Robotics

RobotStudio® Painting PowerPac
New unified tool for office and shop floor users

Painting PowerPac integrates paint programming knowledge and paint process tools into RobotStudio and offers the best of online and offline tools in your office or on shop floor.

With more than 20,000 painting robots installed worldwide, ABB’s decades of experience have culminated in PC software designed with the customer’s needs in mind.

This PowerPac, which works seamlessly with RobotStudio, allows the user to simulate the operation of both paint robots and related equipment thereby enhancing and streamlining programming efficiency.

RobotStudio
ABB’s has developed RobotStudio®, the industry’s leading product for PC-based programming, configuration and virtual robot commissioning. It provides an ever-expanding and complete set of tools to maximize productivity and ease-of-use throughout a robotic system’s entire lifecycle. With it, robot programming can be done on a PC in the office without shutting down production. RobotStudio provides the tools to increase the profitability of a robot system by letting customers perform tasks such as training, programming, and optimization without disturbing production. This allows very realistic simulations to be performed, using real robot programs and configuration files identical to those used on the shop floor.

Increased production
The Painting PowerPac is designed to be used on the paint shop floor to edit, optimize or create new programs without disturbing ongoing production. Login based access to functions, support to record change logs and simulation support confirms reliable editing of programs and process parameters.

Smart paint programming
It provides an intuitive way to manage paint programs and workpiece CAD models. New and existing programs can be created, modified and tested with advanced programming functions.

Support to mirror/copy programs automatically between robots in a paint station saves a lot of effort and ensures proper synchronization. This together with enhanced 3D-view supports to efficiently create and edit paint instructions.

Simulate complete paint cell
Simulate and run a paint cell with multiple robots, including conveyor tracking to reduce risk by confirming various scenarios, layouts and solutions before the robots are installed or on the production line.
Help getting organized
Work piece CAD libraries are automatically loaded into RobotStudio at the right position for a program. When connected to real robots, compares and highlights program differences between virtual and real robots.

An intuitive way to look at a path as a sequence of instructions or targets, gives you flexibility while optimizing the path. User can view the robot at position of error/collision, this helps to resolve issues swiftly.

Access Control
A key shop floor requirement is access control. The tool enables login based access to PowerPac and RobotStudio functions. You can define users and groups and assign features relevant for each group. This enables controlled editing and customization of interface.

Reporting and Analysis
The estimated paint consumption and gun-one time information is readily available post simulation.

Simulate the paint cell
Robot positioning challenges can be solved early. Move the robot or the work piece around until all positions are reachable for verification and optimization of the paint cell layout.

Programs can be tuned for speed and process efficiency and cycle times verified before production starts or before a change is incorporated in a paint line.

Automatic collision detection between robots in the same cells or with the object to be painted prevents potential costly damage to equipment.

Visualizing a spray fan during simulation helps to determine the best painting parameters for the given shape to be painted.

Batch simulation
Test a full production batch in a short period with various models and colors and initiate events like conveyor stops to secure real condition production and evaluate the robustness of the programs need in production to secure a full production efficiency.

Differentiated license proposition
The Painting PowerPac software licenses are designed to provide attractive and cost effective solutions to cater to the Engineering requirements using the Premium license and shop floor requirements via the newly introduced RobotWare option ShopFloor PPP Enabler.