

Case Study: Central Metal Manufacturing Ltd



Software: JETCAM Expert Premium
Free-form automatic nesting
Remote Control Processing (RCP)

Machine: Pullmax P6000 FCP Punch Press
Bystronic Byspeed 3015 Laser

Installed: System: 1999 RCP: 2007

At a glance:

- ✘ Single system driving advanced features of both Pullmax and Bystronic machines
- ✘ JETCAM's handling of Pullmax part picker was better
- ✘ Any problems in CAD files automatically healed during import
- ✘ RCP integrated into existing in-house MRP system
- ✘ Reduced man-power from 1 ½ to just 60% of one person's time through automation
- ✘ Can write custom scripts in-house to automate time-consuming tasks
- ✘ Despite second evaluation of competing systems JETCAM chosen as the most suitable
- ✘ Reduction in support requirements
- ✘ RCP upgrade paid for itself in under a year in labour costs alone
- ✘ Additional benefits from software updates received under maintenance

Central Metal Manufacturing (CMM), formerly Midland Sheet Metal prior to a management buyout, are designers and manufacturers of sheet metal assembled solutions. They had been a user of JETCAM Expert since 1999, driving three LVD laser machines. The company was planning to purchase a Pullmax P6000 FCP Punch Press with load/unload to integrate into their material handling system, and evaluated the market to find the most suitable CAM system to drive it.

Pete Jones, IT Manager, said; "Our previous CAM system did not have free form nesting and could not support the Pullmax so we evaluated several systems. We decided to choose JETCAM primarily because of the way that it handled the Pullmax part picker - we could configure each part to be unloaded to a specific location each time, rather than just allocating a single fixed location for the part. No other system would allow us to do this. Also, JETCAM has a close relationship with Pullmax so we felt confident that they would be able to support all of the advanced features of the new machine."

Eight licenses of JETCAM Expert were installed, along with free form high performance nesting, and postprocessors to drive the LVD lasers. An additional license was added several years later. When the Pullmax punch press was installed in 2000 an additional postprocessor was purchased. Although the system ran well, after the management buyout CMM decided to re-evaluate the market to ensure that they were still getting the most out of their machines, having now replaced the LVD lasers with a Bystronic Byspeed 3015. At that time they had one person full time and a part time staff member producing nests just for the laser. Pete added; "When we assessed the other systems there was nothing that provided us with a reason to change. We then took a look at JETCAM's Remote Control Processing (RCP) module and decided to evaluate it with a view to integrating it into our in-house bespoke MRP system."

CMM initiated a trial of RCP, which was ordered shortly afterwards, along with another license of JETCAM Expert. Said Pete; "Integration was easy; I was given a sample of what the input files should look like and also read through all the commands in the help file. I then made alterations to our system and had a working version by the end of the day of installation. Straight away we saw benefits. From day one nests were being generated automatically, so we no longer needed the part time nester and the full-time staff member could concentrate on other work, with only 60% of his time now dedicated to CAM-related tasks."

A further benefit is the ability to quickly write RCP programs to automate simple tasks. Pete noted; "When we acquired the Bystronic laser we needed to amend the angle of rotation of 40,000 geometry files because of the width of the slats on the laser bed. I wrote a small script in RCP which then ran overnight, opening and updating each geometry file with the new settings. Also, when we create nests we manually check them afterwards, and have now created a button within MRP to re-run them and generate NC code and reports automatically through RCP."

As more of the CAD to CAM process is now automated the support requirement has also noticeably reduced. CMM subscribes to a software maintenance contract and has also seen additional savings through updates and enhancements to the software.

CMM plans to further integrate their MRP with JETCAM and existing CAD system, automatically providing JETCAM with material information along with the CAD file so that the process from CAD to NC is completely automated. Pete finalised; "The RCP upgrade will pay for itself in under a year due to man-power savings alone. Nesting efficiency has also improved, and there have been many other hidden benefits because of the speed at which we can now automate functions."

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