

SAP Cloud Platform Portal - Neo

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SAP Cloud Platform | Cloud

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For more information, please visit the **SAP Help Portal**.

SAP Cloud Platform Portal

Create role-based, multi-channel sites to access business apps and content.

SAP Cloud Platform Portal lets you build digital experience portals for employees, customers, and partners. You can streamline access to business data so that your employees can execute their daily business tasks securely, from any device.

This service runs in the following environments:

- Neo environment
- Cloud Foundry environment



Features

Central access point

Intuitive, multi-channel access to your business apps - anywhere, from any device.

Personalized user experience

Build multi-language business sites following the SAP Fiori launchpad or freestyle portal design.

Prepackaged content

Accelerate implementation with pre-packaged business apps, or develop new apps to access your business processes anywhere at any time.

SAP and non-SAP integration

Securely integrate content and applications from both SAP and third-party providers.

Role-based access

Provide the right content to the right users with integrated single sign-on capabilities.

Create and publish web content

Easily manage your unstructured content and build attractive business websites.

Launchpad plugin for Cloud Foundry

Access applications developed in the Cloud Foundry environment from a central access point.

Click to choose the environment relevant to your use case:





Portal on the Neo Environment

Use the Portal on the SAP Cloud Platform Neo environment to quickly and easily create attractive business sites that are fully integrated with SAP Fiori launchpad.

There are two design options:

Freestyle sites:

provide portal users with the flexibility of combining business applications with Web content in a real Web site experience. The freestyle option is just that – free and open to your design and creativity.



• Launchpad sites:

Offer a structured tile-based, dashboard where portal users can access all the apps they need from a single page.



For more information, see About Sites.

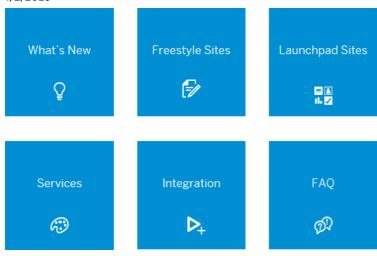
Do you want to learn how to create your own Portal site that includes freestyle and launchpad capabilities?

To try it out, click here.

Quick Access to More Information

iNote

The following image contains links to more information.



iNote

If your sites were created before December 2015, access the documentation here.

What's New?

These features have been changed or added to SAP Cloud Platform Portal on the Neo and Cloud Foundry environments.

What's New for Portal

What's New for Portal - Archive

What's New for Portal (Archive)

Portal Preview on Neo - Guidelines and Best Practices

Steps required for accessing and reviewing the Portal service offering prior to the official release date.

What is the Portal service Preview mode?

The Preview mode of the Portal is available for SAP Fiori Cloud customers for nonproductive usage, one week prior to the official service delivery, under the Beta Service terms of use.

Customers that have access to the Portal service in Preview mode can review the behavior of their site with the upcoming changes and new capabilities, and make the require adjustment as needed.

iNote

To gain access to the Portal service in Preview mode, contact support at EP-CPP-OPS

Setting Up a Preview Subaccount

- 1.1. Create a dedicated subaccount for accessing your site in Preview mode. For more information, see Creating Subaccounts.
- 2. In the SAP Cloud Platform cockpit, open the Services screen of your dedicated subaccount, and enable the following services:
 - Portal Preview
 - oData Provisioning Preview (if applicable)
- 3. If you are using SAP Fiori Cloud, provision your Preview subaccount as follows:
 - a. In the Portal Preview service screen, click the Go to Service link
 - b. In the Site Directory, create a new launchpad/freestyle site.
 - c. In the pop-up message, choose the relevant content package for provisioning (Business Suite or S/4HANA).
- 4. Transport your productive site from the productive subaccount to the Preview subaccount
 - For more information about transporting Freestyle sites, see <u>Transporting Content of a Freestyle Site</u>.
 - For more information about transporting launchpad sites, see <u>Transporting Content of a Launchpad Site</u>.
- 5. Adjust the Preview subaccount configurations to allow your productive-cloned site run:
 - a. Destination files (we recommend to use dedicated back-end servers for preview, not the productive ones). For more information, see <u>Destinations</u>.
 - b. Trust settings. For more information, see <u>Identity and Access Management</u>.
 - $c.\,SAP\,\,Cloud\,\,Connector\,\,(if\,applicable).\,For\,more\,\,information,\,see\,\,\underline{SAP\,\,Cloud\,\,Platform\,\,Cloud\,\,Connector}.$
 - d. Any other custom configurations.

Check your Productive-Cloned Site in a Preview mode

Open your site in the Preview subaccount and review the functionality of your site.

iTip

The Portal release notes includes a Preview category for new capabilities offered by the Portal Preview service. In addition to the Portal, it is recommended to check the Preview release notes of the following services:

- oData Provisioning
- Theme Designer
- SAP Fiori Cloud for Business Suite

Providing Feedback

In case you notice potential blockers for your productive flows or potential blockers for Go-Live, open a support ticket based on the area where the issue was identified.

For the ticket use:

Severity	Medium
Subject Prefix	PRV
Area	Portal - EP-CPP-NEO-FS (freestyle sites), EP-CPP-NEO-SFC (launchpad sites) oData Provisioning - OPU-GW-OD-FW Theme Designer - CA-UI2-THD Fiori Apps: find relevant Fiori App support component here

Commercial Models and Metering

This topic provides information about the subscription-based and consumption-based commercial models for acquiring SAP Cloud Platform Portal, and the metrics used to monitor and charge usage.

Commercial Models

SAP Cloud Platform Portal can be acquired according to one of the following commercial models:

Commercial Model	Description	Metrics
Subscription-based	You are entitled to use the SAP Cloud Platform Portal service. You prepay a fixed price for the duration of the subscription period, according to the number of licenses that you purchase.	Administrators Users Site Visits
Consumption-based	You are entitled to activate the SAP Cloud Platform Portal service. You prepay for cloud credits, which are then balanced against the consumption of the Portal service. For more information, see Monitoring Usage and Cloud Credits Balance.	Administrators Site Visits

What is a Portal Session?

To understand the metrics used by the Portal service, you need to know what a Portal session is.

A Portal session starts when a user accesses a freestyle or a launchpad site.

The session ends when one of the following conditions occurs:

- The user closes all the browser windows.
- The user signs out of the Portal service.
- The browser is inactive for 20 minutes.

The next time the user accesses a Portal site, a new session starts.

Metrics

SAP Cloud Platform Portal uses the following metrics:

	Metric	Description	You need to nurchase	Comments
	11104110	Decempare.	Tou Hood to par officerin	o o minion to

Metric Description Yo		You need to purchase	Comments	
Administrators	Users who have the Portal Administrator role (TENANT_ADMIN) for the SAP Cloud Platform Portal and are authorized to access the administration environments of launchpad and freestyle sites.	At least one Administrator license. The Administrator license is a prerequisite for the Portal runtime licenses (Users and Site Visits).	If an Administrator accesses a Portal site, a Portal runtime license based on Users or Site Visits is required as well.	
Users	Authenticated individuals who are authorized to access the SAP Cloud Platform Portal. A Portal User is entitled to an unlimited number of authenticated Portal sessions.	A specific number of unique Users.	The Portal User license is limited to authenticated individuals within the customer's organization - employees and contractors only (B2E).	
Site Visits	The total number of individual Portal sessions by individuals. A Site Visit is based on a Portal session. Within a single Site Visit, the user can browse an unlimited number of pages belonging to an unlimited number of sites in the same subaccount.	One or more blocks of Site Visits. Each block includes 1000 Site Visits.	The Portal Site Visits license is limited to individuals other than employees and contractors. This includes customers, partners and other types of external consumers (B2B/B2C), who might be anonymous.	

iNote

When using the consumption-based model, the content in the "You need to purchase..." column applies to billing.

Handling External Portal Users

To comply with the Portal service description guide, and to make sure all individuals other than employees and contractors are metered by the Site Visits metric, you **must** assign every authenticated user who is external to your organization to the EXTERNAL_PORTAL_USER role. For more information, see <u>Assigning the EXTERNAL_PORTAL_USER Role</u>

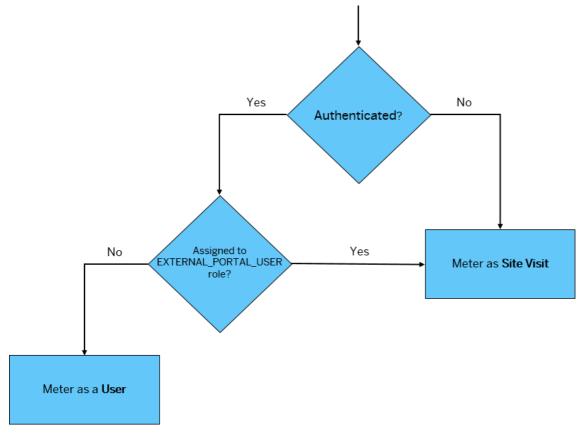
Assigning the EXTERNAL_PORTAL_USER Role

The Portal service provides the EXTERAL_PORTAL_USER role, which is used to differentiate between authenticated users who are within a customer's organization (employees and contractors only), and authenticated users who are external to a customer's organization (customers, partners and consumers).

You must assign every authenticated user who is external to your organization to the EXTERNAL_PORTAL_USER role, to comply with the Portal service description guide.

Assigning users to this role impacts the metrics that monitor the usage: when an authenticated user who is assigned to the EXTERNAL_PORTAL_USER role accesses the Portal, this is not counted as a "User" (B2E) but as a "Site Visit" (B2B/B2C).

The following diagram describes how the metrics are counted:



Related Information

Commercial Models and Metering

Background Information

Use SAP Cloud Platform Portal to build simple and intuitive sites for end users.

To do this, you may want to familiarize yourself with some background information that will help you build your Portal sites.

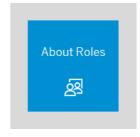
Useful Information

This information applies to both freestyle and launchpad sites.

iNote

The following image contains links to more information.







To get more information that is specific to freestyle or launchpad sites, here are some links that may be of interest to you:

Freestyle Sites

iNote

The following image contains links to more information.







Launchpad Sites

iNote

The following image contains links to more information.







Other Useful Information

Supported Browsers, Platforms, and Languages

About Sites

Portal sites are based on templates, provided by SAP or created by developers. Administrators can easily create business sites based on these templates using the provided site designing tools.

The Portal offers two types of sites – freestyle sites and launchpad sites. You can also create a hybrid site by embedding an SAP Fiori launchpad page as an entry point for SAP Fiori apps together with other pages in a freestyle site. In this way, you can enjoy the benefits of SAP Fiori launchpad, together with other types of content on other pages of your site.



What is a freestyle site?

Freestyle sites allow flexibility of content and layout. Developers can create a basic site template that defines only the layout of the site, and then administrators can add content to the site. Or, developers can create a rich site template that defines layout and content for the site, which the administrators can then edit. In addition, developers can embed a launchpad page in their freestyle site, side-by-side with other pages. In this way, you can enjoy the benefits of SAP Fiori launchpad, but also have HTML, images, and other types of content on other pages of your site.

For more information about freestyle sites, see Freestyle Sites.

What are launchpad sites?

This type of site is based on the SAP Fiori launchpad site template, provided by SAP. It is used mainly to launch applications. Once you have created the launchpad site, you can configure its settings and create and edit content for the site in the SAP Fiori launchpad configuration cockpit. The launchpad site becomes the home page for the end user, displaying tiles and links, each representing a business application that can be launched.

For more information about launchpad sites, see SAP Fiori Launchpad Sites.

About editing sites

Once you have created a site, you can edit and extend its content and add new content such as apps and pages.

- Edit freestyle sites in the Portal Site Designer
- Edit launchpad sites in the SAP Fiori launchpad configuration cockpit.

About Roles

Administrators can easily manage user access and permissions to a site, page, or app using the role-based authorizations concept provided by SAP Cloud Platform Portal.

For more information about managing roles in SAP Cloud Platform, see <u>Managing Roles.</u>

Understanding Roles

Technical Roles

These roles are internal predefined roles for subaccount administrators and site creators. They are required for accessing and working in design-time tools such as SAP Cloud Platform cockpit, Portal Site Designer, and SAP Fiori launchpad configuration cockpit. They include:

Role	Description
SAP Cloud Platform Member	Manages users and their roles within SAP Cloud Platform. These roles support typical tasks performed by users when interacting with the platform.
	For more information, see Managing Members in the Neo Environment.
TENANT_ADMIN	Enables administration in Portal (Site Designer and Admin Space) and the SAP Fiori launchpad configuration cockpit.

Organizational Roles

These roles are external custom roles that are defined by an organization in the SAP Cloud Platform cockpit to restrict access to portal sites, pages, and apps. Roles are created for various job functions, and users working in an organization are assigned to these roles.

Examples of such roles could be Quality Expert, Manager, Sales Person.

When the administrator of an organization assigns users to these roles, they can also restrict access to content (pages) according to the following access levels:

Access Level	Description
Guest	Provides access to the users who are assigned the anonymous role for a site
Role-based	Provides access to users that belong to specific roles
Authenticated	Provides access for logged on users

Assigning Roles

To enable role-based access to apps in a site, assign roles to various catalogs and groups (for launchpad sites).

Assigning a role to a catalog

Assign roles to a catalog so that users with a specific role can access apps in a particular site. This is only possible if you have also assigned the apps to the same catalog as the user's role

Assigning a role to a group (only applicable for a launchpad site)

Assign roles to a group so that users with this role can view the group in their launchpad. Users can launch apps in the group only if you have also assigned the apps to the same catalog as the user's role. The apps are represented by a tile or a link.

Assigning Launchpad Users to Roles

In the SAP Cloud Platform cockpit, you can manage role assignments for individual users or groups by selecting a predefined or custom role in the Roles table and assigning users to these roles.

About App Types

 $\label{lem:Administrators} \mbox{ Administrators configure apps in the SAP Fiori launchpad configuration cockpit.}$

You can configure the various app types in the SAP Fiori launchpad configuration cockpit, in the Properties tab of the Manage App Configuration editor.

App Types



	SAPUI5	URL	SAPUI5	Shell Plugin	SAP GUI and	SAP	Dynamic URL	Business Server Page (BSP)	Portal P
To view			News		Web Dynpro	Mobile			
more	An SAP	An app that		The configuration	APAB	Document	The Dynamic URL is	SAP's on premise classic UIs include BSP apps. These apps are	This impl
details	Fiori app	launches a	An app tha	tof a shell plugin			based on destination	executed in a web browser and the URL structure is made up of the	app type
about	that is	new browser	displays	app is the same as	These app	An app that	properties	following parameters:	only visit
each	developed	window and	news or	any SAPUI5	types are	provides	(configured in SAP		your site
арр	using	navigates to	other	component but	imported into	access to a	Cloud Platform	<pre><system_alias>/<cust_namespace< pre=""></cust_namespace<></system_alias></pre>	includes
type,	SAPUI5	the URL	informatio	nthere is no tile	your SAP	folder in	Cockpit), and path	/bc/bsp/ <app_namespace>/<bsp_app_name>/<start_page></start_page></bsp_app_name></app_namespace>	>freestyle
click th	etechnology	y.defined in the	evia an	representation.	Cloud	SAP Mobile	properties.		portal pa
relevar	tThis type	арр	external		Platform	Documents	Depending on the	Where:	When yo
shape.	of app can	configuration	n.URL to an	As opposed to	subaccount.		values set for the		select th
	only run in		RSS feed.	other SAPUI5 apps	Once they are	eFor more	same destination	 system_alias is the destination name of the SAP system 	page in t
	an SAP			that are executed	imported, you	uinformation	name on different	that hosts the BSP application.	Manage
	Fiori		For more	when a user clicks	can find them	about how	environments, the	cust namesnass is a unique nevernatar that will annear in	Configur
	launchpad		informatio	non their respective	in the list of	to configure	same URL can	cust_namespace is a unique parameter that will appear in the back and system as a carrier folder.	editor, th
	container		about how	tiles, the shell	apps	an SAP	navigate to different	the back-end system as a service folder.	app type
	and is		to create a	plugin app is	available for	Mobile	apps in the different $% \left(t\right) =\left(t\right) \left($	 bc and bsp are default parameters 	displays
	always		news app	executed when the	editing in the	Documents	environments.		Portal Pa
	wrapped		type, see	site loads. This	Manage App			 app_namespace is a unique parameter used as a prefix for 	
	with a		Configuring	genables developers	Configuration	nsee	i Remember	the application name.	
	launchpad		<u>a News</u>	to insert their own	editor.	Configuring	Incirioriboi	han ann namaisthe anns of the DCD and in the continue	
	header.		App.	code within the		an SAP	 The URL 	bsp_app_name is the name of the BSP application (without its	
				shell, headers,	All properties	<u>Mobile</u>	must	it's namespace).	

to run the app in automatically <u>Documents</u> the background for populated App various purposes and cannot such as analytics be edited metric collection or (except for even displaying a the tile welcome dialog properties). These apps box.

are launched

When you select via SAP the Shell Plugin NetWeaver app type, you can Business then select one of Client (SAP the following shell NWBC) and plugin app types: are displayed in a new

 Custom: A browser flexible window. SAPUI5 app that can be extended by using standard out-of-thebox SAPUI5 APIs

Adaptation:

plugin app that enables users to adapt the UI of their apps (only for those apps that have been developed to support

For more information.

adaptation).

Enabling

Key User Adaptation.

You can customize and extend a shell plugin app by using SAP Fiori launchpad APIs. for more information about SAP Fiori launchpad APIs, go to: SAP Fiori Launchpad APIs

For more information about how to create a shell plugin app type, see Creating and Configuring Shell Plugin Apps

port number 443.

• The

• start_page is the page ID of the BSP application start page; for example, start.html

For more information, see <u>Configuring an SAP Business Server Page</u>

destination property that affects this app type is the Usage property, which must either be defined as Backend Dynamic.

Supported Browsers, Platforms, and Languages

Supported browsers, platforms, and languages for SAP Cloud Platform Portal.

iNote

For a detailed list of SAPUI5 supported browsers and platforms, see: Browser and Platform Support - SAPUI5.

Supported Browsers and Platforms - Runtime

Same scope of supported browsers and platforms as stated for SAPUI5 , excluding Web View, and Windows Phone. Note the additional information section about the sap.m mobile library of SAPUI5.

Supported Browsers and Platforms - Design Time

Same scope of supported browsers and platforms as stated for SAPUI5 desktop devices.

Supported Languages

	Daries Time	Dti
Language	Design Time	Runtime
Arabic	✓	✓
Bulgarian		✓
Catalan		✓
Chinese (China)	✓	✓
Chinese trad.		✓
Croation		✓
Czech	✓	✓
Danish	✓ ✓	✓
Dutch	✓	✓
English	✓	✓
Estonian		✓
Finnish		✓
French	✓	✓
German	✓	✓
Greek		✓
Hebrew	✓	✓
Hindi		✓
Hungarian	✓	✓
Italian	✓	✓
Japanese	✓	✓
Kazakh		✓
Korean		✓
Latvian		✓
Lithuanian		✓
Malay		
Norwegian	✓	✓
Polish	✓ ✓	✓
Portuguese	✓	✓
Romanian		✓
Russian	✓	✓
Serbian		✓
Slovak		✓
Slovenian		✓
Spanish	✓	✓
Swedish		✓
Thai		y
Turkish	✓	<u>,</u>
Ukranian	•	, ·
		.,
Vietnamese		~

Onboarding

Topics to help you with a successful and effective onboarding process in SAP Cloud Platform Portal including SAP Fiori launchpad.

Onboarding

As part of the onboarding process the following prerequisites should already be in place:

✓	You have been signed up for an SAP Cloud Platform subaccount.
✓	You are assigned the TENANT_ADMIN role (administrator, developer)
✓	Your Portal service has been enabled in the SAP Cloud Platform cockpit.
✓	You have assigned users to custom or predefined roles.
✓	[Optional] You are registered with SAP identity configuration services.
✓	[Optional] You are subscribed to the SAP Web IDE service.
✓	[Optional] You have created destinations to your content providers (if applicable).
✓	[Optional] You can configure a custom domain for your subaccount and then assign it to the default site. This enables site users to always use the same URL when navigating to the site. For more information about, see Configure a Custom Domain for the Default Site.
	To more information about, see <u>Sommand a Support Domain for the Betade Site</u> .

In the next topic, we will provide a checklist of tasks that you should do to get started and work with your business site.

For more information, see Initial Setup Checklist.

Initial Setup Checklist

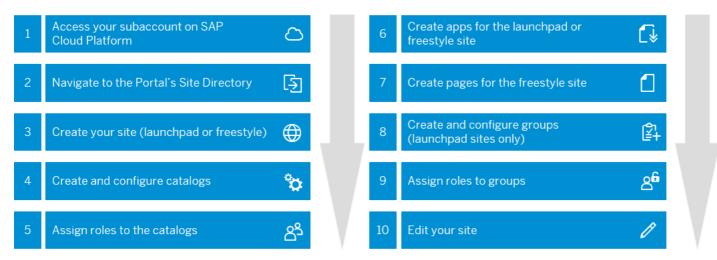
This checklist describes requirements necessary to create an optimal and successful implementation of SAP Cloud Platform Portal including SAP Fiori launchpad.

iNote

This checklist does not provide a full explanation of each task - this information is already published in various forms of documentation, reference guides, and so on.

Initial Setup

Once the prerequisites are fulfilled, set up your business site as follows. Hover over each icon for details and click each step in the diagram to navigate to more detailed information.



Configure a Custom Domain for the Default Site

Administrators can configure a custom domain for their subaccount, and then assign it to the default site.

Context

SAP Cloud Platform allows administrators to customize their subaccount's domain and make it more suitable for their company's needs. Assigning the custom domain to the default site of the subaccount enables site users to always use the same URL when navigating to the site. It also enables the admin to change the default site assignment without having to reconfigure the custom domain in the cloud platform.

Procedure

1. Configure a custom domain for your subaccount (this step is done in the cloud platform).

For detailed instructions, see **Configuring Custom Domains**.

2. In the Site Directory, hover over the card of the site to be set as default, click the Site actions arrow, and select Set as Default.

Results

An icon appears on the card of the site, indicating that it is the default site for the subaccount.

The following rules apply to setting a site as the default site for the subaccount:

- You can set a site as default only if the site is published (this option is disabled for offline sites).
- You cannot delete a site set as default (this option is disabled for default sites).
- Users will not be able to access a default site that has been taken offline.

SAP Fiori Launchpad Sites

The SAP Fiori launchpad provides access to SAP Fiori apps hosted in the cloud via a single, intuitive interface.

What is a launchpad site?

An SAP Fiori launchpad site is one of the site templates offered by SAP Cloud Platform Portal. To create a new launchpad site, access the Portal and create your site in the Site Directory. Once you have a launchpad site, you can customize it from the SAP Fiori launchpad configuration cockpit.

The launchpad site displays a home page with tiles and links, each representing a business application that the end user can launch. For information using the SAP Fiori launchpad, see SAP Fiori Launchpad - User Guide.

What is the SAP Fiori launchpad configuration cockpit?

The SAP Fiori launchpad configuration cockpit is a browser-based tool used by administrators to create new, and maintain existing, content for SAP Fiori launchpads. Before end users can work in the launchpad, you as administrator must first set it up by configuring content such as apps, groups, catalogs, and roles. These objects are the building blocks of a launchpad. The configuration cockpit also supports various services that you can use, such as translation, branding, transport, and usage analytics.

Quick links

What would you like to do?

Here are some quick links to some of the main tasks that you will want to do in the SAP Fiori launchpad configuration cockpit.

iNote

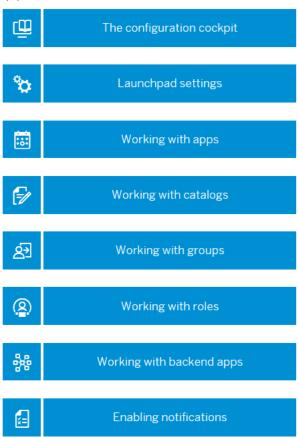
Hover over each shape for a description; click for more information.

Find your apps	Configure apps	Manage catalogs	Manage groups
And more			
Configure site settings	Use launchpad services	Collaborate	Develop
Learn about launchpad objects	Learn about roles	Learn about app types	Learn about navigation

Administrator Guide

iNote

The following image contains links to more information.



Configuration Cockpit Overview

Administrators use the SAP Fiori launchpad configuration cockpit to create and maintain content for SAP Fiori launchpad sites.

The menu navigation panel on the left helps you navigate to the following areas:

Menu Option	Description
Home	Contains a dashboard that displays data about the launchpad, as well as a quick-access bar to with links to related information.
Settings	Manage user, system, and other general settings for the launchpad site.
₿	
Content Management	Access the following content-related editors:
Ô	• Apps
~	Opens the Manage App Configuration editor where you create and configure apps that users launch from the launchpad.
	Catalogs
	Opens the Manage Catalogs editor where you create and configure catalogs, and assign apps and roles associated with a catalog.
	• Groups
	Opens the Manage Groups editor where you create and configure groups, and assign apps and roles associated with a group.
	• Roles
	Opens the Manage Roles editor where you create and configure roles, and manage the catalog and group assignments to roles.
Services and Tools	Access tools and services for working with themes, handling translation, and transporting sites.
भ दु	
App Resources	View the list of apps deployed in the subaccount, manage app versions, and assign apps to the site.
	
Usage Analytics	View statistics about site visits and site visitors.
ad	

Launchpad Objects

The configuration cockpit building blocks are apps, groups, catalogs, and roles.

Entity	Description
App	App - an app represents any SAPUI5 application that users can launch from their SAP Fiori launchpad.
	Tile - typically apps are represented by tiles. Users click tiles to launch apps.
	Intents - navigation to these apps is done via intents. An intent is a unique combination of a semantic object (for example, Purchase Order) and an action (for example, Display), and an optional set of navigation parameters. The intent is resolved into a navigation target.
	To summarize: When a user clicks a tile in their launchpad, the intent (including optional parameters) navigates to the app and opens it.
Catalog	Catalogs are collections of apps that you want to make available for a specific role (or for multiple roles).
	You assign roles and apps to a catalog. Users belonging to a particular role have access to all the apps that are assigned to the same catalog as their role.
Group	A group is a subset of apps displayed as tiles or links.
	When you assign a role to a group, all users with this role can view the group in their launchpad. Users will only see those apps in the group that have been assigned to a catalog with this same role.
	End users can then personalize their launchpad by adding or removing apps from the out-of-the-box groups or self-defined groups.
Role	You create roles based on SAP Cloud Platform roles, and assign catalogs and groups.

Related Information

Configuration Cockpit Overview

About Tile Types

In SAP Fiori launchpad, users typically launch apps from tiles. Administrators configure apps as various tile types according to the required use case.

Apps can be represented by different tile types. If an app isn't represented by a tile, end users cannot see the app in any SAP Fiori launchpad site.

You configure tile types in the Visualization tab of the Manage App Configuration editor. The following tile types are supported:

Tile Type	Description
Static App Launcher	A standard tile that displays static content. You can configure a title, subtitle, and an icon.
Dynamic App Launcher	A tile that displays data that is updated at regular intervals. The data is retrieved from a back-end system using OData services.
	For more information, see OData Structure for Dynamic App Launchers.
Custom App Launcher	If the standard app launchers are not what you need, try configuring a tile with a different look and feel by using a Custom App Launcher tile type. This allows you to customize your tile by selecting different background colors, or choosing various icons and placing them in different areas of the tile, and more.
	Typical use cases: for comparison charts or bullet charts.
News	Displays a news feed with alternating messages. Only used for the News app type.
KPI	Displays Key Performance Indicators (KPIs) on a tile in real time.
	Example: Used for KPI tiles created in SAP Smart Business.
	i Note
	This tile type can only be edited in the SAP Smart Business modeler.
	For more information, see <u>Creating an SAP Smart Business KPI Tile</u> .
No Tile	If an app does not require a tile, select the No Tile option. In this case, the app is not visible in launchpad sites and navigation to the app can be executed from a different app or URL using an intent.

For more information about creating specific tile types, see:

- Configuring an SAP Mobile Documents App
- Creating an SAP Smart Business KPI Tile

About Navigation in SAP Fiori Launchpad

SAP Fiori launchpad supports navigation using intents or URLs.

The recommended way of navigating between apps in the launchpad is via intents.

About intent navigation

An intent is a unique combination of a semantic object (for example, Purchase Order), an action (for example, Display), and an optional set of navigation parameters that are used to define navigation to an application. Depending on the parameters, apps can be launched in different views. Most apps are represented by a tile residing within a tile group in the launchpad. When a user clicks a tile, the intent (as well as the optional parameters) resolves into a concrete navigation target, which launches the app.

You define intent navigation properties in the Parameters tab of the Configure Apps editor.

For more information, see <u>Navigation Parameters</u>.

More about intent settings

To view more details about the intent settings for each app in a group, open the Manage Groups editor. In the Apps tab, the Assigned Apps area shows the following details about the assigned apps:

- In the Title column, a list of apps in the group.
- In the Intent Navigation column, the navigation target (intent or URL) that launches the app.
- In the App Resource Name column, the app that is launched when the tile is clicked.

You can also view more details about the navigation target by clicking on the 🌣 icon on the right side of the table. A screen opens displaying the configuration settings of the intent.

What about identical intents?

When two apps are configured with the same intent and intent parameters, two tiles are shown on the launchpad, but they both navigate to the same place. In the Configure Apps editor, in the Parameters tab, apps with identical intents and intent parameters are flagged to help you avoid displaying two tiles that open the same app in the same app state.

About URL navigation

There are certain app types that use external URLs to launch them. Here are examples supported by SAP Fiori launchpad:

App type	How is the app launched?
URL	Launched in a new browser according to the URL determined when you configure the app.
News	Launched as a news tile via an external URL to an RSS feed.
Shell Plugin	Launched from a button or dialog box when the site is rendered. No tile representation.
SAP GUI and Web Dynpro ABAP	Launched via SAP NetWeaver Business Client (SAP NWBC) and displayed in a new browser window.
SAP Mobile Documents	Launched via a specific URL that points to a folder in the SAP Mobile Documents folder.

Launchpad Settings

Administrators use the Site Settings editor to configure the runtime settings of a site.

Procedure

- 1. In the configuration cockpit, select Settings from the side navigation menu.
- 2. Click Edit at the bottom right side of the screen.
- 3. Define the following properties, as required:

Property	Description
Name	Name of the site.
Description	Description of the site.
Region and Subaccount	Region and subaccount of the site.
Status	The options are:
	o Offline: End users cannot access the site because you have not published the site yet or you have taken the site offline.
	i Note
	Administrators can still access the site.
	Published: The site is available to end users.
	o Modified: You have edited the site but have not yet published the changes. In other words, end users are seeing a previous version of the site.
ID	Unique site ID.
Туре	An SAP Fiori launchpad site. This field is prepopulated and cannot be edited.
Access Level	Currently only a private access level is supported.
URL	Opens the runtime version of the site in a new window.
Alias	Assign a friendly name to the site, instead of using the site ID.
Session Timeout Message	Enable or disable the site session timeout message for the launchpad.
	When enabled (default), after a specific period of time that the user is idle, a message pops up, enabling the user to log back on.
	You can disable this setting if you want to handle the session timeout in a different way.

Property	Description
SAPUI5 Version	Select the SAPUI5 version to use for the runtime:
	o Innovation (or Latest Supported Version)- A version that is updated according to SAPUI5 releases. This is the default.
	Maintenance - A version that uses the same SAPUI5 release for a predefined period of time.
	Custom - You can select a specific SAPUI5 version, in the range between the official maintenance version and the latest innovation version delivered with SAP Fiori launchpad.
	iNote
	Using a custom SAPUI5 version is not recommended for productive use, because SAP does not provide support for custom versions. When you choose to use a custom SAPUI5 version, you and your end users may experience an impact on the rendering of the site and apps, as well as performance and theme regression issues. This may indicate that the app does not comply with SAPUI5 development guidelines.
Sign-Out Page	Select which page opens when an end user signs out of a site. They can be redirected to one of the following pages:
	Default Sign-Out Page – default sign-out page supplied by SAP.
	URL – opens an external Web page that you specify.
	Log-On Page – redirects to the Portal page that opens when a user logs on.
SAP Jam Integration	Enables integration between SAP Jam and SAP Fiori launchpad.
	For more information, see <u>Using SAP Jam in a Launchpad Site</u> .
Collect Performance Data	Identify performance issues in your application by tracking the interaction performed on the UI. This enables the creation of performance statistics for each request in UI5 applications for consumption by Real User Monitoring in Focused Run for SAP Solution Manager.
	i Note
	This increases network bandwidth usage and logging storage usage.
Save App State Data	Some apps are configured to save data using the AppState URL parameter. Set this property to No to stop saving data using the AppState parameter.
	i Note
	When set to No, apps that use the AppState functionality might not work as expected and any bookmarks or tiles that were saved using the AppState parameter will no longer load with the saved state.
	When this property is set to Yes, apps in your site can save potentially personal data. Make sure that your apps comply with local data privacy laws.
Access Type	Select Internal to set up an internal access point landscape that prevents sensitive OData requests to the corporate network, from being routed to the cloud.
	Select External to set up an external access point landscape. This enables accessing sites from outside the corporate network. This setting enables you to define the access to classic SAP UIs: SAP GUI and Web Dynpro ABAP.
Access Classic UIs	This option is only relevant when the value of Access Type is External.
	In an external access landscape, you can define how to handle external access to classic SAP UIs: SAP GUI and Web Dynpro ABAP:
	Yes, and show in launchpad - these apps are displayed in the site, and your end users can access them.
	No, but show in launchpad - these apps are displayed in the site, but your end users will not be able to access them.
	No, and do not show in launchpad - these apps are not displayed in the site.
	For more information, see <u>Set Up an External Access Point Landscape</u> .
Launch SAP GUI/WDA apps in place	Display SAP GUI and Web Dynpro ABAP apps in place by default, instead of in a new tab, to improve performance.
	For more information, see Configure In-Place Navigation for Classic UIs.

4. Enable or disable user capabilities for the current site as follows:

User Capability	Description
User Personalization	Allows users to personalize their SAP Fiori launchpad site.
	When set to NO, end users cannot perform the following actions to edit the home page.
	Move, rename, delete, reset, or create groups
	Move or remove tiles
	Add apps using the app finder
Sign Out Button	Shows or hides the Sign Out button at runtime.
	i Note
	This feature is only available from SAPUI5 version 1.40
Theme Selection	Allows users to select a theme.

User Capability	Description
Language Selection	Enable this feature to allow an end user to select a language for the site. Each time the same user logs on, the site opens in the language they selected.
	i Note
	This feature is only available for SAPUI5 1.46 version and above.
SAP Easy Access Menu	Enables adding the SAP Easy Access menu to the app finder, to enable launchpad users to access SAP GUI and Web Dynpro ABAP applications. You can enable the SAP Menu, the User Menu, or both.
	iNote
	This feature is only available from SAPUI5 version 1.40. However, the ability to enable the SAP Menu and the User Menu separately is available from SAPUI5 version 1.42
Recent and Frequent Activity	Enable this option to display the Recent Activity and Frequently Used information in the Me Area of the launchpad. By default, this option is not enabled.
Hide Groups	Allows users to hide groups in their SAP Fiori launchpad site.
Group Selection Bar	Allows users to define whether they want to see the contents of all of their groups on the home page at once, or only one group at a time.
All My Apps	Allows users to access apps using the All My Apps dropdown list in the shell header.
Background Shapes	Determines whether background shapes are displayed in the out-of-the-box Belize themes and custom themes based on the Belize themes.
	i Note
	This feature is only available from SAPUI5 version 1.40
Tile Size	Allows administrators to specify the size of tiles on the home page.
	Valid values:
	 Responsive: The size of the tiles is set to regular, unless the screen width gets smaller than 375 px (for example on small mobile devices), in which case the size of the tiles is set to Small.
	Small: The tile size is fixed to Small regardless of the available screen width.
Search	Enables search functionality in the site.
Notifications Area	Enables adding the Notifications area to the launchpad. You can specify whether to display a preview panel on the home page to show the most recent notifications. You can also set the polling interval to define how often the notifications are refreshed.
	i Note
	This feature is only available from SAPUI5 version 1.44
Display	By default, the App Finder, Edit Home Page, and Settings action icons appear in the Me Area. You can move these actions to the right-hand side of the shell header.
	Any actions that you add to the shell header are inserted between the Search and Notifications icons, if these are enabled in your system.
	Me Area actions take preference over custom icons added via the API method. For example, if you move three Me Area actions to the shell header and add one custom icon via the API method, the three Me Area actions will be displayed without the custom icon.
	iNote
	 If User Personalization is disabled, the App Finder and Edit Home Page actions are not available to the end user and the option to move them is disabled.
	 If you move the Edit Home Page action to the shell header, it will not be shown in the shell header when the App Finder is being used or when a user is navigating in an application.
	iTip
	To prevent clutter, we recommended adding only frequently used actions to the shell header.

5. Click Save.

6. To make the site available to end users, click \mathfrak{g} (Publish) (on the right side of the header bar).



Related Information

Collaborating Using SAP Jam Set Up an Internal Access Point Landscape Configure an SAP Easy Access Menu **Enabling Notifications**

Working with Apps

Administrators use the Configure Apps editor to create and configure apps that users launch from SAP Fiori launchpad.

What is a typical workflow for creating and configuring apps?

You would typically search for an app that has been deployed to your SAP Cloud Platform subaccount, select it to copy its configuration into the editor, and edit the properties according to your business scenario

For more information, see Creating or Configuring Subaccount Apps.

You can also browse technical catalogs for SAP GUI or Web Dynpro ABAP apps from an ABAP back-end system and copy its configuration into the editor.

For more information, see Configure SAP GUI for HTML and Web Dynpro ABAP Apps.

Using the Configure Apps editor

You access the editor from the side menu bar from the Content Management Apps menu item. When you open the editor, you see all the app configurations for the current site as a list in the side panel.

Search for and select the app that you want to edit and then do any of the following tasks:

iTip

When the side panel contains a long list of items, you can use the group, sort, or filter options at the bottom of the side panel to help you find the app that you're looking for. These changes are saved per user, across sessions, and the next time users open the Configure Apps editor they will see the list of apps filtered according to the last filter that they set.

Task	Procedure
Create a new app	Click + (New) at the bottom left side of the screen.
	The app configuration appears in the list of apps that are available for editing in the side panel of the Configure Apps editor.
Edit an app configuration	1. Click Edit.
	2. Toggle between the tabs of the editor and change the app configuration properties according to your use case.
	App configuration properties:
	• App Properties
	o <u>Visualization Properties</u>
	Navigation Parameters
Assign catalogs and groups	Assign catalogs and groups to the app in the Catalogs and Groups tabs.
Delete an app configuration	Click Delete and confirm.
	iNote
	This option deletes the app configuration and not the actual app.
Select and delete multiple app configurations simultaneously	1. Click ≟ (Multi-Select) at the top of the editor to enable multi-select mode.
,	2. Select the apps or use the SHIFT key to select a group of consecutive apps to delete.
	3. Click Delete.
	iNote
	When you select more than one app, the Selected App Configuration screen displays the Shared Assigned Catalogs table, displaying the assigned catalogs that are shared by the selected apps that you are about to delete.
Duplicate an app configuration	1. Click 원 (Duplicate) at the bottom of the side panel.
	2. Enter an App Title and modify any properties as required.
	All fields except for the App Title field are duplicated. The duplicated app includes all assignments to catalogs and roles.
Preview your app configuration	Click 🗆 (Preview) at the top of the screen at any time during the configuration process to see how your app appears in the launchpad.
Publish your changes to the site	Click ③ (Publish site) at the top of the screen to publish any changes made to the site since it was last published.

Creating apps using SAP Web IDE

You can register an application deployed on SAP Cloud Platform to the SAP Fiori launchpad directly from SAP Web IDE. Once registration is complete, a new app is created.

For more information, see Registering Applications to SAP Fiori Launchpad.

Related Information

About Tile Types

Creating or Configuring Subaccount Apps

Administrators can create and configure apps that are located in an SAP Cloud Platform subaccount.

What is the workflow?

Step

Step	Description
1	Search for an app that has been deployed to your SAP Cloud Platform subaccount.
2	Select the app and copy its configuration settings into the Manage App Configuration editor.
3	Edit the configuration settings to suit your business scenario.

How do you find the apps in your subaccount?

There are two ways that you can access the apps that are deployed in your SAP Cloud Platform Portal subaccount:

• From the side navigation menu in the configuration cockpit, select App Resources.

From here you can add the app configuration directly to the site you are working on by clicking \odot (Actions) and selecting Add to Site. The app configuration is copied into the Manage App Configuration editor where you can edit it.

• From the Manage App Configuration editor.

In edit mode, click (browse) next to the App Resource field and search for the app in your subaccount. Once you select it and click OK, the app configuration is copied into the editor where you can edit it.

In both cases all the configuration properties are populated automatically and you can change the properties according to your particular use case.

The following table provides you with links to more information about all properties in the editor tabs:

Tab	More Information
Properties	App Properties
Visualization	<u>Visualization Properties</u>
Parameters	Navigation Parameters

iNote

If the app has a Stopped status, go into the SAP Cloud Platform cockpit and restart it.

Duplicating an App

In the Manage App Configuration editor, administrators can duplicate apps and change their configuration to create several tiles that represent the same underlying app.

Context

If you want an app to be represented by different tiles for different users and roles, you can do this in the Manage App Configuration editor by duplicating an app and editing its properties as follows:

- Configure different intent parameters for each app. The intent remains the same, but because the parameters are different, each tile launches a different view of the same app.
- Configure different visual properties for each tile such as title, subtitle, and description.

In this diagram, you can see four different tiles in the 'Disputes' group. Each of these tiles represents the same app and is configured with the same intent. However, each is tile visually different and is configured with different intent parameters. When launched, each of these tiles opens a different view of the same app.



How do I configure this?

Procedure

1. Open the Manage App Configuration editor, select an app, and click 🥛 (Duplicate)

The duplicated app opens in edit mode. .

iNote

All of the app's properties, including catalog and group assignments, are copied from the original app. However, the duplicated app, is not connected to the original app configuration. This means that from now on, when changes are made to properties in the original app configuration, the changes are not reflected in this new app.

- 2. Edit the tile properties, for example, you can change the title, subtitle, intent parameters, and display mode.
- 3. Save your settings to create a new app with the changed properties.

App Properties

From the Properties tab in the Manage App Configuration editor, administrators configure the general properties of an app.

General Properties

Property	Task
App Resource	 Click to browse for an app resource in your SAP Cloud Platform subaccount or other systems. Select the app and click OK to copy the app's configuration into the editor. Alternatively, enter a name for your app configuration and continue to define the rest of the properties.
App Title (Mandatory)	The name of the app as it will appear if the app is represented by a tile.
App Subtitle	The subtitle of the app that will appear under the app title if the app is represented by a tile.

Intent Navigation

Each intent consists of a combination of a semantic object and an action. You can include parameters by adding them in the Parameters tab.

Property	Description
Semantic Object	The object on which to perform an action.
	For example, LeaveRequest
Action	The action that is performed on the semantic object.
	For example, Create

For more information, see $\underline{\text{Navigation Parameters}}.$

App Resource Details

After you've selected the app type, you define the location of the app by defining the relevant target properties for that app type.

The following table lists the app types that you can select and the relevant target properties for each type. If you have copied an existing app configuration, these properties are filled in automatically.

Арр Туре	Target Properties
SAPUI5	 Component URL Location of the SAPUI5 component's Component.js file on the server. SAPUI5 Component Registered name of the SAPUI5 component, defined in the Component.js file, without the .component suffix. HTML5 App Name Name of the deployed HTML5 app in your local subaccount or name of the subscribed app that exists in another subaccount.
URL	The navigation target URL of the app. iNote To open the URL in a new browser window or tab, start the URL with http(s)://
SAPUI5 News	This app type is an out of the box news reader application with predefined target properties.
Shell Plugin	The target properties are populated with the values of the app you select from your SAP Cloud Platform subaccount and can be edited. You can select one of the following shell plug-in app types: Custom: The target properties are populated with the values of the app you select from your SAP Cloud Platform subaccount or from your back-end system. All properties are editable. UI Adaptation: Enables users to adapt the UI of their apps. For more information, see Enabling Key User Adaptation .
SAP GUI and Web Dynpro ABAP	You can search for these app types in your SAP Cloud Platform subaccount, select them and copy their configurations into the Manage App Configuration editor. The target properties are prepopulated with the values of the app that you select.
SAP Mobile Documents	The Folder URL parameter is the value of the Web link for members URL from the SAP Mobile Documents folder. This property is mandatory. For more information, see: Configuring an SAP Mobile Documents App

For information about the different tile types, see About Tile Types.

Assignments

You assign apps to catalogs and groups in the Catalog and Group tabs.

iNote

When the Assigned Catalogs or Assigned Groups table contains a long list of items, you can click \equiv (Sort and filter table) above the table to sort or filter the table.

Property	Description
Catalogs	Assign the app to one or more catalogs to ensure role-based access to the app.
	iNote Assigning an app to a catalog enables users to browse through the runtime tile catalog that they access from the launchpad. From here they can add apps that have been assigned to their role to the launchpad.
	For more information about catalogs, see Working with Catalogs.
Groups	Assign the app to one or more groups.
	A group contains the apps that a user can see on the home page of their SAP Fiori launchpad. The apps displayed depend on the groups you have assigned to the user's role.
	For more information about groups, see Working with Groups.

Attributes

You define attributes according to the App Type selected in the App Resource Details section.

Related Information

Working with Apps

Visualization Properties

The Visualization tab in the App editor contains properties related to the visual appearance of the tile representing the app on the home page. You can also define supported devices and see a preview of the tile.

Tile Properties

You can configure different tile types for each app type depending on your use case. The following tiles are supported:

- Static App Launche
- Dynamic App Launcher
- Custom App Launcher
- News
- KPI
- No Tile

For more information about the different tile types, see About Tile Types

Depending on the tile type that you selected, configure the following properties:

Properties for Static App Launcher and Dynamic App Launcher tile types:

Property	Description
Size	Tile size is 1x1.
Title	This field is automatically populated with the name you entered in the Properties tab. You can edit it if necessary.
Subtitle	Displayed below the title.
Information	Additional text that you want to display on the tile.
Icon	Open the dropdown list to select an icon to display on the tile.
	Select an icon from the default SAPUI5 library or from a custom TrueType font library (stored as a .ttf file). To upload a custom library:
	1. Click Upload, and choose the required .ttf file.
	2. To upload the file into the repository, provide your SAP Cloud Platform Portal credentials.
	3. Select an icon from the newly uploaded library.
	After you have selected an icon, the property is set to the icon's URL, preceded by sap-icon://, for example, sap-icon://Fiori2/F0072.

Additional properties for Dynamic App Launcher tile types:

Property	Description

Property	Description
Number Unit	Unit displayed below the KPI number, for example, USD.
	iNote This field is read-only. Change the value in the OData service to configure the Number Unit. For more information, see OData Structure for Dynamic App Launchers.
Service URL	URL of an OData service from which data is read. The response is expected in JSON format. When the service is called, the values that are provided by the service override the values that have been configured manually in the tile. Note that the service is executed at runtime only. At design time, sample data is displayed.
	iTip If you want to read some entities for the app launcher dynamically from an OData service, and other content statically from the configuration, you can use the \$count parameter in the service URL. For more information, see OData Structure for Dynamic App Launchers.
Refresh Interval	Number of seconds after which dynamic content is reloaded from the data source and the display is refreshed: Default value is 10 seconds. This is also the minimum value. Enter 0 to update the dynamic tile only once upon loading.

Properties for Custom App Launcher tile types:

Property	Description
Size	Measurements of the tile. Possible values:
	• 1x1
	• 1x2
Title	Descriptive heading of the tile.
Module Type	Module type of the SAPUI5 application.
Name	Name of the module.
	For example, test.ui5.
Prefix	Name of the prefix that maps to the location of the module.
	For example, test.
Path	Path to the server where the module is located.
	For example, /content/ui5.
Custom Properties	Custom properties as key-value pairs.

Properties for a News tile type:

Property	Description
Size	Measurement of the tile. Value must be 1x2.
Article Cycle	The rate at which the article displayed in the news tile changes. The minimum value is 5 seconds.
Article Refresh	The rate at which the news tile requests new articles from the Article Feeds.
Article Feeds	URLs that reference RSS news feeds.
	You can configure 10 RSS feeds. The news tile monitors the feeds and retrieves news articles according to the Article Refresh interval and according to the values of the inclusion and exclusion filters. The list must contain at least one feed.
	iNote
	If the URL references an external feed, the feed must be CORS compliant.
	If the URL references an internal feed, the feed must originate from the same server and port as the SAP Fiori launchpad.
Inclusion Filters	Determines which articles are displayed.
	You can configure 5 inclusion filters. The news tile filters the feeds and includes any articles that contain the same text as the Title of the article.
Exclusion Filters	Determines which articles are not displayed.
	You can configure 5 exclusion filters. The news tile filters the feeds and excludes any articles that contain the same text as the Title of the article.

Related Information

Working with Apps About Tile Types

Navigation Parameters

From the Parameters tab in the Configure Apps editor, administrators define apps and their related intents to enable navigation to target apps in SAP Fiori launchpad.

The recommended way of navigating between apps in SAP Fiori launchpad is via intents, although many app types are launched using URLs.

Intent Properties

Each intent consists of a combination of a semantic object and an action. You define these in the Properties tab.

You can define parameters to pass with the navigation request. By defining parameters, you ensure that users see different views of the same app.

iNote

Apps with identical intents and parameters are flagged to help you avoid displaying two tiles that open the same app in the same app state. You can click each app in the List of apps with the same intent navigation table to view the settings for each app.

To define a new parameter, click + (add) and enter the following properties:

Attribute	Description
Name (Mandatory)	A unique parameter name.
Target Name	Used for parameter mapping for SAP GUI for HTML and Web Dynpro ABAP apps only.
	Allows you to configure a different key for a parameter that will be forwarded to the application at runtime.
Mandatory	Define mandatory and optional parameters for the target mapping. The parameters are validated during the resolving of the navigation target, to prevent opening a target without providing the necessary mandatory parameters
	Select to make the parameter mandatory. In this case the Default Value property is disabled.
	Deselect to make the parameter optional. In this case, the Value and Regular Expression properties are disabled.
Value	Leave this field empty if you want the option to enter any value for this parameter.
	Enter a specific value if you want only this value to be passed each time.
	Define a regular expression mask, such as "AB.*" if you want the parameter value to be interpreted as an expression.
Regular Expression	Select so that the parameter's value can be interpreted as a regular expression.
Default Value	Enter a default parameter value. The default value is passed unless another value is entered. In this case, the entered value overrides the default value.
Launcher Value	Represents a hash value of a complete set of parameters that will be launched by the user.
	For more information, see the SAP Fiori Launchpad section in the following topic: Frequently Asked Questions.
Allow additional user-defined parameters	Select to allow users to pass additional parameters that are not defined here.

Example

From a Leave Request app, a user chooses a date and clicks a button to create a leave request. As administrator, you define the properties as follows:

- Semantic Object: LeaveRequest
- Action: Create Parameters
- Parameters:
 - Name: startDate
 - Mandatory: not selected
 - Value: the date, for example 01/01/2016
 - Regular Expression: not selected
 - Default Value: empty
 - o Allow additional user-defined parameters: not selected

Related Information

About Navigation in SAP Fiori Launchpad

Creating and Configuring Shell Plugin Apps

Shell plugin apps are used to extend the launchpad with additional functionality.

Context

Shell plugins have the following characteristics:

- Plugins are automatically loaded and initialized when the launchpad is started.
- Plugins are implemented as SAPUI5 components and provide all standard deployment and life cycle features of SAPUI5.
- Developing plugins involves creating the plugins and then configuring them in the launchpad configuration cockpit.

Developers can develop shell plugin apps to extend their launchpad. They can extend the UI using standard out-of-the-box SAP Fiori launchpad APIs in their plugin code, or they can add functionality.

Creating a shell plugin app

Context

Here is an example showing you how to create a shell plugin app that extends the session timeout. Basic knowledge of working with SAP Web IDE is required.

iNote

Session timeout is restricted to up to 30 minutes.

Procedure

- 1. Open the SAP Web IDE service on your subaccount.
- 2. Create a new SAPUI5 application.

You can base your project on the SAPUI5 Application Template and remove the model, views, and controller directories. For a shell plugin app all you need is a Component.js file.

- 3. Choose a distinctive namespace such as shell.timeout.
- 4. Add your plugin code to your project as follows:
 - a. Copy your plugin code to the ${\tt Component.js}$ file.

```
'≒,Sample Code
 (function () {
     "use strict":
     jQuery.sap.declare("<namespace>.Component");
     jQuery.sap.require("sap.ui.core.UIComponent");
     sap.ui.core.UIComponent.extend("<namespace>.Component", {
         // use inline declaration instead of component.json to save 1 round trip
         metadata : {
             "manifest": "json"
         createContent : function () {
             // make a request to the server every 15 minutes
             setInterval(function () {
                 jQuery.ajax({
                     type: "HEAD"
                     cache: false,
                     url: "the URL to the Component.js of the plugin"
                     function (result) {
                         j \\ Query.sap.log.debug ("pingServer", "Successfully pinged the server to extend the session");
                 ).fail(
                     function () {
                         jQuery.sap.log.error("pingServer", "failed to ping the server to extend the session");
                 );
             }, 900000); //15 minutes
         }
     });
}());
```

- For more information about the Component.js file, see <u>SAPUI5 documentation</u>.
- For more information about the APIs that you can use in your shell plugin, see <u>SAP Fiori launchpad API Reference</u>.
- b. Change the application's URL to the URL of your plugin.

iNote

- When both the application URL and the shell plugin URL are the same, it's not possible to predict which prefix will be added to the URL the application prefix or the shell plugin prefix.
- When two shell plugins have the same URL, it's not possible to predict which shell plugin <app_name> prefix will be added to the URL, because the system cannot determine which shell plugin initiated the request.

5. Deploy your project to SAP Cloud Platform.

Configuring a shell plugin app

Context

Once the shell plugin app is deployed on the subaccount, the launchpad administrator can add it to the launchpad.

Procedure

- 1. In the launchpad configuration cockpit, open the Apps editor, and add a new app.
- 2. In the Properties tab, click the App Resource browse button and search for the shell plugin app that you created.
- 3. In the list of apps that opens, select the app and click OK.
- 4. From the App Type dropdown list, select Shell Plugin.
- 5. Select the relevant shell plugin app type:
 - o Custom: A flexible SAPUI5 app that can be extended by using standard out-of-the-box SAPUI5 APIs.
 - User Defaults: A shell plugin app that enables users to set default values for the navigation parameters of their apps (only those apps that have been developed to support user defaults).
 - UI Adaptation: A shell plugin app that enables users to adapt the UI of their apps. This is only relevant for apps that have been developed to support UI adaptation.

For more information, see Enabling Key User Adaptation

6. In the Catalogs tab, assign your app to a catalog.

iNote

Assign your app to a catalog to which the user's role is assigned so that the user can access the app.

7. Click Save

Configuring a News App

Administrators can create a news app that end users can launch from SAP Fiori launchpad sites.

Context

You configure a news app and tile in the Manage App Configuration editor. When an end user clicks a news tile in their launchpad, an external URL navigates to an app that displays an RSS news feed.

Procedure

- 1. In the configuration cockpit, in the side menu, select Content Management Apps to open the Manage App Configuration editor.
- $2. \ \text{Click} + \textit{(New)} \ \text{at the bottom of the side panel of the editor.} \ \text{The new app appears in the side panel and opens for editing.}$
- 3. In the Properties tab:
 - a. In the $\ensuremath{\mathsf{App}}$ Title field, enter the title to be displayed for the app.
 - b. In the $\mbox{\sc App Subtitle}$ field, enter additional information about the app. (Optional)

iNote

Under Intent Navigation, a default semantic object (News) and a default action (Display) represent the intent navigation properties.

- c. From the App Type list, select SAPUI5 News. This app type is an out of the box news reader application with predefined target properties so the target properties are automatically populated.
- 4. In the Catalogs tab, assign the app to one or more catalogs.
- 5. In the Groups tab, assign the app to one or more groups.
- 6. In the Visualization tab, configure the following tile properties:

Property	Description
Size	The size is fixed at 2x1
Article Cycle (seconds)	The rate at which the articles cycle through the news tile
	The minimum value is 5 seconds (default).
Article Refresh Interval	The rate at which the news tile requests new articles from the Article Feeds.
	The default value is 15 minutes.
Article Feeds	A list of RSS feeds. You can configure up to 10 RSS feeds. The feed URLs must use the same protocol as the SAP Fiori launchpad.
	The news tile monitors the feeds and retrieves news articles according to the Article Refresh Interval, and according to the values of the inclusion and exclusion filters. The list must contain at least one feed.
	i Note
	If the URL references an external feed, the feed must be CORS compliant.
	 If the URL references an internal feed, the feed must originate from the same server and port as the SAP Fiori launchpad.

Property	Description
Inclusion Filters	A list of up to five comma-separated strings. The news tile filters the feeds and displays only those articles that contain these strings in the title. You can configure 5 inclusion filters.
Exclusion Filters	A list of up to five comma-separated strings. The news tile filters the feeds and excludes any articles that contain these strings in the title. You can configure 5 exclusion filters.

7. Click Save

Results

Users can see a news tile displaying news headlines in their SAP Fiori launchpad. When they click this tile, the full news article opens in the news app that is launched.

Related Information

About Tile Types

Implementing a Custom News App

Developers can implement a custom news app instead of the out-of-the-box news app.

Your custom news app needs to get the RSS feeds that were configured in the Tile Properties of the news app, by retrieving the value of the hash parameter newsId from the app URL.

For more information about the tile properties, see Configure a Custom News App.

For more information about developing HTML5 applications, see Creating an HTML5 Application.

The following code snippets are an example of how to retrieve the newsId hash parameter from the app URL and get the RSS feeds that it contains.

```
'≒,Sample Code
 init : function() {
      var sFeedUrl = this.getHashParameter("newsId");
var data = JSON.parse(window.localStorage.getItem(sFeedUrl));
this.initModel(data).done(jQuery.proxy(function(oModel) {
    this.oMainView.setModel(oModel);
'≒Sample Code
 getHashParameter: function getURLParameter(name) {
      var value = (new RegExp(name + '=' + '(.+?)(&|$)', 'i').exec(location.hash) || [null, null])[1]; var decodedValue = null; if (value !== null) {
            decodedValue = decodeURIComponent(value);
       return decodedValue;
'≒,Sample Code
 initModel : function(oData) {
       var oModelLoadedDeferred = new jQuery.Deferred();
       jQuery.sap.require("sap.suite.ui.commons.util.FeedAggregator");
       var oModel = sap.suite.ui.commons.util.FeedAggregator.getFeeds(oData.feeds, oData.ifilters, oData.efilters, function() {
    aItems = oModel.getProperty("/items");
            oResModel = new sap.ui.model.json.JSONModel();
            oResModel.setData({
            oModelLoadedDeferred.resolve(oResModel);
      });
       return oModelLoadedDeferred;
```

Related Information

https://sapui5.hana.ondemand.com/sdk/#docs/guide Configure a Custom News App

Configure a Custom News App

Administrators can configure a news app that launches a custom app instead of the out-of-the-box news app.

Prerequisites

You have written a custom SAPUI5 app that can read RSS feeds from different URLs, and display them. For more information, see Implementing a Custom News App.

Procedure

- 1. In the configuration cockpit, in the side menu, select Content Management Apps to open the Manage App Configuration editor.
- 2. In the Properties tab:
 - a. In the App Title field, enter the title to be displayed for the app.
 - b. In the App Subtitle field, enter additional information about the app. (Optional)
 - c. Under Intent Navigation, in the Semantic Object field, replace the default value with another name. You can leave the value of the Action field (Display) as is.
 - d. From the App Type list, select SAPUI5 News. This app type is an out of the box news reader application with predefined target properties so the target properties are automatically populated.
 - e. Replace the default target values with the values of your custom app:
 - i. In the Component URL field, replace the default value with the location of your component. js file in the HTML5 project.
 - ii. In the SAPUI5 Component Name field, replace the default value with the name of your SAPUI5 component, without the .component suffix.
 - iii. In the HTML5 App Name field, enter the name of your HTML5 app
- 3. In the Catalogs tab, assign the app to one or more catalogs.
- 4. In the Groups tab, assign the app to one or more groups
- 5. In the Visualization tab, configure the Tile Properties. Add at least one feed.
- 6 Click Save

Related Information

Configuring a News App

Clearing the App Cache

The app cache is automatically invalidated for changed apps when the configuration cockpit is loaded. Administrators can still manually invalidate the app cache as needed.

Context

HTML5 static resources are stored in the app cache. If an app is redeployed to the subaccount with different resources, an automatic cache invalidation process is triggered upon loading the configuration cockpit, so that the app resources are not fetched from the cache but rather from the repository.

You can view the results of the last app replication process in a report that is available in the Configure Apps editor (when browsing for apps) or in the App Resources screen.

If needed, you can still trigger a clear cache action manually.

Procedure

- 1. In the configuration cockpit, select Settings from the side navigation menu.
- 2. Click Actions at the bottom right-hand side of the screen.
- 3. Select Clear HTML5 Application Cache.

 $\label{prop:confirm} \mbox{ After you confirm the warning message, the changes to the app are reflected at runtime.}$

Switching Back to the Previous Patch

Administrators can choose to switch back to the previous patch version.

Context

When a new patch version is available for SAP Fiori apps, the apps are automatically updated to the latest patch. The latest changes are reflected at runtime as soon as the HTML5 application cache is cleared.

Customers might want to have control over the patch version, and to be able to switch back to a previous patch version.

Procedure

- 1. Open the App Resources screen.
- 2. In the Actions column, click the arrow to open the actions menu.
- 3. Choose the Set to Previous Patch action.
- 4. In the Version Management window that opens, select the previous patch version from the list.
 - You can go back to the latest patch version by choosing the Set to Latest Patch action in the actions menu.
 - o After setting the app to the previous patch version, if relevant, an indication that the app has been upgraded to a newer patch version is displayed.

Working with Catalogs

 $Administrators\ create\ and\ configure\ catalogs\ to\ enable\ role-based\ access\ to\ apps\ for\ a\ particular\ launchpad\ site.$

What are catalogs?

Catalogs are authorization objects. You assign roles and apps to a catalog. Rather than assigning each app to a role, you can bundle them into a catalog and then assign one or more roles to each catalog. Users who are assigned to a particular role, can then access the apps that are assigned to the same catalog as their role.

iNote

The following image contains links to more information.



How to manage catalogs

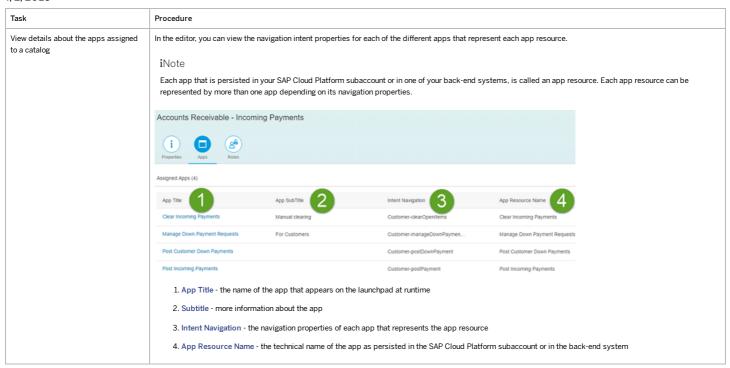
Create new catalogs or configure existing ones in the Manage Catalogs editor that you access from the side menu of the SAP Fiori launchpad configuration cockpit.

iTip

When the side panel contains a long list of items, you can use the group, sort, or filter options at the bottom of the side panel to help you find the catalog that you're looking for. These changes are saved per user, across sessions, and the next time you open the Manage Catalogs editor you will see the list of catalogs filtered according to the last filter that you set.

From here you can:

Task	Procedure
Create a new catalog	 Click + (New) at the bottom of the side panel of the editor. The new catalog appears in the side panel and opens for editing. Navigate between the Apps and Roles tabs and carry out the following assignments: Assign apps to the catalog so that users can access these apps in their launchpad. Assign roles to the catalog so that all users with this role, will have access to the apps that are assigned to this catalog.
	iNote When the Assigned Apps or Assigned Roles tables contain a long list of items, you can click ₹ (Sort and filter table) above the table to sort or filter the table.
Edit a catalog	1. Select a catalog in the side panel. If you can't find the catalog that you want, use the search function. 2. Click Edit in the bottom right-hand corner. 3. Toggle between the tabs and change the properties and assignments. iRemember Assign at least one role to a catalog.
Duplicate a catalog	 Select a catalog in the side panel. Click (Duplicate) at the bottom of the side panel. A new catalog is added to the side panel and opens for editing. iNote All fields except for the App Name field are duplicated. The duplicated catalog includes all assigned apps and roles.
Delete a catalog	Select the catalog in the side panel, and click Delete. iNote The Delete button is disabled if you only have one catalog.
Select and delete multiple catalogs simultaneously	1. Click (Multi-Select) at the top of the editor to enable multi-select mode. 2. Select the catalogs or use the SHIFT key to select a group of consecutive catalogs. 3. Click Delete. iNote After you have selected the catalogs that you want to delete, you will see only the assigned apps or roles in the Apps and Roles tabs that are shared by the catalogs that you are about to delete.



Related Information

<u>Launchpad Objects</u>

<u>Working with Apps</u>

Working with Groups

Working with Groups

Administrators create and configure groups to ensure that related apps are organized and visible to users in SAP Fiori launchpad. End users can then personalize their launchpad by adding apps to or removing apps from the out of the box or self-defined groups.

What are groups?

A group is a subset of apps that contains those apps that a user sees in their SAP Fiori launchpad site.

Click each shape for more details.



How to manage groups

You create new groups and configure existing ones in the Manage Groups editor that you access from the side menu in the SAP Fiori launchpad configuration cockpit.

iTip

When the side panel contains a long list of items, you can use the group, sort, or filter options at the bottom of the side panel to help you find the group that you're looking for. These changes are saved per user, across sessions, and the next time administrators open the Manage Groups editor they will see the list of groups filtered according to the last filter that they set.

From here you can:

Task	Procedure

Task	Procedure
	Trocedire
Create a new group	1. Click + (New) at the bottom of the side panel. The new group appears in the side panel and opens for editing.
	2. In the General area of the Properties tab, give the group a name.
	3. In the Apps tab, assign apps to the group by clicking + to open the Select Apps dialog box.
	i Note
	The apps that you see are those that you have previously configured in the Configure Apps editor.
	4. Search for apps by title, target app, or navigation target and add them to your group.
	5. In the Roles tab, assign the group to one or more roles.
	iNote
	INote
	You can also create a group on the fly when you are working in the Groups tab of the Configure Apps editor.
Edit a group	1. Select a group in the side panel. If you can't find the group that you want to edit, use the search function.
	Click Edit at the bottom right-hand side of the screen.
	3. Edit the general properties of the group in the Properties tab, and the group's assignments in the Apps and Roles tabs.
	4. iNote
	When the Assigned Apps or Assigned Roles tables contain a long list of items, you can click <i>₹</i> (Sort and filter table) above the table to sort or filter the table.
Lock a group	In the Properties tab, select Locked group, to prevent users from personalizing the group in their launchpad.
View display settings and navigation target settings	Click C(Settings) next to an app row to view the display settings and intent or URL settings for that app. If more than one app implements the same intent, you can select each app in the Title field and view its settings.
	You can change some of the display settings, such as the title, icon, and display mode of the app. The Display Mode field indicates whether the target app is displayed as a tile or a link at runtime. Click Reset to revert back to the original tile settings you configured for the app.
	By changing a tile property, you are disconnecting it from the original app configuration. This means that from now on, when changes are made to this property in the original app configuration, the changes are not reflected in this new app. However if other properties are changed in the original app configuration, the changes are reflected in this new app.
	For example, if you configured the name of an app in the Manage App Configuration editor as AA and you change the name in the Manage Groups editor to BB, the tile is displayed with the name BB but the name in the app configuration remains AA. Now if you go into the Manage App Configuration editor and change the name to CC, the tile is still displayed as BB in the launchpad.
	iTip
	We recommend that you make changes to app configurations by duplicating an existing app in the Manage App Configuration editor.
	For more information, see <u>Duplicating an App</u> .
Reorder the apps in a group	The order of the apps that you set in the Assigned Apps table affects the order in which the tiles appear at runtime.
	1. Click Edit at the bottom right-hand side of the screen.
	2. In the Apps tab, in the Assigned Apps table, select an app, or a group of consecutive apps, and use the ↑ 🕠 buttons to reorder them in the group.
	If you sort the Assigned Apps table, the order of the apps no longer reflects the runtime order. Click Revert to go back to the previously saved order, or click Save to save the new order.
	iNote
	If you have filtered the table, the arrows are disabled and you cannot change the order of the apps.
Reorder groups display in the	In scenarios where there are tens of groups you may want to display the more important groups at the top of the launchpad.
launchpad	To do this, reorder the list of groups in the side panel of the editor by using the up/down arrows. The order that you set is reflected in the launchpad and becomes the
	default setting each time the user logs on to their launchpad.
Delete a group	Select the group in the side panel and click Delete at the bottom right-hand side of the screen.
	i Note
	The delete button is disabled if you only have one group.
Select and delete multiple groups	Click (Multi-Select) at the top of the editor to enable multi-select mode.
simultaneously	Select the groups that you want to delete or use the SHIFT key to select a group of consecutive groups.
	3. Click Delete.

Related Information

<u>Launchpad Objects</u>
<u>Working with Apps</u>
<u>Working with Catalogs</u>

Working with Roles

Administrators create and configure roles to manage access for launchpad users.

What are roles?

Roles allow administrators to limit access to SAP Fiori launchpad objects to defined users. In the Roles editor you can see all of the roles in your SAP Cloud Platform subaccount and you can assign catalogs and groups to the role. New roles created in the Roles editor must have a matching role defined in your SAP Cloud Platform subaccount.

How to manage roles?

Create new roles or configure existing ones in the Manage Roles editor that you access from the side menu in the SAP Fiori launchpad configuration cockpit.

iTip

When the side panel contains a long list of items, you can use the group, sort, or filter options at the bottom of the side panel to help you find the role that you're looking for. These changes are saved per user, across sessions, and the next time users open the Roles editor they will see the list of roles filtered according to the last filter that they set.

From here you can:

Task	Procedure
Create a new role	1. Click + (New) at the bottom of the side panel of the editor. The new role appears in the side panel and opens for editing.
	2. Provide a name and ID for the role. The role ID must match a role name defined in your subaccount for the Portal service.
	To view which roles you have in your subaccount, access the SAP Cloud Platform cockpit Services Portal Configure Portal Roles
	3. Assign groups and catalogs to the role in the Catalogs and Groups tabs.
	Note
	iNote When the Assigned Catalogs or Assigned Groups tables contain a long list of items, you can click (Sort and filter table) above the table to sort or filter
	the table.
Edit a role	1. Select a role in the side panel. If you can't find the role that you want, use the search function.
	2. Click Edit in the bottom right-hand corner.
	3. Toggle between the tabs and change the properties and assignments.
	iRemember
	Assign at least one catalog and one group to the role.
Duplicate a role	1. Select a role in the side panel.
	2. Click 🔁 (Duplicate) at the bottom of the side panel. A new role is added to the side panel and opens for editing.
	iNote
	The duplicated role includes all assigned catalogs and groups.
Preview a role	Use the \square (<i>Preview</i>) icon at the top of the screen at any time during the configuration process to see a preview of launchpad. In the preview screen you can choose one or more roles from the Roles dropdown list to simulate how a specific role or group of roles will see the site.
	i Note
	If you select roles that contain more than 500 tiles, the preview is displayed in tab mode: groups are displayed one at a time. Click a tab to view the contents of each group.
Delete a role	Select the role in the side panel, and click Delete.
	iNote
	You cannot delete roles that are connected to SAP Cloud Platform roles.
Select and delete multiple roles simultaneously	1. Click $\stackrel{\leftarrow}{s}$ (Multi-Select) at the top of the editor to enable multi-select mode.
	2. Select the roles or use the SHIFT key to select a group of consecutive roles.
	3. Click Delete.
	i Note
	If one or more roles are connected to a role in the SAP Cloud Platform subaccount, the Delete button is disabled.
	iNote
	After selecting the roles that you want to delete, the editor displays the assigned catalogs or groups that are shared by the roles that you are about to delete.
View details about the catalogs and groups assigned to a role	In the editor, you can view information about each of the different catalogs and groups assigned to the role. You can also drill down to see the apps assigned to each catalog and group.

About Roles

Enabling Key User Adaptation

Key user adaptation allows business users with special authorization to adapt the UI of apps when running them in the SAP Fiori launchpad using intuitive WYSIWYG features, for example, rearranging UI elements by just dragging and dropping them.

Key user adaptation, which is a feature of SAPUI5 flexibility, is available for apps with supported controls and stable IDs. For more information, see the following topics in the documentation section of the SAPUI5 Demo Kit:

- <u>Key User Adaptation: Enable Your App</u>
- Stable IDs: All You Need to Know
- SAPUI5 Flexibility: Adapting UIs Made Easy

Here's what you must do in SAP Cloud Platform Cockpit

1. Under Applications Subscriptions Subscribed Java Applications, define the FlexKeyUser role both for the Java apps < your portal name > and < your portal name > atc.

Example:

Provider Subaccount	Application
portal	myportal
portal	myportaldt

iNote

It's very important that you define the role for **both** Java apps (<your portal name> and <your portal name>dt).

2. Under Roles New Role, enter the FlexKeyUser role (type Custom) and assign the relevant users or groups. You can edit the assignments later, for example, by adding additional users or removing existing ones.

For more information, see Working with Roles.

Here's what you must do in launchpad Configuration Cockpit

- 1. Under Content Management Catalogs, create a catalog and under Roles assign the FlexKeyUser role to it.
- 2. Under Content Management Apps, do the following:
 - a. Choose + to add a new app for the plugin.
 - b. Enter a name for the plugin.
 - c. Under App Resource Details, select the app type Shell Plugin and the shell plugin type UI Adaptation. The component URL and the SAPUI5 component are filled automatically.

iNote

If you change the SAPUI5 version in the Fiori Configuration Cockpit under Settings System Settings, the component URL is **not** updated accordingly. You need to change the component URL manually by exchanging *innovation* with the SAPUI5 version you maintained in the system settings. However, we do **not** recommend to change the SAPUI5 version. For more information about setting the SAPUI5 version, see <u>Launchpad Settings</u>.

d. Under Catalogs, assign the new app (RTA plugin) to the new catalog you've created.

△Caution

 $Make sure\ that\ the\ new\ app\ (RTA\ plugin)\ is\ only\ assigned\ to\ catalogs\ to\ which\ the\ FlexKeyUser\ role\ is\ assigned.$

For more information, see Creating and Configuring Shell Plugin Apps.

Related Information

Adapting SAP Fiori Uls at Runtime - Key User Adaptation

Enabling Notifications

Notifications in enterprise applications are an effective way to make users aware of situations that require their timely action or attention. Examples include workflow scenarios, such as the assignment of new purchase order approvals, or invitations to join SAP Jam groups.

Prerequisites

- You are subscribed to SAP Cloud Platform Portal, using SAPUI5 version 1.44 or higher.
- You have an SAP Cloud Platform cloud connector configured to access your back-end system from your customer cloud subaccount.
- You have configured the SAP Gateway Notification Channel. For more information, see SAP NetWeaver AS for ABAP 7.51 innovation package on SAP Help Portal at http://help.sap.com/nw751abap. Under Function-Oriented View, open SAP Gateway Foundation (SAP_GWFND) and search for Notification Channel.

• You have configured the notifications destination in SAP Cloud Platform cockpit as follows:

Property	Value
Туре	НТТР
Authentication	BasicAuthentication
Name	notifications
CloudConnectorVersion	2
ClientReadTimeout	60000
ProxyType	OnPremise
URL	http(s):// <host>:<port></port></host>
sap-client	001
User	<user name=""></user>
RDEUsage	odata_abap,ui5_execute_abap,dev_abap
RDESystem	SAP_Gateway
RDEEnabled	true
ConnectionTimeout	60000

Context

The launchpad consumes notifications from the notification channel, which is a back-end system that aggregates notifications from different notification providers configured in your environment.

For information about working with notifications at runtime, see Working with Notifications.

iNote

Using notifications in the cloud scenario is only supported for ABAP notifications. HANA XS back end is not supported.

Procedure

- 1. In the Site Settings screen, under User Settings, set Notification Area to YES.
- 2. Click Notifications Preview to specify whether to display a preview panel on the home page showing the most recent notifications. This saves users from having to open the Notifications area to see their latest notifications.
- 3. Set the polling interval for refreshing notifications.

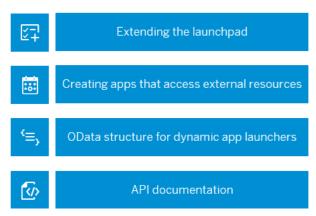
Related Information

<u>Destinations</u>

Developer Guide

Welcome to the SAP Fiori launchpad developer guide.

Hover over each shape for a description, click for more details:



Extending the launchpad

An SAP Fiori launchpad plugin allows you to extend the shell of the SAP Fiori launchpad.

You have the following options for developing a shell plugin:

• A SAP Fiori Launchpad Extensibility plugin is available in SAP Web IDE. This plugin allows you to create a project containing the files that you need, for developing and testing your launchpad plugin. Follow the wizard to generate a sample code that adds buttons to the launchpad UI for triggering the functionality that you add.

For more information, see SAP Fiori Launchpad Extensibility.

• You can also create your own shell plugin from scratch, deploy it to the SAP Cloud Platform, and then configure it to run in your launchpad.

For more information, see Creating and Configuring Shell Plugin Apps.

Creating Apps that Access External Resources

SAP Fiori launchpad provides an automatic routing mechanism for accessing external resources.

SAP Fiori launchpad provides a routing mechanism that automatically intercepts all HTTP calls, determining which calls are relevant for the application context, and which calls are relevant for the launchpad context. This means that developers write code once and deploy it, without the need to provide specific coding for accessing back-end systems or loading custom SAPUI5 libraries.

 $For example, to load\ a\ custom\ SAPUI5\ library, add\ the\ following\ section\ to\ the\ application's\ neo-app.\ j\ son\ file:$

```
f
    path: "/sap/ui5/1/resources/sap/hcm",
    target: {
        type: "application",
        name: <helium_app_name> (for example "hcmlibcommon"),
        entryPath: "/sap/hcm"
    },
    description: "SAP HCM UI5 library"
},
```

iNote

The automatic routing mechanism assumes that SAP Fiori launchpad is the sole entry point for running business applications. If you are using a different routing mechanism to access backend systems or to load custom SAPUI5 libraries, we recommend that you use the new automatic mechanism. Otherwise, you must turn off the automatic routing mechanism by adding a header named disableInterception to the headerWhiteList section of your neo-app. j son file.

OData Structure for Dynamic App Launchers

You can use OData services to retrieve data to display on a dynamic app launcher tile.

To feed an app launcher with dynamic content, you have to create an OData service that returns the configuration properties as in the following example structure:

Properties

Property	Description
icon	Enter an sap-icon:// URL, for example sap-icon://cart.
	You can look up the names of the available icons in the app launcher tile configuration.
info	Text to be displayed at the bottom of the tile.
infoState	The color of the tile is adapted according to the value of this property. The precise color depends on the theme that you have selected in UI theme designer.
	Allowed values: Negative, Neutral, Positive, Critical
number	Number to be displayed in the top right corner of the tile.
numberDigits	Number of digits to be displayed following the decimal separator (decimal point or decimal comma, depending on the language settings).
numberFactor	A factor for scaling numbers, for example, for displaying large numbers like $1.000.000$ (-> number = 1 and numberFactor="M") or for percentages (number = 22.2 and numberFactor = "%"). The scaling is not done by the front end but has to be provided by the app developer.
numberState	The color of the number is adapted according to the value of this property. The precise color depends on the theme that you have selected in UI theme designer.
	Allowed values: Negative, Neutral, Positive, Critical
numberUnit	Unit to be displayed below the number, for example, USD.

Property	Description
stateArrow	Displays an arrow indicating a trend.
	Allowed values: None, Up, Down
subtitle	Subtitle to be displayed below the tile title.
targetParams	List of key-value-pairs separated by ampersands.
	When the application is launched (by clicking on it), these parameters are passed to the application as business parameters (if semantic object-based navigation is used) or as URL parameters (if URL-based navigation is used).
	If any parameters have been entered in the Parameters field in the app configuration, the parameters passed by the OData service are appended to the list of parameters to be passed to the application.
title	Title to be displayed in the tile.

If the service returns an entity collection (rather than a single entity), all values from the number elements are accumulated.

API Documentation

The SAP Cloud Platform Portal offers its own API catalog in the SAP API Business Hub.

SAP API Business Hub is a central catalog that brings together APIs from different SAP Cloud products.

To access the Portal's catalog on the SAP API Business Hub, see Portal Catalog

OAuth Configuration Steps

To access APIs that are protected by OAuth, complete the following configuration steps

APIs that are protected by SAP Cloud Platform's OAuth service, can only be used by OAuth authenticated users. The authenticated users do not have to be recognized by any IdP, but they must possess the relevant OAuth tokens.

For each method of an API (also known as "scope"), there is a different token type. For example, in the Translation API:

- Download master language (GET) requires a "read" token.
- Upload translations (POST) requires a "write" token.

Provider Application - OAuth Configuration

The provider application has to declare the supported OAuth scopes.

- 1. In the SAP Cloud Platform cockpit, log on to the provider subaccount. Go to Applications . Select the provider application from the list.
- 2. In the application screen, go to Security OAuth Scopes. Create two scopes: read, write.
- 3. Still in the application screen, go to Security Authentication Configuration. Under OAuth, select the OAuth 2.0 token option. Under FORM, select the OAuth 2.0 token option.
- 4. Restart the provider application.

Subscriber Subaccount - OAuth Configuration

This configuration step should be done by any customer that wants to use OAuth protected APIs.

- 1. In the SAP Cloud Platform cockpit, log on to your subaccount.
- 2. Go to Security OAuth Clients . Register a new client and enter a secret value.
- ${\tt 3. \, Encode \, the \, following \, key-pair \, using \, BASE64 \, encoding: \, <clientID>: \, <secret>: \, <clientID>: \, <secret>: \, <cli>: \,$
- 4. Copy and save the encoded result you receive: <encoded_secret>.
- 5. For each scope you want to use, generate a Bearer token using SAP Cloud Platform OAuth service. Send a POST to the following REST API: https://oauthasservices-<subaccount>.hana.ondemand.com/oauth2/api/v1/token?grant_type=client_credentials&scope=<scope> (hana.ondemand.com - is for the productive landscape), with this header: Authorization: Basic <encoded secret>.
- 6. Copy and save the Bearer tokens you get: <read_token> & <write_token>.

For more information, see

Enabling OAuth 2.0 Client Credentials Grant