



Product Visualization for Discrete Manufacturers

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SpinFire™ Insight transforms communication, collaboration and comprehension among highly skilled manufacturing workers by enabling them to query and interact with digital models of parts and products. SpinFire provides powerful 3D and 2D product visualization capabilities of native CAD files including access to the hidden metadata (eBOM, GD&T, PMI, and more), without requiring the CAD application.

With SpinFire Insight, users can:

- **Open and combine major mechanical CAD-file formats:** including 3D, 2D and product meta-data
 - **View:** Zoom, pan, rotate, cross-section, and explode the model to investigate your model's key features
 - **Measure:** Access a full range of dimensional content Mark-up: Add notes and comments to communicate
 - **Investigate:** Analyze the model generating desired results, such as volume, mass, draft angle, and more...
 - **Share:** Users are able to save native CAD formats to SpinFire's .ACT3D format, and collaborate and share results with other SpinFire users or with our free SpinFire Reader, SpinFire Web, Microsoft Office, or via 3D PDF (Adobe)
- **Access Multi-Language Support:** Users have up to eleven (11) supported languages that can now be changed on the fly: Chinese (simplified), Chinese (Traditional), Czech, English (US), French, German, Italian, Japanese, Korean, Portuguese, and Spanish
- **Have Precise B-rep and Tessellated File Support:** SpinFire supports both precise solids models (aka boundary representation or B-rep models) and the alternative of tessellated models (aka mesh models) to match our users' needs of precision and file size. In both cases, SpinFire produces a viewable, portable file from the native CAD file
- **View PMI and GD&T Annotations:** SpinFire can recognize if PMI and GD&T have been designed into the 3D model. SpinFire can display the data or allow the user to extract from leading native CAD formats the part data and export it to a file.
 - **Quoting:** View and measure 3D / 2D client data
 - **Sales:** Visually share and communicate model design
 - **Engineers:** Visually communicate design changes / markups

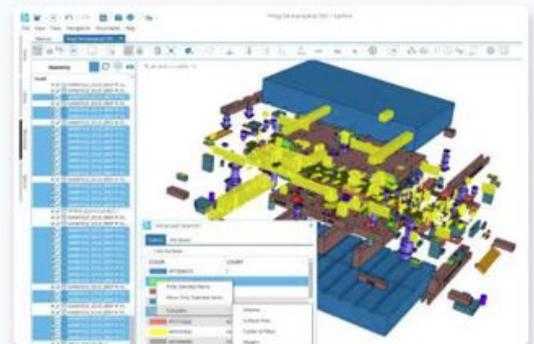
- **Procurement:** Investigate models for material, size, weight, and more
- **Quality Assurance:** Investigate models for design intent and specifications
- **Production Planning:** Investigate models for weight, press tonnage, etc...
- **Shop Floor:** Visual work instructions expediting responsiveness and reduce errors
- **Management:** Visually associate models with meta-data for informed decisions

Supported Native CAD Formats

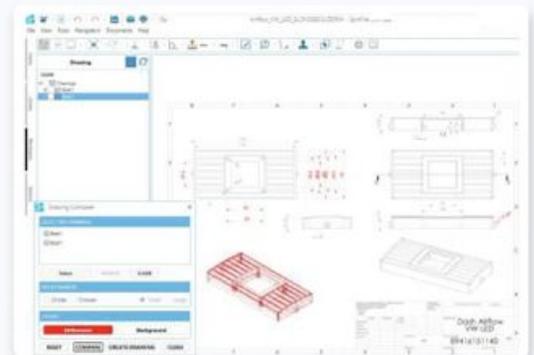
With SpinFire Insight, you can view all major CAD formats like CATIA, STEP, NX, SolidWorks, STL, JT, NX, and Creo just to name a few. For the latest update on native CAD file format descriptions, versions and file extensions supported visit:

www.spinfire.com/cad-formats/

Advanced Selection View



2D Compare View



File Access and Management

SpinFire Insight's 64-bit technology increases speed and working with multiple large files concurrently. Plus, SpinFire has expanded the tools search and loading capabilities for content and files:

File Preview:

While selecting the appropriate file to open within a Windows browser, the user has the option to view a file thumbnails or a preview model prior to opening

Load Only Assembly Tree:

The ability to quickly load the assembly tree without geometry

Partial Loading:

Allows the user to select from the assembly tree individual parts or assemblies for loading

Shattered Assemblies:

Recognizes missing parts or assemblies providing notification and allows component replacement. Plus, allows the user to save assemblies as individual components

Parts List:

Generate and/or export a list of subassemblies and parts with quantity that go into a parent assembly

Cross Section Export to DXF:

Export the section cut data to a AutoCAD® .dxf file

Export:

The export procedure translates the 3D CAD file to 3D PDF, HSF, or STL format as standard. With the optional 3D CAD2CAD Translator extends the output formats to include: ACIS, IGES, JT, Parasolid, PRC, STEP, U3D, VRML and more. For a list of all output formats supported, visit www.spinfire.com/cad-formats/

Export Image:

Export to a Bitmap (.bmp, *.bmp), Enhanced Metafile (.emf, *.emf), Exchangeable Image Format (.exif, *.exif), Graphics Interchange Format (.gif, *.gif), Joint Photographic Experts Group format (.jpeg, *.jpeg), Portable Network Graphics image (.png, *.png), Tagged Image File Format (.tiff, *.tiff), or Windows Metafile (.wmf, *.wmf)



Primary View Controls

SpinFire comes with countless viewing control capabilities including:

CAD Views:

Native CAD files may contain multiple model views. SpinFire imports the original designer's CAD views for use

Exploded Assembly:

Automated method to easily and quickly explode assemblies, plus now using a slider bar for faster operation

Cross Section - Multiple cutting planes:

Users can have up to three cutting planes for sectioning models

Offset Section:

Section 3D models with an offset or stepped section cut to observe and display different section levels

User Views:

Users are encouraged to save model views to recall and communicate results or to produce visual work instructions. And now, users can also save dimensions and notes to select views as a form of layering content

Key Dimensional and Markup Functionality

Beyond the standard dimensional and markup features, SpinFire provides additional advanced capabilities:

Auto Note:

Applies a part label markup to all parts; all subassemblies or single part/sub assembly

Boundary Area by Edges:

Calculate the area of an opening in a 3D model

Bounding Box - Minimum:

Generates the smallest bounding box based solely on the part or assemblies shape

Calculate Area or Volume of a Void:

Calculate area of a bounded open space or the volume of a 3D void (cavity)

Cross Section Calculations:

Calculates the area, perimeter length, or center point of a section or the projection area

Cross Section Dimensioning:

Allows dimensioning of a section

Mass Properties:

Calculate volume, mass, total or wetted surface area

Minimum Distance:

Computes the minimum distance between selected entities. The selection could be between subassemblies, parts and sets of surfaces—thus allowing user to find absolute minimums and local minimums

Minimum Thickness:

Calculates the location on the part with the minimum wall thickness

Projected Surface:

Projects a surface on to a plane and calculates surface area required for determining press tonnage

Smart Dimensioning:

Automatic recognition of part feature or surface and displays available dimension options reducing clicks and time

Tube Length:

Measures the length of a tube and generates the total centerline length and all bend points—and now, with one click SpinFire will auto chain the elements

Tube Length BoM:

Exports a .csv file of all dimensions and coordinates related to Tube Length

Two Edge Intersection Point:

Find the projected intersection point from two edges in 2D or 3D mode

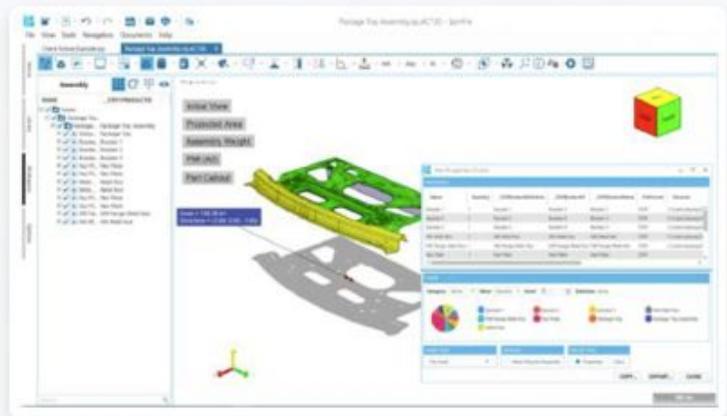
Weight Calculator:

Computes the solid weight using material properties

Rule-based Coloring:

Build your own rules to visualize an analysis of your 3D models based on those rules

SpinFire Interface



Additional Investigative Functionality

SpinFire is designed to prevent modification of the model's geometry, yet powerful enough to perform intensive investigative services with the following features to name a few:

Curvature Analysis: Utilize to generate a color mapping based on the positive and negative curvatures of a part

Draft Angle Analysis: Visual display of the draft angle applied to surfaces when compared to a “pull direction”

Model Compare (3D & 2D): Compares two parts or assemblies and displays the material that has been added or removed

Wall Thickness by Color: Analyze a part's walls with color mapping based on thickness. Set the analytical range, edit mapping colors, select parts, and save into user defined views

Packaging & Deployment

Tech Soft 3D has three standard SpinFire Insight packages (Basic, Classic, and Premium) to provide comprehensive import/export solutions for different customer situations. The license bundles are offered as a term license.

SpinFire is designed for quick implementation and fast user adoption, enabling design and manufacturing organizations or their supply chains to easily access and interact with native CAD data plus related files or design documentation.

	Import: native CAD import formats	Export: CAD format convert
SpinFire Premium	All Major CAD Formats (CATIA V4-V6, NX, CREO, SolidWorks and more)	Export to CAD neutral formats (IGES, STEP, JT, Parasolid, PRC, STL, 3D PDF) as well as those included in the Classic & Basic packages.
SpinFire Classic	All Major CAD Formats (CATIA V4-V6, NX, CREO, SolidWorks and more)	Export to 3D PDF, STL, AutoCAD, HSF and ACT3D
SpinFire Basic	Basic CAD formats only (STEP, Parasolid, IGES / VDA, AutoCAD, DXF, DWG, DWF, HPGL, Rhino, Tiff, VRML, IFC, STL, U3D, 3D PDF, ACIS SAT)	Export to 3D PDF, STL, AutoCAD, HSF and ACT3D



Enterprise Visualization

Interested in having multiple licenses of SpinFire Insight? Does your organization have an initiative to standardize on a single visualization platform? SpinFire's Enterprise Visualization solution which comprise of a company-wide deployment of SpinFire Insight & SpinFire Publish, cuts ongoing costs, improves revenue, and gains tangible and intangible benefits from maximizing resources that other enterprise technologies cannot achieve due to their cost, foundational technology, and complexity.

About Tech Soft 3D

Tech Soft 3D is the leading provider of engineering software development toolkits and industrial applications for CAD/CAE data conversion, visualization, and data publishing. Established in 1996 and headquartered in Bend, Oregon, Tech Soft 3D has additional offices in the USA, France, England, Japan, Germany and Norway. Tech Soft 3D is backed by investment firm Battery Ventures.



Contact us

To learn more about the SpinFire Suite of Products, visit www.spinfire.com.

To discuss how SpinFire can help your organization create an effective collaboration infrastructure, use technology to its full potential and increase collaboration, enhance comprehension and be truly innovative—call today to speak with an available SpinFire representative at 313 831 6755 or email us at sales.applications@techsoft3d.com.