



**Theorem Solutions**

World Leaders in Product Data Interoperability



## **Magna's Automotive Metal Stamping Division Automates CAD Translations with TPM**

A division of Canadian automotive component manufacturer Magna International, Cosma International is a metal-forming supplier, which specializes in chassis stampings, bumper beams, and metal body panels primarily for light trucks and sport utility vehicles (SUVs). Cosma's customers include many of the world's largest automakers, including BMW, Chrysler, Ford, General Motors, Honda, Toyota, and Volkswagen.

With a diverse base of global manufacturers as customers, Cosma must juggle product data in a myriad of CAD formats, including NX (Unigraphics), CATIA V4 and V5. When requests for product data come in from supply chain partners or external customers, the data coordinators at Cosma would go into each individual CAD application to translate the data into the requested format, a tedious and time-consuming manual process.

"Translations were done on the data coordinator's own systems, so when they were doing translations, they were pretty useless otherwise," says Dave Truchan, Director of Information Technology at Cosma.

### **TPM Helps Speed the Process**

To speed up the time it requires to turn-around these CDRs, Cosma decided to deploy Theorem Process Manager (TPM), a process management and automation tool from Theorem Solutions. TPM automates, manages, schedules and controls tasks or processes helping to eliminate manual intervention and monitoring. TPM helps companies maximize their investments in software and hardware resources by enabling them to batch process time-intensive tasks during off-hours when computers are usually idle.

The TPM system at Cosma is tied to the company's PLM system and automates the data exchange and data translation processes. Before automating the process, Cosma had five people working on data translations within the company. Today the company has reduced that to two people with hopes to reduce that further.

Aside from manpower savings, the company has also realized significant times savings over the previous manual process, even though it is difficult to calculate because the processes are being done in the background or during off-hours. "Time-wise it's been great because it used to require them to go into each individual CAD application and translate," says Truchan.

“They can now just batch out jobs so it’s really significantly reduced translation time and also they can work on different things while it’s in the background translating.”

Here’s how the TPM process works at Cosma. The TPM system at Cosma runs on a dedicated server. When requests come in, Cosma data coordinators simply ‘drag and drop’ files to add them to the job queue. The data is processed by TPM, then the data coordinators are automatically notified when the jobs are completed and they, in turn, notify the person who requested the data. Currently the TPM server is processing translations 24 hours a day.

“They are now batching off 25, 50 or 100 files to the server, and then they are going about doing other things,” says Truchan. “I’d be reluctant to say it’s a 100% improvement but it almost is, and our overtime is almost non-existent. What used to be considered good to get a two-day turnaround, we’re now doing those in four to six hours. Our turnaround time now is phenomenal because the people are doing what they need to do all the time. That’s been the biggest benefit.”

### **Expanding TPM in the Future**

Cosma has plans to expand the use of the TPM system in the future to process other time-intensive computing tasks, while freeing computing and manpower resources to accomplish other tasks. “Currently we’re running TPM on just one server, but we do know we can do this on multiple servers, 24 hours a day, if need be,” says Truchan. “We know all the bells and whistles are there; we just want to get it in flow first.”

The company is currently embarking on a new large engineering project. TPM will play a larger role in this project, helping process and generate JT files, not just STEP or IGES files. “When that comes about, we’ll need to utilize people’s workstations from 7 P.M. to 6 A.M. or whenever they are not here,” says Truchan. “We really look at TPM as a very large part of this new engineering project because being able to visualize the parts that engineering is sending out to the divisions, to the people who are actually making it, is so important to them.”

According to Patrick Schutter, system administrator, Cosma also has plans to deploy TPM to assist the analysis group with sharing product data with design collaboration partners within the company. “It would be a huge perk for our analysis group, because they share their data with so many groups that to have one common system would be a huge benefit and to have it batched would be awesome for them.”

Looking towards the future, Cosma knows it has a great partner in Theorem Solutions. The company has obtained excellent support in the deployment of TPM and credits them with the success they have obtained. “Theorem has been a great partner in this,” says Hai Hoang,

manager of Information Technology at Cosma. “They have bent over backwards and have done above-and-beyond the support of typically salespeople. Without them, I don’t think we would have had the success with TPM.”