ArtiosCAD Module Descriptions

ArtiosCAD is the world's most popular structural design software for packaging design.
With dedicated tools specifically designed for packaging professionals for structural design, product development, virtual prototyping and manufacturing, ArtiosCAD increases productivity throughout your company.
ArtiosCAD is the ideal product for all corrugated, folding carton and POP display designers. It comes with modules that can be added to the basic configuration, depending on your needs.

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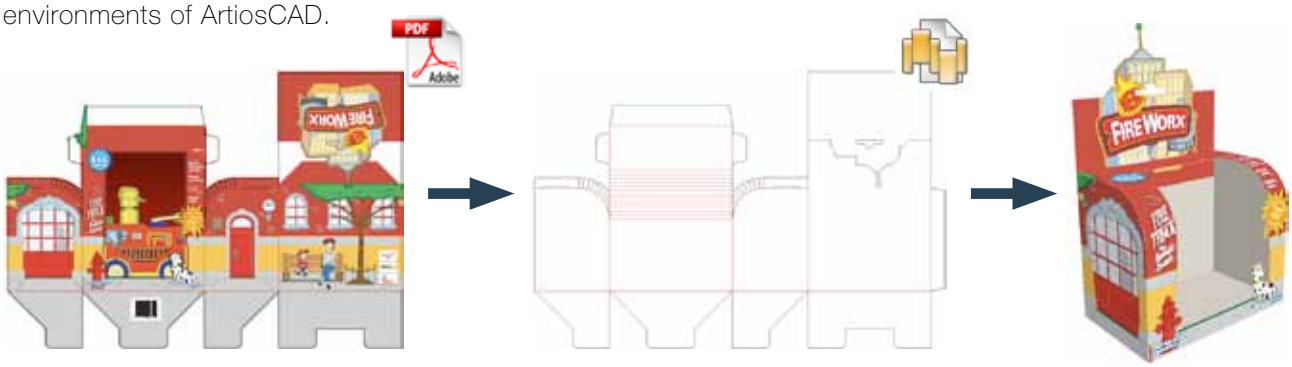
Connection Plus

Connection Plus is the basic component of every ArtiosCAD configuration. It allows designs to be located, opened, examined, measured and output. There are sufficient features in this module for any user who does not need to create or modify designs.

The Connection Plus module allows users to open ArtiosCAD designs, manufacturing layouts, 3D files and counter layouts. Once opened, the files can be output to a plotter, report, sample table or any of the ArtiosCAD output formats (DDES, CFF2, DXF, HP-GL or EPS). Samples produced by ArtiosCAD have numerous configuration options including fine tuning the processing of special rules such as perf or cut/crease and specifying how tight corners of the design are to be cut to avoid tearing. There is an especially strong software integration available when driving Kongsberg tables.

Using the DataCenter browser to search ArtiosCAD's database users can quickly search the database by entering any information that is known about a design or manufacturing file. Designs can be directly opened in ArtiosCAD from the browser.
Connection Plus gives access to ArtiosCAD's powerful viewing and measuring features. Quality is verified by checking the small details and so ArtiosCAD makes examining work particularly easy. The unique CloseUp windows allow any area to be enlarged without changing the main view and can be moved around to give you an on-screen magnifying glass.

Connection Plus brings native PDF file support to ArtiosCAD users based on PDF libraries licensed from Adobe Systems. Combined with the ArtMaker feature, users can import a PDF file directly into ArtiosCAD as a graphic file. The PDF Import feature places the graphic file into the 2D design, providing fast, reliable import and accurate display. Once imported, the PDF file can be displayed in high resolution in both the 2D and 3D environments of ArtiosCAD.

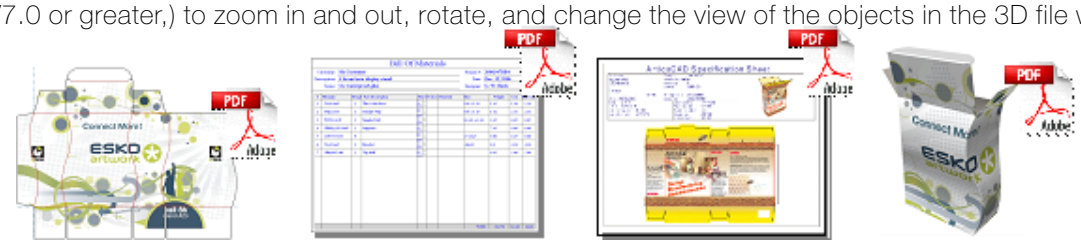


The PDF Import feature also enables importing vector data and will map the geometry to CAD line types to create an ARD file.

The PDF Export feature can be used in both 2D and 3D environments to create various types of PDF documents. ArtiosCAD Design files can be exported to a PDF file. PDF Export can also produce PDF files for

Reports to create specification sheets for designs and layouts. 3D Outputs will export a 3D image and/or the 3D Animation frames to various file formats including PDF. 3D PDF export can directly create a PDF file with one or more 3D images included to create documents like assembly drawings.

Users can output from ArtiosCAD 3D as a U3D file. The resulting 3D PDF file can be read by the free Acrobat Reader (V7.0 or greater,) to zoom in and out, rotate, and change the view of the objects in the 3D file window.



Features

- DataCenter browser searches for designs and layouts in the database. Designs and layouts can be directly opened in ArtiosCAD from within DataCenter.
- Allows viewing of all ArtiosCAD designs, layouts, 3D and counter layouts.
- Individual layers in files can be turned on and off.
- The Measure tool checks the values of any offset, distance or angle in the design.
- Powerful viewing and plotting styles show the important elements in any way the user needs.
- The CloseUp windows complement the general zoom tools by providing a fully functional on-screen magnifying glass.
- Allows generation of scale drawings and samples on a wide range of supported peripherals.
- Provides tight integration with the Esko Kongsberg tables when running on the same system as GCWin-2000.
- Documents can be created using any of ArtiosCAD reports.
- Export to DDES, CFF2, DXF, HPGL and EPS formats.
- Import PDF files as graphics to provide fast and accurate display of the final printed design in 2D and 3D. Requires Designer and ArtMaker.
- Import PDF files as vectors to map geometry data to ARD line types.
- Export designs to PDF, including the structure as well as any PDF files imported as graphics.
- Output Reports directly to PDF file format for specification sheets, bill of materials or other business documents.
- Export 3D images to a PDF document, including interactive 3D PDF, to create detailed and accurate renderings of 3D models. Requires ArtiosCAD 3D.
- Export Animation frames from 3D for assembly drawings in PDF format. Requires ArtiosCAD 3D and 3D Animation.
- Open normalized PDF with embedded link to ARD, BAG or Collada: graphics automatically registers to the structure.

Builder

With the ***Builder*** module you can create designs in seconds using the extensive library of folding carton and corrugated styles provided with ArtiosCAD.

Designs can also be created from any new styles that have been added to the library by users who have StyleMaker. Many users who work with standard styles will find that Builder together with Connection gives them all they need from a CAD system.

The standard styles are easy to use: documentation diagrams to guide you through the values needed and practical default values are automatically calculated based on the data already entered. A design can be created by simply as picking a board and giving the length, width and depth. For greater control, the calculated defaults for many other variables can be examined and adjusted as desired.

Styles can support many construction variations through style choice menus. These make one ArtiosCAD style equivalent to a large number of much simpler parametric designs.

Builder is also used by designers working with StyleMaker to rebuild the parametric designs being developed.

Features

- Builds new designs from any style in the style catalog.
- Shows documentation diagrams on screen when entering values.
- Validates the data entered to verify it meets the guidelines expected by the creator of the standard. This prevents styles being accidentally used for inappropriate jobs.
- Rebuilds designs created from the style catalog with different sizes, board or other parameters.
- Rebuilds designs created using ***StyleMaker*** with different sizes, board or other parameters.
- New designs created with ***Builder*** will automatically have the fold angles pre-defined if the style being used was previously folded.
- Display Standards: New POP display standards have been added to the style catalog. Design POP displays in minutes with parametric design templates.

Designer

The ***Designer*** module makes ArtiosCAD the fastest software for creating new and unique designs.

The performance of ***Designer*** comes from flexible and easy to use tools that are optimized to create the geometry needed for packaging with the minimum mouse movements and keystrokes.

Extensive graphical feedback throughout the system makes it easy to learn and use. It allows the designer to confidently work quickly.

When combined with ***Builder, Designer*** can start with any style from the Style Catalog and add or change any geometry.

Once created, the design can be fully dimensioned and annotated to create detailed production documents. The bleed and varnish tools define printed and varnish areas of the design in a few clicks ready for communication with a graphics design system or the construction of coating blankets with ***DieMaker***.

Features

- Geometry is created quickly using a wide range of powerful tools.
- Multiple tools for copying, moving, trimming, splitting, adjusting and stretching geometry.
- Construction lines are available for planning complex work or sketching shapes.
- Expressions can be built using the on-screen keypad. This also supports copying distances and angles.
- Bridges are automatically created when lines and arcs are being constructed using user-defined bridging formulae.
- Multiple selection tools quickly select elements either using the cursor or by geometry attributes. The Change tool operates on all selected elements.
- Annotate and dimension designs including a detail function to enlarge and correctly dimension small areas.
- Quickly define printed and varnish areas in a few keystrokes using specialized tools.
- Import from DDES, CFF2, DXF, HPGL formats.
- Tracks corrugation/grain direction and inside/outside of designs to prevent errors in communication.
- Copy and Paste with the Windows clipboard copies geometry between designs as well as copying to other applications.

StyleMaker

StyleMaker allows for the creation of reusable designs using any of ArtiosCAD's drafting tools.

Using the basic panel sizes as variables will save hours of future work by allowing designs to be quickly used for different jobs. As many variables as required can be set up to add as much flexibility to the geometry as needed.

The powerful Rebuild Playback feature allows the construction of the design to be examined to understand and adjust the way the original designer made it operate. This unique feature insures the design operates just the way you need it to.

The designs created using StyleMaker can be added to the Style Catalog to create an on-line library of reusable work available to all of your designers.

Features

- Allows designs created in Designer to be fully parametric.
- Adds variables to designs to control parametric geometry that can be rebuilt with different sizes.
- Provides tools to convert fixed designs to variable geometry.
- ***Rebuild Playback*** examines and adjusts the construction of parametric designs.
- Creates a library of general-purpose geometry tools to quickly add components to designs.
- Specify lengths and angles based on existing lines using the on-screen keypad to further control how geometry changes when designs are rebuilt.
- Automatically identifies units allowing styles to work in inch or metric values with no additional work.
- Creates a documentation diagram for the design showing how the variables were used.
- Adds parametric designs to the ***Style Catalog*** to make them available to all users with ***Builder.***

Advanced StyleMaker

A designer creating a corporate design library must make styles that are self-documenting. These styles need to advise the user on what values are applicable or unacceptable for the design.

Advanced StyleMaker adds the tools to make this possible: this way the design library can be used accurately by people with differing skills.

A graphical expression editor allows simple or complex formulae to be set up to calculate defaults for variables. For example, the glue flap width could have a default value based on the length and width and yet be limited by maximum and minimum values. The user of a style can see the suggested defaults and override them if needed.

Errors will be avoided when the creator of a style sets limits on when the design is applicable. Any value entered by the user can be checked for validity and a message will explain why the value may be inappropriate. Variables can be hidden to prevent the user from overriding the defaults.

Styles created with ***Advanced StyleMaker*** are self-documenting and easy to use. The style choice variables present the user with a list of options to pick from. On-screen documentation drawings guide the user through the values to be entered and multiple menus group related variables together.

Features

- Adds tools for creating advanced self-documenting standards.
- Variables can have default expressions based on other variables.
- Check conditions validate user entry.
- Variables can be grouped in multiple menus with individual documentation diagrams to simplify use and control relationships between the variables.
- Style choice variables allow users to pick from a list of options.
- Documentation diagrams for variables can vary based on prior style selections.
- Graphical formula editor simplifies complex, conditional and constrained expressions.
- Functions in the formula editor allow standards to run with meaningful values in either inch or metric units.
- Library functions allow central management of frequently used expressions.
- Variables can be hidden to prevent changes by users.

Information Enhancement

The ***Information Enhancement*** option turns ArtiosCAD into an information management tool.
Additional data can be collected with all designs and a powerful Information Filter simplifies communication while protecting your proprietary data.

The ***Information Enhancement*** allows an unlimited number of user-defined fields to be collected with all designs and tracked in the database. These fields can either be manually entered or be automatically calculated based on the geometry of the design. The designer, salesperson and owner for designs will also be tracked in the database. Designs can be located in the database using any of this information.

The Information Filter is also part of the ***Information Enhancement***. A list of your customers and suppliers can be configured with the file format needed to communicate with each. Sending a design from within ArtiosCAD will create the correct format file and can even directly attach it to an e-mail message. In addition, it will remove data you do not want the recipient to get – for example, you may not want your customers to receive the parametric information or costing information for your designs.

Features

Adds tools to streamline and enhances communication using ArtiosCAD:

The salesperson, owner and designer for each design and layout are tracked in the database.
Unlimited user-defined fields can be made available.
User-defined fields are units-aware – i.e. they correctly convert between inch and metric depending on the type of data.
DataLink allows user-defined fields to be automatically set each time a design is saved. This allows any information that can be calculated from the geometry to be tracked and searched in the database.
Information Filter defines outputs for your customers and suppliers to insure they always are sent designs in the file format needed and to control the amount of information received.
Directly creates e-mail messages from ArtiosCAD with attached designs.

ArtMaker

A critical part of any package is the graphics. The ArtMaker module fully integraties graphics into ArtiosCAD. The graphics added with ArtMaker are immediately available in every ArtiosCAD module.

The geometry from ArtiosCAD can be used in a graphic design system as the starting point for creating artwork. The completed artwork is then accurately registered in ArtiosCAD in a few keystrokes using ArtMaker. Cutouts can be designed to match the graphics and the finished design can be printed on any ArtiosCAD document to produce print cards. The AutoTrace module further streamlines the generation of geometry from graphics.

Instant access to 3D images with full graphics allows checking the relationships of artwork on different panels. Folded designs in true perspective with complete artwork create impressive documents for your customers to preview a job before the first sample has been cut. These files can even be sent via e-mail to customers with the free ArtiosCAD Viewer so they can examine the design from any angle and even fold and unfold it.

Frequently a single design can be produced with many graphics variations: for example, an ice-cream carton could be in vanilla, chocolate and strawberry. Only ArtiosCAD's ArtMaker supports print items to carry all of graphic images in a single file and track which is used at each position on a complex sheet layout. Many potential printing problems can also be identified by viewing the sheet layout with full graphics.

Features

- Adds integrated graphics to ArtiosCAD
- Artwork from any graphics system can be imported into ArtiosCAD with ArtMaker. Graphic formats supported are JPEG, TIFF, PNG, BMP and DIB.
- The artwork can be accurately registered on the structure with a single click.
- Correctly registered cutouts and windows can be created by tracing the artwork with the drafting tools.
- Line-art can be created directly in ArtiosCAD using tools for color fills and strokes.
- All graphics created with ArtMaker is available in every ArtiosCAD module to automatically carry artwork into 3D, print cards, layouts, etc.

AutoTrace

The AutoTrace module vectorizes edges in any graphic to produce an outline around elements in the image. The results can be used to quickly create cutouts and headers guaranteeing good registration. Dynamic controls make location of the correct edge easy though adjustment of brightness, color, smoothing and size thresholds.

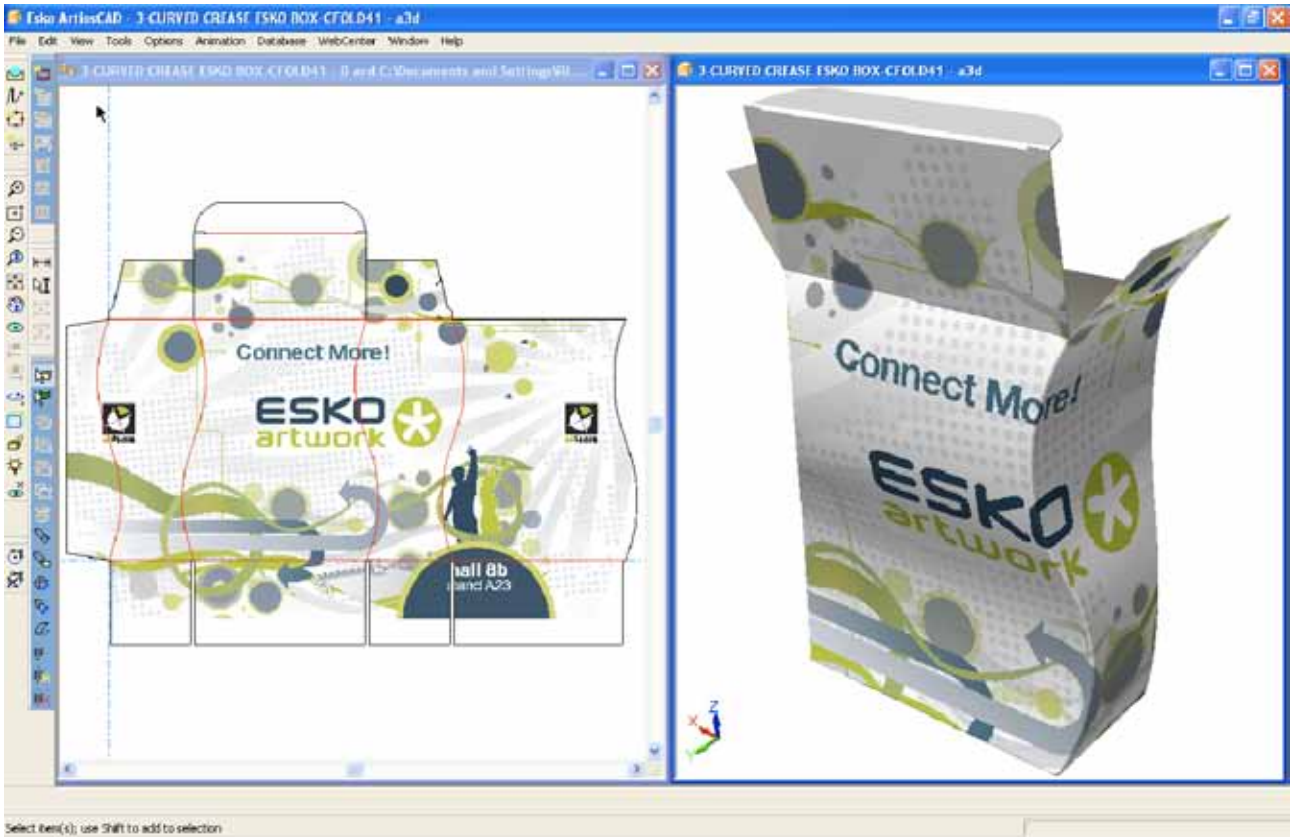
Features

- Vectorizes edges in any graphic image imported by ArtMaker.
- Edges are controlled by color, brightness, smoothing and size thresholds.
- Edges can be previewed in several colors to make it visible against the image.

ArtiosCAD 3D -

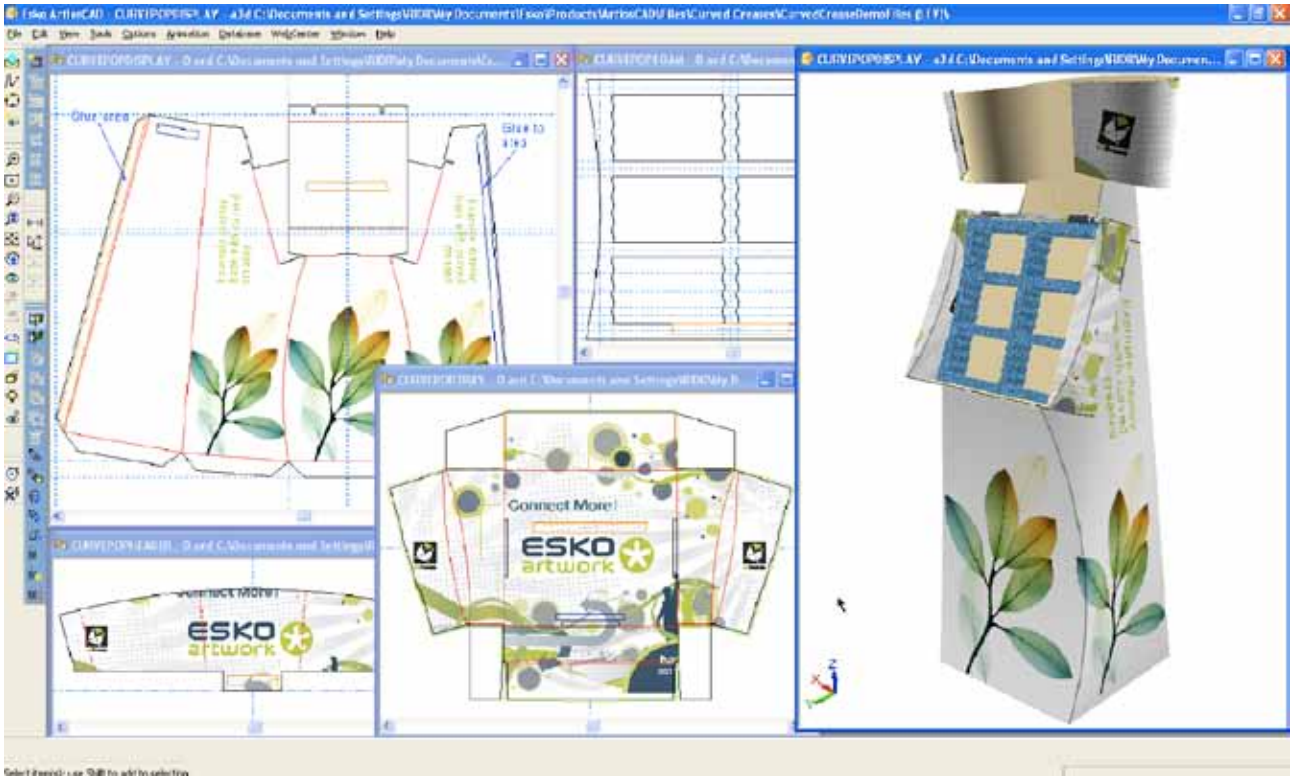
Fold and check designs in 3D

Most users of a CAD system like to see a final folded image of each design.
ArtiosCAD 3D is an award-winning solution because of its powerful tools for quickly folding even complex designs. Its speed and total integration into the CAD environment allow it to become an integral tool in the design process.
Graphics added to the designs with ArtMaker will be automatically shown in the 3D image in full perspective. Folded designs with complete artwork create impressive documents for your customers to preview a job before the first sample has been cut.



Example of a curved crease design folded in 3D

Structural designers will find ArtiosCAD 3D especially valuable because it can check the offsets between panels, tabs, etc. in the final folded product. ArtiosCAD 3D remembers the fold angles allowing these checks to be quickly performed at each step of the design process.
Multiple designs can be combined and moved in space to build complex assemblies. For example, fold a base, drop in a header and then fill with cartons. Assembly diagrams for single designs or full assemblies are created by taking snapshots of the partial constructions with the clipboard.



Example of using the Mate Tool to assemble a display

Features

- Single click access to the 3D module from ArtiosCAD's design environment.
- Designs can be quickly folded in a few clicks.
- Powerful tools calculate the angles necessary to align panels with slots and other common packaging constructions.
- Fold angles for designs are remembered allowing rapid switching between flat and folded views.
- Distances can be measured in the folded view to check allowances and offsets.
- Combines multiple designs to create complex assemblies.
- Creates folded designs directly from DDES or CFF2 format files.

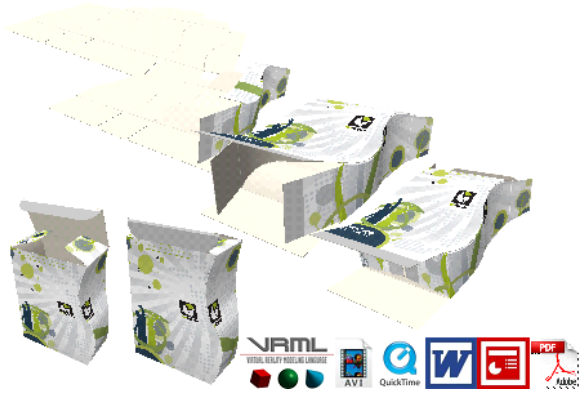
Benefits

- Save time and cost by creating virtual mockups and using measurement tools to verify structural design.
- Gain quick customer approval with 3D visualization of designs.
- Create assembly drawings with the true CAD assets.

3D Animation

3D Animation is a module for Artios3D that “records” the steps required to fold or assemble a design and then produce an animated 3D model.

Viewing designs in 3D is a great quality control tool. In addition to viewing a 3D model, it is very helpful to view how a design is assembled. This is especially true for items made of multiple parts, like a Point-of-Purchase Structural designers will find 3D Animation especially valuable to check folding or assembly of a product. The animated model can be sent to your customers for review, speeding the time to market with accurate communication.



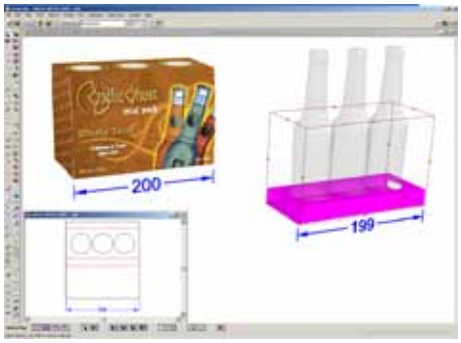
3D Animation can be output as an AVI movie, QuickTime movie, animated VRML file or each frame as an individual page of a PDF, Word or PowerPoint document. The 3D animation illustrates the entire folding or assembly sequence. The output shows the steps forward and backward through an animation. In addition, users can choose to view the model with transparency at any time. The transparency option allows those viewing the model to see the internal construction of the model. Any inserts, bleeds or overlaps are shown in great detail.

Graphics added to the designs with ArtMaker will be automatically shown in the 3D model. Animated 3D models with complete artwork create impressive soft proofs for your customers to preview the assembly of a carton, box or display.

Features

- Animation steps can be recorded as the design is folded or assembled, creating a 3D view with animations quickly.
- Fold angles and animations for designs are remembered allowing rapid switching between flat and folded views.
- Combine multiple designs to create complex animated assemblies.
- Export 3D files as AVI and QuickTime movies – requires ArtiosCAD V7.4 or higher
- Export 3D files as VRML models that can be viewed using any VRML browser plug-in. VRML models can even be viewed over the Web.
- Animated VRML models can include a toolbar to play the entire animation, step forward or backward through an animation or display the model with transparency.
- Export individual frames as PDF (requires PDF Import/Export), PowerPoint or Word documents.
- Using the clipboard, Animation steps can be used to create detailed assembly drawings.

3D Designer



In addition to viewing 3D models of cartons and boxes created in ArtiosCAD, it is also very helpful to view sample products with their packaging.

Designers will find ***3D Designer*** useful for creating 3D models of products such as cans, bottles, glasses and bags from simple 2D cross sections.

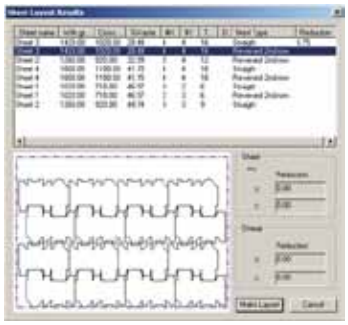
3D Designer fully supports parametric designs, allowing users to resize a single file to create a wide variety of shapes and sizes. In addition, users can add labels with ArtMaker to quickly and easily create realistic products. Users can also import of models provided in VRML file format.

3D Designer can also automatically perform certain design tasks based on a 3D model. The 3D Designer Toolbar includes tools to calculate intersections and cross sections of models and to run a standard parametric design based on the size of one or more 3D objects. Changes to 2D designs are automatically updated in the 3D view to enable users to make quick but very sophisticated design prototypes.

Features

- Create realistic product models of cans, bottles, containers and bags.
- Combine these product models with folding cartons and corrugated boxes to create presentations of the product and its packaging.
- Import 3D models supplied in VRML format.
- Add graphics such as labels to the models created with 3D Designer to produce realistic product representations.
- Create cross sections and intersections based on one or more 3D objects
- Run a standard parametric design to one or more 3D objects
- Export 3D files as VRML models that can be viewed using any VRML browser plugin. VRML models can even be viewed over the web.
- VRML Assemblies Support: Import full assembly structures and select individual parts of an assembly.
- Animate the models with the optional 3D Animation module to create VRML models can include a toolbar to play an entire animation, step forward or backward through an animation or display the model with transparency.

Layout



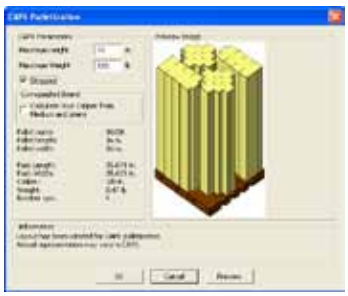
The ***Layout*** module will be used to estimating the sheet size or to design the final sheet ready for the creation of production tooling.
Powerful nest tools allow designs to be graphically stepped out on the sheet with the mouse. Individual stations can then be moved and more designs added to create a mixed sheet. Whatever the production needs, ***Layout*** quickly calculates the precise placement of all designs on the sheet and provides exact sheet size.

Layout automatically tracks the board type, side and grain direction of the sheet to prevent errors. Designs will automatically use the correct orientation and side when they are added to a sheet. ArtiosCAD's print item support identifies the printing to be used on each design. One design could be produced with several print variations and **Layout** identifies which printing is required for each station on the sheet.

The ArtiosCAD database tracks every design used on each layout. Has this design has been used on a layout before? Which print variations were used when we last create a layout for this customer? Questions like these can be quickly answered with the ArtiosCAD database browser.

Features

- Powerful nest and copy tools graphically construct sheet layouts.
- Mixed sheet layouts are built by adding different designs.
- Tracks sheet side, grain direction and board and checks consistency with every design added.
- Designs with multiple print variations are supported and tracked on the sheet layout.
- Calculates sheet size using the edge allowances for the selected machinery.
- The use of designs and print variations on each layout are tracked in the ArtiosCAD database.
- CAPE Integration: Layout pallet of blanks in ArtiosCAD, show stripped or non-stripped blanks. Send CAD data to CAPE and eliminate duplicate data entry.



DieMaker

The ***DieMaker*** module provides the features to quickly create quality dieboards and coating blankets from a sheet layout.
Stripping rules are added, the dieboard edge defined, balance knives calculated and mounting holes are selected. The features in ***DieMaker*** make use of auto-repeat to automatically duplicate elements in similar positions in each equivalent design.

Selecting the diecutter tells ArtiosCAD how to configure many aspects of the dieboard. This includes the alignment notch and mounting holes as well as minimum and maximum die size. The gripper finger positions can also be shown when needed as a guide.

ArtiosCAD uses parameter sets to remember the preferred choices for the many alternatives the system provides. Parameter sets are particularly valuable when different customers require different tooling construction.

With ***Designer***, any features created in DieMaker can be manually edited using ArtiosCAD's powerful drafting tools. These manual changes will be taken into account when showing information like dieboard size on any printed documents.

The completed dieboard can be manufactured using the available drivers for a wide range of numerically controlled machines including laser diecutters and full scale drafting tables as well as output to any standard format for use by your diemaker. ArtiosCAD outputs support a wide range of configuration options to optimize the cutting sequence and use of tooling.

The coating blanket tool uses either the bleed or varnish areas defined for the designs to build the design of a coating blanket for the whole sheet. The blanket is ready to be cut on a sample table and either cuts the coated or coating free areas. The production of coating blankets in this way can justify the cost of a complete CAD system.

Features

- Tools to place stripping rules including auto-repeat to duplicate stripping rules for equivalent designs.
- Constructs chop knives to break up waste.
- Builds the dieboard edge and select mounting holes following the requirements for the selected diecutter.
- Places balance knives following the Bobst formula.
- Places hand holes and identifying names on the dieboard.
- Accesses ***Designer*** to fine tune the dieboard geometry with ArtiosCAD's drafting tools.
- Creation of multiple piece dieboards.
- Designs coating blankets ready for cutting on a sample table.
- ***DieMaker*** can be used without ***Layout*** to make one-up dies or when working on a sheet layout designed by another user.

Rotary DieMaker

The ***Rotary DieMaker*** module extends the capabilities of the ***DieMaker*** module to provide a comprehensive solution for designing rotary tooling.

It supports all features necessary for the design and output of rotary tooling including dieboard splits, mounting holes, and rule path calculations.

A completed rotary die design can be output to a laser diecutter, the Kongsberg DieSaw or sent to a diemaker for manufacturing. The tooling features in this module can also be used to prepare flat dies for cutting on the Kongsberg DieSaw.

Features

- Dieboard splits can break die shells horizontally or vertically. The subtended angle of the shell is shown when making horizontal splits to allow accurate design of 180-degree shells.
- Mounting holes can be adjusted horizontally or vertically for rotary dieboards.
- Rule paths are automatically calculated and can be manually adjusted as needed. Manual changes are automatically repeated to equivalent rules across the dieboard.
- Bridges for rotary rules are placed on teeth on the rule paths. Manual changes to bridging will graphically jump bridges from tooth to tooth.
- Calculates drilling and cutting sequencing for output of dies to the Kongsberg DieSaw.

Stripping

ArtiosCAD's ***Stripping*** module includes sophisticated features to quickly design top and bottom stripping sets as well as the front waste separator.

A single click in a waste area to be stripped will construct the offset hole in the bottom stripper and the pins, rules or blocks in the top stripper. The automatically created stripping design is configured following rules set up by the user and can be manually adjusted if needed for special situations. The stripping elements for one area can be automatically repeated in every equivalent area across the layout.

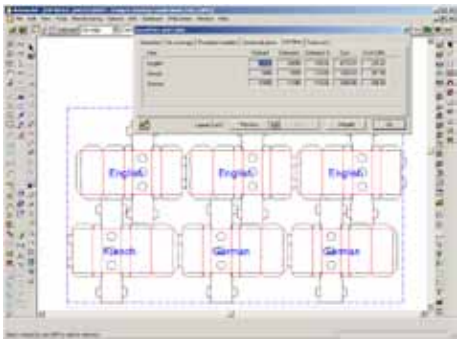
The stripping tools are positioned using an alignment notch, support bars and mounting holes configured to exactly match the requirements of the press. The machine parameter set also selects all offsets and settings for the preferred style of stripping.

ArtiosCAD has many options for the manufacture of the stripping tools including burning the bottom tool together with the blocks needed for the top stripper in one operation or output to any standard format for use by your diemaker.

Features

- Automatically designs top and bottom stripping for waste areas using pins, rules and blocks.
- Creates slots for carrier rules to support the board across large holes in the bottom stripper.
- Supports interference or power stripping for high-speed production.
- Creates air holes in top stripper for maximum performance.
- Automatically builds the front waste separator.
- Accesses ***Designer*** to fine-tune any stripping tool geometry with ArtiosCAD's drafting tools.
- Places alignment holes to register the stripping tools.
- Creates alignment notch, mounting holes and bolt holes for support bars to accurately position tools in the press.
- Provides multiple options for outputting finished tooling design to laser diecutters or for transmission to a diemaker.

Intelligent Layout



The ***Intelligent Layout*** module will automatically calculate sheet layouts that have minimum production costs.
After selecting the printing press and diecutter and entering the desired order quantities for each design, the software will quickly and automatically design several suggested layouts. Rules for gutter distances between different designs and printing restrictions on which designs can be placed behind others controls which solutions are chosen.

The sheet layout with printing and diecutting costs for each solution can be compared. The selected solution is ready for production or can be modified with any of the tools from the ***Layout*** module. When combined with the ***Cost/Estimating*** module, ***Intelligent Layout*** will consider all cost centers and the advanced costing formulae when calculating the minimum production cost.

Intelligent Layout uses the print items that track different order quantities for each print variation. The layout solution will show which printing is to be used on each design on the sheet.

Sometimes there may be no ideal single-sheet solution for the required order quantities. ***Layout*** can select a solution that partially fills the order and will carry the remaining quantities forward to build a production order that is filled using two different sheets.

Standard Sheet Layout is a new feature of Intelligent Layout that is ideally suited for folding carton manufacturers. Estimators and Designers can use this tool to create nested layouts of a single 1-up Design based on a set of standard sheet sizes.

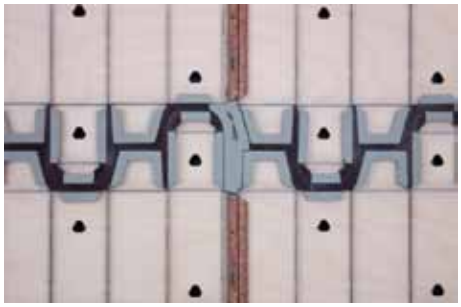
Standard sheet sizes are user-defined and there is no limit to the number of sheets that can be used. A variety of features such as nest style, gutter and rotation can also be selected. A user-defined Allowance can be used to include layouts that “almost fit”, allowing the Designer to make small adjustments for the most economical layout.

Features

- Automatically create nested layouts of a single 1-up Design on a user-defined set of standard sheet sizes.
- Examines thousands of layouts to find the solutions with lowest production cost to meet the order requirements and production constraints.
- Minimum and maximum overrun quantities determine how close the solutions must be to the exact order requirements.
- Solutions can be controlled by setting rules for gutter distances and which designs can nest with others.
- Costs are calculated based on the printing press and diecutter selected. When used with ***Cost/Estimating*** all configured cost centers are included in the calculations.
- Selected layout solution can be used in all other ArtiosCAD modules including manual editing in ***Layout*** and tooling design in ***DieMaker*** and ***Stripping***.

Note: Intelligent Layout requires Connection and Layout.

Rubber Design



The ***Rubber Design module*** includes rubber design for ejection rubber profiles.

The rubber design features provide an automatic one-click solution for generating ejection rubber profiles for a cutting die. The automatic solution uses a sophisticated set of user configurable rules (Parameter Set) which take into account rule type, location, geometry and many more parameters. Different parameter sets can be stored to suite different customer needs and different die types.

There is also a full range of editing tools for making adjustments or changes to the automatic solution. Edits may be applied to all similar shapes, or to individual rubber elements. This gives the ultimate flexibility and control over rubbering designs.

Features

- Automatic one-click generation of ejection rubber profiles.
- Automatically apply appropriate rubber to 'slot' or small areas.
- User configurable parameter sets for different customers and die types.
- Full range of edit tools for all similar shapes or on an individual element level.
- Select special rule types (cut crease, zipper and more)
- Supports nicks and bolt holes.
- Supports multiple rubber types including the use of stock rubber (e.g. Profile rubber) in combination with custom cut rubber shapes.
- Rubber can be designed for conventionally rubbered dies as well as those using TopMatrix™ (both full and scrap only).
- Easily accommodate spares and remakes with the layout feature.

Rubber Design and Layout

The ***Rubber Design & Layout module*** includes rubber design and layout for ejection rubber profiles.

The rubber design features provide an automatic one-click solution for generating ejection rubber profiles for a cutting die. The automatic solution uses a sophisticated set of user configurable rules (Parameter Set) which take into account rule type, location, geometry and many more parameters. Different parameter sets can be stored to suite different customer needs and different die types.

There is also a full range of editing tools for making adjustments or changes to the automatic solution. Edits may be applied to all similar shapes, or to individual rubber elements. This gives the ultimate flexibility and control over rubbering designs.

The automatic layout feature optimizes the cutting layout using a powerful nesting tool that balances sheet usage with element grouping. The layout feature provides for faster production times by supporting multiple headed cutting devices.

Features

- Automatic one-click generation of ejection rubber profiles.
- Automatically apply appropriate rubber to 'slot' or small areas.
- User configurable parameter sets for different customers and die types.
- Full range of edit tools for all similar shapes or on an individual element level.
- Select special rule types (cut crease, zipper and more)
- Supports nicks and bolt holes.
- Supports multiple rubber types including the use of stock rubber (e.g. Profile rubber) in combination with custom cut rubber shapes.
- Rubber can be designed for conventionally rubbered dies as well as those using TopMatrix™ (both full and scrap only).
- Easily accommodate spares and remakes with the layout feature.
- Layout feature reports percent usage for each sheet.
- Stock size sheets and remaindered sheets can be used to maximize sheet usage.
- Reports, and screen views of the die and rubber layouts can be produced with and without element numbering and color coding.
- Production reports can be created for each sheet.
- Highlight all similar elements in the die and the rubber layout with a single click of the special select tool.
- Rubber element numbers and profiles can be etched on the die.
- Water jet cutters (with or without multiple heads) are supported.

ReportMaker

ReportMaker designs many types of report templates, which can then be run by any user with ***Connection***.

The simplest report templates show a picture of a design and a wide range of calculated information and can produce documents such as print cards and job tickets. The view of the design on the report can show the same drawing style viewed on the screen or it can specify a particular view, side of design and layers to guarantee consistency in the printed documents. The information on the report can show any information available to ArtiosCAD including geometric data, variables and database user fields.

The report is designed using the ArtiosCAD drafting tools and the size, color and font of all elements can be controlled. ***ArtMaker*** allows graphic images to be added to the template allowing logos and other images to be included each time a report is printed.

Multiple drawings can be included allowing a 3D image to be shown beside a design or several different designs shown on one report. Each piece of calculated information will be based on the design for one of the drawings so a complete summary of a complex job can be provided on one document. The data for each design on a manufacturing layout can also be automatically summarized.

Features

- Constructs report templates that can be run by any user with ***Connection***.
- The view of the designs on the report can be precisely controlled.
- Any information available to ArtiosCAD can be calculated and displayed on the report.
- Multiple designs, 3D images and manufacturing layouts can be combined on a report.
- Logos and other fixed graphics elements can be added to the report using ***ArtMaker***.

Intelligent Counters

The complete design of individual counter plates can be created automatically with Intelligent Counters.

Extensive parameters control the design of the counter including support of partial cuts, reverse cuts and creases, embossing, tack bridges, tool angles and widths, treatment of the periphery and the chamfer.

The location of the counter mounting pin holes are automatically calculated from the corresponding counter position holes in the design. The design of the counter can be edited with the ArtiosCAD drafting tools. The chamfer can be recalculated after making manual changes to give the ideal mix of automation with manual control.

This flexibility creates counters suitable for multi-spindle counter cutters. Counter layouts can be designed to efficiently cut multiple counters from one piece of counter material in one operation. The actual generation of the NC codes for the counter cutter only requires ***Connection*** allowing the table operator to be at different workstation from the counter.

Features

- Automatically constructs counters for designs.
- Extensive parameters support of partial cuts, reverse cuts and creases, embossing, tack bridges, tool angles and widths, treatment of the periphery and the chamfer.
- Parameter sets remember all settings allowing different styles of counters to be easily created.
- The counter can be modified with ArtiosCAD drafting tools.
- Specialized tools for rebuilding the chamfer, adding straps, adding tack bridge and adding a cut name to the counter.
- Builds counter layouts to efficiently utilize the counter material.
- Actual counter cutter tool widths can be specified on output allowing a different machine to be used without redesigning the counter.

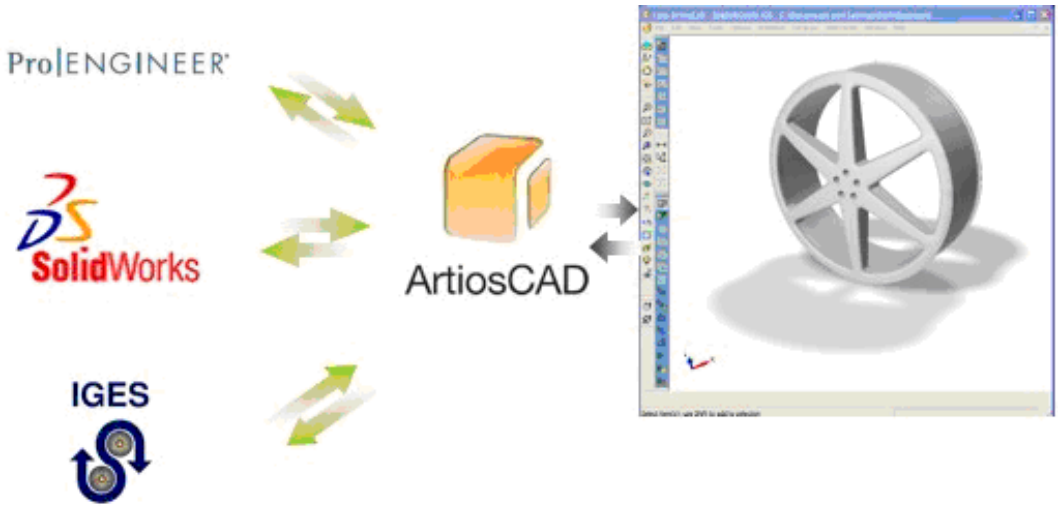
SolidWorks® Import/Export

SolidWorks® is a leader in 3D modelling and product design software. This module brings native SolidWorks file support to ArtiosCAD, allowing users to directly create packaging based on the imported product, part or assembly. The SolidWorks Import/Export module is based on native libraries licensed from SolidWorks Corporation.

The SolidWorks Import/Export module supports the import of SolidWorks parts and assemblies (*.sldprt , *.sldasm), ProE parts and assemblies (*.prt, *.asm) and IGES (*.iges) 3D models. In addition, users can also export ArtiosCAD 3D files as a SolidWorks part (*.sldprt), ProE part (*.prt) or IGES (*.iges) 3D model.

With the optional 3D Designer module, users can also automatically perform certain design tasks based on an imported 3D model. 3D Designer can calculate intersections and cross sections of models and run a standard parametric design based on the size of one or more 3D objects.

With the optional 3D Animation module, users can create completely animated presentations that demonstrate products, their packaging, and the assembly of all parts of virtually any packaging project.



Note: When exporting to a SolidWorks file, ArtiosCAD Graphics, Dimensions and Bounding Boxes are ***not included***.

Features

- Import SolidWorks parts and assemblies, ProE parts and assemblies and IGES 3D models into ArtiosCAD 3D to provide accurate display of the 3D model.
- Combine SolidWorks, ProE or IGES 3D models with ArtiosCAD 3D structure to create packaging made of multiple materials like blister packs, CD/DVD cases, and displays.
- Products created on SolidWorks, ProE or IGES can be combined with their packaging to create stunning presentations.
- Using 3D Designer, quickly and accurately create packaging that uniquely fits the product by creating cross sections and intersections based on an imported 3D model file.
- Using 3D Animation, create animated models, presentations and assembly diagrams to illustrate all the parts of a packaging project.
- Export ArtiosCAD 3D models as SolidWorks, ProE or IGES files for round trip workflow back to native applications.

3D Importer

3D Solids import engine and filters.
ArtiosCAD 3D Importer module enables importing of 3D solid models from other 3D modeling programs. Supported formats are CATIA V4, CATIA V5, IGES, STEP, SAT and ProEngineer.

Features

Import CATIA V4, CATIA V5, IGES, STEP, SAT or ProEngineer format 3D solid files directly into ArtiosCAD 3D.

Benefits

- Use actual product model to design packaging structure
- Reduce size and fit errors when designing primary package and fitments
- Include product models in packaging and displays for customer presentations
- Single import module supports all formats

Floating licenses

Many of ArtiosCAD's features are of value to users who may only use them occasionally.

Having several users share modules can reduce software costs. The ArtiosCAD ***Floating License*** option configures the software license manager to allow all client options to move between any users with a ***Connection*** license.

Each client option can only be used by one user at a time but is automatically free to float to another seat when the user has finished working with the module. The ***Floating License*** option is purchased just once for a site to allow all client modules to float – regardless of the size and complexity of the configuration.

There will be users on the network who need permanent access of critical modules. These modules can be reserved for that user to prevent them from floating to other seats and so guaranteeing that they are always available.

Features

- Allows all client options to float between users with a ***Connection*** license.
- Users can reserve licenses to make them permanently available and prevent them floating to other seats.
- ***Floating Licenses*** is a server option and only needs to be purchased once per site.

Note: ***Floating Licenses*** does not allow licenses to float between sites.

Note: The license manager must be able to receive network broadcasts from systems that are to use floating licenses so there can not be routers or hubs between the systems that block network broadcasts.