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Feature Scope Description

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1 About This Document

This document shows you which features are provided with SAP Enterprise Product Development.

On the product pages of SAP Help Portal, you may come across additional features, or integration descriptions with other products that must be licensed separately. These descriptions may go beyond the product scope specified here. Further restrictions may apply based on your license agreement with SAP.

2 Introduction

SAP Enterprise Product Development is a cloud solution that enables you to digitally orchestrate your product development, from design to operate, resulting in reduced time to market, higher R&D return on investment, higher margins, and reliable product launches.

The solution offers the ability to run specific product life-cycle management services in the cloud, while keeping relevant data on premise.

3 Capabilities

SAP Enterprise Product Development provides product life-cycle management capabilities in the cloud. Each capability is represented by a set of features.

3.1 Collaboration

Introduction

A capability of SAP Enterprise Product Development that allows you to instantly collaborate with participants, within and outside your organization, to accelerate product innovation.

Functional Areas

- **Document Collaboration:** Collaborating and working with unstructured data such as files.
- **Workflows:** Achieving transparency through workflow-based collaboration.
- **Product Data Collaboration:** Collaborating and working with structured data such as business objects.

Key Features

Feature	Description
Collaboration	Create and use virtual spaces to collaborate with people in your organization, and across your extended enterprise.
Document Collaboration	Store, share, and review engineering documents in collaborations. Manage document versions by creating one or more versions for the base version of a file.
Collaborate with Participants	Invite participants to collaborations, where participants are your stakeholders such as original equipment manufacturers (OEMs) and business partners, internal or external to your organization.
Workflow-based Collaboration	Add workflows to collaborate using a process driven approach to facilitate easier communication between stakeholders. Use an integrated inbox to process work items and make business decisions.

Feature	Description
Product Data Collaboration	Collaborate on product data such as bills of material (BOM) and order BOM, and enable internal and external stakeholders to propose changes using redlining.
Specification Exchange	Collaborate on provisional specifications with your suppliers to shorten the time until a new or updated specification can enter the system.

3.2 Connected Products

Introduction

The Connected Products capability for SAP Enterprise Product Development enables development and monetization of digital twins.

It provides functionality for efficiently creating digital products by combining IoT with engineering models. To make this possible, products are digitized, which means that an IoT-enabled engineering model of a physical product is connected to its real-world physical twin via sensors.

Connected products enable OEMs (original equipment manufacturers) to monetize digital twins by creating new business models, such as Product-as-a-Service, to provide outcome-based offerings.

Digital twins are also leveraged to close the engineering loop by monitoring products and feeding their usage data back to the manufacturer, which in effect enables faster product development. At the same time, the content is made available for operators to use for predictive services in the asset management space.

Functional Areas

- Usage analysis
- Health prediction

Key Features

Feature	Description
Simulation-based digital twins	Embed digital twins and engineering simulation models in an IoT infrastructure for advanced engineering insights.

Feature	Description
Health analysis with physical and virtual sensors	<p>Analyze the condition of equipment using physical and virtual sensors.</p> <p>A virtual sensor – not unlike physical ones – is a device that can be placed at a specific location on an item of equipment to provide a continuous reading of the physical state of the equipment at this location (for example, with regard to motion, reaction forces, or strain).</p>
Vibration analysis with spectrograms and frequency spectrums	<p>To analyze emerging malfunctions, vibration experts can use spectrograms and frequency spectrums based on a Fast Fourier Transformation (FFT).</p> <p>FFT is an algorithm that calculates a spectrum from a time waveform, that is, it converts a signal from the time domain into the frequency domain.</p>
Alert handling to support digital inspections	<p>Carry out digital inspections by identifying equipment that has open alerts, for example, when equipment is subjected to high structural loads.</p> <p>Engineers can analyze the impact of an alert by viewing on a chart the stress levels recorded during the time frame of the alert.</p>
Dynamic 3D visualization for CFD and FEA	<p>Visualize and present actual and simulated system behavior including post-processing capabilities of CFD (computational fluid dynamics) and FEA (finite element analysis) models.</p>
Lifecycle management for connected products	<p>Original equipment manufacturers (OEMs) can manage the lifecycle of connected products by creating and managing connected product templates and instantiating the connected products based on the templates.</p>
Integration with asset central foundation	<p>Single repository for all information about assets and equipment to enable effective collaboration between OEMs and operators</p>
Time-based subscription billing	<p>Through an integration with SAP Subscription Billing, original equipment manufacturers (OEMs) can monetize their digital services by enabling time-based subscription billing for their operator business partners.</p>
Sharing connected products among business partners	<p>Through an integration with SAP Asset Intelligence Network, OEMs can enable their business partners, for example, equipment operators, to view charts and view and process alerts for their own equipment.</p>

3.3 Engineering

Introduction

The Engineering cloud service of SAP Enterprise Product Development enables you to use the following capabilities:

Functional Areas

- **Requirements Acquisition:** It enables you to obtain product feedback, create needs based on feedback analysis to capture valuable information for product improvement, and create requirements based on needs.
- **Requirements Management and Systems Modeling:** It mainly involves the practice of requirements management, requirements exchange, and systems modeling.
- **Test Management:** It enables you to check whether your team's development matches the associated requirements by creating reusable test artifacts and organizing them into flexible testing projects.

Key Features

Feature	Description
Requirements Acquisition	<p>This feature allows you to:</p> <ul style="list-style-type: none">• Create and manage feedback plans, including collecting feedback from various sources and analyzing feedback optionally using machine learning services for auto classification of feedback.• Submit feedback without creating plans and tasks.• Create, manage, and prioritize needs to capture useful information for product improvement.• Create requirements based on needs, and link needs to requirements.

Feature	Description
Requirements-Driven Development	<p>This feature enables you to:</p> <ul style="list-style-type: none"> • Manage requirements by creating requirements models. • Assign requirements and other model objects to external business objects to support requirements traceability. Requirements traceability enables you to manage the relationships between the requirements and the associated objects in your development. • Run impact and lineage analysis - You can launch an impact and lineage analysis on requirements, model objects and other associated business objects. • Edit one requirement model concurrently. • Check requirements quality and retrieve suggestions. • Use the traceability view to create and maintain traceability links for requirements.
Standard-Based Requirements Exchange	<p>This feature enables you to transport requirements between different requirements management tools. You can:</p> <ul style="list-style-type: none"> • Import and export requirements using a Requirements Interchange Format file. • Import requirements and associated information from a text file.
Model-Based Systems Engineering	<p>With this feature, you can:</p> <ul style="list-style-type: none"> • Use requirement diagrams to visualize the hierarchy and other relationships between all or some of your requirements. • Use block definition diagrams to design and analyze system structures. • Use use case diagrams to describe the usage of a system by providing a graphical view of how actors interact with the system to achieve their goals. • Use internal block diagrams to specify the internal structure of a single block in your system model. • Use parametric diagrams to convey the constraints information of your system. • Use state machine diagrams to specify how a system or sub-system changes its state over time in response to different events. • Use activity diagrams to review and analyze the behaviors of a system by describing actions and flows involved in its activities. • Use sequence diagrams to describe system behaviors by modeling the interactions between the participants (systems, sub-systems, and actors in the associated environment). • Use package diagrams to describe the relationships between packages in a model. • Use variant management models to create product variants.

Feature	Description
Test Management	<p>This feature enables you to:</p> <ul style="list-style-type: none"> • Check test cases coverage. • Create and manage test artifacts. • Plan and execute tests against product requirements. • Analyze test results and stay connected with product development.

3.4 Visualization

Introduction

The Visualization cloud service for SAP Enterprise Product Development is a bundle of services and applications for working with 2D and 3D visualizations. Visualizations include 2D images and drawings, and 3D models and photos.

The services enable cloud storage and publishing of the data for use in different contexts, as well as creation of automated business workflows around the data.

The applications allow efficient importing of visualizations by end-users, and enrichment of the content with business relevant information to drive valuable user interactions with the data.

Functional Areas

- **Conversion:** Taking raw visualization data in a variety of industry formats, reducing it in size and complexity, converting it to a neutral SAP format.
- **Storage:** Storing visual data in a queryable, editable form in a cloud repository.
- **Annotation:** Annotation of the data with business information.
- **Enrichment:** Improving the visual appearance of the data, adding descriptions of business processes around the data, and reorganizing the data to make it more consumable by end users.
- **Delivery:** Making the enriched data available for both online and offline scenarios, and in a shape most suited to the consumer.

Key Features

Table of Features

Feature	Description
Conversion and Storage	<p>Import any supported files for display in the viewer, mobile viewers, or any integrated application.</p> <p>Use advanced capabilities that can't be supported by storing files in a repository. For example:</p> <ul style="list-style-type: none">• To benefit from incremental delivery of scene data.• Filtered display, which doesn't transmit any unused data to viewers.• Undoable modifications to scene data.
Annotation	<p>Associate free-form business data controlled by your applications with visualization objects, and have these annotations stored directly in the model itself. This feature enables downstream consumption of this information to drive valuable business interactions, for example:</p> <ul style="list-style-type: none">• Ordering of spare parts• Enabling manufacturing scenarios• Performance monitoring
Enrichment	<p>Add your own rich content to a visualization:</p> <ul style="list-style-type: none">• Associate business identifiers (visualization usage IDs) to graphical objects to enable visual navigation of integrated business data• Work instructions for manufacturing or maintenance• Marketing materials• Configurators for Build to Order• Service manuals
Delivery	<p>Make your content available for consumption:</p> <ul style="list-style-type: none">• Viewing directly from the cloud

4 Product Cockpit

The Product Cockpit is a feature of SAP Enterprise Product Development that shows an overview of product development information.

The Product Cockpit gives you an overview of different aspects of your product development from a card-based dashboard. Collecting information from various applications and services, the cards keep you up to date with the latest statuses of your relevant topics. You can also create and tailor the cards to suit specific business needs.

Key Features

Feature	Description
Product Cockpit	Use this feature for an overview of various product development information. This information includes requirements, product feedback, test cases, 3D models, and data from other systems.

5 Common Services

The Common Services is a platform to central configurations of all the capabilities from SAP Enterprise Product Development.



Feature	Description
Common Services	Use this feature for central configurations, for example, managing teams.

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