

GLOBAL SHOP SOLUTIONS CASE STUDY

Pioneer Service Inc.

Pioneer Service Inc. is an ISO 9001 manufacturer of precision machined parts and centerless grinding services. Headquartered in Addison, Illinois, the certified women-owned small business produces complex turned parts to print for industries including medical device, automotive, aerospace, motion control, oil and gas, and several others.



Pioneer Service provides machines a wide range of parts from .45" OD to over 8".



Global Shop Solutions ERP software in action at Pioneer Service.

Founded in 1990, Pioneer Service offers both short- and long-run production capabilities using their CNC Swiss machines for parts up to 1.25" ODs and 6-axis CNC turning centers for parts up to 8" ODs. They machine materials including stainless steels, aluminum, brass, titanium and plastics. The company's centerless grinding services deliver surface textures to .15 micron RMS and outer diameter tolerances to within ± 0.0001 " (2.5 μm).

For years, Pioneer Service managed the business with an ERP system that had limited ability to track scheduling, production and traceability of parts and materials. Seeking a more robust system that could grow with the business, management began searching for an ERP product that could keep up with the evolving precision manufacturing environment.

"We had some very specific search criteria," says company Owner Aneesa Muthana, "including having a .NET platform, strong technical support, and an established company that continually improved their software. Global Shop Solutions ERP software hit it out of the ballpark on all our criteria, and clearly offered the best fit for our business."

Move Tickets Improve Traceability

To improve **materials management** and address the issue of traceability, Pioneer Service used Global Shop Solutions ERP software to implement a "move tickets" process.

Previously, managers used handwritten cards to check off all the processes required for a job, which often led to human error with disastrous results. On one occasion, Pioneer Service inadvertently shipped precision parts that had only gone through one of several required grinding passes, causing them to be way out of tolerance. Since implementing the move tickets, these types of incidents no longer occur.

"With Global Shop Solutions, we can instantly identify any part of parts, where it came from, who worked on it, and where it's going," says Business Development Manager Rose of Sharon DeVos. "Even if a job is broken up across several different workcenters with parts at different places simultaneously, we can easily track their movement in real time."

“Thanks to Global Shop Solutions’ flexibility, we’ve been able to **customize the move ticket system**, removing some information we don’t need and adding some we do. It’s more efficient, and we can see everything we need without having to hunt for the data,” says DeVos.

Reducing Staff Overhead

In addition to preventing serious production mistakes due to poor tracking of parts movement, Global Shop Solutions ERP software has also improved the **order entry process** by making it easy to link documents, job specs, and other pertinent information directly to the sales and work orders. Reducing the amount of manual data entry has enabled Pioneer Service to go from two full-time order-processing employees to only one.

“Global Shop Solutions provides a continuity of data and a level of accessibility we didn’t have before,” says Muthana. “With just a part number, we can access all the information we need at the inventory and work order levels. We can drill down to any level of detail with just a few clicks of the mouse, so we don’t have to run around making copies and hunting for information in paper files or handwritten spreadsheets.”

“The best part is having complete visibility of what’s happening on the shop floor in real time,” she adds. “We can see firsthand who is doing what and delegate responsibilities faster. This allows us to move people into production quicker, making us more efficient while helping improve on-time deliveries.”



Move tickets identify where the parts have come from and where they are going for the next operation.

Work Order Comparison Improves Costing Accuracy

Pioneer Service also customized the standard Work Order Comparison report, which compares the actual total cost of the parts on the work order with estimated. The modified report now shows the estimated versus actual cost per piece rather than the total cost – a much more useful comparison for Muthana and her team.

“The report allows us to see how we did, by percentage, on every line on the router,” says DeVos. “If the actual costs are way out of line, we can see where something went wrong and whether it was a material cost or operational issue.”

“The report also includes a summary at the top that highlights variations of more than 15% – yellow if we underestimated costs and green if we made more money than expected’ she adds. “Making too much money isn’t necessarily a good thing because it means we misquoted the job. With the data in Global Shop Solutions, we can figure out why and make adjustments going forward.”

Tracking the True Cost of Quality

Since moving from simple inventory to an accrual-based system in Global Shop Solutions ERP software, Pioneer Service can now identify **job costs in real time** rather than after the fact.

“We can now see exactly where our costs are for each job in progress,” says Muthana. “The system also tells us the value of the part as it moves through the process, automatically increasing the value as we add more to the part. Having the data in real time has given us a very different way of looking at the business from a cost management perspective.”

Pioneer Service can also track the true **cost of quality** by running a weekly report that displays (by part number) all scrapped parts and their costs.

“In the past, we could estimate the cost of scrapped parts once a process was completed, but the numbers were never very accurate,” says DeVos. “Now we can run the report and get detailed information on the part, which department scrapped it and why.”

“The system also sends out automatic notifications when certain actions, like the creating of an NCMR occur,” adds Muthana. “I know immediately when parts have been scrapped so I can get involved if necessary even if I’m not in the office.”

A Complete Business Management Tool

When asked to identify other areas where Global Shop Solutions ERP software has made an impact, Muthana points to a long list of process improvements:

- The ability to scan, save and link **documents** – including quality certifications – in the system has dramatically reduced paper in all departments.
- Printing heat numbers on the move tickets and finished goods shipping tickets makes it easy to determine where a raw material came from and which supplier.
- Performing daily balancing in the system improves accountability for all completed work while enabling more efficient **payroll management** for hourly employees.
- The ability to run sales reports by part, salesperson, or customer allows for in-depth analysis of sales trends.

Despite these and other improvements, Muthana feels like the company has only begun to tap into all that their ERP software can do. Accordingly, they conduct regular meetings to discuss how the company is using the software and identify areas to further reduce costs while simultaneously growing sales.

“Global Shop Solutions is a great company to work with because they really care about helping us solve problems,” says DeVos. “When I have a question, the support team is quick to find an answer. If I need something a little different, they can usually find a way to easily get information out of the system the way I need it.”

“As a business owner, Global Shop Solutions gives me the big-picture data to make smart decisions about how to grow the company,” adds Muthana. “All the information we need to do business is in the system, and thanks to the software’s remarkable flexibility, we can get it out in almost any format we want. Global Shop Solutions is a comprehensive business management tool that covers all aspects of the business, from **accounting**, sales and **customer relationship management** to **planning, production and shipping**.”



CNC Swiss department at Pioneer Service.