

## I-DEAS® Artisan™ Drafting

I-DEAS Artisan Drafting provides standalone drafting functionality with I-DEAS Artisan basic team functionality. I-DEAS Artisan Drafting is used by engineers, designers, draftsmen, and detailers to create detailed production mechanical drawings.

As a tool for solids-based drafting, I-DEAS Artisan Drafting is integrated within I-DEAS for detailing solid models and creating production drawings, using the Dynamic Navigator™ style of user interaction which delivers a truly innovative style of CAD operation. Orthographic, section, detail, and auxiliary views are easily created from the master model geometry along with dimensions and feature control frames. Drawings are bi-directionally associative to the master model.

I-DEAS Artisan Drafting provides complete detailing capability and functions effectively for concept design. Variational sketching provides broad capability for geometry creation and captures design intent to ease design change. A dynamic icon palette and the Dynamic Navigator make I-DEAS Artisan Drafting exceptionally easy to learn. It is an excellent starting point for organizations transitioning to solids-based design from traditional systems. Users can rapidly master I-DEAS Artisan Drafting, and achieve measurable productivity gains over previously used tools. As appropriate, these users can grow directly into solid modeling without losing data.

### Solids-Based Drafting with Concurrent Associativity

For organizations which use a solids-based approach to design, I-DEAS Artisan is ideal for creating associative production drawings from solid models.

- Bi-directional associativity within I-DEAS Artisan allows you to change the part or assembly and the drawings will automatically update; or to change the drawing and the master model will automatically update.

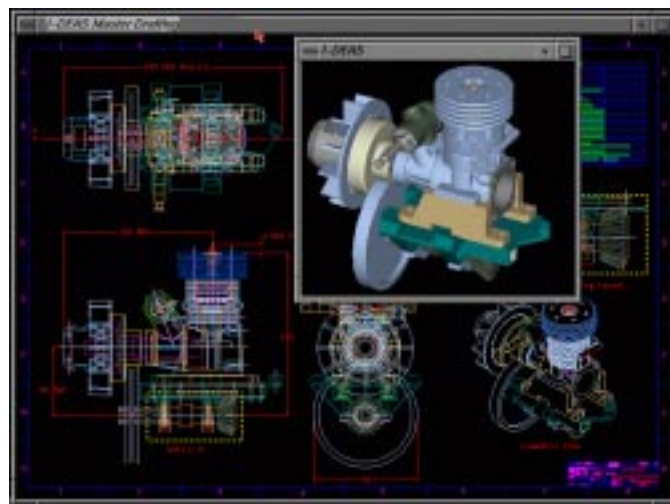
- Choose view direction, or choose from common layout types such as “front,” “top,” etc., or set up orthographic views in first or third angle projection, isometric, auxiliary, or true views.
- Set up and easily create associative, single, or multi-plane cross-sections through parts with automatic cross-hatching.
- Automatic removal or dashing of hidden lines.
- Border, title block, or complete drawing format may be added.
- Specify different layers for different entities.

### High-Performance Detailing

I-DEAS Artisan Drafting provides you with many tools to fully document your solid designs. Additional geometry can easily be added to adequately detail the design for such characteristics as tapped threads, screw head types, etc.

Geometry can be created in I-DEAS Artisan, or incorporated from user-defined symbol catalogs.

I-DEAS Artisan Drafting offers a wide variety of dimensioning techniques which use the Dynamic Navigator style of user interaction. As you traverse the drawing, geometry entities are highlighted. Appropriate icons are displayed next to the cursor which represent the dimensions that can be added to entities simply by picking with the cursor. This innovative approach reduces menu selection and picking, and significantly improves the productivity of the dimensioning function. Dimensioning within I-DEAS Artisan Drafting supports the international standards ANSI/ASME, ISO, DIN, BSI, and JIS. With a simple selection of the standard you want, all your dimensions will have the appropriate characteristics, such as arrowhead style, decimal type, etc.



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I-DEAS Artisan Drafting provides interactive creation of feature control frames. Notes and text needed to complete your drawing are easily added with an integrated paragraph text editor. A local language editor can be integrated so that notes in international character sets can be created directly in the I-DEAS Artisan Drafting session. Also, text from the Windows NT clipboard can be copied and placed directly on the drawing. This “hot copy and paste” style integration allows data to flow freely between I-DEAS Artisan Drafting software and other applications you may have on the workstation.

•**Design Detailing:**

- Full complement of geometry creation capabilities for adding design detail not created in the master model.
- Modifiable line weights
- Modifiable line fonts
- Standard and user-defined symbols with dynamic placement and the ability to nest, scale, rotate, and mirror.
- User-definable symbols with BOM attributes.

•**Dynamic Dimensioning:**

- Dimensions automatically inherited from modeling.
  - Dimensions are associated with geometry; they change when geometry is changed, and can update the master model.
  - Dimensions may be moved from one view to another.
  - Complete control of dimension parameters.
  - Dimension types-linear, angular, radial, diametral, ordinate, chamfer, curve length.
  - Dimension styles-single, chained, stacked, datum, ordinate, and arrow ordinate.
  - Dual dimensions
  - Tolerances; limit dimensions
- Annotation in local languages includes full paragraph text and European character support. Local language editors are capable of running directly in the drafting session.

•**Geometric Dimensioning and Tolerancing (GD&T) creation.**

•**Product and Manufacturing Information Symbology.**

- I-DEAS Artisan Drafting enables you to place the full range of welding symbols on drawings, conforming to either ANSI/ASME or ISO standards.
- Locator symbols are also supported, giving complete flexibility in creating and using these standard annotation features.
- Cutting plane lines and break marks
- Associative crosshatching with the ability to recognize internal holes and islands, while using a library of standard hatching patterns or a user-defined pattern.

**Bill of Materials**

I-DEAS Artisan software provides a dynamic Bill of Materials (BOM) that automatically updates when changes are made on the drawing. When the quantity of a part changes on the drawing, the BOM immediately updates. Or when the attributes of a part change (making it a different part) the BOM immediately updates by creating a new line for the new item. Bill of Materials attributes can be associated to symbols. The attributes can be visible on the drawing, visible in the BOM listing, or combinations thereof. The BOM information is available to the I-DEAS Artisan programming language.

**Customization**

I-DEAS Artisan provides capabilities for modifying the system to specific company requirements. It lets you customize the icons to better fit your needs, create macros to auto-mate tasks, and build application programs. Whatever your requirements, the customization capabilities are easy enough to be used by the beginner, yet powerful enough to meet the needs of the experienced programmer.

**Translators**

I-DEAS Artisan includes functionality to allow you to exchange data with other CAD and CAM systems via 2D IGES and DXF translators.

**Translator Applications**

These 2D data translators provide the opportunity for:

- Migration from AutoCAD or other PC CAD products to the engineering power of I-DEAS. Here the translator can be used to migrate all or a portion of a company’s drafting data from AutoCAD, or other PC CAD products, to I-DEAS Artisan software.
- Growth to solids-based mechanical automation. Here the translator can be used by a company as an initial step from the PC CAD toolset to the engineering solution provided by I-DEAS. In the initial step, existing 2D-based drafting and design data is translated to drafting. The drafting user then has the opportunity to migrate to the I-DEAS Artisan modeling software where existing 2D data can be directly used to create solid models.

**DXF Releases Supported**

The I-DEAS AutoCAD DWG and DXF data translators support bi-directional data exchange with DXF files conforming to the specifications of AutoCAD Release 12, 13, and 14. The I-DEAS 2D IGES data translator supports bi-directional data exchange with 2D IGES version 5.1 data files. Packages supporting these versions of the respective standard will have successful data translations.

**Prerequisite**

None

**For More Information**

For more information, contact your local SDRC representative or call 1-800-848-7372.