

Siemens PLM Software

Teamcenter Manufacturing 3D PDF Documentation

Highly visual and dynamic 3D PDF work instructions

Benefits

- Rich and interactive 2D/3D work instruction documents, with embedded PMI information, delivered electronically to the shop floor
- Comprehensive set of 2D/3D visualization tools such as zoom, pan, rotate, markup and more embedded in the work instructions
- Represent 3D process sequence simulations derived from the Process Simulation on Teamcenter application
- View rich, interactive 3D work instructions using the free Adobe Reader

Summary

Manufacturers always look for solutions that can clearly translate assembly process plans into a set of clearly documented work instructions so that shop floor personnel know precisely how to execute the assembly steps and prevent quality issues. However, many manufacturers still rely on paper-based work instructions that are not only inefficient and time consuming but also incur additional printing and distribution costs. For any manufacturer, work instructions are the main mode of communication between manufacturing planning and shop floor execution. It is therefore essential that the work instruction design and delivery process is formalized and integrated with product design and manufacturing planning systems. Best-in-class work instructions are published in rich 2D/3D format so that complex assembly process steps are clearly understood on the shop floor.

The Teamcenter manufacturing 3D PDF documentation solution delivers rich, interactive 3D work instructions in a PDF format using preconfigured templates. The process of authoring and publishing these documents is tightly integrated with the enterprise CAD and the Teamcenter PLM platform to ensure that these documents are always up to date and any effects of change are immediately reflected downstream. Using this solution, manufacturers can now easily generate and distribute rich and interactive 3D PDF work instruction documents including PMI, markups and other manufacturing information directly to the shop floor.

Greater clarity for complex assembly instructions through rich and interactive 3D documents

Using the Teamcenter manufacturing 3D PDF documentation solution, you can generate work instructions which clearly and

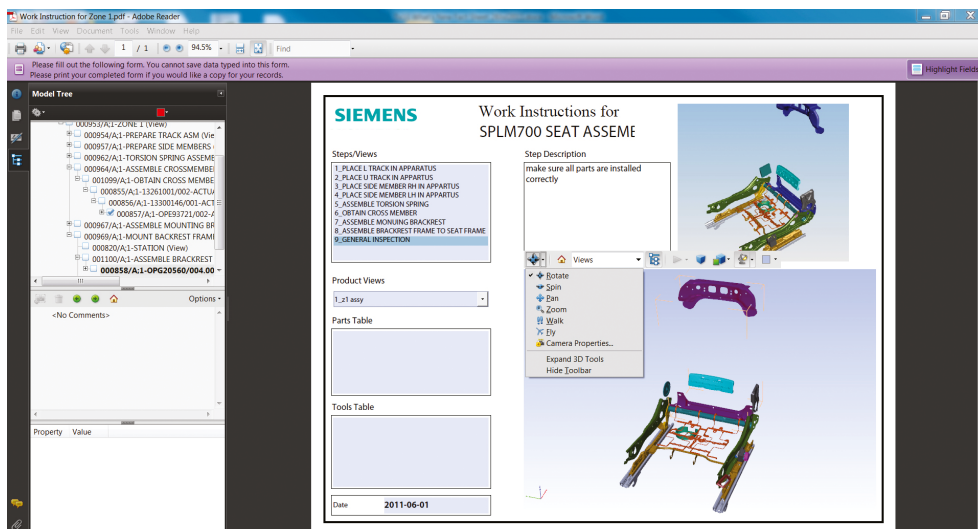
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Benefits *continued*

- Standardize and re-use work instruction templates using Adobe Designer
- Tightly integrated with Teamcenter change management and workflow solutions

Features

- Reduce expensive shop floor errors by delivering accurate and highly visual work instructions
- Reduce labor and training costs associated with changes in assembly operation steps
- Quickly communicate impact of change to the shop floor and reduce waste and quality issues
- Leverage an intuitive, familiar interface for authoring, publishing and viewing of 3D documents in the PDF format



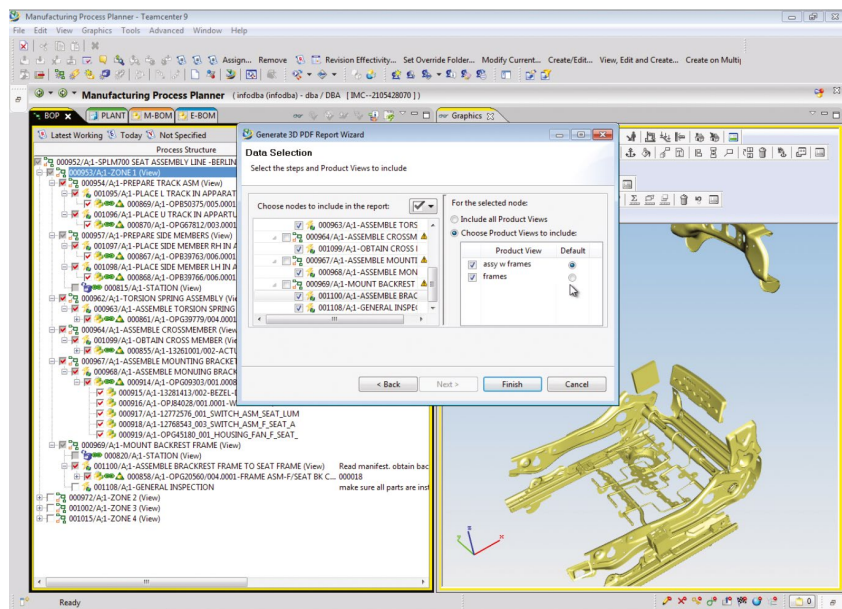
accurately communicate assembly instructions and reduce shop floor errors. Document templates are produced using Adobe Designer to facilitate standardization and re-use of work instruction best practices. The 3D documents are fully animated, describing the sequence of assembly steps generated directly from the manufacturing process plan in

Teamcenter. Shop floors users can view these rich, interactive 3D work instructions with the free Adobe Reader, giving them full access to essential 3D tools such as pan, zoom, rotate and more.

Integrated with the product development process

Many manufacturers often try to use manual sketches, photographs or static snapshots to illustrate their work instructions. However, these images are often captured from disparate sources, output into different authoring environments for layout and text editing and then distributed to a wide variety of software applications for storage and delivery. This creates breaks in the information flow that are difficult to update upon changes.

Using the Teamcenter manufacturing 3D PDF documentation solution, work instructions become an integral part of the entire design / build process. The work instructions are tied directly to the design and manufacturing information stored in the Teamcenter environment. This ensures that the representation of assembly process steps are exactly described in the work



instruction documents. These work instruction solutions are also integrated with the Process Simulate on Teamcenter application allowing manufacturers to integrate their assembly simulation results directly in the 3D PDF documents.

Easily incorporate changes

Creating work instructions relies heavily on the inputs from design and manufacturing teams. When design changes are frequent, consequently causing updates to the process steps, it is imperative that work instructions are quickly reconciled and communicated to the shop floor. This is only possible when the entire process of authoring, publishing and delivery of work instruction documents are managed in a tightly integrated PLM environment. With Teamcenter, you can easily validate changes to any of the digital assets and confirm that the work instruction



document goes through a change review process. This ensures that the work instruction documents remain in sync with the process steps they represent without expensive, time-consuming rework.

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