



# Scares resource

Not only is the installation of Walter's TDM Tool Data Management system at Cosworth Racing forecast to help rationalise tools, but by being the first automotive manufacturer in Europe to fully integrate the

system with Unigraphics CAD/CAM and Vericut NC program verification, this renowned motorsport manufacturer will also generate further valuable savings in production engineering lead times and resource.

In addition to closely integrating manufacturing systems, the world-class automotive manufacturer is also planning to use TDM's additional Internet access functionality to enable other company departments – in

particular design – to have real-time access to comprehensive tool data, to streamline the design-for-manufacture process.

According to Nigel Powell, senior R & D engineer at the 550-employee Northampton site and whose role within the manufacturing development centre focuses on investigating, and where appropriate implementing, improved manufacturing systems and processes, improved tool management was clearly a prime candidate for scrutiny.

"The former tool management system had been in use for around 10 years and it was old technology that was isolated from the business – it really didn't offer our production engineers any benefits other than being a simple, albeit capable, inventory control tool," he reflects. "Using the system we couldn't, for example, quickly find enough information to know which of the available tools was best suited to a certain machining operation.

"Coupled with that, we needed to rationalise our tool inventory which had grown out of proportion over the years.

"Importantly, too, we wanted a system that would offer a central database of tools and could 'communicate' and integrate seamlessly with our CAD/CAM and machining program verification systems. This would eliminate the need to continually enter specific tool data at varying intervals throughout process planning – from design through CAM programming, tool selection, cutting process selection, tool path generation, post-process and verification."

Considering a typical Formula One engine comprises anywhere between 3000 to 5000 components, it is no surprise that the tool inventory had grown to around 20,000 items though, says Mr Powell, "when it comes to the rationalisation of our tool inventory, it is hard to put an exact figure on the expected savings. For instance, we

don't know exactly how many tools were duplicated or how many were redundant since, in the old system, analyses were difficult to perform and data was inconsistent and unreliable."

One of the main benefits of Walter's TDM Tool Data Management system is its ability to reduce tool variety/stock and gain cost savings of up to 30 per cent. The system features a Windows-format overlay that simplifies operating functions such as cut, copy and paste. Users can adapt the overlay to their own special requirements. An integrated explorer bar clearly presents all modules, while with the 'viewer' both 2- and 3D tool graphics can be displayed, with 3D graphics being delivered to existing simulation systems through integrated interfaces.

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