3D INTEROP SUITE

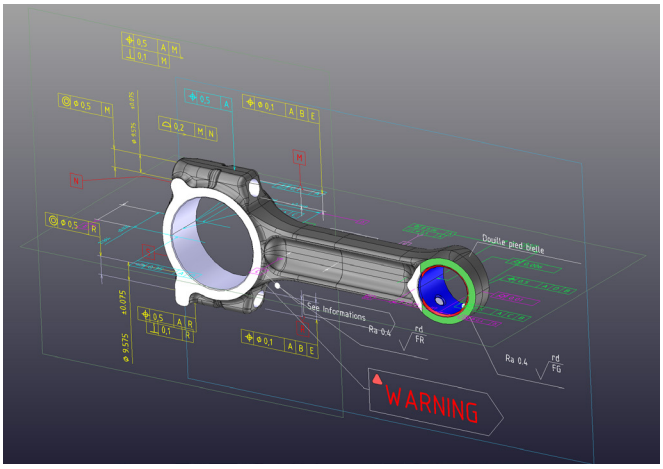
APPLICATION DEVELOPERS FACE DATA CHALLENGES

- Increased complexity from multiple industry formats contributing to project delays
- Poor quality data translation resulting in problems for downstream applications
- Significant expense incurred due to data imperfections becoming apparent after manufacturing
- Project maintenance costs related to changes introduced by new versions of CAD formats

3D INTEROP DELIVERS OPTIMAL PRODUCTIVITY, QUALITY, AND COST REDUCTION TO SOLVE THESE CHALLENGES

- Exchange of solid, surface (B-rep), wireframe and PMI via a variety of neutral and native 3D formats plus product structure and facets
- Faster time-to-market, lower support costs, easier market adoption based on higher quality data translation
- Access to 3D CAD data without extensive code modification or purchase of native applications
- Availability of regular product updates delivering support for the latest versions of data formats

The 3D InterOp Suite from Spatial delivers the highest quality data exchange between CAD formats. Many of today's leading design, engineering, and manufacturing applications incorporate 3D InterOp for their data translation. 3D InterOp is the only CAD translation product that uses libraries supplied by Dassault Systemes to read and write CATIA data. The input data is always read completely and the version support is always up to date with Dassault Systemes releases.



3D INTEROP DELIVERS PRODUCTIVITY

3D InterOp delivers an extensible translation platform for any 3D application to better enable data re-use. All 3D InterOp translators use the same convenient plug and play 'Connect' architecture. This interface uses a 'Write One, Read Many' concept. The addition of an InterOp translator to an application is a quick and simple process, requiring as few as four lines of code.

3D INTEROP DELIVERS HIGH QUALITY DATA EXCHANGE AND TRANSLATION

With 30 years of experience in delivering 3D geometry components, Spatial understands the importance of high quality data translation. Problems associated with data exchange may not become apparent until later in the data flow when investigation and correction of problems is more difficult, more costly and requires more investigation. Our experience in delivering solutions across multiple industries, compiling in a large comprehensive test suite, ensures the highest level of quality and support.

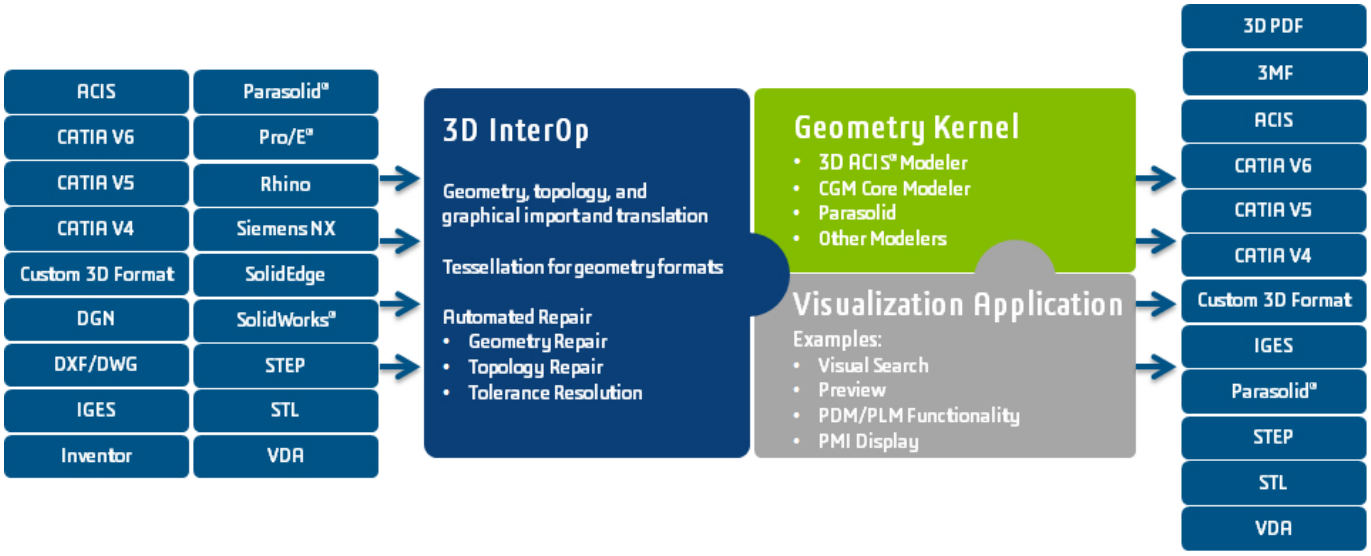
3D INTEROP DELIVERS REDUCED PROJECT COSTS

Problems in data translation dramatically increase project costs by requiring additional development, testing and support resources. In addition, testing and debugging of downstream applications are increased.

Updates to the translators included in 3D InterOp and the introduction of support for emerging formats allows developers to future-proof their applications, reducing future updates or even extending the time-in-market of their application.

COMPREHENSIVE SUITE

3D InterOp supports all major 3D data exchange formats that are required in leading engineering applications. Each translator is thoroughly tested, fine-tuned and regularly updated with each new release to ensure high-quality data exchange. 3D InterOp supports data exchange for any modeler including ACIS, CGM, and Parasolid.



AUTOMATED REPAIR

Data exchange through standards or native formats is only part of the solution. Data transfer only provides the exchange of geometric entities, 'as-is'. A CAD model usually requires modification to get it into a form suitable for engineering analysis. 3D InterOp translations support the translation of solid, wire, surface (B-rep), free surfaces, free curves and free points. Advanced modeling technology is used in each of the translators to address common data translation differences including:

Geometry Repair - Geometric errors are automatically recognized and optionally repaired in order to produce a very high quality manufactureable model.

Topology Repair - Automated topology repair combined with advanced stitching capabilities produces topologically valid solid models.

Tolerance Resolution - Tolerance related differences between importing and exporting systems are handled using tolerant modeling to ensure water tight solids.

TRANSLATION OF GRAPHICAL DATA

3D InterOp enables applications to extract complete graphical information where available (e.g. CATIA V5 or SolidWorks) or automatically handle tessellation for geometry formats (e.g. STEP or IGES). Application developers can offer greater usability by presenting end-users with the graphical representation for preview or initial interaction while high quality geometry is imported in the background. This approach provides performance and flexibility to better manage the data and the data flow.

PMI SUPPORT

Product Manufacturing Information (PMI) associated with a 3D CAD model is essential for many of today's manufacturing applications. PMI is vital for intelligent manufacturing and tolerance analysis, as well visual inspection. 3D InterOp fully supports PMI from Siemens NX, Pro/Engineer part models, and CATIA V5 part and assembly models. PMI support includes:

- Notes & Dimensions
- Geometric Dimensioning & Tolerances (GD&T)
- Datum & Datum Targets
- Surface Roughness

3D InterOp translates PMI with a focus on process automation, providing full associativity with the model geometry as well as accurate definition of datum references, including datum targets.

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 190,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.spatial.com**.

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