

CAD Integration Strategy

SAP Engineering Control Center

Gerhard Himmelsbach, SAP
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Public



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Overview

The Digital Thread – why is CAD integration important

What are your current options to integrate CAD tools into SAP ERP / SAP S/4HANA

Future Direction / Strategy

Roadmap for SAP Engineering Control Center

The Digital Thread – why is CAD integration important

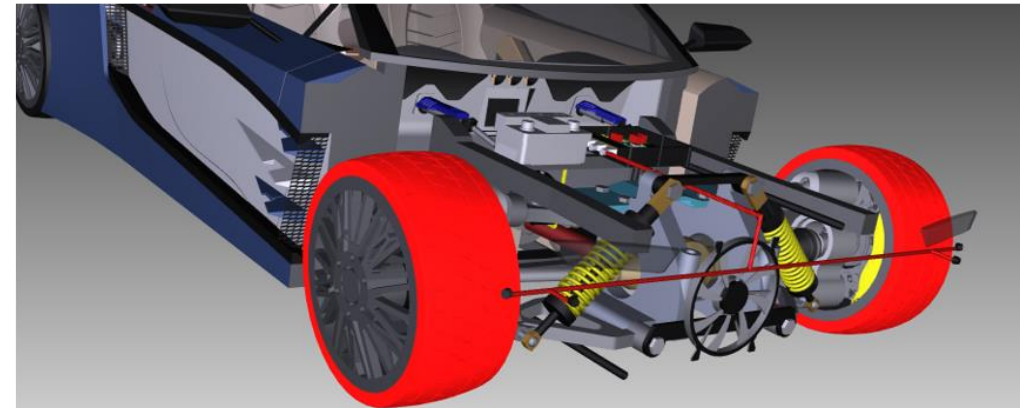
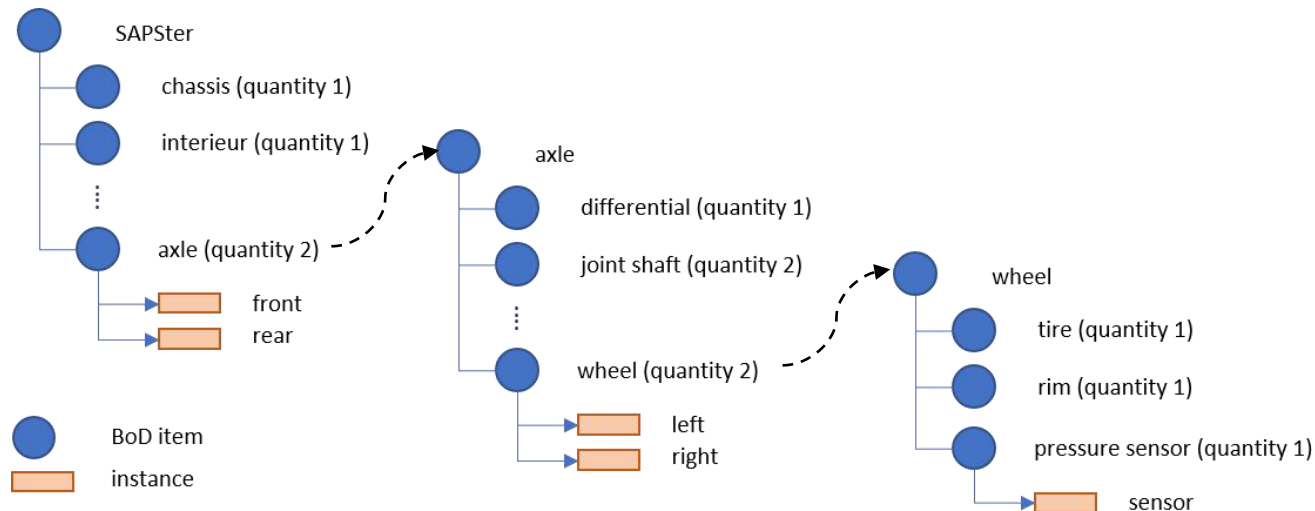
- Virtual Product Model is input for:
 - MBSE – Model based Systems Engineering
 - Service model
 - VR – Virtual Reality
 - AR – Augmented Reality
 - MRP – Material Requirements Planning (mainly BOM quantities)
 - Production Model – BOM + routings
 - Sales Model (How can you sell your product? What are product options/variants?)
- “Bill of Instances”

Digital Thread: impact on CAD design → BOM vs. instances

In the picture below you can see, that a sensor is part of the wheel assembly. However, on top-level you do not have 4 instances as tangible, persistible object available. Via the path and multiplication you can derive the 4 instances.

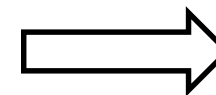
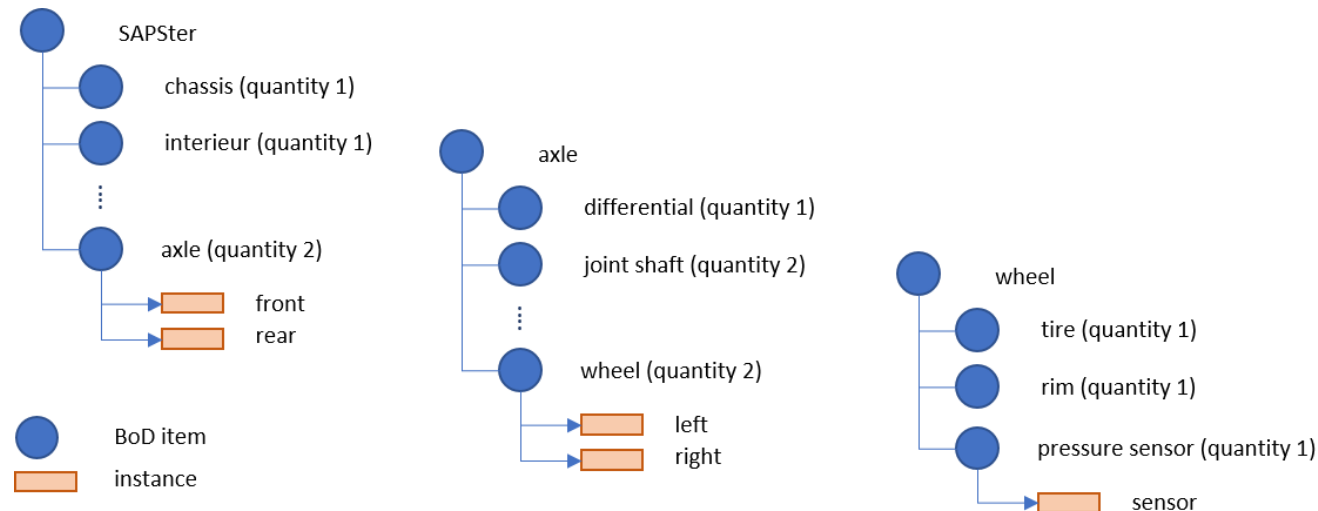
If there would be an instance per sensor, you could

- Link and relate an instance via different authoring applications to improve collaboration across domains.
- Assign the instances easily to individual manufacturing operations.
- Enable the monitoring for each individual sensor (IoT)



From Bill-of-Material to instances to Bill-of-Instances

On top level you can traverse down and pick all instantiated leaves. In the example below you multiply the subassemblies.



The SAPster consists of

- ❖ Chassis
- ❖ Interior
- ❖ Front differential
- ❖ Front joint shaft
- ❖ Front left tire
- ❖ Front left rim
- ❖ Front left **pressure sensor**
- ❖ Front right tire
- ❖ Front right rim
- ❖ Front right **pressure sensor**
- ❖ Rear differential
- ❖ Rear joint shaft
- ❖ Rear left tire
- ❖ Rear left rim
- ❖ Rear left **pressure sensor**
- ❖ Rear right tire
- ❖ Rear right rim
- ❖ Rear right **pressure sensor**

Current Options to manage CAD data

- CAD-DESKTOP, only for SAP ECC 6.0
- SAP Engineering Control Center for ECC and S/4HANA
- Indirect Integrations for Windchill, 3DX and Teamcenter
- Siemens Teamcenter

Siemens and SAP Join Forces to Accelerate Industrial Transformation

8 Likes 3,816 Views 1 Comment

On July 14, 2020 SAP SE and SIEMENS AG [announced](#) a strategic partnership in the area of industrial transformation.

These two industry leaders combine their expertise in product lifecycle, supply chain and asset management to deliver unprecedented new innovations and business models that remove silos and accelerate industrial transformation.

The partnership is meant to provide faster product time to value, methods to design with real-time supply chain information, create a sustainable product development process and deliver an end-to-end digital thread throughout the product lifecycle.

What does the partnership mean for SAP's PLM solution strategy?

The SAP PLM solution portfolio is significantly expanded through our partnership with Siemens and opens up completely new possibilities for our customers. With this, we support our customers in the acceleration of their digitization throughout their companies and transform the idea of Industry 4.0 into reality with a combined solution portfolio consisting of Siemens and SAP components. It is also important to note that the scope of this partnership is currently focused on the discrete industries.

This strategic agreement has no impact on our existing SAP PLM solution portfolio in the foreseeable future. Thus, the current SAP PLM solution components, including the SAP Engineering Control Center (ECTR) and the associated interfaces, are still available to our customers and SAP intends to continue to develop them as usual. SAP's current maintenance commitments for SAP S/4HANA to the end of 2040 and the core applications of the SAP Business Suite to the end of 2027 also apply to these solutions if applicable.

SAP & Siemens teams are actively engaged and evaluating to drive further synergies for our customers across the broader PLM portfolio including Portfolio project management, Costing, Compliance, Collaboration and systems engineering. Both companies intend to further develop and align their product portfolios along the lines of the partnership over time.

Source: [SAP SCN Article](#)

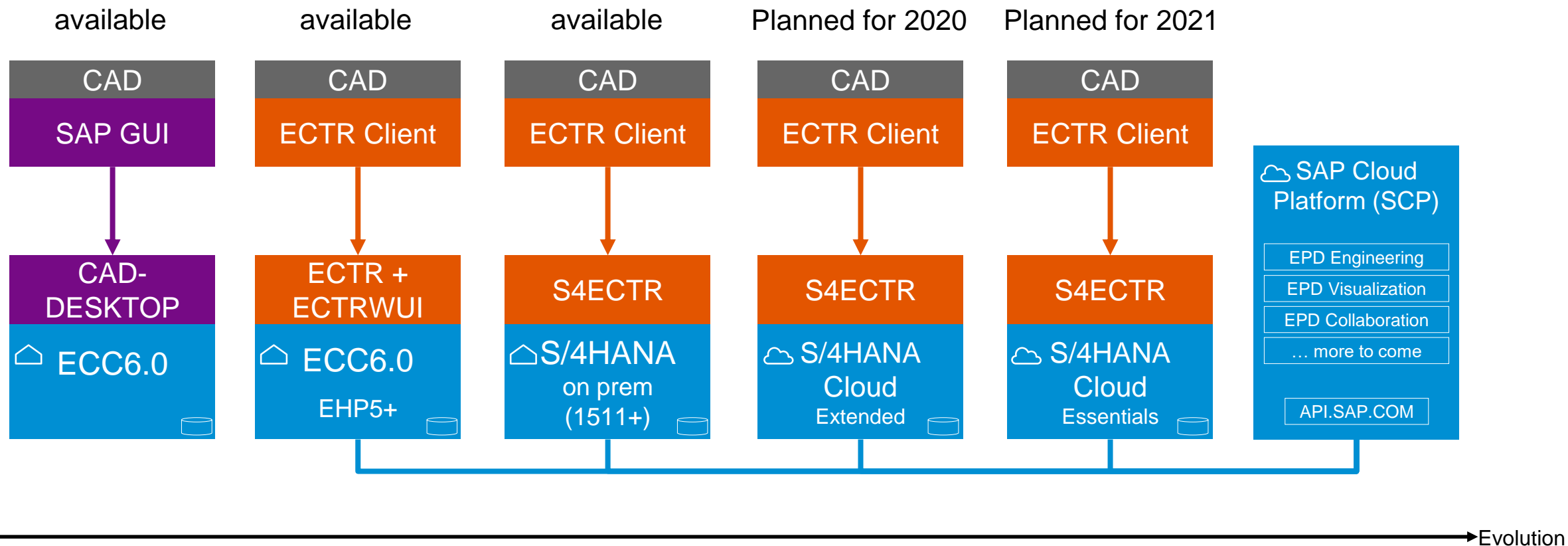
Future direction / strategy

Our plan and ambition:

- SAP Engineering Control Center shall be part of the S/4HANA stack, no matter if you are operating the S/4HANA stack yourself or SAP or a hyper-scaler.
- SAP Engineering Control Center shall integrate into additional services on SAP's cloud platform like SAP Enterprise Product Development Collaboration, Engineering and Visualization.
- SAP Engineering Control Center offers customers a path no matter where they are today and where they want to go, e.g. from CAD-Desktop on SAP ECC 6.0 to S/4HANA Cloud operated by SAP.

SAP Engineering Control Center

Evolution and deployment options



Roadmap for SAP Engineering Control Center

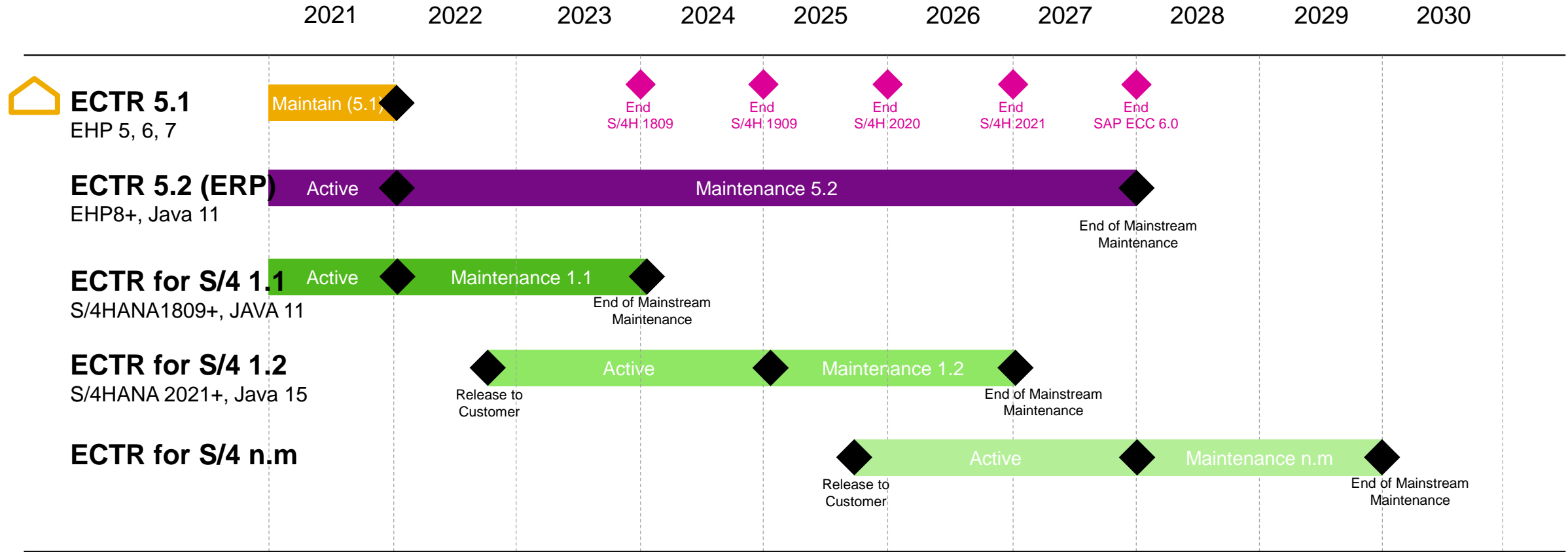
The screenshot displays the SAP Road Map Explorer interface. At the top, there is a navigation bar with the SAP logo and 'Road Map Explorer' title, followed by tabs for 'Products', 'Processes', 'Industries', and 'My Road Maps'. A search bar contains the text 'Authoring Tool Integration' and shows '15 Innovations'. Below the search bar are filters for 'Products', 'Processes', 'Industries', and 'Focus Topics', along with a date range selector set to 'Earliest - Latest' and a 'Save' button.

The main content area shows a timeline view with the following sections:

- Q3 2020 CURRENT 6 Innovations:**
 - SAP Engineering Control Center 1.1 for SAP S/4HANA
 - Authoring Tool Integration:
 - Change-record integration (SAP Engineering Control Center 1.1 for SAP S/4HANA)
 - Continuous improvements through SAP Customer Connection in 2020 (SAP Engineering Control Center 1.1 for SAP S/4HANA)
 - Material production version integration (SAP Engineering Control Center 1.1 for SAP S/4HANA)
 - New APIs to enable customization (SAP Engineering Control Center 1.1 for SAP S/4HANA)
 - Quick search functionality (SAP Engineering Control Center 1.1 for SAP S/4HANA)
- Q4 2020 1 Innovation:**
 - Future Release: Integration of Zuken E3.series and CR-8000 (SAP Engineering Control Center for SAP S/4HANA)
- Q1 2021 0 Innovations:** (Empty)
- Q2 2021 1 Innovation:**
 - Future Release: Continuous improvements for SAP Engineering Control Center in 2021 (SAP Engineering Control Center for SAP S/4HANA)
- Q3 2021 0 Innovations:** (Empty)
- 2021 0 Innovations:** (Empty)
- 2022 1 Innovation:**
 - Product Vision: Continuous improvements for SAP Engineering Control Center in 2022 (SAP Engineering Control Center for SAP S/4HANA)

A central call-to-action button labeled 'Open online' is overlaid on the Q4 2020 section.

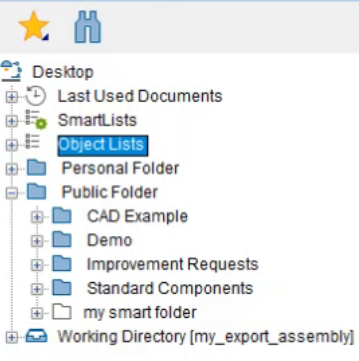
SAP Engineering Control Center Schedule



◆ Milestones
 Active: ship new features and corrections
 Maintain: ship corrections


Engineering View (Highest Version) | No Change Number selected | No Access Control Context Active

Desktop 1 object(s) selected



- Desktop
 - Last Used Documents
 - SmartLists
 - Object Lists
 - Personal Folder
 - Public Folder
 - CAD Example
 - Demo
 - Improvement Requests
 - Standard Components
 - my smart folder
 - Working Directory [my_export_assembly]

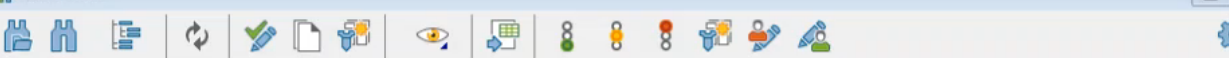
Object Browser



Content Of: Default List


0 Objects (Total 0 Objects)

Assemblies



Assemblies

3D Viewer



SAP 3D Visual Enterprise Viewer

Software Project as Component in ECTR

Lab Preview

SAP Engineering Control Center for SAP S/4HANA (Desktop)

System Edit Macros Administrator Window Help

Engineering View (Highest Version) No Change Number Active No Access Control Context Active

Desktop 1 object(s) selected

Object Browser

Name: Autonomous traffic light control Jenkins

Description: consume thresholds to control LED lights

Basic Data Structure Data

External Name of the Software Project	Autonomous traffic light control
Description	consume thresholds to control LED lights
Tool of the Continuous Integration (CI)	Jenkins
Software Material	7811
Address of the CI-server	ECTR_TO_JENKINS
URL-address of the Software Project	http://ectr1.ectr.c.eu-de-1.cloud.sap:8080/job/Autonomous traffic light control/
User of creation	GRIESSMANNJ
Date of creation	25.06.2020 00:00:00
User of last change	
Date of last change	
Name of the Software Project	AUTONOMOUS TRAFFIC LIGHT CONTROL
UUID (in Char32 mode)	248A07FC5C401EDAADD71B55C2B39526

Object Lists

Personal Folder

test software

Autonomous traffic light control Jenkins

Newest Software Version

2.612.83 reduction on energy consumption

Software Version(s)

2.6.45 fix threshold checks for boundaries

2.612.83 reduction on energy consumption

Software Material

7811 SWNV consume thresholds to control L...

Software Document(s)

10000033764 SWV 00 fix threshold checks for boundaries

10000033764 SWV 01 reduction on energy consumption

XPLMTestJob Jenkins

test VEMP

2 objects found ...

QIY 002

Questions | Thank you.



Contact information:

Gerhard Himmelsbach

Product Owner SAP ECTR

gerhard.himmelsbach@sap.com

[Link to ECTR Community on SCN
Improvement Requests](#)