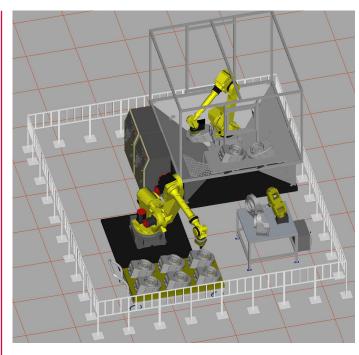# ROBOGUIDE®

Robot Programming and Simulation

ROBOGUIDE is the leading offline programming product on the market for FANUC robots. The ROBOGUIDE family of process focused software packages allows users to create, program and simulate a robotic workcell in 3-D without the physical need and expense of a prototype workcell setup. With virtual robots and workcell models, offline programming with ROBOGUIDE reduces risk by enabling visualization of single and multi-robot workcell layouts before actual installation.

With ROBOGUIDE, sales, proposal and application engineers can import CAD models of parts, create a workcell including machines, part transfer devices and obstacles and teach robot paths to simulate the operation and performance of a multi-robot workcell. Reach verification, collision detection, accurate cycle time and robot trajectory and other system operations are provided in ROBOGUIDE's graphical virtual environment.

Virtual Robot Controller Software

True robot operation is provided using Virtual Robot Controllers which are a copy of the real software that runs on your robots. The Integrated Virtual Teach Pendant looks and operates like a real Teach Pendant. FANUC robots can be configured in many configurations with many axes. The virtual robot supports configurations including multiple arms, positioners and auxiliary axes.

The ability to create a virtual robot copy of your real robot makes it efficient to model already existing workcells. A backup of your real robot can be used to duplicate the robot in ROBOGUIDE. This feature can be used for optimization and debug of production robots.

Cycle Time and Trajectory Profiling

Accurate cycle time reporting and trajectory plotting are essential when optimizing workcell parameters. ROBOGUIDE's cycle time profiler reports cycle time at the program, routine and motion instruction level. Robot motion trajectory tracing displays robot tool center point traces and can be plotted showing speed and accelerations along the trace.

Program Upload Download /Round Trip

Seamless data transfer between real and virtual robots. Programs can be uploaded and downloaded between real and virtual robots with no translation. Changes made in ROBOGUIDE can be directly loaded to a robot and changes on a real robot can be directly loaded to ROBOGUIDE.

Physical *i*Pendant™ Support

Operators can learn real Teach Pendant operations quickly with a physical *i*Pendant connection to ROBOGUIDE virtual robots. With optional interface hardware, a real *i*Pendant can be attached and used with ROBOGUIDE. Operator training can be performed without the need for a physical robot controller and robot arm.

Workcell Modeling and Machine Building

Complete workcell simulation can be obtained. Workcells contain more than robots as moving devices. Workcells can be constructed with multiple robots, positioners, conveyors and other moving and non-moving fixtures. ROBOGUIDE supports the modeling of essentially any robot configuration including multiple arm, robot with positioner and a robot on auxiliary axes.

CAD to Path

Drastically reduce programming time with comprehensive CAD to Path programming. Define a feature line on a CAD model and quickly generate programs using the feature line information. Hours of manual programming can be eliminated. CAD to Path supports generation of programs for coordinated motion, remote tool center point, multi-arm coordination and other configurations.

Motion Optimization

Optimize cycle time and motion for running production robot programs to reduce cycle time. ROBOGUIDE can connect to a robot, monitor robot motion and provide direction on improving cycle time. The visual feedback of a robot's performance and the easy-to-use interface allows the robot programmer to pinpoint performance bottlenecks and take corrective action.

Process Focused Software

ROBOGUIDE builds on FANUC Robotics application process focus. Process plug-ins customize the ROBOGUIDE interface with process specific capabilities.

ROBOGUIDE – WeldPRO™

WeldPRO simulates robotic arc welding process. WeldPRO CAD to Path programming capability supports auto generation of multiple robot group coordinated motion programs with defined torch angles and process parameters. Programs and settings from the virtual workcell can be transferred to the real robot to decrease installation time.

ROBOGUIDE – HandlingPRO™

HandlingPRO is used for material handling applications including load/unload, packaging, assembly and material removal. Features of HandlingPRO include CAD to Path programming, conveyor line tracking, machine modeling and programming.

ROBOGUIDE – PalletPRO™

PalletPRO simulation software can be used to completely build, debug and test a palletizing application offline. PalletPRO allows users to create a workcell layout, infeed and pallet stations, slip sheet and pallet dispensers. Hundreds of unit load pallet configurations can be created and visualized in 3-D using PalletPRO's built-in library of industry standard patterns. The data created in PalletPRO can be downloaded to a real robot controller containing PalletTool® software.

ROBOGUIDE – PickPRO

PickPRO lets you simulate and analyze high-speed picking processes. Visualize the operation of multi-robot systems interfaced to multiple conveyors and related equipment. It includes utilities to test the impact of various application parameters such as conveyor speed, product spacing and orientation, workload sharing among multiple robots, conveyor flow direction, robot model, equipment location, multi-tooled grippers and even exceptions such as surges and interruptions in product flow. PickPRO is an indispensable engineering and sales tool.

ROBOGUIDE – PaintPRO™

FANUC Robotics PaintPRO software is a graphical offline programming solution that simplifies robotic path, teach and paint process development. The operator automatically generates robot programs by graphically selecting the area of the part to be painted and chooses between several painting methods.

ROBOGUIDE – MotionPRO

MotionPRO is a revolutionary software which runs on a PC and when connected to a FANUC robot can provide expert assistance in optimizing robot motion. MotionPRO can potentially reduce 5-20% of cycle time and a significant amount of teaching and touch-up time.

Note: ROBOGUIDE® and PalletTool® are registered trademarks of FANUC LTD.

Intelligent Robot Solutions

FANUC Robotics