

# Teamcenter Visualization Mockup

Using real-time digital prototyping to detect and solve design issues early in your product lifecycle

## fact sheet

www.ugs.com

### ► Summary

Teamcenter® Visualization Mockup is the industry's most powerful real-time digital prototyping solution. By enabling your design teams to leverage advanced 2D and 3D visualization, large-scale product assembly analysis and universal collaboration capabilities in a single solution, Visualization Mockup dramatically reduces – and in some cases entirely eliminates – retooling costs and the need for creating expensive physical prototypes. The solution also plays a crucial role in improving your total quality program and facilitating your time-to-market initiatives.

### Feature checklist

- All Teamcenter Visualization Base, Standard, and Professional capabilities (presented in their entirety in their respective fact sheets).
- Motion playback that enables you to detect interferences dynamically
- Robust translation for CAD model (NURBS and tessellated geometry), assembly hierarchy, part colors, PMI and metadata
- Ability to visualize and navigate multi-CAD assemblies in JT format from major 3D CAD systems, including NX™, I-deas® NX Series, Solid Edge®, AutoCAD, Catia, CADD5, Inventor, Pro/Engineer and SolidWorks
- Multi-CAD support, including viewing and manipulating data from NX and other major formats
- Neutral-file support, including ability to accept VRML and STL. STEP, IGES, and DXF are supported with associated optional JT translators
- Extensive static and dynamic clearance analysis tools for evaluating designs for interferences, checking interfaces and evaluating separation requirements
- Advanced filtering capabilities that enable you to search on part attributes and properties to control geometry displays

### Taking advantage of the industry's leading digital prototyping solution

Teamcenter Visualization Mockup enables design teams to create high-level digital prototypes comprised of thousands of parts and components. Digital prototyping is an extremely cost effective alternative to physical prototyping that lets product makers realize enormous cost savings, productivity improvements and reductions in cycle times.

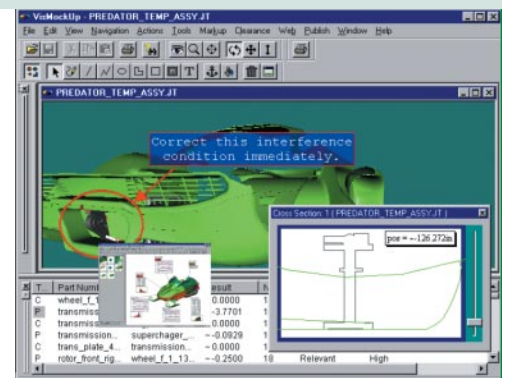
By leveraging Teamcenter Visualization Mockup, design teams can quickly build a high-level digital prototype, distribute the universally viewable prototype to widely dispersed team members, analyze its interrelated components, simulate the product's operations, enable team members to annotate their concerns and rapidly incorporate alternative design concepts.

Visualization Mockup's analysis and simulation capabilities make physical prototyping a remnant of the past. The solution's analysis capabilities enable you to check interferences, evaluate separation requirements, perform human factor studies, conduct parts in motion studies and determine whether sufficient accessibility is provided to facilitate maintenance procedures. Taken together, these capabilities allow you to detect and fix design errors long before you manufacture any parts.

The solution's digital prototyping capabilities are part of Teamcenter Visualization, the world's market-leading suite of product visualization solutions. With more market share than the next three competitive solutions combined, Teamcenter Visualization's core technology (JT) has become the industry standard for open by design product visualization.

### Extended enterprise collaboration

Based on this leading market presence, the vendors and allied partners who participate in your supply chain are more likely to be using Teamcenter Visualization than any other solution on the market today. As a result, you and your design partners and suppliers can readily exchange product data and collaborate in workflow-driven design and manufacturing processes.



**Feature checklist continued**

- Volume clipping either inside or outside of a cuboid
- Extensive geometry editing tools which among other things, allow re-tessellation, decimation and creation of shrink-wrap volumes
- Ability to capture part motion for output to appropriate movie formats and sizes
- Ability to view multimedia documents created under Visualization Mockup's publish option

**Optional extensions add-ons**

- Animation creation
- Path planning
- Visualization Analysis
- Visualization Publish
- Adams import motion
- Modeler optimizer
- VSA simulation
- ClearanceDB server
- Quality producer
- Vis Jack
- Concept Desktop and Showroom

**Benefits**

Enables you to find and resolve form/fit/function design issues early in the design process by allowing you to add digital prototyping capabilities to your PLM environment

Supports data translation from multi-CAD systems into a single virtual product model

Provides superior performance and rich-data support by leveraging open by design technology and standard JT format

Provides a no-risk alternative for implementing digital prototyping on proven market-leading technology

Tightly integrates your digital prototyping solution into a multi-CAD/multi-PLM environment

Visualization Mockup enables you to work in a true multi-CAD digital prototyping environment. With translators for all of the major CAD systems, the solution lets you create high-level assembly models (i.e., virtual models) comprised of parts and components drawn under various CAD systems globally dispersed across your entire enterprise.

Because Visualization Mockup leverages the lightweight JT visualization format, you can quickly load, navigate through and analyze extremely complex assemblies. This level of superior performance is matched by the solution's ability to carry NURBS data within the JT models to facilitate precise measurement and analysis. The solution's JT modeling capabilities also support manufacturing information (e.g., dimensions, tolerances and 3D notes) and attribute data to provide additional value to your visualization sessions.

With tight integrations to the Teamcenter digital enterprise backbone, Visualization Mockup enables you to view data stored and managed by the world's leading PLM portfolio. This integration is especially appropriate for companies that want to manage product data across the entire product lifecycle. Visualization Mockup leverages a strong data access toolkit to support both multi-CAD and multi-PLM integrations.

**Use case scenarios**

You can leverage Visualization Mockup's real-time digital prototyping capabilities for a wide variety of purposes, including:

- Dynamically sectioning your 3D digital mockup to find interference problems, perform measurements and save section images that you can share with members of your development team
- Performing complete spatial analysis on large 3D product databases to locate and list problem areas, proximity calculations and other related conditions
- Viewing product and manufacturing information (PMI) in conjunction with related 3D CAD models
- Performing 3D measurements on your product data that reflect the same accuracy as your native CAD system
- Importing high-level 3D virtual models and their related hierarchical product structures from your native CAD system for the purpose of interrogating, viewing and interacting with the model's underlying assemblies, subassemblies and parts. Users can traverse high-level models comprised of thousands of components by specifying an individual part number, interacting with the model's multi-colored components or selecting a given item on the hierarchical product structure
- Creating and saving 3D annotations (mark-ups) as individual layers that reflect user-specified preferences including fonts, borders and fills. You can associate bitmaps and URLs with these annotations, anchor markups to parts and automatically retrieve and display associate parts within the mark-up text
- Creating outline captures and wireframe images (with hidden lines removed) for line-art representations of your product geometry

► **Contact**  
**UGS**

**Americas** 800 498 5351  
**Europe** 44 1276 705170  
**Asia-Pacific** 852 2230 3333

[www.ugs.com](http://www.ugs.com)

