

Capability Overview, SAP SE 2021

PUBLIC



Agenda

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- Capability Overview & Demo
- Roadmap
- Summary



SAP Enterprise Product Development Solution Overview



SAP Enterprise Product Development





Market Challenges & Trends



We can't go on like we did in the past to manage this complexity...

We need a paradigm shift on the way we empower people and deliver enterprise data....



- Product/Asset Design
- Collaboration & Sourcing
- Product Compliance
- Manufacturing & Quality
- Work Instructions
- Asset Management & Maintenance
- Spares & Service



Moving from Text & Table Centric to Visual Digital Thread



"3D Visual Enterprise" Connecting 2D,3D & 360 Panoramas to Business Data, Processes & Networks!

Capability Overview & Demo





Enables a visual digital thread that empowers people throughout the enterprise with insights to improve key business decisions from Design to Operate

Capability features and value proposition

The visualization capability enables companies to:

- Digitally transform and simplify the User Experience (UX) by accessing information visually.
- Leverage visualizations as the oldest and most natural form of communication to provide "In Context" visual learning and retention of product and asset information.
- Connect 2D, 3D Computer Aided Design (CAD) data and 360 Panoramas with ERP and master data from design, procurement, supply chain, manufacturing, quality, asset operations and service to deliver a Model Based Enterprise.

Resulting in:

- Empowered people, that are engaged and motivated be more productive with next generation visual cloud applications.
- Reduction in time to make key business decisions by providing access and visibility to business data, insights and actions via a 3D visual index.
- Value measured in hours leveraging secure role-based visual application templates.
- Improved training, manufacturing execution, service and first-time fix rates of critical assets leveraging 3D visual work instructions and 2D visual navigations.



Realize the Visual Digital Thread from Design to Operate

Key Features



Simplified User Experience

- Access information visually
- In context product or asset information
- Digital transformation of the graphical user interface (Ux)
- Enterprise search and content filtering

Import, Manage, Browse & Share

- Upload 2D & 3D Computer Aided Design (CAD) files, 2D images and 360 panoramas
- Create & manage folders and visualizations with access control and permissions
- Securely share visualizations and business
 date within templates

Visual Data Integration



- Tag 2D, 3D and 360 Panorama visualizations with business metadata and associate with enterprise structures
- 2D, 3D design data and 360 Panorama into visual business processes
- Support change management processes



Author, Edit & Enhance Visualizations

- Apply scene materials
- Create views and animation sequences
- Annotate 3D models and add Business Object Markers/Tags to 360 Panoramas
- Author 2D Hotspots & links for interactive 2D



Role-based Visual Application Templates

- Realize value in hours
- Extend templates with zero coding
- Create "Visual Indexes" by combining 3D, analytics and enterprise data.



3D Visual Work Instructions

- Transcend language barriers
- Visual learning and retention of information
- Improve training, manufacturing execution, service and first-time fix rates of critical assets





Enables a visual digital thread that empowers people throughout the enterprise with insights to improve key business decisions from Design to Operate

End to End Use Cases:

Visual Analytics / Visual Indexes:

 Reduction in time to make key business decisions by providing access and visibility to business data, insights and actions via a 3D visual index.

Visual Work Instructions:

 Improved training, manufacturing execution, service and firsttime fix rates of critical assets.

Visual Navigation 2D & 360 Panoramas:

 Leverage 2D and 360 panoramas of legacy brownfield assets, manufacturing plants and refineries and connect to business data.

2D DWG Hotspot Editing:

Import 2D Vector DWG files and author hotspots to link 2D visualizations to business data and other 2D, 3D visualizations or 360 panoramas.



Use Case: Visual Analytics / Visual Indexes



Reduction in time to make key business decisions by providing access and visibility to business data, insights and actions via a 3D visual index





Use Case: Visual Analytics / Visual Indexes



This use case starts with a 3D Computer Aided Design (CAD) data set representing a released Product or Asset, ready for use downstream of Design



Use Case: Visual Work Instructions



Improve training, manufacturing execution, service and first-time fix rates of critical assets.





Use Case: Visual Work Instructions

This use case starts with a 3D Computer Aided Design (CAD) data set representing a released Product or Asset, ready for use downstream of Design



SAP Enterprise Product Development – Visualization Use Case: Visual Navigation 2D, 3D & 360 Panoramas



Leverage 2D and 360 panoramas of legacy brownfield assets, manufacturing plants and refineries and connect to equipment, business data and link to interactive 2D & 3D



Use Case: Visual Navigation 2D & 360 Panoramas



Leverage 2D and 360 panoramas of legacy brownfield assets, manufacturing plants and refineries and connect to equipment and business data



SAP Enterprise Product Development – Visualization Use Case: 2D DWG Hotspotting to Enable Interactive 2D



Leverage 2D DWG's of piping and instrumentation diagram's (P&ID's) of assets, manufacturing plants, refineries, buildings and floorplans and connect to equipment and business data and link to other visualizations.





SAP Enterprise Product Development – Visualization Use Case: 2D DWG Hotspotting to Enable Interactive 2D



Leverage 2D DWG's of piping and instrumentation diagram's (P&ID's) of assets, manufacturing plants, refineries, buildings and floorplans and connect to equipment and business data and link to other visualizations.



Realize the Visual Digital Thread from Design to Operate non-SAP 占占占 **Associate** <u></u> **Visually Empower People Author Browse SAP** Cloud Platform Manage **Templates** Manage Data Import **Connections** Operator **Manufacturer** $\stackrel{\circ}{\Box}$ DESIGN **PLAN** MANUFACTURE DELIVER **OPERATE** CLOUD CLOUD **ON-PREMISE ON-PREMISE** DESIGN **PLAN MANUFACTURE** DELIVER **OPERATE** SAP S/4HANA | SAP ERP / ECC

SAP Enterprise Product Development - Visualization

Realize the Visual Digital Thread from Design to Operate non-SAP 占占占 **Associate** ----000 <u></u> **Visually Empower People Author Browse SAP** Cloud Platform 000 000 000 000 000 Manage OPERATE Mfg. DESIGN **Templates** Manage Data **S/4 C/4** Import **Connections** $\overset{\circ}{\Box}$ **Asset Reuse Foundation** DESIGN **PLAN** MANUFACTURE DELIVER **OPERATE** CLOUD R CLOUD **ON-PREMISE ON-PREMISE** DESIGN **MANUFACTURE** DELIVER **PLAN OPERATE** SAP S/4HANA | SAP ERP/ECC

SAP Enterprise Product Development - Visualization

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Roadmap



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Product

Industry

Product SAP S/4HANA Cloud

Summary



Realize the Visual Digital Thread from Design to Operate









Enterprise insights to improve key business decisions, processes and timely action



Access information visually, in context of product or asset information



Improve training, manufacturing execution, service and first-time fix rates of critical assets

Thank you.

