

DELMIA V6

Robotics **ARc** **W**elding

Computer-aided Generation of Robotic Arc Welding Programs

DELMIA Robotics Arc Welding enables robot programmers to generate, optimize and validate production ready arc welding programs in minutes instead of hours.

DELMIA Robotics Arc Welding (ARW) automatically generates a robot arc welding tool path based on the geometric design of the seam to be welded. Multiple variables are combined when defining the collision-free robotic welding path including the joint configuration, robot setup and workcell layout.

With DELMIA's Robotics Arc Welding solution users can define, validate and optimize their robotic arc welding programs and setups prior to delivery to the shop floor. This capability simultaneously improves quality, reduces costs and maximizes resource utilization by keeping production equipment engaged in value-added activities.

Geometry-based arc weld path generation and modification

DELMIA Robotics Arc Welding includes a full suite of geometry-based robot trajectory generation capabilities that automatically creates fully detailed robotic paths for both seam search and arc welding paths, based on the CAD models of the parts to be welded.

Easy update of robot trajectories to accommodate design changes

Robotic weld trajectories created with DELMIA Robotics Arc Welding are fully associated with the V6 CAD geometry of the parts being joined. Users can automatically update weld trajectories caused by part design changes with a single click of the mouse, which eliminates the need to manually regenerate trajectories.



Workpiece positioning optimization

Robotic workpiece positioning mechanisms can be automatically programmed using DELMIA Robotics Arc Welding to present the workpieces to the welding robot so that an optimal weld can be achieved.

Support for controller-specific weld profiles

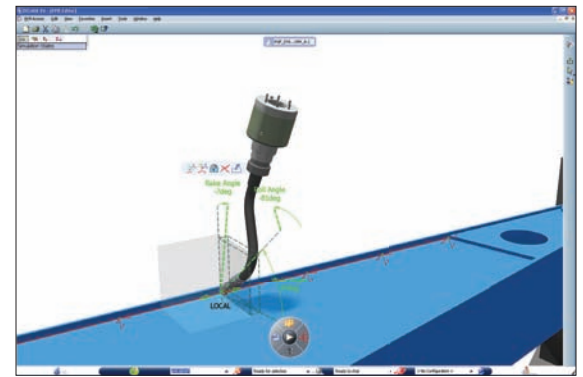
Users can fully simulate controller-specific weld schedules for their robot and controller combination via the arc welding profile user interface.

Seam search path generation

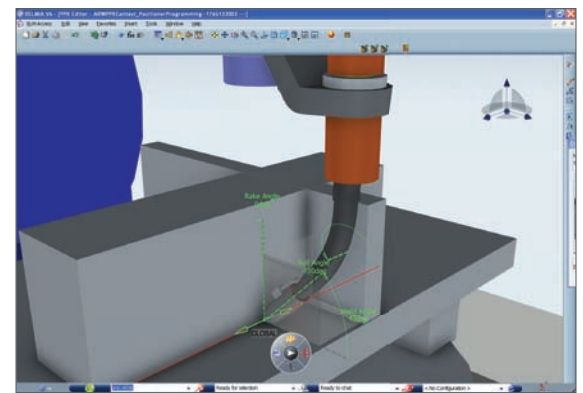
Users can rapidly generate seam search paths using standard patterns and robot controller-specific constraints. The user simply selects the robot, the base geometry, wall geometry and side geometry.

Product Highlights

- Fast robot program updates when the product design changes
- 3D path creation and modification commands
- Positioner optimization
- Weld quality assurance



DELMIA Robotics Arc Welding generates an arc welding tool path based on the geometric design of the seam to be welded.



Automatically update weld trajectories caused by design changes with a single click of the mouse.

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