

/ Perfect Welding / Solar Energy / Perfect Charging



FRONIUS PATHFINDER

OFFLINE PROGRAMMING AND SIMULATION SOFTWARE
FOR FULLY AUTOMATED WELDING

BASED ON 3D CAD MODELS:

CREATE AND EDIT WELDING PATHS AND WELDING SEQUENCES OFFLINE.

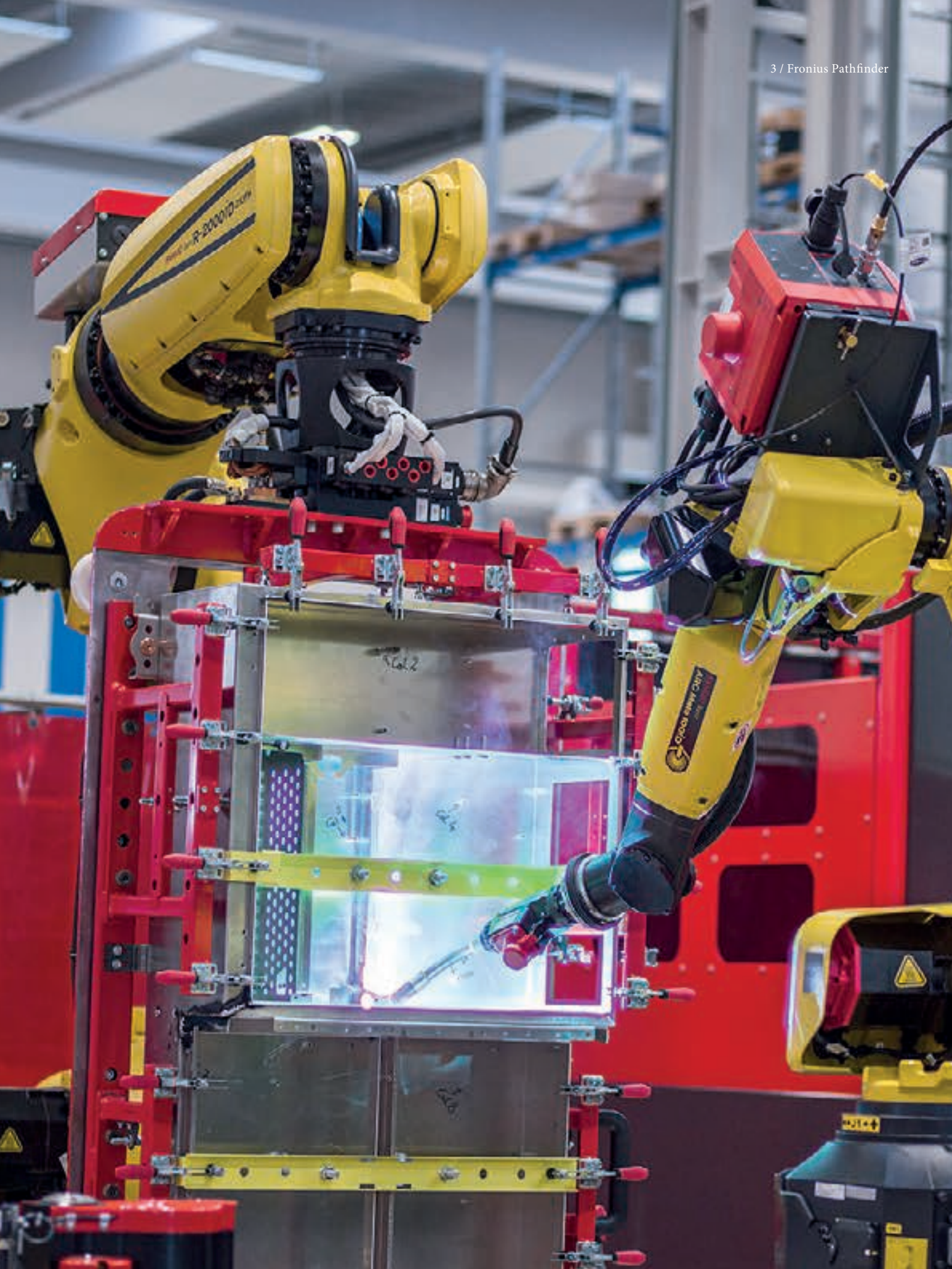
The major advantage of offline programming and simulation software such as Pathfinder lies in the fact that you can create welding jobs away from the system, without having to interrupt ongoing welding processes. This saves time and money. With the help of simulations, errors and collisions can be detected in advance and welding sequences optimized. Intelligent welding path management and innovative calibration logarithms guarantee accurate welding paths, which are used as the basis for high-quality weld seams that can be reproduced at any time.



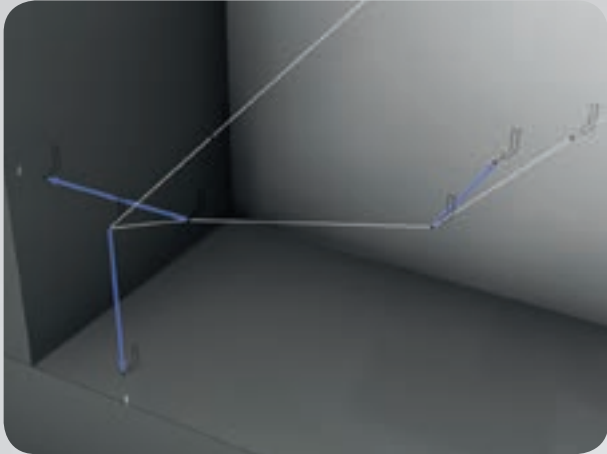
ALIGNMENT OF THE VIRTUAL AND PHYSICAL SYSTEM

THE SOLUTION FOR THE PERFECT WELDING PATH

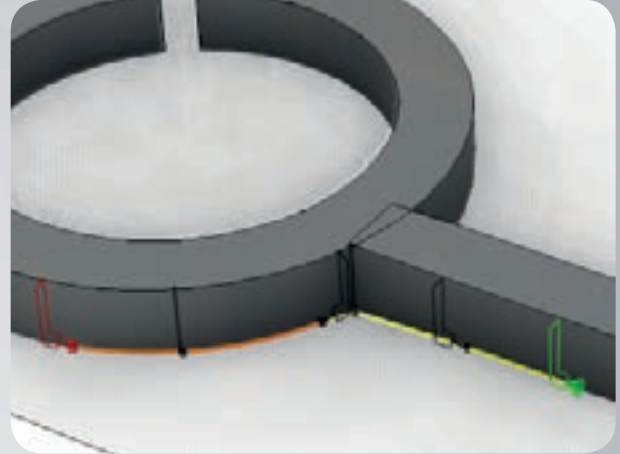
/ It would be catastrophic if the programmed welding path was to deviate from the real path on the part. For this reason, virtual and real welding cells are aligned using Pathfinder. The 3D model of the part is then loaded, welding seams and parameters are defined, and the desired welding path is generated. Finally, a post-processor converts the universal code of the welding program into the specific code of well-known robot brands such as Yaskawa, OTC, KUKA, ABB, Panasonic, Fanuc, Nachi, IGM, Kawasaki, Cloos, or REIS.



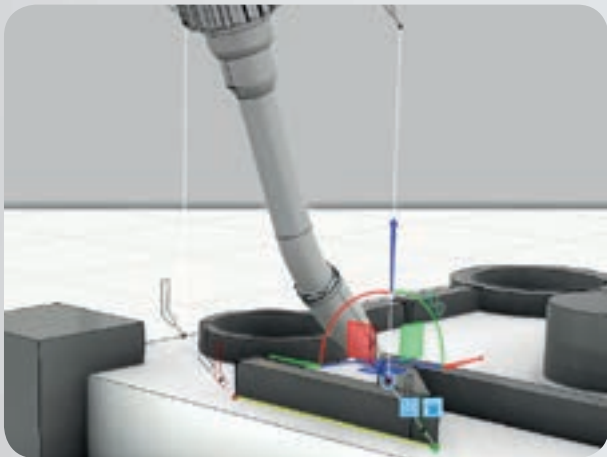
IMPRESSIVE RANGE OF FUNCTIONS.
WELD SEAM SEARCH, POSITIONING, CLONING, AND MUCH MORE.



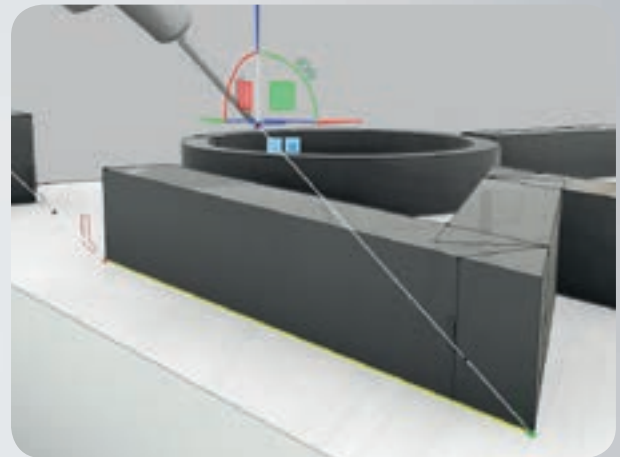
/ Seam-Search: Software recognizes part connections and sets weld seams independently



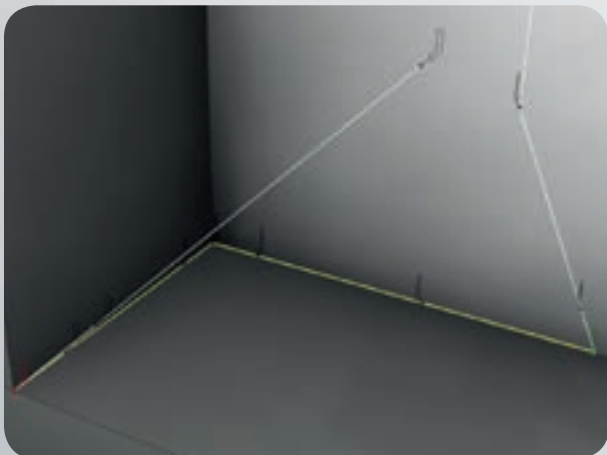
/ Topology Analyses: Define weld seam positions and set start and end points



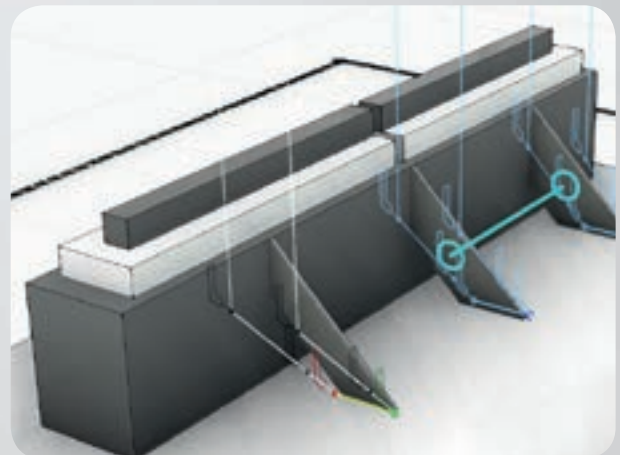
/ Angles: Define torch work angle for start and end point



/ Offset: Modify weld seams via offset



/ General: Define welding torch offset in the vicinity of corners



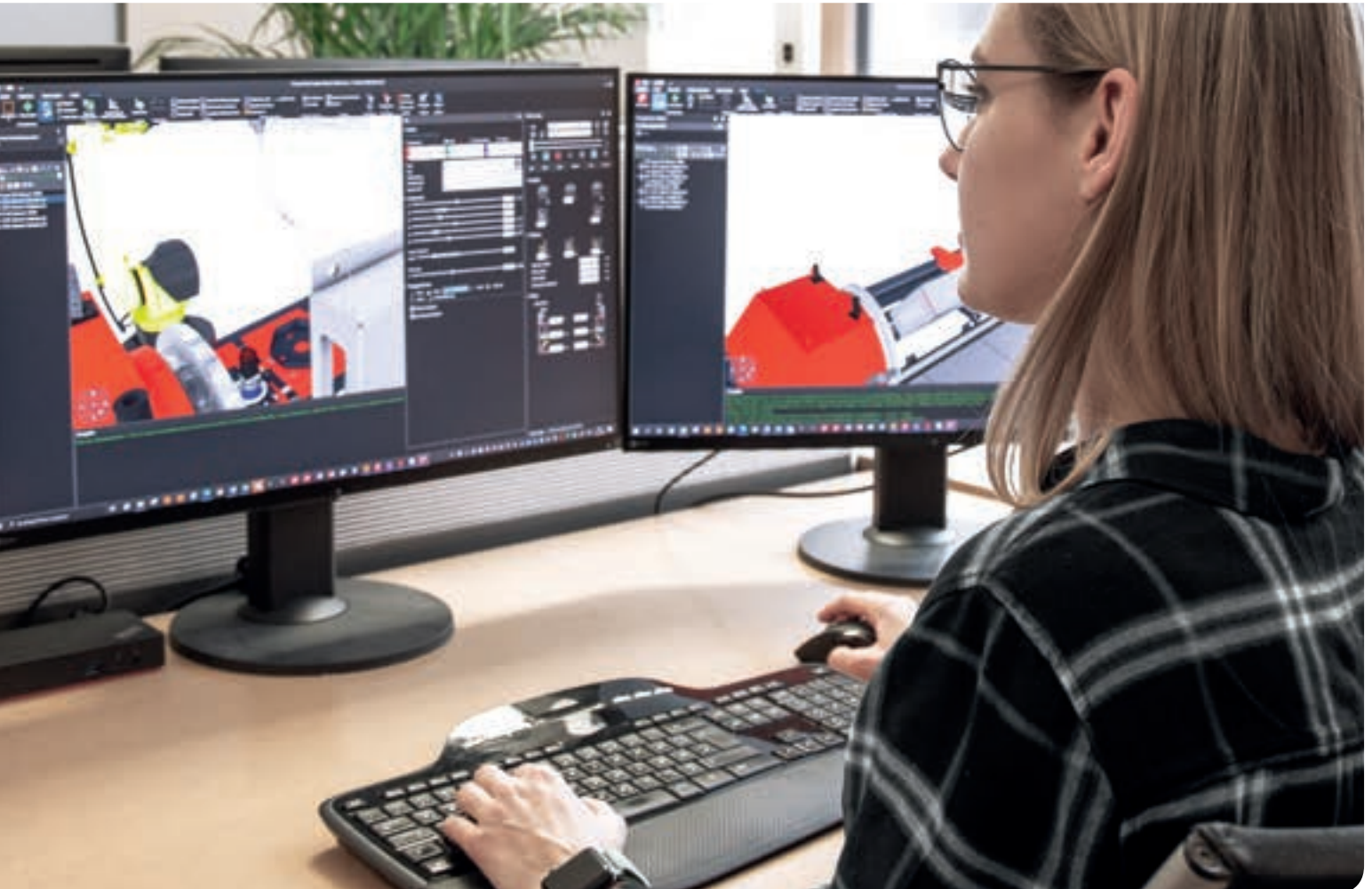
/ Clone-Path: Duplicate weld seams

FUNCTION HIGHLIGHTS

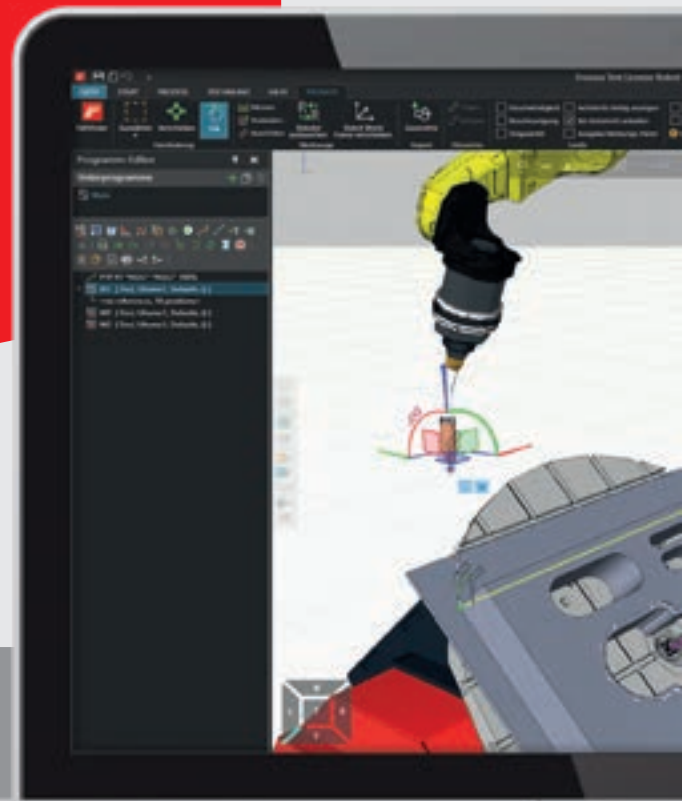
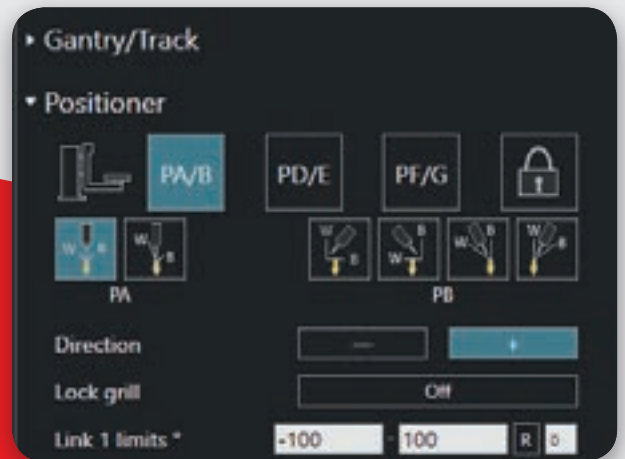
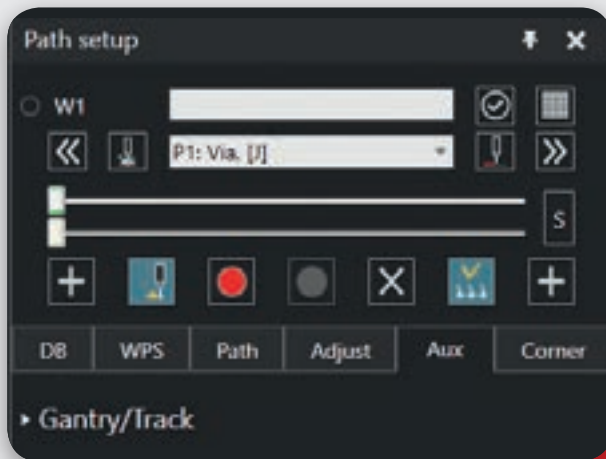
- / Straight and curved weld seams
- / Weld seam search (1D, 2D, 3D)
- / Multirun welding
- / Copying, linking, grouping, and mirroring of weld seams
- / Determination of cycle time (gas pre-flow time, welding speed, end crater filling, etc.)
- / Interaction with external robot axes (positioners, etc.)

SIMULATION OF WELDING PROCESSES

- / Automatic detection of collisions and near collisions with visual feedback
- / Automatic detection of axis limit violations, with visual feedback
- / Automatic recognition of the singularity points of the movement paths
- / Effective and fast simulation of the created welding programs in real time or by means of infinitely variable speed regulation
- / High graphic and resource-conserving resolution
- / Import of CAD data
- / Support of common data formats, both generic and direct



USING THE MOUSE WHEEL AND BUTTON: CREATE WELDING JOBS EASILY AND INTUITIVELY.



SAVE VALUABLE TIME:

Pathfinder saves time and money. Teaching the robot directly on the system can take up to ten times longer than with Pathfinder.

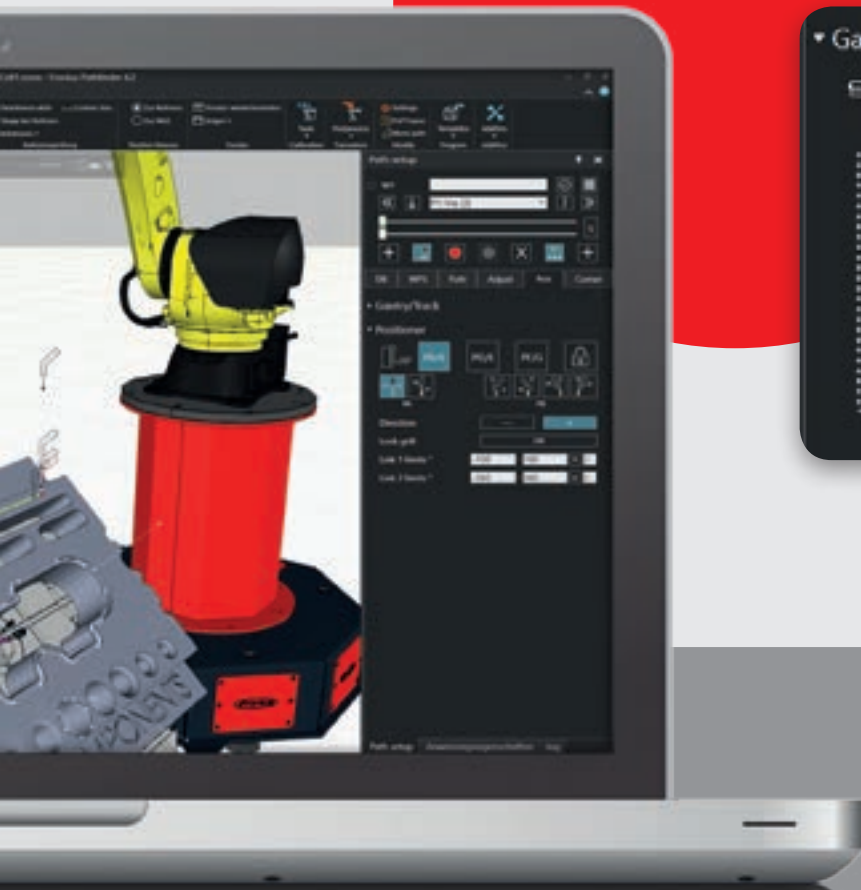
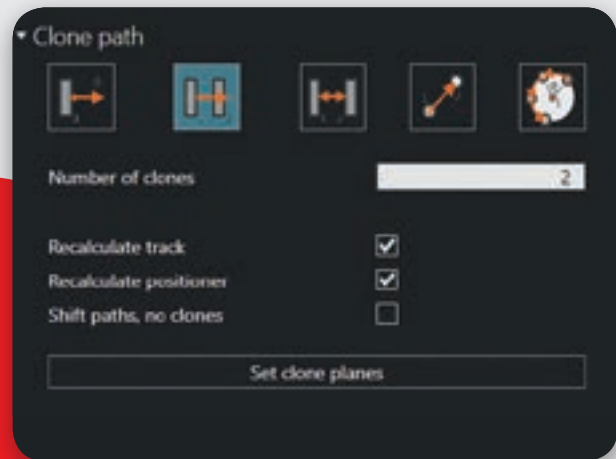
AT THE TOUCH OF A BUTTON:

Set the torch angle and positioning axes

WITH JUST THREE CLICKS:

Create a high-performance scanning process

A POST-PROCESSOR MAKES IT POSSIBLE: PATHFINDER TRANSLATES INTO THE LANGUAGE OF COMMON ROBOTS.



SIMPLY BY USING THE MOUSE WHEEL:
Calibrate the torch position.

WITH JUST ONE CLICK:
Keep the welding position and
additional axes



SYSTEM REQUIREMENTS

- / Windows XP SP2 / Windows Vista 32 and 64 bit / Windows 7 32 and 64 bit
- / Dual-core CPU
- / At least 4 GB RAM memory
- / Graphics card for 3D design with at least 512 MB RAM (e.g., nVidia Quadro FX)
- / At least 15 GB free hard disk space

30-DAY TRIAL LICENSE

Try out Pathfinder free of charge for 30 days with the Fronius trial license. The trial license consists of a beginner's guide and a finished test model for creating a welding simulation. A dedicated part can also be loaded.

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THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,440 employees worldwide and 1,264 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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