

# 3D Packaging Design and Visualization



Studio

Why work in a flat world if packaging isn't? Studio is a unique set of tools for 3D packaging design made specifically for packaging artwork professionals.

# Produce better packaging, **faster**

Studio will help you produce better artwork. Whether you are a designer trying out different ideas, or a prepress operator checking a back-match, with Studio you are virtually holding the pack in your hands.

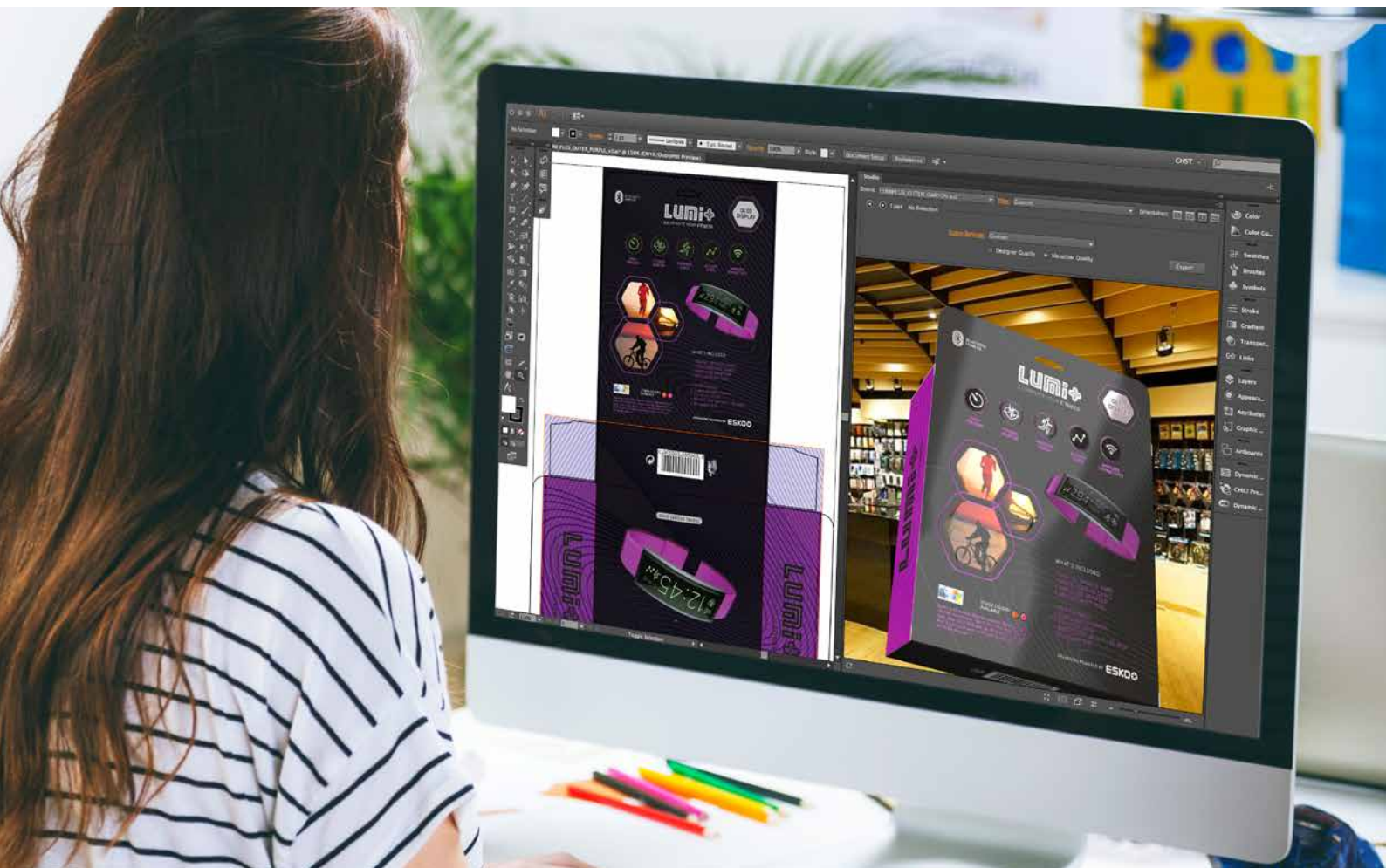
Studio is also a powerful communication tool. It lets you create exciting 3D visuals to show your client, ranging from PDF files with 3D content, to movies, a virtual pack shot or to a shopping shelf.

Other 3D tools can be too complicated. It can take hours to model and render an image. Studio is fast and easy: it integrates with your existing tools (like Adobe® Illustrator®), works with your data and speaks the language of packaging.

## **Powerful functionality, available as a subscription**

Studio is available as a Software Subscription with monthly and yearly payment plans. This eliminates large upfront investments; and what's more: you have always access to the latest version, and there is no separate maintenance fee.

Studio shows the package in 3D, right in Adobe® Illustrator®, ArtPro or PackEdge.



# Benefits of using Studio

Studio is for all packaging artwork professionals, from design to production:

## For Brands

Studio can revolutionize the way you handle packaging and point of sale development. Shorten your artwork approval cycle with interactive 3D visuals. Save time and money by reducing mock-up and studio photography costs. Use a virtual alter ego of your entire product range, always up to date with the latest artwork. Increase the success rate of product launches, by seeing upfront how your brand will look in the store next to the competition.

## For Packaging Designers

Studio is a fast and easy way to turn your ideas into beautiful 3D images. You can use it for your own inspiration or to impress an important client. There is no more need to cut, fold and glue print-outs. With Studio you see the package on the screen as you design.

You'll find yourself working faster and more creatively. This means that you don't have to make design compromises during production.

You might still make conventional mock-ups, but with Studio you have a new option: fast, inexpensive and beautiful virtual mock-ups.

## For Tradeshops

Studio is so user-friendly that every operator can use it. Finally, there's an efficient way to offer value-adding 3D services.

Use Studio as internal QA tool: check for panel misalignments and spot structural mistakes in time. Create the perfect back-match, perform advanced shrink sleeve distortions and save hours of time performing shrink tests.

## For Converters

Check for mistakes before the expense of making printing plates, embossing dies or varnish blankets. Avoid rejects by showing your client up-front an accurate virtual mock-up.

Or take Studio on the road and show prospects what your specialty print and finishing could mean for his brand.



# Studio for Boxes

Folding carton or corrugated packaging can be tough. There are many panels, some with odd orientations making it hard to imagine how it folds and fits together. Studio works particularly well with boxes. It has technology from ArtiosCAD, the preferred choice of the professional structural designer, and several clever artwork tools to handle the complexity of panels.

## Fold

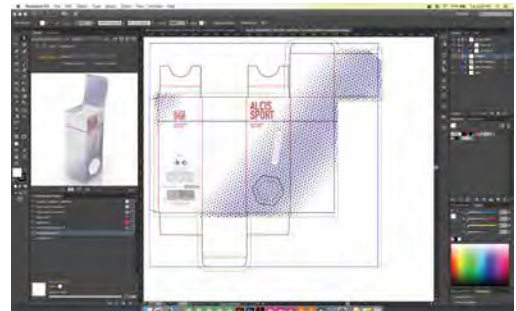
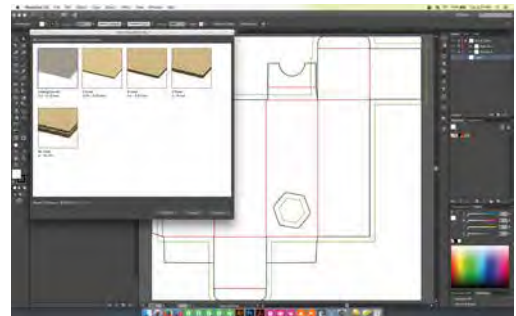
If you have the native file from the die makers' CAD system, then you can work right away in 3D. But if all you have are legacy files with flat drawings, Studio will help you to fold them into interactive 3D models. Studio has the perfect tools for detecting and removing double lines and closing small gaps. With the intuitive folding tool you give your carton or corrugated structure its 3D shape. You can even change the board type and thickness.

## Artwork

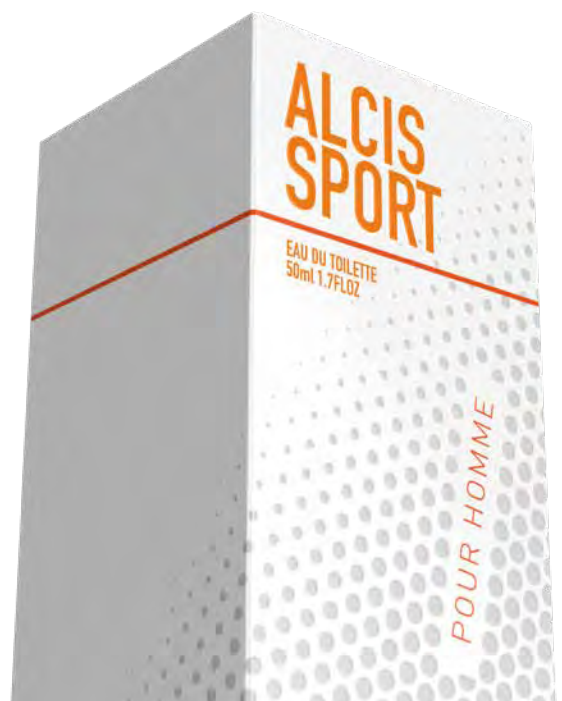
Whether you work with Illustrator, ArtPro or PackEdge, in the Studio window you see your box and spin it around as if you were holding it in your hand. Make a change to the artwork and immediately see how it looks on the box. The Studio window also acts as your navigator: just double-click on a panel to zoom in on just that part of your artwork.

## Turn the design, not your head

Tired of trying to edit text sideways or upside down? Studio can automatically rotate the artwork canvas so that you are always working in a convenient orientation.



From die drawing to 3D shape.



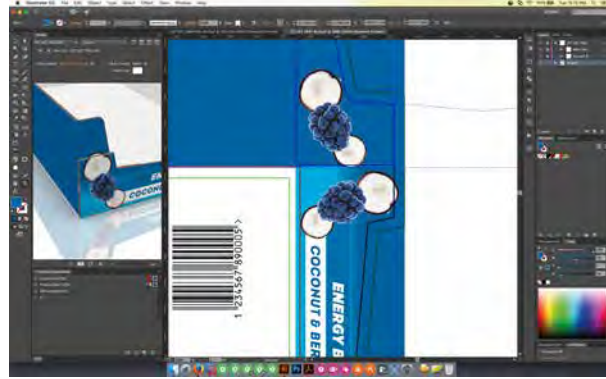
## Distribute

When several flaps make up one panel of your box, the clever distribute feature creates copies of artwork, with the correct position and angles, to create the perfect cross match. You don't need to be a mathematician anymore to make clever designs.

## Foils, Embossing, Varnish

Folding cartons have a lot of special effects and finishing possibilities. But how do you explain to your client how that holographic board with color overprint will look? Or how can you make sure the varnish blanket is correct?

Studio can create a lifelike virtual mock-up that you can spin around on the screen in real-time and share with others. It helps you to check your finishing separations, and it helps your client to see in advance what to expect.



Designs seamlessly align on the various panels of your packaging.



Create ultra-realistic mock-ups on a range of substrates and with a range of popular finishing effects like embossing, hot foil, and more.

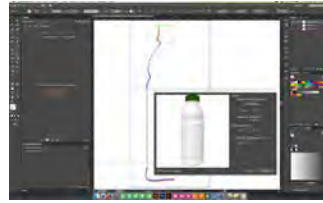
## Studio for Labels



To present labels in 3D you need both the container and the label to look their very best. Luckily Studio has clever tools for that.

On a 3D version of your container, Studio can add any number of labels and helps you to determine and place the proper die-cut shapes for each one.

Studio's conic warp tool instantly warps selected artwork to make it appear perfectly straight on virtually any conical shape.



From profile drawing to realistic mock-ups.



## Studio for Shrink Sleeves and Multipacks



Artwork for heat shrink packaging is the toughest. As the film shrinks, the branding and the design can be seriously compromised. Artwork needs to be repositioned, or compensated to deliver the design intent in the end.

Studio simulates a virtual shrink sleeve around the object. This truly unique physical simulation can handle round objects, asymmetrical objects and even multi-packs.

When the artwork is applied in Illustrator® you instantly see what artwork elements suffer from the distortion. Vector art, text and images can be pre-distorted with a simple mouse click. Studio gives you multiple suggestions and tweaking possibilities, and of course, live 3D feedback.



Add labels to 3D structural files from other CAD systems.



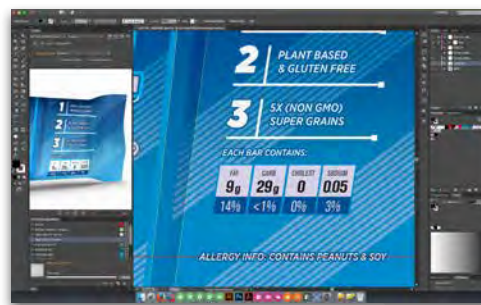
Compensate for shrinking distortion with Studio for Shrink Sleeves and Multipacks.

# Studio for **Flexibles**

No two flexible packages are the same. Pillow bags or pouches exist in all sizes and with all kinds of content. Studio has unique design tools for flexible packaging. With Studio, you can make great flexible packaging shapes in a matter of minutes.

## Shapes

Creating a flexible package is easy: simply pick a type of package you need and enter the settings from the filling machine. Interact with your package to see it move just like the real thing. Add air and liquid inside or insert a geometric shape to mimic a candy bar, biscuit or ice cream. Studio is much faster than other modeling tools because it has built in filling and substrate knowledge.



2D and 3D view in PackEdge and Artpro.



Pillow Bag



Gusseted Bag



Stand-Up Pouch



Quattro Seal Bag



Sachet



Diaper Bag

Create pouches, bags, sachets...

## Artwork

You'll see your artwork instantly in 3D in the Studio window in Illustrator, ArtPro or PackEdge. You can make sure that seals or gussets do not obstruct important design elements. And the distribute tool will help you make perfect "back-matches".

Studio helps you check your opaque white backing and see metallic inks and sealing reliefs. Thanks to the print modeling technology, Studio can even show you how the backside of the printed film will look.



Choose a shape and start designing!

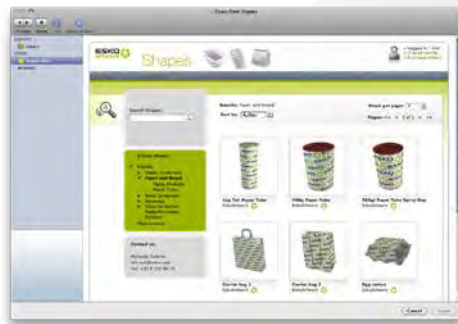
# More Shapes?

There is no need to design all the packaging from scratch yourself.

Many popular packaging shapes can be found in our online Shapes Store where you can download a 3D packaging model, all ready to use. The Store has beverage cans, tubes, PET bottles, plastic bottles and many more. You access the Shapes Store right from Adobe® Illustrator®, ArtPro or PackEdge.

If you need a custom shape, Esko offers a 3D modeling service. Our professional 3D artists can prepare 3D models for Studio based on CAD files, photographs or real samples.

Studio supports open file formats like Collada, so it integrates well with virtually any 3D modeling software.



Choose shapes from the online Shapes Store.



Order custom shapes from Shapes Modeling Service

# Share 3D with Everybody

Studio offers many 3D sharing options:

- Send an interactive 3D PDF: view it and spin it around in the free Adobe® Reader®. (For examples visit [www.esko.com/3dpdf](http://www.esko.com/3dpdf)). Share a Collada file that can be viewed with the free Esko Studio Viewer.
- Create pack-shots with transparent, plain or image backgrounds.

- Upload virtual 3D mockups from Studio to WebCenter and invite all the project members to view and approve.

With the free Studio Viewer, your clients can view your designs as if they are holding it in their hand ([www.esko.com/studioviewer](http://www.esko.com/studioviewer)). Also available for Macintosh Windows, iPhone, iPad and Android.





# Print and Finishing effects

The real-time images in Studio are ultra-realistic thanks to a patented print modeling technology. Visualizer simulates the printing and finishing operations one by one, in the correct order, and on the right substrate. So what you see, doesn't only look great, it's also technically feasible.

## Available materials and effects

- Paper: uncoated, matt, satin and gloss coated, Kraft, textured, colored
- Foil board, coated and uncoated liners
- Clear and white plastic film
- Metal, (colored) glass, rigid plastic
- Label paper (coated and uncoated), clear, metalized, canvas textured and wrinkled foil
- CHROMOLUX® label papers and boards from M-real Zanders 1 line
- AVERY DENNISON label, flexible and shrink materials
- Process colors
- PANTONE® and PANTONE GOE colors (solids, pastels, metallic)
- Spot colors and opaque spot colors
- Screen printed (opaque) spot colors
- Reverse printing, surface printing or recto-verso printing
- Spot UV varnish (matt, satin, glossy)
- Fujifilm® coatings
- Sakata INX® inks, varnishes and substrates
- Embossing and debossing, multi-level, sharp or rounded
- Sculptured embossing
- Seal crimping, horizontal, vertical and mesh
- Die-cutting
- Hot stamp metal foils (gold, silver or colored)
- Cold foils (gold, silver, colored, overprinted)
- Metallic inks (PANTONE® metallics, Eckart silver and gold pigments)
- Kurz® Light Line holographic foils
- Merck Iridodin® pigments
- Scodix® digital enhancements



Visualizer print modeling of a foil board overprinted with black, pink and yellow, an opaque white, a holographic hot stamp foil, micro embossing and rounded embossing.



With Studio you can try different options in a matter of seconds. From left to right: A silver hot foil, a silver ink with embossing, a gold hot foil with embossing.

# Virtual Reality

Studio can present a single packaging object in 3D. But sometimes that is just not enough. It's in the store that a product needs to communicate the brand and attract customers. So, what better way to predict the success of a new design than to visualize it in a store environment, next to the competition?

**Studio Store Visualizer** does exactly that. The real-time virtual reality technology from Vtales graphics visualizes new and existing products in a virtual store. With these visuals, all stakeholders can assess the shelf impact upfront. This means that you can confidently make the right design decisions on color, shape, materials, artwork and shelf layout, while there's still time to make changes.

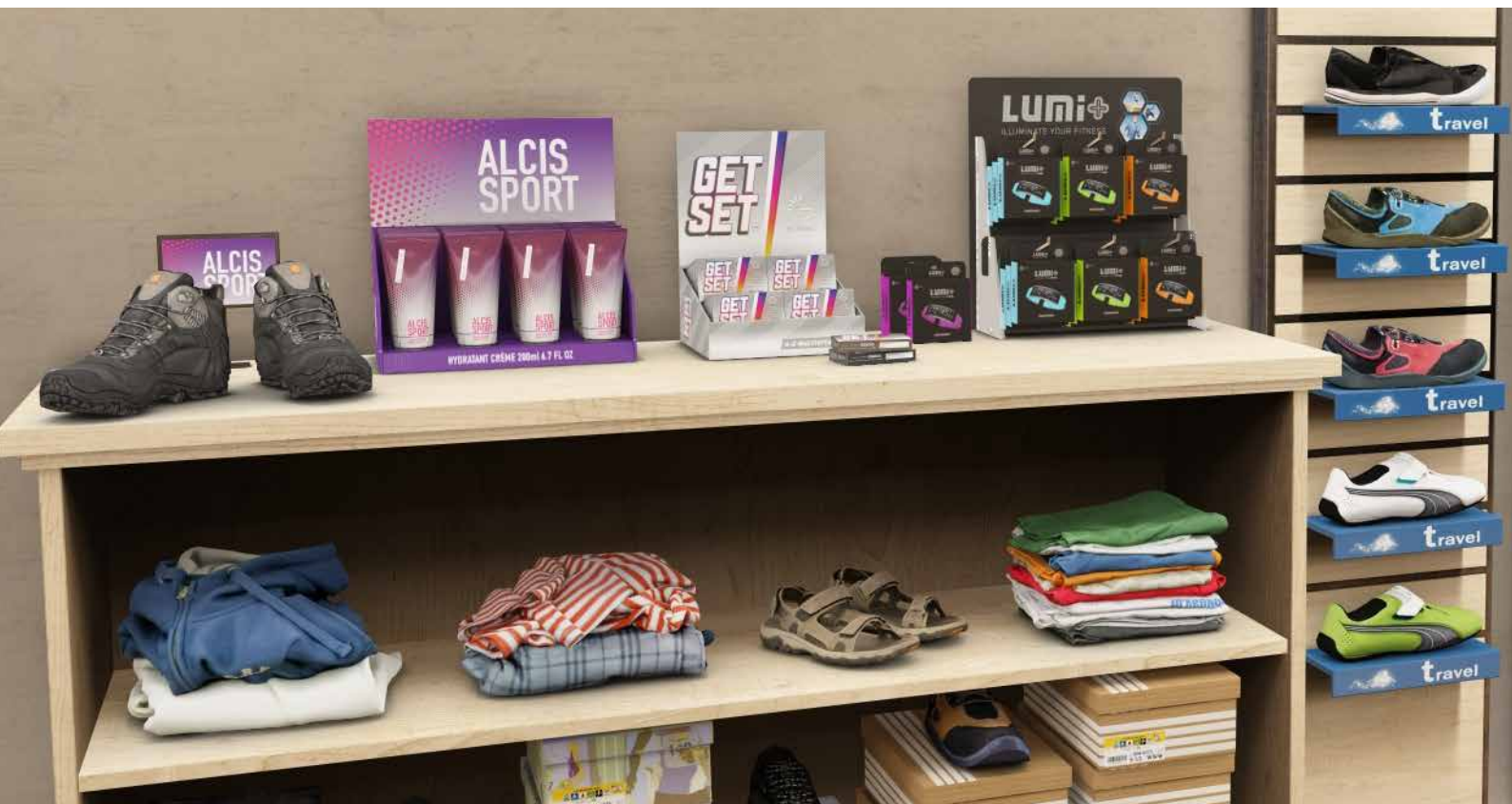
With Studio and ArtiosCAD you can build a complete store concept for your brand.

## Realism

Studio Store Visualizer's real-time rendering reaches an unmatched level of reality. It is all in the details: the shadows at the back of the shelves; refractions for liquids, glass and other packaging materials; the randomness of products on shelf; the many materials and print effects. Animation and physics add even more realism. Walk through the aisles, pick up items, and see them bump into each other.

## From Manufacturing Assets

The virtual products are made with Studio or ArtiosCAD. So they link straight into your design or manufacturing data. And you can very quickly swap them with different variations. Store Visualizer can also import 3D objects from many other modeling tools or 3D scanning devices.



## Build virtual stores quickly using actual planogram data

Studio Store Visualizer also offers planogram integration, supporting the import many common planogram file formats. Create and populate visually stunning virtual 3D stores in minutes!

You can even display barcodes, pricing and other metadata associated with each of the imported products, making it ideal for use in store planning and category management.

## Point of Sale Material

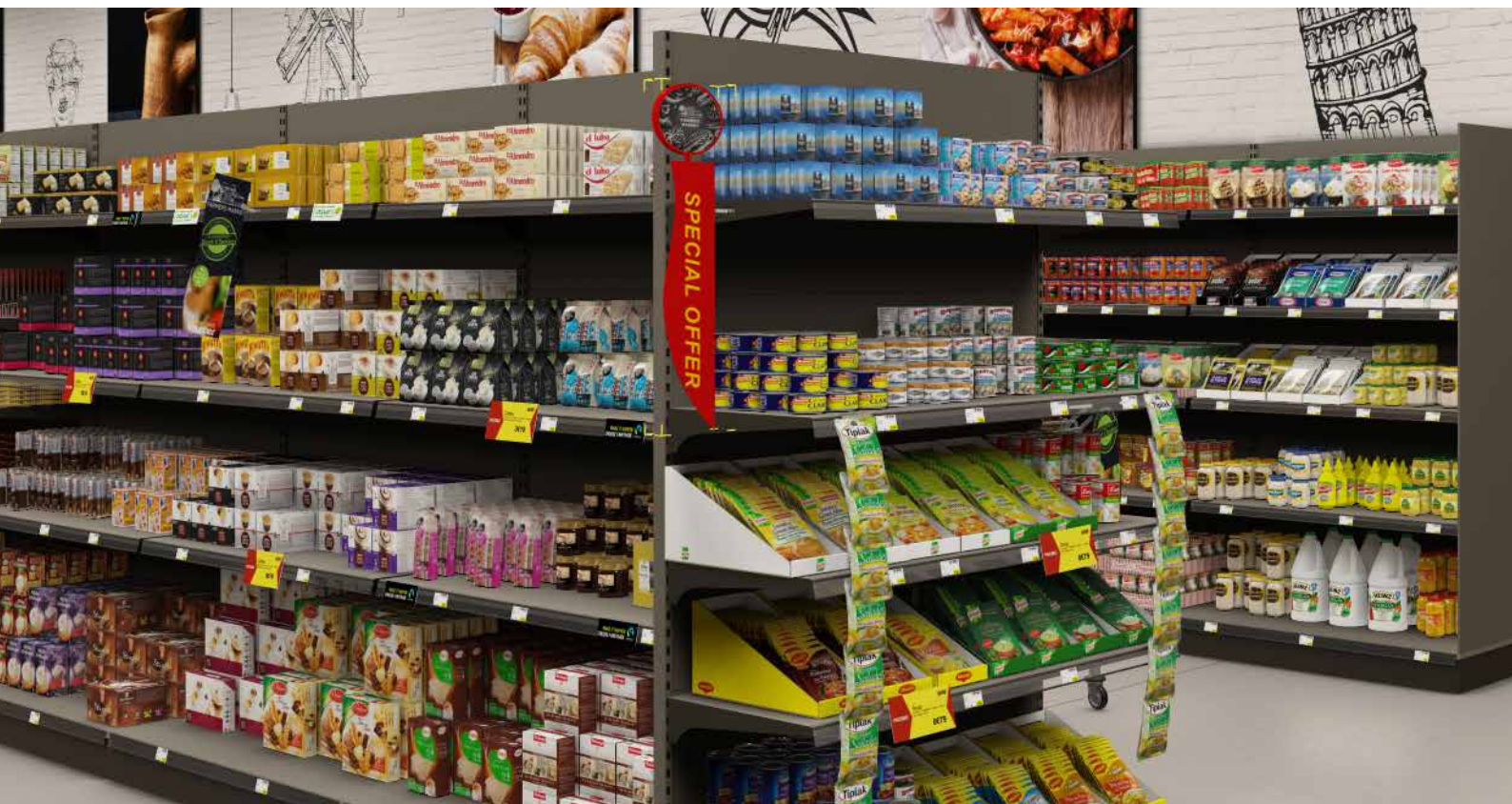
Branding does not only happen on the shelves. You can place items on the floor or put signs on the walls. Or dress up the

shelves with branded fronts and dividers. Present the complete store concept for your brand in the most visual way.

## Environment

In Studio Store Visualizer you can build your own store: just pick floor and ceiling style and start configuring aisles and shelf layouts. You can also work with a spherical (360 degree) photograph of a real store and put virtual mock-ups on the empty spots. Your new virtual designs blend in almost perfectly with the real products.

Integrate virtual packaging mock-ups in real store environments.



# Modules

Studio is a modular solution, a mix of plug-ins and applications that work tightly together. You pick the configuration to fit your current needs. You can always expand later. All the Studio modules run on both Macintosh and Window.

## Designer

Add a 3D preview to your artwork editor and share 3D files.

- Place structural design files from ArtiosCAD or from one of the Studio Toolkits
- Place 3D models from the online Shapes Store.
- Show packaging in 3D with artwork
- Show multiple artwork files on a multi-piece 3D scene
- Navigate in 3D, zoom in on panels with automatic canvas rotation
- Export to 3D PDF, Collada, TIFF, JPEG, PNG, Image Sequences and KeyShot
- Plug-in for AI® (Macintosh/Windows)
- Available in ArtPro and PackEdge

## Toolkit for Boxes

Create folding structures for Designer.

- Assign folds & cuts
- Clean up die drawings
- Pick folding carton or corrugated board types
- Fold up in 3D
- Export to an ArtiosCAD file
- Plug-in for AI® (Macintosh/Windows)

## Toolkit for Labels

Make 3D shapes with one or more labels to use in Designer.

- Import a 3D Collada file
- Add labels to single curved parts
- Revolve a profile curve into a round 3D shape
- Add flat labels to the top or bottom of revolved shapes
- Add cylindrical or conical labels to the sides of revolved shapes
- Calculate the label die-cut based on the 3D shape
- Export to a Collada file for Designer
- Prepare conical labels with the non-destructive warp tool for conical labels in AI®
- Plug-in for AI® (Macintosh/Windows)

## Toolkit for Flexibles

Create flexible packaging shapes for Designer.

- Create pillow bags, gusseted bags, rectangular stand-up pouches, three & four sided sealed pouches, quattroseal bags, diaper bags, tetrahedral bags, ponytail bags and sachets
- Change dimensions and content
- Interact and modify the shape with dedicated 3D tools
- Export to a Collada file with matching key lines for Designer
- Application for Macintosh/Windows.

## Toolkit for Shrink Sleeves

Create 3D shapes of shrink sleeve packaging and warp the artwork to compensate for the shrink distortions.

- Import 3D objects from a Studio Toolkit or other sources (.OBJ), .ZAE, .DAE, .ARD)
- Create round shapes, irregular shapes and multi-packs
- Add a horizontal or vertical heat shrink sleeve
- Physically simulate material shrink properties
- Export to a Collada file for Designer
- Show shrink distortion statistics in AI
- Pre-distort artwork to compensate for shrink distortion (non-destructive)

## Visualizer

Visualize a wide range of substrates, printing and finishing effects in real-time in Designer.

- Apply a wide range of substrates, inks, foils and finishing effects
- Create and save custom operations
- Automatically match separation names to existing effects
- 14 real lighting environments (office, supermarket, outside, photo studio...)
- Plug-in for AI® (Macintosh/Windows).

## Store Visualizer

Visualize your design in a spherical or virtual store.

- Place virtual objects on empty places in spherical images
- 5 example spherical images included (Custom images can be captured as a service)
- Configure a virtual store: floor and ceiling style, aisle and shelf layout
- Import 3D packaging models from Studio or ArtiosCAD; 3D files from other 3D modeling software; transparent PNG images as flat models
- Manage large sets of 3D models in libraries
- Place single packaging objects or fill available space with an array
- Swap objects, rearrange shelves
- Add floor standing units, posters
- Walk around and pick up objects
- Physics engine simulates gravity, collision and friction
- Export hi-res images and dmovies for walkthroughs
- PCSupport for Oculus Rift and HTC Vive virtual reality headsets and controllers
- Stereoscopic projection for an immersive virtual reality experience
- Touch screen support for kiosk like operation
- Export self-executing panoramic viewer for Macintosh or Windows