



# **SAP S/4HANA integration with Atlassian JIRA**

Installation and operation manual  
SAP API HUB version 1.0



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# 1 Introduction

This package delivers standalone sample Integration Flows for SAP S/4HANA PPM and Atlassian JIRA integration which are also used as key components in Commodo® ePPM.

[Commodo® ePPM](#) Suite is a set of solutions for the seamless integration of external project management tools like Oracle Primavera P6, Microsoft Project Server, Atlassian JIRA, etc. into SAP driven business processes. The technical data exchange is facilitated by SAP CPI and an array of Integration Flows – some of which are delivered as standalone content within this package. For more details visit our web page: [www.commodo.eu](http://www.commodo.eu) or contact us via [sales@commodo.eu](mailto:sales@commodo.eu).

SAP S/4HANA - JIRA integration helps to compare planned, scheduled or executed hours and connect them with SAP finances automating reports delivery, helping project timeline analysis or connecting tasks with financial data points. Integration can be used to compare project data on either platform, helping each step of the project execution and analysis.

Available sample Integration Flows in this package:

- **PPM to JIRA Task Worklogs Transfer**  
This is PPM to JIRA Task Worklogs Transfer integration flow which updates project data from SAP to JIRA. It creates project structure on JIRA system and maintain it based on the changes on the SAP side.
- **JIRA to PPM Task Worklogs Transfer**  
This is JIRA to PPM Task Worklogs Transfer integration flow which updates project data from JIRA to SAP. The main goal of the workflow is to update planned and actual data aggregated on JIRA and transfer it to SAP PPM Task.

This package delivers standalone sample Integration Flows for SAP S/4HANA PPM and Atlassian JIRA integration which are also used as key components in Commodo® ePPM.

## 1.1 Purpose of this document

This manual enables customer to install and configure workflows that will enable integration between SAP PPM and Atlassian JIRA.

Customer will get first insight in concepts and features provided in Commodo ePPM Suite. It also empowers customer to use simple integration scenarios for their purposes and allow them to extend workflows with some customer's specific needs.

## 2 System Prerequisites

Customer/user must fulfill following prerequisites in order to install and run delivered integration flows:

- SAP S/4HANA 1909 on-premises system installed
- SAP PPM module configured and installed
- SAP CPI subscription (account)
- Atlassian JIRA system installed
- enable PPM and JIRA for integration
  - enable Cloud Connector on S4HANA and SAP Cloud Platform
  - create technical user on SAP (this user is used in CPI destination to access SAP system, see 7, configuration in Cloud cockpit)
  - create JIRA technical user (this user is used in CPI flow in https adapter in form of credentials, see 7, configuration in Cloud cockpit)
- enable respective Roles for existing user who will trigger workflows in CPI or create new one (e.g. technical user). User credentials are used for application execute (chapter 5)

### 2.1 Acronyms and Terms

BAPI:	Business API
ePPM Suite:	Comprehensive integration suite provided by Commodo® LTD
EPPM:	Enterprise Project Portfolio Management
JIRA:	Atlassian Jira system for project management
RFC:	Remote function call
SAP CPI:	Cloud Platform Integration

## 3 Integration Overview

Integration flows provided in this package are standalone and enable user to use them without any limitation. However, the flows must be triggered from customer's application or any other comparable mechanism which is not a part of delivered package.

As shown in system overview below, integration flows are installed on Cloud Platform Integration and could be triggered by:

- any external frontend application with HTTPS request option
  - like Commodo Fiori application described in chapter 5.2
  - JIRA plugin, described in chapter 0
- any job scheduler, for example S4/HANA background job scheduler
- any browser URI request like
  - Testing tools (example with Postman described in chapter 5)

Main function of this integration is to **map**, **aggregate** and **synchronize** relevant project data between SAP PPM and JIRA systems. As stated in chapter 1 Commodo® ePPM Suite covers comprehensive set of integration scenarios. Scenarios (integration flows) provided in this package cover typical transfers between SAP and Atlassian Jira. It is described in chapter 6.

Integration flows provided in the package are prepared and tested with S4/HANA on-premises solution and Jira Atlassian on-premises installation.

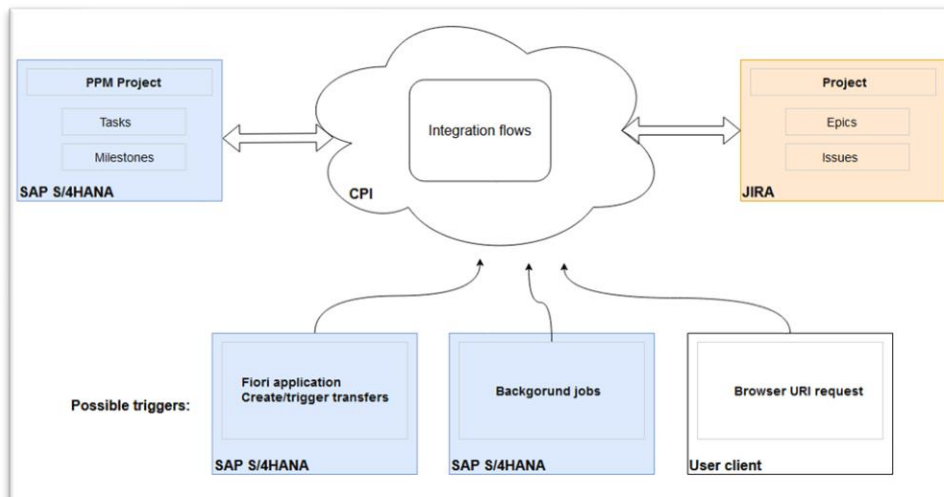


Figure 1- Architecture overview

## 4 System Configuration

### 4.1 System preparation

Some workflow specific configurations are required to run this integration flows. Before you start please prepare and configure S4/HANA, JIRA systems and SAP Cloud platform as described below.

#### Configuration on S4/HANA:

- Import custom BAPI “Z\_COMMEPC\_BAPI\_BUS2175\_CHANGE” provided by Commodo in this document. This BAPI is simple extension (wrap) of SAP standard BAPI\_BUS which includes committing.

Note:

- keep exact name of custom BAPI (“Z\_COMMEPC\_BAPI\_BUS2175\_CHANGE”)
- BAPI needs to be **Remote Enabled**

#### Configuration on JIRA system:

- Expose API port on JIRA systems to SAP CPI (CPI is Cloud based service)
- Setup Project templates in JIRA and SAP custom fields

Note:

- Templates are required to enable JIRA API to create Projects in JIRA
- SAP custom fields will hold metadata for object identification
- Commodo provide JIRA plugin (jar file) for this purpose, described in chapter 4.3

#### Configuration in SAP Cloud Platform:

Using SAP Cloud Cockpit:

- Create destination e.g. “MyRFCDstinationToCPI” to S4/HANA  
(Note: the same name must be used in CPI workflow)
- Create credentials for JIRA access e.g. “CommodoJIRA”  
(Note: the same must be used in http adapter in respective workflow)

## 4.2 Installation and configuration of Integration flows

Please **copy and install Commondo flows from API HUB** using Discover option in SAP Cloud Platform Integration and perform configuration of external parameters.

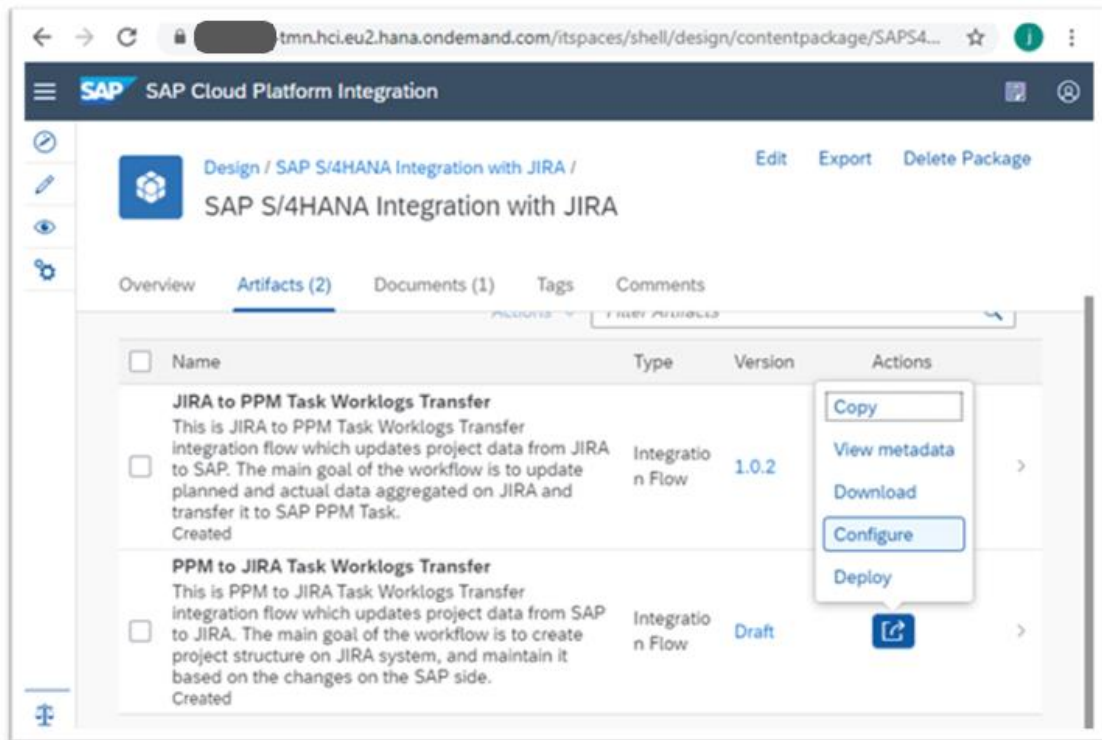


Figure 2: Configure workflow

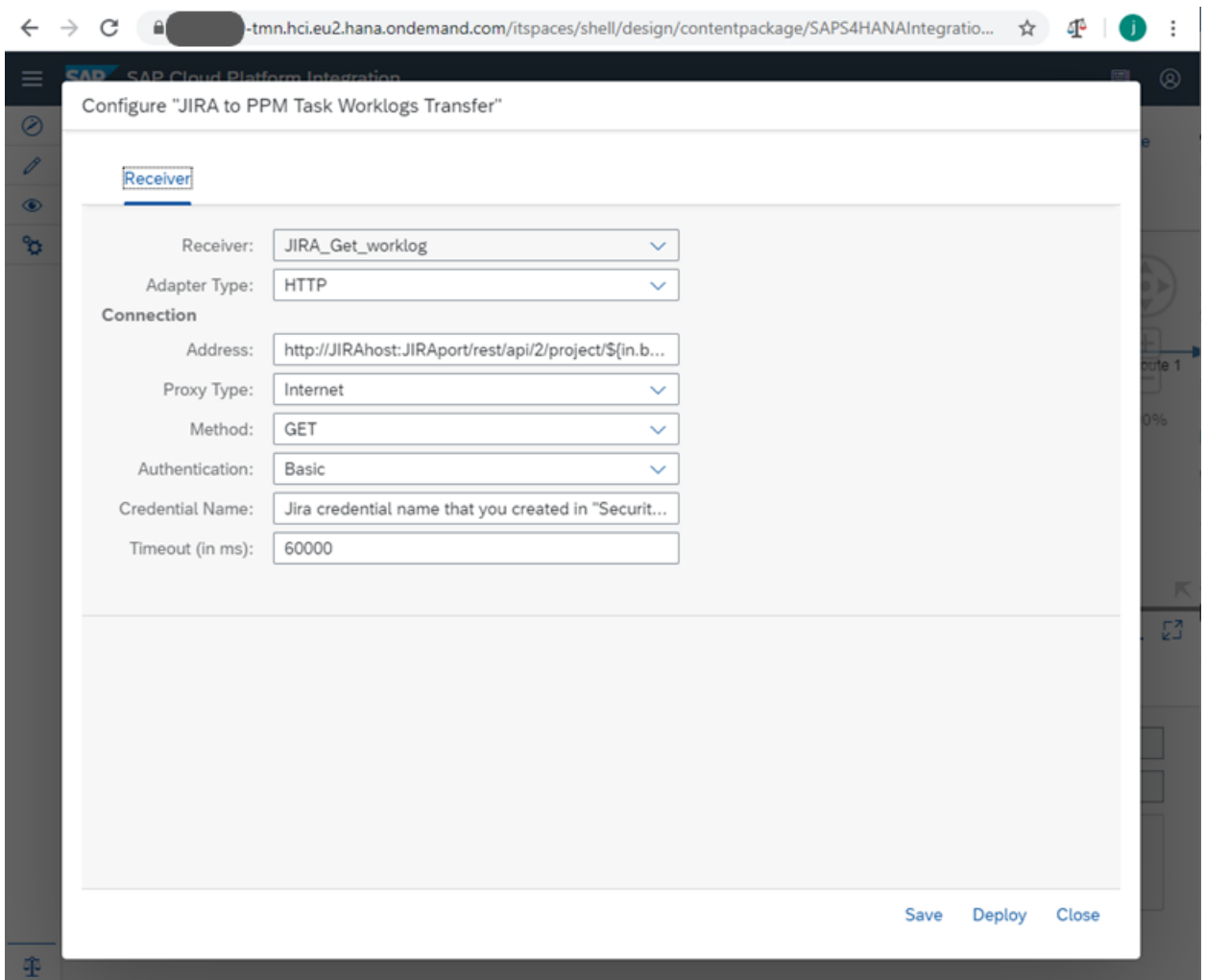


Figure 3: Entering values for external parameters

Configuration is performed using standard CPI feature – Externalized Parameters. Default values provided in flows are describing what type of content parameter should contain. User is required to change config parameters values with correct data for Users local environment.

### 4.3 Commondo Project Templates plugin for JIRA

JIRA API allows creating of Projects and Issues only if configured properly. That includes creation of Project schemes and fields e.g. Project templates. Certain level of knowledge for JIRA system is required to be able to create this.

In that regard, Commondo created JIRA plugin that prepares all required schemes and fields that are required by this integration scenarios. The plugin *commondo-project-template-1.0-Commondo.jar* could be found as attach to this document (embedded into pdf file). During installation plugin creates all required objects. After installation plugin is not required any more.

Instructions for use are described in following screenshots:

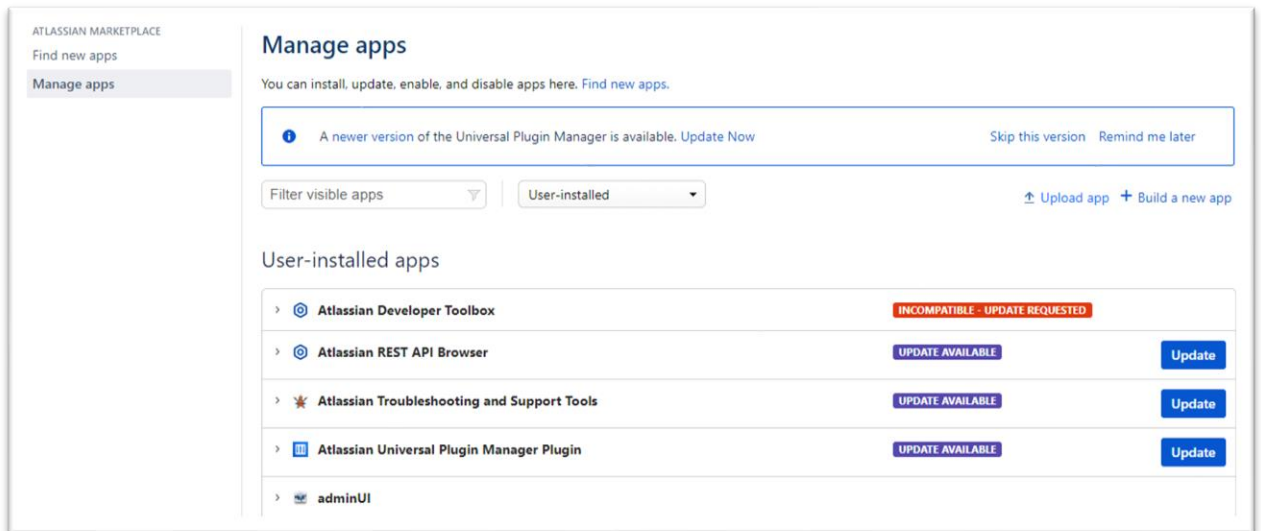


Figure 4: Plugin management: Administration -> Add-ons -> Manage apps

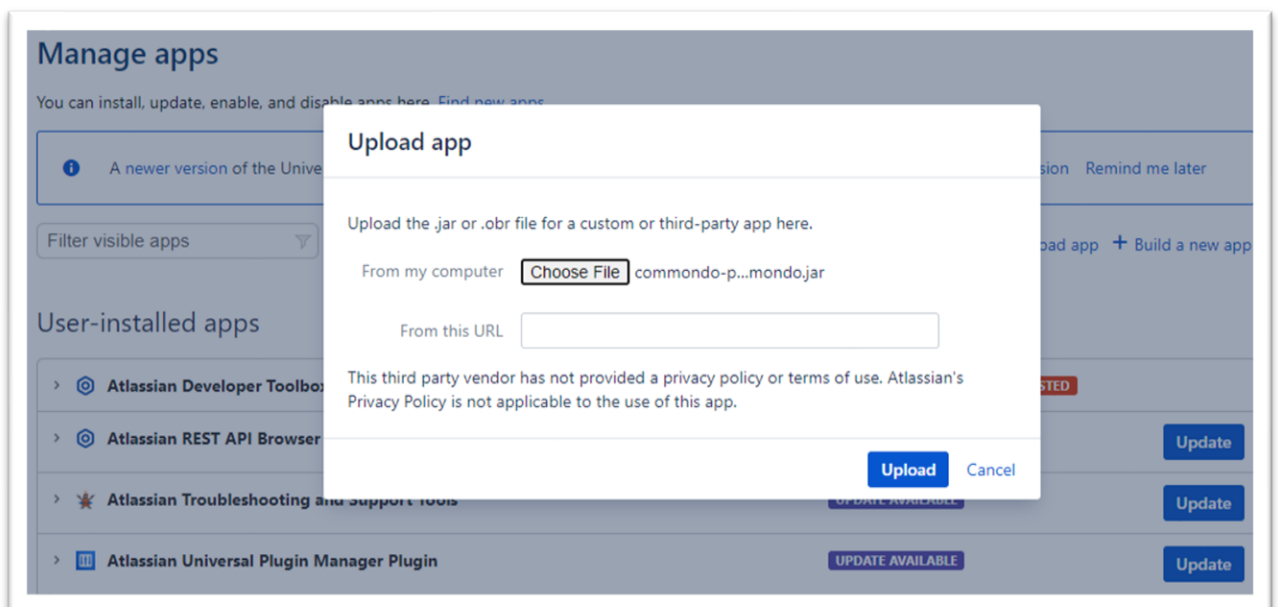


Figure 5: Choosing plugin

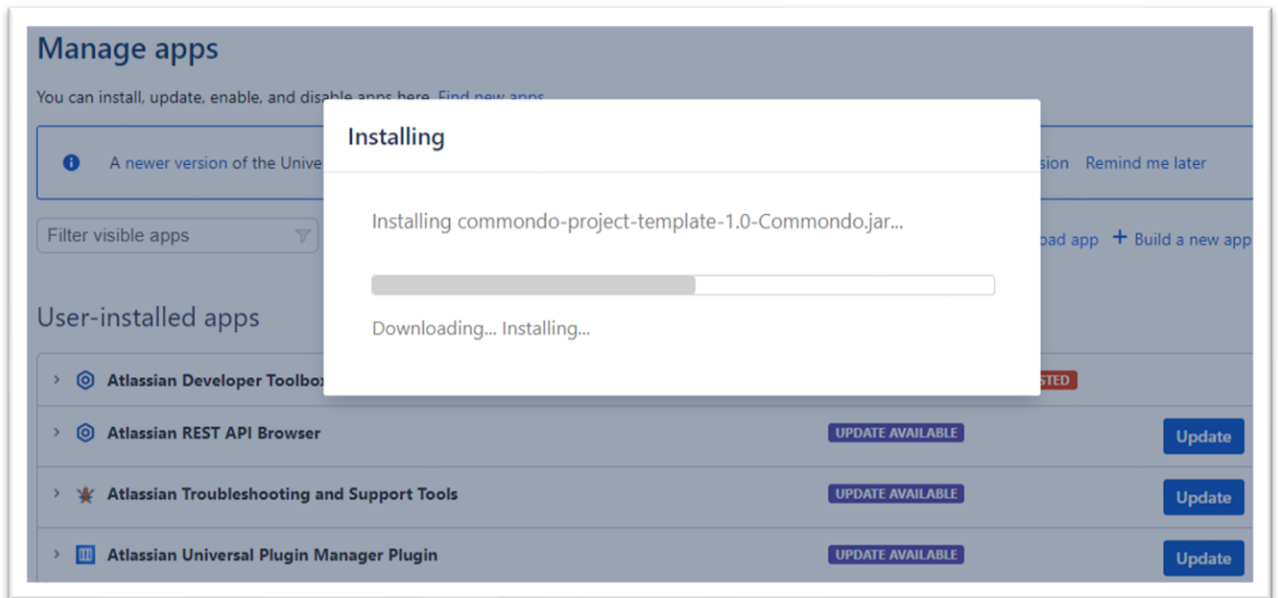


Figure 6: Plugin installing

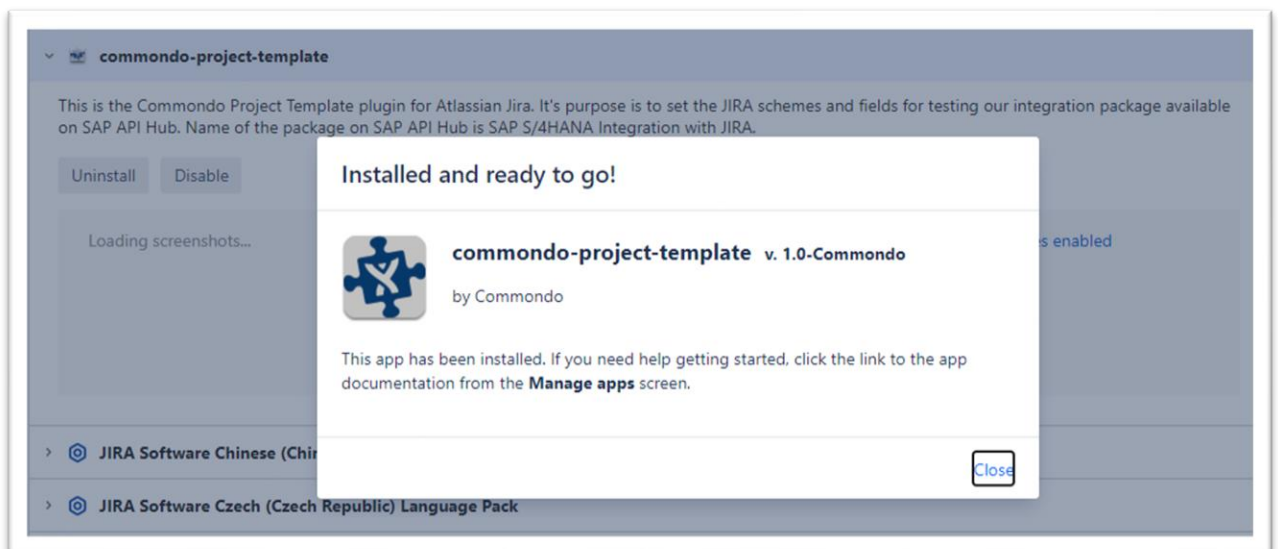


Figure 7: Installation complete



Figure 8: Commodo template added to plugin list

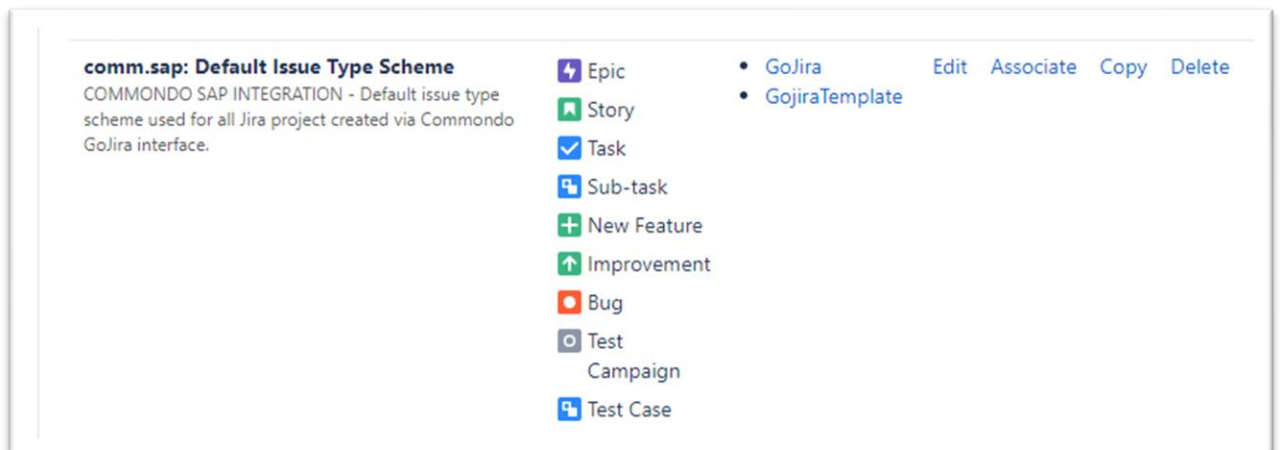


Figure 9: Example of created objects

## 5 Application execution

SAP CPI workflows are triggered with REST (HTTP) request to workflow URI. Any REST client or application can be used for triggering. You might use some testing tools (Postman, SOAPUI etc.) for test purposes. In production you will probably use some other mechanism as described in chapter 3: your custom application, Fiori application, SAP extensions, batch jobs etc.

### 5.1 Basic workflow trigger

This is a standard option which is available immediately after workflow deploy. URI for calling workflow is automatically provided by CPI after workflow is deployed. In our example there are two workflows:

- <https://<tenant>-iflmp.hcisbp.eu.hana.ondemand.com/http/PPMtoJIRATaskTransfer>
- [https:// <tenant>-iflmp.hcisbp.eu.hana.ondemand.com/http/JIRAToPPMTaskTransfer](https://<tenant>-iflmp.hcisbp.eu.hana.ondemand.com/http/JIRAToPPMTaskTransfer)

This offers some advantages:

- No additional code of configurations required
- Any REST client can be used
- Easy to run from any machine

But it is more usable for testing purposes by technical people because:

- it could be complex for high level users
- there is no GUI interaction
- there is only one action at the time
- it doesn't enable "On response" action

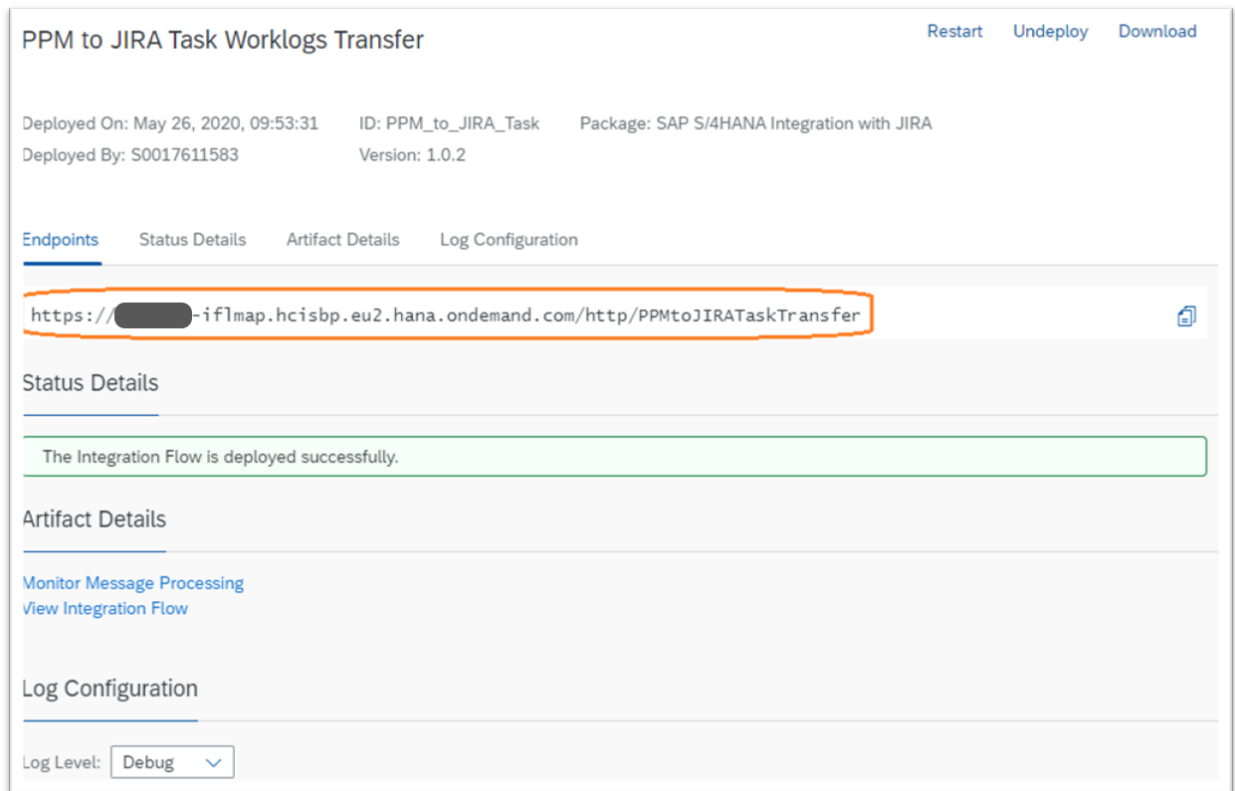


Figure 10: Deployed workflow

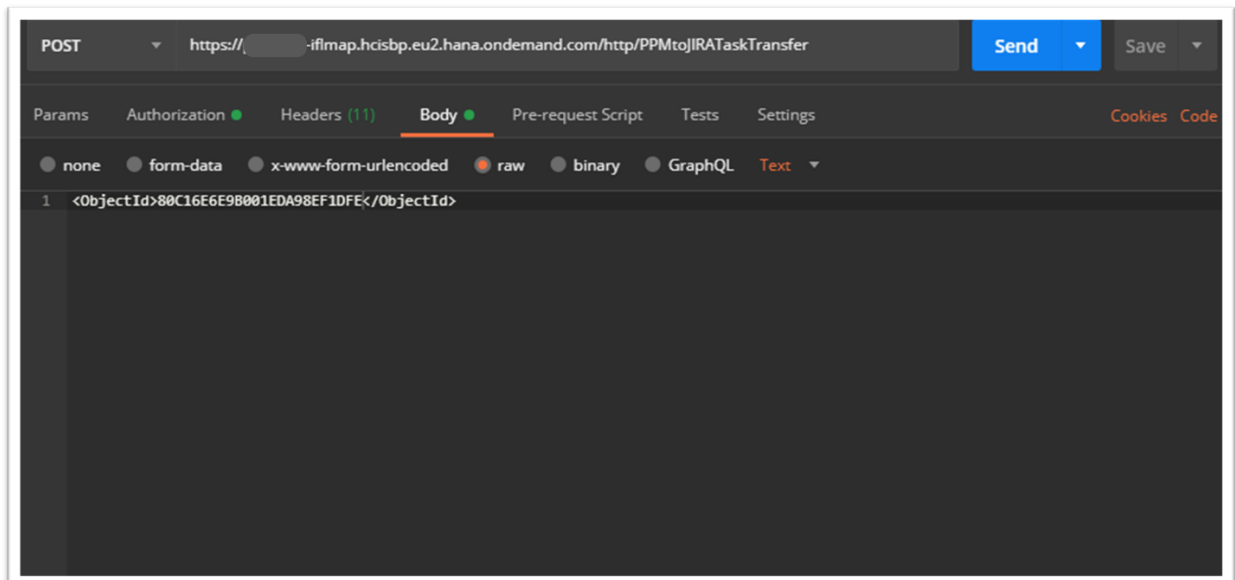


Figure 11: Calling CPI workflow from Postman

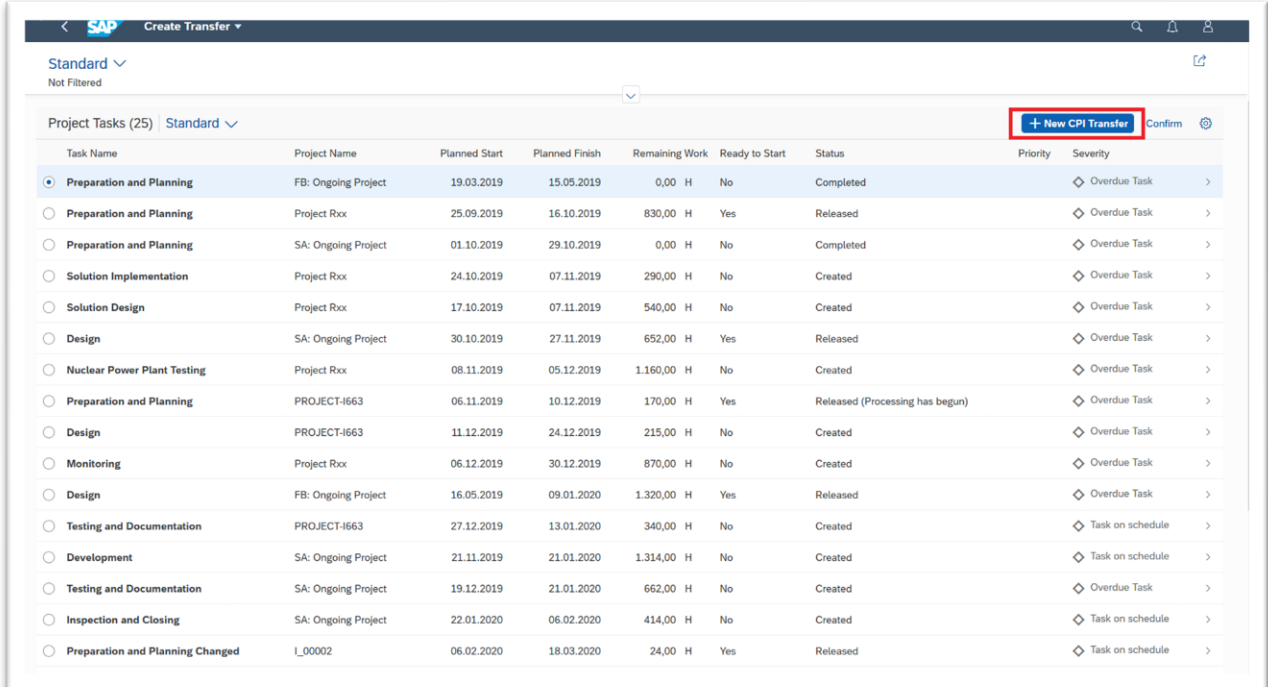
## 5.2 Commondo Fiori Trigger

More usable way to trigger flows is usage of some custom application or extensions in your SAP and/or external project management systems. Depending on your end-to-end process integration flows are only one segment in whole process. Typically, project budgeting and project decision process happens in S4/HANA. Once the project is approved and released transfer of basic project data will be transferred from S4/HANA into external project system e.g. Jira.

It means integration flows for SAP -> Jira transfer will be triggered. Of course user is allowed and enabled to trigger the transfer manually as described in previous chapter. But more efficient way is to do that directly from SAP. In figure below you find My Tasks Fiori application extended by Commondo which enables user to trigger the transfer. Fiori application is not part of delivered package, please contact Commondo for support in that regard.

Furthermore, after project data is transferred to JIRA, other operational departments can review and use it.

Usually this data consists of planned hours, planned work, schedule or costs. Operational users now have frame with planned data and can use it for project execution and input of actual values. This data can be summarized and sent back to PPM for high company levels to review it.



The screenshot shows the 'My Tasks' Fiori application interface. At the top, there is a navigation bar with 'SAP' and 'Create Transfer' options. Below this, the application title 'Standard' is visible. The main content area displays a table of 'Project Tasks (25)'. A red box highlights a button labeled '+ New CPI Transfer' in the top right corner of the table area. The table columns include Task Name, Project Name, Planned Start, Planned Finish, Remaining Work, Ready to Start, Status, Priority, and Severity. The first row is selected, showing 'Preparation and Planning' for 'FB: Ongoing Project'.

Task Name	Project Name	Planned Start	Planned Finish	Remaining Work	Ready to Start	Status	Priority	Severity
Preparation and Planning	FB: Ongoing Project	19.03.2019	15.05.2019	0,00 H	No	Completed		Overdue Task
Preparation and Planning	Project Rxx	25.09.2019	16.10.2019	830,00 H	Yes	Released		Overdue Task
Preparation and Planning	SA: Ongoing Project	01.10.2019	29.10.2019	0,00 H	No	Completed		Overdue Task
Solution Implementation	Project Rxx	24.10.2019	07.11.2019	290,00 H	No	Created		Overdue Task
Solution Design	Project Rxx	17.10.2019	07.11.2019	540,00 H	No	Created		Overdue Task
Design	SA: Ongoing Project	30.10.2019	27.11.2019	652,00 H	Yes	Released		Overdue Task
Nuclear Power Plant Testing	Project Rxx	08.11.2019	05.12.2019	1.160,00 H	No	Created		Overdue Task
Preparation and Planning	PROJECT-I663	06.11.2019	10.12.2019	170,00 H	Yes	Released (Processing has begun)		Overdue Task
Design	PROJECT-I663	11.12.2019	24.12.2019	215,00 H	No	Created		Overdue Task
Monitoring	Project Rxx	06.12.2019	30.12.2019	870,00 H	No	Created		Overdue Task
Design	FB: Ongoing Project	16.05.2019	09.01.2020	1.320,00 H	Yes	Released		Overdue Task
Testing and Documentation	PROJECT-I663	27.12.2019	13.01.2020	340,00 H	No	Created		Task on schedule
Development	SA: Ongoing Project	21.11.2019	21.01.2020	1.314,00 H	No	Created		Task on schedule
Testing and Documentation	SA: Ongoing Project	19.12.2019	21.01.2020	662,00 H	No	Created		Overdue Task
Inspection and Closing	SA: Ongoing Project	22.01.2020	06.02.2020	414,00 H	No	Created		Task on schedule
Preparation and Planning Changed	I_00002	06.02.2020	18.03.2020	24,00 H	Yes	Released		Task on schedule

Figure 12: New function in My Tasks Fiori app

## 5.3 Commodo JIRA plugin

Additional example of external application which could be used for workflow triggering has been shown in figure below.

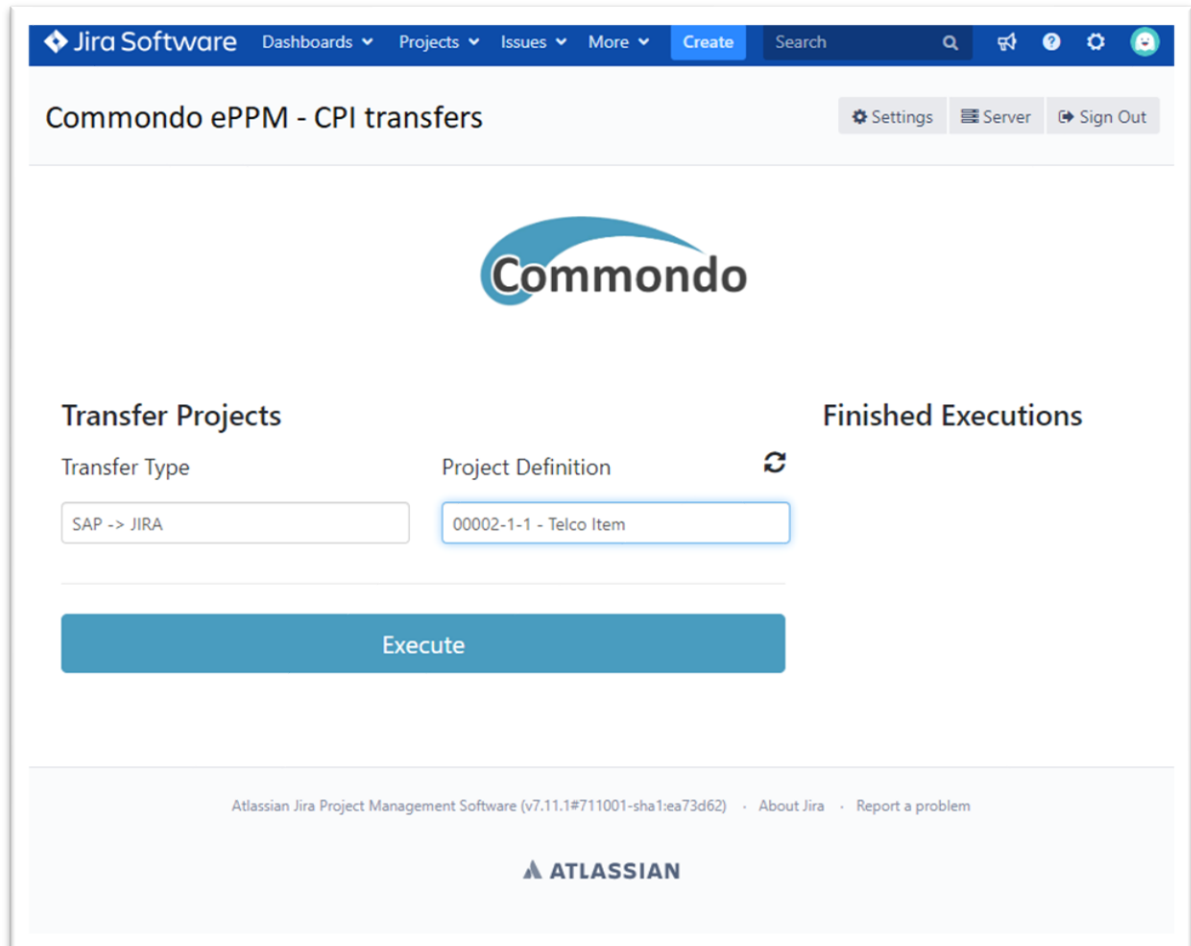


Figure 13: Commodo JIRA Plugin for CPI transfers

This Jira add-on enables user to choose projects which will be transferred and it triggers CPI workflow selected on dropdown list. Of course, user is allowed and enabled to trigger the transfer manually as described in previous chapter. But more efficient way is to do that directly from JIRA or SAP. This JIRA plugin is not part of delivered package, please contact Commodo or your Jira Integrator for support in that regard.

## 6 Usual business scenarios

Commondo through years of experience has acquired know-how for usual business scenarios with this kind of integration. Workflows in this package enable typical scenarios that we found reliable and effective for our clients' needs.

### 6.1 Management driven project execution

High level project planning is a usual and natural way for company management to plan efforts and schedule. Project duration, work and costs are determined and next step is provide that data to operational departments. They require more details data about plan and usually ask management to provide it using project management tools. This is not an easy task and project management tools often struggle to provide easy to use features that can produce both high level and low level data.

Solution is to use two project management tools, one for high level planning, other for low level planning and execution.

With connecting SAP PPM and JIRA, Commondo ePPM suite makes this task easier.

1. Management creates project in PPM and determines required Task structure and cost allocation
2. Project is transferred to Jira
3. Project is executed in Jira and filled with new planned and actual data
4. Aggregating actual or plan data from Jira and transferring to PPM

### 6.2 External project plan proposal

Operational department can create their own project plan in external system (JIRA).

Next step is to propose it to management.

For management to evaluate that project plan, other aspects of project need to be checked to determine if the plan is suitable.

Doing this manually can produce unintentional error that can reflect on whole project.

With connection SAP PPM and JIRA, plan and actual efforts can be imported to PPM project.

With all data in project, it's easy to schedule and review if proposed plan is suitable.

Plan can be adjusted and returned to JIRA for operational execution.

1. Create plan hours and schedule in Jira
2. Transfer to PPM Tasks
3. Edit plan values and schedule
4. Transfers to Jira Epics
5. Working in Jira with plan provided by management, submitting actual hours
6. Transfer to PPM tasks
7. Generate reports to compare plan and actual hours

### 6.3 Import subcontractor data

Enterprise companies are cooperating with many subcontractors on most of projects.

Subcontractors project management systems often differ from companies.

Manual export and import of data is often possible but for daily/weekly data exchange this is a hard task to execute.

Commondo ePPM enables automatic daily/weekly data exchange with subcontractors.

1. Subcontractor provides a file or connection to system
2. File is imported to Jira

3. Data from Jira project is imported to PPM
4. Reports can be generated with new data