

## Tutorial

Photo courtesy of OPEN MIND

# How to Implement CAM Software

Proper implementation of CAM software poses many challenges, and when improperly done can actually hinder a company from moving forward technologically. If unable to navigate the implementation, the shop owner faces potential stagnation by staying with existing technology. That said, it is also natural for any new technology to have a learning curve.

These challenges are more prevalent in small and medium sized shops that may not have the formal business processes and overhead labor support to easily manage the transition to new technology. However, the challenges can be overcome. Three comments that we often hear during the pre-sales process are:

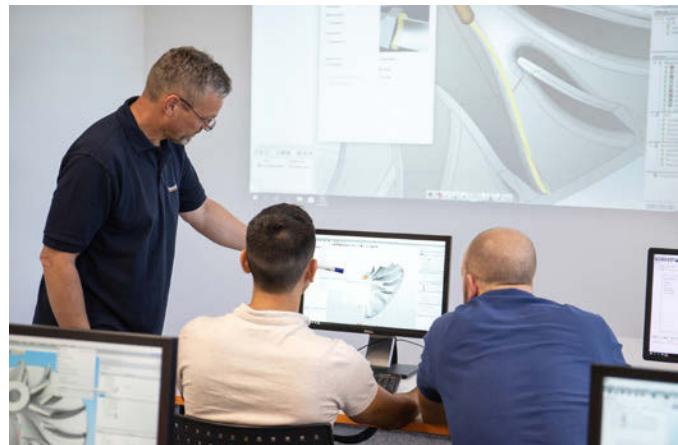
- Business is slow, and this is not a good time for change.
- Business is booming, and this is not a good time for change.
- How can we manage change and keep the shop running smoothly?

Any of these three comments can lead to no action being taken to implement CAM software.

New technology implementation indeed requires management support, out-of-pocket costs, and labor planning. The shop should manage and track this implementation as another project, requiring labor and machine allocation. In the short term, a loss of billable time from the machine tool is possible.

The owner should only move forward with new software implementation if a return on investment (ROI) is realized over a defined time period. Large capital investment may require a return measured in months or up to a few years. Smaller items or more focused productivity improvements can sometimes generate ROI over one subsequent project.

Costs are easily measured in a business. Labor savings or machine savings can be attributed as fundamental components of cost recapture. Other savings and return to the business may be from shorter delivery times or larger part volumes, the ability to win more orders, and the ability to win more complex orders that come with higher shop rates.



**“Ultimately, the key factor to manage during a transition is risk reduction”**

**Alan Levine, Managing Director of OPEN MIND Technologies U.S.A.**



Ultimately, the key factor to manage during a transition is “risk reduction”. Risk is associated with unknown variables or those that are hard to measure. Risk can lead to indecision. For a business plan with a projected return on investment, reducing risk can be identified by asking “What is the probability that the business plan will be achieved?”

#### **Some Points to Consider for Risk Reduction:**

- Plan for sufficient training. This can be standard classroom training or e-training, but often hands-on custom training will have a more direct impact.
- Enable workers to use new software. Consider uninstalling the previous software program (even if temporarily), to give the programmer a clear management statement to support the workflow change.
- Focus the implementation on manageable tasks. Start with one project on one machine, and with one or two employees. Later expand to the best approaches for the entire shop.

- Build long term support structures including a tool database and programming macro database. Look for other opportunities to automate regular tasks. This will save time on future work, but also instill a culture of adhering to work standards.
- Postprocessor development and implementation is often a larger task than expected. And not all postprocessor suppliers are the same. Find a software developer whose process is supported by a pool of similar successful implementations. Seek a test of the machine performance. Define change requests as functional or cosmetic. Test in all conditions – 2D, 3D, indexing, 5-axis, canned cycles, turning, etc.
- Machine simulation is especially helpful during implementation. It can be a means to confirm new processes, without tying up machining production.

While the short-term solution may favor maintaining the status quo or adding new staff that are trained in a current software product, the best long term answer is often to invoke change. Following a training and implementation period new technology software can provide a strong return to the business and be key to long term success.

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#### **About OPEN MIND Technologies AG**

Headquartered in Germany, OPEN MIND is one of the world's leading developers of powerful CAD/ CAM solutions for machine and controller-independent programming. The company develops optimized CAD/ CAM solutions that include many innovative features unavailable elsewhere, to deliver significantly higher performance in both programming and machining. Strategies such as 2.5D, 3D, as well as 5-Axis milling, mill/ turning, and machining operations such as HSC and HPC, are efficiently designed into the *hyperMILL®* CAM system, providing maximum user benefit and compatibility with all current CAD solutions and extensive programming automation. OPEN MIND strives to be the best, most innovative CAD/ CAM developer in the world, and has earned the top five ranking in the CAD/ CAM industry according to the 2019 NC Market Analysis Report by CIMdata. OPEN MIND CAD/ CAM solutions meet and exceed the requirements of the most demanding industries such as automotive, tool and mold manufacturing, production machining, medical, job shops, energy and aerospace industries, and is represented in all key markets of Asia, Europe and the Americas. OPEN MIND is a Mensch und Maschine Company.

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