



**GE Aviation Mechanical Systems, Los Angeles**

# Efficiency with TDM since 1999

**TDM Systems software is a key factor in the success of GE Aviation Mechanical Systems in Los Angeles (formerly Smith Aerospace Actuation Systems), one of the world's leading aerospace and aeronautics engineering companies.**

GE Aviation Mechanical Systems provides not only high-precision components but also thrust reverse actuation systems and flight control systems worldwide for civil and military aircraft like the Boeing 737 and 787; the Airbus A380; the Joint Strike Fighter, the Eurofighter Typhoon, and others.

This business sector is highly innovative, and it is only natural that GE Aviation Mechanical Systems creates more than 75 new NC programs every year at its facility in Duarte, California. Every day, more than 275 employees there utilize more than 85 CNC machines with more than 3,000 tool assemblies and some 20,000 individual tool items. The company's annual tooling investment is more than three-quarters of a million dollars a year.

This is where TDM comes in. Our TDM Systems software makes it easy for GE Aviation to import and compile CAD tooling data from suppliers whenever necessary for new, special tools. Working together with TDM, GE Aviation has put together its own tailor-made tool software system, using the TDM Base Module and

supplementary modules selected specifically from TDM Systems' wide range of software products. With these modules, for example, GE Aviation has interfaces to Vericut simulation; to the Zoller presetting unit, and to AutoCAD graphics generated for the related tools within TDM.

Before coming to TDM, the California company had developed its own tool control system. This system, now in place for almost eight years, runs smoothly side by side with TDM on a separate database and allows GE Mechanical Aviation Systems to track tool inventories.

Dave Knapik, the company's TDM administrator, is quick to point out why TDM has resulted in major improvements on GE Aviation's manufacturing floor. "For one thing, TDM has reduced our component scrap by ensuring that cutting tools are correctly assembled. What's more, the Zoller (presetter) interface provides us with correct offsets and makes sure they are available in the TDM database."

GE Aviation recently upgraded to TDM Version V4, and Dave is delighted with the TDM software's new features and performance. These include increased speed and shorter response times internally in building assemblies, especially in the graphic generator area, and in tracking bills of material for assemblies.

Accurate, detailed documentation is essential in tracking the delicate components machined on GE Aviation Mechanical System's production floor, both for the company itself and for the end users whom the parts are sent to. Every operation for every component must be listed in an NCI (Numerical Control instructions) book created especially for that component. TDM software makes it easy to compile, fill out, display, and print this documentation, especially with the internal form sheet generation features offered by TDM. These form sheets comprise the bulk of the NCI books required at each machine for auditing the procedures.

As Dave explains, "One of the main advantages that I've seen personally from our utilization of TDM is the reduced time it takes our Manufacturing Engineering staff to compile information and do their job correctly. This aspect of the software is key to GE Aviation's success in utilizing TDM correctly."

This is also seen in the ability of the staff not only to properly prepare the front end of manufacturing, but to also track and properly execute correctly during the production process. This is where Dave feels that the capabilities of TDM allow GE Aviation to maintain a competitive edge in manufacturing.