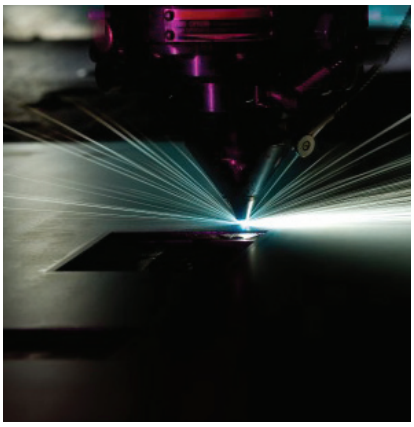
CASE STUDY
Intel® Xeon® Processor
Intel® Core™ i7 Processor
Forming Technologies Inc.

Software Slashes Automotive Costs

With Intel inside, Forming Technology Builds Parts Efficiency



FORMING TECHNOLOGIES INCORPORATED

"One part we analyzed for (Johnson Controls) a few years ago achieved savings of $2.7 million. That's a huge return on the software investment," says Michael Gallagher, FTI Vice President, adding, "They use our software to make more efficient use of raw materials to further shave costs."

CHALLENGE

- **Automotive manufacturers** and their suppliers needed to reduce waste of raw materials to keep up with the increasingly competitive vehicle marketplace. With 70% of the price of a vehicle spent on raw materials, more efficient product design is the key to reducing costs.

SOLUTION

- **Calculating Cost Savings:** Forming Technologies Inc.* (FTI) built software tools that not only test part design for feasibility and safety but help manufacturers and suppliers to tweak designs to reduce raw material waste while lowering costs. To rapidly run these complex calculations, FTI standardizes on Intel® processors for reliable results.

IMPACT

- **Using FTI's Fastblank* and Blanknest* software**, Johnson Controls* reduces material costs and supplier price per part, saving $5M per year, and slashes estimating time by 75%.
- **Engineers at FTI run part tests** and troubleshoot client issues with ease thanks to Dell Precision* notebooks powered by Intel® Core™ i7-720 and i7-820 processors.
- **With IBM* servers** powered by Intel® Xeon® 5620 processors, FTI has the scalable power needed to reliably deliver software updates to its clients worldwide and troubleshoot complex client calculations 24/7.

Forming Technologies Inc.* (FTI) was founded in 1989 as an engineering and consulting company that leveraged its extensive modeling and costing research to develop proprietary software allowing automotive manufacturers and suppliers to build and cost sheet metal components more efficiently.

"We have been in the sheet metal business for over 22 years with several PhD scientists who understand the effects of stamping and processing it," says Michael Gallagher, FTI Vice President of Sales. "We put all this knowledge into our software to create tools that allow designers to create cost-effective components that can be designed correctly and not split or wrinkle in production, which causes costly manufacturing delays."

"Anyone in the sheet metal business uses our software to get a blank or to get an initial cost, and an early prediction of formability" he says, adding that since the software runs on Intel®-powered PCs, designers

Gallagher notes, "Our more advanced simulation tool, FASTINCREMENTAL*, supports multi-threaded processing and the additional cores available with Intel Core processors allow us to process these calculations up to five times faster."

know quickly if the part will form correctly in the manufacturing stage without splits, cracks or wrinkles.

In the automotive industry, 70% of the cost of a car is raw material. One FTI client was spending $3.2 billion on sheet metal and was throwing away 50% of it as waste. Using FTI, the company is managing waste more than 30% more efficiently and is continuing to optimize designs and nesting (how each piece is designed and placed on a sheet for production) layouts to gain further efficiencies.

For clients continually looking to improve and optimize utilization of raw materials, they can subscribe to regular software updates via download from FTI, which means FTI needs a responsive server network to deliver those files quickly and securely. FTI built out its internal network infrastructure around IBM* servers powered by Intel® Xeon® 5620 processors.

"We deal with clients around the world who are logging into our systems for updates and support. When we have new releases, we can't get overloaded or swamped," says Gallagher, adding with new features being added to each release, FTI needs scalable power.

Instant ROI Realized

Johnson Controls* makes automotive seats for major automotive companies worldwide. Each seat has hundreds of parts so Johnson Controls started using FTI's Blanknest* and Fastblank* software to lower material costs, and now, with additional software tools, uses FTI to optimize formability and nesting of parts to reduce material waste before seeking supplier quotes. Using FTI for one car program resulted in $5 million savings in material costs and a 75% reduction in the time required for estimating costs.

"One part we analyzed for them a few years ago achieved savings of $2.7 million. That's a huge return on the software investment," he says, adding, "They use our software to make more efficient use of raw materials to further shave costs."

"Many of our clients can save between 5 to 10% on most of their metal components, which is a huge saving," continues Gallagher. "We always run Intel and we recommend Intel. We find it is the most reliable and runs our software the quickest."

Engineering Problems Solved

At FTI, engineers and sales teams use Dell Precision* notebooks powered by Intel® Core™ i7 processors to demonstrate cost savings and more efficient use of raw materials.

"Our software performs advanced engineering calculations which, in some cases, can take several minutes of processing time to complete. Fast processors and 64-bit (desktop processing) makes more efficient use of RAM allowing us to run these calculations faster." Gallagher notes. "Our more advanced simulation tool, FASTINCREMENTAL*, supports multi-threaded processing and the additional cores available with Intel Core processors allow us to process these calculations up to five times faster."

"In today's market, the cost of a high performance PC with Intel® Core™ i7 processor and 12 GB RAM is trivial when compared with the potential time savings it will provide over an entry level system," adds Gallagher.

Since FTI often demonstrates their product in front of clients or works with clients on the phone looking for help with a part issue, speed is essential.

"We want to emphasize the speed and robustness of our solutions. For this reason, our engineers have state of the art equipment to show our software in the best possible light," says Gallagher. While FTI hasn't done specific speed testing, it believes the Intel Core processor-based machines are significantly faster than their older Intel® Core™ 2 processor PCs.

"It's important we stay up to date, or faster than our clients. We need to be able to run simulations in an hour where lesser laptops with other processors could take three to four hours," he says.

ABOUT FORMING TECHNOLOGIES INC.

Based in Burlington, Ontario, Forming Technologies Inc. (FTI) provides automotive industry OEMs and suppliers in automotive, aerospace, electronics and appliance industries with software solutions to design, cost and test the feasibility of sheet metal components. FTI have also developed several industry training courses of metal formability and die design that are taught all over the world.

www.forming.com

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For more information on Intel® Xeon® processors, visit: **www.intel.com/itcenter**