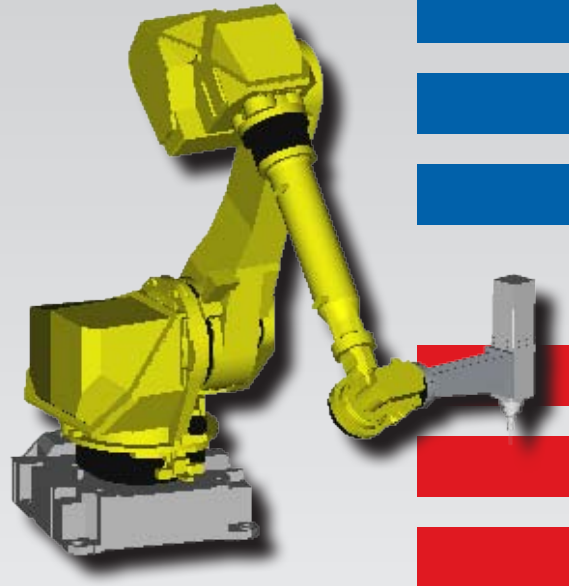


# KMT Robotic Solutions Product Information

## CAMpro®

Seamlessly converts CAD/CAM milling and trimming paths into complete 6-axis robot programs



CAMpro® is KMT's PC-based offline programming software that enables manufacturers to seamlessly convert CAM trimming and milling paths into complete 6-axis AccuTrim® robot programs.

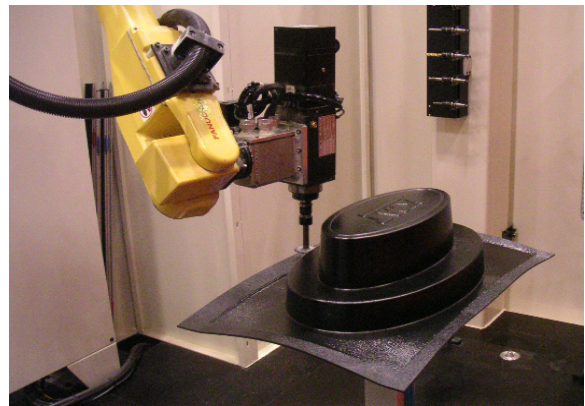
The CAMpro® software tool eases the transition from CNC routing to robotic trimming. It allows manufacturers to make the most of their previous CAM investment dollars because personnel trained on Mastercam®, SURFCAM®, Delcam and other common CAD/CAM tools can very easily use CamPro®. In addition, CAM programs created to run on CNC machines can be converted to run on KMT robotic trimming systems.

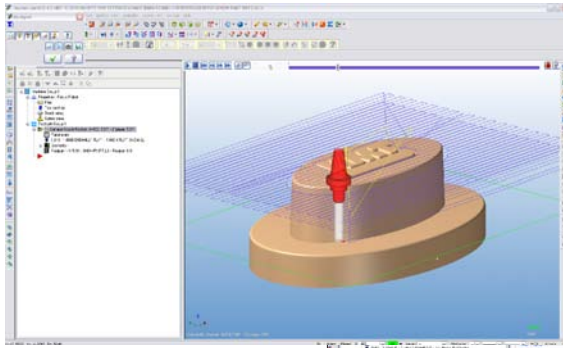
CAMpro® offers manufacturers several benefits. It makes robotic milling feasible by managing large files through the robot memory and enabling it to mill solid blocks of foam, wood and REN board. CAMpro® simulates the robot path offline, allowing programmers to check interference and arm configuration off-line while the actual system is still in production. As a result, CAMpro® provides manufacturers with an economical way to program a large number of parts. CAMpro® can also run on any computer configured to run CAM software, so there is no need to upgrade or purchase a new computer.

KMT currently offers two versions of CAMpro® – one that supports conversion of Mastercam® programs and another that supports any CAM program that can be exported in .apt format. CAMpro® software is designed for use with KMT's RoboTrim® robotic routing systems, JetTool® waterjet trimming systems and RoboKnife™ ultrasonic knife trimming systems.

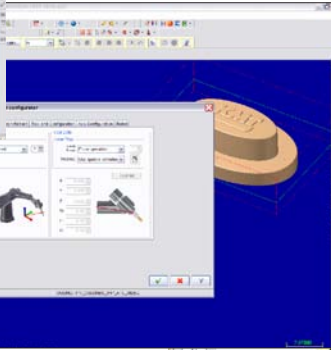
### Key Benefits

- Improved productivity on the machine with off-line programming method versus teaching on the robot.
- Personnel already trained in MasterCam or other CAM packages can easily program a robot with CAMpro®.
- CAMpro® simulation interface optimizes machine runtime by verifying robot reach and configuration online.
- CAMpro® enables operators to convert existing CNC programs to programs that run on a KMT robotic system.
- Makes robotic milling from solid blocks of material feasible as there are too many points to program on the robot otherwise.
- CAMpro® automatically manages large files through the robot memory.
- A single CAMpro® license can be used to create programs for all of the KMT systems in the customer's possession.

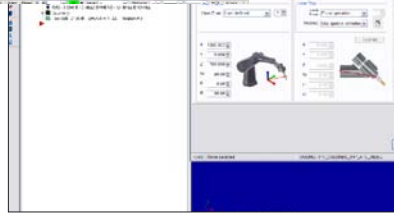




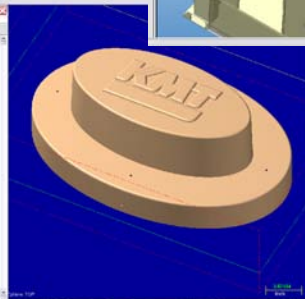
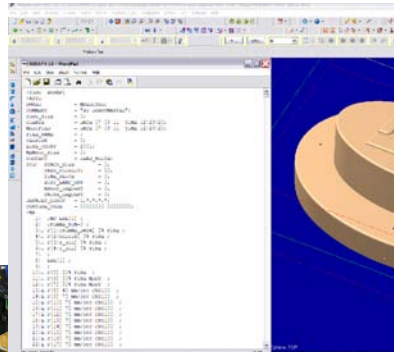
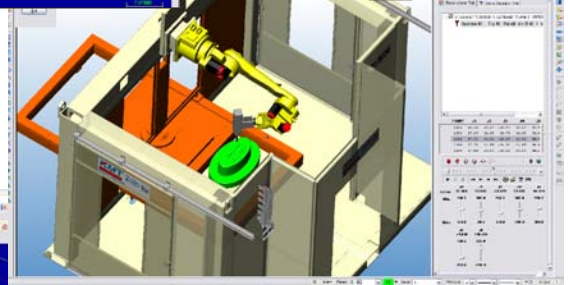
Step 1: Create tool path based on part math data offline in Master-Cam or other CAM package that generates .apt output files.



Step 2: Enter robot model specific settings.



Step 3: Simulate robot program and verify reach.



Step 4: The CAM programmed cut path is then seamlessly processed through the CAMpro® software to create paths and robot programs to run on a specific model of robot.

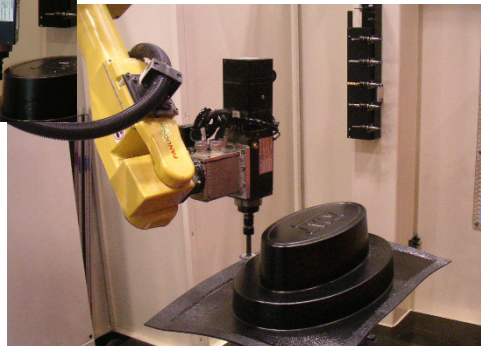


Step 5: Export the robot programs to a standard memory card, plug the memory card into the robot controller and convert the robot programs into TPP programs. This can also be done by Ethernet connection.



Step 6: Coordinate the CAMpro® reference frame to the real-world reference frame for the part to be cut.

Step 7: Execute the robot programs.  
Note: Milling with CAMpro® is facilitated on KMT systems with proprietary large program file management features. No worries about robot memory size versus CNC machines.



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