



SEEING THE FUTURE: **A Manufacturer's Guide to 3D Visualization Marketing Solutions**

AN OVERVIEW OF 3D VISUALIZATION

Today, 3D models are everywhere – and are used in virtually every industry. According to NMSC, the global visualization and 3D rendering software market is forecast to have a value of 9.61 billion U.S. dollars in 2030, creating new sales and marketing opportunities for business in almost every industry.

What we now call 3D visualization began in the 1960s with the creation of mathematical models. Next came a technology called Sketchpad, which helped revolutionize how we interacted with computers and directly led to the creation of CAD (Computer Aided Design) software. These advances helped unleash a new era of business creativity – increasing the output and capabilities of creators and architects, improving the quality of designs, and creating whole new channels for manufacturing.

Today, modern [3D visualization tools](#) are relatively inexpensive and accessible even to those without a background in design. On the manufacturing side, 3D tools are used to explore and manipulate designs much more quickly and easily, helping creators explore new options and refine their creations. On the consumer marketing side, 3D visualization tools are helping retailers better serve their customers, with easy-to-implement web experiences that show how everything from furniture to a painting will look in a real space – and shoppers are increasingly coming to prefer online stores that offer these services. Even better, photorealistic 3D models or part renderings are now easily achievable – and in the coming years, next-gen technologies like [augmented reality](#) will start to offer even more benefits to both manufacturers, retailers and entertainment companies.

THE BENEFITS FOR YOU



For manufacturers, the benefits of 3D visualization can be **true game changers**.

Sure, 3D visualization can help you save time and money – but more importantly, it can open up ways of doing business (and serving your customers) that didn't exist before, including...



A Better Way to Configure, Price, Quote

With 3D visualization tools, B2B manufacturers are able to offer their customers a much simpler, faster and more intuitive way to configure and order the products that they need. Since 3D visualizations tools allow the customer to actually customize and spatially plan the products that they need on the web, they can complete the CPQ process on their own without the aid of a salesperson.



More Efficient Manufacturing Processes

As you probably already know, the manufacturing process – especially the act of bringing a new design to life – is inherently inefficient. But 3D visualization can help you create a more reliable and streamlined prototyping process, since it allows you to work directly with your CAD models, and the tools can be configured to build constraints into the process that eliminates errors.



A True Competitive Advantage

For manufacturers, 3D tools can help you truly stand out from the crowd. First, you are now able to sell to your customers 24/7 – since they can self-service their configuration needs right on your website or on an app. Second, your customers will be able to customize and experience your products like never before, helping them find – or create – exactly what they need. Finally, 3D visualization can be organically implemented into your existing digital tools, with branding options and customizable features that allow you to offer a unique experience.

Of course, one of the most compelling benefits of 3D visualization is cost savings. As a manufacturer, you will not only be able to bring your products to market much more efficiently, you will also be able to sell and market them much more, creating measurable cost-savings throughout the product lifecycle. And today, 3D visualization tools are not as expensive as they once were, making them even more attractive to manufacturers.

PUTTING 3D TO WORK: **DIGITAL CATALOGS**

As one example of how manufacturers can put the benefits of a 3D Visualization tool into action, consider the ongoing transition away from printed marketing materials, like catalogs.

Many manufacturers have lists of products that run into the tens of thousands, making printing, updating and maintaining printed marketing material extremely time-consuming—and expensive. Plus, distributing printed marketing material adds even more time and more cost, and builds an inherent delay into the sales cycle, as your customers need to wait for material to arrive by mail or via an in-person sales call.

While many manufacturers have shifted towards a more digital focused cataloging strategy, primarily by using PDFs and other e-catalog solutions, the process is still inefficient – but many of those inefficiencies can be solved for though the use of 3D visualization tools:



3D visualization tools

3D visualization tools can create photorealistic images faster and more cost-effectively than photography.

Animated 3D product models

Animated 3D product models allow the end customer to interact with the product from all sides – and make it easier to visualize in their own application.

3D models

3D models are higher fidelity than traditional photographic assets, allowing for almost unlimited zoom states – with hot spots on the model that can be set to trigger animations or highlight key details.

Digital catalogs

Digital catalogs can be distributed almost effortlessly – and can be easily implemented into the most popular e-commerce solutions, like Shopify.

3D catalogs

3D catalogs create a more tangible experience for end-users, allowing them to feel more comfortable making important purchasing decisions – and help manufacturers realize increased conversion rates.

Even better, digital catalogs can be created and implemented *without any special training and without any new hiring needs*, since they can be created based on existing 2D and CAD drawings.

5 QUESTIONS BUSINESSES SHOULD ASK BEFORE ADOPTING A SOLUTION

Q: What is your scope?

When picking out a visual configuration solution, consider first how many renderings you need to create. What's your total product inventory? How many are customizable; how many need to be rendered in 3D? Do they all need to be photorealistic? How many currently usable assets do have that can help create your 3D models? If your scope is small, you can consider outsourcing. For businesses that run into the thousands of SKUs, however, the cost-savings of adopting a 3D visual configuration solution will be enormous.

Q: What formats do you have... and need?

Before investing in a new solution, consider where your final output will be used. Different visual configuration solutions offer different output methodologies – consider choosing a solution that works specifically with the applications you need to support. Similarly, if you have existing 3D models, you might consider asking whether your visual configuration solution is capable of importing them in their current state. At CDS Visual, we reduce your cost by making use of your STEP and native CAD formats like SolidWorks and others. We also make use of other platforms by using glTF. Our technology can output 3D viewer HTML files, JPEGs and PNGs, video files, CAD Models, 2D drawings as PDFs and more.

Q: Are you properly staffed?

Many 3D rendering programs require specialized training and a specialized skill set. If you don't already have a 3D design department in place, consider choosing a solution that is specifically designed to be used by a layperson. Or, consider your outsourcing options.

Q: How will you integrate your new solution?

Your business is undoubtedly already invested in a variety of digital systems and environments, like an e-commerce platform or a DAM that might need to be fed into or from. Will your 3d visualization solution be able to easily integrate – and who will handle that process?

Q: Are you ready for augmented reality?

While [augmented reality](#) currently is best used for applications like interactive presentations and product demos, the case for AR in consumer marketing is growing more powerful by the day. Your 3D models will inevitably need to adapt. Consider choosing a 3D visualization solution that is ready to support AR without breaking the bank.



ABOUT CDS VISUAL

[CDS Visual](#), headquartered in San Jose, California, provides visualization and augmented reality solutions for both standard and highly configured products. Founded in 2005, CDS Visual enables manufacturers and distributors to transform their digital customer experience with engaging and impactful visualization solutions. CDS Visual is a [Dover](#) company.

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