

## GEA Process Technologies

Customer Success Story

AutoCAD® P&ID  
AutoCAD®  
AutoCAD® Electrical

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—J.P. Brady  
Process Engineer & Design  
Team Leader  
GEA Process Technologies

# Improve the process.

GEA Process Technologies uses AutoCAD® P&ID software to improve design and operating efficiencies of processing plants.



### The Firm

With revenues approaching EUR 4.5 billion and offices in 50 countries, GEA Group is one of the global leaders in the process engineering and specialist equipment industry. GEA operates in a wide range of markets, from dairy to brewing to personal care. Through constant innovation, GEA is recognized as one of the technological leaders, with much of the technology and techniques it brings to its target markets being less than three years old.

The task of incorporating specialist process components and concomitant mechanical, electrical, and maintenance systems into both new and existing client production facilities falls to the process integration divisions. GEA Process Technologies (GEAPT), based in Naas, Southern Ireland, is one such division. A relatively small division in the scheme of the overall group, it plays a huge part in determining the appearance, size, and ultimately the operating efficiencies of processing plants.

### Beyond AutoCAD Software

Its core design team recently turned to AutoCAD P&ID software to streamline the part it plays in this crucial role.

The team has successfully used AutoCAD® software for some time but realized that the

demands it was placing on the software as a process and instrumentation diagram (P&ID) tool were beginning to stretch its capabilities, and so began enquiries into a more customized solution. Process engineer and design team leader J. P. Brady recalled the difficult experiences he and colleagues had in the past with more specific plant design systems and so was reluctant to introduce new software. "We were already heavy AutoCAD users," says Brady. "Another supplier relationship, another support contract, and training from scratch would not have been that helpful to the business. Sticking with an AutoCAD-based product also gives us access to a huge recruitment pool."

### Make a Smooth Transition

When GEAPT's reseller introduced AutoCAD P&ID, it was a natural contender. After GEAPT's initial investigation, it quickly became clear that the move from AutoCAD to AutoCAD P&ID would be as seamless as they could have expected. Early demonstrations indicated that there would be considerable savings in design time, but Brady was looking for more than that. "A major consideration was what we would be able to do with the graphical legacy information created in previous versions of AutoCAD," he explains. "We had about 350 standard blocks relating to the components we use. Fortunately, importing them into AutoCAD P&ID and attaching relevant

# Process, integrated.

information to them was really simple. This highlighted another advantage too: we can change the graphical data slightly but leave the attached information labels unchanged if we choose. That means we can create component profiles or tool palettes specific to individual clients. It saves a huge amount of redrawing time when we're dealing with American or Asian clients who use different sizing conventions, for example."

## Gain Design Time Efficiencies

To minimize any productivity downturn during implementation, Brady planned for his first three users to be trained one day per week, over three weeks. "Those guys are now trained and are developing their use of the system. The other guys in the team have been given the product to delve into before training. This way we've got six guys comparing notes and bouncing ideas around, and because the product is logical, setting it up is almost enjoyable, which encourages more digging around. We do get 'Eureka' moments." He points out that it's from the smallest tasks that the big savings are made. "Automatic line numbering, line breaks, tagging, and nozzle numbering all save time. The page flow arrows are brilliant; we can have 20 or 30 P&IDs open and track through each one, which is really difficult in AutoCAD alone. And the Data Manager allows the user to quickly zoom to one particular component in what could be a really busy P&ID. Being able to make subtle changes this quickly is invaluable to us."

## Maximize Engineering Productivity

Although appreciating design time efficiencies, Brady points out other valuable benefits. "Process engineers are expensive. With AutoCAD P&ID, process engineers no longer have to manually produce valve, instrument or equipment lists, resulting in a worthwhile time and cost savings. The current process for updating even a couple of lines of text on a P&ID involves a process engineer, a draftsman, and at least one cycle of checking between the two. If we can give the process engineer access to the P&IDs through, say, a network front end, he can make those changes via a database, immediately. It makes much more sense."

## Strengthen Client Relationships

A significant part of GEAPT's work comes from the maintenance contracts it has with clients around the world. GEAPT controls the master P&ID documents on behalf of many clients' processing and production facilities. Brady's idea is to slowly migrate these drawings to AutoCAD P&ID, in consultation with the clients, over the next few years. Graphically, the drawings will look almost identical to the current ones, which is what he knows clients will want, but information intelligently linked to the drawings will be the real value.

The benefits of the move will be wide ranging, as he explains. "Just being able to give the client updated P&IDs, valve lists, maintenance documentation, or reports more quickly will improve the service

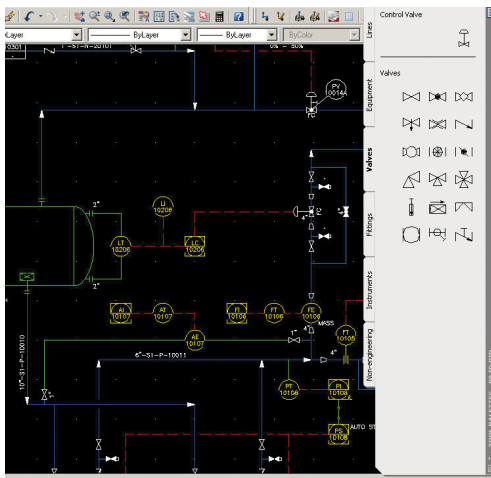
levels we offer. But from our point of view it opens up more possibilities. Our maintenance engineers around the world can turn up on site with a laptop and have access via the web or email to absolutely current P&IDs, rather than having to lug loads of paper drawings around. We've already tried this with smart DWF files and even gone as far as reviewing live drawings online. It helps us get the drawings right the first time."

## The Result

Further expansion of the number of licenses of AutoCAD P&ID and AutoCAD® Electrical software, along with customization training, is expected across the design team. Longer term, Brady's plan is to gradually create a database of all the components the company works with, even incorporating costing information relating to the component and any mechanical or electrical work linked to it. This capability will enable the sales teams, for example, to use the database to create proposals and quotes from verifiable, current information, and if necessary historical data where a component, or perhaps an entire process line, has been used before. He sees no reason why the benefits AutoCAD P&ID has offered the design operation should not be felt across the entire company.

## Learn More

To learn more about AutoCAD P&ID software, visit [www.autodesk.com/autocadpid](http://www.autodesk.com/autocadpid).



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