Robotmaster®
CAD/CAM for Robots

the **cost-efficiency** and **flexibility of robots**
+
the **ease of programming** of Mastercam

Mold Machining

Trimming

Polishing

Spray coating

Welding

De-flashing

Dispensing

Painting

Grinding

De-burring

Generate more profit with your robot
Robotmaster generates programs off-line and eliminates lost production time during programming.

Use your robot for short production runs
Robotmaster shrinks programming time from days to hours by generating robot control code directly from CAD/CAM tools.

Deliver closest conformance to design
Robotmaster creates simple or complex robot trajectories accurately without teaching points.

The Evolution of Robot Programming
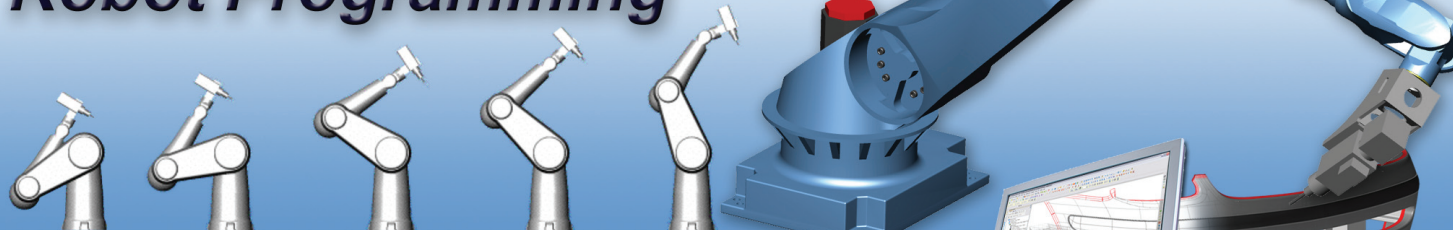
Robotmaster®

| Manual teach pendants	Off-line emulators	Generation 1 off-line software	Generation 2 off-line software	CAD/CAM point converters	
Learn from operator		CAD based contour generation		CAM based motion	
online	offline	point-by-point input	drawn trajectory input	two software approach, limited robots supported	Integrated solution, Optimized trajectory
High flexibility, Low speed		High speed, Low flexibilty		Quick & Flexible	

Beat your competition – worldwide – on **cost, flexibility** and **response time**

Robot-ready code with Robotmaster®

Robotmaster seamlessly integrates robot programming, simulation and code generation inside Mastercam, delivering quicker robot programming.

STEP 1: Program toolpaths for manufacturing using Mastercam Mill or Router
- same process and tools used for CNC machines
- leverage all of the powerful Mastercam features:
  - Fast geometry creation and extensive editing tools
  - data translators for IGES, Parasolid®, SAT (ACIS solids), AutoCAD® (DXF, DWG, and Inventor TM files), SolidWorks®, Solid Edge®, STEP, EPS, CADL, STL, VDA, ASCII, CATIA®, Pro/E®, and more
- Associative and feature based toolpath programming
- Automated toolpath generation
- Change recognition tools for updating toolpaths for CAD part revisions
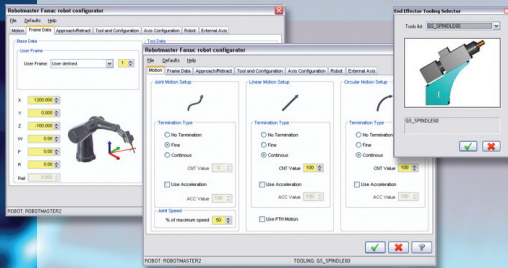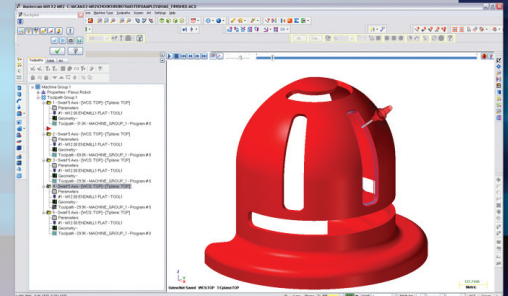
STEP 2: Use Robotmaster's extensive configuration library to add your robot as a Mastercam Machine Group
- Choose from FANUC, ABB, MOTOMAN, KUKA, STAUBLI and more
- Enter robot operating parameters like:
  - End of arm tooling
  - Setup (user frame and tool center point data)
  - Motion parameters

STEP 3: Use the graphical interface to fine-tune the parameters by which Robotmaster will translate the 2 to 5 axis CNC toolpath data into a 6-axis robot toolpath
- Set robot configuration for optimal robot posture
- Manage motion between operations
- Precise control of rotation around tool for:
  - Avoiding singularity and joint limits
  - Optimizing joint speeds and ensuring smooth robot playback
- Support for external axes (linear rail or rotary table)
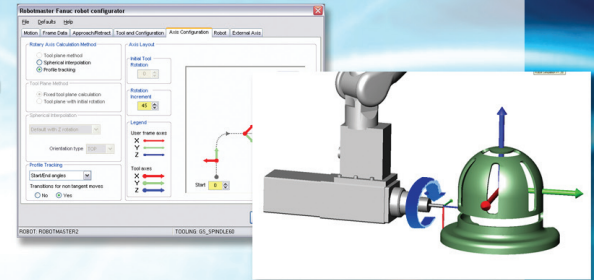
STEP 4: Validate and optimize the program by using Robotmaster's robot simulator
- view robot motion in continuous or step mode, by individual operation or complete toolpath group
- Automatic detection of collisions
- View either robot only or entire manufacturing cell

STEP 5: Robotmaster's post-processor generates the robot-ready program file
- Generate programs in robot native language
- Customizable robot code output
- Multi-file output for managing long programs with limited robot memory

JABEZ *Technologies*

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