

# IN180 - Leveraging Commands from “Piper” for CI/CD Setup with SAP Integration Suite

Public

# Agenda

- Why is CI/CD important for SAP Integration Suite?
- APIs of SAP Integration Suite
- Project Piper
- Introduction to SAP continuous integration and Delivery Service
- How you can contribute to Project Piper

# Why is CI/CD important for SAP Integration Suite?

Integration content developers want to

- keep track of what was changed
- keep multiple versions of their integration content
- use external tools for development of scripts, schemas, ...
- do proper testing before transporting or after software updates etc.

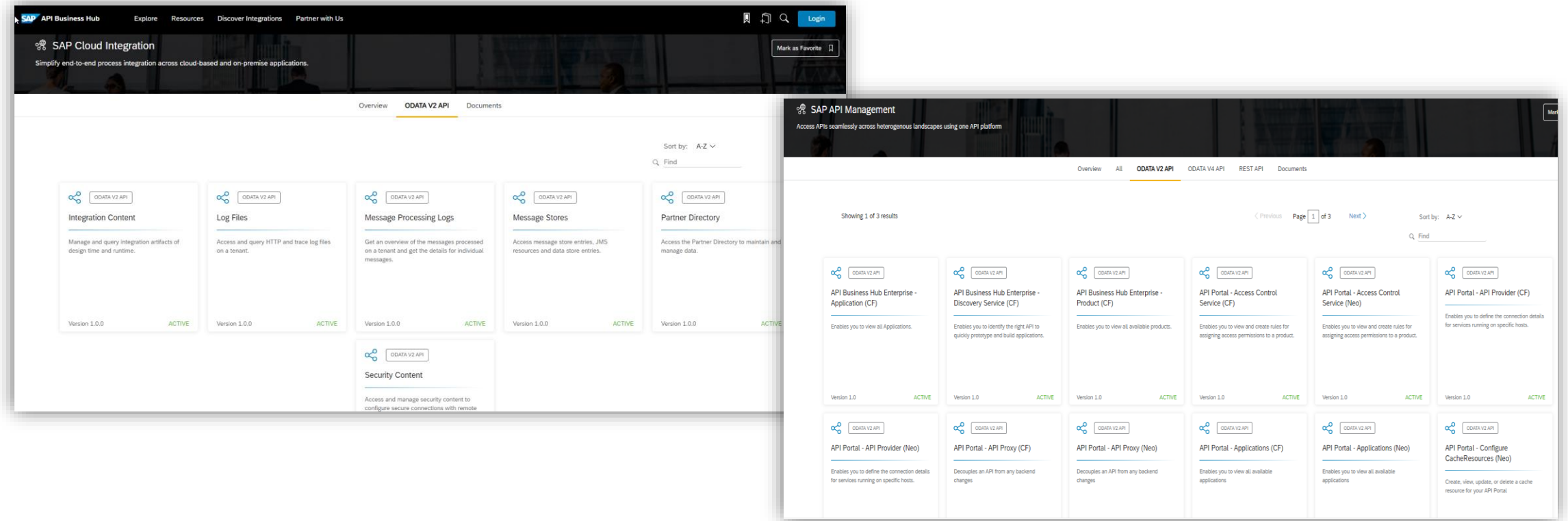
Ideally, all these steps are automated to save work and effort.

CI/CD helps automating build and test processes to make sure the integration scenario is in a good state.

CI/CD enables you to obtain immediate feedback on your changes to safeguard your business.

# APIs of SAP Integration Suite

The foundation of CI/CD for SAP Integration Suite are APIs of the capabilities on the [SAP API Business Hub](#).



# Project Piper

SAP provides tooling for CI/CD via project [Piper](#) for an easier automation of your processes.

For API Management & Cloud Integration from SAP Integration Suite you can find many piper steps, using the technical OData API calls under the hood.

The screenshot shows the Project Piper User Documentation website. The header is green with the Project Piper logo and navigation links. The main content area is white and features a sidebar on the left with a list of links. The main text area contains the title "Project 'Piper' User Documentation" and a paragraph describing continuous delivery. A "Table of contents" section is also visible on the right side of the main content area.

Project "Piper": Continuous Delivery for the SAP Ecosystem

Project "Piper" User Documentation

Continuous delivery is a method to develop software with short feedback cycles. It is applicable to projects both for SAP BTP and SAP on-premise platforms. SAP implements tooling for continuous delivery in project "Piper". The goal of project "Piper" is to substantially ease setting up continuous delivery in your project using SAP technologies.

What you get

To get you started quickly, project "Piper" offers you the following artifacts:

- A set of ready-made Continuous Delivery pipelines for direct use in your project
- [ABAP Environment Pipeline](#)
- [General Purpose Pipeline](#)
- A [shared library](#) that contains reusable step implementations, which enable you to customize our preconfigured pipelines, or to even build your own customized ones
- A standalone [command line utility](#) for Linux and a [GitHub Action](#)
- Note: This version is still in early development. Feel free to use it and [provide feedback](#), but don't expect all the features of the Jenkins library
- A set of [Docker images](#) to setup a CI/CD environment in minutes using sophisticated life-

The screenshot shows the Project Piper documentation page for the integrationArtifactDeploy step. The header is green with the Project Piper logo and navigation links. The main content area is white and features a sidebar on the left with a list of links. The main text area contains the title "integrationArtifactDeploy" and a description of the step. A "Usage" section is also visible on the right side of the main content area.

Project "Piper": Continuous Delivery for the SAP Ecosystem

integrationArtifactDeploy

Deploy a CPI integration flow

Description

With this step you can deploy a integration flow artifact in to SAP Cloud Platform integration runtime using OData API. Learn more about the SAP Cloud Integration remote API for deploying an integration artifact [here](#)

Usage

We recommend to define values of [step parameters](#) via [.pipeline/config.yml file](#). In this case, calling the step is essentially reduced to defining the step name. Calling the step can be done either in an orchestrator specific way (e.g. via a Jenkins library step) or on the command line.

Jenkins Command Line

```
library('piper-lib-os')  
  
integrationArtifactDeploy script: this
```

# Introduction to SAP continuous integration and Delivery Service

## [SAP Continuous Integration and Delivery](#) on SAP BTP

- lets you configure and run pre-defined CI/CD pipelines that build, test, and deploy your code changes
- Offers pipelines for SAP Cloud Application Programming Model, SAP Fiori, SAP Cloud Integration and container-based applications projects
- Enables you to monitor the status of your continuous integration and delivery builds and view their detailed logs

The screenshot displays the SAP Continuous Integration and Delivery Service interface. On the left, a table lists jobs: 'D039949/ui5\_sample', 'UI5SampleToCF', and 'UI5SampleToNeo'. The 'UI5SampleToCF' job is selected, showing its details. The main panel shows the build process for 'UI5SampleToCF' on the 'master' branch, with a status of 'IN PROGRESS'. The build is divided into stages: 'Clone sources', 'Setup environment', 'Test Fiori App', 'Build Fiori App', and 'Deploy Fiori App'. The 'Clone sources', 'Setup environment', and 'Test Fiori App' stages are marked as 'SUCCESS'. The 'Build Fiori App' stage is also marked as 'SUCCESS'. The 'Deploy Fiori App' stage is marked as 'RUNNING'. The interface includes tabs for 'Builds', 'General Information', 'Build Retention', and 'Tasks'. The 'General Information' tab is active, showing repository details and build retention settings.



# How you can contribute to Project Piper

Project "Piper": Continuous Delivery for the SAP Ecosystem

Search

GitHub

v1.257.0

682

528

Project "Piper": Continuous Delivery for the SAP Ecosystem

Home

Getting Started With Project "Piper"

Configuration

Infrastructure

Pipelines

Scenarios

Extensibility

Library steps

Library Steps (deprecated)

Command line tool

Project "Piper" User Documentation

Table of contents

What you get

The best-practice way: Ready-made pipelines

The do-it-yourself way: Build with a shared library

Continuous delivery is a method to develop software with short feedback cycles. It is applicable to projects both for SAP BTP and SAP on-premise platforms. SAP implements tooling for continuous delivery.

What you get

To get you started

- A set of ready-to-use pipelines
- ABAP Environment
- General Purpose
- A shared library for our preconfigured pipelines
- A standalone tool

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SAP /jenkins-library Public

Code Issues 26 Pull requests 31 Actions Projects Security Insights

master 164 branches 276 tags

fix(detectExecuteScan): Update links to

Update build-adm.yml (#412)

chore(go): add pre-commit

Update config.yml (#2371)

compliance with reuse (#15)

compliance with reuse (#19)

Deploy mldocs when merge

fix(detectExecuteScan): Upd

Integration Tests fail - edu

consumer-test

contrib

Allow to trigger release ma

fix: Fix cnbbuild example d

feat: update node image fo

integration

pkg

fix (whitesourceExecuteScan

fix(detectExecuteScan): Upd

src/com/happipiper

feat(codex) merge commit

README.md

maintainability

test coverage 68%

go report A+

REUSE compliant

Project Piper Repository

The Project "Piper" offers default pipelines to easily implement CI/CD. The corresponding "Shared Library" provides a set of "steps" to build and deploy your application.

User Documentation

If you want to view the User Documentation of Project Piper please visit the [User Documentation](#).

Known Issues

A list of known issues is available on the [GitHub issues page](#) of this repository.

How to obtain support

Feel free to open new issues for feature requests, bugs or general questions. Register to our [google group](#) in order to get updates or for asking questions.

Contributing

Read and understand our [contribution guidelines](#) before opening a pull request.

217 lines (115 sloc) 18.7 KB

Raw Blame

Guidance on How to Contribute

Table of Contents:

- Using the issue tracker
- Changing the code-base
- Jenkins credential handling
- Code Style
- References

There are two primary ways to help:

- Using the issue tracker, and
- Changing the code-base.

Using the issue tracker

Use the issue tracker to suggest feature requests, report bugs, and ask questions. This is also a great way to connect with the developers of the project as well as others who are interested in this solution.

Use the issue tracker to find ways to contribute. Find a bug or a feature, mention in the issue that you will take on that effort, then follow the "Changing the code-base" guidance below.

Changing the code-base

Generally speaking, you should fork this repository, make changes in your own fork, and then submit a pull-request. All new code should have been thoroughly tested end-to-end in order to validate implemented features and the presence or lack of defects.

# Summary

- OData APIs of SAP Integration Suite capabilities on [SAP API Business Hub](#)
  - API Management
  - Cloud Integration
- Construction kit for CI/CD on Integration Recipes portal
  - Pre built [CI/CD Jenkins projects](#) using the OData APIs
- Project "[Piper](#)"
  - SAP Integration Suite has contributed many steps to the library for project "Piper" that help you create your own continuous integration (CI) and continuous deployment (CD) pipeline, automating various tasks.
- [SAP Continuous Integration and Delivery](#) on SAP BTP,
  - Low-Code/No-Code solution to run predefined CI/CD pipelines for SAP Cloud Application Programming Model, SAP Fiori, Cloud Integration and container-based applications projects.



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1. [Pearson VUE's Latest "Value of IT Certification" Study Highlights Benefits of IT Certification in Challenging Times.](#) Pearson Education Inc., May 25, 2021.

2. Chuck Cooper, [Why Get IT Certified? The Value of IT Certification: An IT Certification White Paper](#), IT Certification Council, March 2021.

# Thank you.

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