

CALIFORNIA WIRE PRODUCTS CORPORATION DEVELOPING CUSTOM WIRE CAGE PRODUCTS MORE COST-EFFECTIVELY WITH DRAFTSIGHT PROFESSIONAL

Case Study



California Wire Products relies on DraftSight Professional, a 2D design tool, to develop custom designs for woven wire applications, which provide security, safety, and access control at various facilities, including the ball park shown here, while the company is configuring a rules-based SOLIDWORKS/DriveWorks 3D design automation solution.

Challenge:

Continue to create custom product designs in 2D during the configuration of SOLIDWORKS 3D/ DriveWORKS automated design application while simultaneously reducing costs and eliminating data compatibility issues.

Solution:

Replace AutoCAD 2D design software with DraftSight Professional software.

Results:

- Shortened time to create engineered-to-order products
- Eliminated data compatibility, dimensioning, and text issues
- Reduced 2D design costs
- Realized cost-effective bridge to 3D automated design

California Wire Products Corporation (Cal-Wire) is the leading manufacturer of woven wire products on the West Coast of the USA. Ever since the first woven wire fence was manufactured in the late 1800s, woven wire has been used in many applications as an efficient way to secure and protect valuable assets and inventory, providing safety protection and access control for facilities ranging from warehouses, ball parks, military bases, and prisons, to schools, data centers, department stores, storage areas and more. Established in 1948, Cal-Wire specializes in engineered-to-order wire and welded-mesh products that are custom-designed to meet specific customer needs.

According to Engineering Operations Manager Kenny Kuhns, the company formerly used AutoCAD® 2D design software to custom-design products—and even attempted to use Autodesk Inventor® 3D design software to further automate development—before looking for more suitable 2D and 3D design solutions. “We used to use AutoCAD and tried using Inventor, but we hit a brick wall when it came to automating our design process,” Kuhns recalls. “We decided instead to implement the SOLIDWORKS® 3D mechanical design system along with the DriveWorks® rules-based design automation and sales configuration application.”

However, Cal-Wire still needed a cost-effective, efficient 2D design solution for use while the SOLIDWORKS/DriveWorks automation package was being built and configured. “We were facing a substantial outlay to update our AutoCAD licenses,” Kuhns recounts. “For a while, we just didn’t update AutoCAD, but then we began having issues with opening files and losing dimensions and text blocks on drawings. A friend told me about DraftSight® 2D design software, which offered free and low-cost versions that were fully compatible with AutoCAD data, enabling us to address these issues and generate DWG and DXF files at a much lower cost.

“I thought DraftSight would just be a scaled-down version with limited functionality and was pleasantly surprised to learn that DraftSight Professional gave us all the capability of AutoCAD and more at a small fraction of the price,” Kuhns adds. “We immediately purchased four more licenses of DraftSight Professional and have been using it ever since.”

FASTER, MORE EFFECTIVE THAN AUTOCAD

Using DraftSight Professional software, Cal-Wire has confirmed that the 2D design solution is easier to use and more cost-effective than AutoCAD, allowing the woven wire manufacturer to reduce the amount of time required to design and manufacture engineered-to-order products. “Wire cages are essentially a low-tech product, and it’s simply faster to custom-design wire cages using 2D instead of 3D tools, unless 3D design is fully automated,” Kuhns explains.

“Until our automated SOLIDWORKS/DriveWorks system goes live, which will let our distributors and sales professionals automatically generate drawings and quotes, and integrate orders in our ERP (enterprise resource planning) system, by entering basic layout information about a product, it’s easier to do these layouts with DraftSight,” Kuhns continues. “I don’t know why anyone would continue working with AutoCAD. DraftSight is a good tool with an extremely effective set of features at a much lower cost. We moved our design library over to DraftSight seamlessly and have moved forward with our work without missing a beat.”

ELIMINATING DATA AND DRAWING ISSUES

Since implementing DraftSight Professional software, Cal-Wire has completely eliminated the data compatibility and drawing issues that it experienced using AutoCAD. “We laser-cut many of our parts and need our drawings to be accurate,” Kuhns stresses. “Working with an older version of AutoCAD, we had instances when the dimension and text blocks on the drawings got messed up.

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— Kenny Kuhns, Engineering Operations Manager

"We've found DraftSight Professional to be much more reliable and accurate, and the drafting and annotation functions are better," Kuhns continues. "Regarding dimensioning, we've found DraftSight to be quasi-parametric and much easier for making design changes. DraftSight just works better for us. We have fewer drawing and annotation issues, and have completely eliminated the data conversion problems that we experienced with AutoCAD. We've had zero issues opening AutoCAD files with DraftSight."

BRIDGE TO AUTOMATED 3D DESIGN

With DraftSight Professional software, Cal-Wire has an inexpensive, efficient 2D solution that serves as a cost-effective bridge to the customized, fully automated SOLIDWORKS/DriveWorks 3D design solution that is currently being finalized. Until the SOLIDWORKS/DriveWorks solution automates all possible design scenarios, Cal-Wire will rely on DraftSight Professional software to efficiently handle any products that don't fit the automated approach.

"We anticipate that the SOLIDWORKS/DriveWorks customization will automate design and generate drawings for roughly 75 percent of our orders right out of the gate," Kuhns explains. "We'll then add to it to encompass the remaining scenarios moving forward. However, we anticipate using DraftSight Professional software as the bridge between day-to-day 2D tasks and fully automated 3D design. DraftSight is a great piece of software and is helping us work towards our 3D design automation goals."



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California Wire Products chose to use DraftSight Professional tools to develop custom design applications rather than continue to invest in the AutoCAD 2D system because the company's engineers have found DraftSight to be easier to use and more cost-effective.

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