



# INNOVATIVE MANUFACTURING SERVICES IMPROVING MANUFACTURING CONVEYOR SYSTEM DEVELOPMENT WITH DRAFTSIGHT PROFESSIONAL

Case Study

Innovative Manufacturing Services relies on DraftSight Professional design software to access its vast collection of legacy drawings as well as to create schematic layouts for electrical panels associated with its manufacturing, material handling, and automation system solutions.

### **Challenge:**

Utilize a more efficient, cost-effective 2D design solution for developing electrical schematics and opening legacy 2D files.

### **Solution:**

Add DraftSight Professional 2D design software to its SOLIDWORKS 3D implementation.

### **Results:**

- Improved development of electrical schematics and 2D layouts
- Provided access to legacy 2D data
- Enhanced recruitment efforts
- Enabled continued use of LISP automation routines

Innovative Manufacturing Services, Inc. (IMS) provides high-quality manufacturing, material handling, and automation system solutions to manufacturing customers across the United States, Canada, and Mexico. Founded in 2003, the company became the master North American distributor for Swedish conveyor systems manufacturer Carryline AB in 2006 through the establishment of IMS' Carryline USA Division.

With a background in project management, mechanical design, electrical design, and controls engineering, IMS President Mike Goad supervises the development of manufacturing and automation systems that utilize Carryline conveyors and components from the company's Kentucky headquarters. The IMS Kentucky facility also serves as a stocking, build, and factory acceptance testing center.

IMS engineers have used SOLIDWORKS® 3D mechanical design software in recent years—since switching over from AutoCAD® 2D design software—to create custom manufacturing and automation systems using Carryline conveyor products. However, the company had continued using AutoCAD 2D software to access legacy design files and create electrical panel schematics until Goad learned about a 2D application from Dassault Systèmes SOLIDWORKS called DraftSight®.

**“DraftSight Professional gives us the speed and flexibility that we need to handle 2D requirements easily and efficiently ... Plus, at such a low cost for each license, it's a lot more affordable to provide everyone with a seat of DraftSight Professional than it would be to maintain a single seat of AutoCAD.”**

“Once we started using SOLIDWORKS, one of our guys told me about DraftSight Professional, an AutoCAD lookalike that not only was compatible with SOLIDWORKS but also allowed us to open and use all of our pre-existing legacy designs and layouts,” Goad recalls. “We liked it so much that we purchased nine DraftSight Professional licenses, which gives us access to the Toolbox feature and the ability to run a bunch of old LISP routines that help automate our processes.”

**Innovative Manufacturing Services, Inc. (IMS) provides high-quality manufacturing, material handling, and automation system solutions to customers across a range of manufacturing industries throughout the United States, Canada, and Mexico. IMS designers have used SOLIDWORKS 3D mechanical design software in recent years—since switching over from AutoCAD 2D design software—to create custom manufacturing and automation systems.**

IMS added DraftSight Professional software to its existing SOLIDWORKS implementation because it offers these benefits:

- **Is easy to learn and use, and works seamlessly with SOLIDWORKS**
- **Provides access to the software's Toolbox, its library of industry-standard hardware that can easily be inserted into drawings**
- **Drives the company's CNC mill**
- **Supports legacy users and automation routines**

“At IMS, we're half controls engineers/PLC programmers and half mechanical engineers,” Goad notes. “DraftSight Professional gives us a more compatible, cost-effective 2D design solution that everyone can use.”

### **ACCESSING LEGACY DATA**

With DraftSight Professional, IMS engineers can easily create new 2D factory floor layouts for its conveyor, automation, and manufacturing system implementations, as well as open and modify legacy designs that were created in AutoCAD, at a fraction of the price of maintaining the company's legacy system. “We have many pre-existing designs and layouts that we frequently open and modify for new installations,” Goad explains.

“DraftSight Professional gives us the speed and flexibility that we need to handle 2D requirements easily and efficiently. If it's a DWG file, DraftSight will open it,” Goad continues. “Plus, at such a low cost for each license, it's a lot more affordable to provide everyone with a seat of DraftSight Professional than it would be to maintain a single seat of AutoCAD. We looked at AutoCAD LT®, but it didn't do everything that we needed. With DraftSight, we have the 2D capabilities that we need at a substantially lower price.”

## A BETTER APPROACH TO CREATING SCHEMATICS

In addition to creating 2D designs and accessing legacy 2D data with DraftSight, IMS is also using the software instead of AutoCAD to more cost-effectively create electrical schematics for use by its panel shop and for communicating with customers. "It's more affordable for me and our controls engineers to use DraftSight Professional software to develop electrical schematics," Goad stresses.

"For users like me who grew up using AutoCAD and prefer typing in a command line to using pull-down menus, the ability to configure DraftSight to run with the 'classic' AutoCAD interface is a big advantage," Goad adds. "The software comes out of the box with the Windows®-compliant interface, which most of our people use. I'm more comfortable typing shortcut commands, and DraftSight is flexible enough to accommodate both."

## ENHANCING RECRUITMENT

The DraftSight installation at IMS—in combination with its SOLIDWORKS 3D implementation—is also improving the company's efforts to recruit top designers and engineers from its local talent pool. "We design and build conveyor systems, with some touching on automation, and are committed to doing almost everything in 3D using solid modeling," Goad explains. "There's a large talent pool of trained SOLIDWORKS users in our area, and the fact that we use SOLIDWORKS 3D and DraftSight 2D tools makes us an attractive place to work.

"If we recruit someone who knows how to use SOLIDWORKS, it's not that difficult to show them how to use DraftSight," Goad says. "DraftSight gives us the opportunity to merge the talents of the older engineers like me and new engineers fresh out of school, to the betterment of our company."

After evaluating the free version of DraftSight, IMS purchased nine licenses of DraftSight Professional software to take advantage of its additional paid features and support the development of 2D layouts and electrical schematics more efficiently and cost-effectively. IMS added DraftSight Professional software to its existing SOLIDWORKS implementation because the software is easy to learn and use, works seamlessly with SOLIDWORKS, provides access to the software's Toolbox, drives the company's CNC mill, and supports legacy users and automation routines. By adding DraftSight, IMS improved its development of electrical schematics and 2D layouts, provided access to its legacy 2D data, enhanced its recruitment efforts, and enabled continued use of its LISP automation routines.

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Innovative Manufacturing Services mechanical and controls engineers utilize DraftSight Professional software instead of AutoCAD to create electrical schematics for use by its panel shop and for communicating with customers because the DraftSight solution is more cost-effective and easier to use in concert with its SOLIDWORKS 3D design software.

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