Adept Relieves the Pressure for Engineering at GP:50

In 1986, Donald H. Less, a mechanical engineer with over 20 years of experience in pressure instrumentation, founded GP: 50 NY Ltd., an upstart pressure transducer company located in Grand Island, New York. Today, with one of the industry's largest catalogs of transducer options, the company is a global player in the pressure instrumentation industry, serving markets ranging from Oil & Gas, Aerospace, Automotive, Military, Plastic Extrusion and Waste Water.

The company's unique value is their ability to customize products for their customers for maximum flexibility. Any customer can call and request a basic model transducer with a wide variety of options. The final product is built to order.

"About 70% of our orders are custom," explains Robert Hepper, engineering services manager at GP:50. "When we build an order, it requires custom parts, all of which have machining drawings, assembly drawings, work instructions, outline drawings. For each order, we're talking a lot of documentation."

Under Control: 25 + Years of Documentation
After 25 years in business and experiencing rapid growth, the company faced a major challenge managing their accumulated drawings and documentation. Most of their drawings were stored on a network and managed manually. "We had to standardize our release process and find a better way to manage our drawings and documentation," recalls Hepper."

As the company got busier and grew, engineering realized that their existing documentation management system wasn't sustainable. "With more drawings accruing, more customers and more output we needed to better organize everything," states Hepper. "When I came on board, one of the first steps was to create our own documentation department within engineering. Now it's our department's job to help the company keep controls in place. We needed to take inventory of what we have; bring everything up to date; and at the same time start creating new procedures for our everyday work."

Chauntney Johnson, Robert Hepper, & Frank Sorce review a drawing of a mounting bracket for a GP:50 differential pressure transducer.

The goal was for all documentation to go through the engineering department. "We only wanted employees to have access to our current revision or released drawings," explains Hepper.

Engineering document management comes into play
Hepper and a longtime GP:50 consultant were tasked to find an engineering document management system to eliminate inaccuracies and increase throughput. They each knew of one system, but wanted to evaluate at least three or four before making a decision. "We just started to Google 'engineering document systems', which is how we came across Adept," describes Hepper.

"I was just very impressed with Adept and the company's web site," comments Hepper. "We kept talking about all these systems and Adept seemed to have the best of everything. Price wise it was very competitive; plus its work flow, integrated e-mail, transmittals, file relationship management, and the Oracle AutoVue viewer were all features that were missing in other systems." They ran their findings past the engineering manager and the Vice President, both of whom gave them the OK to purchase and implement Adept. "It took us about two months of research before we came to our final decision on Adept."

Implementation Comes In Under Schedule
To get Adept up and running, Hepper worked one-on-one with a Synergis Software applications engineer. "We scheduled the implementation for five days, but completed it in only four days," recalls Hepper. "In that time, we installed the software on the server and the desktop and web clients, set up our document vaults, and completed administrator training."

"From that point on, I was able to work with Adept solo," states Hepper. "I gave the other two people in our department access to Adept and then to three other people in engineering. From there, it started to spread. Now engineering, manufacturing, purchasing, sales, the machine shop, and the materials department use Adept."

While engineering uses the full desktop client for CAD for design

and modifying documents, sales, purchasing and manufacturing use the Adept web client, Adept Explorer, to view a document and send it out. Similarly, the materials groups use Adept Explorer to search for necessary documents, print out the drawings, and get all materials and prints organized for the next step in production.

Most of the company's drawings are 2D AutoCAD. They also have Word and Excel documents, PDFs, and text files managed through Adept. As engineering grows, they want to manage more and more 3D information from Autodesk Inventor. They also want to bring much of the machining information from the shop floor into Adept.

Automating the ECN Process
Adept has given engineering the ability to implement their complete ECN process. Before Adept, they used Microsoft Access for their ECNs. "It's fantastic; it's sped up everything. Now our complete drawing change process and document change process is done through Adept."

"If a customer requests a change," explains Hepper, "we'll start a new ECN using our ECN Word template. Then we use Adept's auto numbering capability to obtain the next sequential ECN number. After that, we update the drawing, sign it out from Adept, and make the changes. Then we launch the ECN though Adept to fill out the required information. Afterwards, we print the ECN along with the drawings that were changed. The entire ECN is then viewed by the necessary departments—whether it's sales, engineering, or manufacturing. Once approved, we sign in the modified drawing, which becomes the current revision. Lastly, we sign in the ECN into Adept to keep a record of it in the system."

Adept's Big Benefits
Adept has delivered great value to the companies in many areas. The big benefits include:

- *Less disruption in engineering*
  "Before using Adept, it was difficult for other departments to find drawings. With Adept, sales can now find their own drawings instead of always coming back to engineering and asking for drawings. It's the same with purchasing—they no longer come back to us for drawings to buy parts."

- *Revision control*
  "With Adept there is never a question of using the correct revision of a document. Employees can only see and pull the current released version—they can't pull a work-in-progress drawing."

- *Improved customer satisfaction*
  "Because we control what documents are used, Adept has eliminated potential assembly errors which has improved customer satisfaction and reduced rework."

- *Better communication between departments*
  "With Adept in place there's better communication between departments. Now sales, purchasing, and others only come to us for critical information."

- *Building out complex orders*
  Many of their customer orders are pretty complex. "A lot of customers want a part we didn't offer before. When manufacturing would build these modified units for a customer they would have to waste time searching for documents. Now with Adept all they have to do is type in the modification number and they get the document they need and all its associated drawings. They're not wasting time searching anymore. They've never had anything like it before."

More Benefits of Using Adept
The company was recently audited for ISO 9001:2000 certification. "The auditors noticed we had Adept in place," remembers Hepper. "We showed them a little bit of what it did and they were very impressed. Adept's audit trail keeps account of our workflow, our work in progress versions, every time a document is viewed and so forth. So it really helped us through the audit process."

"We have many other industry related approvals, like FM, CSA, ATEX & IEC that require audits we have to pass. We are starting to use Adept for these as well. Right now a lot of these approvals are still done manually, but we are working to bring in all the approval processes into Adept."

"Everything We Were Looking for Happened"
According to Hepper, Adept relieved a lot of pressure for engineering. Says Hepper, "I used to flip between AutoCAD and the other programs to move everything around, now when I come into work the first thing I open is Adept. Everything I do is through Adept. I start my drawings through Adept, I release the drawings through Adept. I use Adept all day. It's just so helpful; documentation organization is critical and Adept makes that organization very easy."

"I've been working in this industry for 11 years and everywhere I've worked there have always been long processes with long paper trails," says Hepper. "Now, finally with Adept this is so efficient. Overall it's pretty impressive. We've been able to achieve our goals of reducing lead times through engineering which reduces sales lead times."

When asked about Adept's return on investment, Hepper explains, "We look at the overall picture of the company and we ask: Are orders getting out quicker? Is everyone able to get drawings easier; is it quicker to get drawings, are people only able to get current drawings and not able to access incorrect drawings? And the answer is everything has sped up—our engineering and manufacturing processes as well as the sales order process have all improved. Everything we were looking for happened."