



SAP Build Process Automation

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SAP Build Process Automation | Cloud

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What Is SAP Build Process Automation?

SAP Build Process Automation is a citizen developer solution to adapt, improve, and innovate business processes with no-code workflow management and robotic process automation capabilities.

SAP Build Process Automation enables business users and technologists to become citizen developers. With powerful yet intuitive low-code and no-code capabilities, the solution supports you in driving automation by tapping into the expertise of citizen developers.

Features

The solution offers the following key features:

- Build or adapt processes with an intuitive graphical interface.
- Create forms-based workflows using drag-and-drop functionality.
- Develop and manage decision logic in tabular, spreadsheet-like decision tables.
- Automate repetitive tasks within existing process flows using robotic process automation.
- Create intelligent actions and recommendations using machine learning capabilities.
- Work efficiently from a unified launchpad and task center.
- Hand over projects to professional developers, who can embed actions and advanced workflows into projects initiated by citizen developers.
- Support real-time, event-driven transparency into comprehensive processes and process instances with process visibility dashboards.

In addition, SAP Build Process Automation offers prebuilt content and features – such as bots, process steps, business rules, and workflow components.

Related Information

[Supported Languages](#)

[Quotas, Restrictions, and Limits](#)

[Known Limitations](#)

Supported Languages

SAP Build Process Automation is available in the following languages:

- SAP Build Process Automation documentation:
 - English
- UI Applications of SAP Build Process Automation:
 - Chinese (Simplified)
 - English (US)
 - French
 - German
 - Japanese
 - Portuguese
 - Russian
 - Spanish

Quotas, Restrictions, and Limits

When using SAP Build Process Automation the following quotas, restrictions, and limits apply.

Quotas

A quota represents the numeric quantity that defines the maximum allowed consumption of a resource. In other words, how much of a service plan you're entitled to use.

Unless otherwise noted, quotas listed here apply across the entirety of SAP Build Process Automation.

General

Area	Resource	Quota for Paid Account	Quota for Free Account	Details
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Area	Resource	Quota for Paid Account	Quota for Free Account	Details
API	Request rate limit	150 requests per second per capability per tenant	20 requests per second per capability per tenant	<ul style="list-style-type: none"> Includes requests triggered from the user interfaces delivered by SAP. In exceptional situations, requests are temporarily rate-limited to a lower value than the given value. Capabilities: RPA, forms, process, workflow, business rules, process Visibility
	Request body size	512 KB (unless otherwise stated)		
	Processing time	30 seconds		Includes the response generated by the server
Storage	Data storage	100/500 MB total per standard/advanced user, respectively	(other quotas apply)	Not applicable to RPA capabilities
	Data retention	6 months (applies to completed/canceled instance data)	30 days (applies to completed/canceled instance data)	

Robotic Process Automation Capability

Area	Resource	Quota for Paid Account	Quota for Free Account
Tenant Level	Projects	750	20
	Project versions	5000	200
	Debug package versions	1000	60
	Agents (active at the same time)	100	2
	Agent groups	100	2
	Agent group size (number of elements)	10000	100
	Agent tag	100	5
	Jobs (active runs)	10000	100
	Jobs (total)	-	150 / month
	Alerts (notification alerts)	100	5
	Mass registration token	10	1
	Artifact content (all artifacts within all projects)	100000	2000
	Project artifacts	100	
	Deployed packages	1000	30
	Deployed debug packages	10000	300
	Triggers	1000	30
	Notifiers	1000	30
	API Keys	100	5
Project Level	Project import file size	256 MB	
	Maximum project size	1024 MB	
	Maximum bundle size	100 MB	
	Application captures	100	10
	Automations	100	10
	Data types	100	10
	Data type file size	1 MB	
	Form file size	1 MB	
	Files	100	10
	User tasks	100	5
	Environment variables	100	10
	Non-SDK Direct Dependencies	100	5
	Project launcher	1	1

Area	Resource	Quota for Paid Account	Quota for Free Account
	Alerts (within a project)	20	5
	SDK Dependencies	No Limit	No Limit
	Decisions	100	5
	Forms	100	5
	Process	100	5
	Visibility Scenarios	100	5
Data Retention	Backups	21 days	5
	Job inputs and outputs	3 months (107 days including backups)	5
	Job archives (Job archives don't include business data.)	24 months	
	All data following the end of the provision of services.	51 days (including backups)	
	References to users following deletion	21 days (including backup retention)	

Process / Workflow Capability

In the following, the terms workflow and process are used interchangeably. Processes are modeled in SAP Build Process Automation design studio while workflows are executed at runtime.

i Note

If you transition workflows from SAP Workflow Management, the execution limits of the workflow capability still apply. See [Execution Limits](#).

Area	Resource	Quota for Paid Account	Quota for Free Account	More Information
Workflow context	Size of the workflow context	100 KB per workflow instance		<ul style="list-style-type: none"> Applies also if exceeded only temporarily. Applies to any operation on the workflow context, that is, to all types of tasks and all types of APIs. See Creating and Reading Workflow Context Structures.
Workflow deployment	Size of the content in each workflow module in the MTA	15 MB		
Action tasks	Connection timeout	1 minute		Time to establish the connection with the remote host.
	Socket timeout	3 minutes		Maximum period between two data packets.
	Total execution time	4 minutes		Total time an action task can execute.
	Request body size	512 KB		
	Response content size	100 KB		
Workflow definitions	Number of deployments per tenant	-	80	Including the number of versions of all workflow definitions.
Workflow instances	Number of workflow instances	-	200	All workflow instances in a tenant, regardless of the status.
Workflow activities within a workflow instance	Number of workflow activities that can be executed before the system interrupts further execution.	2000	150	After executing this number of activities, for example, tasks, events, or gateways within a workflow instance, the instance is set to the ERRONEOUS status and preliminarily stopped. The limit applies when this happens for the first time in the instance. The workflow instance can be retried within certain limits, see the next line "Number of retries available".

Area	Resource	Quota for Paid Account	Quota for Free Account	More Information
	Number of retries available after the system has interrupted the execution	10	3	The number of times a workflow instance can be retried after its execution was stopped because the number of activities in this instance had exceeded the limit. Each retry adds a number of additional executable activities, see below.
	Number of additional activities available after retrying an instance that was interrupted.	200	15	A workflow instance can execute this number of activities, before the system interrupts again and sets the instance to the ERRONEOUS status again. If all retries and the respective number of additional activities are used up, further additional activities are only available through SAP support.
Mappings	Total number of mappings per input or output mapping per task	100		
	Runtime execution time limit	150 (in MS)		
	Maximum size of arrays that execute array functions	1000		

Business Rules Capability

Area	Resource	Quota for Paid Account	Quota for Free Account	More Information
API	Request rate limit	Runtime: 150 requests per second per tenant Repository: 120 requests per second per tenant	30 requests per second per tenant	<ul style="list-style-type: none"> Using Business Rules Capability APIs Includes requests triggered from user interfaces delivered by SAP.
	Request body size	400 KB for rule authoring APIs 100 KB for rule execution APIs 5 MB for JSON payload project import API		
	Deployed rule service	-	5 rule services per tenant	The maximum number of rule services that can be deployed in a tenant.
Rule service deployment	Size of the rule service deployment content	5 MB per rule service deployment		<p>Rule service deployment content size is calculated at the time of the deployment based on the number and size of the following entities:</p> <ul style="list-style-type: none"> The input and result data object assigned to the rule service vocabulary. The rulesets associated with the rule service. The data objects and rules included in the ruleset vocabulary. The rules that are assigned to the rulesets of the rule service.

Process Visibility Capability

Area	Resource	Quota for Paid Account	Quota for Free Account	Details
Event payload size	Size of the event payload	150 KB		Applies when pushing events via API
Number of events	Number of events	100 million	2100	Applies when acquiring events
File size containing events	Size of the file containing events	512 KB		Applies when acquiring events
File size containing a scenario	Size of the ZIP file containing a scenario	50 KB		Applies when importing a scenario
Active scenarios	Number of active scenarios per tenant	100		Applies when deploying a project
Scenario payload size	Size of the scenario payload	150 KB		Applies when deploying a project

Area	Resource	Quota for Paid Account	Quota for Free Account	Details
API	Request rate limit	50 requests per second for each tenant		<ul style="list-style-type: none"> Includes requests triggered from the user interfaces delivered by SAP. In exceptional situations, requests are temporarily rate-limited to a lower value than the given value. Using SAP Build Process Automation APIs
	Request rate limit for scenario deployment	5 requests per minute for each tenant		Applies when deploying a project
	Request rate limit for importing events via file	5 requests per minute for each tenant		Applies when importing events
	Request rate limit for deleting scenario	5 requests per minute for each tenant		Applies when deleting scenarios
	Request rate limit for clearing process data	5 requests per minute for each tenant		Applies when clearing process data
	Request rate limit for deleting events	5 requests per minute for each tenant		Applies when deleting events
	Processing time	30 seconds		Includes the response generated by the server
Actions	Payload size for system triggered actions	1 KB		Applies when configuring actions
	Payload size for user triggered actions	2 KB		

Restrictions

- The OData API to fetch scenario instances returns the top 5000 records.
- Based on the filters applied, the latest 5000 records are displayed in the Acquired Events application at a given instance.

→ Tip

Based on our performance estimations, we recommend to limit the total number of **Completed** and **Abruptly Ended** instances to less than one million. This measure is advised to ensure optimal dashboard performance for business users. For more information, see SAP Note [3342361](#).

Restrictions and Model Limits

General

SAP Build Process Automation requires the use of [SAP Cloud Identity Services - Identity Authentication](#) as identity provider. Identity Authentication [can function as a proxy](#) to a corporate identity provider.

i Note

Live process projects are not supported in the free tier plan of SAP Build Process Automation.

When using SAP Build Process Automation in the same subaccount as SAP Workflow Management, the following restrictions apply:

- Usage metering of traffic incurred via SAP Workflow Management scenarios, for example, when configuring and running Live Process packages, isn't enabled at present and might lead to lower costs being charged than expected. This behavior is expected to change in the future.
- By creating service instance and keys of SAP Workflow Management workflow capability, you can access and modify workflow content at will, bypassing the project lifecycle and visibility concepts established in SAP Build Process Automation. This may lead to content inconsistencies in SAP Build Process Automation.
 - You are able to delete a workflow definition created through SAP Build Process Automation.
 - Workflow definitions generated through processes modeled in SAP Build Process Automation are guaranteed to be unique among themselves but could clash with other workflow definitions deployed through SAP Workflow Management.
 - [Using namespaces](#) when creating workflow definitions in SAP Workflow Management is recommended to minimize the probability of clashes.
- By creating service instance and keys of SAP Workflow Management business rules capability, you can access and modify decision content at will, bypassing the project lifecycle and visibility concepts established in SAP Build Process Automation. This may lead to content inconsistencies in SAP Build Process Automation.
 - You are able to see rules projects derived from SAP Build Process Automation projects in Manage Rules Projects and Manages Decision apps.
 - You can edit, delete, or undeploy these projects.
- By creating service instance and keys of SAP Workflow Management process visibility capability, you can access and modify process visibility content at will, bypassing the project lifecycle and visibility concepts established in SAP Build Process Automation. This may lead to content inconsistencies in SAP Build Process Automation.

- You are able to see visibility scenarios deployed through SAP Build Process Automation in the Configure Visibility Scenarios app.
- You can edit or delete these scenarios.

SAP Build Process Automation cannot be used together with SAP Intelligent RPA in the same subaccount.

Robotic Process Automation Capability - Model Limits

The following model limits apply to the robotic process automation capability:

Element Name	Property Name	Limit
All Artifacts	Name	256 characters
	Description	1024 characters
	Identifier	64 characters
	Keywords	4096 characters
Alert	Message	4096 characters
	Parameter Name	256 characters
Application	Screen Name	256 characters
	Screen Identifier	64 characters
	Launch URL	256 characters
Automation	Step Name	256 characters
Data Type	Field Name	256 characters
	Sample Value	1024 characters
Document Template	Name	50 characters
File	Content	256 MB
Project Launcher	Automation Launcher Label	256 characters
User Task	Subject	256 characters
	Recipients	Maximum of 100 users, maximum of 255 characters per user

Process / Workflow Capability - Model Limits

In the following, the terms workflow and process are used interchangeably. Processes are modeled in the SAP Build Process Automation design studio while workflows are executed at runtime.

- UI5 Version

To use My Inbox, you need SAPUI5 version 1.71 (latest patch) or higher.

- Workflow Tasks

- Workflows started through workflow tasks in a process are currently executed asynchronously: The process instance doesn't wait for the workflow instance to complete before continuing execution.
- This behavior is treated as a limitation and will change to a synchronous execution model in the future.
- When modeling processes, make sure not to make any assumptions about the execution semantics of workflow tasks.

- Workflow Instances

Inactive workflow instances are subject to garbage collection as set out by the following rules:

- Workflow instances in status 'running' but not progressing towards completion are suspended 1 year after their last activity.
- Workflow instances in status 'suspended' are automatically cancelled 6 months after having been suspended.

The following model limits apply to workflows.

Common Properties

Property Name	Limit (characters)
Name	64

Flow Element Properties

Flow Element	Property Name	Limit
Form Task / Approval Form Task	Subject	255 characters
	Description	2000 characters
	Users	Maximum of 100 users, maximum of 255 characters per user

Flow Element	Property Name	Limit
	Groups	Maximum of 100 groups, maximum of 255 characters per user

i Note

If you transition from SAP Workflow Management, the limits of the workflow capability also still apply. See [Model Limits](#). Especially, the custom attributes listed here:

Workflow Properties

Property Name	Limit
Custom Workflow Attribute	15 custom workflow attributes per workflow definition at a time. 30 unique attributes per custom workflow attributes across all workflow versions. Currently, the only type supported is string. The ID and the label of an attribute can be 255 characters long. The definition of the value in the model can't exceed 4000 characters. Also, after expression evaluation at runtime, the value of an attribute can't exceed 4000 characters.

Forms Capability - Model Limits

The following model limits apply to forms:

Element Name	Property Name	Limit
Layout	Headline	120 characters
	Paragraph Text Length	8000 characters
All Input Fields	Field Name	100 characters
	Description	256 characters
Text Field	Character Limit	256 characters
Text Area	Character Limit	8000 characters
Dropdown	Number of Items	1000
	Character length of a list item	64 characters
Numeric Field	Precision	Double

Business Rules Capability - Model Limits

The following model limits apply to entities of the business rules capability:

Element Name	Property Name	Limit (characters)
Project	ID	255
	Name	255
	Label	50
	Description	255
Data Objects	ID	255
	Name	50
	Label	255
	Description	255
Rule Service	ID	255
	Name	255
	Label	50
	Description	255
Rule Set	ID	255
	Name	255
	Label	50
	Description	255
Rule	ID	255
	Name	255
	Label	50
	Description	255

Process Visibility Capability - Model Limits

The OData API to fetch scenario instances returns the top 5000 records.

The following model limits apply to visibility scenarios in the process visibility capability:

Visibility Scenario Configuration Properties

Element Name	Property Name	Limit (characters)
Visibility Scenario	Name	256
	ID	255
Processes	Process Name	256
	Process Definition ID	255
Events	Event Type	256
	Activity Definition ID	255
	Event Name	255
Context	Name	255
	ID	64
	Path	255
Phases	Name	64
	ID	64
State	Name	64
Calculated Attribute	Name	255
	ID	64
	Path	255
Performance Indicators	Title	64
	Sub-Title	64
	ID	64

Restrictions on Subscription

The following restriction applies while subscribing to SAP Build Process Automation:

- The SAP Build Process Automation subscription fails if there are service instances of workflow created in your subaccount before July 2020. You must delete all the workflow service instances in case you have any before subscribing to SAP Build Process Automation. Note that when you delete these service instances, all relevant data from your subaccount is deleted. For more information about deleting service instances, see [Deleting Service Instances](#).
- The SAP Build Process Automation subscription fails if your subaccount is already subscribed to SAP Intelligent RPA before July 2020. If there's an existing subscription, you must unsubscribe from SAP Intelligent RPA. This operation deletes all the relevant data of SAP Intelligent RPA from your subaccount. See *remove an existing subscription* in [Subscribe to Multitenant Applications Using the Cockpit](#).

Restrictions on Forms

The following restrictions apply to forms:

- Who can start processes using a form is not restricted to any user or user group.
- Using an API call, a process participant can read form descriptors from all available forms, not only the ones they participate in.

Document Handling Restrictions

The following restrictions apply to document handling:

- Files uploaded to a trigger form remain uploaded and orphaned if the form isn't submitted.
- Files uploaded or deleted during a task remain uploaded or deleted if a task is then cancelled.
- Process level authorizations for documents aren't supported. So, a user having access to the SAP Document Management Service repository might see/modify files that they shouldn't.

Restrictions on Actions Project

Actions projects are subject to certain restrictions.

- The Action project supports JSON, XML, and EDMX file formats for Rest and OData scenarios. For Open API, this is currently limited to V2.0 and 3.x.x, and for OData, it is limited to V2.0 and V4.0.

- Actions within the same action project must have unique names in order to be added as dependencies in a business process project. This includes when creating actions projects from an openAPI specification.
- Action project creation may not work for an incorrectly defined security parameter within a specification of type 2.X.X and 3.X.X. For example, OAuth, OAuth2_ClientCredentials, and bearerAuth etc..
- Action project supports content type application/JSON which also include SCIM+JSON (The System for Cross-domain Identity Management), and URL encoded only. There is no support for other types of content, such as multipart/form-data, etc. OData Batch scenarios or calls are not supported as they are of the content type multipart/form-data.
- There's no support for external resources as fragments in the open API specifications. In addition, action project doesn't work with specifications containing complex nested and cyclic references.
- An operation ID gets generated as the artifact name in library. If no operations ID is provided, then the end point and http method are used as artifact name (exposed in Library).
- The [Action Editor](#) doesn't support parameters that refer to other parameters. For example, Integer refers to a String. It's important to manage an integer parameter type if you need to refer to it as a string in runtime.
- If you want to perform any actions like releasing, publishing, or consuming in the library of your old actions project, you must open those projects in the [Action Editor](#) and perform those operations.
- The OpenAPI specification schema allows you to define multiple schemas for a given property, only the first schema is displayed and editable. It is not possible to handle any of the other properties.
- Creating a new project from an already released version of an action project doesn't allow you to download the OpenAPI specification.
- SAP Build Process Automation projects don't support Actions with multiple successful outputs. It is not recommended to build and publish such Actions in the library.
- Action project doesn't support data type - Any. Your custom specification files shouldn't contain this data type.
- The attribute nullable is supported for any root-level property in the OpenAPI specifications. A child-level property with the attribute nullable is not supported.
- According to the limitation of the workflow context (see [Process / Workflow Capability](#)), the payload data size to be returned by Actions triggered from workflows or processes is limited to max. 100 KB.

Restrictions on API Triggers

The following restrictions apply to API Triggers:

- The API trigger payload size is limited to 64 kB.

Restrictions for SAP Task Center Integration

- To integrate SAP Build Process Automation SAP Task Center, a custom identity provider must be configured supporting global user IDs and framing of login pages.
- Identity authentication must be configured with one of the following subject name identifiers: global user ID (default), user ID, login name, or email address.
- Only global user IDs, user IDs, login names, and email addresses are supported as user recipients of tasks in SAP Build Process Automation.
- Task UIs are shown in My Inbox when you open them in SAP Task Center.
- Tasks can only be opened within My Inbox of the default site. See [Configure SAP Build Work Zone for SAP Build Process Automation](#).
- Tasks can only be processed in My Inbox and not in SAP Task Center.
- After processing a task, it takes up to 30 seconds until a refresh action in SAP Task Center reflects the action.

When using different subaccounts for SAP Build Process Automation and SAP Task Center only the SAML protocol is supported for trust configurations.

Known Limitations

With SAP Build Process Automation the following limitations are known:

- SAP BTP cockpit users can view and change destinations relevant for SAP Build Process Automation without having access to SAP Build Process Automation.
- By creating service instances and keys of services such as SAP Intelligent RPA, SAP BTP cockpit users can access content created by SAP Build Process Automation.
- SAP Build Process Automation users can't create SAP BTP destinations of authentication type [OAuth2RefreshToken](#) in the subaccount subscribed to SAP Build Process Automation. Doing so will result in failed loading of destinations in SAP Build Process Automation.

Version History

You can see information about the latest version release and the supported agent and SDK components.

We recommend that you install the latest available version of the desktop agent to ensure that your agent is compatible with your projects.

However, to make it easier to update your system landscape, older versions of the desktop agent are supported as follows:

- For Agent 2.0.x, up to 12 monthly releases can connect with SAP Build Process Automation

i Note

End of mainstream maintenance: On June 30 2024, mainstream maintenance ends for desktop agent 2 on SAP Build Process Automation. For more information, see [Best Practices when Migrating from Desktop Agent 2 to Desktop Agent 3](#).

- For Agent 3.x, up to 6 monthly releases can connect or register with SAP Build Process Automation

For more information about which versions of the desktop agent are supported, see SAP Note [3152105](#).

The following versions of the desktop agent have been released:

Release Date	Desktop Agent Version	Cloud SDK Version	SAP Marketplace MSI Patch Level
January 2401	Agent 2: 2.0.46 Agent 3: 3.24.54	1.46	76
December 2312	Agent 2: 2.0.45 Agent 3: 3.23.44	1.45	75
November 2311	Agent 2: 2.0.44 Agent 3: 3.22.42	1.44	74
October 2310	Agent 2: 2.0.43 Agent 3: 3.21.45	1.43	73
September 2309	Agent 2: 2.0.42 Agent 3: 3.20.59	1.42	72
August 2308	Agent 2: 2.0.41 Agent 3: 3.19.42	1.41	71
July 2307	Agent 2: 2.0.40 Agent 3: 3.18.34	1.40	70
June 2306	Agent 2: 2.0.39 Agent 3: 3.17.44	1.39	69
May 2305	Agent 2: 2.0.38 Agent 3: 3.16.43	1.38	68
April 2304B	Agent 2: 2.0.37 Agent 3: 3.15.44	1.37	66
April 2304	Agent 2: 2.0.36 Agent 3: 3.14.44	1.36	52
March 2303	Agent 2: 2.0.35 Agent 3: 3.13.35	1.35	52
February 2302	Agent 2: 2.0.34 Agent 3: 3.12.41	1.34	52
January 2301	Agent 2: 2.0.33 Agent 3: 3.11.50	1.33	52
December 2022	Agent 2: 2.0.32 Agent 3: 3.10.42	1.32	52
November 2022	Agent 2: 2.0.31 Agent 3: 3.9.47	1.31	52
October 2022	Agent 2: 2.0.30 Agent 3: 3.8.50	1.30	51
September 2022	2.0.29	1.29	50
August 2022	2.0.28	1.28	49
July 2022	2.0.27	1.27	48
June 2022	2.0.26	1.26	47
May 2022	2.0.25	1.25	45
May 2022	2.0.24	1.24	44
April 11th, 2022	2.0.23	1.23	43
March 14th, 2022	2.0.22	1.22	42
February 14th, 2022	2.0.21	1.21	41

System Requirements and Technical Prerequisites

Supported Operating Systems

System Type	Version	Desktop Studio	Desktop Agent (Agent 2.0.X and Agent 3.x)	Cloud Factory / Cloud Studio
Server	Windows Server 2016 x64 (*)	Supported	Supported (1)	See the supported browsers
	Windows Server 2019 x64	Not supported	Supported (1)	See the supported browsers
	Windows Server 2022 x64	Not supported	Supported	See the supported browsers
Client	Windows Desktop/Client 10 x86	Supported	Supported	See the supported browsers
	Windows Desktop/Client 10 x64 (*)	Supported	Supported	See the supported browsers
	Windows Desktop/Client 11 x64	Not supported	Supported (2)	See the supported browsers

(*) Reference Platform

(1) See the SAP Note [3107785](#) for multi-user limitations.

(2) Agent 2.x requires specific components that might no longer be available on Windows 11. Support is limited to the available components.

Supported Browsers

Category	Web Browser	Version	Cloud Factory	Cloud Studio	Captured Web Applications	Browser Extension	Store
Chromium-based browsers (*)	Google Chrome	94 and greater	Supported	Supported	Supported (4)	Supported	Supported
	Microsoft Edge (1)	94 and greater	Supported	Supported	Supported (4)	Supported	Supported
Others	Microsoft Internet Explorer 11 (2)		Not supported (3)	Not supported (3)	Supported	Supported	Not supported (3)
	Mozilla Firefox	88 and greater	Supported	Not supported	Limited support (4) (5)	Limited support (5)	Supported
	Safari (macOS)	14 and greater	Supported	Not supported	Not supported	Not available	Supported

(*) Reference platforms

(1) Starting with the version 2.0.18 of the Desktop Agent, Microsoft Edge is used to log into the Cloud Factory. In the future version of the Desktop Agent, Microsoft Edge is also used for the rendering of the Desktop Agent. In such a configuration, the Edge 'WebView2' component is mandatory: if not already installed on your machine, please install Edge WebView2 from the [Microsoft website](#).

(2) Internet Explorer 11 is no longer supported by Microsoft. Support of IE11 is only for capturing and executing legacy third-party applications.

(3) Rendering of the Cloud Factory or the Cloud Studio doesn't work: we recommend using a supported browser instead.

(4) Capture or execution is not supported for non-Windows OS.

(5) Only for the Desktop Studio. Use of Chromium-based browsers instead is highly recommended.

Supported Technology Interfaces

Category	Technology or Software	Cloud Studio	Cloud Studio Recorder	Desktop Agent	Desktop Studio	Additional Information
SAP	SAP GUI for Windows (*)	Supported	Supported	Supported	Supported	Version 7.40 and greater.
	SAP GUI for HTML	Supported	Supported	Supported	Not supported	
	SAP BAPI	Supported (1)	Not applicable	Supported	Not supported	
	SAP S/4HANA / SAPUI5	Supported	Supported	Supported	Supported	On-premise edition 1809 or greater.
	SAP Ariba	Supported	Future release (Roadmap)	Supported	Not supported (3)	
	SAP SuccessFactors	Supported	Future release (Roadmap)	Supported	Not supported	
Desktop-based applications	UIAutomation	Supported	Supported	Supported	Supported	For all Windows-based applications with UIAutomation support. UIAutomation gives a significant subset but it is restricted to user interface.

Category	Technology or Software	Cloud Studio	Cloud Studio Recorder	Desktop Agent	Desktop Studio	Additional Information
	Surface Automation / OCR	Supported	Not supported	Supported	Supported	Recommended if the application you want to automate can't be automated using any of the other technology connectors previously described.
	WIN	Not supported	Not supported	Supported	Supported	For 32-bit executable without sandboxing. WIN driver gives full access to a Windows Application.
	JAVA / SWG	Future release (Roadmap)	Not supported	Supported	Supported	Swing (JRE/JDK 8).
	Terminal / HLLAPI	Future release (Roadmap)	Not supported	Supported	Supported	Requires a third-party (HLLAPI) software installed. (2)
Web-based applications	WEB	Supported	Supported (1)(2) with Agent 2.0.21 with Edge	Supported	Supported	Requires browser extension installed and enabled.
	WebService	Supported (1)	Not applicable	Supported	Supported	Requires custom script.
Office integration	Excel	Supported (1)	Not applicable	Supported	Supported (1)	Version 2013, 2016, 2019. Requires the on-premise software installation.
	Outlook	Supported (1)	Not applicable	Supported	Supported (1)	
	PowerPoint	Supported (1)	Not applicable	Supported	Not available	
	Word	Supported (1)	Not applicable	Supported	Supported (1)	
File integration	PDF	Supported (1)	Not applicable	Supported	Supported (1)	Doesn't require third-party software installation.
	Document Information Extraction (with or without Template)	Supported (1) (4)	Not applicable	Powered by Cloud Service	Not supported	SAP Cloud Service: doesn't require third-party software installation.

(*) SAP GUI for Windows applications can be automated in SAP Intelligent RPA using the SAP GUI connector (for manual capture) and the recorder. Both rely on SAP scripting which depends on the version of SAP GUI for Windows client.

We recommend using SAP GUI for Windows 740 and above. Please also take into account the SAP GUI for Windows releases as mentioned in the following note to understand the maintenance strategy and deadlines: [147519](#).

Check the [SAP GUI Scripting API documentation](#) to find the SAP Scripting requirements. You also need to take into account that:

- Applications may change from one release to the next. This means scripts for a transaction may work in one release, but not in the other if the application changed.
- Some applications are using controls or logic which are not compatible with scripting (see the limitations in the following note: [587202](#)).

(1) Through activities or custom script

(2) IBM Personal Communications 14.x is fully supported

(3) Without custom type or framework. May require further tests

(4) With built-in Artifact support

Supported Remote Desktop and Virtualization Protocols

i Note

This section doesn't apply to the Cloud Studio.

On-premise components can be installed on Virtual Machines (such as VMware vSphere or Microsoft Hyper-V) that fulfill the software and hardware minimum requirements.

When thinking about using SAP Intelligent Robotic Process Automation on-premise components in virtual environments, you have to analyze whether the underlying server infrastructure is adequate for your virtualization solution. The main issue with virtualization concerns performance, which might be lower when sharing resources with other virtual machines. If you already have performance limitations when operating your SAP Intelligent Robotic Process Automation on-premise components on physical hardware, these limitations will also exist on the additional virtualization layer. To avoid performance bottlenecks, you have to reserve enough CPU, memory, and disk space for the virtual machines and their overhead.

- The following components are supported only for accessing to a remote session from a Desktop/Client machine:

Software component	Version	Additional Information
Citrix Receiver (for Windows)	4.9 LTSR (14.9) or greater	Also known as Citrix WorkspaceApp
Citrix WorkspaceApp (for Mac)	1910 or greater	New name for Citrix Receiver

Software component	Version	Additional Information
Microsoft Remote Desktop Connection (for Windows)	10.0 or greater	Also known as msstc.exe
Microsoft Remote Desktop (for Mac)	10.3 or greater	Available through Mac App Store

- The following components are supported for hybrid scenario:

Software component	Version	Additional Information
Citrix XenApp / XenDesktop	7.15	<ul style="list-style-type: none"> UI elements of an Application must be captured with a Desktop Studio installed on a remote machine or the Application runs on a regular Desktop/Client machine. Execution can happen with a Desktop Agent installed on a remote machine. Hybrid scenario is supported through events.
Citrix Receiver (for Windows)	4.9 LTSR (14.9)	Required for hybrid scenario

Supported Languages

Components	Supported Languages
Cloud Factory	English, French, German, Japanese, Russian, Simplified Chinese, Spanish, Traditional Chinese, Korean, Portuguese (Brazil), Italian
Cloud Studio	English, French, German, Japanese, Russian, Simplified Chinese, Spanish, Traditional Chinese, Korean, Portuguese (Brazil), Italian
Desktop Agent	English, French, German, Japanese, Russian, Simplified Chinese, Spanish, Traditional Chinese, Korean, Portuguese (Brazil), Italian
Desktop Studio	English, French, German, Japanese, Russian, Simplified Chinese, Spanish, Traditional Chinese, Korean, Portuguese (Brazil), Italian
Surface Automation / OCR	English, French, German

Minimum Requirements

Component	Requirement Category	Minimum Requirement
Desktop Agent	Hardware	Screen resolution: 1366x768
		CPU: Dual Core @ 2 Ghz
		Memory: 4GB (at least 1GB of free memory depending on the project/package)
		Disk space: 1 GB of free space
	Software components	Microsoft .NET framework 4.7
		Internet Connection to SAP Business Technology Platform (Public Cloud)
		For Desktop Agent 2: Microsoft Internet Explorer 11
		For Desktop Agent 3: Microsoft Edge 94 (1)
Cloud Studio	Hardware	Screen resolution: 1920x1080
		CPU: Dual Core @ 2 Ghz
		Memory: 8GB (at least 2GB of free memory depending on the project/package)
		Disk space: 1 GB of free space
	Software components	Microsoft .NET framework 4.7
		Supported Browser and Browser Extensions
		Internet Connection to SAP Business Technology Platform (Public Cloud)
		Microsoft Visual C++ 2013 Redistributable Package x86
Desktop Studio	Hardware	Screen resolution: 1920x1080
		CPU: Dual Core @ 2 Ghz
		Memory: 8GB (at least 2GB of free memory depending on the project/package)
		Disk space: 1 GB of free space
	Software components	Microsoft .NET framework 4.7

Component	Requirement Category	Minimum Requirement
		Remote Tools Visual Studio 2019 for remote debugging
		Java JRE 8 (*)
		NodeJS (*)
		Three-way Diff Tool through command line
		Supported Browser
		Internet Connection to SAP Business Technology Platform (Public Cloud)
		Microsoft Visual C++ 2013 Redistributable Package x86
SAP Intelligent Robotic Process Automation Factory	Hardware	Screen resolution: 1600x900
	Software components	Supported Browser
		Internet Connection to SAP Business Technology Platform (Public Cloud)

(*) included in the setup

(1) Starting with the version 2.0.18 of the Desktop Agent, Microsoft Edge is used to log into the Cloud Factory. In the future version of the Desktop Agent, Microsoft Edge will also be used for the rendering of the Desktop Agent. In such a configuration, the Edge 'WebView2' component is mandatory: if not already installed on your machine, please install Edge WebView2 from the [Microsoft website](#).

Network requirements

Interaction with the SAP Intelligent Robotic Process Automation web application is done via a web browser. All communications between the user browser and the backend are encrypted using HTTPS.

Although the execution of the jobs is logically triggered by the orchestrator on the cloud side, the communication between an agent and the cloud application is always initiated by the agent. This way, there is no need to open an inbound port from the Internet. This communication channel uses secure web sockets, and data encryption uses TLS 1.2. WebSockets provide a persistent connection between Desktop Agent and Cloud Factory that both parties use to start sending data at any time. When running behind a proxy or a firewall, make sure that the WebSockets protocol is properly supported and not blocked.

For more information about web sockets, see <https://tools.ietf.org/html/rfc6455>

Feature Prerequisites

Some SAP Intelligent RPA features require a specific setup and interaction in the SAP BTP (Business Technology Platform) cockpit.

API Triggers

To [Execute an API Trigger](#) for unattended bots requires a service key from the service instance in the SAP BTP cockpit. The service key contains the client ID, client secret and the access token URL. For more information about how to create this service key, see [Create a Service Key](#) in the Installation guide.

Document Information Extraction

You can use the capabilities of [Document Information Extraction](#), an SAP BTP service, in your automations.

The Document Information Extraction service allows you to extract document information with OCR or pre-trained models. You can also use a document template to extract information of a document. To do so, you must add the Document_Information_Extraction_UI_Templates_Admin role to your assigned role collection in the SAP BTP cockpit.

This role must be assigned to users who build automations using the Document Information Extraction activities. Without access to this, users can't access the Document Information Extraction interface for annotating templates.

For more information, see [Configuring Role Collections](#) and [Standard Roles](#).

Destinations

Destinations are predefined endpoints used in the SAP BTP. Destinations allow you to securely store sensitive information used to connect to a system, such as client credentials, keys, or certificates in SAP BTP.

Before using SAP BTP [destinations](#) in SAP Build Process Automation, you must add them to your account in the SAP BTP cockpit. For more information, see the [SAP BTP Connectivity](#) documentation.

SAP Cloud ALM Integration

To use SAP Cloud ALM within SAP Build Process Automation, you must enable the SAP Cloud ALM API service in the cloud foundry environment of SAP BTP and get a service key.

The SAP Cloud ALM platform allows monitoring the environment backlog and status of automation processes regarding execution status, application status, start delay, and runtime of various SAP cloud solutions and services all in one place.

What's New for SAP Build Process Automation

See the latest release notes for SAP Build Process Automation:

[What's New Viewer](#)

Initial Setup

Before you can work in SAP Build Process Automation, your SAP BTP account administrator must subscribe your SAP BTP subaccount to the SAP Build Process Automation application. Once subscribed, you can then configure additional product extensions.

Subscribe to SAP Build Process Automation

There are the following subscription options for SAP Build Process Automation:

Standard Plan - This plan entitles you to full production access to the solution, allowing you to create, deploy, run, and monitor your business processes. See [Subscribe to SAP Build Process Automation \(Standard Plan\)](#).

Free Plan - This plan provides you with a production environment where you can test product features and create proof of concepts. See [Get Free Access to SAP Build Process Automation](#).

Starter Pack for RISE with SAP S/4HANA Cloud Public customers - This starter pack gives you productive access to SAP Build Process Automation, allowing you to streamline your highly repetitive and manual business processes. See [Activate Your SAP Build Process Automation Package](#).

For an overview of the applicable quotas, restrictions, and limits for these plans, see [Quotas, Restrictions, and Limits](#).

Configure Product Extensions

Once subscribed to SAP Build Process Automation, you can then configure the following optional product extensions.

Extension	Description	Link to Configuration Guide
Attachments	To allow process participants to upload attachments to forms, you need an active SAP Document Management Service subscription. With an active subscription, you must then configure your attachment destinations. Before an attachment destination is configured, the attachment option isn't visible when editing a form.	Configure SAP Document Management Service for Process Attachments
Automations	To run any automations you build, you need to install a desktop agent.	Configure Automation Capabilities
Data Sources for Forms	To allow process participants to select data from external systems when interacting with a form, you need to configure your data sources. Before data sources are configured, form input fields can only be entered manually.	Configure Data Sources for Form Input Fields
Mail Notifications	To allow process editors to add mail notifications to their process, you must configure an SMTP mail destination. Before mail destinations are configured, the mail notification option isn't visible in the process editor.	Configure an SMTP Mail Destination
SAP Build Work Zone	SAP Build Work Zone provides you with a central entry point for a number of key SAP Build Process Automation tasks. These tasks include starting a process running, accessing your inbox for process approvals, and monitoring your business using visibility scenarios.	Configure SAP Build Work Zone for SAP Build Process Automation
SAP Task Center	SAP Task Center helps you integrate approval tasks into a central solution, allowing you to review and approve SAP Build Process Automation alongside tasks from other SAP products.	Use SAP Build Process Automation and SAP Task Center Together
Store - Live Process Projects	To configure and run live process projects you've added from the store, you must configure your SAP BTP destinations.	Configure Destination for Live Process Projects

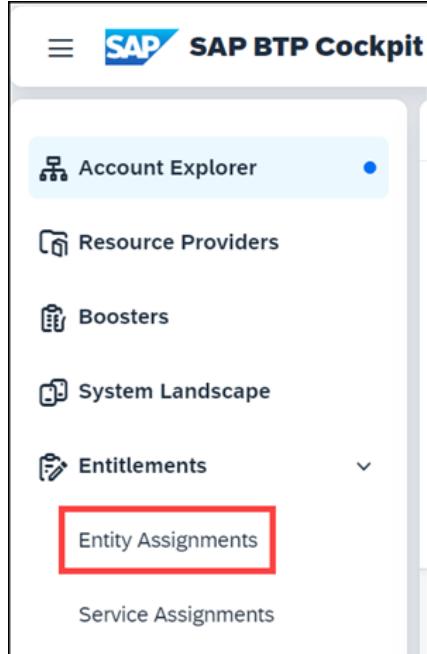
Subscribe to SAP Build Process Automation (Standard Plan)

SAP Build Process Automation is available as a service on SAP Business Technology Platform (BTP), allowing you to productively adapt, improve, and innovate your business processes.

Prerequisites

You have admin access to an SAP BTP global account with SAP Build Process Automation entitlements.

To check your available entitlements from your global account, choose [Entitlements](#) and select [Entity Assignments](#):



i Note

If your subaccount already has an active subscription to SAP Intelligent RPA, then you must create a new subaccount. You can't subscribe to SAP Build Process Automation in the same subaccount.

Context

Once you have access to an SAP BTP global account, you can get access to SAP Build Process Automation by taking advantage of the service booster.

The booster automatically performs the following SAP BTP steps:

- Creating a subaccount (if you selected that option)
- Assigning service quotas
- Enabling Cloud Foundry
- Subscribing to SaaS applications
- Creating a space
- Creating service instances
- Creating a destination
- Assigning role collection

Procedure

1. In your SAP BTP global account cockpit, choose [Boosters](#).



2. Search for SAP Build Process Automation, and choose [Start](#) to launch the booster.

Boosters

Follow our interactive guided boosters to **build** applications or use different platform services and features.

The booster loads and the prerequisite checks run automatically. These prerequisite checks ensure that your user account has the necessary permissions to subscribe to new services and that your SAP BTP global account has available SAP Build Process Automation entitlements.

i Note

If your account entitlement check shows a warning error, this is because the optional entitlements for API calls and API storage are missing. This doesn't affect the subscription process technically and you can continue.

- Once the prerequisite checks are met, choose **Next**.

All required prerequisites are met. [Rerun](#)

Check Prerequisites

We're checking if you meet all the prerequisites required for this booster. [i](#)

Checking Authorizations: **DONE**

Checking Entitlements: **DONE**

[Next](#) [Cancel](#)

- Choose **Create Subaccount**, and then choose **Next**.

Select Scenario

Select subaccount mode for the booster. [i](#)

Create Subaccount
This mode will help you to set up a new Cloud Foundry Subaccount and execute the relevant booster steps.

Select Subaccount
This mode will help you to select an existing Cloud Foundry Subaccount and execute the relevant booster steps.

[Previous](#) [Next](#) [Cancel](#)

i Note

If your subaccount already has an active subscription to SAP Intelligent RPA, then you must choose **Create Subaccount** here. You aren't able to subscribe to SAP Build Process Automation in the same subaccount.

- Assign your SAP Build Process Automation **Entitlements**.

Set up account for SAP Build Process Automation

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 Add Users — 5 Review

Configure Subaccount

Configure your Cloud Foundry Subaccount and Space. ⓘ

Entitlements: [Reset](#)

Service	Plan	Required Quota	Remaining Quota	Action
SAP Build Process Automation*	standard	1	unlimited	
	advanced-user	1	unlimited	
	standard	1	unlimited	
	storage	1	unlimited	
	api-calls	1	unlimited	
	standard-user	1	unlimited	
	automation-attended	1	unlimited	
	automation-unattended	1	unlimited	

The service plans that are required for running this project and their required quota. The required quota is deducted from the available counts for each entitlement in your global account.

[Previous](#) [Next](#) [Cancel](#)

Service Plan	Description
advanced-user	Allows you to create advanced users. They can design, monitor, or administrate the solution and access the process visibility workspace. The entitlement includes access to the SAP Build Work Zone, standard edition and a certain amount of API calls and storage. In API-driven use cases or with a very many process instances, additional licensing could be needed for API calls and storage. For more information about roles, see the Citizen Developer and IT Admin roles in Authorizations .
standard-user	Allows you to create standard users. They are process participants who trigger, approve, or contribute to a process instance. The entitlement includes the access to SAP Build Work Zone, standard edition and a certain amount of API calls and storage. In API-driven use cases or with a very many process instances, additional licensing could be needed for API calls and storage. For more information about roles, see the Process Participant role in Authorizations .
standard	Allows you to create a service instance when coupled with the free (Application) or standard (Application) entitlements. You must select this entitlement to fully use all capabilities of SAP Build Process Automation. When using it with the free (Application) entitlement, no additional costs are charged.
storage	Allows you to increase the storage quota if you need more storage than provided by the already selected entitlements.
api-calls	Allows you to increase the API calls quota if you need more API calls than provided by the already selected entitlements.
automation-attended	Allows you to use automations (bots) in attended mode, which means you need to take action. For more information about automations, see Create and Design Automations .
automation-unattended	Allows you to use automations (bots) in unattended mode, which means without your intervention. For more information about automations, see Create and Design Automations .

6. Enter your **Subaccount Details**, including your chosen Subaccount Name, Org Name, and Space Name. We recommend that you use names that are easily identifiable and self-explanatory here.

Set up account for SAP Build Process Automation

1 Check Prerequisites — 2 Select Scenario — 3 **Configure Subaccount** — 4 Add Users — 5 Review

Subaccount Name: * Your_Subaccount
The name for your new subaccount can contain up to 255 characters.

Provider: * Amazon Web Services (AWS)
Select the infrastructure provider of the new subaccount.

Region: * Europe (Frankfurt) - Canary
Select the region in which to create the new subaccount.

Subdomain: * Your-Subdomain
The subdomain of your subaccount must be unique and can contain up to 63 letters (a-z or A-Z), digits (0-9), and hyphens (not at the start or end).

Org Name: * Your-Org
The name for the Cloud Foundry org can contain up to 255 characters.

Space Name: * dev
The name for the Cloud Foundry space can contain up to 255 characters.

Previous **Next** Cancel

7. Choose **Next**.

8. Enter the email addresses of users who need access to your SAP Build Process Automation service instance, and then choose **Next**.

Set up account for SAP Build Process Automation

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 **Add Users** — 5 Review

Add Users

Enter the details of additional users who will work on your development project and assign them to the relevant roles. ⓘ

Custom Identity Provider for Platform Users: [redacted]

Custom Identity Provider for Applications: [redacted]

Administrators: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.
Administrators will be assigned to the org manager, space manager roles and Subaccount Administrator role collection(s)

Developers: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.
Developers will be assigned to the space developer role and ProcessAutomationDeveloper, ProcessAutomationAdmin, ProcessAutomationParticipant, Subaccount Viewer role collection(s)

Previous **Next** Cancel

Administrators are given admin rights within the SAP BTP space and subaccount, whereas Developers are given SAP Build Process Automation specific rights only.

i Note

Your own user account is automatically assigned as an administrator, so you don't need to enter your details at this stage.

9. Review your subaccount details, and then choose **Finish**.

Set up account for SAP Build Process Automation

- 1 Check Prerequisites
- 2 Select Scenario
- 3 Configure Subaccount
- 4 Add Users
- 5 Review

Configure Subaccount

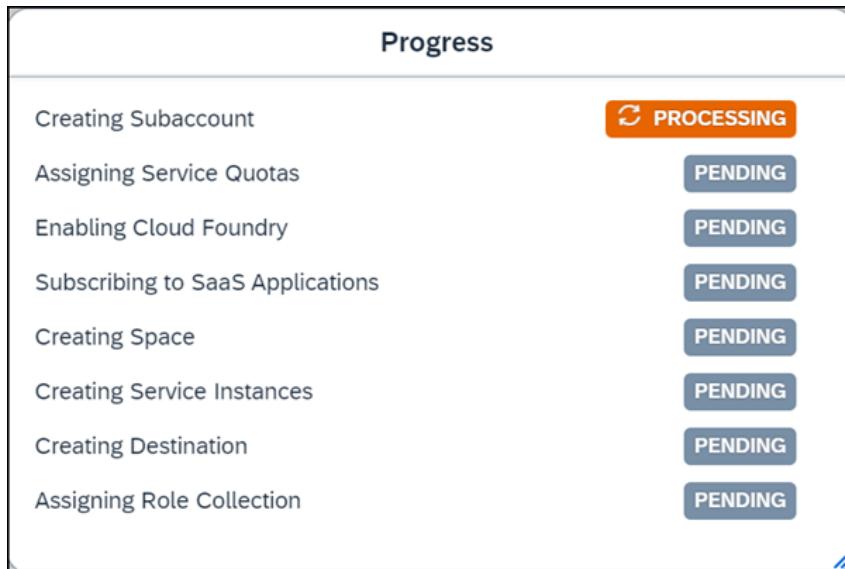
Subaccount: Your_Subaccount
 Provider: Amazon Web Services (AWS)
 Region: Europe (Frankfurt) - Canary
 Subdomain: Your-Subdomain
 Org: Your-Org
 Space: dev

Add Users

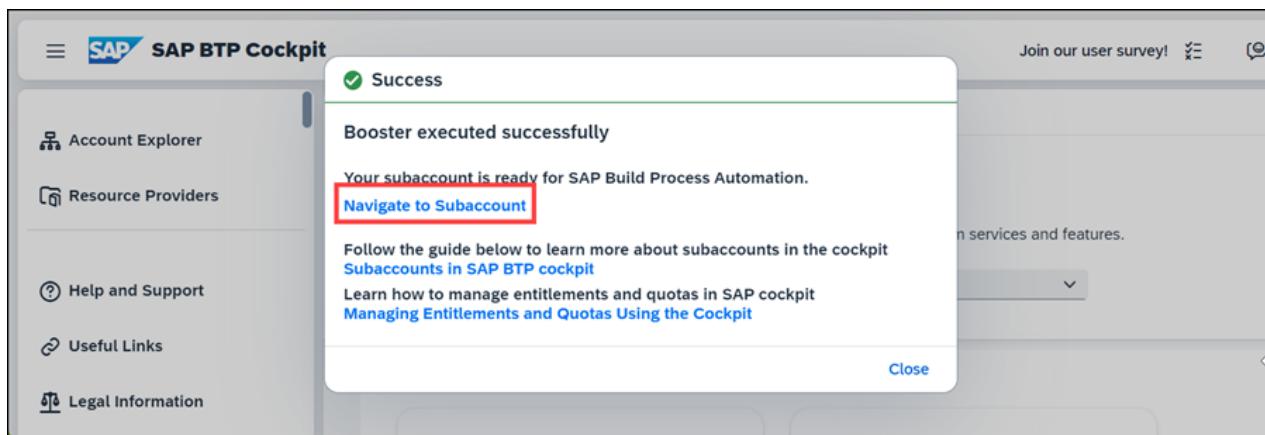
Cloud Foundry Origin: [redacted]
 XSUAA Origin: [redacted]
 Application Origin: [redacted]
 Application IdP Host URL: [redacted]
 Administrators: [redacted]
 Developers: [redacted]

[Previous](#) [Finish](#) [Cancel](#)

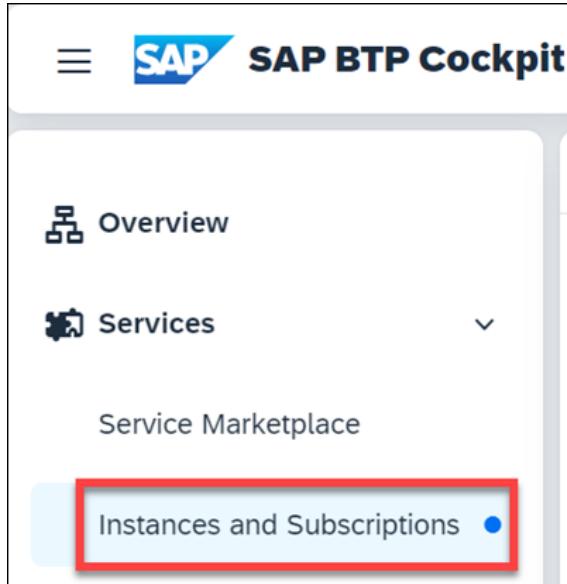
The booster now runs with the progress of each stage displayed.



10. Once the booster has successfully run, choose [Navigate to Subaccount](#).



11. Choose [Services > Instances and Subscriptions](#).



If you are not using a booster, you need to create the instance manually.

This screenshot shows the same SAP BTP Cockpit interface as above, but with a red box highlighting the 'Instances (1)' table in the main content area. The table details the single instance 'sap_process_automation' created in step 12.

See [Create a Service Instance](#).

12. Choose [Go to Application](#).

This screenshot shows the SAP BTP Cockpit with a red box around the 'SAP Build Process Automation' row in the 'Subscriptions (1)' table. The table has columns for Application, Plan, Created On, Changed On, and Status. The application 'SAP Build Process Automation' is listed with a 'standard' plan, created and changed on '3 Nov 2023', and a status of 'Subscribed'.

You're now in the SAP Build Process Automation lobby. For more information about using SAP Build Process Automation, see [Use SAP Build Process Automation](#).

Create a Service Instance

After creating a subscription for SAP Build Process Automation in your subaccount, you must create a service instance for SAP Build Process Automation to run in. If you use a service booster, then the service instance is automatically created for you. If you are not using a booster, you need to create the instance manually.

Procedure

1. In your subaccount, choose [Services > Instances and Subscriptions > Create](#).

This screenshot shows the SAP BTP Cockpit with a red box around the 'Create' button in the top right corner of the 'Subaccount: Your_Subaccout 1 - Instances and Subscriptions' page. The left sidebar shows the 'Instances and Subscriptions' section selected.

2. In the [New Instance or Subscription](#) screen, select **SAP Build Process Automation** from the **Service** dropdown box and enter an **Instance Name**. Then choose **Create**.

This is custom documentation. For more information, please visit the [SAP Help Portal](#)

New Instance or Subscription

1 Basic Info 2 Parameters 3 Review

Enter basic info for your instance or subscription.

Service: * ⓘ SAP Build Process Automation Can't find what you're looking for?

Plan: * standard

Runtime Environment: * Cloud Foundry

Space: * Demo

Instance Name: * ⓘ sbpa_instance

Next > Create Cancel

Results

The instance is created and displayed under [Instances](#).

Get Free Access to SAP Build Process Automation

SAP Build Process Automation can be accessed for free with an SAP BTP Pay-As-You-Go or CPEA account, providing an environment where you can test features and create proof of concepts.

Prerequisites

- To register for an SAP BTP Pay-As-You-Go or CPEA account, giving you access to an SAP BTP global account, follow the process outlined in [Get an Account on SAP BTP to Try Out Free Tier Service Plans](#). For more information about SAP BTP Pay-As-You-Go or CPEA accounts, see [Get Started with SAP Business Technology Platform](#).
- When accessing SAP Build Process Automation for free, quotas, restrictions, and limits apply. See [Quotas, Restrictions, and Limits](#).

Context

Once you have access to an SAP BTP global account, you can get free access to SAP Build Process Automation. You can use the booster to automatically perform the following steps:

- Creating a subaccount (if you selected that option)
- Assigning service quotas
- Enabling Cloud Foundry
- Subscribing to SaaS applications
- Creating a space
- Creating service instances
- Creating a destination
- Assigning role collection

To access SAP Build Process Automation, perform the following steps:

Procedure

- From your SAP BTP cockpit, choose [Boosters](#).



2. Search for SAP Build Process Automation (Free), and choose Start to launch the booster directly.

The screenshot shows the 'Boosters' page. At the top, there is a search bar with the text 'SAP Build Process Automation' and a magnifying glass icon. To the right of the search bar are buttons for 'X', 'Q', and 'All'. Below the search bar, the text 'Follow our interactive guided boosters to build applications or use different platform services and features.' is displayed. Underneath this, there are two booster cards. Both cards have a '»»»' icon at the top. The first card is titled 'Set up account for SAP Build Process Automation (Free)' and contains the text 'Automated setup for SAP Build Process Automation in your account.' Below the title is a 'Start' button, which is highlighted with a red rectangular box. The second card is also titled 'Set up account for SAP Build Process Automation' and contains the same text about automated setup. It also has a 'Start' button. The background of the page shows a list of 'Extension Suite - Digital Process Automation (2)'.

If you don't see the boosters, check whether you're using an SAP BTP Pay-As-You-Go or CPEA account and not the Trial landscape.

The booster loads and the prerequisite checks run automatically. These prerequisite checks ensure that your user account has the necessary permissions to subscribe to new services and that your SAP BTP global account has available SAP Build Process Automation entitlements.

i Note

If your account entitlement check shows a warning error, this is because the optional entitlements for API calls and API storage are missing. This doesn't affect the subscription process technically and you can continue.

3. Once the prerequisite checks are met, choose Next.

The screenshot shows the 'Check Prerequisites' step of the booster setup wizard. At the top, it says 'Set up account for SAP Build Process Automation (Free)' and shows a progress bar with five steps: 1. Check Prerequisites (highlighted with a red underline), 2. Select Scenario, 3. Configure Subaccount, 4, and 5. Below the progress bar, a green message box says 'All required prerequisites are met. Rerun' with a close button 'X'. The main area is titled 'Check Prerequisites' and contains the text 'We're checking if you meet all the prerequisites required for this booster.' with a help icon. There are two sections: 'Checking Authorizations:' with a 'DONE' button and 'Checking Entitlements:' with a 'DONE' button. At the bottom right are 'Next' and 'Cancel' buttons, with 'Next' highlighted with a red rectangular box.

4. Choose your subaccount **Scenario**, and then choose **Next**.

i Note

If your subaccount already has active subscriptions to SAP Workflow Management and or SAP Intelligent RPA, then you must choose **Create Subaccount** here. You aren't able to subscribe to SAP Build Process Automation in the same subaccount.

Set up account for SAP Build Process Automation (Free)

1 - 2 Select Scenario 3 Configure Subaccount 4 Add Users 5

Select Scenario

Select subaccount mode for the booster. ⓘ

Create Subaccount
This mode will help you to set up a new Cloud Foundry Subaccount and execute the relevant booster steps.

Select Subaccount
This mode will help you to select an existing Cloud Foundry Subaccount and execute the relevant booster steps.

Previous **Next** Cancel

5. Enter your Subaccount Details, including your chosen Subaccount Name, Org Name, and Space Name. We recommend that you use names that are easily identifiable and self-explanatory here.

Set up account for SAP Build Process Automation (Free)

1 Check Prerequisites 2 Select Scenario **3 Configure Subaccount** 4 Add Users 5 Review

Subaccount Name: * Your_Subaccount
The name for your new subaccount can contain up to 255 characters.

Provider: * Amazon Web Services (AWS)
Select the infrastructure provider of the new subaccount.

Region: * Europe (Frankfurt) - Canary
Select the region in which to create the new subaccount.

Subdomain: * Your-Subdomain
The subdomain of your subaccount must be unique and can contain up to 63 letters (a-z or A-Z), digits (0-9), and hyphens (not at the start or end).

Org Name: * Your-Org
The name for the Cloud Foundry org can contain up to 255 characters.

Space Name: * dev
The name for the Cloud Foundry space can contain up to 255 characters.

Previous **Next** Cancel

6. Choose **Next**.

7. Enter the email addresses of users who need access to your SAP Build Process Automation service instance and then choose **Next**.

Administrators are given admin rights within the SAP BTP space and subaccount, whereas **Developers** are given SAP Build Process Automation specific rights only.

i Note

Your own user account is automatically assigned as an administrator, so you don't need to enter your details at this stage.

Set up account for SAP Build Process Automation (Free)

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 Add Users — 5 Review

Add Users

Enter the details of additional users who will work on your development project and assign them to the relevant roles. ⓘ

Custom Identity Provider for Platform Users: accounts.sap.com

Custom Identity Provider for Applications: accounts.sap.com

Administrators: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.

Administrators will be assigned to the org manager, space manager roles and Subaccount Administrator role collection(s)

Developers: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.

Developers will be assigned to the space developer role and ProcessAutomationDeveloper, ProcessAutomationAdmin, ProcessAutomationParticipant, Subaccount Viewer role collection(s)

Previous Next Cancel

8. Review your subaccount details, and then choose [Finish](#).

Set up account for SAP Build Process Automation (Free)

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 Add Users — 5 Review

Select Scenario

Subaccount Mode: Create Subaccount

Configure Subaccount

Subaccount: Your_Subaccount

Provider: Amazon Web Services (AWS)

Region: Europe (Frankfurt) - Canary

Subdomain: Your-Subdomain

Org: Your Org

Space: dev

Add Users

Cloud Foundry Origin: [REDACTED]

XSUAA Origin: [REDACTED]

Application Origin: [REDACTED]

Application IdP Host URL: [REDACTED]

Administrators: [REDACTED]

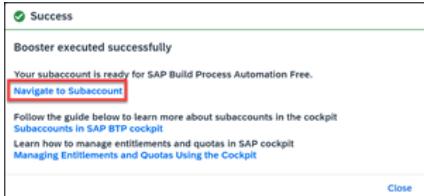
Developers: [REDACTED]

Previous **Finish** Cancel

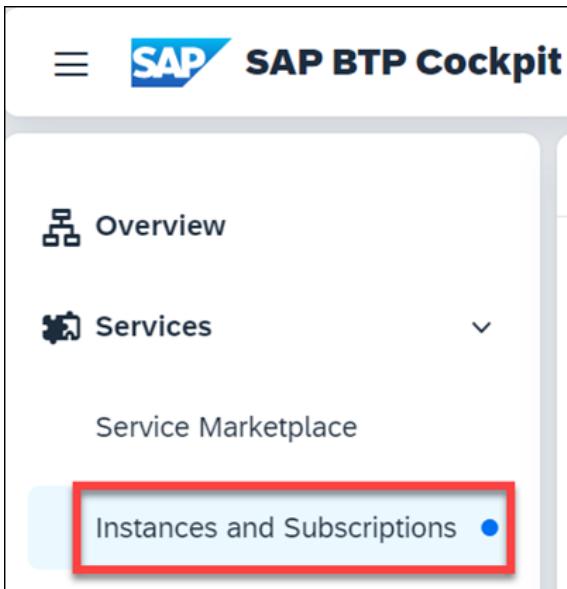
The booster now runs, with the progress of each stage displayed.

Progress	
Creating Subaccount	PROCESSING
Assigning Service Quotas	PENDING
Enabling Cloud Foundry	PENDING
Subscribing to SaaS Applications	PENDING
Creating Space	PENDING
Creating Service Instances	PENDING
Creating Destination	PENDING
Assigning Role Collection	PENDING

9. Once the booster has successfully run, choose **Navigate to Subaccount**.



10. Choose **Services > Instances and Subscriptions**.



11. Choose **Go to Application**.

Subscriptions (1)	Instances (1)	Environments (1)			
Applications to which your subaccount is currently subscribed					
Application	Plan	Created On	Changed On	Status	
SAP Build Process Automation		free	6 Nov 2023	6 Nov 2023	Subscribed

You're now in the SAP Build Process Automation lobby. Review your subaccount details and then choose lobby. For more information about using SAP Build Process Automation, see [Use SAP Build Process Automation](#).

Activate Your SAP Build Process Automation Package

An SAP Build Process Automation package is available with your RISE with SAP and GROW with SAP offerings at no additional cost. This package gives you productive access to SAP Build Process Automation, allowing you to streamline your highly repetitive and manual business processes.

Prerequisites

You have admin access to an SAP BTP global account with RISE with SAP and GROW with SAP.

Context

SAP Build Process Automation allows for meaningful collaboration between process experts and IT users to identify, simplify, and automate inefficiencies within processes. Using the solution allows organizations like yours to quickly jump-start their automation journey and save employees invaluable time.

To activate your SAP Build Process Automation package, follow these steps:

Procedure

- From your SAP BTP global account cockpit, choose **Boosters**



2. Search for SAP Build Process Automation, and choose **Start** to launch the booster.

The screenshot shows the 'Booster' page with a search bar containing 'SAP Build Process Automation'. Two options are listed under 'Extension Suite - Digital Process Automation (2)'. Both options have a 'Start' button highlighted with a red box. The first option is 'Set up account for SAP Build Process Automation (Free)' and the second is 'Set up account for SAP Build Process Automation'.

The booster loads and the prerequisite checks run automatically. These prerequisite checks ensure that your user account has the necessary permissions to subscribe to new services and that your SAP BTP global account has available SAP Build Process Automation entitlements.

3. Once the prerequisite checks are met, choose **Next**.

The screenshot shows the 'Check Prerequisites' step of the booster setup. It displays a green message bar stating 'All required prerequisites are met. Rerun'. Below this, it lists 'Checking Authorizations' and 'Checking Entitlements', both of which are marked as 'DONE' with a green checkmark. At the bottom right, there are 'Next' and 'Cancel' buttons, with 'Next' highlighted with a red box.

4. Choose **Create Subaccount**, and then choose **Next**.

Set up account for SAP Build Process Automation

1 - 2 Select Scenario 3 Configure Subaccount 4 Add Users 5

Select Scenario

Select subaccount mode for the booster. ⓘ

Create Subaccount
This mode will help you to set up a new Cloud Foundry Subaccount and execute the relevant booster steps.

Select Subaccount
This mode will help you to select an existing Cloud Foundry Subaccount and execute the relevant booster steps.

Previous Next Cancel

5. Delete the following service plans (as these aren't needed for the package):

- storage
- api-calls
- automation-attended

SAP Build Process Automation*	standard	limited	limited	
SAP Build Process Automation*	advanced-user	1	13	
SAP Build Process Automation	storage	1	9	
SAP Build Process Automation	api-calls	1	9	
SAP Build Process Automation	standard-user	1	4	
SAP Build Process Automation	automation-attended	1	1	
SAP Build Process Automation	automation-unattended	1	9	
SAP Build Process Automation	standard	1	limited	

6. Enter your Subaccount Details, including your chosen Subaccount Name, Org Name, and Space Name. We recommend that you use names that are easily identifiable and self-explanatory here.

Set up account for SAP Build Process Automation

1 Check Prerequisites 2 Select Scenario 3 Configure Subaccount 4 Add Users 5 Review

Subaccount Name: * Your_Subaccount
The name for your new subaccount can contain up to 255 characters.

Provider: * Amazon Web Services (AWS)
Select the infrastructure provider of the new subaccount.

Region: * Europe (Frankfurt) - Canary
Select the region in which to create the new subaccount.

Subdomain: * Your-Subdomain
The subdomain of your subaccount must be unique and can contain up to 63 letters (a-z or A-Z), digits (0-9), and hyphens (not at the start or end).

Org Name: * Your-Org
The name for the Cloud Foundry org can contain up to 255 characters.

Space Name: * dev
The name for the Cloud Foundry space can contain up to 255 characters.

Previous Next Cancel

7. Choose **Next**.

8. Enter the email addresses of users who need access to your SAP Build Process Automation service instance and then choose **Next**.

Set up account for SAP Build Process Automation

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 Add Users — 5 Review

Add Users

Enter the details of additional users who will work on your development project and assign them to the relevant roles. ⓘ

Custom Identity Provider for Platform Users: [redacted]

Custom Identity Provider for Applications: [redacted]

Administrators: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.

Administrators will be assigned to the org manager, space manager roles and Subaccount Administrator role collection(s)

Developers: Enter e-mails, separated by commas, spaces, semicolons, or line breaks.

Developers will be assigned to the space developer role and ProcessAutomationDeveloper, ProcessAutomationAdmin, ProcessAutomationParticipant, Subaccount Viewer role collection(s)

Previous **Next** Cancel

Administrators are given admin rights within the SAP BTP space and subaccount, whereas Developers are given SAP Process Automation specific rights only.

i Note

Your own user account is automatically assigned as an administrator, so you don't need to enter your details at this stage.

9. Review your subaccount details and then choose **Finish**.

Set up account for SAP Build Process Automation

1 Check Prerequisites — 2 Select Scenario — 3 Configure Subaccount — 4 Add Users — 5 Review

Configure Subaccount

Subaccount: Your_Subaccount

Provider: Amazon Web Services (AWS)

Region: Europe (Frankfurt) - Canary

Subdomain: Your-Subdomain

Org: Your-Org

Space: dev

Add Users

Cloud Foundry Origin: [redacted]

XSUAA Origin: [redacted]

Application Origin: [redacted]

Application IdP Host URL: [redacted]

Administrators: [redacted]

Developers: [redacted]

Previous **Finish** Cancel

The booster now runs, with the progress of each stage displayed.

Progress	
Creating Subaccount	PROCESSING
Assigning Service Quotas	PENDING
Enabling Cloud Foundry	PENDING
Subscribing to SaaS Applications	PENDING
Creating Space	PENDING
Creating Service Instances	PENDING
Creating Destination	PENDING
Assigning Role Collection	PENDING

10. Choose [Navigate to Subaccount](#).

SAP BTP Cockpit

Success

Booster executed successfully

Your subaccount is ready for SAP Build Process Automation.

[Navigate to Subaccount](#)

Follow the guide below to learn more about subaccounts in the cockpit
[Subaccounts in SAP BTP cockpit](#)

Learn how to manage entitlements and quotas in SAP cockpit
[Managing Entitlements and Quotas Using the Cockpit](#)

Close

11. Choose [Services](#) and select [Instances and Subscriptions](#).

SAP BTP Cockpit

Overview

Services

Service Marketplace

[Instances and Subscriptions](#)

12. Choose [Go to Application](#).

Subscriptions (1)	Instances (1)	Environments (1)		
Applications to which your subaccount is currently subscribed				
Application	Plan	Created On	Changed On	Status
SAP Build Process Automation	standard	3 Nov 2023	3 Nov 2023	Subscribed

You're now in the SAP Build Process Automation lobby. For more information about using SAP Build Process Automation, see [Use SAP Build Process Automation](#).

Configure SAP Build Work Zone for SAP Build Process Automation

SAP Build Work Zone provides you with a central entry point for a number of key SAP Build Process Automation tasks. These tasks include starting a process running, accessing your inbox for process approvals, and monitoring your business using visibility scenarios.

Prerequisites

Before you can configure SAP Build Work Zone, you must have an active SAP Build Process Automation subscription on SAP BTP. To subscribe to SAP Build Process Automation from your SAP BTP global account, follow the steps outlined in [Subscribe to SAP Build Process Automation \(Standard Plan\)](#). You can also use SAP SuccessFactors Work Zone instead of SAP Build Work Zone, advanced edition.

Process Overview

To configure and use SAP Build Work Zone for SAP Build Process Automation, the following steps within your SAP BTP global account are needed:



[Assign Entitlements for SAP Build Work Zone to Subaccount](#)

[Create a Service Instance](#)

[Configure SAP Build Process Automation Destinations](#)

[Assign SAP Build Work Zone Roles to Users](#)

[Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site](#)

Assign Entitlements for SAP Build Work Zone to Subaccount

To subscribe to SAP Build Work Zone, your subaccount requires the respective entitlement. To assign the entitlements of SAP Build Work Zone and add the service plan to your SAP BTP subaccount, follow these steps:

Context

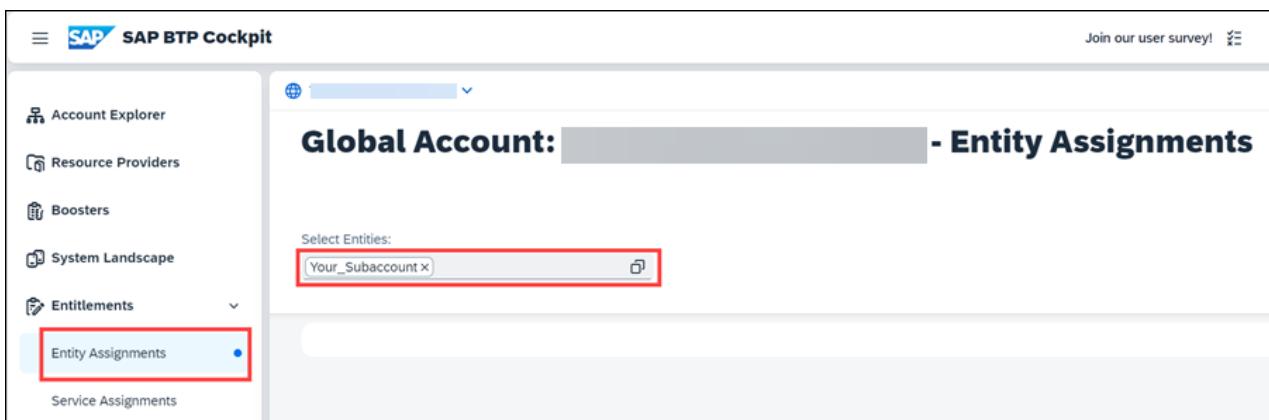
i Note

Entitlements are your right to provision and consume a resource. They refer to what you're entitled to use, for example, which services and service plans. You must first entitle your subaccount for the **standard** plan plus either **standard (Application)** or **free (Application)** plan.

For productive use, assign the **standard** and **standard (Application)** entitlements to your subaccount. See also: [Procedure](#) in *Initial Setup of SAP Build Work Zone, standard edition*.

Procedure

1. Open your SAP BTP global account cockpit.
2. Choose **Entitlements > Entity Assignments**, and select the subaccount where your SAP Build Process Automation subscription is active.



3. Choose [Configure Entitlements](#).

Global Account: [REDACTED] - Entity Assignments

Select Entities:

Your_Subaccount 1 X

Your_Subaccount 1 ()

Search Q Configure Entitlements ⚙️

4. Choose [Add Service Plans](#).

Global Account: [REDACTED] - Entity Assignments

Select Entities:

Your_Subaccount 1 X

Your_Subaccount 1 ()

Search Q Add Service Plans Save Cancel ⚙️

5. Search for and open [SAP Build Work Zone, standard edition](#).

6. Select [standard](#) and [standard \(Application\)](#) entitlements, and then choose [Add 2 Service Plans](#).

Subaccount - Entitlements

Entitlements

All Solutions SAP Build Work Zone X Q

Entitlements available for this subaccount

SAP Build Work Zone, standard edition

Service Details: SAP Build Work Zone, standard edition

Available Plans

free (Application)
The free plan has quota restrictions. Please note, only community support is available for free service plans and these are not subject to SLAs. Use of free tier service plans are subject to additional terms and conditions as provided in the Business Technology Platform Supplemental Terms and Conditions linked in the Additional Links tab displayed in the Service tile.

standard (Application)
Access your applications from a central entry point.

standard
Integrate SAP Build Work Zone, standard edition with other services using APIs.
Features: Integrate SAP Build Work Zone, standard edition with other services using APIs.

2 selected plans
Services: SAP Build Work Zone, standard edition (2 plans)

Add 2 Service Plans Cancel

[standard \(Application\)](#) entitles you to access the SaaS service. [standard](#) enables the integration using APIs.

i Note

If you are setting up Free Tier, then you need to select [free \(Application\)](#) that entitles you to access the SaaS service. [standard](#) enables the integration using APIs.

7. Choose [Save](#).

The screenshot shows the SAP BTP Subaccount: Your_Subaccount 1 - Entitlements page. At the top, there's a header bar with a globe icon, a dropdown for 'Your_Subaccount 1', and a search bar. Below the header, the main title is 'Subaccount: Your_Subaccount 1 - Entitlements'. A message at the top states: 'Your SAP BTP subaccount is assigned SAP Build Work Zone entitlements and the standard service plan has been added.' On the right side of the page, there are buttons for 'Add Service Plans', 'Save' (which is highlighted with a red box), 'Cancel', and a gear icon.

Your SAP BTP subaccount is assigned SAP Build Work Zone entitlements and the standard service plan has been added.

Subscribe to SAP Build Work Zone

Now that you've entitled your subaccount for the standard (Application) plan, you must subscribe to SAP Build Work Zone.

Procedure

- From your subaccount, choose **Services > Service Marketplace**.

i Note

The Service Marketplace provides you access to all services and applications that you can access from the SAP BTP cockpit.

- Search for your edition of SAP Build Work Zone, and open the tile.

The screenshot shows the SAP BTP Cockpit interface. On the left, there's a sidebar with options like Overview, Services (with Service Marketplace selected), Cloud Foundry, HTML5 Applications, Connectivity, Security, and Entitlements. The main area is titled 'Subaccount: Your_Subaccount 1 - Service Marketplace' and shows a search bar with 'SAP Build Work Zone'. Below the search bar, there are filters for All Types, All Environments, and All Solutions. A search result for 'SAP Build Work Zone, standard edition' is displayed under the 'Data and Analytics' category. This result is also highlighted with a red box. The entire screenshot is framed by a red border.

- Choose **Create**.

- In the **New Instance or Subscription** dialog, select the subscription plan. Then choose **Create** to create a subscription to the service.

New Instance or Subscription

1 Basic Info

Enter basic info for your instance or subscription.

Service: * ⓘ Can't find what you're looking for?

SAP Build Work Zone, standard edition

Plan: * standard

standard Subscription ↗
standard Instance ↗

Create Cancel

5. Choose [View Subscription](#) to view the **Subscribed** status on the [Instances and Subscriptions](#) page.

Creation in Progress

Your request to create a new subscription has been submitted.

You can check the current status of submission on the Service Instances page.

[View Subscription](#) Close

Create a Service Instance

After creating a subscription for SAP Build Work Zone in your subaccount, you must create a service instance for SAP Build Work Zone to run in.

Procedure

1. In your subaccount, choose [Instances and Subscriptions](#) > [Create](#)

2. Select SAP Build Work Zone edition in the **Service** field, and enter an **Instance Name**. Then choose **Create**

New Instance or Subscription

1 Basic Info 2 Parameters 3 Review

Enter basic info for your instance or subscription.

Service: * [SAP Build Work Zone, standard edition](#) [Can't find what you're looking for?](#)

Plan: * standard

Runtime Environment: * Cloud Foundry

Space: * dev

Instance Name: * workzone

[Next >](#) [Create](#) [Cancel](#)

Results

The instance is created and displayed under [Instances](#).

Create a Service Key for the SAP Build Process Automation Instance

If you use the booster to set up SAP Build Process Automation, then the service key is automatically created for you. If you create the instance manually, you need to also create the service key as described in the following.

Context

You can use service keys to generate credentials to communicate directly with a service instance. Once you configure them for your service, local clients, apps in other spaces, or entities outside your deployment can access your service with these keys.

Procedure

1. Navigate to the SAP BTP subaccount, and choose [Services](#) [Instances and Subscriptions](#).
2. Select the instance that you created as described in [Create a Service Instance](#).
3. On the details screen that opens, choose [Service Keys](#) [Create](#).
4. On the creation screen, enter any name for your service key.
5. **Optional:** Upload a JSON file.
6. Choose [Create](#).

Results

The service key is created and you can view the credentials. Open it and take note of the following fields:

- clientid
- clientsecret
- url

You need these values to configure destinations. See [Configure SAP Build Process Automation Destinations](#).

Assign SAP Build Work Zone Roles to Users

Once you've created a destination, you must now assigned roles to any users who need access to that destination (including your own user account).

Procedure

1. In the navigation, choose [Security](#) [Users](#), and select your user account.

SAP BTP Cockpit

Subaccount: Your_Subaccount 1 - Users

Last Updated: All Hasn't Logged On: All

User Name	Identity Provider
[Redacted]	Default identity provider

2. Choose **Assign Role Collection**.

Overview Role Collections

Role Collections

Name	Description	Action
ProcessAutomationAdmin	Monitors different processes and automations. Can also configure environments and agents, and manage business users	X >
ProcessAutomationDeveloper	Standard Business User, can model and publish processes	X >
ProcessAutomationParticipant	Is an approver or form step assignee, can also contribute to runtime	X >
Subaccount Administrator	Administrative access to the subaccount	X >

3. Select all the role collections in the popup, then choose **Assign Role Collection**:

- Cloud Connector Administrator
- Connectivity and Destination Administrator
- Destination Administrator
- Subaccount Service Administrator

Assign Role Collection

Name	Description
<input checked="" type="checkbox"/> Cloud Connector Administrator	Operate the data transmission tunnels used by the Cloud Connector.
<input checked="" type="checkbox"/> Connectivity and Destination Administrator	Operate the data transmission tunnels used by the Cloud Connector and ...
<input checked="" type="checkbox"/> Destination Administrator	Manage the destination configurations, certificates and subaccount trust.
<input checked="" type="checkbox"/> Subaccount Service Administrator	Administrative access to service brokers and environments on a subaccou...

Cloud Connector Administrator X Connectivity and Destination Administrator X Destination Administrator X Subaccount Service Administrator X

Assign Role Collection **Cancel**

Results

The SAP Build Work Zone roles are now assigned to your user, giving you the ability to configure the content and create an SAP Build Work Zone site.

Assign Launchpad_Admin Role Collection to Users

To open the app and create a site, you must be assigned to the Launchpad_Admin role collection.

Procedure

1. In the navigation, choose **Security > Role Collections**.

2. Search for the role collection **Launchpad_Admin**.

This role collection enables you to perform all the administration tasks for an SAP Build Work Zone, standard edition site, and is provided out-of-the-box.

3. Open the role collection for editing.

a. Choose the arrow at the far right.

b. In the role collection screen, choose **Edit**.

SAP BTP Cockpit

Subaccount: Your_Subaccount 1 - Role Collections

Name	Description	Roles	User Groups	Actions
Launchpad_Admin	Launchpad Admin	Viewer 3 more		... >

Learn more about [building roles](#) and [maintaining role collections](#).

4. In the **Users** section of the screen, search for your e-mail. To add it to the list of users, choose **+** (Plus).

SAP BTP Cockpit

Subaccount: Your_Subaccount 1 - ...

Launchpad_Admin **EDIT MODE**

Users				
ID	Identity Provider	E-Mail	First Name	Last Name

+

5. Save your changes.

Results

The SAP Build Work Zone roles are now assigned to your user, giving you the ability to configure the content and create an SAP Build Work Zone site.

Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site

You now need to configure the content that should appear in your SAP Build Work Zone, give permission to the users of your subaccount to view this content, and then create and access the SAP Build Work Zone site itself.

[Configure SAP Build Work Zone Content](#)

[Assign SAP Build Work Zone Permissions](#)

[Create and Access Site](#)

Configure SAP Build Work Zone Content

To configure your SAP Build Work Zone content, follow these steps.

Procedure

1. In your subaccount, go to Instances and Subscriptions, and open the SAP Build Work Zone service.

Application	Plan	Created On	Changed On	Status
SAP Build Process Automation	free	6 Nov 2023	6 Nov 2023	Subscribed
SAP Build Work Zone, standard edition	standard	6 Nov 2023	6 Nov 2023	Subscribed

2. Choose **Provider Manager**.

3. Choose **Update Content**.

The content updates and the status changes to **Activated** or **Updated**.

4. Choose **Content Manager**.

5. Choose **Content Explorer**.

6. Choose **HTML5 Apps**.

2/26/2024

The screenshot shows the Site Manager - Content Manager interface. In the left sidebar, there are icons for Content Manager, Content Explorer, Catalog, and Roles. The main area is titled "Content Explorer" and displays a list of content channels. One channel, "HTML5 Apps" (saas_approuter), is highlighted with a red border. Below it, the subdomain "your-subdomain" and the last modified date "November 6, 2023 at 5:20:54 PM" are shown.

7. Choose **Select All** and then **Add**.

The screenshot shows the Site Manager - Content Manager interface with the "Content Explorer / HTML5 Apps" path selected. A table lists six items under "HTML5 Apps (6)". The first item, "My Inbox", has a checkbox checked. The "Add" button in the top right corner is highlighted with a red box.

Type	Title	Description	ID
<input checked="" type="checkbox"/>	My Inbox		com.sap.spa.inbox
<input checked="" type="checkbox"/>	Visibility Scenario Dashboard	Allows you to view and analyze the perfo...	com.sap.spa.pv.ovp
<input checked="" type="checkbox"/>	Process Workspace	Provides visibility on end-to-end process...	com.sap.spa.pv.processworkspace
<input checked="" type="checkbox"/>	Process Trigger	Process Automation Trigger Form	com.sap.spa.bpi.process.form.trigger
<input checked="" type="checkbox"/>	BPM Form Player	BPM Form Player	com.sap.spa.wus.form.player
<input checked="" type="checkbox"/>	Visibility Scenario Instances	Allows you to view and analyze the insta...	com.sap.spa.pv.instances

8. Choose **Create > Group**.

The screenshot shows the Site Manager - Content Manager interface with the "Content Manager" path selected. The main area displays a table of "All Items (7)". In the top right, the "Create" dropdown menu is open, showing options like App, Catalog, Group, Page, Role, and Space. The "Group" option is highlighted with a red box.

Type	Title	Description	ID	Last Modified
<input type="checkbox"/>	Visibility Scenario Dashboard	Allows you to view and analyz...	com.sap.spa.pv.ovp	09/11/2023
<input type="checkbox"/>	Visibility Scenario Instances	Allows you to view and analyz...	com.sap.spa.pv.instances	09/11/2023
<input type="checkbox"/>	Process Trigger	Process Automation Trigger Fo...	com.sap.spa.bpi.process.for...	09/11/2023
<input type="checkbox"/>	Process Workspace	Provides visibility on end-to-e...	com.sap.spa.pv.processworks...	09/11/2023
<input type="checkbox"/>	BPM Form Player	BPM Form Player	com.sap.spa.wus.form.player	09/11/2023
<input type="checkbox"/>	My Inbox		com.sap.spa.inbox	09/11/2023
<input type="checkbox"/>	Everyone	Content assigned to this role i...	sap_subaccount_everyone	Local

9. Enter a **Group Title**, and choose **Save**.

Site Manager - Content Manager

Content Manager / New Group

Title: * SBPA

ID: [redacted]
Channel: Local
Last Modified: November 9, 2023 ...

Description: Enter a description

Save Cancel

10. Choose **Edit** to list the apps.

11. Toggle the **Assignment Status** to green for the following apps:

- Visibility Scenario Dashboard
- Visibility Scenario Instances
- Process Trigger
- Process Workspace
- BPM Form Player
- My Inbox

Site Manager - Content Manager

Content Manager / SBPA

Title: * SBPA

ID: [redacted]
Channel: Local
Last Modified: November 9, 2023 ...

Description: Enter a description

Save Cancel

Type	Title	Description	ID	Channel	Last Modified	Assignment Status
<input type="checkbox"/>	Visibility Scenario Dashbo...	Allows you to view and an...	com.sap.spa.pv.ovp	HTML5 Apps	09/11/2023	
<input type="checkbox"/>	Visibility Scenario Instances	Allows you to view and an...	com.sap.spa.pv.instances	HTML5 Apps	09/11/2023	
<input type="checkbox"/>	Process Trigger	Process Automation Trigg...	com.sap.spa.bpi.process.f...	HTML5 Apps	09/11/2023	
<input type="checkbox"/>	Process Workspace	Provides visibility on end-...	com.sap.spa.pv.processw...	HTML5 Apps	09/11/2023	
<input type="checkbox"/>	BPM Form Player	BPM Form Player	com.sap.spa.wus.form.pla...	HTML5 Apps	09/11/2023	
<input type="checkbox"/>	My Inbox		com.sap.spa.inbox	HTML5 Apps	09/11/2023	

All Apps (6) Search in Title, Description, ID

Items (1-6)

12. Save your changes.

Your SAP Build Work Zone content has now been configured.

Assign SAP Build Work Zone Permissions

You now need to assign your SAP Build Work Zone permissions to the users in your SAP BTP subaccount. To assign content permissions, follow these steps.

Procedure

1. From the **My Content** area, click **Everyone**.

Site Manager - Content Manager

My Content Content Explorer

Item Type: All items Show Selected Clear

Items (7)

	Title	Description	ID	Provider	Status
<input type="checkbox"/>	Everyone	Content assigned to this role is visible to a...	sap_subaccount_everyone	Local	
<input type="checkbox"/>	My Inbox		com.sap.spa.inbox	HTML5 Apps	
<input type="checkbox"/>	Process Trigger	BPI Process Form Trigger	com.sap.spa.bpi.process.form.trigger	HTML5 Apps	
<input type="checkbox"/>	Process Workspace	Provides visibility on end-to-end processe...	com.sap.spa.pv.processworkspace	HTML5 Apps	
<input type="checkbox"/>	SPA		007cd7d4-bebb-4e0c-aee4-42fac65e09c2	Local	
<input type="checkbox"/>	Visibility Scenario Dashboard	Internal application used within the proce...	com.sap.spa.pv.ovp	HTML5 Apps	
<input type="checkbox"/>	Visibility Scenario Instances	Internal application used within process w...	com.sap.spa.pv.instances	HTML5 Apps	

2. Choose **Edit**.

Site Manager - Content Manager

ROLE Everyone

Edit Delete

Properties Translation

General Additional Info

Title: Everyone

ID: sap_subaccount_everyone

Description: Content assigned to this role is visible to all users

Created: Mar 4, 2022, 3:00:08 PM

Created By: technicalUser

Assignments

Display Assigned Items:

Search for assigned items

Apps and Plugins (0/0)

No items assigned

3. Choose **+Search for items to assign** and select the following:

- My Inbox
- Process Trigger
- Process Workspace
- Visibility Scenario Dashboard
- Visibility Scenario Instances

The screenshot shows the SAP Site Manager - Content Manager interface. On the left, there's a navigation bar with 'Site Directory', 'Content Manager' (which is selected), 'Provider Manager', and 'Settings'. The main area displays a 'ROLE Everyone' page with tabs for 'PROPERTIES' and 'TRANSLATION'. In the 'PROPERTIES' tab, there are sections for 'General' and 'Additional Info'. The 'General' section includes fields for 'Title' (Everyone), 'ID' (sap_subaccount_everyone), and 'Description' (Content assigned to this role is visible to all users). The 'Additional Info' section shows creation and modification details. On the right, there's a 'Assignments' panel with a 'Assign Items:' section. This section contains a search bar and a list of five assigned items, each with a delete icon: 'My Inbox' (HTML5 Apps), 'Process Trigger' (HTML5 Apps), 'Process Workspace' (HTML5 Apps), 'Visibility Scenario Dashboard' (HTML5 Apps), and 'Visibility Scenario Instances' (HTML5 Apps). A red box highlights this 'Assign Items:' section.

4. Choose **Save**.

5. Choose **Back**.

This screenshot shows the same SAP Site Manager - Content Manager interface as the previous one, but it has been updated. The 'Edit' button in the top right corner of the 'ROLE Everyone' page is highlighted with a red box. The rest of the interface is identical to the previous screenshot, showing the 'PROPERTIES' tab with its respective sections and the 'Assignments' panel with the list of assigned items.

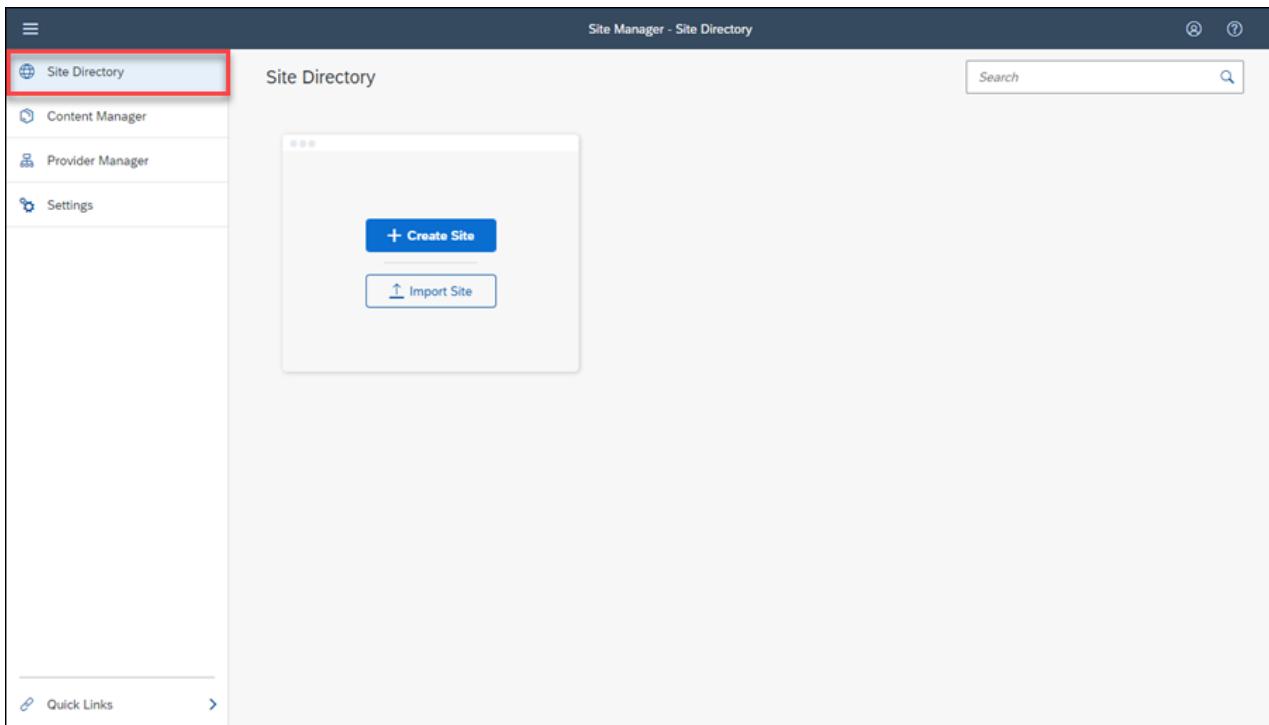
The content permissions for your SAP Build Work Zone have now been set, giving users in your subaccount access to the correct SAP Build Process Automation features.

Create and Access Site

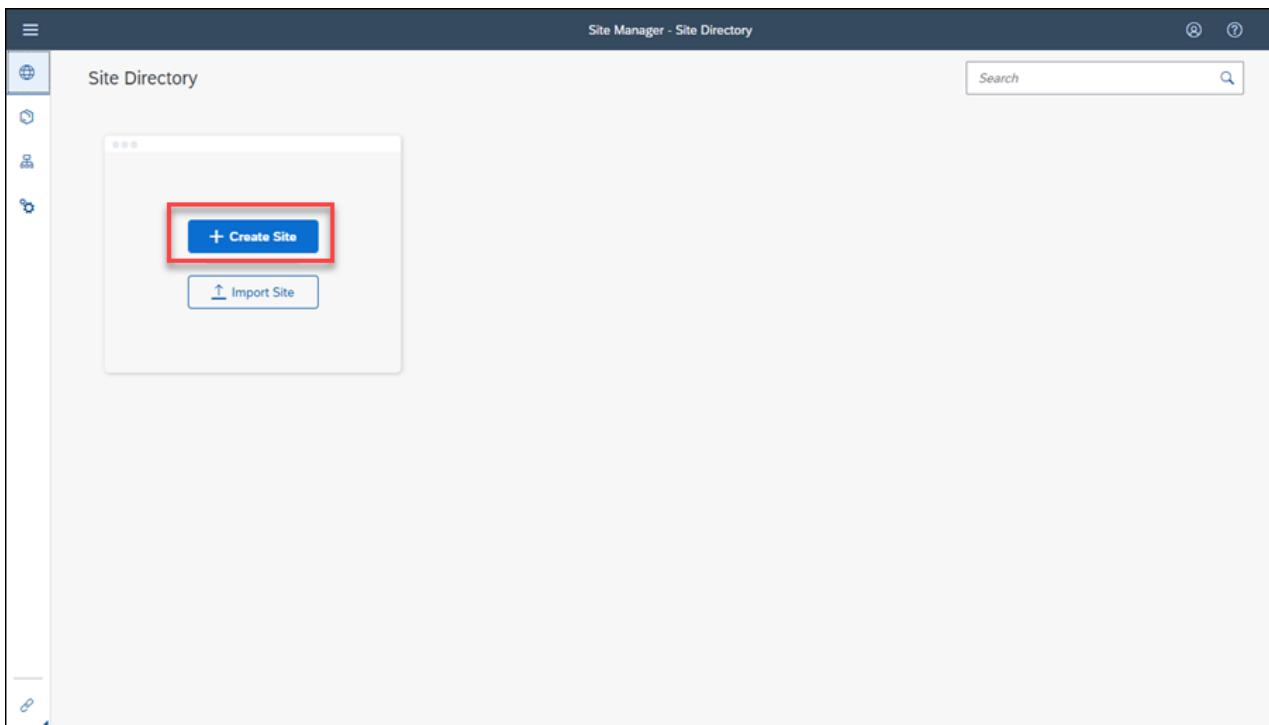
The final stage is to create the SAP Build Work Zone site itself, based on the content and permissions you previously assigned. To create your SAP Build Work Zone site, follow these steps:

Procedure

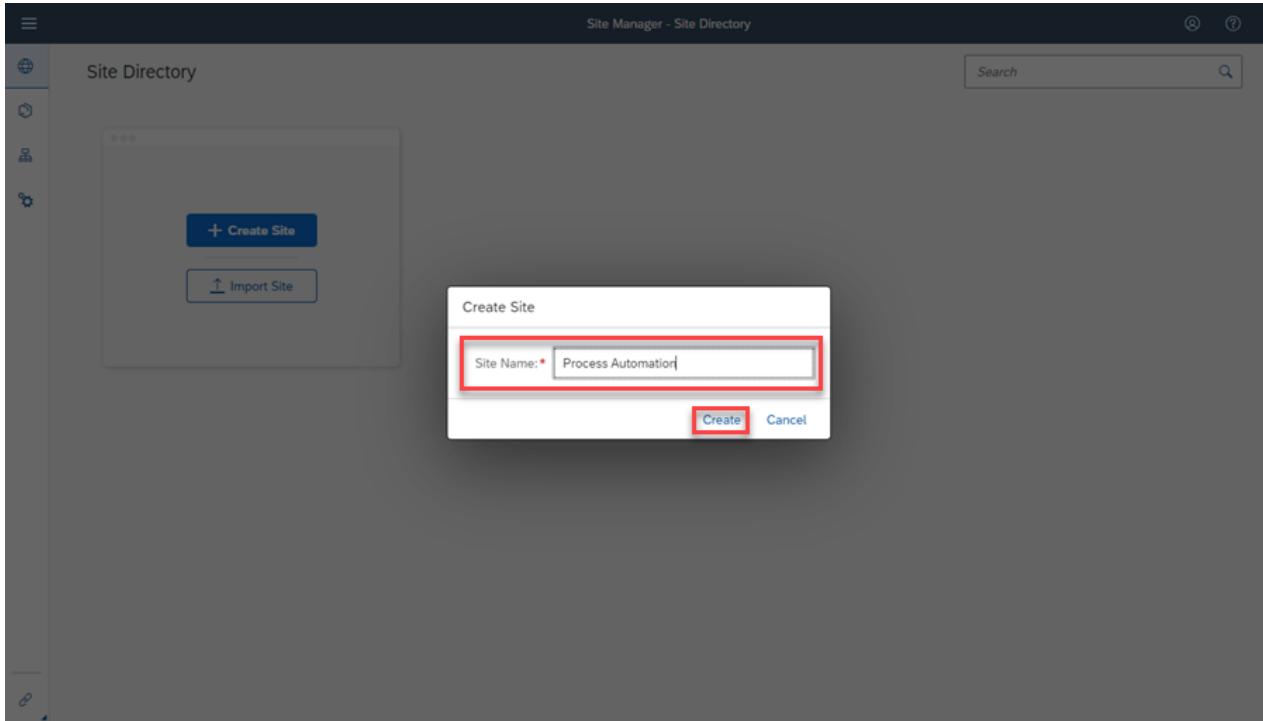
1. Choose **Site Directory**.



2. Choose [+ Create Site](#).



3. Enter a site [Name](#), and choose [Create](#).

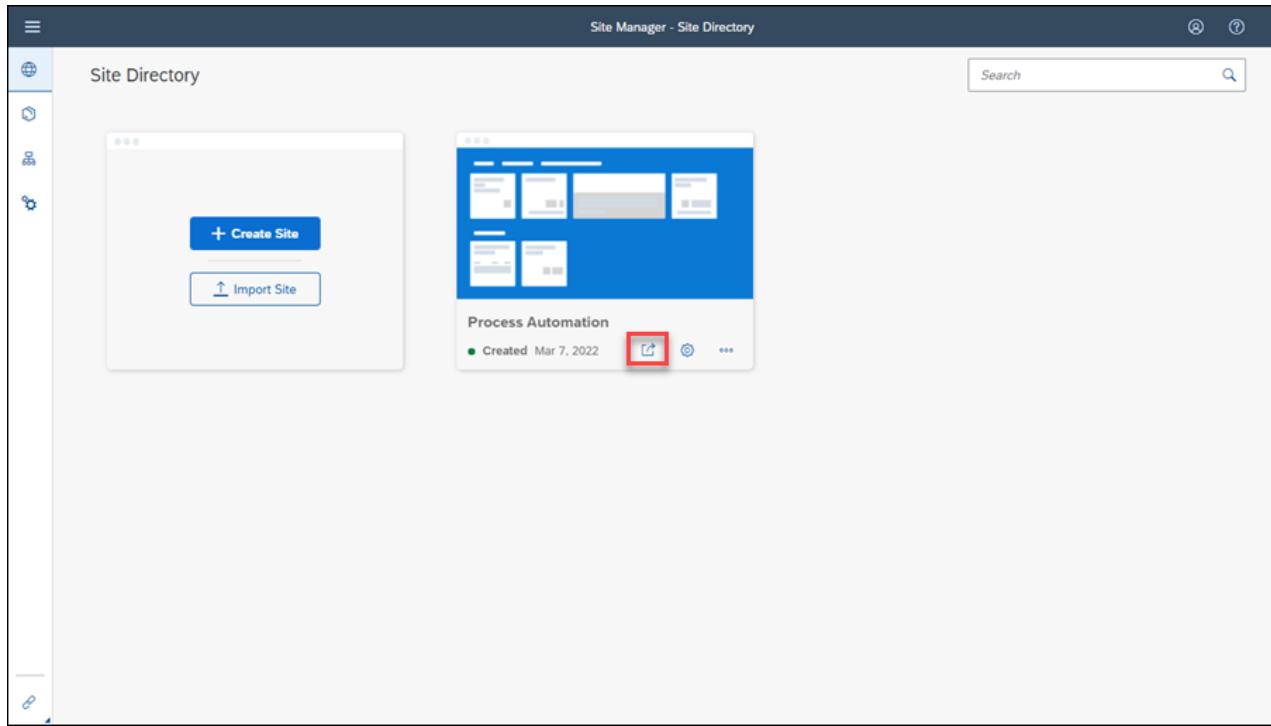


The site is created and the site details are displayed.

4. Choose Back.

The screenshot shows the 'Site Editor - Process Automation' interface. On the left, there's a sidebar with a back arrow, a gear icon labeled 'Settings', and a 'SITE SETTINGS' section for 'Process Automation'. The main area has a 'PROPERTIES' tab selected. Under 'General', it shows: Name: Process Automation, Description: -, ID: 8512e826-3c95-49b3-a21d-c5fef58a7826, URL: <https://processautomation.launchpad...>, Site Alias: -, Created: Mar 7, 2022, 4:48:22 PM, Created By: Tom Beck. Under 'User Capabilities', it shows Personalization: Yes, Theme Selection: Yes, Language Selection: Yes, SAP Mobile Start: Yes, Enterprise Search: No, Recent and Frequent Activities: No, Group Display Mode: Yes. Under 'Display', it shows Launchpad View Mode: Groups, Tile Size: Responsive, Search in Shell Header: Yes, Show or Hide Groups/Sections: Yes, Show Notifications: No, All My Apps: Yes. On the right, there's an 'Assignments' panel with a search bar and a 'Roles' section stating '(0/0)' and 'No items assigned'.

5. Open the newly created site.



i Note

If you use SAP Task Center, define the site as the default site. See also: [Restrictions for SAP Task Center Integration](#).

Configure the My Inbox App

Configuring the My Inbox app allows you to use its various functionalities.

Prerequisites

1. You have added My Inbox to your content as described in [Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site](#).
2. You have created a local copy of My Inbox by opening the app on the **My Content** tab, and choosing **Create a Local Copy**.

Context

Each display option needs an own local copy of the My Inbox app. The local copies of the items must be configured as follows.

Procedure

1. In the **Content Manager** of the central SAP Build Work Zone, open the local copy of the My Inbox app.
2. Go to the **Navigation** tab of the local item, and choose **Edit**.
3. To enable or disable additional functionalities of My Inbox, you have to manually set parameters for them.

- o Substitutions

Parameter Name	Usage	Default Value	Permitted Values
substitution	This parameter enables you to use the Manage My Substitutes option, displayed in the user action menu. You can manage your tasks in your absence by creating substitution rules for planned and unplanned absences. Always use this parameter together with userSearch.	true	false or true
userSearch	Allows entering a user ID when creating a substitution rule. The userSearch value must be set to false.	true	false

- o Forwarding

Parameter Name	Usage	Default Value	Permitted Values
userSearch	Allows entering a user ID when forwarding a task. The userSearch value must be set to false.	true	false

- o Limit the number of loaded tasks.

Parameter Name	Usage	Default Value	Permitted Values
listSize	Specify a numeric value to limit the number of tasks loaded in My Inbox.	100	Integer

- Show Log button

Parameter Name	Usage	Default Value	Permitted Values
showLog	Controls the visibility of the Show Log button. Default value is true.	true	false or true

⚠ Caution

For the proper usage of My Inbox, do not change the parameters on the **Navigation** tab, which are not listed above.

- Save your changes.

Configure Scenario-Specific Tiles

You can configure the scenario-specific tiles on SAP Build Work Zone.

Prerequisites

You have added **Visibility Scenario Dashboard** from **HTML5 Apps** content channel to **My Content** in the **Content Manager**. For more information, see [Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site](#).

Procedure

- Navigate to **Content Manager** and open **Visibility Scenario Dashboard** present under **My Content** tab.
- On the screen that opens, choose **Create a Local Copy**.
- Choose **Edit** and adapt the texts in the **General** section. You can use a custom title and description for the tile.
- Under the **Navigation** tab, ensure that the value in the **Action** tab present under the **Intent** section is unique for every application.
- In the **Parameters** section, provide the following:

Parameter Name	Value
Name	scenarioId
Default Value	Provide the scenario ID i Note You can find the scenario ID from the Visibility Scenarios application present under the Manage section of the Monitoring tab.
Required	Toggle to YES

You can optionally adapt translations.

- Choose **Save**.
 - You also need to add **Visibility Scenario Instances** and the local copy of the **Visibility Scenarios Dashboard** app to a group and make sure they are visible to users.
- For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

Configure SAP Build Process Automation Destinations

Before developing with SAP Build Process Automation or for configuring SAP Build Work Zone for use with SAP Build Process Automation, you must create an SAP BTP destination for your subaccount.

Prerequisites

You've created a service instance and service key for SAP Build Process Automation. Note down the service key credentials for configuring this destination. See [Create a Service Instance](#).

Procedure

- Navigate to the SAP BTP subaccount that contains your active SAP Build Process Automation subscription.
- Choose **Connectivity** **Destinations** and then **Create Destination**.
- Choose **Blank Template**, and enter the following details:

Field	Value
Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet

Field	Value
Authentication	OAuth2ClientCredentials
URL	<"endpoints""api">
Client ID	<"uaa"."clientid">
Client Secret	<"uaa"."clientsecret">
Token Service URL	<"uaa"."url">/oauth/token

Then, copy over and add the following additional properties from the service key:

Field	Value
endpoints	endpoints (copy the whole JSON structure including '{' and '}')
html5-apps-repo	html5-apps-repo (copy the whole JSON structure including '{' and '}')
saaSregistryenabled	saaSregistryenabled copied from the service key
sap.cloud.service	sap.cloud.service copied from the service key
sap.cloud.service.alias	sap.cloud.service.alias copied from the service key

4. Save your changes.
5. To check the availability of the destination connection, choose [Check Connection](#).

Related Information

[Determine Service Configuration Parameters](#)

[Creating Service Keys in Cloud Foundry](#)

Configure SAP Build Process Automation Destinations for SAP S/4HANA Cloud

To integrate with SAP S/4HANA Cloud, you must configure a destination for SAP Build Process Automation.

Prerequisites

You've created a service instance and a service key for SAP Build Process Automation and noted down the service key credentials for configuring this destination.

Procedure

1. Navigate to your SAP BTP subaccount where SAP Build Process Automation is subscribed..
2. Choose
3. Select [Blank Template](#) and enter the following details:

Field	Entry
Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<"endpoints""api">
Client ID	<"uaa"."clientid">
Client Secret	<"uaa"."clientsecret">
Token Service URL	<"uaa"."url">/oauth/token

For more information about how to create an HTTP destination for OAuth 2.0 Authentication (client credentials), see [Create HTTP Destinations](#).

4. Save your changes.

Configure Automation Capabilities

To configure the automation capabilities for SAP Build Process Automation, the following procedures are necessary:

[Install the Desktop Agent 2 to Run Automations](#) or [Configure Automation Capabilities](#)

[Configure an SMTP Mail Destination](#)

Install the Desktop Agent 2 to Run Automations

Prerequisites

Installing the Desktop Agent 2 automatically installs the web browser extension for Google Chrome and Microsoft Edge. To prevent issues during the installation, please close all the Chrome tabs open on your machine.

i Note

To run projects with BAPI activities, your IT administrator must install a Windows component on your PC. If you have administrator access, please install [Microsoft Visual C++ 2010 Redistributable Package x86](#) on your machine. If you do not have this access, please ask your administrator to install the component.

Context

The setup program is provided in the form of an industry standard Windows MSI installer. You can download it from the SAP Software Center [page](#).

i Note

The minimum version of the Desktop Agent supported by SAP Build Process Automation is 2.0.20.

Procedure

1. Launch the MSI file execution.
2. Select **Next** to begin the installation process.
3. On the **Installation type** popup, select the **Desktop Agent** option.
4. Select the browser extension that you want to install on your computer.

i Note

- o Two versions of extensions are available in Chrome and Edge store:
 - one based on manifest V2
 - another based on manifest V3
- o Advanced installer and command line are enhanced only for Agent 2.0 to support the installation of both the extensions.

You can choose to install a browser extension according to your needs:

- o **Extension 2.0** – Legacy extension for Google Chrome and Microsoft Edge based on manifest version 2. This option is enabled by default.

i Note

This manifest version will be deprecated by the end of 2022.

- o **Extension 3.0** – Up-to-date extension for Google Chrome and Microsoft Edge based on manifest version 3. It is the latest manifest version which is highly recommended for early test of existing automation scenarios.
- o **Both** – Only one extension can be enabled at the same time, activating both creates a conflict.

5. **Optional:** Choose **Browse** to change the destination of the installation folder.

6. Select **Install** to start the installation.

The installation process may take a few seconds to complete. An authorization request to bring change to the computer might appear.

7. Select **Next** to finalize the installation.

8. Once the installation has been successfully completed, click **Finish**.

The **Desktop Agent Tenant Registration** window pops up: you now need to register the Desktop Agent to finalize the installation. For more information, see [Register the Desktop Agent Tenant](#).

i Note

Microsoft Edge is also used for the rendering of the Desktop Agent. In such a configuration, the Edge 'WebView2' component is mandatory: if not already installed on your machine, please install Edge WebView2 from the [Microsoft website](#).

Make sure you install the version Microsoft Evergreen Bootstrapper for the browser to receive Microsoft updates.

Register the Desktop Agent Tenant

To use the automation capabilities, you must first register the desktop agent tenant.

Context

Once you've completed the installation steps of the setup wizard, register your agent and connect it to an SAP Build Process Automation tenant to execute automations.

Procedure

1. In the **Desktop Agent Tenant Registration** window, enter the following data:

Field	Description
Name	The name of your tenant
Domain	The tenant URL that you want to connect to and that you copy from the Agents List tab

2. In SAP Build, choose [Control Tower](#) [Agents](#) [Register new agent](#).
3. In the popup opens, choose [Copy and Close](#).
4. Then paste the URL into the **Domain** field on the [Desktop Agent Tenant Registration](#) window.
 - a. Open your agent from the system tray.
 - b. Choose [New Tenant](#).
 - c. Enter any name in **Name** field, and the string you just copied in the **Domain** field.
 - d. Click the 3 dots at the end of your tenant entry, and choose [Activate](#).
5. Save your changes.
6. Log in to your tenant with your user name or e-mail and password.

Install and Update the Desktop Agent 3 to Run Automations

Before you start to install and use the Desktop Agent 3, check the following requirements:

- Make sure [Microsoft.NET framework 4.7.2](#) is installed on your machine.
- To run projects with BAPI activities, your IT administrator must install a Windows component on your PC. If you have administrator access, please install [Microsoft Visual C++ 2010 Redistributable Package x86](#) on your machine. If you do not have this access, please ask your administrator to install the component.
- Update the Core SDK dependency in your project to version 1.26 or higher. For more information see, [Update a Dependency](#).
- If you want to install the Agent service to keep the Agent running when using unattended mode, you need administrator rights.

Supported Browsers

Category	Web Browser	Version	Cloud Services	Captured Web Applications	Browser Extension	Store
Chromium-based browsers	Google Chrome	94 and greater	Supported	Supported	Supported	Supported
	Microsoft Edge	94 and greater	Supported	Supported	Supported	Supported

Enabling Agent Download and Automatic Updates

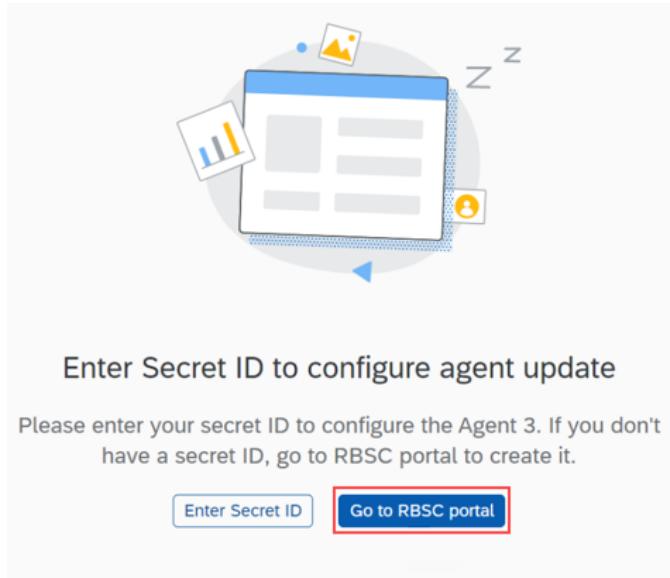
Context

In order to download and install the Desktop Agent 3, you must first create a technical user in the **Repository-Based Shipment Channel** portal (or RBSC portal) and copy its secret ID to your tenant.

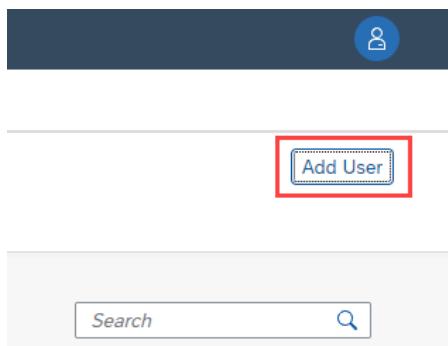
This secret ID is also required to update your Agent 3 automatically when a new version is released. For more information, see [Enable Automatic Updates](#).

Procedure

1. In SAP Build, go to [Control Tower](#).
2. Choose [Agents](#) [Agent Update](#).
3. Choose [Go to RBSC Portal](#).



4. Choose [Add User](#).



5. Enter a name to create a technical user and choose [Add User](#).

i Note

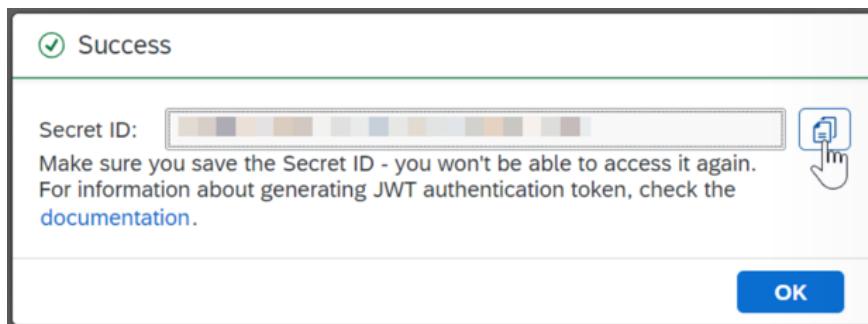
The name that you use to create your technical user should not be an existing user ID.

6. On the left-hand side [Users](#) panel, select the technical user you've just created.

7. Then, go to the [Strong Cryptography Authentication](#) section, and choose [Generate](#).

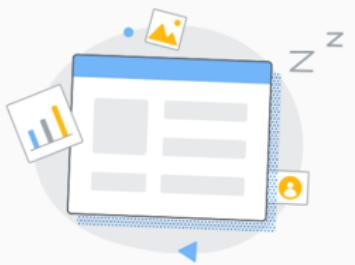
The screenshot shows the SAP Repository-Based Shipment Channel interface. The top navigation bar includes the SAP logo, 'Repository-Based Shipment Channel', and a user icon. The main menu has options like 'Users Management', 'Products Shipment', and 'IBSO Shipment'. The 'Users Management' tab is selected. In the center, there is a table for managing users. The first row shows a user named 'sap-testuser3' with a status of 'Created by: [redacted]'. Below this table, there is a list of users with one named 'sap-testuser3' highlighted with a red box. To the right of the user list, there is a table for 'Strong Cryptography Authentication' with three entries: 'Basic Auth Password', 'NPM Base64 Credentials', and 'GitLab PAT'. Each entry has a 'Type', 'Valid to', and 'Actions' column. The 'Actions' column for the 'Basic Auth Password' entry contains a 'Regenerate' button with a red box around it. The 'Actions' column for the 'NPM Base64 Credentials' entry also contains a 'Regenerate' button with a red box around it. The 'Actions' column for the 'GitLab PAT' entry contains a 'Regenerate' button with a red box around it. The 'Actions' column for the 'Strong Cryptography Authentication' entry contains a 'Generate' button with a red box around it and a 'Generate JWT' link.

8. Choose [\(Copy\)](#) on the [Success](#) window that appears to copy the generated secret ID. Then, choose [OK](#).



9. Now, that you've added a technical user and generated a secret ID, enter them on the [Agent Update](#) page.

10. Choose [Enter Secret ID](#).



Enter Secret ID to configure agent update

Please enter your secret ID to configure the Agent 3. If you don't have a secret ID, go to RBSC portal to create it.

[Enter Secret ID](#)

[Go to RBSC portal](#)

11. Enter your technical user in the **Name** field. Paste the secret ID that you copied from the RBSC page in the **Secret ID** field. Choose **Confirm**.

Enter Secret ID

Name: *

Secret ID: *

Confirm Cancel

Results

You can now start to install Agent 3 or copy the link to the download page to send it to other users.

Update Expired RBSC Secret ID

The RBSC secret ID has a six-month expiration period. Therefore, you must generate a new secret ID once it expires.

Procedure

1. In SAP Build, choose **Control Tower**.
2. Choose **Agent Update**.
3. On the **Agent Update** page, choose **Change Settings**.
4. On the **Change Settings** pop-up window, choose **Go to RBSC portal**.

Change Settings

Authentication

Name: *

Secret ID: *

Expires On:
2/27/2024, 08:08:52 PM

Go to RBSC portal

Confirm Cancel

5. On the RBSC portal, generate your new secret ID.

The screenshot shows the SAP Repository-Based Shipment Channel interface. On the left, there's a sidebar titled "Users Management" with a "Users" section showing 1 user. A modal window is open on the right, displaying a list of generated credentials:

Type	Valid to	Actions
Basic Auth Password Password for basic authentication for accessing Docker, Maven and Helm repositories.	2024-03-04	Regenerate
NPM Base64 Credentials Base64 encoding pair of user name and Basic Auth Password. To be used in .npmrc file for accessing NPM repositories.	2024-03-04	Regenerate
GitLab PAT Personal Access Token for accessing Git repositories	2024-03-04	Regenerate
Strong Cryptography Authentication Generated Secret ID can be used for generation of JWT authentication token	2024-03-04	Regenerate

Your new secret ID is generated.

Installing the Desktop Agent 3

Context

You've generated a secret ID and pasted it in your tenant. You can now download and install the Desktop Agent 3.

Procedure

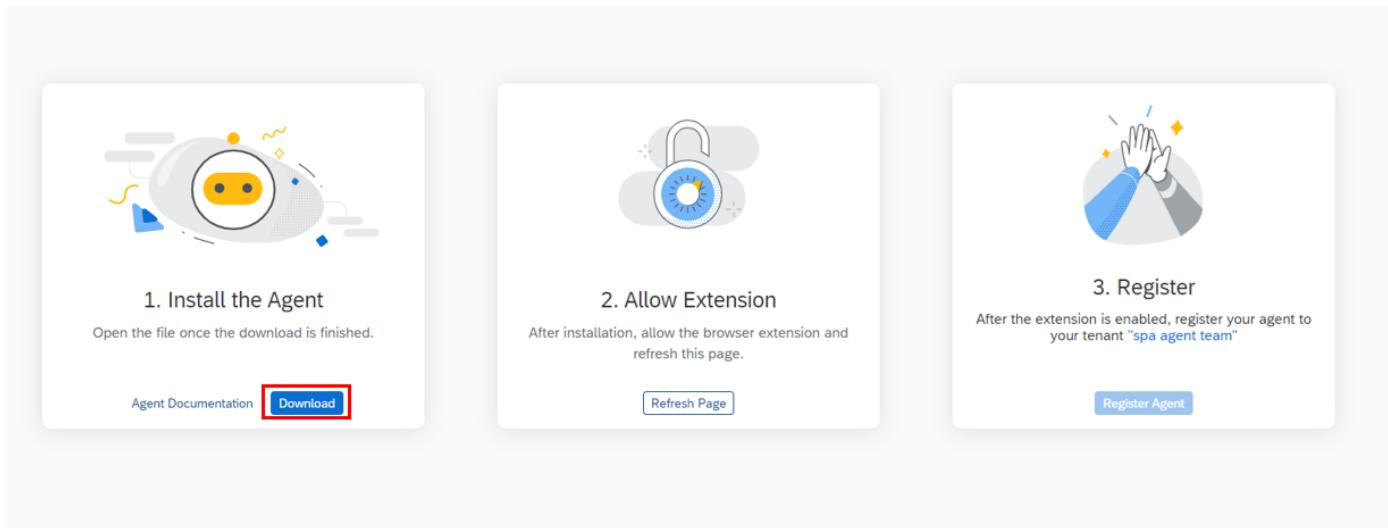
1. In the Lobby, go to [Settings](#), and select Agent Update on the left-hand side panel.

The screenshot shows the SAP Application Development lobby. The left sidebar has a "Agents" section with several options: Agents List, Agent Groups, Agents Management, Agent Attributes, and Mass Registrations. The "Agent Update" option is highlighted with a red box.

2. Click [Go to Download Page](#).

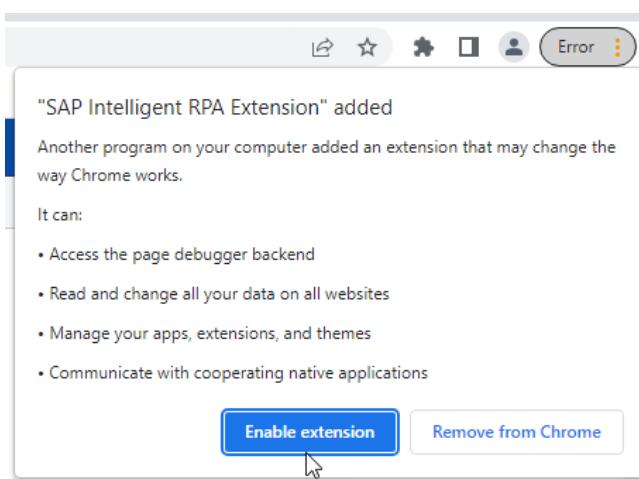
The screenshot shows the download page for the Desktop Agent 3. It features a cartoon illustration of a small robot. Below the illustration, the text "Agent has been set to automatic updates" is displayed. A note below states: "All agents will be automatically updated when a new version is available. Check the settings to change this configuration." At the bottom, there are two buttons: "Copy link to Download Page" and a large blue button with the text "Go to Download Page" which is also highlighted with a red box.

3. Click [Download](#) on the 1. Install the Agent tile.

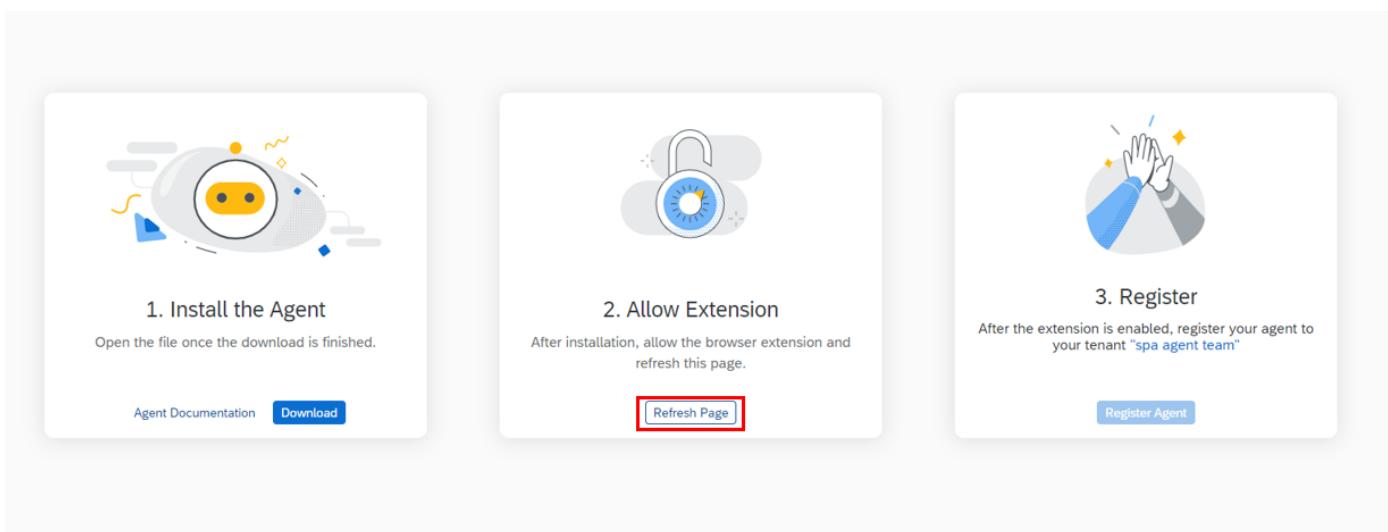


The file is downloaded on your computer.

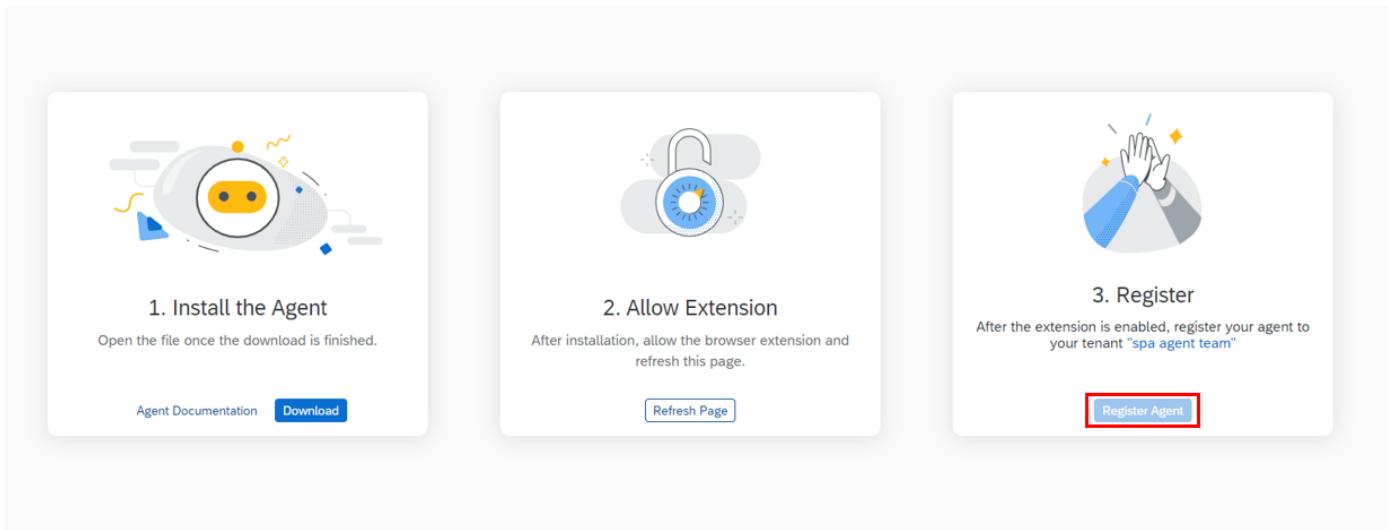
4. Open the file and wait until the installation of the Agent 3 is complete.
5. Enable the extension in your browser.



6. Click Refresh Page on the 2. Allow Extension tile.



7. Click Register Agent on the 3. Register tile to add.



8. Open your agent to finalize the setup and accept the tenant configuration.

Results

You have added your tenant to your agent and registered it. You can now start working on your projects.

Register Desktop Agent 3

After you have installed desktop agent 3, you need to register your agent and connect it to a tenant before you can run automations.

Prerequisites

You have installed desktop agent 3 as described in [Installing the Desktop Agent 3](#).

Procedure

1. In SAP Build, choose **Control Tower** and **Agents**.
2. Choose **Register New Agent** and **Copy and Close**.
3. Open the agent, choose **Tenants**, and **Add Tenant**.
4. Enter a name for your tenant in the **Name** field, paste the copied URL into the **Domain** field, and **Save** your changes..
5. **Activate** the tenant and authenticate in the browser pop up.
6. **Optional:** If the authentication window does not appear, choose **Settings / System**, and uncheck **Use browser for tenant registration**. Then repeat the above step: **Activate** and authorize.

Results

Your agent is now connected to the tenant.

Updating the Desktop Agent 3

New versions of the Desktop Agent 3 are frequently available.

By default, the Agent 3 is configured to be automatically updated. This way, the newly available version is automatically pushed to your agent. For more information, see [Enable Automatic Updates](#).

You can also choose to manage agent updates for testing purposes for example. For more information, see [Managing Updates](#).

Enable Automatic Updates

You can define whether to allow auto updates for the agent.

Prerequisites

You have generated a secret ID from the RBSC portal as described in [Enabling Agent Download and Automatic Updates](#).

Context

Automatic updates deliver the latest version of Agent 3 directly to your machine or to all your users' machines.

Procedure

This is custom documentation. For more information, please visit the [SAP Help Portal](#)

2/26/2024

1. In SAP Build, go to [Control Tower](#).
2. Choose [Agents > Agent Update](#), and toggle to [Automatic](#).

The screenshot shows the SAP Build interface with the 'Control Tower' selected in the top navigation bar. On the left, a sidebar menu under 'Agents' includes 'Agents', 'Agent Groups', 'Agent Management', 'Agent Attributes', 'Mass Registrations', 'Agent Update' (which is highlighted with a red box), and 'External Ip Safelist'. The main content area is titled 'Agent Update' with a status indicator 'Automatic' (also highlighted with a red box). Below this are buttons for 'Managed', 'Go to Download Page', and 'Change Settings'. A table titled 'Items (24)' lists agent versions with columns for 'Agent version', 'Delivery Date', and 'Actions'. The first item listed is '3.13.18'.

Agent version	Delivery Date	Actions
3.13.18	Jan 30, 09:46 AM	
3.13.8	Jan 19, 11:12 AM	
3.12.41	Jan 27, 02:41 PM	
3.12.32	Jan 19, 11:24 AM	

Results

The updates are automatically delivered to your agent if it's in unattended mode.

If your agent is in attended mode, when a new update is available, it's automatically downloaded, and you receive a notification prompting you to open your agent. You can then choose to update your agent now or tonight by selecting one of the two options on the pop-up window that appears.

Managing Updates

Prerequisites

You have generated a secret ID from the RBSC portal as described in [Enabling Agent Download and Automatic Updates](#).

Context

If you decide to manage updates, you can pause these updates to test them, for instance. You can then choose which versions you want your users to receive on their machines.

Procedure

1. In the Lobby, go to [Settings](#), and select Agent Update on the left-hand side panel.

The screenshot shows the SAP Application Development lobby with the 'Agents' section selected in the sidebar. The 'Agent Update' option is highlighted with a red box. The main content area displays a search bar 'Search menu items' and a list of agents with details like 'Agents List', 'Agent Groups', 'Agents Management', 'Agent Attributes', and 'Mass Registrations'. The 'Agent Update' section is also visible.

2. Click [Change Settings](#) in the top right-hand corner.
3. In the [Change Settings](#) dialog, deselect [Enable automatic updates](#) and click [Confirm](#).

Change Settings

Authentication

Name: *

Secret ID: *

Expires On:
11/2/2022, 10:04:59 AM
[Go to RBSC portal](#)

Distribution Policy

Enable automatic updates

[Confirm](#) [Cancel](#)

Results

On the [Agent Update](#) page, you can see the list of the last published Agent versions and manage updates.

You can perform several actions such as:

- Activate an agent version.

To do so, click under [Actions](#) next to the version of your choice and select [Activate](#).

Alternatively, you can choose [Activate](#) next to the beta version to set this version as the active version.

- Set an agent version as a beta, if you want to test this version for example.

To do so, click under [Actions](#) next to the version of your choice and select [Activate as Beta](#).

You can then select to which agents this beta version will be pushed and click [Activate Beta](#).

Activate version 3.5.17 as beta

Select the agents for which the beta version will be activated.

Items (7)

<input type="checkbox"/>	Machine	Login	Current version
<input checked="" type="checkbox"/>	[REDACTED]	[REDACTED]	3.4.15
<input type="checkbox"/>	[REDACTED]	[REDACTED]	3.5.30
<input checked="" type="checkbox"/>	[REDACTED]	[REDACTED]	3.4.45
<input checked="" type="checkbox"/>	[REDACTED]	[REDACTED]	3.5.30
<input type="checkbox"/>	[REDACTED]	[REDACTED]	3.5.22
<input type="checkbox"/>	[REDACTED]	[REDACTED]	3.3.61
<input type="checkbox"/>	[REDACTED]	[REDACTED]	3.5.18

[Activate Beta](#) [Cancel](#)

You can edit the agents for which the beta version is activated by clicking under [Actions](#) and selecting [Edit Beta Agents](#).

- Download an agent version on your machine.

To do so, click under [Actions](#) next to the version of your choice and select [Download](#).

You can also click next to the active version to download it.

By clicking  1 next to an agent version, you can see which agents are registered in this version.

How the Agent Service Works

The service ensures that the agent is always running and is required when the agent is running in unattended mode.

When the agent is installed on a machine, a service named SAPDesktopAgentService.exe can also be installed. This service runs under the local system identity. It is independent of the agent that runs under the session user identity.

To check if the agent service is installed on your machine, choose [About](#) and [Agent Details](#) in the agent. If the agent service is not installed on your machine, the service state is [Not detected](#), and the service version is [Unknown](#).

What Is the Purpose of the Agent Service?

The service ensures that the agent is always running and monitors it for issues. Therefore, if you are using an RDP environment, we recommend that you install the service.

The service is also required when the agent is running in unattended mode. The agent sometimes needs to unlock and lock the session to perform activities and for security. Enable the agent to automatically unlock a session by entering the credentials in the [Connection](#) tile. For more information, see [Configure the Connection Settings](#).

How to Install and Update the Agent Service

As an admin, you can install the service on your users' machines at the same time as you install the desktop agent 3. To do so, you must run the setup as administrator and check the corresponding checkbox on the installation window. If you don't run the setup as administrator, the checkbox is not visible.

You can also install the service using the following command line (if your script has been started as an administrator): xxx.exe /s --service

When a new version of agent 3 is available, a new version of the service is also available.

i Note

You must update the service manually. If automatic updates are enabled, only the agent is automatically updated.

i Note

If you are using desktop agent version 3.17 and under, make sure that the SAPDesktopAgentService.cfg file has been configured correctly. For more information, see SAP Note [Q003388923](#).

Configure the Connection Settings

You can configure the service to unlock a session and start the agent automatically when a machine boots.

Prerequisites

Agent service 3 or higher is installed and running.

Context

Configure the connection settings of the agent to allow the service to open the Windows session automatically when booting. If the agent is in unattended mode, the service can, after a reboot, automatically open the Windows session and start the agent.

By default, no credentials are entered and the service will not login to the session automatically. So when you start the machine, you need to login manually.

Procedure

1. In your agent, choose [Settings](#) and [System](#).
2. In the [Connection](#) tile, choose [With user account](#), enter your username and password, and [Save Settings](#).

Results

If your session locks, the service is able to unlock it automatically.

i Note

- If the connection tile is disabled, the agent service is either not installed, not running, or its version is below agent service 3.
- If you disable [Automatically start at Windows logon](#), the agent will not start.

Enable Batch Installation

Context

As an administrator ([IRPAOfficer](#) role), install and configure automatically the Desktop Agent 3 on several machines with the batch installation.

This procedure shows you how to create a PowerShell script that will automatically install and configure the Desktop Agent 3 the first time a user logs into a machine (Windows Desktop or Windows Server sessions).

i Note

This is custom documentation. For more information, please visit the [SAP Help Portal](#)

Agent 3 is an installation per user, not per machine. It means that one independent agent is installed for every session.

Procedure

1. Define a shared location within your company environment, accessible from the different machines, to store the files required for the batch installation of the Desktop Agent 3. It can be:
 - within your company network: //... .
 - in a public folder: %programdata%\SAP for instance
2. Download the .exe installation file of the Desktop Agent 3 as described in the step 3 of the [installation procedure](#). Store this file in the shared location defined in the step 1.
3. Create and download a registration token as a .json file as described in the registration procedure of the [Mass Agent Registration](#). Store this file in the shared location defined in the step 1.
4. Create a configuration .json file named agentSettings.json with the attributes you want to configure, following this pattern:

```
{
  "generalSettings": {
    "language": "en",
    "agentMode": "unattended",
    "startOnWindowsLogon": true
  }
}
```

Choose between the following values:

- language: "en", "fr", "en_US_sappsd", "es", "de", "it", "ja", "ko", "pt", "ru", "zh_CN", "zh_TW"
- agentMode: "attended", "unattended"
- startOnWindowsLogon: true, false

Store this file in the shared location defined in the step 1.

5. Create the PowerShell script that will automatically install and configure the Desktop Agent 3 on a machine. According to your specific needs and methods, you can write or adapt your own script. For example:

```
Write-Host -----
Write-Host "-          Agent 3.x User Deployment      -"
Write-Host -----"

$notInstalled=$true

$Folder = $HOME+'\AppData\Local\Programs\SAPDesktopAgent'
$File = $Folder+'\SAPDesktopAgent.exe'

if (Test-Path $Folder) {

  if (Test-Path $File){

    $notInstalled=!$true

    Write-Host "agent 3.x already installed"

    Write-Host -----"

  }

}

if ($notInstalled) {

  if (Test-Path "$PSScriptRoot\SAPDesktopAgentSetup*.exe") {

    foreach ($files in Get-ChildItem $PSScriptRoot) {

      if ($files.Name -match "SAPDesktopAgentSetup-.*.exe") {

        $setup = $files.FullName

      }

    }

    Write-Host "agent 3.x is installing ..."

    $ps = [System.Diagnostics.Process]::Start($setup, "/S")
    $ps.WaitForExit()

    Write-Host "agent 3.x has been installed correctly."
  }
}
```

```

        Write-Host "-----"
    }

    else {
        Write-Host "No setup in the folder"
        Write-Host "-----"
    }

}

```

6. On all the targeted machines, add the run registry key that will be used to launch the execution of the PowerShell script. We recommend to use HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run.

For example: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\RunOnce\SAPDesktopAgentSetup with the value <definedLocation> \SAPDesktopAgentInstallation.ps1 /s.

Results

When the specified machines start, the PowerShell script will automatically install and configure the Desktop Agent 3.

i Note

Even the agent is connected and configured, the user still needs to activate the browser extension. For more information, see [Installing the Desktop Agent 3](#).

Best Practices when Migrating from Desktop Agent 2 to Desktop Agent 3

The following page will walk you through the steps required to use your Desktop Agent 2 projects with the Desktop Agent 3.

This applies when you have automations that run using the Desktop Agent 2 and you want to run them using the Desktop Agent 3.

What are the prerequisites?

To use your automations with the Desktop Agent 3, you must update your Core SDK package to version 1.26 at least. If your project contains PDF or Documentation Information Extraction activities, you must update your PDF SDK version to version 1.26 at least at well.

To update your dependencies:

1. In the [Overview](#) page of your project, click  to open the [Project Properties](#).
2. Select the  [Dependencies](#) tab.
3. Click  [Update all SDK](#) so that all of your SDK packages are updated to the latest version.
4. Redeploy your project. For more information, see [Deploy an Automation Project without a Trigger](#).

The screenshot shows the 'Project Properties' dialog with the 'Manage Dependencies' tab selected. On the left sidebar, there are several options: General, Share, Environment Variables, Dependencies (which is selected and highlighted in blue), Configure Agent Version, Attributes, and Data Protection. In the main area, under 'Manage Dependencies', it says 'SDK (2) Other (0)' and there are two entries: 'irpa_core' and 'irpa_excel'. Each entry shows its version (1.27.12), status (Released), and a note that a new version is available. To the right of these entries is a blue button labeled 'Update all SDK' with a circular arrow icon, which is highlighted with a red box.

You can use your project with the Agent 3. Note that even after doing this update your project will remain compatible with the Agent 2.

Which projects are supported?

You will be able to use your project with the Agent 3 if it meets the following requirements:

- The Core SDK package version of your project must be updated to 1.26 or higher.
- If your project contains PDF or Document Information Extraction activities, its PDF SDK package must be updated to version 1.26 or higher.
- The Desktop Agent 2 must not be installed on your computer.

How to know if your migration from the Desktop Agent 2 to the Desktop Agent 3 was successful?

- Your existing projects continue to work as before.
- When errors occur, the traces are correctly generated and visible in the Cloud.

Configure an SMTP Mail Destination

With SAP Build Process Automation, you can configure an Simple Mail Transfer Protocol (SMTP) server for email notifications to notify specific contacts about status changes in active project automations and live processes.

Prerequisites

You must have the required SAP BTP administration roles for your subaccount. For more information about SAP BTP roles, see [User Roles](#).

Your email server has the following characteristics:

- It must support the SMTP STARTTLS command on port 587. Other ports, such as 465, are not supported.
- It must be configured for SMTP message submission only (RFC 4409). Configurations for relaying messages (using port 25) are not supported.
- It requires authentication.
- It has enabled support for basic authentication or the SASL XOAUTH2 authentication method.

If you're using the OAuth2 authentication method, the following prerequisites also apply:

- You have the client ID, client secret, and the URL for requesting the relevant access token, and the scope.
- Your OAuth2 authentication server has the following characteristics:
 - It supports the OAuth2 Password Grant Flow, also known as the Resource Owner Password Credentials Grant.
 - Password grant flow and other prerequisite configurations for authenticated SMTP have been enabled for the mailbox and account represented by the login credentials.

- It does not require user interaction during token retrieval, such as multifactor authentication, or delegation to federated authentication servers.

i Note

If you have been using the `bpmworkflowruntime_mail` destination until now, this destination takes precedence over the `sap_process_automation_mail` destination. Consider consolidating the two destinations into a single destination. For example, if both destinations have the same properties and the configuration is the same, you can delete the `bpmworkflowruntime_mail` destination.

Procedure

- From **SAP Build**, click **Settings**.
- Click **Backend Configuration** and select **Mail Server**.
- Click **Open** in **BTP Cockpit**.
- The **SAP BTP Manage Destinations** area loads.
- Click **New Destination** and enter the following data and properties, depending on your mail provider and authentication method.

Field	Value
Name	<code>sap_process_automation_mail</code>
Proxy Type	Internet i Note You can only use HTTP destinations. Only Internet is supported.
Type	MAIL
Description	An optional short description
User	The user for logging into the mail server
Password	The password for logging into the mail server
Authentication	The authentication method required. The methods BasicAuthentication or OAuth2Password are supported.
If you're using OAuth2Password , the following additional values are required:	
Client ID	Client ID used to retrieve the access token
Client Secret	Client secret for the client ID
Token Service URL	Token retrieval URL of the OAuth server

- Click **New Property** to add each of the following additional properties.

Property	Value
<code>mail.transport.protocol</code>	smtp
<code>mail.smtp.auth</code>	true
<code>mail.smtp.starttls.required</code>	true
<code>mail.smtp.host</code>	Host name of your mail server
<code>mail.smtp.port</code>	Port on which your mail server listens for connections (usually 587)
<code>mail.smtp.from</code>	Email address to use as the "From" address of emails sent by SAP Build Process Automation. For example: <code>user@example.com</code> . This address must belong to an existing mailbox because it receives the replies to emails that the workflow capability sends.
<code>mail.smtp.ssl.checkserveridentity</code>	(This entry is optional) true or false. If no value is provided, the default value is true.
<code>mail.smtp.ssl.trust</code>	Either an asterisk (*) or a space-separated list of acceptable host names. If you don't provide a value, trust is based on the certificate provided by the server, which must be part of the SAP JVM default truststore.
<code>mail.smtp.ssl.enable</code>	<ul style="list-style-type: none"> o False
<code>mail.smtp.starttls.enable</code>	<ul style="list-style-type: none"> o True
<code>mail.bpm.send.disabled</code>	<ul style="list-style-type: none"> o True o False
The following additional properties are required if you're using the OAuth2Password authentication method:	
<code>mail.smtp.auth.mechanisms</code>	XOAUTH2
<code>tokenServiceURL</code>	The URL to retrieve the token for the OAuth server
<code>scope</code>	Value for the OAuth 2.0 scope parameter, expressed as a list of space-delimited, case-sensitive strings

Examples

This is an example of an email destination using the **BasicAuthentication** authentication method.

« Sample Code

```
{
  "Name": "sap_process_automation_mail",
  "Type": "MAIL",
  "ProxyType": "Internet",
  "mail.smtp.ssl.checkserveridentity": "false",
  "mail.transport.protocol": "smtp",
  "mail.smtp.port": "587",
  "mail.smtp.starttls.required": "true",
  "mail.password": "password",
  "mail.description": "Mail Server Configuration for SAP Process Automation",
  "mail.user": "username",
  "mail.smtp.auth": "true",
  "mail.smtp.from": "sender@example.com",
  "mail.smtp.starttls.enable": "true",
  "mail.smtp.host": "smtp.example.com",
  "mail.smtp.ssl.enable": "false"
}
```

The following is an example of an email destination using the [OAuth2Password](#) authentication method for the Microsoft 365 email provider:

Sample Code

```
Name=sap_process_automation_mail Description=Mail Server Configuration for SAP Process Automation
Type=MAIL
Authentication=OAuth2Password
ProxyType=Internet
User=<<username>>
Password=<<password>>
clientId=<<client ID>>
clientSecret=<<secret ID>>
mail.transport.protocol=smtp
mail.smtp.host=smtp.office365.com
mail.smtp.port=587
mail.smtp.from=<<sender email address>>
tokenServiceURL=https://login.microsoftonline.com/organizations/oauth2/v2.0/token
scope=https://outlook.office.com/SMTP.Send
mail.smtp.ssl.checkserveridentity=false
mail.smtp.auth=true
mail.smtp.starttls.required=true
mail.smtp.starttls.enable=true
mail.smtp.ssl.enable=false
mail.smtp.auth.mechanisms=XOAUTH2
```

6. Save your entries.

Results

The email destination is displayed in [Settings](#) under [Mail Server](#).

To test the configuration, click [Send Test Mail](#) and specify the recipients email.

When configured correctly, the recipient receives the test mail.

Related Information

[Guided Answers for Mail Authentication](#)

Configure Destination for Live Process Projects

Configure the WM_CF_SPACE_PROVIDER destination to import live process projects from the [Store](#).

Procedure

1. In the BTP cockpit, navigate to your subaccount.
2. In the navigation pane, choose  [Connectivity](#) > [Destinations](#).
3. Choose [New Destination](#).
4. In the [Destination Configuration](#) section, provide the following details:

Parameter	Value
Name	WM_CF_SPACE_PROVIDER
Type	HTTP
Description	Provide a meaningful description.

Parameter	Value
URL	<p>Provide the URL in following format: <code>https://deploy-service.cfapps.<landscape>.hana.ondemand.com/api/v1/spaces/<spaceId></code></p> <p>i Note</p> <ul style="list-style-type: none"> o In the <landscape> field, provide the datacenter to which the subaccount belongs to. To find the <landscape>, navigate to your subaccount and check the API endpoint under Cloud Foundry section. For example, if the API endpoint is <code>https://api.cf.us10.hana.ondemand.com</code>, then us10 is the landscape. o In the <spaceId> field, provide the ID of the space that you've created within the subaccount. To find the <spaceId>, navigate to the required space in the cockpit and copy space ID from the URL. See Details View for Spaces. <p>Example</p> <p>If the subaccount belongs to the landscape US10, provide URL in the following format: <code>https://deploy-service.cfapps.us10.hana.ondemand.com/api/v1/spaces/<spaceId></code></p> <p>For China (Shanghai) region,</p> <p>Example</p> <p>If the subaccount belongs to CN40 in China (Shanghai) region, provide URL in the following format: <code>https://deploy-service.cfapps.cn40.platform.sapcloud.cn/api/v1/spaces/<spaceid></code></p>
Proxy Type	Internet
Authentication	Basic Authentication
User	<p>Specify the name of the platform user that is used for deployment.</p> <p>i Note</p> <p>Platform users are usually developers, administrators or operators who deploy, administer, and troubleshoot applications and services on SAP BTP. See Platform Users.</p> <p>The user provided as part of the destination must have the Space Developer role, for the space ID provided in the URL.</p> <p>i Note</p> <p>Ensure that the two factor authentication isn't enabled for the user provided in the destination configuration.</p> <ul style="list-style-type: none"> o Ensure that the two factor authentication isn't enabled for the user provided in the destination configuration o Do not configure the destination using SAP Universal ID user or the user from custom identity provider.
Password	Provide the password of the platform user.

5. Choose **Save**.

i Note

If you validate the destination configuration by choosing **Check Connection**, you may receive one of the following messages:

- o Connection to "WM_CF_SPACE_PROVIDER" established. Response returned: "404: Not Found"

This error may occur due to incorrect URL. If the URL is correct and you still get the same message, then the destination connection is established, and you can import the live process package.

- o Connection to "WM_CF_SPACE_PROVIDER" established. Response returned: "401: Unauthorized"

This is because the credentials you have entered are incorrect. Re-enter the credentials and check again.

Configure SAP Document Management Service for Process Attachments

SAP Build Process Automation provides a lightweight integration with the SAP Document Management Service, enabling attachments to be uploaded to forms during a live business process. SAP Document Management Service provides the storage and access management of any files uploaded while SAP Build Process Automation maintains the relation between the process project, its files, and additional metadata.

Prerequisites

To configure SAP Document Management Service for SAP Build Process Automation process attachments, you need the following:

- Active [Document Management Service, Integration Option](#) entitlements in the same SAP BTP subaccount as your SAP Build Process Automation subscription.

You can check this from the subaccount by clicking [Entitlements](#):

The screenshot shows the SAP BTP Cockpit interface. On the left, there's a navigation sidebar with various service categories like Services, Instances and Subscriptions, Cloud Foundry, HTML5 Applications, Connectivity, Security, and Entitlements. The 'Entitlements' option is selected and highlighted with a red box. The main content area is titled 'Subaccount: UserAssistance - Entitlements'. It displays a table of entitlements with columns for name, plan, quota, and actions. One row, 'Document Management Service, Integration Option', is highlighted with a red box. The table includes rows for Connectivity Service, Content Agent Service, Credential Store, Destination Service, Feature Flags, and another Document Management Service row.

If your entitlements are missing, click **Configure Entitlements**:

This screenshot shows a modal dialog titled 'Configure Entitlements'. It has a search bar at the top. Below it is a table with columns for 'Assign Quota' (with a link to 'Subaccount Assignment'), 'Remaining Global Quota', and 'Actions'. There are two rows: one for '1 shared units' and another for '1 shared units'. A blue 'Configure Entitlements' button is located at the bottom right of the dialog, highlighted with a red box.

Then click **Add Service Plan**:

This screenshot shows a modal dialog titled 'Add Service Plans'. It has a search bar at the top. Below it is a table with columns for 'Assign Quota' (with a link to 'Subaccount Assignment'), 'Remaining Global Quota', and 'Actions'. There are two rows: one for '1 shared units' and another for '1 shared units'. A blue 'Add Service Plans' button is located at the bottom right of the dialog, highlighted with a red box.

Search for **Document Management Service, Integration Option**, select the **standard** plan, then click **Add 1 Service Plan**:

This screenshot shows a modal dialog titled 'Subaccount UserAssistance - Entitlements'. On the left, there's a list of entitlements with a search bar above it. One entitlement, 'Document Management Service, Integration Option', is highlighted with a red box. On the right, there's a detailed view for this entitlement under 'Service Details: Document Management Service, Integration Option'. It shows an 'Available Plans' section with a 'standard' plan selected (indicated by a checked checkbox). At the bottom right of the dialog, a blue 'Add 1 Service Plan' button is highlighted with a red box.

Click [Save](#).

For more information about SAP Document Management Service and the setup, see [SAP Document Management Service](#).

Procedure Overview

Once subscribed to SAP Build Process Automation with active entitlements for SAP Document Management Service, you can configure the service by following these three steps:

- [Create Service Instance and Service Key for SAP Document Management Service](#)
- [Create Repository in SAP Document Management Service Using API Calls](#)
- [Configure an Attachment Destination in SAP BTP Subaccount](#)

[Video Overview](#)



[Open this video in a new window](#)

Create Service Instance and Service Key for SAP Document Management Service

To configure process attachments for SAP Build Process Automation, you need to create both a service instance and service key for SAP Document Management Service within the same SAP BTP subaccount.

Prerequisites

To create a service instance and service key, you need active **Document Management Service, Integration Option** entitlements in your SAP BTP subaccount. See [Configure SAP Document Management Service for Process Attachments](#)

Context

Creating a service key for an SAP Document Management Service instance gives you access to the following mandatory fields:

- `{{uaa}}` = uaa.url
- **Access token URL - uaa.url/oauth/token** - This is the same as your uaa.url but with the suffix `/oauth/token`
- **ClientID** = uaa clientid
- **ClientSecret** = uaa clientsecret
- `{{cmis}}` = endpoints.ecmService

These service key details can then be used to create a repository in the service using API calls. See [Create Repository in SAP Document Management Service Using API Calls](#)

Procedure

1. From your SAP BTP subaccount, click [Service Marketplace](#).

This is custom documentation. For more information, please visit the [SAP Help Portal](#)

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2. Search for and select Document Management Service, Integration option.

The screenshot shows the SAP BTP Cockpit interface. On the left, there is a sidebar with various service categories like Overview, Services, Service Marketplace, Instances and Subscriptions, Cloud Foundry, HTML5 Applications, Connectivity, Destinations, Cloud Connectors, Security, Entitlements, and Usage Analytics. The 'Service Marketplace' item is highlighted with a red box. In the main content area, the title is 'Subaccount: UserAssistance - Service Marketplace' and it says 'Filtered: 1 of 23'. A search bar at the top has 'Document' typed into it and is also highlighted with a red box. Below the search bar, there is a card for 'Extension Suite - Digital Experience' which contains a section for 'Document Management Service, Integr...'. This section is also highlighted with a red box. The card describes it as providing API and UI based document management capabilities to business applications.

3. Click Create.

This screenshot shows the SAP BTP Cockpit after clicking 'Create' on the previous screen. The main content area now displays the details for the 'Document Management Service, Integration Option' with the name 'sdm'. It includes tabs for Overview, Service Plans, and Additional Links. The Overview tab shows a brief description: 'Leverage the APIs of SAP Document Management service and build your own document management layer to enable document management capabilities for your business applications. You can also embed the easy-to-use, UI5-based, reusable UI component of Document Management into your application for document management scenarios.' Below this, there are links for Documentation, Support, and Discovery Center. The Service Plans section shows a table with one row: Plan 'standard', Description 'Standard Document Management Capabilities.', Environments 'Cloud Foundry, Kyma, Kubernetes, Other', and Active '1 instance'. A 'Create' button is visible on the right side of the page, also highlighted with a red box.

4. Select Runtime Environment - Cloud Foundry and add an Instance Name.

5. Click Create.

This screenshot shows the 'New Instance or Subscription' wizard with three steps: 1. Basic Info, 2. Parameters, and 3. Review. Step 1 is active. It asks for basic info for the instance or subscription. The 'Service:' dropdown is set to 'Document Management Service, Integration Option'. The 'Plan:' dropdown is set to 'standard'. The 'Runtime Environment:' dropdown is set to 'Cloud Foundry' and is highlighted with a red box. The 'Space:' dropdown is set to 'UserAssistance'. The 'Instance Name:' input field contains 'DMS_Instance' and is also highlighted with a red box. At the bottom, there are 'Next >', 'Create' (which is highlighted with a red box), and 'Cancel' buttons.

The service instance is created and displayed in your SAP BTP subaccount.

6. From the Instances and Subscriptions area of your subaccount, click ... for your newly created service instance and select Create Service Key.

Instances (2)

Service instances created in: [Cloud Foundry](#) | [Kyma/Kubernetes](#) | [Other environments](#)

Instance	Service	Plan	Runtime Environ...	Scope ⓘ	Credentials	Status	...
DMS_Instance	Document Manage...	standard	Cloud Foundry	UserAssistance		Created	
SAP Process ...	SAP Process Autom...	standard	Cloud Foundry	UserAssistance	1 key	Created	

Environments (1)

Environment instances created in this subaccount.

[Create Service Key](#)

7. Add a **Service Key Name** and click **Create**.

New Service Key

Service Key Name: *

Configure Binding Parameters: ⓘ

Upload a JSON file:

Or specify the parameters in JSON format:

```
1
```

[Create](#) [Cancel](#)

The service key is created and available to view in your SAP BTP subaccount.

8. Locate your newly created service key and click ... and then [View](#).

Service Keys (1)

Name	Status	...
DMS	Created	

Labels (0)

[View](#)

[Download](#)

[Delete](#)

9. Copy the following fields from the service key:

- `{{uaa}}` = uaa.url
- **Access token URL - uaa.url/oauth/token** - This is the same as your uaa.url but with the suffix `/oauth/token`
- **ClientID** = uaa clientid
- **ClientSecret** = uaa clientsecret
- `{{cmis}}` = endpoints.ecmservice

Credentials

uaa:	
clientid:	sb-1 SDM_DI_PROD-prod!b41064
clientsecret:	Z6lv 9IBI=
url:	https://usera...nd.com
identityzone:	users
identityzoneid:	d54eed49
tenantid:	d54eed49-91

[Copy JSON](#) [Download](#) [Close](#)

And for the endpoints.ecmService field:

Credentials

DMS	▼
Form JSON	
endpoints:	
ecmService:	
url:	https://a...
timeout:	900,000
migrationService:	
url:	https://adm.migration.sap.hana.ondemand.com

[Copy JSON](#) [Download](#) [Close](#)

Example service key:

The relevant attributes are uaa.clientid (client ID), uaa.clientsecret (client secret), and uaa.url (token service URL):

[Sample Code](#)

```
{
  "uri": "https://api-sdm-di.cfapps.<region>.hana.ondemand.com/",
  "endpoints": {
    "ecmService": {
      "url": "https://api-sdm-di.cfapps.<region>.hana.ondemand.com/",
      "timeout": 300000
    }
  },
  "sap.cloud.service": "com.sap.ecm.reuse",
  "saasregistryenabled": true,
  "html5-apps-repo": {
    "app_host_id": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxx"
  },
  "uaa": {
    "uaadomain": "authentication.sap.hana.ondemand.com",
    "tenantmode": "dedicated",
    "sburl": "https://internal-xsuaa.authentication.sap.<region>.ondemand.com",
    "uaaclientid": "sb-1 SDM_DI_PROD-prod!b41064",
    "uaaclientsecret": "Z6lv 9IBI="
  }
}
```

```

        "clientid": "client-id",
        "verificationkey": "...",
        "apiurl": "https://api.authentication.sap.<region>.ondemand.com",
        "xsappname": "...",
        "identityzone": "...",
        "identityzoneid": "...",
        "clientsecret": "client-secret",
        "tenantid": "...",
        "url": "https://<org>.authentication.<region>.hana.ondemand.com"
    }
}

```

10. [Create Repository in SAP Document Management Service Using API Calls](#)

Create Repository in SAP Document Management Service Using API Calls

With access to an SAP Document Management Service service key, you can now create a repository in the service instance using API calls (using Postman or a similar AP platform).

Prerequisites

To create a repository in your SAP Document Management Service service instance, you need the following:

- An SAP Document Management Service service instance and service key in the same SAP BTP subaccount as your SAP Build Process Automation subscription. See [Create Service Instance and Service Key for SAP Document Management Service](#)
- Access to an API platform such as Postman

Context

As a reminder, the following fields from your service key are needed:

- `{{uaa}}` = uaa.url
- `Access token URL - uaa.url/oauth/token` - This is the same as your uaa.url but with the suffix `/oauth/token`
- `ClientID` = uaa clientid
- `ClientSecret` = uaa clientsecret
- `{{cmis}}` = endpoints.ecmservice

Procedure

1. Execute a POST call to get an access token to the UAA service.

Service	HTTP	Type	URL	Body	Parameters	Response
Get Access Token	POST	BasicAuth	<code>{{uaa}}/oauth/token?grant_type=client_credentials</code>		Basic Auth <ul style="list-style-type: none"> o username: <code>ClientID</code> o password: <code>ClientSecret</code> 	Get the token <pre>{ "access_token": "XYZ" }</pre>

2. Execute a POST call to create a repository in the SAP Document Management Service service instance on SAP BTP.

Service	HTTP	Type	URL	Body	Parameters	Response
Create a repository	POST	Bearer Token	<code>{{cmis}}/rest/v2/repositories</code>	<pre>{ "repository": { "displayName": "BPI Forms Documents", "description": "Development of Attachments", "repositoryType": "internal", "isVersionEnabled": "true", "isVirusScanEnabled": "true", "skipVirusScanForLargeFile": "false", "hashAlgorithms": "None" } }</pre>	Header Content-Type = application/json authorization= Bearer {access token}	Repository created.

3. Once the POST call has executed, copy the repository ID (to be used when creating an attachment destination).

```

1- [
2   {
3     "cmisRepositoryId": "8f9f24700019e9c7e2cce136",
4     "createdTime": "2022-09-12T06:05:33.751Z",
5     "description": "Development of Attachments",
6     "id": "26496c46-f83e-409f-ae7e-befe16bd605e",
7     "lastUpdatedTime": "2022-09-12T06:05:33.751Z",
8     "name": "My DMS Repo",
9     "repositoryCategory": "Instant",
10    "repositoryParams": [
11      {
12        "paramName": "isVersionEnabled",
13        "paramValue": true
14      },
15      {
16        "paramName": "isVirusScanEnabled",
17        "paramValue": true
18      },
19      {
20        "paramName": "hashAlgorithms",
21        "paramValue": "None"
22      },
23      {
24        "paramName": "skipVirusScanForLargeFile",
25        "paramValue": false
26      }
27    ]
28  }
29]

```

4. Optional: If the repositories already exist, then execute a GET call to list them. Once executed, copy the repository ID (to be used when creating an attachment destination).

Service	HTTP	Type	URL	Body	Parameters	Response
List of repositories	GET	Bearer Token	{{cmis}}/rest/v2/repositories			Existing repositories listed

5. [Configure an Attachment Destination in SAP BTP Subaccount](#)

Configure an Attachment Destination in SAP BTP Subaccount

After creating an SAP Document Management Service repository, you can now configure an attachment destination in your SAP BTP subaccount. You also need to ensure that your users have been assigned the correct roles for this service.

Prerequisites

To create an attachment destination in your SAP BTP, you need the following:

- An SAP Document Management Service repository in the same SAP BTP subaccount as your SAP Build Process Automation subaccount.
- Access to the [Repository ID](#), displayed when executing the HTTP calls as part of [Create Repository in SAP Document Management Service Using API Calls](#)

Procedure

1. Navigate to your SAP BTP subaccount.
2. Choose **Connectivity > Destinations** and then **New Destination**.

The screenshot shows the SAP BTP Cockpit interface. On the left, there's a sidebar with links for Overview, Services, Cloud Foundry, HTML5 Applications, Connectivity (with Destinations highlighted by a red box), Cloud Connectors, and Security. The main area is titled 'Subaccount: UserAssistance - Destinations' and shows 'All: 0'. Below this, there's a table with columns for Type, Name, and Basic Properties. At the top of the table, there are buttons for 'New Destination' (highlighted by a red box), Import Destination, Certificates, and Download Trust. The 'New Destination' button is the primary focus of the screenshot.

3. Choose **Blank Template**, and enter the following details:

Attribute	Value
Name	sap_process_automation_document_store This is the required name. Please don't use another one.
Type	HTTP

Attribute	Value
URL	{cmis}/browser/<repository-id> i Note Make sure that the URL points to a repository without /root/. Otherwise, you'll run into a 405 error.
Proxy Type	Internet
Authentication	OAuth2UserTokenExchange For more information, see OAuth User Token Exchange Authentication .
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa-url>/oauth/token
Token Service URL Type	Dedicated

The screenshot shows the configuration of a SAP BTP service named 'sap_process_automation_document_store'. The fields filled in are:

- Name: sap_process_automation_document_store
- Type: HTTP
- Description: (empty)
- URL: https://api-sdm-di.cfapps.sap.hana.ondemand.com/browser/eeabf313-242c-41... (with an ellipsis at the end)
- Proxy Type: Internet
- Authentication: OAuth2UserTokenExchange
- Use mTLS for token retrieval: (unchecked checkbox)
- Client ID: (redacted)
- Client Secret: (redacted)
- Token Service URL Type: Dedicated (selected radio button)
- Token Service URL: (redacted)

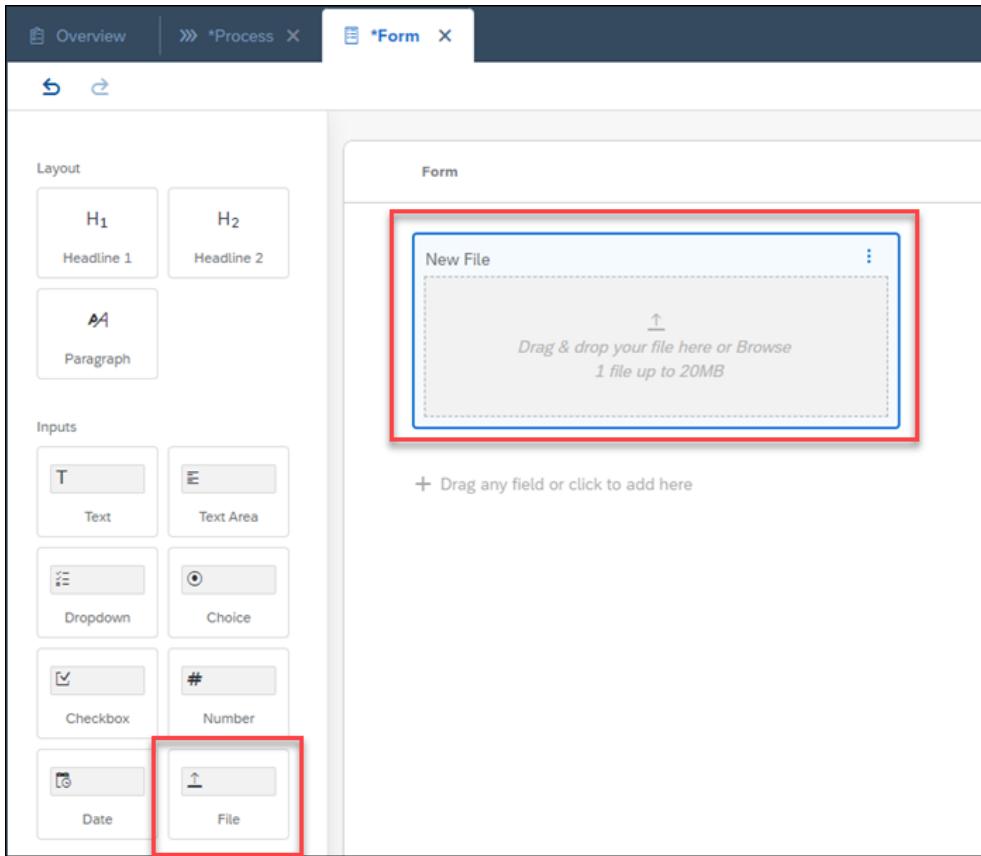
4. Choose **Save**.

The attachment destination is now available in your SAP BTP subaccount.

5. From your SAP BTP subaccount, click **Role Collections** and ensure that the following DMS roles have been added to your user:

Role Name	Role Template	Application Identifier
SDM_Admin	SDM_Admin	sdm-di-SDM_DI_PROD-prod!b41064
SDM_BusinessAdmin	SDM_BusinessAdmin	sdm-di-SDM_DI_PROD-prod!b41064
SDM_MigrationAdmin	SDM_MigrationAdmin	sdm-di-SDM_DI_PROD-prod!b41064
SDM_User	SDM_User	sdm-di-SDM_DI_PROD-prod!b41064

6. Finally, check that the service has been configured correctly by creating or opening an existing form and looking for the **File** input.



Use SAP Build Process Automation and SAP Task Center Together

To use SAP Task Center together with your SAP Build Process Automation subaccount, you need to configure a custom Identity Authentication service, which supports global user IDs.

Context

SAP Task Center requires recipients of forms to be defined as global user IDs (as individual users or as members of groups).

The default identity provider does not support global user IDs. To use these IDs, you configure a trust relationship with a custom identity provider based on SAP Cloud Identity Services - Identity Authentication as the identity provider. This is the identity provider that you're also using for managing access to the SAP Task Center application.

For information on restrictions, see [Quotas, Restrictions, and Limits](#), specifically [Restrictions for SAP Task Center Integration](#).

Depending on whether your SAP Build Process Automation and SAP Task Center reside on the same subaccount or on different ones, the configuration procedure differs slightly.

Related Information

[Use the Same Subaccount](#)

[Use Different Subaccounts](#)

Use the Same Subaccount

You have one subaccount in which SAP Build Process Automation and SAP Task Center are set up.

Prerequisites

- You've completed the booster for SAP Build Process Automation. See [Subscribe to SAP Build Process Automation \(Standard Plan\)](#).
- You've created an SAP Build Process Automation instance in the Cloud Foundry environment of SAP Business Technology Platform (BTP) with a service key. You can access the values of the endpoint API URL and the client ID and client secret of the service key.

For more information, see [Create a Service Instance](#), [Creating Service Keys in Cloud Foundry](#), and [Determine Service Configuration Parameters](#).

- You've access to your Identity Authentication service.
- You've configured your SAP Build Work Zone and [Use My Inbox](#), as described in [Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site](#).

Make also sure, that the created site is set as the default site.

Context

To set up the integration of the two services, you execute the following tasks.

Establish Trust with Identity Authentication

Procedure

1. In the SAP BTP cockpit, choose **Security** **Trust Configuration**.
2. Choose **Establish Trust**. See [Tenant OpenID Connect Configurations](#).
 - a. Choose a tenant.
 - b. Choose a domain.
 - c. Configure the parameters.
 - d. Save your changes.
 - e. Make sure that the trust configuration is available for user logon.

Alternatively, you can use SAML 2.0, see [Tenant SAML 2.0 Configuration](#).

3. To assign users permissions so they can perform actions in task, choose one of the following options.
 - o Assign role collections to users and user groups, see [Assigning Role Collections to Users or User Groups](#).
 - o Assign role collections to business users, see [Mapping Role Collections in the Subaccount](#).

i Note

Make sure that the user name value matches the subject name identifier configured in the identity provider. For example, if the subject name identifier is `email`, then the user name must be the user's email address, see also [Create Users](#) and [Configure the Subject Name Identifier Sent to the Application](#).

For information about the roles that are necessary for the different operations in SAP Build Process Automation, see [Authorizations](#).

Adapt Subaccount to Subject Name Identifier

Procedure

1. Access the Identity Authentication service, and choose **Applications & Resources** **Applications**.
2. Search for an application named `XSUAA_<subaccount_name>`.
3. In the new application, access **Protocol** and ensure that the protocol is set to **OpenID Connect**.
4. In the new application, access **Subject Name Identifier**.
 - a. Under **Basic Configuration**, select one of the supported values for the basic attribute: **Global User ID**, **User ID**, **Email**, **Display Name** or **Login Name**.

Supported Values	
Parameter	Value
User ID	<code>userId</code>
E-Mail	<code>email</code>
Display Name	<code>displayName</code>
Login Name	<code>loginName</code>

For more information, see [Configure the Subject Name Identifier Sent to the Application](#).

- b. Save your changes.
5. In the new application, access **Assertion Attributes**.
 - a. Choose **Add**, and select the **Groups** user attribute.
 - b. For the **Groups** entry, change the **Assertion Attribute** entry to use an uppercase G.
 - c. Save your changes.

Assign Approval or Form Recipients to Users

As recipients of approvals or forms, SAP Build Process Automation supports global user IDs, user IDs, login names, and email addresses. The default setting is user UUIDs.

Prerequisites

- If your instances of SAP Build Process Automation and SAP Task Center are in different subaccounts, you must create a destination named `Identity_Authentication_Connectivity_IDS` manually in your SAP Build Process Automation subaccount. See [Identity Directory Connectivity](#).
- The system administrator used for the `Identity_Authentication_Connectivity_IDS` destination must have the authorization to read and export users (*Read Users*). See [Add System as Administrator \(step 5\)](#).

Context

i Note

User groups that can be configured using Cloud Identity Services, see [Groups](#).

Procedure

1. In the SAP Build Process Automation subaccount, access the `Identity_Authentication_Connectivity_IDS` destination.
2. Add the additional `wfs.subjectNameIdentifier` property as described in [Create HTTP Destinations](#).

i Note

If you're using the global user ID as the Subject Name Identifier, this property is not needed.

3. Specify the subject name identifier configured in your Identity Authentication as the value.

Supported Values	
Parameter	Value
User ID	<code>userId</code>
E-Mail	<code>email</code>
Display Name	<code>displayName</code>
Login Name	<code>loginName</code>

For more information, see [Configure the Subject Name Identifier Sent to the Application](#).

Use Different Subaccounts

You have one subaccount in which SAP Build Process Automation is set up and another subaccount where SAP Task Center is set up.

Prerequisites

- You've completed the booster for SAP Build Process Automation. See [Subscribe to SAP Build Process Automation \(Standard Plan\)](#).
- You've created an SAP Build Process Automation instance in the Cloud Foundry environment of SAP Business Technology Platform (BTP) with a service key. You can access the values of the endpoint API URL and the client ID and client secret of the service key.

For more information, see [Configure SAP Build Process Automation Destinations Create a Service Instance](#), [Creating Service Keys in Cloud Foundry](#), and [Determine Service Configuration Parameters](#).

- You've access to your Identity Authentication service.
- You've configured your SAP Build Work Zone and My Inbox app, as described in [Configure SAP Build Work Zone Content, Assign Permissions, and Create and Access Site](#) and [Use My Inbox](#).

i Note

Make sure, that the created site is set as the default site.

Add Fully-Qualified Domain Name

Procedure

1. On the SAP Build Process Automation subaccount, add the fully-qualified domain name of the SAP Task Center subaccount as a trusted domain.
 - a. Make sure to copy the fully-qualified domain name of the SAP Task Center subaccount from the SAP Build Work Zone home page where the Task Center tile is located and not from the [Site Manager - Site Directory](#) page.
 - b. Choose **Security > Settings**, and paste the name in the `Domain` field on the [Trusted Domains](#) tab.
 2. On the SAP Build Process Automation subaccount, adjust the security headers.
 - a. Open the developer tools when opening a task, and search for the error message
`Refuse to frame ... because an ancestor violates the following Content Security Policy directive: 'frame-ancestors 'self'`
`...`
`...`
 - b. Copy the value `frame-ancestors 'self'`
 - c. In SAP Build Work Zone, choose **Settings > Security Headers**.
 - d. Select the `content-security-policy` security header.
 - e. Add the `frame-ancestors` from the error message, and after that the fully-qualified domain name of SAP Task Center subaccount.
- See [Using Security Headers](#).
3. In your custom identity provider, choose **Applications & Resources > Tenant Settings**.
 - a. Add the fully-qualified domain name of the SAP Task Center subaccount as trusted domain.
- See [Configure Trusted Domains for SAP Authorization and Trust Management Service \[Feature Set B\]](#). If you're using a custom identity provider, follow the instructions of that provider.

Establish Trust with Identity Authentication

Context

i Note

For the trust configuration, particularly when using an existing one, please note that only the SAML protocol is supported.

OpenID Connect is not supported.

Although the SAP Task Center basically supports OpenID Connect, for the user propagation between Cloud Foundry Applications, SAML must also be used in the subaccount where SAP Task Center is located.

Procedure

1. In the SAP BTP cockpit, choose **Security > Trust Configuration**.
2. Choose **New Trust Configuration**.
 - a. To download the metadata file from your Identity Authentication, see steps 1–4 of [Tenant SAML 2.0 Configuration](#).
 - b. Enter any name.
 - c. Save your changes.
3. To download the metadata, choose **SAML Metadata**.

For more information, see [Establish Trust with Any SAML 2.0 Identity Provider in a Subaccount](#).

Adapt Subaccount to Subject Name Identifier

Procedure

1. Access the Identity Authentication service, and choose **Applications & Resources > Applications**.
2. Create an application by choosing **Create**.
 - a. Enter any display name.
 - b. Select the **SAP BTP Solution** type.
 - c. Save your changes.
3. In the new application, access **Protocol** and ensure that the protocol is set to SAML.
4. In the new application, access **SAML 2.0 Configuration**.
 - a. Upload the SAML metadata file for Identity Authentication (that you downloaded in the last step of the procedure above) using **Browse** next to the **Metadata File** entry field.
 - b. Save your changes.
5. In the new application, access **Subject Name Identifier**.
 - a. Under **Basic Configuration**, select one of the supported values for the basic attribute: **Global User ID**, **User ID**, **Email**, **Display Name**, or **Login Name**.

Supported Values	
Parameter	Value
User ID	userId
E-Mail	email
Display Name	displayName
Login Name	loginName

For more information, see [Configure the Subject Name Identifier Sent to the Application](#).

- b. Save your changes.
6. In the new application, access **Assertion Attributes**.
 - a. Choose **Add**, and select the **Groups** user attribute.
 - b. For the **Groups** entry, change the **Assertion Attribute** entry to use an uppercase G.
 - c. Save your changes.

Results

You established the trust relationship with the Identity Authentication and are able to use the SAP Task Center showing the tasks of a process. If your instances of SAP Build Process Automation and SAP Task Center are in different subaccounts, you must forward the identity of the user from one subaccount to the other. See the next section [Set up Principal Propagation Between Subaccounts](#).

The next step for the integration is [Connect SAP Build Process Automation and SAP Task Center](#).

Related Information

This is custom documentation. For more information, please visit the [SAP Help Portal](#)

[Global User ID in Integration Scenarios](#)[Usage of User UUID](#)[Guidelines for Specifying Recipient Users](#)

Set Up Principal Propagation Between Subaccounts

If your instances of SAP Build Process Automation and SAP Task Center are in different subaccounts, you must forward the identity of the user from the SAP Task Center subaccount to the SAP Build Process Automation subaccount. Then, you have access to the MyInbox view of the task that's shown in the SAP Task Center UI.

Procedure

1. Execute the *Assemble IdP Metadata for Subaccount 1 and Establish Trust between Subaccount 1 and Subaccount 2* steps of [User Propagation between Cloud Foundry Applications](#), where subaccount 1 is for SAP Task Center and subaccount 2 is for SAP Build Process Automation.

2. To assign users permissions so they can perform actions in task, choose one of the following options.

- o Assign role collections to users and user groups, see [Assigning Role Collections to Users or User Groups](#).

i Note

Make sure that the user name value matches the subject name identifier configured in the identity provider. For example, if the subject name identifier is email, then the user name must be the user's email address, see also [Create Users](#) and [Configure the Subject Name Identifier Sent to the Application](#).

- o Assign role collections to business users, see [Mapping Role Collections in the Subaccount](#).

i Note

Make sure that you also map the role collections to the trust configuration from step one.

For information about the roles that are necessary for the different operations in SAP Build Process Automation, see [Authorizations](#).

Assign Approval or Form Recipients to Users

As recipients of approvals or forms, SAP Build Process Automation supports global user IDs, user IDs, login names, and email addresses. The default setting is user UUIDs.

Prerequisites

- If your instances of SAP Build Process Automation and SAP Task Center are in different subaccounts, you must create a destination named `Identity_Authentication_Connectivity_IDS` manually in your SAP Build Process Automation subaccount. See [Identity Directory Connectivity](#).
- The system administrator used for the `Identity_Authentication_Connectivity_IDS` destination must have the authorization to read and export users (*Read Users*). See [Add System as Administrator \(step 5\)](#).

Procedure

1. In the SAP Build Process Automation subaccount, access the `Identity_Authentication_Connectivity_IDS` destination.

2. Add the additional `wf.s.subjectNameIdentifier` property as described in [Create HTTP Destinations](#).

i Note

If you're using the global user ID as the Subject Name Identifier, this property is not needed.

3. Specify the subject name identifier configured in your Identity Authentication as the value.

Supported Values

Parameter	Value
User ID	<code>userId</code>
E-Mail	<code>email</code>
Display Name	<code>displayName</code>
Login Name	<code>loginName</code>

For more information, see [Configure the Subject Name Identifier Sent to the Application](#).

Configure Data Sources for Form Input Fields

To configure data sources for form input fields, you need to upload and publish an action project to your SAP Build Process Automation library. This action project must include a `GET` request with an array.

Prerequisites

To upload an action project to your SAP Build Process Automation library, see:

i Note

- Only JSON files are supported and the file size is limited to 5 MB.
- Open API specification files with versions 2.x.x and 3.x.x of JSON type are supported.
- Must include a **GET** request with an array.
- Must not have mandatory input parameters defined.

Limitation: The authorization of the end user is not checked when making the action call. This means that the form end user can technically access the backend to view application data without the necessary authorization.

Context

Configuring data sources for form input fields allows process participants to select from information shared from external systems. These fields can then be mapped across process steps, ensuring that process data is consistent. By selecting from data sources, the need to manually add fields and information is removed.

As an example, a dropdown field in the below form is being configured to allow process participants to select from customer data shared from S/4HANA. In this case, they can select the customer's country, ID, address, and the company name.

New Dropdown

From data set

Data Source *

Get entities from Custom...

Destination Variable *

Data_S4HANA

Available Data *

ID	CompanyName	S...
<input type="checkbox"/> Fax string		
<input type="checkbox"/> City string		
<input type="checkbox"/> Phone string		
<input type="checkbox"/> Region string		
<input checked="" type="checkbox"/> Address string		
<input checked="" type="checkbox"/> Country string		
<input checked="" type="checkbox"/> CustomerID string		
<input type="checkbox"/> PostalCode string		
<input checked="" type="checkbox"/> CompanyName string		

Procedure

1. From the lobby, click **Create - Build an Automated Process** and then select **Actions**.
2. Enter a project name, select the JSON file, and then click **Create**.

Create an Action

Final Step!
Give your project a name.

Project Name: *
Data Source for Process

Short Description:
Enter an optional description here...

Upload API Specifications:
Northwind-V3.openapi3 (1).json Only Open API spec of json type supported.

The action project is now available in your lobby.

3. Open the action project and select the **GET** requests you want to use. You can select additional requests here (such as **DELETE** and **POST**), however these can't be used as data sources for forms currently.

4. Click **Add**.

Add Actions From Data Source for Process

Selected: 2 / 20

	Method	Endpoint	Description
<input type="checkbox"/>	DELETE	/Orders({OrderId})	Delete entity from Orders
<input type="checkbox"/>	GET	/Product_Sales_for_1997	Get entities from Product_Sales_for_1997
<input type="checkbox"/>	DELETE	/Product_Sales_for_1997(CategoryName='{CategoryName}',ProductName='{ProductName}')	Delete entity from Product_Sales_for_1997
<input type="checkbox"/>	POST	/Regions	Add new entity to Regions
<input checked="" type="checkbox"/>	GET	/Current_Product_Lists	Get entities from Current_Product_Lists
<input checked="" type="checkbox"/>	GET	/Sales_by_Categories	Get entities from Sales_by_Categories
<input type="checkbox"/>	GET	/Current_Product_Lists(ProductID={ProductId},ProductName={ProductName})	Get entity from Current_Product_Lists by key
<input type="checkbox"/>	PATCH	/Current_Product_Lists(ProductID={ProductId},ProductName={ProductName})	Update entity in Current_Product_Lists
<input type="checkbox"/>	DELETE	/Sales_by_Categories(CategoryID={CategoryID},CategoryName='{CategoryName}',ProductName='{ProductName}')	Delete entity from Sales_by_Categories

5. For each **GET** request you want to use for data sources, click **Output** and then add the tag **Main Output Array** to the array type.

If there are several keys of type **array**, make sure to add the tag to the root level entry.

Get entities from Current_Product_Lists

GET /Current_Product_Lists

Input **Output** Test

Output 200

Header

Key	Type	Label	API Format	Tags
@odata.count	integer	@odata.count		
value	array	value		
ProductName	string	ProductName	Select	
ProductID	integer	ProductID		

Main Output Array X

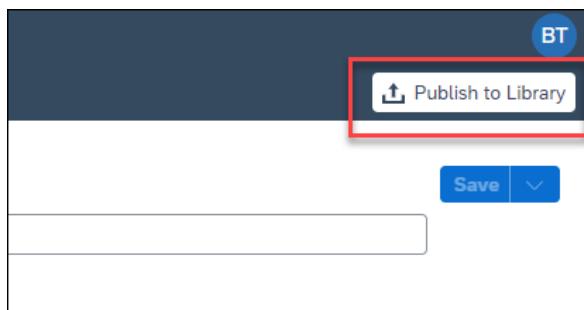
Main Output Array

6. Click **Save**.

7. Click **Release**, add a release note, and then click **Release**.



8. Click **Publish to Library**.



The action project has been published to your library and can now be used as a data source when creating a form.

For more information about adding data sources to a form, see [Add and Use Data Sources in Form Input Fields](#)

Develop with SAP Build Process Automation

When developing with SAP Build Process Automation, the following topics are available:

Related Information

[Using SAP Build Process Automation APIs](#)

[Determine Service Configuration Parameters](#)

[Configure SAP Build Process Automation Destinations](#)

Using SAP Build Process Automation APIs

SAP Build Process Automation exposes two kinds of API to address different use cases.

The OData-based APIs expose user-task related data implementing a subset of the Task Consumption Model (TCM), see SAP Note [2304317](#). Their primary use case is to build a personal inbox. The REST-based APIs allow you to execute & monitor automations, manage visibility scenarios and events, manage processes, and manage workflows. Depending on your role, you can do the following:

- Start a new automation.
- List all available API triggers for automation.
- Invoke a decision.
- List user task instances and inspect details of a user task instance and its context.
- List workflow instances and inspect details of a workflow instance, its context, and its execution log.
- Send messages to workflows and processes.
- Push events to visibility scenarios.
- Retrieve visibility scenario phase, path, step details.
- Execute various lifecycle and administrative operations on the resources involved in SAP Build Process Automation.

Access the API Documentation

[SAP Business Accelerator Hub](#)

Authentication and Authorization

Clients must authenticate to use the SAP Build Process Automation APIs. The following authentication types are supported:

- OAuth2 (authorization code, and SAML 2.0 Bearer Assertion Flow for OAuth 2.0)

Certain authentication mechanisms are managed transparently by the application router for SAP BTP, Cloud Foundry environment applications that are bound to SAP Build Process Automation.

For example, the application router provides user-centric authentication mechanisms. For this purpose, it manages the current user's authorization tokens for the back-end services in the user session. When there's no user session, the user is redirected to the UAA's logon form.

- OAuth2 (Client Credential Grant for OAuth 2.0)

For technical authentication, OAuth2 client credentials grant is supported.

i Note

For all OAuth2-based process automation APIs, you don't need to specify a CSRF token. This is because the OAuth2 flows already have CSRF protection when used without intermediaries. However, when API requests are routed through an application router, you must apply CSRF token mechanisms. Otherwise, the CSRF protection is lost. Therefore, do not turn off the `csrfProtection` setting of routes in the application router that use `xsuaa` as `authenticationType`.

Rate Limits

For information about rate limits, see [Quotas, Restrictions, and Limits](#).

Determine Service Configuration Parameters

In SAP BTP, you often require basic configuration parameters of SAP Build Process Automation to access APIs.

Prerequisites

You have the [Space Developer](#) permission in your subaccount.

Procedure

1. Navigate to the space in which you've created a service instance for which you want to view the service key. For more information, see [Navigate to Orgs and Spaces](#).
2. In the navigation area, choose [Services](#) [Instances](#).
3. Click the link for your service.
4. In the navigation area, choose [Instances](#), then select the service instance for which you want to view the key.
5. In the navigation area, choose [Service Keys](#).
6. To view the configuration parameters, choose one of the following options.
 - o If you work with a service key, you receive only the configuration parameters that are relevant for SAP Build Process Automation.
 - For more information, see [Create Service Keys Using the Cockpit](#) in the SAP BTP documentation.
 - See the table for details about the configuration parameters.
 - o If you work with a service binding, you find all the configuration parameters that are relevant for SAP Build Process Automation under the [Process Automation](#) top-level property.
 - For more information, see [Binding Service Instances to Applications](#) in the SAP BTP documentation.
 - In a running application, the same information is usually available from the `VCAP_SERVICES` environment variable. See the table for details about the configuration parameters.

Parameter Name	Description	Example
uaa.clientid	Client ID for OAuth2	Not available
uaa.clientsecret	Client secret for OAuth2	Not available
uaa.url	Authentication base URL for OAuth2 or SAML	<a href="https://<subdomain>.authentication.<region>.hana.ondemand.com">https://<subdomain>.authentication.<region>.hana.ondemand.com
endpoints.api	URL of SAP Process Automation	<a href="https://spa-api-gateway<region>.hana.ondemand.com">https://spa-api-gateway<region>.hana.ondemand.com

Configure SAP Build Process Automation Destinations

Before developing with SAP Build Process Automation or for configuring SAP Build Work Zone for use with SAP Build Process Automation, you must create an SAP BTP destination for your subaccount.

Prerequisites

You've created a service instance and service key for SAP Build Process Automation. Note down the service key credentials for configuring this destination. See [Create a Service Instance](#).

Procedure

1. Navigate to the SAP BTP subaccount that contains your active SAP Build Process Automation subscription.
2. Choose **Connectivity > Destinations** and then **Create Destination**.
3. Choose **Blank Template**, and enter the following details:

Field	Value
Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<"endpoints""api">
Client ID	<"uaa"."clientid">
Client Secret	<"uaa"."clientsecret">
Token Service URL	<"uaa"."url">/oauth/token

Then, copy over and add the following additional properties from the service key:

Field	Value
endpoints	endpoints (copy the whole JSON structure including '{' and '}')
html5-apps-repo	html5-apps-repo (copy the whole JSON structure including '{' and '}')
saasregistryenabled	saasregistryenabled copied from the service key
sap.cloud.service	sap.cloud.service copied from the service key
sap.cloud.service.alias	sap.cloud.service.alias copied from the service key

4. Save your changes.
5. To check the availability of the destination connection, choose **Check Connection**.

Related Information

[Determine Service Configuration Parameters](#)
[Creating Service Keys in Cloud Foundry](#)

Security

This security guide provides an overview of the security-relevant information that applies to SAP Build Process Automation.

Target Audience

The target audience for this guide includes:

- System administrator

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- Security consultants
- Technology consultants

Topics

[Multi-Tenancy](#)

[Authentication](#)

[Authorizations](#)

[Audit Logging](#)

[Data Protection and Privacy](#)

SAP Intelligent Robotic Process Automation

For SAP Intelligent Robotic Process Automation security considerations, see: [Security Guide](#)

SAP Workflow Management

For SAP Workflow Management security considerations, see the following:

[SAP Workflow Management Security Guide](#)

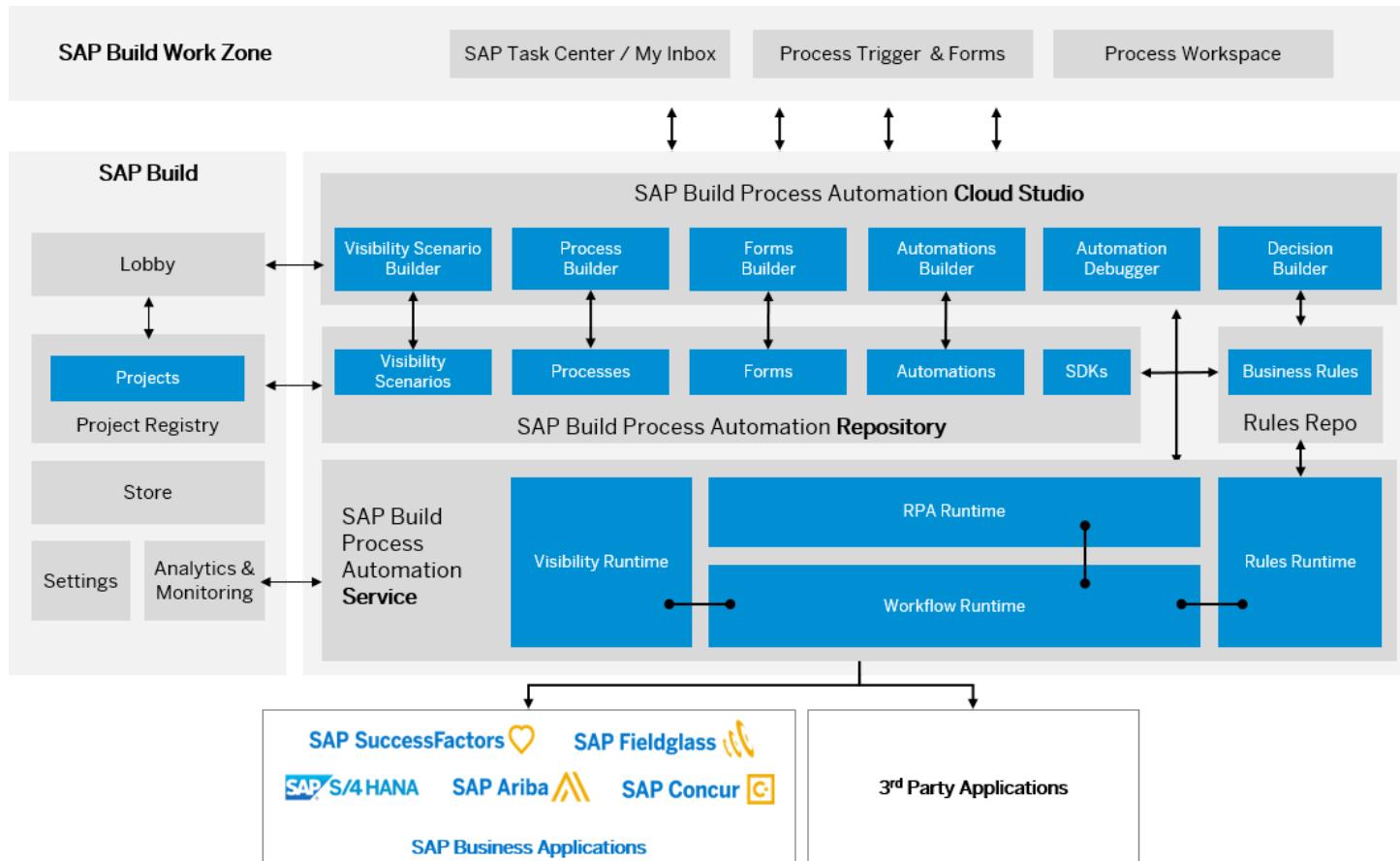
[Workflow Capabilities Security Guide](#)

[Business Rules Capabilities Security Guide](#)

[Process Visibility Capabilities Security Guide](#)

Architecture

The following architecture diagram gives an overview of all components of SAP Build Process Automation.



Multi-Tenancy

SAP Build Process Automation is a multi-tenant application, which means that all customers share the same applicative components, the same databases, and the same network.

To ensure that customers are sufficiently isolated from each other, strict rules are applied:

- In a relational database, customer data is isolated in distinct schemas
- In an object store, customer data is isolated in distinct paths or collections

The choice of a path or a schema is enforced by our development framework to avoid any risk of error.

Authentication

SAP Build Process Automation is integrated to SAP Business Technology Platform (BTP) Cloud Foundry environment.

SAP Build Process Automation doesn't implement any specific user management and authentication mechanism. It completely relies on the user management and authentication mechanisms provided with the [SAP Business Technology Platform](#).

Therefore, the security recommendations and guidelines for user administration and authentication as described in the [SAP Business Technology Platform Security Guide](#) also apply to SAP Build Process Automation.

i Note

SAP Build Process Automation never directly accesses the Identity Provider and therefore can't list any user information.

Authorizations

SAP Build Process Automation uses the following role collections:

Role Collection	Description
Global Account Administrator	Manages the SAP BTP global account for the organization. Can run the booster and create subaccounts.
Subaccount Administrator	Manages the SAP BTP subaccount including the user administration and the subscription to respective services.
ProcessAutomationAdmin	Manages the process configuration, permissions, and authorizations within SAP Build Process Automation.
ProcessAutomationDeveloper	Manages the creation, editing, and publishing of individual processes and automations within SAP Build Process Automation.
ProcessAutomationParticipant	Participates in active SAP Build Process Automation processes.

For more information about assigning users or user groups to role collections, see: [Assigning Role Collections to Users or User Groups](#)

Related Roles

The existing SAP Build Process Automation role collections also map to the existing roles provided by SAP Intelligent RPA and SAP Workflow Management.

SAP Build Process Automation Role Collection	SAP Intelligent RPA Roles	Workflow Management Roles	Process Visibility Roles	Workflow Roles	Registry
ProcessAutomationAdmin	<ul style="list-style-type: none"> • IRPAOfficer • IRPAPersonalDataAccess • Document_Information_Extraction_UI_Templates_Admin 		<ul style="list-style-type: none"> • PVAdmin • PVTenantOperator • PVEventSender 	<ul style="list-style-type: none"> • WorkflowAdmin • WorkflowTenantOperator 	<ul style="list-style-type: none"> • R
ProcessAutomationDeveloper	<ul style="list-style-type: none"> • IRPAProjectMember • Document_Information_Extraction_UI_Templates_Admin 	<ul style="list-style-type: none"> • WMDeveloper 	<ul style="list-style-type: none"> • PVDeveloper • PVOperator 	<ul style="list-style-type: none"> • WorkflowDeveloper • WorkflowBusinessExpert 	<ul style="list-style-type: none"> • R
ProcessAutomationParticipant	<ul style="list-style-type: none"> • IRPAParticipant • IRPAgentUser 			<ul style="list-style-type: none"> • WorkflowInitiator • WorkflowParticipant 	<ul style="list-style-type: none"> • R

For more information about related role templates, see the following:

- [SAP Intelligent RPA Roles](#)
- [SAP Workflow Management Roles](#)
- [Process Visibility Roles](#)
- [Business Rules Roles](#)
- [Workflow Roles](#)

Audit Logging

To prevent potential security issues, security-related events are logged using the SAP Audit Log service for SAP Business Technology Platform (SAP BTP), since SAP BTP is where the data collected by components is stored. The security events currently logged include the following events:

- Events relating to account data changes, which are logins, logouts, and password changes
- When a user attempts to access a service they're not authorized for, this is also logged as a security event for the subaccount
- Attempts to send data to the cloud tenant with an incorrect service key token or with no service key token

- When a managed system is registered or unregistered as a connection using the transaction provided in a managed system; this includes information about which user triggered the register or deregister event in the managed system, which system it relates to, and when the event took place
- Unsubscription events; the events logged include when data deletion starts, when deletion is completed, or when errors occur during deletion

You can access the audit logs for your subaccount by subscribing to the SAP Audit Log service. You can then view your logs in the application provided in the SAP BTP cockpit. For more information about using the Audit Log Viewer, see [Audit Log Viewer for the Cloud Foundry Environment](#) in the SAP BTP documentation.

Automation Capability

The automation capability of SAP Build Process Automation writes entries into the audit log of the consumer account for the following operations:

Customer Event List

Event Grouping	What events are logged	How to identify related log events
Configuration change	Configuration - (Agent) alert change	object type = "alert" attribute: • VALUE (stringified alert definition)
	Configuration - CALM configuration change	object type = Tenant attribute: • "CALM configuration": old = "", new = "created" "deleted" "updated" "register" "unregister"
	Configuration - Mail configuration change	object type = Tenant attribute: • "Mail configuration": old = "", new = "created" "deleted" "updated"
	Environments / Alerts - AlertHandler update	object type = AlertHandler attribute = see AlertHandler creation
	Environments / API Keys - API Key update	object type = ApiKey attributes: revoked
	Environments / Triggers - Delete Trigger	DELETED <NotifierType> <ID> from environment <ID>
	Environments / Triggers - Notifier update	object type = ApiNotifier CaiNotifier EmailNotifier • Attributes : see Notifier creation
	Packages - Package Version Change	object type = PackageVersion attributes: • status
	Packages - Package privilege change	object type = Package one attribute of the form "privilege_<PRIVILEGE>" per actual privilege. Only added / removed recipients are mentioned.
	Projects - Project privilege change	object type = Project one attribute of the form "privilege_<PRIVILEGE>" per actual privilege. Only added / removed recipients are mentioned.
Security Event	Administration - Remove user id	References to User <userId> have been removed
	Administration - Malware found	"Malware found in <location>"
	Agents - Agent deletion	deleted agent with token <TOKEN>
	Agents - Agent token creation	agent token with ID <ID> created
	Environments - Environment creation	CREATED environment <environment name> with id <ID>
	Environments - Environment deletion	DELETED environment <environment name> with id <ID>
	Environments - Environment update	UPDATED environment <environment name> with id <ID>
	Environments / Alerts - AlertHandler creation	CREATED AlertHandler <ID> with <Initial attribute values> in environment <ID> attribute = name, environmentUid, enabled, action, eventSource
	Environments / Alerts - AlertHandler deletion	DELETED AlertHandler <ID> from environment <ID>
	Environments / API Keys - Invalid API key	invalid API key for: <trigger run uid>, execution information: TriggerRun@<id>[uid=<uid>.triggerUid=<triggerUid>.triggerName=<triggerName>.invocationTime=<invocationTime>]
	Environments / API Keys - API Key creation	ApiKey <ID> with name <NAME> was created in environment <ID>

Event Grouping	What events are logged	How to identify related log events
	Environments / API Keys - API Key deletion	ApiKey <ID> with name <NAME> was deleted in environment <ID>
	Environments / Triggers - Missing trigger token	missing Trigger Token for: <trigger run uid>, execution information: TriggerRun@<id>[uid=<uid>,triggerUid=<triggerUid>,triggerName=<triggerName>,invocationTime=<invocationTime>]
	Environments / Triggers - Invalid trigger token	invalidTrigger Token for: <trigger run uid>, execution information: TriggerRun@<id>[uid=<uid>,triggerUid=<triggerUid>,triggerName=<triggerName>,invocationTime=<invocationTime>]
	Environments / Triggers - Trigger Token Generation	Trigger Token has been generated for ApiTrigger <ID> from environment <ID>
	Environments / Triggers - Trigger Token Migration	ApiTrigger <ID> from environment <ID> was migrated to an ApiTrigger with an Api Key.
	Environments / Triggers - Trigger Token revocation	Token was revoked for ApiTrigger <ID> from environment <ID>
	Environments / Triggers - Notifier Creation	<p>CREATED <NotifierType> <ID> with <Initial attribute values> in environment <ID></p> <p>where:</p> <ul style="list-style-type: none"> • NotifierType = ApiNotifier CaiNotifier EmailNotifier • Attributes : <ul style="list-style-type: none"> ◦ For all notifiers : name, activationEvent, notifierType, triggerUid, notifierStatus ◦ for ApiNotifier: payloadDefinition, url, headers, auth, httpMethod ◦ for CaiNotifier: conversationId, subAction ◦ for EmailNotifier: subject, message, recipients
	Environments / Triggers - Notifier deletion	DELETED <NotifierType> <ID> from environment <ID>
	Environments / Triggers - Create Trigger	<p>CREATED <TriggerType> <ID> with <Initial attribute values> in environment <ID></p> <p>where:</p> <ul style="list-style-type: none"> • TriggerType= ApiTrigger AttendedTrigger UnattendedTrigger • Attributes : <ul style="list-style-type: none"> ◦ For all trigger types: skillUid, name, packageVersionUid, enabled, type ◦ for ApiTrigger: priority, triggerToken, inputChanged ◦ for AttendedTrigger: endDate, startDate, scheduleConfig ◦ for UnattendedTrigger: priority, endDate, startDate, scheduleConfig
	Environments / Triggers - Update Trigger	<p>object type = ApiTrigger AttendedTrigger UnattendedTrigger</p> <ul style="list-style-type: none"> • Attributes : see Trigger creation
	Environments / API Keys - Missing API Key	missing API Key for: <trigger run uid>, execution information: TriggerRun@<id>[uid=<uid>,triggerUid=<triggerUid>,triggerName=<triggerName>,invocationTime=<invocationTime>]
	Monitoring - Access to business data	Job details read for id: <job id>
	Packages - Package Version creation	<ul style="list-style-type: none"> • For packages built from the studio: <ul style="list-style-type: none"> ◦ CREATED PackageVersion <ID> with name <NAME>, version <VERSION> from Project <ID> • For packages retrieved from the store: <ul style="list-style-type: none"> ◦ CREATED PackageVersion <ID> with name <NAME>, version <VERSION> from the store • For packages uploaded via a zip file: <ul style="list-style-type: none"> ◦ "CREATED PackageVersion <UID> with name <Name>, version <VERSION> from an archive with checksum <CHECKSUM>"

Event Grouping	What events are logged	How to identify related log events
	Packages - Package export	EXPORTED PackageVersion <ID> with name <NAME>, version <VERSION> to an archive with checksum <CHECKSUM>
	Packages - Package publication to store	PackageVersion <UID> published to store
	Projects - Project creation	CREATED Project <ID> with name <NAME>
	Projects - Import Desktop Package in Project	CREATED DesktopPackage <id> with name <NAME>, version <VERSION>, KeyNames <KeyNames>, KeyContent <KeyContent>, KeyProps <KeyProps> in Project <id> <i>KeyNames, KeyContent, KeyProps come from the key.xml file</i>

SAP Tenant List

Event grouping	What events are logged	How to identify related log events
Configuration change	Store - Submission change (approval, rejection)	object type = Submission attribute = status
	Store - Change artifact availability	object type = Artifact Artifact variant Artifact version attribute = isAvailable
	Store - LifecycleRequest change	object type = LifecycleRequest attribute = status (pending, approved, rejected)
	System - Tenant update	object type = Tenant attributes = AsymmetricKeyId, SymmetricKeyId, pricingMode, name, quotaPlan
	System - Set tenant quota plan	object type = Tenant attribute = quotaPlan
Security event	System - Dead letter queue access (via query or id)	rabbitDlqMessages with data <query> were read / deleted rabbitDlqMessages with id was <id> read / deleted
	System - Tenant deletion	Deletion of data for tenant <ID> started Deletion of data for tenant <ID> completed Deletion of data for tenant <ID> failed

Business Rules Capability

The business rules capability of SAP Build Process Automation writes entries into the audit log of the consumer account for the following operations:

Security events written in audit logs

Event grouping	What events are logged	How to identify related log events
Security events ("CALM configuration": old = "", new = "created" "deleted" "updated" "register" "unregister"SecurityEventAuditMessage)	Rule service deployment <ul style="list-style-type: none"> Rule service deployment triggered Rule service deployment started Rule service deployment completed Rule service deployment failed Export rule <ul style="list-style-type: none"> About to export rule Rule export completed Rule export failed Project deletion <ul style="list-style-type: none"> Project deletion triggered Project deletion started Project deletion completed Project deletion failed 	about-to-deploy - Job for deploying the version <version> of rule service <rule service ID> into the managed system <system ID> in tenant <tenant ID> has been started. deploy-done - Job for deploying the version <version> of rule service <rule service ID> into the managed system <system ID> in tenant <tenant ID> has been completed. deploy-failed - Job for deploying the version <version> of rule service <rule service ID> into the managed system <system ID> in tenant <tenant ID> has been failed. about-to-read - User <user ID> is about to export version <version> of rule <rule ID> in tenant <tenant ID>. read-done - User <user ID> finished exporting version <version> of rule <rule ID> of tenant <tenant ID>. read-failed - Export of version <version> of rule <rule ID> of tenant <tenant ID> for user <user ID> failed. delete-scheduled - User <user ID> triggered the delete of the version <version ID> of project <project ID> in tenant <tenant ID>. about-to-delete - Job for deleting of the version <version ID> of project <project ID> in tenant <tenant ID> has been started. delete-done - Job for deleting of the version <version ID> of project <project ID> of tenant <tenant ID> has been completed. delete-failed - Job for deleting of the version <version ID> of project <project ID> of tenant <tenant ID> has been failed.

Event grouping	What events are logged	How to identify related log events
	Data object deletion <ul style="list-style-type: none"> • Data object deletion triggered • Data object deletion started • Data object deletion completed • Data object deletion failed 	delete-scheduled - User <user ID> triggered the delete of the version <version ID> of data object <data object ID> in tenant <tenant ID>. about-to-delete - Job for deleting of the version <version ID> of data object <data object ID> of tenant <tenant ID> has been started. delete-done - Job for deleting of the version <version ID> of data object <data object ID> of tenant <tenant ID> has been completed. delete-failed - Job for deleting of the version <version ID> of data object <data object ID> of tenant <tenant ID> has been failed.
	Rule deletion <ul style="list-style-type: none"> • Rule deletion triggered • Rule deletion started • Rule deletion completed • Rule deletion failed 	delete-scheduled - User <user ID> triggered the delete of the version <version ID> of rule <rule ID> in tenant <tenant ID>. about-to-delete - Job for deleting of the version <version ID> of rule <rule ID> of tenant <tenant ID> has been started. delete-done - Job for deleting of the version <version ID> of rule <rule ID> of tenant <tenant ID> has been completed. delete-failed - Job for deleting of the version <version ID> of rule <rule ID> of tenant <tenant ID> has been failed.
	Rule service deletion <ul style="list-style-type: none"> • Rule service deletion triggered • Rule service deletion started • Rule service deletion completed • Rule service deletion failed 	delete-scheduled - User <user ID> triggered the delete of the version <version ID> of rule service <rule service ID> in tenant <tenant ID>. about-to-delete - Job for deleting of the version <version ID> of rule service <rule service ID> of tenant <tenant ID> has been started. delete-done "CALM configuration": old = "", new = "created" - Job for deleting of the version <version ID> of rule service <rule service ID> of tenant <tenant ID> has been completed. delete-failed - Job for deleting of the version <version ID> of rule service <rule service ID> of tenant <tenant ID> has been failed.

Process Visibility Capability

The process editor capability of SAP Build Process Automation writes entries into the audit log of the consumer account for the following operations:

Event grouping	What events are logged	How to identify related log events
Authentication (audit.security-events)	Authentication Middleware - Failed Login, Wrong Token Format	Security Message: JWT + Error ObjectUserId: string; TenantId: string; ExternalIP: string; Security event message "process-builder-service : User authentication failed Code: PB_FORBIDDEN

Process Visibility Capability

The process visibility capability of SAP Build Process Automation writes entries into the audit log of the consumer account for the following operations:

Event grouping	What events are logged	How to identify related log events	Additional information
Events related to runtime data deletion	Data deletion <ul style="list-style-type: none"> • Deletion of data started • Deletion of data completed • Deletion of data failed 	about-to-delete-data - Deletion (reason: <reason>) of data for <account> started by <user>. data-delete-completed - Deletion (reason: <reason>) of data for <account> completed. data-deletion-failed - Deletion (reason: <reason>) of data for <account> failed with error message: <message>.	<ul style="list-style-type: none"> Entries are logged as SecurityEventAuditMessage. Currently covers the following data deletion operations: <ul style="list-style-type: none"> ◦ Scenario undeploy ◦ Scenario draft model deletion ◦ Process Data Deletion ◦ Clear Processed Data

Event grouping	What events are logged	How to identify related log events	Additional information
Events related to malware detected	Malware detected <ul style="list-style-type: none"> • Malware detected while importing scenario • Malware detected while importing events • Malware detected while importing data 	import-of-file - Malware detected while trying to import the scenario zip file with name: <fileName>. import-of-file - Malware detected while trying to import the events json file with name: <fileName>. import-of-file - Malware detected while trying to import the data zip file with name: <fileName>.	<ul style="list-style-type: none"> • Entries are logged as SecurityEventAuditMessage. • Currently covers the following operations: <ul style="list-style-type: none"> ◦ Scenario Import ◦ Bulk Import of events
Scenario export related events	Scenario export <ul style="list-style-type: none"> • Export of scenario started • Export of scenario completed • Export of scenario failed 	about-to-start-scenario-export - Export of scenario model, ID: <scenario_def_ID>. scenario-export-completed - Export of scenario model, ID: <scenario_def_ID>. scenario-export-failed - Export of scenario model, ID: <scenario_def_ID>.	Entries are logged as SecurityEventAuditMessage .
Events related to actions invoked	Actions Invoked <ul style="list-style-type: none"> • Invoking of action started • Invoking of action completed • Invoking of action failed 	about-to-initiate-workflow - Invoking of action ID: <actionID>, for scenario ID: <scenario_def_ID>, for instance ID: <scenario_instance_ID> started by <userID>. workflow-initiated - Invoking of action ID: <actionID>, for scenario ID: <scenario_def_ID>, for instance ID: <scenario_instance_ID> completed. initiating-workflow-failed - Invoking of action ID: <actionID>, for scenario ID: <scenario_def_ID>, for instance ID: <scenario_instance_ID> failed with error message: <error-message>.	Entries are logged as SecurityEventAuditMessage .
GACD related events	GACD upload <ul style="list-style-type: none"> • GACD upload started • GACD upload completed • GACD upload failed 	about-to-start upload-scenario - gacd-content-uploading upload-of-file-started upload scenario content with fileId, ID: <fileID> started by <user>. upload-scenario-content-completed - gacd-content-uploading upload-of-file-completed upload scenario content with fileId, ID: <fileID> started by <user>. upload-scenario-content-failed - gacd-content-uploading upload-of-file-failed upload scenario content with fileId, ID: <fileID> started by <user>.	Entries are logged as SecurityEventAuditMessage .

Workflow Capability

The workflow capability of SAP Build Process Automation writes entries into the audit log of the consumer account for the following operations:

Security Events Written in Audit Logs		
Event Grouping	What events are logged	How to identify related log events
Tenant events	Create new tenant - about-to-create-account-data	SecurityEventAuditMessage sub-category data-creation Creation of data for <account> started by <user>
	Create new tenant - create-account-data-done	SecurityEventAuditMessage sub-category data-creation Creation of data for <account> completed
	Create new tenant - create-account-data-failed	SecurityEventAuditMessage sub-category data-creation Creation of data for <account> failed. Reason for failing the creation is <Reason>
	Delete existing tenant - requested-to-delete-account-data	SecurityEventAuditMessage sub-category data-termination Deletion (reason: <reason>) of data for <account> requested by <user>
	Delete existing tenant - about-to-delete-account-data	SecurityEventAuditMessage sub-category data-termination Deletion (reason: <reason>) of data for <account> started by <user>
	Delete existing tenant - delete-account-data-done	SecurityEventAuditMessage sub-category data-termination Deletion (reason: <reason>) of data for <account> completed
	Delete existing tenant - delete-account-data-failed	SecurityEventAuditMessage sub-category data-termination Deletion (reason: <reason>) of data for <account> failed. Reason for failing the deletion is <Reason>

Event Grouping	What events are logged	How to identify related log events
Data events	Purge all workflow data of a tenant - purge-triggered	<p>SecurityEventAuditMessage sub-category workflow-apptenant-purge</p> <p>User &purgingUser triggered purging of all data (containing &countWorkflowDefinitions WorkflowDefinitions) in tenant &tenant of appTenant &appTenant via channel &channel. In case forms purge is 'enabled': User &purgingUser triggered purging of all data (containing &countWorkflowDefinitions WorkflowDefinitions and all FormDefinitions) in tenant &tenant of appTenant &appTenant via channel &channel.</p>
	Purge all workflow data of a tenant - about-to-purge	<p>SecurityEventAuditMessage sub-category workflow-apptenant-purge</p> <p>Job triggered by user &purgingUser is now starting to purge all data in tenant &tenant of appTenant &appTenant via channel &channel.</p>
	Purge all workflow data of a tenant - purge-done	<p>SecurityEventAuditMessage sub-category workflow-apptenant-purge</p> <p>Job triggered by user &purgingUser is completed with purging all data in tenant &tenant of appTenant &appTenant via channel &channel.</p>
	Purge all workflow data of a tenant - purge-failed	<p>SecurityEventAuditMessage sub-category workflow-apptenant-purge</p> <p>General failure: Job triggered by user &purgingUser has failed while purging all data in tenant &tenant of appTenant &appTenant via channel &channel. Failure during workflow artefacts purge: Job triggered by user &purgingUser has failed while purging all data in tenant &tenant of appTenant &appTenant via channel &channel.</p> <p>&countWorkflowDefinitions Workflow Definitions not purged. Failure during forms artefacts purge: Job triggered by user &purgingUser has failed while purging all forms data in tenant &tenant of appTenant &appTenant via channel &channel.</p>
	Export all workflow data from a tenant - about_to_read	<p>SecurityEventAuditMessage sub-category data-export</p> <p>User &userId is about to export all data of tenant &tenantDescription.</p>
	Export all workflow data from a tenant - read	<p>SecurityEventAuditMessage sub-category data-export</p> <p>User &userId finished exporting all data of tenant &tenantDescription.</p>
	Export all workflow data from a tenant - read-failed	<p>SecurityEventAuditMessage sub-category data-export</p> <p>Export of all data of tenant &tenantDescription for user &user failed during zip streaming. [Log-ID: &logId]</p>
Deployment events	Deploy a workflow definition - deploy-done	<p>SecurityEventAuditMessage sub-category workflow-definition-deployment</p> <p>User '&userId' deployed version &version of workflow definition '&definitionId' in tenant '&tenantId' and app tenant '&appTenant'.</p>
	Undeploy a workflow definition - undeploy-scheduled	<p>SecurityEventAuditMessage sub-category workflow-definition-undeployment</p> <p>User '&userId' triggered the undeployment of the workflow definition '&definitionId' in tenant '&tenantId' and app tenant '&appTenant'.</p>
	Undeploy a workflow definition - about-to-undeploy	<p>SecurityEventAuditMessage sub-category workflow-definition-undeployment</p> <p>Job for undeploying workflow definition '&definitionId' in tenant '&tenantId' and app tenant '&appTenant' has been started.</p>
	Undeploy a workflow definition - undeploy-done	<p>SecurityEventAuditMessage sub-category workflow-definition-undeployment</p> <p>Job for undeploying workflow definition '&definitionId' in tenant '&tenantId' and app tenant '&appTenant' has been completed.</p>
	Undeploy a workflow definition - undeploy-failed	<p>SecurityEventAuditMessage sub-category workflow-definition-undeployment</p> <p>Job for undeploying workflow definition '&definitionId' in tenant '&tenantId' and app tenant '&appTenant' has been failed.</p>
	Deploy a form definition - about-to-deploy	<p>SecurityEventAuditMessage sub-category form-definition-deployment</p> <p>Deploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been started.</p>
	Deploy a form definition - deploy-done	<p>SecurityEventAuditMessage sub-category form-definition-deployment</p> <p>Deploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been completed.</p>
	Deploy a form definition - deploy-failed	<p>SecurityEventAuditMessage sub-category form-definition-deployment</p> <p>Deploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been failed.</p>
	Undeploy a form definition - about-to-undeploy	<p>SecurityEventAuditMessage sub-category form-definition-undeployment</p> <p>Undeploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been started.</p>
	Undeploy a form definition - undeploy-done	<p>SecurityEventAuditMessage sub-category form-definition-undeployment</p> <p>Undeploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been completed.</p>
	Undeploy a form definition - undeploy-failed	<p>SecurityEventAuditMessage sub-category form-definition-undeployment</p> <p>Undeploying form definition '&definitionId' in tenant '&tenant' and app tenant '&appTenant' by user '&user' has been failed.</p>

Event Grouping	What events are logged	How to identify related log events
Workflow Instances events	Delete a workflow instance - aboutToDelete	SecurityEventAuditMessage sub-category workflow-instances Deletion of workflow instances was requested in app tenant '&appTenant' with sharedContentIncluded=&sharedContentIncluded: <instanceIds>
	Delete a workflow instance - delete	SecurityEventAuditMessage sub-category workflow-instances The following workflow instances were deleted from app tenant '&appTenant' with sharedContentIncluded=&sharedContentIncluded: <instanceIds>
Event Subscriptions events	Create, update, and delete event subscriptions - create	ConfigurationChangeAuditMessage sub-category event-subscription
	Create, update, and delete event subscriptions - createFailed	ConfigurationChangeAuditMessage sub-category event-subscription
	Create, update, and delete event subscriptions - update	ConfigurationChangeAuditMessage sub-category event-subscription
	Create, update, and delete event subscriptions - updateFailed	ConfigurationChangeAuditMessage sub-category event-subscription
	Create, update, and delete event subscriptions - delete	ConfigurationChangeAuditMessage sub-category event-subscription
	Create, update, and delete event subscriptions - deleteFailed	ConfigurationChangeAuditMessage sub-category event-subscription
Security events	Update instance-specific role assignments of a workflow instance	ConfigurationChangeAuditMessage sub-category workflow-instances
Substitution events	Create, update, and delete event substitution rules - create	SecurityEventAuditMessage sub-category substitution-rule
	Create, update, and delete event substitution rules - createFailed	SecurityEventAuditMessage sub-category substitution-rule
	Create, update, and delete event substitution rules - delete	SecurityEventAuditMessage sub-category substitution-rule
	Create, update, and delete event substitution rules - deleteFailed	SecurityEventAuditMessage sub-category substitution-rule

Live Process Projects

The following security events are written in the audit logs of the consumer account when working with live process projects:

Security events written in audit logs

Event Grouping	What events are logged	How to identify related log events
Project related events	Project Export	about-to-start-package-export - Export of package, ID: <Package ID> Revision: <Package Revision> package-export-completed - Export of package, ID: <Package ID> Revision: <Package Revision>. package-export-failed - Export of package, ID: <Package ID> Revision: <Package Revision>.
	Project Deletion	about-to-delete-data - Deletion (reason: <Reason>) of data for <Account> started by <User>. data-delete-completed - Deletion (reason: <Reason>) of data for <Account> completed. data-deletion-failed - Deletion (reason: <Reason>) of data for <Account> failed with error message: <Error>.
Malware detection events	GACD Upload	import-of-file - Malware detected while trying to import data zip file with name: <File Name>.
	Package Document Upload	import-of-file - Malware detected while trying to import document pdf file with name: <File Name>.

Data Protection and Privacy

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data protection and privacy acts, it is necessary to consider compliance with industry-specific legislation in different countries.

SAP provides specific features and functions to support compliance with regard to relevant legal requirements, including data protection. SAP does not give any advice on whether these features and functions are the best method to support company, industry, regional, or country-specific requirements. Furthermore, this information should not be taken as advice or a recommendation regarding additional features that would be required in specific IT environments. Decisions related to data protection must be made on a case-by-case basis, taking into consideration the given system landscape and the applicable legal requirements.

i Note

SAP does not provide legal advice in any form. SAP software supports data protection compliance by providing security features and specific data protection-relevant functions. In many cases, compliance with applicable data protection and privacy laws will not be covered by a product feature. Definitions and other terms used in this document are not taken from a particular legal source.

⚠ Caution

The extent to which data protection is supported by technical means depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

For general information about data protection and privacy in SAP Business Technology Platform (SAP BTP) environments, see the SAP BTP documentation under [Data Protection and Privacy](#).

Personal Data

This product does not provide the technical capabilities to support the collection, processing, and storage of personal data.

Glossary for Data Protection and Privacy

The following terms are general to SAP products. Not all terms may be relevant for this SAP product.

Term	Definition
Blocking	A method of restricting access to data for which the primary business purpose has ended.
Business Purpose	The legal, contractual, or in other form justified reason for the processing of personal data to complete an end-to-end business process. The personal data used to complete the process is predefined in a purpose, which is defined by the data controller. The process must be defined before the personal data required to fulfill the purpose can be determined.
Consent	The action of the data subject confirming that the usage of his or her personal data shall be allowed for a given purpose. A consent functionality allows the storage of a consent record in relation to a specific purpose and shows if a data subject has granted, withdrawn, or denied consent.
Data Subject	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Deletion	Deletion of personal data so that the data is no longer available.
End of Business	Defines the end of active business and the start of residence time and retention period.
End of Purpose (EoP)	The point in time when the processing of a set of personal data is no longer required for the primary business purpose, for example, when a contract is fulfilled. After the EoP has been reached, the data is blocked and can only be accessed by users with special authorizations (for example, tax auditors).
End of Purpose (EoP) Check	A method of identifying the point in time for a data set when the processing of personal data is no longer required for the primary business purpose . After the EoP has been reached, the data is blocked and can only be accessed by users with special authorization, for example, tax auditors.
Personal Data	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Purpose	The information that specifies the reason and the goal for the processing of a specific set of personal data. As a rule, the purpose references the relevant legal basis for the processing of personal data.
Residence Period	The period of time between the end of business and the end of purpose (EoP) for a data set during which the data remains in the database and can be used in case of subsequent processes related to the original purpose. At the end of the longest configured residence period, the data is blocked or deleted. The residence period is part of the overall retention period.
Retention Period	The period of time between the end of the last business activity involving a specific object (for example, a business partner) and the deletion of the corresponding data, subject to applicable laws. The retention period is a combination of the residence period and the blocking period.

Term	Definition
Sensitive Personal Data	<p>A category of personal data that usually includes the following type of information:</p> <ul style="list-style-type: none"> • Special categories of personal data, such as data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic data, biometric data, data concerning health or sex life or sexual orientation. • Personal data subject to professional secrecy • Personal data relating to criminal or administrative offenses • Personal data concerning insurances and bank or credit card accounts

Customer Data Export

As mentioned in the **Terms and Conditions for Cloud Services**, customers can export their data at any time during the subscription term.

The article 4.5 also mentions that a "Customer may export and retrieve its Customer Data in a standard format. Export and retrieval may be subject to technical limitations, in which case SAP and Customer will find a reasonable method to allow Customer access to Customer Data".

Export Project Contents and Robotic Process Automation Instance Data

To export business process project data or robotic process automation instance data, request a data export by creating a [Ticket](#). When creating a ticket, use the following components:

Component	Topic
BPI-PA	Forms, Process, Process Editor, Design Time, Data Mapping, Control Flow Creation, Process Trigger
CA-ML-IPA	Design Studio, Automations, iRPA content packages, RPA Forms

Export Business Rules Data

Business rule repository data can be exported by calling the following API from the API gateway.

```
/public/rule/repository/rest/v1/export/projects/<Id>/versions/<version>
```

This exports the specified version of the specified project along with all its entities such as data objects, rules, rule decisions, and policies from the design time repository.

A list of all available projects and versions can be determined by the following API:

```
/public/rule/repository/rest/v1/projects
```

Export Forms Capability Data

Process forms data can be exported by calling the following API from the API gateway:

Value helper data

```
/form/runtime/v1/data-export/data-source?data-after={Date}&count={number}
```

Form descriptor data

```
/form/runtime/v1/data-export/descriptor?data-after={Date}&count={number}
```

{Date} is a valid optional date parameter in YYYY-MM-DD format (example: 2022-09-09) (if no date supplied then it will collect data from beginning).

{number} is a valid optional integer (default 100 records will be returned to the user).

Export Process Visibility Data

Process visibility runtime data can be exported by calling the following APIs from the API gateway:

GET All Scenario Definitions deployed

```
/public/visibility/runtime/rest/v1/scenario-definitions
```

GET specific Scenario Definition deployed

```
/public/visibility/runtime/rest/v1/scenario-definitions/{scenarioId}/model
```

GET Process Events pushed to Process Visibility

```
/public/visibility/runtime/rest/v1/data-acquisition/data
```

GET Scenario instances information for specific Scenario Definition deployed

```
/public/visibility/runtime/odata/v1/{scenarioId}/Instances
```

Export Workflow Capability Data

Workflow capability data can be exported by calling an API. For more information, see: [Export Workflow Capability Data](#)

Export Scheduled Triggers Data

Scheduled Triggers runtime data can be exported by calling the following APIs from the API gateway:

GET Scheduled Triggers

```
/internal/scheduler/v1/environment/<environmentId>/triggers/scheduled
```

Export Event Triggers Data

Event Triggers runtime data can be exported by calling the following APIs from the API gateway:

GET Event Triggers

```
/internal/be/v1/triggers
```

Super Domain Changes

As of March 2024, the SAP Build domain will change. If you are using a firewall, you must adapt your firewall rules to allow access to the tenant. If you want to use debug mode with agent versions below 3.13.52 and below 2.0.35, you must update the tenant domain in the agent.

If you are using firewall rules to allow access to the tenant and agent connectivity, you must update the following rules:

- Lobby, Control Tower, Store, Monitoring: <mytenant>.<region>.build.cloud.sap
- Studio, Agent update, agent healthcheck: <mytenant>.<region>.process-automation.build.cloud.sap
- Web socket : *.<region>.irpa.build.cloud.sap

For cn40:

- Lobby, Control Tower, Store, Monitoring: <mytenant>.<region>.build.sapcloud.cn
- Studio, agent update, agent healthcheck: <mytenant>.<region>.process-automation.build.sapcloud.cn
- Web socket : *.<region>.irpa.build.sapcloud.cn

i Note

Pre-existing rules stay in effect alongside the new ones.

Product Feedback

Provide feedback on SAP Build.

You can provide feedback on our software using the Product Feedback feature within the application, allowing us to collect your needs more quickly and easily.

If you want to provide quick feedback for a specific page, such as **Lobby**, **Store**, **Monitoring**, or **Control Tower**, you can do so instantly. A survey allows you to provide detailed feedback about SAP Build products. The survey is available once a year per user for 3 weeks during a specific quarter. Additionally, users across the organization would receive the survey in different quarters.

Your feedback is welcome regarding the products and services, including comments or suggestions regarding possible creations, modifications, corrections, improvements, etc.

We're constantly improving our software with your feedback. By giving us your feedback, you're helping us to provide you with a better product experience.

By default, all users see an icon in the page header that launches a product feedback survey about SAP Build. The survey is launched for a certain period and assigned to a few users only.

Choose *Give Feedback* to launch the specific survey and share your feedback on the accessed page.

You can find the **Product Feedback** feature in the page header.

SAP Data Custodian Key Management Service Integration (Restricted Availability)

An option is available for some customers to manage their own keys in the Cloud Foundry environment, rather than have SAP manage them.

Context

The integration of SAP Build Process Automation with the SAP Data Custodian Key Management Service provides this option. The SAP Build Process Automation environment must meet certain conditions and be approved by SAP. Once approved, some customer actions are required for onboarding.

For more information, see [3383704 SAP Data Custodian Key Management Service Integration for SAP Build Process Automation \(login required\)](#).

Accessibility Features in SAP Build Process Automation

To optimize your experience of SAP Build Process Automation, SAP Business Technology Platform provides features and settings that help you use the software efficiently.

i Note

SAP Build Process Automation runs on the SAP BTP cockpit. For this reason, the accessibility features for SAP BTP cockpit apply. For more information, see the accessibility documentation for SAP BTP cockpit on SAP Help Portal in [Usability and Accessibility Features in SAP BTP Cockpit](#).

For more information on screen reader support and keyboard shortcuts, see [Accessibility for End Users](#).

Troubleshoot and Monitor

If you experience issues when using SAP Build Process Automation or you require API support, we suggest you raise a request through the SAP Support Portal.

1. Create a new incident. See [Getting Support](#).

Select the relevant component from the list below:

Component	Topic
BPI-PA	Forms, Process, Process Editor, Design Time, Data Mapping, Control Flow Creation, Process Trigger
CA-AP	Lobby, General Navigation, Library, Actions, Action Project, Action Builder
CA-ML-IPA	Design Studio, Automations, SAP Intelligent RPA packages
LOD-BPM-WFS	Process Editor Runtime
LOD-BPM-PFS	Process Flexibility
LOD-BPM-RUL	Decisions
LOD-BPM-VIS	Process Visibility
CA-INB-FIO	MyInbox
LOD-BPM-BPC	Business Process Content

i Note

Contact the Customer Interaction Center (CIC) in order to ask for a speed-up to your request. You will find additional information in SAP Note [560499](#).

We invite you to participate in the SAP Product Support Accreditation Program. This program will show you how you can work best with Product Support to get faster, easier closure to your incidents. For additional information, see [2911278](#).

Activate Support Mode

Desktop agent 3 features a support mode. You can use the support mode to record traces or install a specific version of the agent.

Prerequisites

- You must have the role ProcessAutomationAdmin. For more information, see [Authorizations](#).
- If you want to install a specific version of the agent after enabling support mode, the agent must be in attended mode.

Procedure

1. In SAP Build, choose the **Control Tower** tab.
2. Search for the relevant agent and choose **More Actions** and **Activate Support**.
3. Choose a duration between 1 hour and 5 days and **Activate**.
4. Optionally, you can further configure the tracer settings including tracer components in the agent under **Settings** and **Tracer**.

Results

- The support mode is activated for the specified time.

You can **Deactivate Support** mode manually by following step 2.

- Automatic updates are enabled.

You can disable automatic updates in the desktop agent by choosing **System Settings** and unchecking **Enable automatic updates**.

i Note

When support mode is deactivated, **Enable automatic updates** is not visible.

- Functional traces are recorded per job, technical traces are recorded at startup, and traces are encrypted and uploaded to the tenant.

In the desktop agent, you can access **Tracer** options under **Settings**, while support mode is activated.

Export Health Metrics

Export health metrics for your agent.

Prerequisites

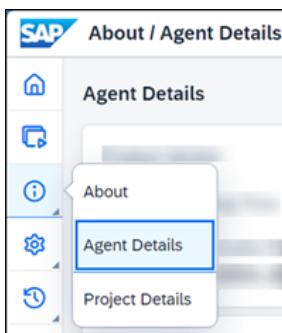
You need to have activated support mode to be able to export health metrics. For more information, see [Activate Support Mode](#).

Context

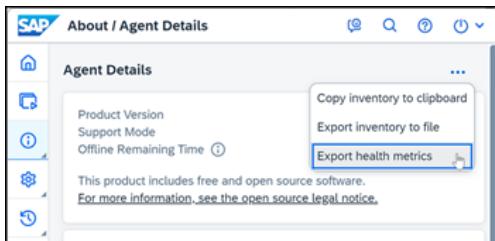
You can export metrics relating to your agent and send these to the SAP support team for investigation. Once the support mode is activated, the health metrics are stored for a maximum of 7 days.

Procedure

- In the desktop agent, choose **About** and **Agent Details**.



- Choose **More** and **Export health metrics**



Results

A zip file containing CSV files for the different metrics is exported to your PC. You can send this file to SAP Support.

Update Deprecated SAP Build Process Automation Roles

SAP Build Process Automation roles were updated in May 2022, with the previously used roles being deprecated at the time.

To ensure that users of your SAP BTP subaccount hold the current permissions in SAP Build Process Automation, please update their role allocation to the following:

Role Collection	Description
ProcessAutomationAdmin This replaces the previously used ITAdmin role.	Manages the process configuration, permissions, and authorizations within SAP Build Process Automation
ProcessAutomationDeveloper This replaces the previously used CitizenDeveloper role.	Manages the creation, editing, and publishing of individual processes and automations within SAP Build Process Automation
ProcessAutomationParticipant This replaces the previously used ProcessParticipant roles.	Participates in active SAP Build Process Automation processes.

For more information about SAP Build Process Automation authorizations and roles, see [Authorizations](#).

Update Destinations

If you already use SAP Build Process Automation and SAP Workflow Management and have the configured SAP Build Work Zone and now want to use Live Content Packages, you need to update the destination.

Prerequisites

You have the [Space Developer](#) and [Subaccount Administrator](#) permissions in your subaccount.

Context

You are subscribed to SAP Build Process Automation and use user tasks and start forms that were built using SAP Business Application Studio or deployed with these Live Content Packages.

Procedure

1. Delete the existing SAP Build Process Automation destinations.
 - a. Access [Settings](#) in SAP Build Process Automation and then [Destinations](#).
 - b. On the [Destinations](#) page in the SAP BTP cockpit, select the destinations to your SAP Build Process Automation instance that you created as described in [Configure SAP Build Process Automation Destinations](#).
 - c. Choose [Delete](#).
2. Delete the service key of your existing SAP Build Process Automation service instance.
 - a. In the navigation area, choose [Services](#) [Instances and Subscriptions](#).
 - b. Search for the service instance of SAP Build Process Automation that created as described in [Create a Service Instance](#).
 - c. Under [Instances](#), select the service instance and at the end of the row open the [Details](#) screen using the arrow icon (>).
 - d. At the end of the service key entry, open the [Actions](#) menu (□).
 - e. Choose [Delete](#).
3. Create a new service instance destination and its service key. See [Configure SAP Build Process Automation Destinations](#) and [Service Keys](#).

Memory Allocation Limit Reached

Out-of-memory errors occur when too much data is processed at once or when an automation does not release memory after use. This can cause an automation crash. Follow the recommendations to avoid reaching the memory allocation limit.

We recommend that you:

- Follow [Best Practices for Custom Scripts](#).
- Process or retrieve large data sets in smaller subsets to process them by batch. Do not load the entire set of data at once. For example, instead of reading an entire Excel file at once, you can loop it and process X lines by X lines.
- Free unused data in memory. For example, a variable containing a list of hundreds of objects can be deleted when it is not used anymore.
- Regularly review memory usage to identify abnormal consumption. On a Windows machine, you can review the consumption of the memory using the Task Manager application.

If the out-of-memory error still occurs after following the recommendations, try to execute the task which requires a heavy memory load using an external tool, such as a Python script.