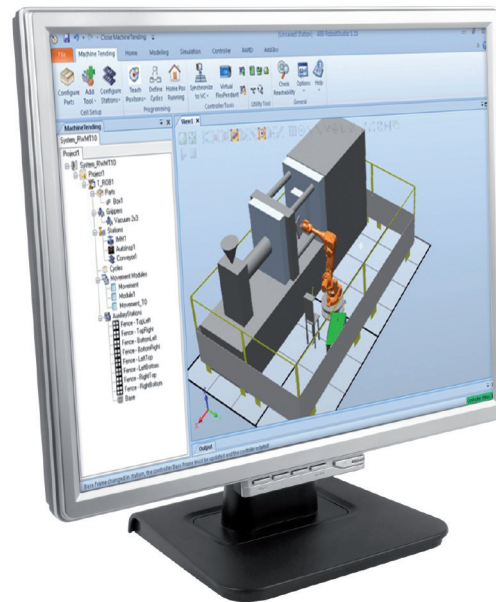# RobotStudio
Machine Tending PowerPac

RobotStudio Machine Tending PowerPac – an add-on for RobotStudio, ABB's powerful PC-based programming tool – provides a platform for quick, easy creation and editing of machine tending robot cells in a 3D virtual environment.

With more than 30,000 machine tending robots installed, ABB's decades of experience have culminated in an overhauled system of robotic machine tending software designed with the customer's most common considerations in mind. The PC-based RobotStudio Machine Tending PowerPac is designed to work seamlessly with the controller-based RobotWare Machine Tending software for an enhanced and streamlined user experience. For everything from die-casting to injection molding and machining, this new package delivers world class flexibility and ease-of-use.

Reduce costly errors
Simulation and validation can be completely done on the PC so that everything from cycle times to post processing capabilities to any potential risks for collisions can be visualized offline before costly mistakes are made on the factory floor.

Define parts and grippers
Defining the parts produced at any given station is easy in the 3D virtual world. Name them, add part codes and identify them for remote selection. Select an image for a graphical representation on the FlexPendant control device and easily connect the correct program, part and gripper.

With a library of commonly used grippers, getting your machine tending cell up and running is a fast process. Adjusting gripper control and sequencing is simple with a graphical interface to configure the underlying RAPID instructions.

Define stations and movements
Pre-defined and easily modifiable station templates ensure quick PC-based programming. Template stations include most of the common types of machine tending tasks.

After stations are identified, you can interactively program cycles and movements between stations in the 3D virtual world; you can even define part-specific routines. The ease of PC-based offline programming ensures process optimization is virtually complete before any actual parts are handled.
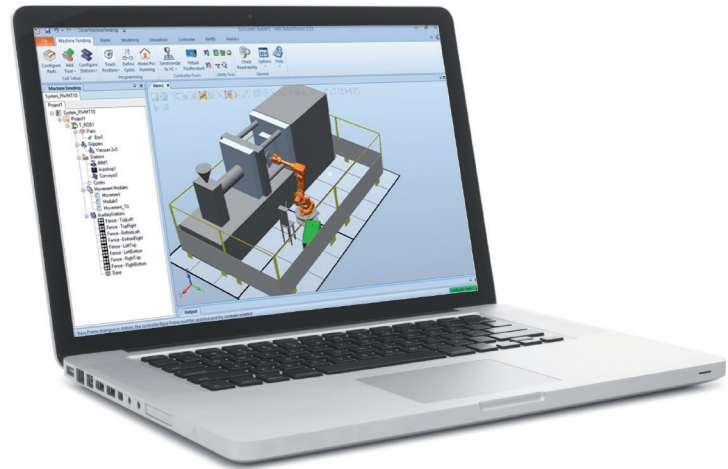
Safety made simple
Defining low risk strategies to get the robot to a safe home position is simple with a graphical interface. Once safe movements to the home position are defined, the software automatically creates a HomeRun RAPID routine that is easily accessible by even untrained workers on the FlexPendant control device – avoiding the potential for costly damage.

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Features Overview

Define parts	Define and configure parts being produced in the cell. Create part or use CAD drawing. Connect program, part and gripper to secure production.
Define grippers	Define and configure the grippers used by the robot. Select from gripper libraries and templates. Set up signal interface.
Define stations	Define and configure stations in the cell. Select station type and template programs or create your own.
Define movements between stations	Interactively create robot movement between stations. Grid system support defining movements between any station.
Define HomeRun strategy	Define strategy to automatically and safe move the robot to home position if problems occur. Graphical representation of robot movement.
Define cycles	Define different production cycles; start-up, production, empty, etc. Interactively define logic for each cycle.
Simulation, validation & optimization	Simulaton of complete machine tending cycles. Validation of robot reach and prevent collisions. Optimization of movements to shorten cycle time.
Deployment and documentation	Deploy the generated robot program to the robot controller. Automatically generate project documentation.

System requirements

The following system requirements must be met in order to use RobotStudio Machine Tending PowerPac.
RobotStudio: Version 5.15 or later.

Related products

RobotWare Machine Tending

ABB's RobotWare Machine Tending software provides an intuitive and customizable graphical user interface via ABB's powerful FlexPendant control device. It delivers incredible flexibility for the wide array of machine tending applications that exist and makes robot programming for the industry easier than ever before.

RobotStudio

RobotStudio Machine Tending PowerPac is an add-on to RobotStudio, ABB's widely used offline 3D programming tool. RobotStudio offers a number of standard features that help to improve robot programming.

For more information please contact:

www.abb.com/robotics

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