

# Windchill Arbortext® IsoDraw®

Produce professional, CAD-linked illustrations fast employing a single, easy-to-use solution.

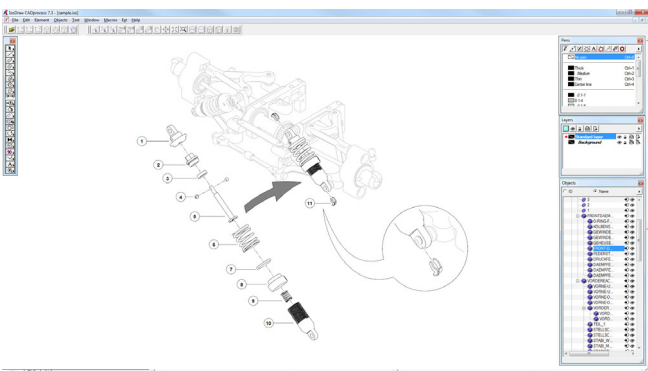
Speed the process of creating and updating high-quality technical illustrations and animations with Windchill Arbortext IsoDraw. You can produce illustrations using original 3D and 2D CAD data to optimize product and support information, such as assembly and disassembly instructions, parts catalogs, operator and service manuals, training documents, and more.

You can easily reuse valuable 2D and 3D data from CAD systems to deliver technical illustrations and intelligent graphics. Additionally, Windchill Arbortext IsoDraw gives you the unique ability to maintain an associative link to real-time CAD data, which simplifies the updating of illustrations and animations when engineering designs change throughout a product's lifecycle.

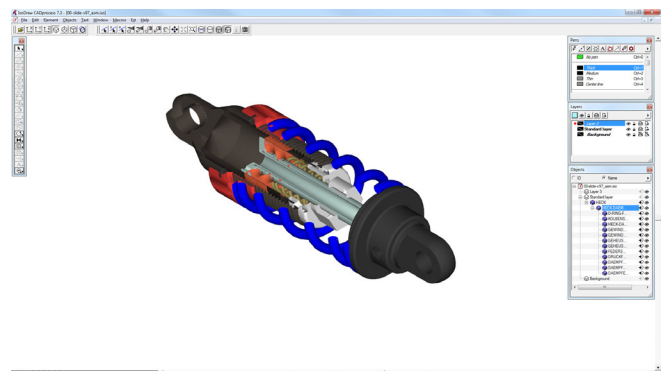
## Benefits

### Produce high-quality illustrations and animations rapidly, with real-time CAD data

- Repurpose rich, original CAD data to quickly develop 2D and 3D illustrations and animations
- Ensure up-to-date technical illustrations and animations through associative links to actual design data
- Enable concurrent development of product designs and technical publications with real-time illustrations
- Support one or many types of data, such as 2D, 3D, raster graphics, and animations, in a single document



Create CAD-driven illustrations that maintain associativity to original engineering data, and convey explicit service procedures using illustrations to improve comprehension.



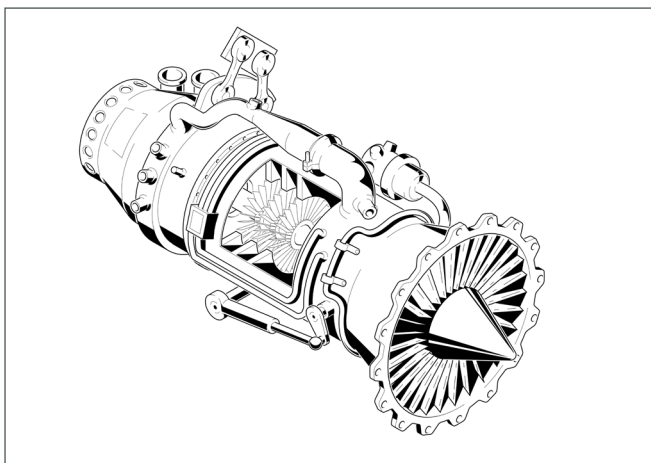
Manipulate 3D data to create a cutaway that depicts either a precise part or several components.

### Enhance product performance

- Ensure synchronized product support documentation with links to current product designs, as you maintain up-to-date, relevant product information
- Deliver a competitive advantage in your product information time-to-market by producing more illustrations in a shorter time
- Convey explicit service procedures and produce more accurate parts catalogs using illustrations to improve comprehension, reduce errors, and increase customer satisfaction

### Minimize illustration production costs

- Increase illustration productivity more than 30%—with no CAD knowledge required
- Reduce the high costs of translation by using high-quality, interactive illustrations in place of complex text
- Prepare illustrations—automatically—for publishing in multiple delivery formats, including print, interactive and Web media to eliminate expensive, labor-intensive formatting tasks
- Leverage existing CAD models and illustrations to repurpose legacy content



Windchill Arbortext IsoDraw provides industry leading capabilities to deliver hand-drawn 2D and 3D illustrations or animations.

### Comply with company and global industry standards for technical publications

- Emergence of Interactive Electronic Technical Manuals (IETMs) and Publications (IETPs)
- Industry standards (S1000D, ATA, CALS, J2008)
- Publishing standards (W3C, WebCGM, SVG, PNG)

### Features

#### Windchill Arbortext IsoDraw Foundation

Windchill Arbortext IsoDraw Foundation—designed specifically for technical illustrators—provides all the capabilities you need to create and deliver high-quality perspective illustrations either from scratch, by photo-tracing, or by using existing graphics. The software's plane view features extend the capabilities even further for diagrams and schematics.

#### Specialized tools for drawing in perspective

Work with a number of specialized drawing functions, such as alignment of elements to perspective grids, rotation, and reflection—an elegant solution to one of the toughest drawing challenges: finding and creating ellipses. Windchill Arbortext IsoDraw features a number of versatile projection tools for penetration curves or for manipulating perspective views.

#### Callout tool

Simplify your work through the use of callout capabilities, such as:

- Renumber callouts automatically when changes are made
- Define styles freely
- Generate callouts automatically on specific objects or object groups

## Preparation for electronic delivery

Callouts created using Windchill Arbortext IsoDraw are automatically converted into hotspots to aid interactive, graphic navigation. Hotspots enable readers to immediately “jump” to the relevant assembly list, part list, or more-detailed illustrations, simply by clicking on a hotspot embedded in an illustration. Windchill Arbortext IsoDraw automatically creates object information with a hotspot for each component. Readers can then click on the callouts in the electronic spare parts catalog and see the corresponding part list information.

For publishing 2D and 3D illustrations and animations, see additional product information for Windchill Arbortext IsoView® that enables web-based audiences to view and interact with embedded illustrations.

## Shaft tool

Generate complex gears with customized parameterization in just minutes. You can adapt grooves, gearwheels, shaft ends, and many other details within seconds.

## Macro language

Utilize the software’s extensive macro language to easily automate processes, extend the software’s functionality, and validate designs.

## Work with raster graphics or photos

Reuse legacy graphics using Windchill Arbortext IsoDraw tools for tracing photos and videos, along with a comprehensive raster editor for processing scanned images.

## Comprehensive standard parts library

Get access to over 2,200 views of standard parts and images, such as human hands and tools, either to convey a task or create your own unique parts. Selected parts are incorporated in the illustration in the correct orientation, perspective and size.

## Create 2D and 3D animations

Quickly create 2D, 3D—or a mix of 2D and 3D—animations with the simple user interface to highlight illustration features or to animate procedures. You can import and leverage existing 2D and 3D animations to create high-quality animations using the intuitive user interface. The software’s object-based approach to automatically linking animation parameters to the original illustration enables you to easily export or reuse illustrations and animations.

## Associative illustrations

Create an associative link with 2D CAD and graphics for 2D illustrations.

## Windchill Arbortext IsoDraw CADprocess

In addition to the features offered in Windchill Arbortext IsoDraw Foundation, Windchill Arbortext IsoDraw CADprocess offers expanded capabilities for developing and associating 2D and 3D illustrations and animations, using original CAD data. Here are some of those additional capabilities:

### 3D design data import

At any point in the product design process, a CAD designer can save a complete assembly to be imported into Windchill Arbortext IsoDraw CADprocess. Working independently, the illustrator can select full assemblies or components, and break down the 3D file gradually into individual spare parts illustrations—with no additional CAD designer assistance needed.

The software supports native Creo Parametric® and Creo View™ files, as well as other standard 3D CAD formats that include: IGES, DWG, DXF, VRML, OBJ, STEP, VDA, SAT, or Parasolid. Using the Creo View Adapters, Arbortext IsoDraw CADprocess also supports UniGraphics®, SolidWorks®, CATIA®, JT® and IDEAS® formats.

### Automatic creation of 2D and 3D illustrations from CAD data

Windchill Arbortext IsoDraw CADprocess deletes hidden lines, sets line thickness as required, and optimizes the elements of the CAD model. It also connects and smooths individual line segments to Bézier curves or ellipses in order to both reduce file size required for electronic delivery and make elements more compact and easier to edit.

Windchill Arbortext IsoDraw CADprocess maintains assembly structure information, along with hotspots, enabling users to identify components directly from the illustration and to reuse illustrations for interactive electronic delivery.

### Manipulating 3D data

You can manipulate 3D data, such as explosions along any axis, cutaways, rotations, reflections, copying, and scaling—without changing the source data. The user interface is highly intuitive and very easy to learn, and requires no prior design knowledge.

### Automate illustration updates

Illustrations created from one or more CAD files will maintain links to the original CAD files, so that updates can be applied quickly and automatically to existing illustrations, without having to start again. This connectivity allows you to initiate documentation work earlier in product development because illustrations can be updated later, with any future design changes, at the discretion of the illustrator.

### High-quality filters for all major graphic formats

Windchill Arbortext IsoDraw CADprocess renders standard graphic formats including: WebCGM, XCF(XML), CGM versions 1-4, SVG, PNG, JPEG, DWG, IGES, DXF, HPGL, Adobe Illustrator®, WMF, EPS, TIFF, PICT, PCX, BMP, CALS Raster, Text excerpt, Interleaf ASCII, and FrameMaker® MIF. Additionally, 3D files may be exported as IsoDraw .iso, .wrl or .obj files, and intelligent graphic object content is provided in text formats or XML in support of interactive graphics standards. Windchill Arbortext IsoDraw CADprocess exports to PDF, 3D PDF and U3D, with no additional software required.

### Optional Windchill Arbortext and PTC software capabilities

#### Manage illustrations from original CAD data with Windchill Content Management

The integration between Windchill Arbortext IsoDraw and Windchill PDMLink® enables the most complete associative illustration process possible, from original CAD data to the delivery of product information. Windchill Content Management manages the relationships between source data, illustrations and their use in publications throughout the entire product lifecycle. From within the Windchill Arbortext IsoDraw interface, illustrators can:

- Browse for source data, such CAD files, images and existing illustrations
- Retrieve and manipulate source data from Windchill Content Management to create or update new and existing illustrations
- Manage native illustrations as .cgm or .iso in Windchill for inclusion in Windchill Arbortext technical product information delivery

#### Enable hotspots with Windchill Arbortext Editor and Windchill Arbortext IsoDraw

- Create one or several hotspots in a graphic and link them to precise locations in related documents
- Define hotspots during the illustration process with Arbortext IsoDraw
- Open an illustration to locate and associate hotspot content with Windchill Arbortext Editor
- After publishing to HTML, select a graphic hotspot to be directed to the appropriate content associated with the specific illustrative detail
- Configure one or several links within HTML text to designated hotspots in the illustration
- Create hotspots in illustrations during the illustration process with Windchill Arbortext IsoDraw
- Insert links into the desired text and select the appropriate hotspot target, including intelligent graphics or specific illustrative views
- In the HTML, select the text link that will show the appropriate graphic's view and/or hotspot

## Windchill Arbortext® IsoView®

Windchill Arbortext IsoView enables readers to view and interact with 2D and 3D technical illustrations and animations created by Windchill Arbortext IsoDraw, or other illustration tools. The product supports all types of technical illustrations and animations: raster formats (e.g. JPEG, TIFF), vector formats (e.g. CGM), 2D and 3D illustrations and animations, as well as static and interactive graphics. Windchill Arbortext IsoView supports important industry standards, and is the de-facto industry standard viewer for CGM (Computer Graphics Metafile) files, mandated in a number of industries. This interactive environment can be customized and integrated with external applications based on an extensive Application Programming Interface (API).

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