

After successfully adding the ServiceNow iOS app from the App Store, it appears in the Work Apps section on the BlackBerry UEM Portal. Mobile users can download it from the BlackBerry UEM portal.

Add the ServiceNow Android app to BlackBerry UEM

Configure the ServiceNow Android app for BlackBerry UEM management and distribution.

Role required: admin

1. Sign in to BlackBerry UEM.
2. In the menu bar, click Apps.
3. Click the Add an app icon ( ).

4. Click Google Play.

5. Paste the following URL into the search bar to search for the ServiceNow Android app.

6. In the search results list, click the add button next to the ServiceNow app.

7. In the app configuration section, click the add icon to add a default instance.

8. In the name field for the app configuration, type a name for the configuration. For example, Default Instance.

9. In the server URL field, add the full URL for your instance. For example, https://<instance name>.service-now.com/.

10. Click Save.

11. Click Add.

12. Assign the app to users or groups. When you assign the app, make sure you select the name of that you assigned in the App Configuration section.

![Assign apps](image)

**Figure 144: BlackBerry Android app assignments**

**Note:** For App Configuration to be applied to the ServiceNow Android app, use the Work and personal - user privacy (Android for Work) or the Work and personal - user privacy (Android for Work - Premium) activation policy. Currently, if you use the MDM control activation policy, you cannot apply the App configuration. For more information on Android activation types, see the BlackBerry UEM documentation on Android activation types.

After successfully adding the ServiceNow Android app from the Google Play store, it appears in the Google Play store managed by your Android Work Profile.
For more information on app distribution using the public app store with BlackBerry UEM, see the BlackBerry UEM documentation.

If your instance is on an internal network, you might need to configure the VPN. For more information on configuring the VPN, see the BlackBerry UEM documentation on VPN configuration.

Citrix XenMobile

Configure Citrix XenMobile to distribute and manage the ServiceNow mobile app on user devices.

Use the following steps to distribute the ServiceNow mobile app using the Citrix XenMobile service. You can also configure the mobile app for your default ServiceNow instance for the iOS app.

You should have access to Citrix before attempting any configuration.

Add the ServiceNow app to Citrix XenMobile

Configure the ServiceNow for Citrix XenMobile distribution.

Role required: admin

1. Sign in to the XenMobile console.
2. Click Configure Apps.
3. Click Add, then choose Public App Store.
4. In the App Information pane, complete the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Type a descriptive name for the app. The name appears under App Name on the apps table.</td>
</tr>
<tr>
<td>Description</td>
<td>Type an optional description of the app.</td>
</tr>
<tr>
<td>App category</td>
<td>In the list, click the category you want to add the app to.</td>
</tr>
</tbody>
</table>

5. Click Next.
6. Under Platform, select the following platforms, or the platforms that are applicable to your distribution plan.
   - iPhone
   - iPad
   - Android for Work

7. For each of the platforms, complete the following steps.
   a) In the search bar, search for ServiceNow.
   b) Click the ServiceNow tile.
      The App Details fields are pre-populated with information related to the app.
   c) Configure the deployment rule depending on your organizations deployment plan.
   d) Click Next.

If Android for Work cannot find the ServiceNow application, the app might not be approved for your organization. You can approve the app in the Google Play store.

If the search results still do not display in Citrix, click Didn't find the app you were looking for? then enter the URL for the Android app: https://play.google.com/work/apps/details?id=com.servicenow.servicenow.

8. Click Next.
9. From the Approvals page, configure the workflow for your company.
You only need to use workflows when you need approval when creating user accounts. If you do not need to set up approval workflows, skip to the next step. For more information on configure workflows for Citrix, see the Citrix product documentation.

10. From the Delivery Group Assignments page, select the delivery groups for users that you want to have the ServiceNow application. You can also configure a deployment schedule.

After successfully adding the ServiceNow app from the iOS store platforms, install the ServiceNow application from the Citrix Hub app from your devices. For Android, the ServiceNow app appears in the Google Play Store managed by your Android Work Profile.

Configure the ServiceNow app for the default instance

Configure apps that support managed configuration by deploying an XML configuration file to users' iOS devices.

Configuring the app for a default instance is only available for iOS devices.

1. In the XenMobile console, click Configure Device Policies.
2. Click Add.
3. In the Add a New Policy page, under Apps, click App Configuration.
4. On the Policy Information page, enter the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Name</td>
<td>Type a descriptive name for the policy.</td>
</tr>
<tr>
<td>Description</td>
<td>Optionally, type a description of the policy</td>
</tr>
</tbody>
</table>

5. Click Next.
6. In the Policy Platforms panel, select iOS.
7. In the Identifier list, select Add new.
8. Enter the following in the add new identifier field: com.servicenow.servicenow.
9. In the Dictionary content field, enter the following text.

```xml
<dict>
  <key>SNDefaultInstanceURL</key>
  <string>https://<instance_name>.service-now.com</string>
</dict>
```

Use the name of your own instance where it says <instance_name>.
10. Click Check Dictionary to verify the XML.
11. Depending on the deployment rules for your organization, use the Deployment Rules section to configure deployment rules.
12. Click Next.
13. From the Delivery Group Assignments page, select the delivery groups for users that you want to have the ServiceNow application. You can also configure a deployment schedule.
14. Click Save.

IBM MaaS360 mobile device management (MDM)

Use IBM Maas360 to monitor and manage smartphones, tablets, and other mobile devices from a web-based portal. Add the ServiceNow mobile app to the IBM Maas360 portal to monitor and manage distribution.

Before adding the ServiceNow app to the IBM Maas360 portal, complete the IBM Maas360 setup procedures.
Add the ServiceNow iOS app to the IBM MaaS360 portal

Configure the ServiceNow iOS app for IBM MaaS360 distribution.

Role required: admin

1. Sign in to the IBM MaaS360 portal.
2. From the portal homepage, navigate to Apps Catalog.
3. Click Add to display the list of apps.
5. In the App Details tab, type ServiceNow into the app field.
6. Select the ServiceNow app from the results.

7. In the Policies and Distribution tab, select the applicable policies.
8. In the Configuration tab, in the App Config Source list, select Key/Value.
9. In the Key/Value section add the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute name</td>
<td>SNDefaultInstanceURL</td>
</tr>
<tr>
<td>Attribute value</td>
<td>The full URL for the instance. For example, https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>

10. Click Add.

After adding the ServiceNow app from the Apple store, it appears in the App Catalog application. Users can download the app to their iOS devices.

Add the ServiceNow Android app to the IBM MaaS360 portal

Configure the ServiceNow Android app for IBM MaaS360 distribution.

Role required: admin

1. Sign in to the IBM MaaS360 portal.
2. From the portal homepage, navigate to Apps Catalog.
3. Click Add to display the list of apps.
5. In the App Details tab, type ServiceNow into the app field.
6. Select the ServiceNow app from the results.
7. In the Policies and Distribution tab, select the applicable policies.
8. In the Configuration tab, select the Configure App Settings checkbox.
9. In the Server URL field, enter the full URL for the instance. For example, https://<instance name>.service-now.com/.
10. Click Add.

After adding the ServiceNow app from the Google Play store, it appears in the App Catalog application. Users can download the app to their Android devices.

If your instance is on an internal network, you might need to configure the VPN. For more information on configuring the VPN, see the IBM Maas360 documentation on the Maas360 VPN module.

For more information on app distribution, see the following IBM documentation for each operating system.
   • Add an iTunes App Store app to the App Catalog
   • Add a Google Play app to the App Catalog

Intune mobile device management (MDM)

Microsoft Intune uses Azure to manage mobile devices and apps. With some additional configuration, you can manage the ServiceNow mobile app in Intune.

You need to have access to an Azure account in order to add the ServiceNow mobile app to the store. Complete the Intune configuration steps before adding any apps to the Intune portal.

Add the ServiceNow iOS app to Microsoft Intune

Configure the ServiceNow iOS app for Microsoft Intune distribution.

Role required: admin
1. Sign in to the Microsoft Azure portal.
2. Select More Services Monitoring + Management Intune.
3. On the Intune blade, choose Manage apps.
4. In the Mobile apps workload, choose Manage Apps.
5. Above the list of steps, click Add.
6. In the type field, select the iOS store app.
7. In the Add App blade, click Search the App Store.
8. In the Apple App Store blade, for the country locale, select United States.
9. In the search field, type servicenow. Then select the ServiceNow app from the results.
10. In the App information, make sure Display this as a featured app in the Company Portal is set to Yes.
11. In the Add App blade, click Add.
12. From the list, choose the app you want, then click OK.

Add the default instance for iOS using App Config

Use the application configuration values to add a default instance of the iOS app.

Role required: admin
1. In the Mobile apps workload, select Manage App configuration policies.
2. Click the Add button above the app config policies list.
3. In the Name field, enter a relevant name for the default instance policy for the ServiceNow app.
4. From the Device enrollment type list, select Managed devices.
5. From the Platform list, select iOS.
6. In the Associated app field, select the ServiceNow App.
7. In the Configuration settings format list, select Use configuration designer.
8. Set the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration Key</td>
<td>SNDefaultInstanceURL</td>
</tr>
<tr>
<td>Value type</td>
<td>String</td>
</tr>
<tr>
<td>Configuration value</td>
<td>The full URL for your instance. For example, https://&lt;instance name&gt;.service-now.com/.</td>
</tr>
</tbody>
</table>

9. Save the App configuration policy, then make sure Assigned is set to Yes.
Add the ServiceNow Android app to Microsoft Intune

Configure the ServiceNow Android app for Microsoft Intune distribution.

Role required: admin

To set up the Android app, set up the Android for Work in Intune, then follow the instructions on how to assign apps to Android for Work devices with Intune.

1. In the Mobile apps workload, select Manage App configuration policies.
2. Click the Add button above the app config policies list.
3. In the Name field, enter a relevant name for the default instance policy for the ServiceNow app.
4. From the Device enrollment type list, select Managed devices.
5. From the Platform list, select Android for Work.
6. In the Associated app field, select the ServiceNow App.
7. In the Configuration settings, select the Use configuration designer, then click Add.
8. In the new editor window, make sure the server URL is the full instance URL for the Android app, then click Ok.
9. In the Configuration Value field, enter the name of your instance.

10. Save the App configuration policy, then make sure Assigned is set to Yes.
Jamf Pro mobile device management (MDM)

Use Jamf Pro to distribute and manage the ServiceNow mobile app on user devices. Use the following steps to configure the ServiceNow mobile app for iOS and Android. You should have access to Jamf Pro before attempting any configuration.

Configure the ServiceNow mobile app for Jamf Pro

Use app configuration to pre-configure the instance URL in Jamf Pro.

Role required: admin

1. Log in to Jamf Pro.
2. Click Devices.
3. In the Devices panel, click Mobile Device Apps.
4. On the mobile device apps page, click New.
5. Under Choose an App type, select App Store app or VPP store app.
6. Click Next.
7. In the search field, type ServiceNow.
8. Next to the ServiceNow app, click Add.
10. In the Preferences field, paste the following string.

```xml
<dict>
    <key>SNDefaultInstanceURL</key>
    <string>https://<instance_name>.service-now.com</string>
</dict>
```

Use the name of your own instance where it says `<instance_name>`.

11. Click Save.
After the instance is configured for the mobile app, configure the app settings to distribute the app to mobile devices in the scope.

MobileIron Mobile Device Management (MDM)

MobileIron is a cloud-based service you can use to manage applications for your users. Users can access apps from MobileIron while you manage and secure any content on the network.

Before adding the ServiceNow app to MobileIron, complete the MobileIron setup procedures.

Add the ServiceNow iOS app to MobileIron

Configure the ServiceNow iOS app for MobileIron distribution.

Role required: admin

1. Sign in to the MobileIron portal.
2. Navigate to Apps App Catalog, then click Add.
3. From the search menu list, select the Apple App Store.
4. In the search bar, type ServiceNow.
5. Select the ServiceNow app from the results.
6. Click Next.
7. Describe and add screenshots of the app.
8. Select one of the following distribution levels for this configuration of the app.
   - Everyone: The app is added to all user-compatible devices
   - No one: The app is staged for distribution at a later date
   - Custom: The app is distributed only to users or groups you choose

9. Click Next.
10. In the App Configuration section, click the add icon
    
    next to iOS Managed App Configuration.
11. In the Name field, enter a name for the configuration. For example, Default Instance.
12. Enter the following key and value pairing.

   Table 86: iOS Managed App settings
   
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
<td>SNDefaultInstanceURL</td>
</tr>
<tr>
<td>Value</td>
<td>The URL for the instance. For example,</td>
</tr>
<tr>
<td></td>
<td>https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>

13. Select one of the following distribution levels for this configuration of the app.
    - Everyone: The app is added to all user-compatible devices
    - No one: The app is staged for distribution at a later date
    - Custom: The app is distributed only to users or groups you choose

14. Click Next.
15. Click Done.

After successfully adding the ServiceNow iOS app from the App Store, it appears in the App Catalogs section on the MobileIron Portal. Mobile users can download it from the MobileIron App Catalog.

Add the ServiceNow Android app to MobileIron

Configure the ServiceNow Android app for MobileIron distribution.

Role required: admin

1. Sign in to the MobileIron portal.
2. Navigate to Apps App Catalog, then click Add.
3. From the search menu list, select the Google Play store.
4. In the search bar, type ServiceNow.
5. Select the ServiceNow app from the results.
6. Click Next.
7. Describe and add screenshots of the app.
8. Click Next.
9. Select one of the following distribution levels for this configuration of the app.
    - Everyone: The app is added to all user-compatible devices
    - No one: The app is staged for distribution at a later date
• Custom: The app is distributed only to users or groups you choose

10. In the App Configuration Summary section, click Managed Configurations for Android.
11. To add the default instance configuration, complete the following fields.

Table 87: Configuration Setup fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name for the configuration. For example, Default instance.</td>
</tr>
<tr>
<td>Configuration value</td>
<td>The full instance URL. For example, https://&lt;instance name&gt;.service-now.com/</td>
</tr>
</tbody>
</table>

12. Select one of the following distribution levels for this configuration of the app.
   • Everyone: The app is added to all user-compatible devices
   • No one: The app is staged for distribution at a later date
   • Custom: The app is distributed only to users or groups you choose
Configuration Setup

Name:
Default instance

+ Add Description

Managed Configurations
Apply these configurations to the app when silently distributed to the users.
- Blocks app from sharing widget across profiles.
- Blocks the user from uninstalling the app.

Managed Configurations

<table>
<thead>
<tr>
<th>Configuration Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server URL</td>
<td><a href="https://example.service.no">https://example.service.no</a></td>
</tr>
</tbody>
</table>

Runtime Permissions
For Apps created with API 23+ and Android 5.0+

Runtime Permissions

Distribute this App Config
Choose one of these options

- Everyone with App
  All Users who have the app

- No One
  Stage this App Config for later distribution

- Custom
  This config goes to a custom defined set of users and/or user groups
13. Click Next.
14. Click Done.

After successfully adding the ServiceNow Android app from the Google Play store, it appears in the App Catalogs section on the MobileIron Portal. Mobile users can download it from the MobileIron App Catalog. For more information on the MobileIron App Catalog, see the MobileIron documentation.

If your instance is on an internal network, you might need to configure the VPN. For more information on configuring the VPN, see the MobileIron documentation on VPN configuration.

Approve the ServiceNow app for Google Play

Android for Work may not be able to find the ServiceNow application. If that is the case, the ServiceNow App might not be approved for your organization. You can approve the app by finding it in the Google Play store.

Role required: none, however, you must either go to Google Play through the MDM, or use the same email address with the MDM that you use to sign in to the Google Play store.

1. Navigate to the Google Play store.
2. Search for the ServiceNow mobile app.
3. Click Approve.

Mobile authentication

Administrators can configure mobile devices to use different levels of authentication.
Customizing the mobile login page is not supported.

To use multi-provider SSO, the multi-provider SSO plugin must be enabled.

The following authentication options are not supported or have limited support for mobile:

- SAML 2.0 plugin: Not supported for mobile.
- Kerberos: Native mobile apps do not support Kerberos authentication.
- Okta: Using the Okta app to launch the ServiceNow app is not supported. You can, however, launch the native mobile apps using the web version of Okta as long as the multi-provider SSO plugin is enabled.

Mobile multifactor authentication

Users can access an instance on a mobile device - with either the mobile app or a mobile browser - using multifactor authentication (MFA). The Integration - Multifactor Integration plugin [com.snc.integration.multifactor.authentication] must be active for MFA to apply to mobile authentication.

For more information on configuring multifactor authentication for users, see Configure multifactor authentication.

The mobile web experience has a secondary authentication screen that requests the MFA code. The native mobile apps do not currently prompt for the MFA code on a second screen. The MFA code needs to be appended to the password on the login screen when using the native mobile apps. For example, P@ssw0rd135642, where 135642 is the MFA code.

Mobile single sign on

The mobile app leverages federated login when using the multi-provider SSO plugin.

Make sure the Integration - Multiple Provider Single Sign-On Installer [com.snc.integration.sso.multi.installer] plugin is activated. The SAML 2.0 plugin is not supported on mobile. For more information on how to configure multi-provider SSO, see Set up Multi-Provider SSO.

Enable multi-provider SSO

For multi-SSO to work on mobile devices, you need to enable the glide.authenticate.multisso.enabled property.

1. Navigate to Multi-Provider SSO Administration Properties.
2. Select the Enable multiple provider SSO check box.
3. Click Save.

SSO and the OAuth token

Once a successful session is established with the federated identity provider and the instance, the mobile application negotiates an OAuth token with the instance. This allows the applications to re-establish connections without storing any user credentials on the device.

The glide.authenticate.sso.redirect.idp system property is not required to use SSO with mobile applications. Mobile applications bypass the local login page and go directly to the SSO/IDP if this property is set.

To enable both local and external login for mobile applications, disable the glide.authenticate.sso.redirect.idp property.
Configure mobile app session timeout

The native mobile app times out after a certain amount of inactivity. Sessions are considered active if the app is in the foreground or if the app is processing a long running task in the background. Administrators can configure the length of time it takes for the app to time out.

Role required: admin

The app is considered inactive in any of the following scenarios.

- Explicitly sending the app to the background.
- Locking the screen or having the screen go to sleep.
- Switching to a different app.

Any of the following states are considered actively running:

- The app is visible on the screen and the screen is unlocked.
- The app is processing a long running task even if the app is in the background, such as uploading or downloading a large attachment.

The greater of all of the following settings determine mobile app session time-out.

1. Configure the OAuth entity for the mobile app.
   a) Navigate to System OAuth Application Registry and open the ServiceNow Mobile App OAuth entity.
   b) In the Refresh Token Lifespan field, change the number in seconds to the amount of time the refresh token is valid.
   c) In the Access Token Lifespan field, change the number in seconds to the amount of time the access token is valid.

2. Configure the web session time-out property.
   a) In the navigation filter, type sys_properties.list.
   b) Search for the glide.ui.session_timeout property.
   c) Change the value in minutes to the amount of time before a session times out. The default value is 30 minutes.

3. Configure the integration session time-out property.
   a) In the navigation filter, type sys_properties.list.
   b) Search for the glide.integration.session_timeout property. If the property does not exist, create a system property.
   c) Configure the property with the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>glide.integration.session_timeout</td>
</tr>
<tr>
<td>Type</td>
<td>integer</td>
</tr>
<tr>
<td>Value</td>
<td>Time in minutes it takes for the integration session to time out. If this value is undefined, the system defaults to 1 minute.</td>
</tr>
</tbody>
</table>
For example, if you want the mobile app to sign out after 30 minutes of inactivity, use the following configuration.

<table>
<thead>
<tr>
<th>Configuration point</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refresh Token Lifespan for the ServiceNow mobile app</td>
<td>1800 seconds</td>
</tr>
<tr>
<td>Access Token Lifespan for the ServiceNow mobile app</td>
<td>1800 seconds</td>
</tr>
<tr>
<td>glide.ui.session_timeout system property</td>
<td>30 minutes</td>
</tr>
<tr>
<td>glide.integration.session_timeout system property</td>
<td>Not defined, or 30 minutes or less.</td>
</tr>
</tbody>
</table>

Sign out and sign back in to the mobile app. Otherwise the app uses the previously granted sessions and tokens.

**Enable e-signature for approvals on mobile**

Administrators can configure e-signature to enforce approvals with passwords or biometrics.

Role required: admin

E-signature uses the following re-authentication behavior:

- If a user logs in with SSO, e-signature attempts to re-authenticate using the normal SSO authentication flow.
- If a user logs in with a local username and password, e-signature attempts to re-authenticate the user with the local password only, not the username.
- If a user has biometrics, or TouchID, enabled on their device, e-signature attempts to re-authenticate with the user’s biometrics.

1. Activate the Approvals with e-signature [com.glide.e_signature_approvals] plugin. For more information on activating a plugin, see Activate a plugin.
2. To enable a specific table for e-signature approval, navigate to System Definition e-Signature Registry, then click New and complete the form.

Authentication using biometrics is enabled by default. To disable biometric authentication, navigate to sys_properties.list and change the glide.ui.m.auth.allow_biometrics property to false.

**Mobile configuration for administrators**

As an administrator, configure the mobile experience for your users to access an instance on a tablet or smartphone.

**Requirements**

Configuration for the mobile experience takes place in a regular desktop instance. Most of the configuration options are available for both the native mobile app and the mobile web experience. Use the native app or the mobile web to test your configuration. Depending on your device, go to the iTunes store or the Google Play store and search for ServiceNow to download the native mobile app.

Role required
Before you begin

Take the following into consideration before configuring the mobile experience:

- What applications and modules do you want to be accessible from a mobile device?
- How do you want mobile lists to appear on a mobile device?
- Which users or roles should have access to Connect Chat?

What to do

Configure the application menu
Determine which applications and modules you want to appear in the mobile application navigator.

Customize the mobile home screen
Customize the appearance of the mobile app or on a mobile web browser by navigating to System Mobile UI Home Screen. Use the home screen configuration options to customize the mobile experience for each user by role.

Create a mobile theme
Add a consistent look and feel to the mobile experience by creating a mobile theme.

Set up mobile lists
Mobile devices have less screen real estate so you may need to change the length of titles or the default fields that appear in a mobile list. Customize the mobile list view to determine the length of a title in a mobile list, as well as the default fields that appear in a table.
Customize sortable columns in a mobile list.
Configure available search fields.

Configure Connect Chat for mobile
Configure the users or roles that can access Connect Chat on a mobile device.

Next steps

Most configuration items for the mobile UI are optional. Click any of the topics below for additional configuration.

Configure the mobile application navigator
Define which application menus and modules are available on the mobile application navigator.

You cannot hide the application navigator from users, however you can control the contents based on role. Use the Roles field for both the application menu and the modules as listed in the following tables to configure the application navigator specifically by role.

1. On a desktop browser, navigate to System Mobile UI Navigator Apps.
2. Click New.
3. Fill in the fields, as appropriate.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name for the application menu.</td>
</tr>
<tr>
<td>Order</td>
<td>Enter a number to specify the order of the menu. For example, an entry of 100 would place this application menu before one with an Order entry of 200.</td>
</tr>
<tr>
<td>Roles</td>
<td>Click the lock icon to select the roles for this application menu. Only users with the designated roles can access the modules under this application menu.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to activate this application menu.</td>
</tr>
</tbody>
</table>

4. Save the application menu.

**Note:** Until you add at least one module, the new application menu does not appear on the mobile application navigator.

5. Under Modules, click New.
6. Fill in the fields, as appropriate.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter a name for the module.</td>
</tr>
<tr>
<td>Order</td>
<td>Enter a number to specify the order of the module within the application menu. For example, an entry of 100 would place this module before one with an Order entry of 200.</td>
</tr>
<tr>
<td>Application menu</td>
<td>Displays the application menu from which you accessed this screen. Select a different application menu, if appropriate.</td>
</tr>
<tr>
<td>Table</td>
<td>Select the table for this module.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated</td>
<td>Displays the date and time when the module record is updated.</td>
</tr>
<tr>
<td>Roles</td>
<td>Click the lock icon and select the roles for this module. Only users with the designated roles can access this module.</td>
</tr>
<tr>
<td>Active</td>
<td>Select the check box to activate this module. Only active modules appear in the application menu.</td>
</tr>
<tr>
<td>Filter</td>
<td>Create a filter for identifying which fields this module uses from the selected Table.</td>
</tr>
<tr>
<td>Path</td>
<td>Enter a custom URL for the module in this format: <code>&lt;type_of_link&gt;/table/parameters</code>.</td>
</tr>
<tr>
<td></td>
<td>• <code>type_of_link</code>: determines what kind of page opens, for example, form, list, or view.</td>
</tr>
<tr>
<td></td>
<td>• <code>table</code>: Refers to the table being referenced. For example, incident.</td>
</tr>
<tr>
<td></td>
<td>• <code>parameters</code>: Any additional information you want to use to direct the user to a specific URL. For example, you can include a query as part of the URL to direct users to a specific filtered list.</td>
</tr>
<tr>
<td></td>
<td>You can also use the URL format, <code>$__.do</code>.</td>
</tr>
<tr>
<td>Path Relative To Root</td>
<td>Allows mobile navigator modules that link to desktop pages. Select this check box to use mobile URL in the Path field, such as <code>$sp.do</code>, <code>$chat.do</code>, or <code>$vtb.do</code>.</td>
</tr>
<tr>
<td></td>
<td>When the Path Relative To Root is cleared, the path is considered a mobile specific path and is relative to <code>$m.do</code>.</td>
</tr>
<tr>
<td></td>
<td>For example, a path like <code>/form/incident/-1</code> would be a mobile specific path and would be considered relative to <code>$m.do</code>. This would ultimately result in navigating to a path of <code>$m.do#/form/incident/-1</code>.</td>
</tr>
<tr>
<td></td>
<td>Use mobile specific paths when possible and only use Path Relative To Root when there is not a mobile specific path for the desired resource.</td>
</tr>
</tbody>
</table>

**Note:** If you are creating a module for a map page, see the *procedure specific to map pages*.

7. Save the module you just added.
Customize the appearance of information on a mobile device

In order to optimize views on smaller screens, lists and forms display differently on a mobile device. Use any of the following options to customize different aspects of mobile lists.

**Customize a mobile list**

Customize which fields display in a list on a mobile device using table titles.

**Configure field styles**

Field styles allow you to set individual styles for each item in a list. You can configure field styles for a mobile list that are separate from the desktop view.

**Configure the navigation behavior when a user taps an item in a list**

Determine whether tapping an item in a list opens the record or the activity stream for an item.

**Configure how a form displays on a mobile device**

Limit the number of fields on a form for a better mobile experience.

**Hide mobile filters**

Hide the filter option or the activity stream from users to prevent them from filtering out search results.

Mobile list view

The information that appears in a mobile list is different than a list on a desktop. Smaller screen real estate limits the information that is easily viewable. You can control mobile list text using the table titles module.

Use Table Titles to control the information that appears in a mobile list. The information that appears in a list item is made up of the following components:

- **Title:** Appears prominently at the top of the list item. You can configure the list item title by selecting the fields that appear as the title. For a more advanced configuration, you can use a script to determine how and what displays as the list item title.
- **Display title:** Appears as subtext beneath the title for a list item. You can customize the display title by using the configure dictionary option for a field on a form.
- **Extras:** Any extra information you want to appear in the list. Extras are only configurable using a script.
Customize the mobile list title

The information that appears in a mobile list is different than a list on a desktop. Smaller screen real estate limits the information that is easily viewable. You can control mobile list text using the table titles module.

1. In the desktop interface, navigate to **System Mobile UI Table Titles**.
2. Click New, or select an existing table to edit.
3. If you are creating a new list, select the table from the list. The list shows only tables and database views that are in the same scope as the title.

4. Use the Fields slushbucket to add items that appear in the list item. The order of the items in the selected column determines the order they appear in on a mobile device.

Important:
Table titles define the title appearance for a list on a mobile device as well as in the split pane view on the desktop interface. You can change the title for any table or add a title record for a different table. However, the change affects both mobile lists and the list card in the split pane view.

For example, the default title for the Incidents [incidents] table is the short description. If you change the table title to display the priority field instead, the priority field appears as the table title for incidents on a mobile device as well as in the list card in the split pane view.

5. Click Submit.
Script items in a mobile list
For a more advanced option for configuring the information that appears in a mobile list, you can create customized scripts.

Role required: admin

Use scripts to control the following components in a mobile list.

- Title: Use the setTitle() method to script a title. The list title is connected to a specific table in the system, for example Problem. Each table contains a list of field options, defined by field_list that you can use to determine the title.
- Extras: Use the setExtras() method with an array of strings to configure the information that displays after the list title. Scripting extras adds new rows to the list items.

1. Navigate to System Mobile UI Table Titles.
2. In the Script field, create a script to define which fields appear in the mobile list.
   For example, the following code block uses setTitle and setExtras to configure a mobile list for the problem table. The title shows the short description for a problem. The extras include additional information for the problem priority.
   ```javascript
   var title = current.short_description;
   var extras = [];

   if (current.priority === 1) {
     extras.push("Critical!");
   } else if (current.priority === 2) {
     extras.push("High Priority!");
   } else {
     extras.push("Carry on");
   }

   titleValues.setTitle(title);
   titleValues.setExtras(extras);
   ```
3. Click Submit.

Add a mobile display title
Use the display title option to add a subtitle to list items on a mobile device.

Role required: admin

1. Navigate to the table you want to configure the display title for. For example, Problem.
2. Right-click the field you want to display and click Configure Dictionary. For example, Urgency.
3. Select the Display check box.
   You can only have one display title for a table. The system automatically clears the selection for any previously selected display titles when you select a new one.

![Performance issue in the custom extension written for Workday Payroll](Image)

Figure 150: Display title

Configure mobile field status indicators
Differentiate items in a list by configuring the field status indicators.

Define field styles in the System UI Field Styles module. For more information on how to customize field styles, see Define field styles.
Role required: admin

1. Navigate to System Mobile UI Table Titles.
2. Select a table to add field status indicators to.
3. From the Style Field list, select the styled field you want to appear with the list on a mobile device.

   **Note:** If the Style Field does not appear on the form, you may need to configure the form.

Configure mobile list items navigation

Determine whether a tapping an item in a list opens the record or the activity stream using a system property.

Role required: admin

1. Navigate to System Properties Mobile UI properties.
2. From the Destination when navigating to a record from a list property [glide.ui.m.default_record_navigation], select Activity Stream or Form.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Stream</td>
<td>Opens the list item in the activity stream</td>
</tr>
</tbody>
</table>

**How do I create a sub-folder**

- **Number:** INC00000017
- **Category:** Inquiry / Help
- **Priority:** 1 - Critical

**Related Lists**

**Participants**

**Aug 25, 2015**

- **Don Goodliffe**
  - 2 years
  - I got this

- **Don Goodliffe**
  - 2 years
  - Task reassigned due to employee termination
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Opens the list item in the form</td>
</tr>
</tbody>
</table>

Configure mobile list search fields

Configure search fields to determine what fields are searched for in the table. If search fields are not configured, only the columns in the mobile list layout are searched.

Search fields might not appear on the Table Title form. Add Search Fields to the form by editing the form layout.

1. Navigate to System Mobile UI Table Titles.
2. Open the table you want to configure search fields for, or click New.
3. Use the slushbucket to add or remove fields from the mobile list.
Configure the mobile form layout

Configure the way forms display in the mobile UI.

1. From an instance on your desktop, navigate to any form you want to configure, for example, Incidents.
2. Click the list header menu and navigate to Configure List Layout.
3. From the View name list, select Mobile.
4. Use the slushbucket to add or remove fields from the mobile list.
Confi guring Incidents List

Available
Created
Created by
Date format
Default perspective [+]
Department [+]
Domain [+]
Domain Path
Email
Employee number
Failed login attempts
Field3 [+]
Gender
Geolocation tracked
Home phone
Internal Integration User
LDAP server [+]
Language
Last login

Selected
[...]
Number
Category
[...]
Short description
Priority
Caller: First name

List view
Create new field
View name Mobile
Name
Type String
Field length Small (40)
Add

Related Links
Show versions
Any fields you add to the list appear as a sortable column and as a field in the card of a specific record in the mobile UI.

### Table 88: List layout results

<table>
<thead>
<tr>
<th>Record field</th>
<th>Sortable column</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The SAP HR application is not accessible</strong>&lt;br&gt;Number</td>
<td>INC0000053</td>
</tr>
<tr>
<td>Category</td>
<td>Request</td>
</tr>
<tr>
<td>Priority</td>
<td>1 - Critical</td>
</tr>
<tr>
<td><strong>Caller First name</strong></td>
<td>Margaret</td>
</tr>
<tr>
<td>Related Lists</td>
<td>(1)</td>
</tr>
<tr>
<td>Participants</td>
<td></td>
</tr>
</tbody>
</table>

**Oct 20, 2015**

**System Administrator**<br>8 mos
Hide mobile filters

Prevent users from filtering content in a list by hiding the filter.

Role required: admin

1. Navigate to the table you want to hide filters for.
2. Open the list configuration page by performing the appropriate action for the list version. For more information on configuring list controls, see Configure list controls.

<table>
<thead>
<tr>
<th>Version</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>List v2</td>
<td>Right-click any column heading and select Configure List Control.</td>
</tr>
<tr>
<td>List v3</td>
<td>Open the list title menu and select List Control.</td>
</tr>
</tbody>
</table>

3. Select the Omit filters check box.
   This field is only available for standard lists.

Customize default mobile home pages

Administrators can create customized mobile home pages for their users.

Role required: admin

Administrators can customize mobile home pages by section and module. Depending on the level of customization required, administrators can limit user access by role to each component of the mobile home page. Mobile home pages apply to both the native mobile app and the mobile browser.

Use the following components to create a customized home page:

- Home Page Collections
- Home Pages
- Home Page Section
- Home Page Modules

Each component can be configured separately or using the following steps.

1. Navigate to System Mobile UI Home Screen Home Page Collections.
2. Click New or open an existing Home Page Collection. For more information on completing the collection fields, see Home Page Collections on page 441.
   If you want to configure an entire homepage to be role specific with no default modules, you can create a new Home Page Collection. Otherwise, simply open an existing collection to configure the page.
3. From the related list on the Home Page Collection form, click Edit... to add an existing Home Page or click New.
   For more information on completing the Home Page form, see Mobile Home Pages form on page 441.
4. From the related list on the Home Page form, click Edit... to add an existing Home Page Section to the Home Page, or click New.
   For more information on completing the Home Page Section form, see Mobile Home Page Sections on page 442.
5. To add modules to a homepage, from the related list on the Page Section form, click Edit... to add an existing module, or click New.
For more information on completing the Home Page Modules form, see Mobile Home Page Modules on page 443.

Home Page Collections

Use the Home Page Collections as a starting point for your home page customization.

Administrators can configure Home Page Collections by role so only specific users can see a particular home page. For example, you can configure an ITIL user homepage to only have modules that are relevant to the ITIL user. However, if you have default apps that different roles use, you can also create a basic homepage, with the option of customize specific pages by roles.

Table 89: Home Page Collections fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of the collection. This field won't appear in the app or on the mobile web.</td>
</tr>
<tr>
<td>Priority</td>
<td>The numbered priority of the collect. Set a higher priority than the default collection if you want the homepage collection to show up for specific roles. For example, if the default is set to 500, set the role specific collection to 200.</td>
</tr>
<tr>
<td>Hide Favorites Page</td>
<td>Users can configure their own homepage by favoriting items in the system. The favorites page is accessible with a right swipe. Administrators can disable the favorites page by selecting this option.</td>
</tr>
<tr>
<td>Roles</td>
<td>Use this option to configure home page collections for specific roles.</td>
</tr>
</tbody>
</table>

Mobile Home Pages form

Configure the look and feel of mobile home pages.

Administrators can configure more than one home page for their users. Each additional home page is accessible to users by swiping to the left from the main home page. The sort order, accessible from the Home Page Collections related lists, defines the Home page order. Administrators can also configure home pages by role.

Table 90: Mobile home page fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Title of the home page. The title appears on the home page.</td>
</tr>
<tr>
<td>Title position</td>
<td>Determines the location of the title in the app or mobile web. Selecting Navigation Bar overrides the theme configuration and adds the title in place of the main header bar. Use Hidden to hide the title.</td>
</tr>
<tr>
<td>Subtitle</td>
<td>Create an additional title to describe the page. Subtitle appears below the title or header image.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Header image  | Optional. Select an image to appear at the top of the mobile home page. A header image lets you visually communicate the purpose of the home page. Note the following guidelines:  
  • Use a high-resolution image that looks good at different sizes and aspect ratios. The display size and aspect ratio of a header image vary by the device screen size. Since it is not possible to specify a fixed display size for a header image, use a high-quality image that works for different screen sizes.  
  • Avoid text on a header image. Text can be cropped or appear blurry when the image is scaled for different screen sizes. Also, text is not localized because the header image is a static file. Use the home page title and subtitle properties to include any text on a home page.  
  • Avoid using a company logo as a header image. Ideally a header image artistically represents the purpose of the home page. If a logo is needed, create a custom mobile theme (sys_ui_mobile_theme) with a title image that includes the company logo in the navigation bar of the home screen.  
  • For domain separation, header images uploaded in the parent domain do not appear for users in the child domain. Either use a global domain or the child domain that the users are in. |

**Roles**  
Configure a home page by role.

---

**Mobile Home Page Sections**  
Administrators can configure Home Page Sections to determine how apps appear in a mobile home page.

**Table 91: Mobile home page section fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Title of the home page section. This appears in the app or mobile home page above the list of modules.</td>
</tr>
<tr>
<td>Hide Title</td>
<td>Hide the home page section title so it doesn't appear on the page.</td>
</tr>
<tr>
<td>Module Style</td>
<td>How the modules appear in the section. Regular shows the modules as rectangles that stretch the length of the app or mobile web. Compact displays the modules as smaller &quot;app-like&quot; squares.</td>
</tr>
</tbody>
</table>
Mobile Home Page Modules

Home Page Modules define what information appears on a mobile home page.

Modules must be enabled for mobile to appear on a mobile home page. Administrators can also configure Home Page Modules by role.

Table 92: Mobile Home Page Module fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Name of the module that appears in the app or mobile web.</td>
</tr>
<tr>
<td>Subtitle</td>
<td>Optional module description that appears beneath the title.</td>
</tr>
<tr>
<td>Module</td>
<td>Select a module from the list of available mobile modules</td>
</tr>
<tr>
<td>Active</td>
<td>Whether the module is available or not. Clear this check box to disable mobile access to a mobile module.</td>
</tr>
<tr>
<td>Roles</td>
<td>Configure module access by role. Users without the specific role won't see the module.</td>
</tr>
<tr>
<td>Icon</td>
<td>Select an icon from the list of available icons.</td>
</tr>
<tr>
<td>Image...</td>
<td>Upload your own module image</td>
</tr>
<tr>
<td>Background color</td>
<td>Select a background color for the module. Use color name or Hex color. For example, #81878e or light gray.</td>
</tr>
<tr>
<td>Content Style</td>
<td>Select a style from available themes.</td>
</tr>
</tbody>
</table>

Configure a mobile theme

Configure a theme for the mobile UI to make the experience more consistent for your users.

Role required: admin

Theme changes apply to both the mobile app and the mobile web experience.

1. Navigate to System Mobile UI Themes.
2. Click an existing theme to edit, or click New.
3. Complete the mobile theme form fields.
## Mobile Theme

**Name**: Dark

**Application**: global

<table>
<thead>
<tr>
<th>Theme Colors</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent color</td>
<td>teal</td>
</tr>
<tr>
<td>Navigation accent color</td>
<td>teal</td>
</tr>
<tr>
<td>Navigation bar color</td>
<td>purple</td>
</tr>
<tr>
<td>Navigation title color</td>
<td>teal</td>
</tr>
<tr>
<td>Toolbar accent color</td>
<td>teal</td>
</tr>
<tr>
<td>Toolbar color</td>
<td>purple</td>
</tr>
</tbody>
</table>

[Update]  [Delete]
### Table 93:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Title for the theme. This does not appear anywhere for end users.</td>
</tr>
<tr>
<td>Base theme</td>
<td>The underlying theme to build your styles on. Use the base theme to determine if the main background is darker or lighter.</td>
</tr>
<tr>
<td>Navigation bar title</td>
<td>A title that appears in the navigation bar of the app or mobile web page. For example, your company name or the group you are creating the app for. The navigation bar title also appears at the title when you save a mobile web shortcut on your phone.</td>
</tr>
<tr>
<td>Title image</td>
<td>An image that appears below the navigation bar. The title image overrides the navigation bar title.</td>
</tr>
<tr>
<td>Theme Colors</td>
<td>Navigation bar and toolbar colors for the native app or mobile web. Use color names or Hex codes. For example, red or #ff0000.</td>
</tr>
</tbody>
</table>

4. Copy the sys_id of the theme from the form context menu.

5. Navigate to System Properties Mobile UI Properties and copy the sys_id into the Set the active theme for the mobile experience. Should be a sysId from the Mobile Themes table [glide.ui.m.mobile_theme] field.
Configure Connect Chat for mobile

Configure Connect Chat to show or hide on the mobile app homepage.

Connect Chat appears on the mobile app homepage by default if it is active on the instance and the user has the correct roles. Hide Connect Chat in the mobile app by disabling the Connect module in the mobile homepages.

Connect Chat has only been optimized for the native mobile app, not the mobile web.

1. Navigate to System Mobile UI Home Screen Home Page Modules.
2. Open the Connect home page module.
3. Clear the Active check box.
   You can also use the Roles field to configure access to Connect Chat by role.

Configure the appearance of the Connect Chat homepage module. For more information on configuring home page modules, see Mobile home page module fields.
Mobile UI actions

UI actions function the same on the mobile interface as on desktop interface, but are configured on a different table: UI Action - Mobile [sys_ui_ng_action].

Add the following types of UI actions in the mobile interface:

- List buttons
- Form buttons
- Form more items (items that display when the user taps the More button)

![UI Actions - Mobile (UI Actions - Mobile)](image)

**Note:** Mobile UI actions automatically reload the form when an action is submitted. You do not need to configure a UI action to make this happen.

Back navigation in the mobile interface

Mobile UI actions support back navigation when a UI action finishes. You can navigate back one logical navigation item in the current navigation stack.

When the navigate_back flag is set to true for a mobile UI action in the UI Action - Mobile [sys_ui_ng_action] table, you can move back to the previous screen.

Sometimes one or more discrete screens, or a nested or partial view of the screen, can represent a single navigation item. For this reason, back navigation can result in different UI behaviors depending on the current navigation content or device.

For example, the activity stream and form for a record are considered as one logical navigation item (the current record). However, some devices use multiple discrete screens for this navigation. When back navigation is triggered from a UI action on a form, multiple screens may be dismissed to return to a previous item, such as a list.

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Localization on mobile devices

Native mobile apps are localize in four languages: Spanish, French, German, and Japanese.

Right to left languages are not supported in the native mobile app.

The native mobile applications are localized in two different ways, which means that there is a blending of localization visible inside of the native applications.

- Native (on device) localization: Controlled by the device's language preference, which means that many components are localized with the language preference for the user's device. These components can include button titles, screen titles, and local error messages.

  The on-device localization supports Spanish, German, French, and Japanese. These translations can't be customized since they are shipped with the application binary and translated natively on the device according to the device's language settings.

- Server-side localization: Controlled the same was as desktop web localization (server system language / user preference on server). Components that are localized on the server include things like field labels, web content, and other data that is stored on the server in a translated field.

  You can customize translations that use server-side localization the same way you do on the desktop. For more information on configuring server-side localization, see System localization.

Enable client scripts for the mobile browser

Define client scripts to run on forms on the mobile interface, the desktop UI, or both.

1. On a desktop, navigate to System Definition Client Scripts.
2. Create a client script that is compatible with the mobile interface. To ensure compatibility, see Mobile client GlideForm (g form) scripting and migration on page 449.
3. In the UI Type field, select Mobile/Service Portal or All to have the script run on the mobile interface. If the UI type field is not available on the form, configure the form to add the UI Type field.
4. Fill in the fields, as appropriate.
5. Click Submit.
Mobile client GlideForm (g form) scripting and migration

Client scripting for mobile is identical to scripting for the web, with some exceptions. All new scripts must conform to certain guidelines. The following items are affected on the mobile platform: client scripts, UI policies, navigator modules, and UI actions.

Client scripts

For new or existing scripts to be valid for mobile, they must conform to the following requirements:

- Use the new mobile methods in place of g_form.getControl().
- Do not use deprecated methods.
- Do not reference unsupported browser objects.
- Do not make synchronous JavaScript, GlideAjax, and GlideRecord calls.
- Do not call methods that are not available for mobile.
Table 94: Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the new mobile methods</td>
<td>Several new methods are available for modifying form fields instead of directly manipulating the HTML. These methods replace previous usages of <code>g_form.getControl()</code>, which is deprecated for the mobile platform. In your existing scripts, ensure that the new methods are used in place of methods that are not valid on the mobile platform. For information on these new methods, refer to.</td>
</tr>
</tbody>
</table>
| Do not use deprecated methods                    | The following methods have been deprecated for the mobile platform because direct access to HTML elements is not allowed:  
  - `g_form.getControl()`  
  - `g_form.getFormElement()`  
  - `g_form.getElement()`  
  
  To ensure that existing scripts are compatible, remove all calls to deprecated methods from your code. For new scripts, do not use deprecated methods if you want the script to be valid for mobile.  
  
  For `g_form.getControl()`, some of the functionality previously included with this method has been extracted to individual methods. Instead of `g_form.getControl()`, use the new methods described on the developer site. |
| Do not reference unsupported browser objects     | The following browser objects are not supported in mobile scripts:  
  - `Window`  
  - jQuery or Prototype ($, $j, or $$)  
  - `Document`  
  
  Make sure that new scripts do not use these objects, and remove any usage of these objects from your existing scripts. Use GlideForm (`g_form`) instead, which provides methods such as `setLabel()`, `addDecoration()`, and `hasField()` for accomplishing the same tasks. |
Do not make synchronous JavaScript calls

The mobile platform does not allow synchronous JavaScript calls. The `g_form.getReference()` method must now have the callback parameter defined. For example:

```javascript
    g_form.getReference(fieldName, callback)
```

Be sure that all `g_form.getReference()` calls include the callback parameter. For example, the following script does not include a callback and is incompatible with the mobile platform:

```javascript
    var userName =
        g_form.getReference('assigned_to').user_name;
    g_form.setValue('u_assigned_user_name', userName);
```

The following script has been updated to include the callback and is compatible with the mobile platform:

```javascript
    g_form.getReference('assigned_to',
        function(gr) {
            g_form.setValue('u_assigned_user_name',
                gr.user_name);
        });
```

Do not make synchronous Ajax calls

The mobile platform does not allow synchronous GlideAjax calls. Any use of `getXMLWait()` in a GlideAjax call will not work on the mobile platform. Be sure that all GlideAjax calls are asynchronous. For more on synchronous versus asynchronous GlideAjax calls and `getXMLWait()`, see `AJAX`. For information on the available GlideAjax methods, refer to the.
| Do not make synchronous GlideRecord calls | The mobile platform does not allow synchronous calls. Make sure that any existing GlideRecord calls include a callback. For example, the following script does not include a callback and is incompatible with the mobile platform:

```javascript
var gr = new GlideRecord('incident');
gr.addQuery('number', g_form.getValue('related_incident'));
gr.query();
gr.next();
g_form.setValue('u_related_incident_description', gr.short_description);
```

The following script has been updated to include the callback, and is compatible with the mobile platform:

```javascript
var gr = new GlideRecord('incident');
gr.addQuery('number', g_form.getValue('related_incident'));
gr.query(function(gr) {
    gr.next();
    g_form.setValue('u_related_incident_description', gr.short_description);
});
```

| Do not use methods unavailable on the mobile platform | Due to the limitations and reduced functionality that is imposed by the mobile platform, the following methods are not deprecated but are not available on the mobile platform. If these run on the mobile platform, no action occurs:

- showRelatedList()
- hideRelatedList()
- showRelatedLists()
- hideRelatedLists()
- flash()
- getSections()
- enableAttachments()
- disableAttachments()
- setReadonly() (Note that setReadOnly() is available)
- getParameter() |

| Enable scripts for mobile | Scripts must be enabled for the mobile platform. See Enable client scripts for the mobile browser on page 448. |

**Note:** Focusing an element on a mobile form is not supported.
UI policies

Use the Run scripts in UI type field to determine whether scripts run on the mobile platform, the desktop, or both. Update existing policies so that they apply to either the mobile platform or both. For new scripts, also ensure that the mobile option or both is selected. For more on UI policies for mobile, see Enabling UI policies for the mobile browser on page 453.

Navigator modules

For existing code, modules must be transferred to either the sys_ui_application or sys_ui_module tables to be available on the mobile platform. When developing new code, be sure that all modules are created in the sys_ui_application or sys_ui_module tables. For more information, see Configuring the mobile application navigator on page 422.

UI actions

UI actions must be transferred to the sys_ui_ng_action table to appear on the mobile platform. UI action scripts that do not use deprecated methods do not require changes to the script itself. For new UI actions, be sure that they are created in the sys_ui_ng_action table. For more information, see Mobile UI actions on page 447.

Enable UI policies for the mobile browser

Define UI policies to run on forms on the mobile interface, the desktop UI, or both.

1. In the desktop interface, navigate to System UI UI Policies.
2. Create a UI policy that is compatible with the mobile interface.
   To ensure the UI policy is compatible on a mobile device, see mobile UI policies.
3. Configure the UI Policies form to add the Run scripts and the Run scripts in UI type fields.
4. Select the Run scripts check box.

   **Note:** The Run scripts in UI type field does not appear unless the Run scripts check box is selected.

5. In the Run scripts in UI type field, select Mobile/Service Portal or All to have the policy run on the mobile interface.
6. Complete the fields, as appropriate.
7. Click Submit.

Configure 3D Touch options for iOS

Favorites determine the options that appear on the 3D Touch option for the ServiceNow app on iOS. You can configure your own options for your users using the Shortcut Items module.

Role required: admin

3D Touch allows users to access shortcuts to items in an app with a hard press on the app. 3D Touch is only available on the iPhone 6s and newer.

1. Navigate to Mobile App Shortcut Items.
2. Click New.
3. Complete the fields on the form.

**Table 95: Shortcut item fields**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Name for the shortcut that appears in the 3D Touch menu. For example, Create new incident.</td>
</tr>
<tr>
<td>Subtitle</td>
<td>Optional secondary title for the shortcut that appears in the 3D Touch menu. For example, Create a new incident if there's a problem.</td>
</tr>
<tr>
<td>Icon</td>
<td>A visual indicator for the shortcut.</td>
</tr>
<tr>
<td>Module</td>
<td>Module that opens when a user taps the shortcut. The module must be configured to appear in a mobile device. For example, the create new incident module.</td>
</tr>
<tr>
<td>Order</td>
<td>The order in which shortcuts appear. Lower numbers appear in the list first. Configured shortcuts also appear before user favorites in the 3D Touch menu.</td>
</tr>
<tr>
<td>Roles</td>
<td>Limit the users who can access the 3D Touch menu item by role.</td>
</tr>
</tbody>
</table>
Configure the blur app option

As a security feature, administrators can configure the mobile app to blur when not in focus on a mobile device.
For example, when you double-click the home button on your mobile device to close apps or navigate back to where you left off, the ServiceNow app appears blurred.

1. Navigate to System Properties Mobile UI Properties.
2. Select the Blur native app UI when the application enters the background check box.

Enable mobile location and barcode scanning

Take advantage of mobile devices by allowing location and barcode scanning in the mobile app.
Role required: admin

1. On a desktop, navigate to the form you want to add the location or barcode scanner to.
2. Use the form context menu to switch the form view to Mobile.
3. From the form context menu, navigate to Configure Form Layout.
4. In the View name list, make sure Mobile is selected.
5. Use the Create new field section to add a location or barcode field to the form. Set the field type to String.
6. From the form, right-click the new field and click Configure Dictionary.
7. In the Attributes related list, click New.
8. Use the Attribute field on the Dictionary Attribute form to search for barcode or location.

The added fields appear on the form in the native mobile app. This feature is not available on the mobile web. Users need to allow the app to access their location and camera on their devices. These fields only appear when you create a record, they do not appear in one that is already existing.

The native iOS and Android apps support scanning the following barcode types:
- 2D barcodes: QR Code, Data Matrix, PDF-417, AZTEC

Disable mobile access

Administrators can disable or enable different parts of the mobile UI. Navigate to System Properties Mobile UI Properties to enable or disable any of the properties below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable mobile web UI</td>
<td>glide.ui.m_enabled</td>
<td>Turns on/off the mobile web UI. Even if this property is disabled, users still have access to the mobile web</td>
</tr>
<tr>
<td>Enable native mobile applications (Android, iOS)</td>
<td>glide.ui.m.native_apps_enabled</td>
<td>Turns on/off native apps</td>
</tr>
<tr>
<td>Use the mobile web UI if one of these strings (comma-separated) appears in the browser's User Agent</td>
<td>glide.ui.m_agents</td>
<td>Define which web UI to use depending on what name appears in a browser user agent</td>
</tr>
</tbody>
</table>

Domain separation in the Mobile application

This is an overview of domain separation in the Mobile application. Domain separation enables you to separate data, processes, and administrative tasks into logical groupings called domains. You can then control several aspects of this separation, including which users can see and access data.

Overview

Support: Data only
Domain separation in this application is supported at the Data only level, meaning it supports the data security model of separating visibility of data from one domain to another. To learn more, see Application support for domain separation.

Get started with a ServiceNow instance on your mobile device

Use your smartphone or tablet to access an instance in a web browser or the native app.

Before you begin

You can access your instance from a web browser on your mobile device or from the native mobile app. Depending on your device, go to the iTunes store or the Google Play store and search for ServiceNow to download the native mobile app. If you do not have access to the mobile platform, contact your administrator.

What to do

Access an instance on your mobile device

To open an instance on a mobile device:
- open an instance in your mobile app
- open an instance in your mobile browser

For mobile web access, add a shortcut to an instance browser page on your mobile device.

Set up homepage favorites

Use the application navigator to find modules and applications.
Create and edit favorite modules or applications to appear as icons on your homescreen.
In the native mobile app, add a visualization to the favorites on your homepage.

Use lists on a mobile device

View a list on your mobile device by tapping a homescreen favorite or by opening a module from the application navigator.
Search for specific records in a mobile list.
Use Mobile lists on tablet on page 484.

Use Service Catalog, Connect Chat, location, and barcode scanning

Use Navigate the mobile service catalog on page 504 to order materials.
Collaborate and stay connected with other users using Connect Chat.
Allow the app to access your location and camera to check in or scan barcodes.

Manage your notification settings

Use Notification Settings to enable or disable the notifications that you receive and the channels for receiving them.
Next steps

The mobile UI varies depending on your device, the way your administrator configured the mobile UI for your company, and whether you access your instance from the native app or mobile browser.

Log in on a mobile device

You can use the URL for your instance to log in using a mobile device. Access your instance from a mobile web browser or using the native mobile app.

Depending on your device, go to the iTunes store or the Google Play store and search for ServiceNow to download the native mobile app.

Access an instance from the mobile app

Access an instance using the mobile app for supported devices.

1. After you download the app from the iTunes store or the Google Play store, tap the icon on the homepage.
You do not need to include service-now.com at the end of the instance name.

Even with the newest version of the app, you can access any instance version as far back as Geneva patch 8. Some functionality is version specific so if you do access an older version you might have more limited access. For example, only instances starting with Istanbul have access to customizable mobile home pages.

2. Use your regular login to sign in to the app.
After you log in, the app remembers your information. As long as you do not log out, the app opens the last screen you used when you open it again.

If you do log out, the app remembers your instance. Select the instance from the History list to log back in.

**Note:** The native mobile app does not have a screen for multi factor authentication (MFA). If your organization uses multi factor authentication, append the MFA code to your password on the login screen. For example, P@ssw0rd642135, where 642135 is the MFA code.

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**Access an instance from a mobile browser**

Access an instance using a supported mobile browser.

On a supported device, navigate to the URL of an instance in a supported mobile browser. Devices are automatically detected and the interface appends $m.do to the end of the URL. Accessing the mobile interface does not prevent the user from also accessing the tablet or desktop interfaces.
Figure 154: Mobile web log in page

1. Enter the base URL in any supported mobile web browser.
2. Enter your user name and password.
3. Select the Remember Me check box to remain logged in until you manually log out.
   This option can be enabled or disabled by the administrator. For more information, see Change settings for the Remember me check box and cookie.
4. If you forget your password, tap Forgot password?.
   The system walks you through a verification process to confirm your information.
5. Tap Continue to complete your login.
   If your organization uses multi factor authentication (MFA), the web login includes an additional screen to input the MFA code.

Add a shortcut to the home screen
Add an Apple home screen shortcut that opens a mobile browser page.
1. In Safari on a mobile device, navigate to a page that you want to access as a shortcut, such as a list of open incidents.
2. Tap the sharing icon ( ) at the bottom of the browser.
3. Tap the Add to Home Screen icon.
4. Type a descriptive name for the page and tap Add.
   The shortcut is saved to your device.

Change the home screen icon
Administrators can change the icon that appears for browser home screen shortcuts in the mobile interface.

To replace the default icon:
1. In the desktop interface, navigate to Self-Service My Profile.
2. Switch to the Default view.
3. Click the reference icon by the Company field to open the company record.
4. Configure the form to add the Apple icon field.
5. Upload an image up to 57x57 pixels in the Apple icon field.
When users associated with the company *add a home screen shortcut*, the shortcut uses the new icon.
**Configure a BlackBerry device**

BlackBerry devices require some configuration to use the smartphone interface.

1. Open the browser application.
2. Open the menu and select Options Browser Configuration.
3. Select the following options.
   - Support JavaScript
   - Use Background Images
   - Show Images: On WML & HTML Pages
   - Browser Identification: BlackBerry
4. Save your changes.

Depending on the size of the BlackBerry screen, you can change the default font size to a smaller size. Navigate to the General Properties browser submenu and set the default font size and minimum font size to a smaller size. Smaller text displays more content, but is difficult for some users to read.

**Mobile application navigator**

The application navigator provides access to all applications and the modules they contain, enabling users to quickly find information and services.

An application is a group of modules, or pages, that provide related information and functionality in an instance.

The application navigator also provides access to favorites and recently viewed items.

Administrators need to customize the application navigator so that the required modules appear on a mobile device. Most modules have not been enabled for mobile. For more information, see *Configure the mobile application navigator* on page 422.

**Use the application navigator**

Use the application navigator to access different modules in the mobile interface.

To open the application navigator, tap the menu icon (for iPhone and for Android).
<table>
<thead>
<tr>
<th>iPhone Menu Navigator</th>
<th>Android Menu navigator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Close</strong></td>
<td><strong>Navigator</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Navigator</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SELF-SERVICE</td>
<td></td>
</tr>
<tr>
<td>Service Catalog</td>
<td></td>
</tr>
<tr>
<td>My Requests</td>
<td></td>
</tr>
<tr>
<td>My Incidents</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
</tr>
<tr>
<td>My Approvals</td>
<td></td>
</tr>
<tr>
<td>Live Feed</td>
<td></td>
</tr>
<tr>
<td>INCIDENT</td>
<td></td>
</tr>
<tr>
<td>Create New</td>
<td></td>
</tr>
</tbody>
</table>

Scroll the navigator up or down using one or two fingers. To expand an application, tap the application name. To hide the navigator, tap Close or the back arrow.
Use the tablet application navigator

Access different modules in the user interface using the application navigator just as you do in the mobile app.

1.

To open the application navigator, tap the menu icon ( ).
2. Scroll the navigator up and down using your fingers. Tap a menu application to open.
To close the navigator, tap outside of the window.

**Mobile lists**

Lists appear as a single column of records on the mobile app UI display. Each row represents a separate record.

Live list updates are not available on mobile devices. Mobile lists only automatically reload when a record change is made by the currently logged in user. The list does not automatically update when other users make changes.
Mobile lists consist of the following elements.

### Table 97: Elements of the mobile UI: Lists

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>List name</td>
<td>Displays the name of the list favorite.</td>
</tr>
<tr>
<td>2</td>
<td>Back button</td>
<td>Navigates back to the home page.</td>
</tr>
<tr>
<td>3</td>
<td>UI actions</td>
<td>Displays buttons to display the list activity stream for iPhone and add a record.</td>
</tr>
<tr>
<td>4</td>
<td>Application search</td>
<td>Displays records that match the search string. On Android, search is located in the List options menu.</td>
</tr>
<tr>
<td>5</td>
<td>Current filter</td>
<td>Displays the conditions filtering the list.</td>
</tr>
<tr>
<td>6</td>
<td>Records</td>
<td>Displays one row for each record in the list.</td>
</tr>
<tr>
<td>7</td>
<td>List options</td>
<td>Displays list options to add to favorites, share, and sort the list.</td>
</tr>
</tbody>
</table>

#### Mobile activity streams

List activity streams appear as a single column window with a separate row for each record update in the mobile UI.

Access a list activity stream by pressing the activity stream icon. Activity streams open on a new page. Use the List options menu to open the Activity Stream on Android.

Rendering HTML text in activity streams is not supported for the mobile apps.
Figure 156: iPhone list activity stream
Figure 158: Elements of the mobile UI: activity stream

- Activity Stream
- Search
- Sort
- Share

Oct 20, 2015

System Administrator  INC0000031  8 months

When can we get off Remedy? UI is killing

System Administrator  INC0000007  8 months

Need access to sales DB for the West

Rain is leaking on main DNS Server

How do I create a sub-folder
Activity stream updates consist of the following elements.

Table 98: Mobile UI elements: activity stream

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back button</td>
<td>Return to the list.</td>
</tr>
<tr>
<td>User</td>
<td>Displays the user photo and name of the user who made the activity update.</td>
</tr>
<tr>
<td>Record details</td>
<td>Displays the record number and relative time since the update was made.</td>
</tr>
<tr>
<td>Activity details</td>
<td>Displays the most recent activity update.</td>
</tr>
</tbody>
</table>

Swipe up or down to see more activity stream updates.
Mobile filters

Use the condition builder to create complex filters in the native mobile app.

Not all filters are available on the mobile app. Saving a mobile filter is not supported. You can, however, add a filtered list to the favorites menu by selecting the star icon, which saves the list with the filter.

<table>
<thead>
<tr>
<th>iPhone UI filter</th>
<th>Android UI filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel</td>
<td>Save</td>
</tr>
<tr>
<td><strong>11 Total Results</strong></td>
<td><strong>42 total results</strong></td>
</tr>
<tr>
<td>1 SET 1 RESULTS</td>
<td>1 SET 1 RESULTS</td>
</tr>
<tr>
<td>5 NEW FILTER</td>
<td>5 NEW FILTER</td>
</tr>
<tr>
<td>2 All of these conditions</td>
<td>2 ALL of these conditions</td>
</tr>
<tr>
<td>3 Active = true</td>
<td>3 Active = true</td>
</tr>
<tr>
<td>4 Add New Condition</td>
<td>4 Add New Condition</td>
</tr>
<tr>
<td>6 and Any of these conditions</td>
<td>6 and ANY of these conditions</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Category is Inquiry / Help</td>
<td>Category is Inquiry / Help</td>
</tr>
<tr>
<td>Category is Network</td>
<td>Category is Network</td>
</tr>
<tr>
<td>Add New Condition</td>
<td>Add New Condition</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobile filters consist of the following elements.
<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Current set</td>
<td>Displays the current condition set and the number of records returned by the condition set.</td>
</tr>
<tr>
<td>2</td>
<td>Current rule</td>
<td>Displays the type of rule set that applies to the current filter.</td>
</tr>
<tr>
<td>3</td>
<td>Conditions</td>
<td>Displays the conditions that are part of the current condition set.</td>
</tr>
<tr>
<td>4</td>
<td>Add rule button</td>
<td>Displays a pop-up to add a rule.</td>
</tr>
<tr>
<td>5</td>
<td>New filter button</td>
<td>Creates a condition set.</td>
</tr>
<tr>
<td>6</td>
<td>Delete set</td>
<td>Deletes the current condition set.</td>
</tr>
</tbody>
</table>

**Mobile condition sets**

Condition sets generate a list by combining the results of multiple sets of conditions. Use condition sets to create complex filters.

Each set specifies whether a record must match all conditions or whether a record can match any condition.

In general, condition sets requiring matching to all conditions return fewer records than sets that allow matching on any condition within a set.

For example, consider the following filter consisting of two condition sets.

**Figure 159: Sample list filter with two condition sets**
In this example, set 1 requires matching all the conditions and returns 8 results. Set 2 allows matching to any condition and returns 29 results. Total results return 37 records for the combination of record results from the individual condition sets.

View or modify a mobile list

Modify a list on a mobile interface.

When you create a favorite list, it automatically appears on the mobile homepage. To see the details of a list or selection, tap its icon on the home page.

To modify a list:
1. Tap the list you want to modify.
2. Tap the filter.
3. To add an "And" rule, tap Add an All Rule. On an Android device, tap the add button and tap 'All' Rule.
   a) In the Add All section, click Add New Condition.
   b) Select a condition from the list.
   c) From the Select Operator list, select a condition qualifier.
   d) Click Save.

4. To add an "Or" rule, tap Add an Any Rule. On an Android device, tap the add button and tap 'Any' Rule.
   a) In the Add Any Rule section, tap Add New Condition.
   b) Select a condition from the list.
c) From the Select Operator list, select a condition qualifier.
d) Click Save.

Both sets of conditions appear in the condition filter.

5. To delete a condition, tap the adjacent x.
6. Tap Save.

Search a mobile list

Search in a list on a mobile device.

1. From the mobile homepage or the navigation menu, tap the list you want to search within.
2. In the search field at the top of the screen, type your search terms. On an Android device, access the search field from the List options menu ( ).
<table>
<thead>
<tr>
<th>iPhone search field</th>
<th>Android search field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidents</strong></td>
<td><strong>Active</strong></td>
</tr>
<tr>
<td></td>
<td>Activity Stream</td>
</tr>
<tr>
<td></td>
<td>Search</td>
</tr>
<tr>
<td></td>
<td>Sort</td>
</tr>
<tr>
<td></td>
<td>Share</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidents</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager can't access SAP Controlling application</td>
<td>INC0000051</td>
</tr>
<tr>
<td>Category: Software</td>
<td>Priority: 1 - Critical</td>
</tr>
<tr>
<td>Can't access SFA software</td>
<td>INC0000046</td>
</tr>
<tr>
<td>Category: Software</td>
<td>Priority: 1 - Critical</td>
</tr>
<tr>
<td>Please remove the latest hotfix from my PC</td>
<td>INC0000027</td>
</tr>
<tr>
<td>Category: Software</td>
<td>Priority: 1 - Critical</td>
</tr>
<tr>
<td>Can't launch 64-bit Windows 7 virtual machine</td>
<td>INC0000019</td>
</tr>
<tr>
<td>Category: Software</td>
<td>Priority: 1 - Critical</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
</tr>
<tr>
<td>INCIDENTS</td>
<td></td>
</tr>
<tr>
<td>Active = true</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to get to network</td>
<td>INC0000002</td>
</tr>
<tr>
<td>Priority: 1 - Critical</td>
<td></td>
</tr>
<tr>
<td>SAP Materials Management is slow or there is an outage</td>
<td>INC0000054</td>
</tr>
<tr>
<td>Priority: 1 - Critical</td>
<td></td>
</tr>
<tr>
<td>The SAP HR application is not accessible</td>
<td>INC0000053</td>
</tr>
<tr>
<td>Priority: 1 - Critical</td>
<td></td>
</tr>
<tr>
<td>SAP Sales app is not accessible</td>
<td>INC0000055</td>
</tr>
<tr>
<td>Priority: 1 - Critical</td>
<td></td>
</tr>
<tr>
<td>Manager can't access SAP Controlling application</td>
<td>INC0000051</td>
</tr>
<tr>
<td>Priority: 1 - Critical</td>
<td></td>
</tr>
</tbody>
</table>
3. To change the sort order, tap Sort.

Mobile lists on tablet

Lists appear as a single column of records on the mobile tablet UI display. Each row represents a separate record.

Tap a record in the column on the left to see item details.
Figure 160: Tablet UI list

Mobile lists on a tablet consist of the following elements.
Table 100: Elements of the mobile UI: Lists

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>List name</td>
<td>Displays the name of the list favorite.</td>
</tr>
<tr>
<td>2</td>
<td>Back button</td>
<td>Navigates back to the home page.</td>
</tr>
<tr>
<td>3</td>
<td>UI actions</td>
<td>Displays buttons to display the list activity stream and add a record.</td>
</tr>
<tr>
<td>4</td>
<td>Application search</td>
<td>Displays records that match the search string.</td>
</tr>
<tr>
<td>5</td>
<td>Current filter</td>
<td>Displays the conditions filtering the list.</td>
</tr>
<tr>
<td>6</td>
<td>Records</td>
<td>Displays one row for each record in the list.</td>
</tr>
<tr>
<td>7</td>
<td>List options</td>
<td>Displays list options to add to favorites, share, and sort the list.</td>
</tr>
<tr>
<td>8</td>
<td>Record details</td>
<td>View record details in a split pane view.</td>
</tr>
<tr>
<td>9</td>
<td>Record UI actions</td>
<td>Make a particular record a favorite, share the record, add an attachment, work notes, or comments.</td>
</tr>
</tbody>
</table>

*Mobile activity streams in the tablet app*

List activity streams appear as a single column window with a separate row for each record update in the mobile UI.

Access a list activity stream by pressing the activity stream icon. Activity streams open in the same panel as the list. Select an item to see more details in the right panel.

*Figure 161: Elements of the tablet UI: activity stream*
## Issue with email

<table>
<thead>
<tr>
<th>Number</th>
<th>Category</th>
<th>Priority</th>
<th>Related Lists</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>INC0000047</td>
<td>Inquiry / Help</td>
<td>3 - Moderate</td>
<td>(1)</td>
<td></td>
</tr>
</tbody>
</table>

### Jan 28, 2016

**Joe Employee**

Spoke to customer, appears to need a new VPN token.

**Joe Employee**

Can't connect to Email from home. Webmail appears to be down.

**Joe Employee**

Will deliver new token tomorrow when I'm in the San Diego office.

**Joe Employee**

Can't connect to Email from home. Webmail appears to be down.

Be sure to record VPN ID number in the CMDB.
Activity stream updates consist of the following elements.

**Table 101: Tablet UI elements: activity stream**

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Back button</td>
<td>Return to the list.</td>
</tr>
<tr>
<td>2</td>
<td>User</td>
<td>Displays the user photo and name of the user who made the activity update.</td>
</tr>
<tr>
<td>3</td>
<td>Record details</td>
<td>Displays the record number and relative time since the update was made.</td>
</tr>
<tr>
<td>4</td>
<td>Activity details</td>
<td>Displays the most recent activity update.</td>
</tr>
</tbody>
</table>

Swipe up or down to see more activity stream updates.

*Mobile filters in the tablet app*

Construct complex filters with the mobile app UI.
Mobile filters consist of the following elements.

Table 102: Mobile UI filters

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Current set</td>
<td>Displays the current condition set and the number of records returned by the condition set.</td>
</tr>
<tr>
<td>2</td>
<td>Current rule</td>
<td>Displays the type of rule set that applies to the current filter.</td>
</tr>
<tr>
<td>3</td>
<td>Conditions</td>
<td>Displays the conditions that are part of the current condition set.</td>
</tr>
<tr>
<td>4</td>
<td>Add rule button</td>
<td>Displays a pop-up to add a rule.</td>
</tr>
<tr>
<td>5</td>
<td>New filter button</td>
<td>Creates a condition set.</td>
</tr>
<tr>
<td>6</td>
<td>Delete set</td>
<td>Deletes the current condition set.</td>
</tr>
</tbody>
</table>

Not all filters are available on the mobile app.

Mobile favorites

Mobile favorites provide links to records in the system. Favorites display as icons on the homepage in the mobile app.
Note: There are a few limitations for mobile favorites:

- You cannot disable the favorite icon on mobile lists or forms.
- *Fixed Query* modules are not supported and do not appear on a mobile device even when selected as a favorite.
- Favorites containing home.do are not supported and do not appear on mobile devices.

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>User profile button</td>
<td>Displays the current profile record.</td>
</tr>
<tr>
<td>2</td>
<td>Favorites</td>
<td>Links to records in the instance, sometimes with visualizations.</td>
</tr>
<tr>
<td>3</td>
<td>Application navigator button</td>
<td>Displays the list of menus and modules available to the current user.</td>
</tr>
</tbody>
</table>

Long press a favorite to edit the following properties.

- Label
- Text and icon color
- Icon image
- Enable visualizations for some favorites

Favorites automatically synchronize between the mobile UI and the desktop UI for your instance.

**Add a mobile favorite**

Make any list, record, or module a favorite to add it as an icon to the mobile favorites page.

1. Navigate to the screen that you want to add as a favorite.
2. Tap the star icon.
3. From the Customize Favorite page, give the favorite a name, tag color, and icon. Then tap Save.
Edit a mobile favorite

Make changes to the appearance of a favorite on a mobile favorites page.

1. On the app home page, long press a favorite icon.
2. From the icon customization screen, change the icon name, color, or icon.
3. To delete a favorite, long press the icon then on iOS tap Delete or on Android tap the delete icon.

Add a Visualization to a favorite

Add visualizations to mobile favorites.
Visualizations are specific to your device. If you add a visualization to a list on one mobile device, it won't display the same way on another device.

1. In the mobile app homepage, long press the favorite you want to add a visualization to.
2. Tap the Visualizations tab.
3. Select a visualization from the available options. Visualization options vary depending on the type of favorite you select.
Figure 163: Visualizations tab
Visualization options
Visualization options allow users on the mobile app UI to see relevant table information directly from the home page favorite icon.

Use the following visualizations to customize the appearance of favorites on the mobile app homepage.

Table 104: Favorite visualization options

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorite icons displays the number of records returned by the list filter.</td>
<td><img src="image" alt="Figure 164: Count" /></td>
</tr>
<tr>
<td>Favorite icons displays the number of records with a particular field value. Select the field values you want to display when you set up the visualization.</td>
<td><img src="image" alt="Figure 165: Bar chart" /></td>
</tr>
</tbody>
</table>

Using the native mobile app

Access an instance from the mobile interface using the native mobile app.

Download the mobile app from the iTunes store for devices running iOS 9 and above or from the Google Play store for Android phones running version 4.4 (KitKat) and above.
Use the native mobile app to do the following:

- Access lists and forms.
- Save favorite lists and records to the app homescreen.
- Access the service catalog from your mobile device.
- Communicate with other users within the platform using Connect Chat for mobile.
- Share your location.

The mobile UI is configurable by your administrator.

### Manage notification settings in the native mobile app

In the native mobile app, use Notification Settings to enable or disable your notifications and the channels for receiving them.

**Role required:** user

You can set additional notification preferences, such as conditions or filters that affect notification delivery, through the System Settings on a desktop instance or mobile web browser. For details, see Setting notification preferences in UI16.

1. On your profile screen, tap Notification Settings.
2. On the Notifications Settings screen, enable or disable your notifications.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable Notifications</strong></td>
<td>Global switch for enabling or disabling all your notifications.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The system does not disable any notifications configured as mandatory by your administrator.</td>
</tr>
<tr>
<td><strong>Notification channels</strong></td>
<td>Switches for enabling or disabling the notifications that you receive by device.</td>
</tr>
<tr>
<td><strong>Notification categories</strong></td>
<td>List of notification categories. Each category identifies and groups related notifications. To select a notification:</td>
</tr>
<tr>
<td></td>
<td>1. Tap the notification category.</td>
</tr>
<tr>
<td></td>
<td>2. Tap the notification to be updated.</td>
</tr>
<tr>
<td></td>
<td>3. Enable or disable the channels for that notification.</td>
</tr>
</tbody>
</table>

3. Tap the back button (arrow) to navigate back to your profile screen.

### Mobile Connect Chat

Use Connect Chat to communicate with coworkers in the mobile app.

Activate Connect before using chat in the mobile app. Many, but not all the features supported in the desktop interface are available in the mobile app UI. Administrators can show or hide Connect Chat by configuring it by role.

Connect Chat is not supported on the mobile web although some limited functionality exists.
Figure 166: Elements of the mobile UI: Connect Chat

- Back button
- Filter
- Conversations
- Application navigator button

- Connect (2)
- Edit
- New conversation

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<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back button</td>
<td>Returns to the previous screen.</td>
</tr>
<tr>
<td>Edit button</td>
<td>Turns on conversation editing mode, in which you can delete conversations or mark them as read. Deleting a conversation only removes it from the list. Chat history is preserved and you can add the conversation back to your list using the new conversation button.</td>
</tr>
<tr>
<td>New conversation</td>
<td>Opens a new conversation to which you add one or more members.</td>
</tr>
<tr>
<td>Filter</td>
<td>Enables you to filter conversations by member name.</td>
</tr>
<tr>
<td>Conversations</td>
<td>Lists your open conversations. You can view All your conversations or only conversations with Unread messages.</td>
</tr>
<tr>
<td>Application navigator button</td>
<td>Displays the list of menus and modules.</td>
</tr>
</tbody>
</table>

*Mobile Connect Chat conversations*

Have conversations with groups of people in Connect in the mobile app.
Have you seen this?

ITIL User 6 mins
System Administrator has been added to the group

System Administrator 5 mins
that's not your car is it??

ITIL User 5 mins
No! So glad I parked on the street today!

Incident ID:
incident.do?
sys_id=23d487264f8c12002fa02f1e0210c746&sysparm_record_target=incident&sysparm_record_row=2&sysparm_record_row=2&sysparm_record_row=2&sysparm_record_list=active%3Dtrue%5EORDERBYDESCNumber

Attachment button

Message

Message field
### Table 106: Elements of the mobile UI: Connect Chat conversation

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversation name</td>
<td>Displays the name of the conversation.</td>
</tr>
<tr>
<td>Conversation details</td>
<td>Opens the conversation details page, which displays the following information.</td>
</tr>
<tr>
<td></td>
<td>• Record details (record conversations only)</td>
</tr>
<tr>
<td></td>
<td>• Push notification preferences</td>
</tr>
<tr>
<td></td>
<td>• Conversation members</td>
</tr>
<tr>
<td></td>
<td>For group and record conversations, the conversation details page also provides capabilities to add or remove conversation members and to leave the conversation.</td>
</tr>
<tr>
<td>Avatar</td>
<td>Displays an image or initials to represent a user. Tap an avatar to view details about the user, including email address and online presence status.</td>
</tr>
<tr>
<td>Attachment button</td>
<td>Enables you to include attachments in a message, including photos and documents.</td>
</tr>
<tr>
<td>Message field</td>
<td>Enables you to enter and send messages.</td>
</tr>
</tbody>
</table>

**Note:** For record conversations, all messages are sent as comments. Sending a message as a worknote is not supported.

### Mobile device location

Administrators can set up the mobile app UI to request a current location for a mobile device and store GPS coordinates in a string field.

Take advantage of mobile device tracking features such as GPS location by configuring a string field to use the current_location dictionary attribute. This attribute causes the mobile app UI to display a special icon to request the current location of the mobile device.
Figure 168: Elements of the mobile UI: current location field

GPS coordinates are stored in the string field. Administrators can assign any label they want to this field.

Get current location allows the app to access the current location of your mobile device.

Current location field asks for permissions to use your current location the first time you use that option.

Change the app access to location from your device Settings.

Mobile barcode scanning

Administrators can set up the mobile app UI to request access to a mobile device camera to scan and store barcodes in a string field.

Take advantage of mobile device barcode scanning features by configuring a string field to use the barcode dictionary attribute. This attribute causes the mobile app UI to display a special icon to request access to the mobile device camera.
String field displays and stores the numeric value for the barcode. Administrators can assign any label they want to this field.

Scan barcode opens the mobile device camera to scan a barcode.

When you open the barcode scanner for the first time, the app asks your mobile device for permissions to access the camera.

The native iOS and Android apps support scanning the following barcode types:

• 2D barcodes: QR Code, Data Matrix, PDF-417, AZTEC
Navigate the mobile service catalog

Browse the service catalog using a browser on your mobile device or with the native mobile app.

Figure 170: Mobile service catalog
Table 107: Elements of the mobile UI: Service Catalog

<table>
<thead>
<tr>
<th>Number</th>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Current catalog</td>
<td>Displays the title of the current service catalog.</td>
</tr>
<tr>
<td>2</td>
<td>Back button</td>
<td>Returns to the previous screen.</td>
</tr>
<tr>
<td>3</td>
<td>Search</td>
<td>Enter search strings for categories or catalog items.</td>
</tr>
<tr>
<td>4</td>
<td>Application navigator button</td>
<td>Displays the list of menus and modules available to the current user.</td>
</tr>
<tr>
<td>5</td>
<td>Shopping cart</td>
<td>Displays the shopping cart to check out.</td>
</tr>
</tbody>
</table>

Administrators can configure the mobile catalog layout and which items appear on the mobile platform. For more information, see *Configure mobile devices*.

Mobile service catalog categories

Browse service catalog categories using the mobile app.

Each category displays on its own page in the mobile app.
Mobile service catalog categories consist of the following elements.

**Table 108: Elements of the mobile UI: service catalog category**

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current category</td>
<td>Displays the currently selected service catalog category.</td>
</tr>
<tr>
<td>Back button</td>
<td>Returns to the previous service catalog page.</td>
</tr>
</tbody>
</table>
Use the category filter to switch between categories and subcategories.

**Figure 172: Elements of the mobile UI: category filter**
### Table 109: Elements of the mobile UI: category filter

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel button</td>
<td>Closes the category filter.</td>
</tr>
<tr>
<td>Current category</td>
<td>Displays the currently selected category.</td>
</tr>
<tr>
<td>Current filter</td>
<td>Displays the current filter applied to categories and subcategories.</td>
</tr>
<tr>
<td>Subcategories</td>
<td>Displays the subcategories available to filter the service catalog.</td>
</tr>
<tr>
<td>Apply button</td>
<td>Saves changes to the category filter.</td>
</tr>
</tbody>
</table>

**Mobile catalog items**

Browse service catalog items using the mobile app.
Figure 173: Elements of the mobile UI: catalog item

Table 110: Elements of the mobile UI: catalog item

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current item</td>
<td>Displays the name of the currently selected catalog item.</td>
</tr>
<tr>
<td>Back button</td>
<td>Returns to the previous screen.</td>
</tr>
<tr>
<td>Item description</td>
<td>Displays the catalog item description.</td>
</tr>
</tbody>
</table>
Input types appropriate to the catalog variable type display in the mobile app. For example, for a choice variable the mobile app UI displays a list of choices.

Figure 174: Sample catalog variable input
Table 111: Elements of the mobile UI: variable input

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current variable</td>
<td>Highlights the currently selected variable.</td>
</tr>
<tr>
<td>Previous or next variable</td>
<td>Navigate to the previous or next variable input available for the catalog item.</td>
</tr>
<tr>
<td>Variable choices</td>
<td>Select the choice to use for the catalog item. Swipe to see more choices.</td>
</tr>
<tr>
<td>Done button</td>
<td>Close the list of variable choices.</td>
</tr>
</tbody>
</table>

Mobile shopping cart

Shopping cart items display in a separate page overlay of the service catalog in the mobile app.
Figure 175: Elements of the mobile UI: shopping cart

Table 112: Elements of the mobile UI: shopping cart

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel button</td>
<td>Closes the shopping cart.</td>
</tr>
<tr>
<td>Items requested</td>
<td>Displays the list of items in the shopping cart.</td>
</tr>
<tr>
<td>Item costs</td>
<td>Displays the one-time and ongoing costs of each requested item.</td>
</tr>
<tr>
<td>Cart totals</td>
<td>Displays the one-time and ongoing total costs.</td>
</tr>
<tr>
<td>Checkout button</td>
<td>Requests the catalog items in the shopping cart.</td>
</tr>
<tr>
<td>UI element</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Edit button</td>
<td>Displays an edit view to add or remove catalog items from the shopping cart.</td>
</tr>
</tbody>
</table>

Table 113: Elements of the mobile UI: editing the shopping cart

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items requested</td>
<td>Select items to remove from the shopping cart.</td>
</tr>
<tr>
<td>Item quantity</td>
<td>Edit the number of items requested.</td>
</tr>
</tbody>
</table>

Figure 176: Elements of the mobile UI: Edit shopping cart
<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cart totals</td>
<td>Displays the one-time and ongoing total costs as you edit the shopping cart.</td>
</tr>
<tr>
<td>Save button</td>
<td>Update the shopping cart with the current items and quantities.</td>
</tr>
</tbody>
</table>

Figure 177: Elements of the mobile UI: order status

After checking out, the mobile app UI displays an order status page consisting of the following elements.
Table 114: Elements of the mobile UI: order status

<table>
<thead>
<tr>
<th>UI element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items requested</td>
<td>Displays the items the user requested from the service catalog.</td>
</tr>
<tr>
<td>Item costs</td>
<td>Displays the one-time and ongoing costs of the items requested from the service catalog.</td>
</tr>
<tr>
<td>Order details</td>
<td>Displays information from the request record for this order.</td>
</tr>
</tbody>
</table>

Homepage administration

A homepage is a ServiceNow interface that consists of navigational elements, functional controls, and system information. Responsive and non-responsive dashboards provide a similar interface with additional functionality.

When a user logs in to an instance, the default homepage defined for their role appears unless the user has switched to a different homepage. Administrators can customize several settings for homepages, including settings that control read or write access for any homepage and how homepages render.

Dashboards encapsulate homepage functionality. If dashboards are enabled, you can Set dashboards as your Home.

**Note:** Web Content Accessibility Guidelines (WCAG) 2.0/Section 508 features do not work with homepages. These features only work with dashboards. To convert your homepages, see Create a dashboard version of a homepage on page 527.

Administrators can also perform the following actions for homepages.

- 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.

**Note:** If you are using responsive dashboards, you can convert your homepage to a dashboard. Advantages include new sharing functionality and easier layout management. See Create a dashboard version of a homepage on page 527. Navigate to System Definition Plugins to activate the Responsive Dashboards plugin.

Restrict content additions 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 Homepage Admin Properties module.

**Note:** The option Add to homepage does not take into account the property cms.glide.add_content. This means that users can add reports to any homepage they can view. The result is that users create new homepages with the added information when they modify a homepage that they don't own.
Secure a homepage

Hompagees have two types of roles: read and write. Read roles limit who can view the page. Write roles limit who can make edits to the page, such as adding and moving widgets or deleting the homepage.

Role required: admin

**Note:** If no write roles are specified on a homepage, then any user with one of the specified read roles may access this page and delete it.

**Note:** The option Add to homepage does not take into account the property cms.glide.add_content. This means that users can add reports to any homepage they can view. The result is that users create new homepages with the added information when they modify a homepage that they don't own.

1. Navigate to Homepage Admin Pages.
2. Select the homepage you want to secure.
3. Click the edit 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 Done.
6. Click Update.

Homepage user preferences

You can set your homepage user preferences.

After users have selected a homepage to view, their homepage preference is stored in User Administration User Preferences in a preference 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.

Add a homepage to an update set and application

You must manually add homepages and content pages to update sets prior to distribution.

Role required: admin
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.

1. Navigate to Homepage Admin Pages.
2. Right-click a homepage record.
   
   The page is added to the current update set.

### Add existing reports to a homepage

Add reports to homepages to share them and make them easily accessible.

1. Navigate to a homepage.
2. Click Add content.
3. Select Reports in the left column.
4. Select the table the report is based on in the middle column.
5. Select the report in the right column.
6. Click Add here where you want to place the report on homepage.
7. To add more reports, repeat steps 3 through 6.
8. Click the close icon () in the top right corner when you finish adding reports.

### Arrange objects on a homepage

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

- Moving widgets – Click, hold and drag near the top of a widget to move it another area. Objects in the top or bottom areas display at 100% of the available width. Widgets in the right, left, or center areas display at 50% of the available width. If widgets are added to all these areas, they display at 33% of the available width.
- Removing widgets – Click the icon to remove a widget.

### URL widget variable height workaround

URL widget can be used to display a different web page or website as part of a homepage.

URL widgets are set with a fixed height, so you might have to scroll to see the entire web page in the widget. URL widget widths are set by the positioning of the widget on a particular homepage. You cannot modify URL widget height, but you can set up an iFrame in a UI page to manage the height.

1. 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.

   `<iframe id="myframe" src="http://www.service-now.com" scrolling="yes" style="height:450px; width:100%"></iframe>`
2. Next, navigate to System UI Widgets and create or modify a widget to use 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 to create a new widget.

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

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

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

3. 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.

The upper and lower limit fields are in the Gauge [sys_gauge] table. You can configure the Gauge form to add these fields.

Ensure domain separation on a gauge

To ensure domain separation on a gauge when the MSP Extensions plugin is not installed, a domain field must be added to the table for gauges and gauge counts. This domain field must then be set as a reference field.

Requires role: security_admin

By default, the Domain Support plugin separates data on certain tables by domain. It does not separate gauges by domain unless the MSP Extensions plugin is installed. The gauge displays data only from the user’s domain, but the user is able to see the entire gauge.

Follow these steps to ensure domain separation on gauges if the MSP Extensions plugin is not installed.

1. Navigate to System UI Gauges and select a gauge to separate by domain.
2. Configure the form layout and add a new field named sys_domain.
3. Configure the dictionary on the sys_domain field and fill in the Reference field with the domain for this gauge. If left blank, the gauge is global.
4. Select a gauge count record under the gauge related lists.
5. Repeat steps 2 and 3.
Domain fields appear on gauges and gauge counts, and the field references a table. After a domain field exists on a form, all records within the table will have the domain field enabled. By default, these records are global.

Set a default view for a gauge

Use a system property to change the default view for a gauge.

Role required: admin

The default property view value for a gauge on upgraded instances is Portal. For new installs or zBoot instances, the default property value is blank.

1. Enter sys_properties.list in the Navigation filter.
2. Search for the property glide.ui.gauge.view.
3. In the Value field, type the name of the gauge view you want as the default.

Top Searches homepage

The Top Searches homepage displays the most popular searches over the past hour, day, week, or month. The homepage includes widgets for specific tables and across the entire instance.

• Users with the itil role can view the homepage by default. To control access to the page, administrators can secure the homepage.
• Users can add any of the top searches widgets to their homepages. Administrators can control who has access to top searches widgets.
• Users can select the time period for which to view top searches and perform searches directly from the widget.

Use a top search widget

Top searches widgets display the top 10 searches over the past hour, day, week, or month for the specified table or across the entire instance (All).

Take either of the following actions to use a top searches widget.

• Click the desired time period for which to see top searches (default is Day). You can change the time period at any time, and your most recent selection is loaded the next time you view the homepage.
• Click any item on the list to search for it. The Top Searches - All widget performs a global search and a table-specific widget performs a search of the table or application. For example, knowledge searches return knowledge base search results.

Note: Each user's time period selection is stored by the top_searches.period user preference.

Add a top search on a homepage

You can add a top searches widget to a homepage.

1. On a homepage, click Add content.
2. Select Text Search from the left panel and Top Searches from the middle panel.
3. Select the desired top search widget from the right panel.
4. On the bottom of the window, click Add here in the appropriate layout position, and then close the window.

5. Select the time period for which you want to see the top searches (default is Day). The widget displays the top 10 searches for the selected time period.

Control access to a top search widget

You can control who has access to top searches widgets by restricting who can add content to homepages or by applying roles to the widget.

Role required: admin

1. Navigate to System UI Widgets.
2. Select Text Search.
3. Click the edit user roles icon and select the required access rights, then click Done.
4. Click Update.

Define a table for a top search

You can define the tables for which top searches widgets are available.

Role required: admin

1. Navigate to System Properties Text Search.
2. Enter the tables for which you want top searches widgets in the Comma-separated list of table names which will have home page top searches widgets available for them field (the glide.ts.widget.top_search_tables property).
   The default tables are Knowledge, Problem, Incident, Change Request, Catalog Item, and Live Message (kb_knowledge,problem,incident,change_request,sc_cat_item,live_message).

   **Note:** Adding a parent table includes all searches on tables that extend the parent table. For example, if you add Task, then all Incident, Problem, and other task tables are included.

3. Click Save.

View user preference for time period

Each user's time period selection is stored with a user preference.

- top_searches.period: stores the user's selection for the Top Searches - All widget.
- top_searches.period.<table name>: stores the user's selection for the Top Searches - <Table> widget.
  For example, top_searches.period.kb_knowledge stores the user's preference for Top Searches - Knowledge.

1. To view user preferences, navigate to User Administration User Preferences.
2. Find the top searches preferences.
3. Make the necessary changes to the user preferences and save the record.

Update a top search statistic

Top search statistics are compiled on an hourly basis by the TS Search Summary scheduled job.
Role required: admin

Use the following procedure to manually refresh the list.

1. Navigate to System Scheduler Scheduled Jobs Scheduled Jobs.
2. Open TS Search Summary.
3. Change the date and time in the Next action field to run the scheduled job at the specified time. For example, if it is currently 9:48 AM and you want to run it immediately, set the date to today and the time to 10:00.

   **Note:** This scheduled job is designed to collect hourly data. For optimal data accuracy, do not run this job more frequently.

4. Click Update.

Custom homepage widgets

There are a number of widgets provided out-of-box to be added to a homepage, but administrators can also create their own 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, add it to a homepage, and see how it renders.

After the UI page is scripted, create a widget that renders the UI page and executes its script.

Create a widget that displays a ServiceNow UI page

You can create ServiceNow UI page that displays a web page, then make the UI page into a widget that can be added to dashboards and homepages.

Role required: admin

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, do not display properly when placed in a dashboard.

   **Note:** This functionality requires a knowledge of JavaScript.

1. Create or find a ServiceNow UI page that you want to display as a widget. Note the name of this UI page, to use in Step 4.

   For example, this HTML shows the ServiceNow landing page in an iframe.

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

2. Navigate to System UI Widgets and click New.

   Widgets records are widget category records, not records for individual widgets. When adding a widget to the dashboard, first select the category and then the widget. The javascript you specify in step 4 contains the list of widgets to include in that category.

3. Fill in the following fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of this widget category. The user selects this category when adding its widgets to a dashboard.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Renderer Type</td>
<td>Select Javascript.</td>
</tr>
<tr>
<td>Active</td>
<td>Clear to make the widget unavailable to add to dashboards.</td>
</tr>
<tr>
<td>Roles</td>
<td>Select roles that can see this category when adding widgets to dashboards. If no roles are selected, all roles can see the category.</td>
</tr>
</tbody>
</table>

4. Add the following javascript in the Script field, making replacements as specified. The return statement contains the widgets that are listed in this widget category.

```javascript
function sections() {
    return {
        'widget_name': { 'uiPageName': 'UI_page_name' },
        'widget_name2': { 'uiPageName': 'UI_page_name' }
    };
}

function render() {
    var uiPageName = renderer.getPreferences().get("uiPageName");
    return renderer.getRenderedPage(uiPageName);
}

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

5. Click Submit.

To learn how to make a UI page without using a framework page template, see the Making a UI page without using the framework page template blog posting by a developer in the ServiceNow Community.

Create a new personal homepage

Users with at least one role can create new personal homepages that are visible to themselves.

You can create a 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. Note that dashboards provide an easier interface for creating, organizing and sharing content. For more information, see Working with responsive dashboards.

**Note:** Web Content Accessibility Guidelines (WCAG) 2.0/Section 508 features do not work with homepages. These features only work with dashboards. To convert your homepages, see Create a dashboard version of a homepage on page 527.

1. Navigate to Self-Service Homepage to open your current homepage.
2. Click the new page icon

Your new homepage appears with a single dropzone.

3. Add content as needed.

Create a personal homepage based on an existing homepage

Users with at least one role can create personal homepages based on existing homepages that are visible to themselves.

**Note:** Web Content Accessibility Guidelines (WCAG) 2.0/Section 508 features do not work with homepages. These features only work with dashboards. To convert your homepages, see *Create a dashboard version of a homepage* on page 527.

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 homepage with the title My Homepage, indicating that the homepage is a personalized one. Any changes you make are applied to the personalized homepage, not the global version.

Create a global homepage or a homepage for specific users

You can create and edit a global homepage that is accessible to all users, or homepages that are accessible to users with specific roles.

**Role required:** admin

1. Navigate to the *Homepage Admin Pages*.
2. Click New.
3. Complete the form.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Enter the title of the homepage that appears at the top.</td>
</tr>
<tr>
<td>Selectable</td>
<td>Select this option to make the homepage appear in the Switch to page 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.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>View</td>
<td>Enter a unique value that you can use when referencing a global homepage in a URL or module. The View value must be unique. Otherwise, if the View is used by multiple homepages, the Edit Homepage link may not redirect to the current homepage record. Specify a view to be able to edit the homepage for all users who can access it.</td>
</tr>
</tbody>
</table>
| 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.  

**Note:** If this field is populated, the homepage cannot be global. |
| 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. Write roles limit who can make edits to the page, such as adding and moving widgets or deleting the homepage. For more information, see Secure a homepage on page 516.  

**Note:** Users who only have Read access create new versions of a homepage when they edit the homepage. |
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read roles</td>
<td>Specify the roles you want users to have to view this homepage. Read roles limit who can view the page. The User field takes precedence over this field. If you specify a user in the User field, only that user can view the homepage, regardless of what roles you add here and regardless of what role that user has.</td>
</tr>
</tbody>
</table>

**Note:** Users who only have Read access create new versions of a homepage when they edit the homepage.

**Note:** If no write roles are specified on a homepage, then any user with one of the specified read roles may access this page and delete it. For more information, see *Secure a homepage* on page 516.

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:** 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 value in the View field.
Figure 179: Portal Page form for the asset overview homepage

Table 116: Related links

<table>
<thead>
<tr>
<th>Related Links</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit Homepage</td>
<td>Edit the homepage as a global homepage. Any changes you make when editing the homepage are visible to all users who can access it.</td>
</tr>
<tr>
<td>View Homepage</td>
<td>View the homepage as a user would. Any changes you make when viewing the homepage automatically create a personalized version of the homepage.</td>
</tr>
</tbody>
</table>
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.

Create a dashboard version of a homepage

To take advantage of responsive dashboard functionality, you can migrate your existing homepage to a dashboard.

Users with any role can copy their own homepage to a dashboard. Users with the admin role can create dashboard versions of any homepage.

Advantages of dashboards include:

- **Responsive design** — The widgets on a dashboard are optimized for the screen you are using: desktop, tablet, or mobile phone.
- **Drag-and-drop widgets** — You can add dashboard widgets precisely where you want them and rearrange the dashboard with easy to use tools.
- **Shareability** — You can share dashboards easily with users, roles, and groups.

When you create a dashboard version of a homepage, the content is added to the new dashboard, but permissions associated with the homepage are not retained. To apply permissions to the dashboard, specify the permissions again. Users with whom you share a dashboard may or may not be able to edit the dashboard or share it with others. The ability to edit or share a dashboard is based on the user's role and the permissions granted to them.

**Note:**

Only pages that are accessible through home.do can be converted. Manually coded UI pages that utilize the homepage layout system, but are not accessible through home.do cannot be converted.

Homepages with layouts that include scripts or style sheets might not work or might not look as expected after conversion. This discrepancy is because jelly code is not evaluated during conversion.

When you convert a homepage to a dashboard, the dashboard is independent of the homepage. Changes you make to the dashboard do not migrate to the source homepage. In addition, changes that you make to the homepage after conversion do not migrate to the dashboard.

1. **Enable responsive dashboards.** For more information, see [Responsive dashboard properties](#).
2. **Navigate to** Self-Service Homepage.
3. **From the list, select the homepage you want to copy.**
4. Click the Homepage settings icon
   ![Settings Icon]
   and choose Create Dashboard Version.
5. Select Create new dashboard or Add to existing dashboard and click Create. The Add to existing dashboard list contains only the dashboards you own.

When successful, the dashboard version opens as a new dashboard or as a tab on the selected dashboard.

**Note:** The layout of the dashboard version is similar to the homepage layout but may not be precisely the same.

**Note:** Homepages with dashboard versions show a button with the text Open Dashboard Version. This button takes the user to the most recently created dashboard version of the homepage.

You can share the dashboard version of your homepage with other users. See *Share a responsive dashboard*.

**Customize your homepage content**

Users with at least one role can see a customized homepage when logging in.
The content on the homepage comes from various sources, including:

- 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.
Administrators can customize the System Administration homepage and add a homepage to an update set and application.

View and return to a homepage

When you log in to an instance or click the company logo, your homepage appears.
Users who customize their homepages see the customized homepage. Users who have not customized their homepages see the homepage for their role, such as admin or itil. If their role has no homepage, a blank page appears.

After logging in, navigate to Self-Service Homepage to return to the last homepage you viewed.

Note: Users see the homepage with the lowest Order value of the pages they have roles to see when they log in. For more information, see Create a new personal homepage on page 522.

View your homepage

The homepage that you can see when you log on ServiceNow is controlled by a number of factors.

The homepage you see, depends on the following:

• If you personalized your homepage, the personalized homepage appears.
• If you did not personalize your homepage, the homepage for your role, such as admin or itil, appears. The homepage with the lowest Order value of the pages they have roles to see appears.
• If your role has no homepage, a blank page appears.

Log in to ServiceNow to access your homepage.

The number of records displayed in a list report on your homepage is limited to the number of records displayed in your lists. For example, if you display 100 records in your lists, a maximum of 100 records appears in your list report.

Refresh the homepage

Homepage users can specify a refresh time of 5, 15, 30, or 60 minutes, or no refresh. It is not possible to configure individual widgets to refresh automatically.

Click the cog wheel icon

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to choose a refresh interval. The default is Off (no refresh).

Click the refresh icon (↻) at any time.

Modify the number of records displayed in a list report

List reports added to 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 reports. For instructions on changing this number, see Configure and use list functions on page 95.

Customize a homepage

You can customize the default homepages that appear for each user.

Role required: admin

- Administrators can customize the default homepages that appear for each user by navigating to Homepage Admin Pages and selecting the homepage.
- Users who have roles can customize the homepages that are specified for their roles by navigating to Self-Service Homepage.

1. Navigate to Homepage Admin Pages.
2. Select the homepage to customize.
3. Click Edit Homepage.
The homepage opens just as it does when you view it, but it is in edit mode.

**Note:** 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 value in the View field.

4. Add items to the homepage.
   a) Click Add Content.
   A window opens that lets you select from the homepage items that you can add. Some items pertain to specific features and applications, such as CMS content blocks and the Work Management dispatch map. So the list of items varies depending on what is active on your system.

   **Warning:** Each widget on your homepage runs individually. For example, a homepage with 10 reports runs each report every time it refreshes. If your homepage consistently loads slowly, try removing widgets to determine why.

   b) Select an item to add.
   • Reports: Reports to the homepage.
   • Gadgets: Items like a knowledge search field and sticky notes.
   • Knowledge Base: Knowledge base categories.
   • Labels: Labels that you use to organize records.
   • System Applications: Applications and modules.
   • World Clocks: Any available World Clock.

   **Note:** The world clock widget is for demo purposes only.

   • Gauges: All available dashboard gauges. Gauges are defined in System UI Gauges.

   **Note:** Gauges are not supported. Add reports to the homepage instead. For more information, see Add existing reports to a homepage on page 517.

   • Catalog Categories: Active service catalog categories. The homepage uses the desktop icon of the category as the homepage icon.
   • Catalogs: Service catalogs, including all their active categories (starting with the Eureka release).
   • Diagnostics: Information you can use for monitoring and troubleshooting your instance, like database connections and JVM garbage collection.
   • Live Feed: Your company feed.
   • Text Search: Lists of top searches in your instance.
   • Filters: System definition filters.

5. Reposition elements on your homepage by dragging and dropping them to a new location.
The change you make to the homepage is saved automatically.

6. To remove a homepage item, click the [X] on the right side of the header of the item.

**Homepage items**
You can add different types of objects or widgets to homepages using the Add content button.
In the pop-up window, you select the homepage item you want to add. Some items pertain to specific features and applications. The available items vary depending on what is active on your system.

**Warning:** Each report on your homepage runs individually. For example, a homepage with 10 reports runs each report every time it refreshes. Keep this in mind when adding content to your homepage. If your homepage consistently loads slowly, try removing reports to determine why.

You can reposition items on a homepage by clicking the item header and dragging it to the new location. To remove a homepage item, click the close icon (X) on the right side of the item header.

**Table 117: Homepage items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports</td>
<td>Add reports to the homepage. For more information, see <em>Add existing reports to a homepage</em> on page 517.</td>
</tr>
<tr>
<td>Gadgets</td>
<td>Items such as a knowledge search field and sticky notes.</td>
</tr>
<tr>
<td>Knowledge Base</td>
<td>Knowledge base categories.</td>
</tr>
<tr>
<td>Labels</td>
<td>Labels that you use to organize records.</td>
</tr>
<tr>
<td>System Applications</td>
<td>Applications and modules.</td>
</tr>
<tr>
<td>World Clocks</td>
<td>Any available world clock.</td>
</tr>
<tr>
<td>Catalog Categories</td>
<td>Active service catalog categories. The homepage uses the category's desktop icon as the homepage icon.</td>
</tr>
<tr>
<td>Catalogs</td>
<td>Service catalogs, including all of their active categories.</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Information you can use for monitoring and troubleshooting the instance, like database connections and JVM garbage collection.</td>
</tr>
<tr>
<td>Live Feed</td>
<td>Your company feed.</td>
</tr>
<tr>
<td>Text Search</td>
<td>Lists of top searches in the instance.</td>
</tr>
<tr>
<td>Filters</td>
<td>System definition filters.</td>
</tr>
</tbody>
</table>

For more information on adding content to homepages, see *Add existing reports to a homepage* on page 517.
Edit widget appearance

You can edit how an object on a homepage, also called a widget, looks.

1. Move the pointer to the upper right corner of the widget to show the editing controls.
2. Click the edit widget icon on the right side of the item header.
3. Select one or more options to control the appearance of the widget, such as to show a border, set title alignment and size, and set the report height.
4. Use the Interactivity options to make the widget a subscriber or publisher.
   Interactive publishers require Performance Analytics.
5. Click Done.

Change the homepage layout

You can change the layout of widgets on the homepage.

1. From a homepage, click the Change Layout button.
2. Select the layout you want to use.
   Administrators can create or modify layouts by navigating to Homepage Admin Layouts.
3. Click Change.
Delete a custom homepage

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.

1. Navigate to the custom homepage to delete.
2. Click the homepage settings icon ( ).
3. Click Delete page.
4. Click OK to confirm the deletion.

Homepage and content page layouts

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:

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

Most successful web sites use a fairly limited number of layouts to define the structure of a much larger number of pages. For example, a web site may have several dozen pages, but only two or three layouts.

Layout concepts

Layouts define the overall structure of the page by arranging where dropzones appear on the page. The dropzone is where content blocks, which make up the content of the page, can be added. The name "dropzone" comes from the fact that content blocks can be dropped into any of these zones. 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 out-of-box layouts that can be used. After a layout is chosen, the layout dictates where the dropzones on a page appear.

Content blocks can be added at any dropzone to create the actual content of the site. Every layout divides the page into one or more logical areas. A number of commonly used predefined layouts are available, but you can also define your own custom layouts.

Custom layouts

A homepage layout is a UI macro whose name begins with layout_. You can create a UI macro to define a custom layout.

To view the list of available layouts, navigate to Homepage Admin Layouts.

- Layouts are XHTML scripts that contains one or more dropzones.
- Dropzones are defined by a TD (table data cell) within the HTML where content can be placed.

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

For example, here is the code for a layout.

```
<?xml version="1.0" encoding="utf-8"?>
   <j:jelly trim="true" xmlns:j="jelly:core" xmlns:g="glide" xmlns:j2="null"
   xmlns:g2="null">
   <table border="0" cellspacing="6" id="${jvar_name}" width="100%">
   <tr>
     <td colspan="2" id="dropzone0" dropzone="true"/>
   </tr>
   </table>
```

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Rules for scripting layouts:

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:
   a. Its ID starts with "dropzone" (e.g., "dropzone2" or "dropzone3").
   b. 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, such as graphs, must have a significant minimum width.
- Fixed-height TDs are allowed.

Layout hints and tips:

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.

Choose a layout

Certain users can modify the layout of their homepage.

Role required: any role that lets the user change homepage content.

For example, an ESS user cannot change the layout of a homepage, but an ITIL user can change it.

1. On the homepage, click Change Layout.

   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.
2. Select a layout and click Change.

**Note:**

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 orphaned 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.

---

**Add content to a homepage**

The Add Content interface allows you to specify into which dropzone you want to place your content. You can see this in action by clicking the Add content button.
When you select a piece of content, you see a preview of the content in the middle of the dialog. At the bottom of the dialog, you see a model of your current layout with an Add here link in each dropzone.
To add content to a particular dropzone, click Add here in the appropriate dropzone. Your content is automatically added without closing the dialog. You see the homepage change in the background.

Users who can change content on a homepage can search for widgets within a category when adding content to a homepage, and configure the appearance of widgets on homepages.

**Homepage caching**

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.

**Configure homepage cache properties**

The render cache is enabled by default with a set of sensible defaults. An administrator can modify the configuration based on the needs of the particular instance.

This behavior is controlled by properties available at [Homepage Admin Properties](#).

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable the homepage render cache</td>
<td>Enables or disables the entire cache. If you disable the cache, then nothing is cached and nothing is retrieved from the cache.</td>
</tr>
<tr>
<td>Maximum amount of time an entry stays in the</td>
<td>By default, the system pulls an entry out of the cache if its underlying data changes. For example, if you have a report of “incidents by priority” that goes in the cache, the system removes it from the cache if the underlying incident data is updated. However, even if the underlying data has not changed, the system automatically expires cache entries older than this age. The default is 60 seconds, meaning that, at most, a cache entry persists for 60 seconds before being expired.</td>
</tr>
<tr>
<td>cache</td>
<td></td>
</tr>
<tr>
<td>Enable aggressive caching</td>
<td>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 still returns 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 known stale data. Under some circumstances, however, a combination of aggressive caching and a short maximum cache age (see above), may be appropriate.</td>
</tr>
</tbody>
</table>

**Homepage caching notes and limitations**

Review these notes and limitation when configuring homepage caching.

1. Instances 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 situations are infrequent enough that most widgets will have aged out of the cache before a second user visits a homepage.
If you do not experience performance problems with your homepages, tweaking the behavior of this cache is not recommended.

2. The homepage cache is segmented by company, domain, and roles, so users with different rights and visibility into the system cannot see each other’s data by pulling it out of the cache. This does, however, mean that cache efficiency will be lower for instances that make extensive use of domain separation.

3. In an environment with a cluster of multiple UI nodes (as opposed to a UI node and 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 always removed from the cache when they expire.

Homepage splash page

When the homepage splash page is configured, a lightweight splash page loads before a homepage loads. The result is a more responsive experience for users.

For example, after logging in, users can navigate directly to the information they need without waiting for the homepage to load.

![Homepage splash page](image)

**Figure 182: Homepage splash page**

Activate the homepage splash page

Homepage splash pages are automatically activated for new instances. If you are upgrading from a previous version, activate the Homepage Splash Page plugin if it is not already active.

Role required: admin
For evaluation, you can activate the plugin for an application that requires a purchased subscription on a non-production instance. To activate the plugin on production instances, you must purchase the subscription. To purchase a subscription, contact your ServiceNow account manager. For details on purchasing a plugin, see Purchase a plugin.

Some plugins require activation by ServiceNow personnel. Request these plugins through the HI Customer Service System instead of activating them yourself. For details, see Request a plugin.

For plugins that you can activate yourself, continue with the following steps.

1. Navigate to System Definition Plugins.
2. Find and click the plugin name.
3. On the System Plugin form, review the plugin details and then click the Activate/Upgrade related link.
   - If the plugin depends on other plugins, these plugins are listed along with their activation status.
   - If the plugin has optional features that depend on other plugins, those plugins are listed under Some files will not be loaded because these plugins are inactive. The optional features are not installed until the listed plugins are installed (before or after the installation of the current plugin).
4. If available, select the Load demo data check box.
   - Some plugins include demo data—Sample records that are designed to illustrate plugin features for common use cases. Loading demo data is a good practice when you first activate the plugin on a development or test instance.
   - You can also load demo data after the plugin is activated by clicking the Load Demo Data Only related link on the System Plugin form.
5. Click Activate.

Configure a property for a homepage splash page

The Homepage Splash Page plugin installs the glide.home.page property and modifies the value of the glide.login.home property.

1. Enter sys_properties.list in the navigation filter and press the Enter key.
2. Select the glide.home.page system property.
   - This property defines which page to load when a user selects a homepage from the banner.
3. Set the Value field to one of the following strings.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To use the homepage splash page (default)</td>
<td>home_splash.do?sysparm_direct=true</td>
</tr>
<tr>
<td>To use homepages without the splash page</td>
<td>home.do</td>
</tr>
</tbody>
</table>
4. Click Update.
   - The System Properties list reopens.
5. Select the glide.login.home system property.
   - This property defines which page to load when a user logs in.
6. Set the Value as follows:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To use the homepage splash page (default)</td>
<td>home_splash.do?sysparm_direct=true</td>
</tr>
<tr>
<td>To use homepages without the splash page</td>
<td>home.do</td>
</tr>
</tbody>
</table>

You can also specify a different login landing page, if desired.
7. Click Update.

Service catalog home page configuration

The home page for a service catalog provides the primary front end for ordering items within that catalog. You can configure various elements of the pages within the Service Catalog.

Administrators and catalog administrators can design a home page in any of the following ways.

- Customizing the catalog home page.
- Adding, removing, and arranging categories.
- Enabling content types.
- Using catalog properties to provide additional control over behavior and appearance.
- Using renderers to define the appearance of categories.

Note: End users can access the catalog through the customizable user home page, or with content management pages that use content blocks for categories.

Enable content types

Enable the content types for using in a catalog.

1. Navigate to Service Catalog Catalog Administration Properties.
2. In the List of content types (comma-separated) to allow on the catalog homepage (glide.sc.home.filter) property, enter the content types to use in the service catalog.

To see a list of content types available, navigate to System UI Widgets.

The default value is Service Catalog, which includes only service catalog categories. For example, to include service catalog categories and gauges, set the property to Service Catalog, Gauges.

Customize a catalog homepage

Customize a catalog homepage to provide end users with access to catalogs from one homepage.

1. Navigate to Service Catalog Catalog.
2. Click the add content icon (+) at the top of the page to add a category.
3. Select a category in the middle panel of the pop-up window that appears.
Figure 183: Service Catalog add categories pop-up window
4. Click Add here in the location where the category appears on the homepage.
5. Repeat steps 3–4 to add more categories.
6. Close the pop-up window.
7. To change a category location, drag it to the appropriate place.
8. To remove a category, click the (X) icon on the top right of the category header.
9. Add a shopping cart on the page.

Define the mobile layout

You can configure the mobile layout for categories within a service catalog.

Role required: admin

By default, service catalog categories appear on mobile devices in the same order as on desktop devices.

1. Navigate to Service Catalog Mobile Admin Mobile Layout to display a list of service catalogs.
2. Click the lookup icon for the service catalog you want to configure.
   - The mobile layout displays details for the catalog.
3. Click Edit to select which categories appear on mobile devices, and in which order.
Figure 184: Service Catalog mobile layout catalogs

4. Add, remove, or reorder the selected mobile categories, and then click Save.
Note: To return the display to the default desktop layout settings for the portal page associated with that catalog, click the Replace categories with desktop layout related link.

Configure content types

You can configure content types for the service catalog.

You can use service catalog properties to configure content types, which are also called widgets.

To view service catalog properties, navigate to Service Catalog Catalog Administration Properties.

Navigate to System UI Widgets to see a list of content types available.

Enable content types for the Service Catalog

By default, only service catalog categories are displayed on the service catalog homepage.

To select additional content types, add these types in a comma-separated list in the List of content types (comma-separated) to allow on the catalog homepage property (glide.sc.home.filter).

For example, to include service catalog categories and gauges, set the property to Catalog Categories, Gauges.

Display the expand/collapse icon

By default, the expand / collapse icon is not displayed for categories on the service catalog homepage.

To display this icon on the left of each category, select the Yes check box that appears next to the Toggle whether the expand/collapse icon is rendered for category widgets on the service catalog homepage property (glide.sc.homepage.show.collapse).
Configure search and navigation

You can use service catalog properties to configure search and navigation within the service catalog homepage.

Navigate to Service Catalog Catalog Administration Properties to view service catalog properties.

Restrict search access

Each catalog homepage provides a search bar to help locate items not displayed on the homepage. By default, any user who can access the catalog homepage can search using this search bar.

To restrict access to this search function by role, use the List of roles (comma-separated) that can search the service catalog property (glide.sc.can_search).
For example, to only allow logged-in users to access search, set this field to blank. To remove the search function for all users, set this field to None.

**Note:** Search results only show items that the logged-in user can access.

---

**Hide search results from inactive categories**

By default, search results are returned from all categories, including inactive categories. To avoid returning results from inactive categories, set the Service catalog searches return items in inactive categories property (glide.sc.search.disabled_cats) to No. For example, when designing a new category, you can avoid users seeing search results from this category until you are ready to make it active.

**Note:** Security constraints can also make a category or catalog item inaccessible.

---

**Restrict search by item type**

By default, a search field does not appear when viewing order guides, record producers, and wizard launchers.

To define which catalog item types do not show the search field, list these types in the List of class names for catalog items that do not have the search field displayed (glide.sc.item.cannot_show_search) property.

For example, to enable searching when viewing record producers, remove sc_cat_item_producer from this list.
Request a reset of a password for a service or an application.

Request a reset of a password for a service or an application.

Whose password needs to be reset?

Joe Employee

What application password do you need reset?

How would you like to be contacted with your new password?

More Information

- Email
- Telephone
- SMS

Submit

Figure 186: Service catalog search bar removed
Enable breadcrumb links

By default, breadcrumbs appear without links when using content management pages as service catalog homepages.

To display these breadcrumbs with links, set the Use links for breadcrumbs rendered in Service Catalog pages accessed via a CMS site property (glide.sc.use_breadcrumb_links.cms) to Yes. This setting provides greater navigational control for end users.

Disable search suggestions

By default, service catalog searches display “Did you mean?” suggestions if a search does not return any results and an alternate spelling or similar recent search does.

To disable these suggestions, set the Specify whether search suggestions should be enabled property (glide.sc.search.suggestions) to No.

Change the parameter for parallel homepage rendering

The system uses a parallel rendering algorithm to speed up home page rendering.
Role required: admin

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. To change the parameters for parallel homepage rendering, add the following system properties.

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

**Turn on homepage render time**

To see render times on homepage widgets, you can turn on homepage debugging.

Role required: admin

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.
Troubleshoot a report on a homepage

You can 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.

Role required: admin

1. 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. In the Portal related list, note item names in the Summary field.
   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 that you noted down from the Summary field.
6. Open the report and run it.
7. If the report runs slowly, look for and correct the following 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 tables
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 these steps for each item on the homepage.

Domain separation in Homepage Administration

This is an overview of domain separation in Homepage Administration. Domain separation enables you to separate data, processes, and administrative tasks into logical groupings called domains. You can then control several aspects of this separation, including which users can see and access data.

Overview

Support: Data only

Domain separation in this application is supported at the Data only level, meaning it supports the data security model of separating visibility of data from one domain to another. To learn more, see Application support for domain separation.
Index

Numerics
508 compliance
keyboard accessibility 336
508 compliance screen reader 340

A
accessibility
color and style 338
first field focus 334
high contrast 334
screen reader 340
accessibility features
search method tips 340
set up 333
accessible tooltips 335
activity formatter
activity filter configuration 65
activity filter in UI16 and UI15 65
activity stream
mentions 174
add Android app BlackBerry UEM 405
add Android app to Microsoft Intune 412
add iOS app Intune 410
add iOS app to BlackBerry UEM 403
AirWatch EMM 399
AirWatch MDM 399
AirWatch mobile device management 399
app config
iOS 410
application menu
creating 45
modules, creating 45
application menus
adding to a category 44
application menus or modules
disabling 43
enabling 43
application navigator
navigation filter 42
UI15 29
UI15 favorites 30
UI16 15, 18
UI16 favorites 19
UI16 navigation history 22, 23
Attachments
remove 84
rename 84
uploading 84, 85
avatar 199

B
banner frame
UI15 30
UI16 24
basic configuration 364, 368
BlackBerry MDM 403
BlackBerry mobile device management 403
BlackBerry UEM MDM 403
BlackBerry Unified Endpoint Management mobile device management 403
bookmarks
creating 54
customizing 55
deleting 56
opening 56
brand instance 364, 368
breadcrumbs 109

C
Catalog
configure navigation 550
configure search 550
home page
managing 545
homepage
managing 545, 545, 547, 549
change password module
create 52
checklists
enable 86
Company Profile
create 374, 375, 375, 376, 377, 378
components and architecture 393
Condition builder
date/time fields 179
empty fields, filtering 179
format 178
Condition builders
operators 182
configure a mobile theme 443
configure mobile location and barcode scanning 457
content-sensitive help
help context types 217
context-sensitive help
creating custom contexts 215
introduction to 211
Core Configuration
overview 202
create homepages
for specific users 523
global 523
new personal 522
personal based on existing 523
create views 326
CSS styles
default 372
CSS theme
selecting 371
tHEME picker, enabling 371
CSS theme support
activating 371
custom filter URL
URL module 52
customize homepages
add items 534
change 536
custom homepage 537
delete 537
edit widget appearance 536
homepage 530, 531, 532
homepage layout 536
list report 533
modify 533
number of records 533
refresh 532
system administration 530
view 531
customize mobile homepages 441

D
database
audio files 292
Database
storing images 292, 293, 293
default search
dictionary attribute 104
delete views 326
Dot-walking 158
Dot-walking examples 159

E
e-signature for mobile approvals 421
domain separation 518
dot-walking
UI15 30
dot-walking examples 159
editing form
edit multiple records in a list 138
editing forms
canceling changes 81
inserting records 80
embedded help
add 236
add from copy 234
create internationalized 232
create localized 232
internationalization 231
localizaton 231
planning 225
system properties 223
embedded help roles 228, 229
embedded lists 66
encoded queries
operators 182
Encoded Query Strings
generate through filter 133
time zone 399

F
favorite 18
field label
form 382
help 382
field status indicators
UI15 65
field values
comparing 379
dates, evaluating 381
fields on a form 64
filters
operators 182
Filters
delete 125
edit 125
related list condition 115
save 125
use 125
form context menu 62
form fields 64
form pane tabs 81
forms
apply a template 80
, editing 79
canceling changes 81
checklists
activating 88
creating new 88
deleting 89
enable 86
configuring related list fields 75
inging 80, 81
field status indicators 65
form headers by version 58
form headers, UI15 60
form headers, UI16 58
form pane tabs 81
inserting records 80
personalizing 82

G
gauges
domain separation 518
grid mode 152
grouped list
table 3
options 105
professional 251
guided tour
add 253
guided tour designer 251
guided tour triggers 250
guided tour view 261
guided tours 245
H

help
  overview help slides
    creating 273
    example 276
  system user guide
    creating entry points for display 291
    creating help documents 285
help system
  introduction to 211
homepage
  adding 519
  controlling access 520
  customizing 533
  defining tables for 520
  Top Searches 519, 519, 519, 520, 520, 520, 520
  update top search statistics 520
  using 519
  viewing 532
  viewing user preferences for time period 520
homepage administration
  add to an update set and application 516
  restrict content additions 515
  secure a homepage 516
  user preferences 516
homepage caching
  configure properties 542
  notes and limitations 542
homepage gauges 519
homepage splash page
  activate plugin 543
  configure 544
homepage widgets 521
homepages
  customize 529, 530, 531, 532, 533, 534, 536, 536, 537
  render time 554
  troubleshooting 556
  widgets 517
  Homepages
    gauges 518
    widgets 517, 517
I

IBM Maas360 EMM 408
IBM Maas360 enterprise mobility management 408
IBM Maas360 iOS distribution 409
IBM Maas360 MDM 408
IBM Maas360 mobile device management 408
image file extension 297
Interface
  using 54
Intune mobile device management 410

K

keyboard accessibility 336

L

layout
  add content 540
  choose 539
  concepts 538
  custom 538
  defining 538
list editor
  edit multiple records in a list using 137
  use 135
list v2 143
list v3
  grid mode 152
  group by 106
  split mode 152, 153
lists
  editing 134
  field status indicator 96
  personalizing 139, 141
  search 101
  search by column 102
  sort 95
  switch views 97
lists, embedded 66
logging in 41

M

manage favorite 18
map pages
  create 346
  create modules 350
  scripting 351
mentions
  activity stream 174
menu categories
  adding application menus to 44
menu category
  defining 35
menu lists
  modifying 43
mobile
  Apple and Android 385
  default home page customization 440
  field status indicators 432
  home page collections 441
  list search 481
  list title 428
  navigator 422
mobile 3D touch 454
mobile advanced list customization 431
mobile app
  configure Connect 446
  supported devices 391
mobile app UI
  blur 456
  Connect Chat 497
mobile authentication 418
mobile browser
  legacy UI 390

© 2018 ServiceNow. All rights reserved. 559
mobile browser interface
  back navigation 447
  shortcut 464, 464
  supported devices 392
  UI actions 447, 447
  UI policies 453
Mobile Client GlideForm (g form) scripting 449
mobile configuration
  list search fields 435
mobile customization 427
mobile device management
  add app XenMobile 407
  Citrix managed configuration 408
  Citrix XenMobile 407
  Jamf Pro 413
mobile device management (MDM) 399
mobile device management Intune 410
mobile device options 385
mobile experience
  setup for administrators 421
mobile force touch 454
mobile hide filters 440
mobile home page fields 441
mobile home page modules 443
mobile home page sections 442
mobile interface
  access 462
  client scripts 448
  disable 458
  home page
    favorite 493
  navigating applications 467
mobile list
  display title 432
mobile list view 427
mobile lists 433
mobile localization 448
mobile log in 460
mobile multifactor authentication 419
mobile security
  architecture 393
  components 393
  components and architecture 393
  controls and practices 397
  data flow retrieval 395
  data security 396
  identity and access management 394
  information storage 395
  internal mobile app distribution 396
  security controls 397
  security patching 398
  session length 395
  session length and timeout 395
  shared data 398
  timeout 395
  user authentication 394
  user data collection 398
  user termination 395
mobile service catalog 504
mobile SSO 419
mobile theme configuration 443

mobile UI
  activity streams 473, 486
  application navigator 467
  barcode scanning 502
  condition sets 478
  Connect Chat
    conversations 499
  device location 501
  favorites 490
  filters 477, 488
  form configuration 437
  get started for end users 459
  home page
    favorite 492
  list 479
  lists 471, 484
  mobile app 496, 497
  service catalog
    catalog item 508
    categories 505
    shopping cart 511
  visualizations 493, 496
MobileIron MDM 414
MobileIron mobile device management 414
module link type 48

N

Navigation Actions
  adding sites 210
  users 211
Navigation Stack 205
  new records
    create 136
  notification settings 497

O

operators
  Condition builders 182
    encoded queries 182
    filters 182
  overview help pages
    creating
      example 276

P

parallel homepage rendering 553
personal lists 139

Q

queries 51

R

related list condition 115
related lists
  adding fields 75
configure the edit option 69
configure when a related list loads 68
create a default filter 68
create default filter 77
create defined 70
example of defined 71, 74
incidents by same caller 71
select related records 67
Response time indicator 202, 204

S
search
lists
   wildcards 103
   list search 103
section 508 compliance features
   enable accessibility 333
   use skip links 337
set up
   mobile experience admin 421
shortcuts
   keyboard 36
slushbuckets
   add or remove items 171
   find available items 171
   items
      setting the number of visible in the available column 173
smartphone interface
   blackberry 467
split mode
   configure title 152
   list v3 152, 153
supported tablets 393
system properties
   embedded help 223
   system settings 24

T
tablet app
   application navigator 469
tablet support 389
tags
   assigning 191, 192, 192, 193, 194, 194
   editing 190, 195, 195, 195, 196, 196
   using 197
templates
   apply in a form 80
themes
   company default 371
   create 372
   customize 372
Theming an Instance 370
tree picker
   examples 157
tree picker attribute
   add 157

U
UI configuration
   favicon 376
UI15
   configure roles to switch to UI16 15
   switch to UI16 14
UI15 compare style 10
UI16
   activating 14
   configure roles to switch to UI15 15
   switch to UI15 14
UI16 compare style 10
URL
   navigating 39, 40
URL module
   custom filter URL 52
      opens in new window 51
useful scripts
   Restrict Form Views by Role 329
user guide
   creating entry points for display 291
   creating help documents 285
   introduction to 283
user interface
   banner frame
      UI16 24
User interface
   application navigator
      navigation filter 42
      UI15 29
      UI15 favorites 30
      UI16 15, 18
      UI16 favorites 19
      UI16 navigation history 22, 23
   banner frame
      UI15 30
   browser support 37
      edge
         UI15 30
   navigating applications 42
user preference settings 299
user preferences 297
user presence
   disabling 200
   time intervals 201
using forms
   form headers 58
   UI15 form headers 60
   UI16 form headers 58
using lists
   action check box 97
   column headings 149
   customize number of rows 96
   embedded lists 98
   fields 94
   list title menu 146
   list v2 143
   list v3
      grid mode 152
      split mode 152, 153
Using Lists
  display activity streams 99
  encoded query strings 130, 133

W
welcome page
  content 331
  elements 331
  login section 331
welcome page content
  company-specific 332
welcome screen
  remove 322