Simulering och offlineprogrammering

Ny teknik för beredning – snabb och enkel programmering
Fogningsdagarna 2021 – Eskilstuna

Heikki Aalto
Delfoi

Delfoi

Founded 1990 – spinoff from Technical Research Centre (VTT)

- Focus on Software Development
- Sales via partners, globally

Two software product segments:

- Delfoi Robotics – Automated Robot offline Programming
- Delfoi Planner - Advanced Planning & Scheduling (APS) + MES

Global business & technology partners:

VISUAL COMPONENTS

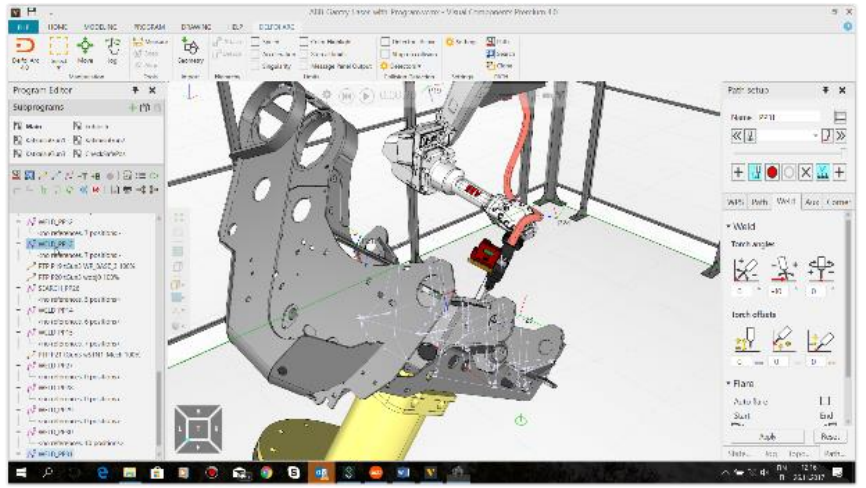
ORACLE NETSUITE

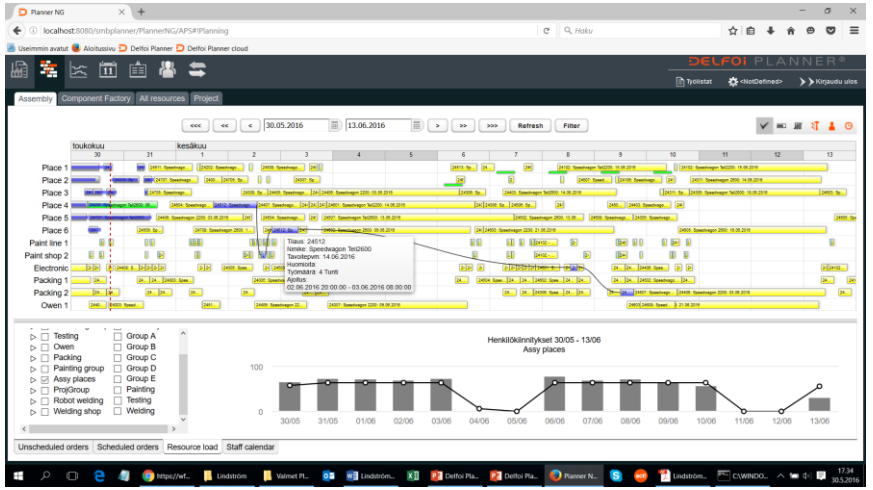
SAP

In offline programming (technology)

In Advanced Planning & Scheduling (channel)

Distributors in Europe, North America, South America, Asia, India

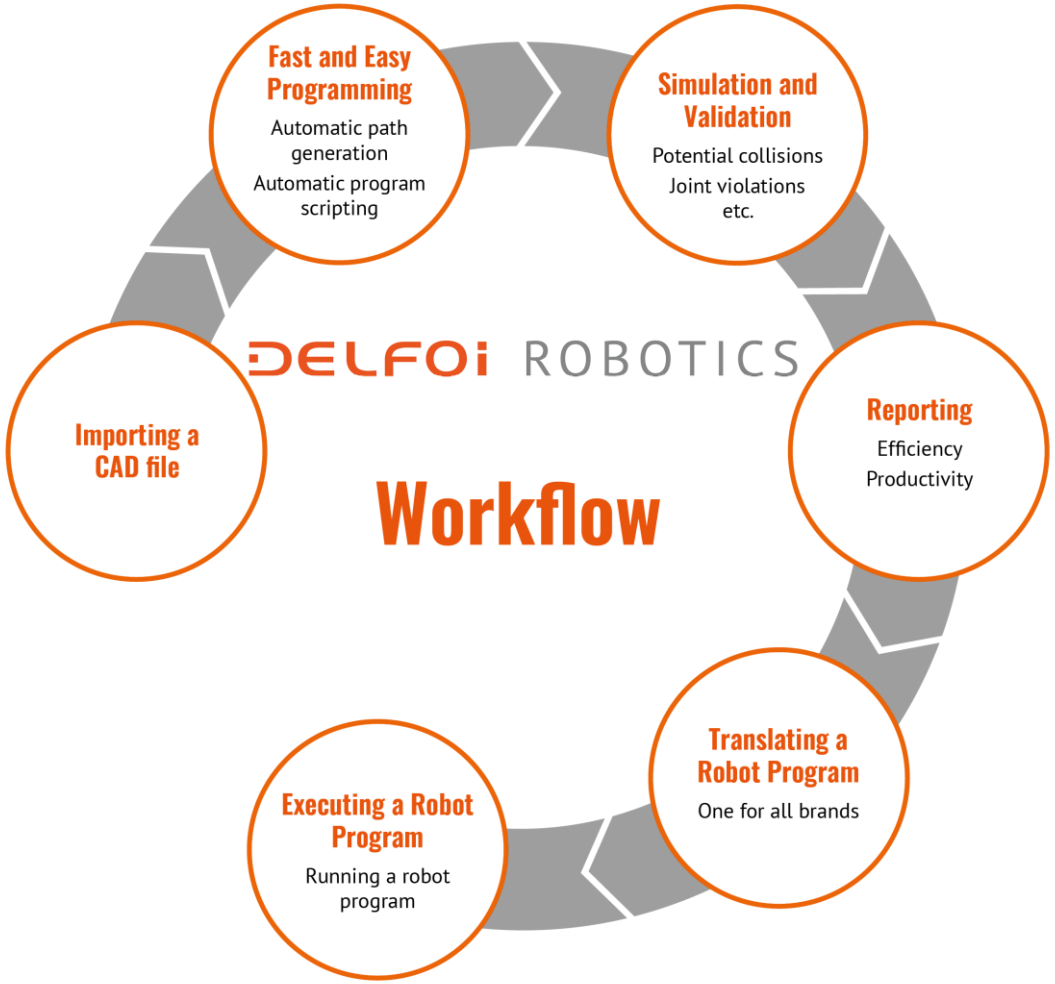




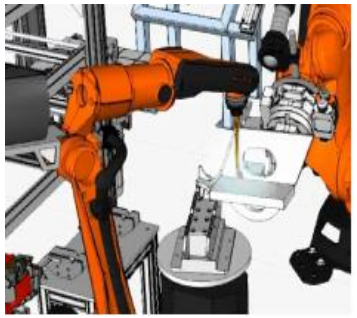
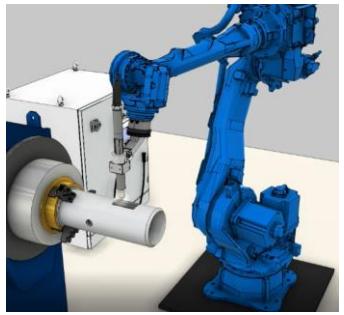
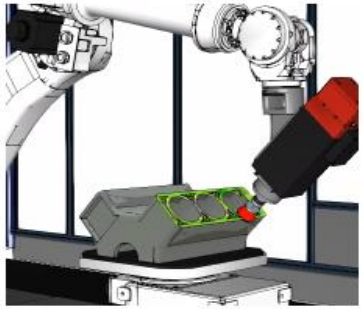
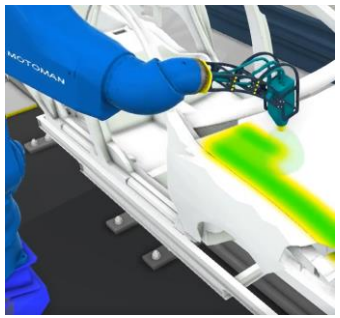
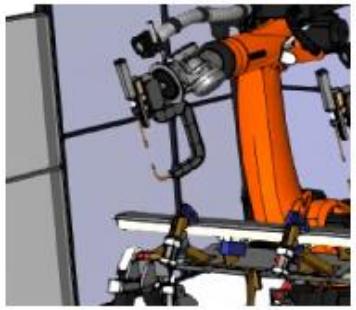
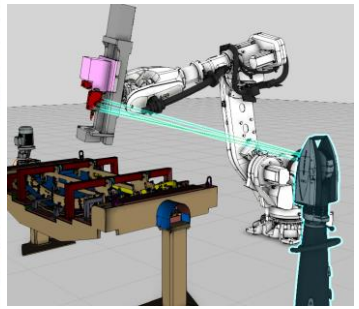
DELFOI

Delfoi Robotics – Advanced Offline Programming

- Delfoi Robotics Offline Programming(OLP) software represent the most advanced robot offline programming software in the markets today – for all robot brands
- The key for the success is the <u>outstanding programming speed.</u>
- This means added value to our customers by maximising robot working hours even with small batch manufacturing



Delfoi Robotics Product Portfolio

Delfoi ARC	Delfoi CUT	Delfoi SURF-X	Delfoi PAINT	Delfoi SPOT	Delfoi METROLOGY	Delfoi BASIC
		NEW	NEW		NEW	
Arc welding Tig welding Laser welding	Deburring Trimming Plasma cutting Laser cutting	Grinding Polishing Buffing Sanding	Wet painting Spray coating Thermal spraying	Spot welding	Precision Processing T-Scan T-Mac Laser Tracker	Machine tending Material handling
						

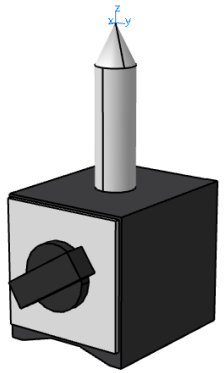
DELFOI

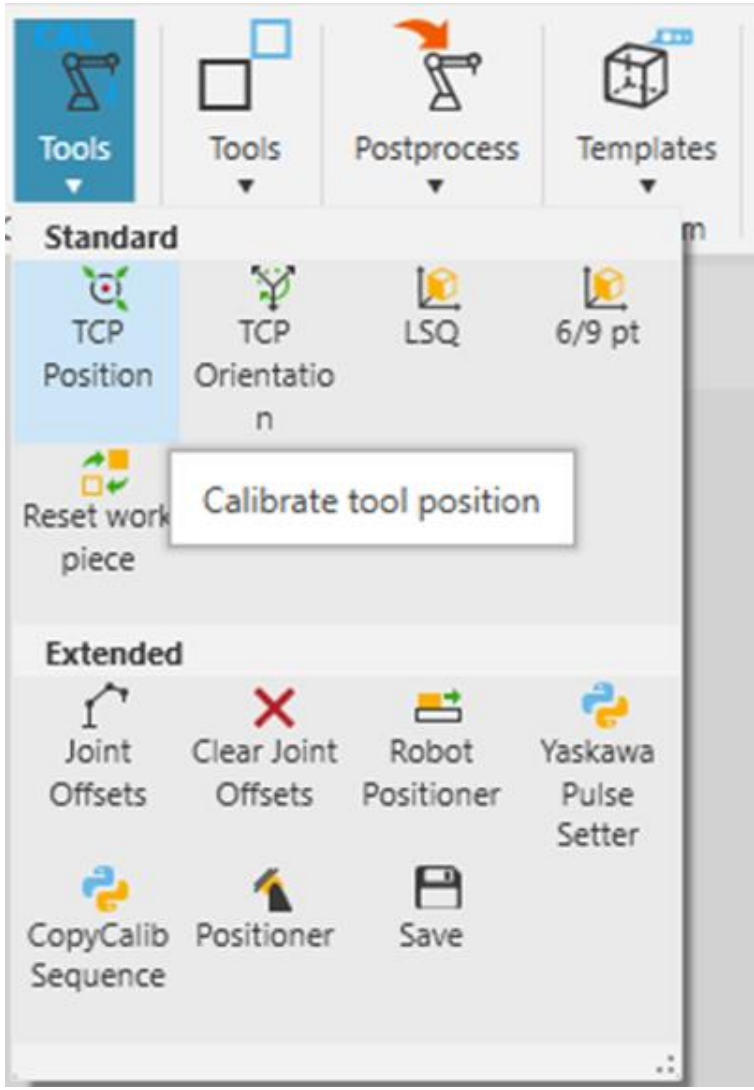
Generic for all robot brands

- Generic offline programming software.
- Robust & tested translators for all major robot brands

Accurate – without external laser trackers

- Robot used as the measuring device
  - Low Cost
  - Calibaration algorithms based on 30 years experience



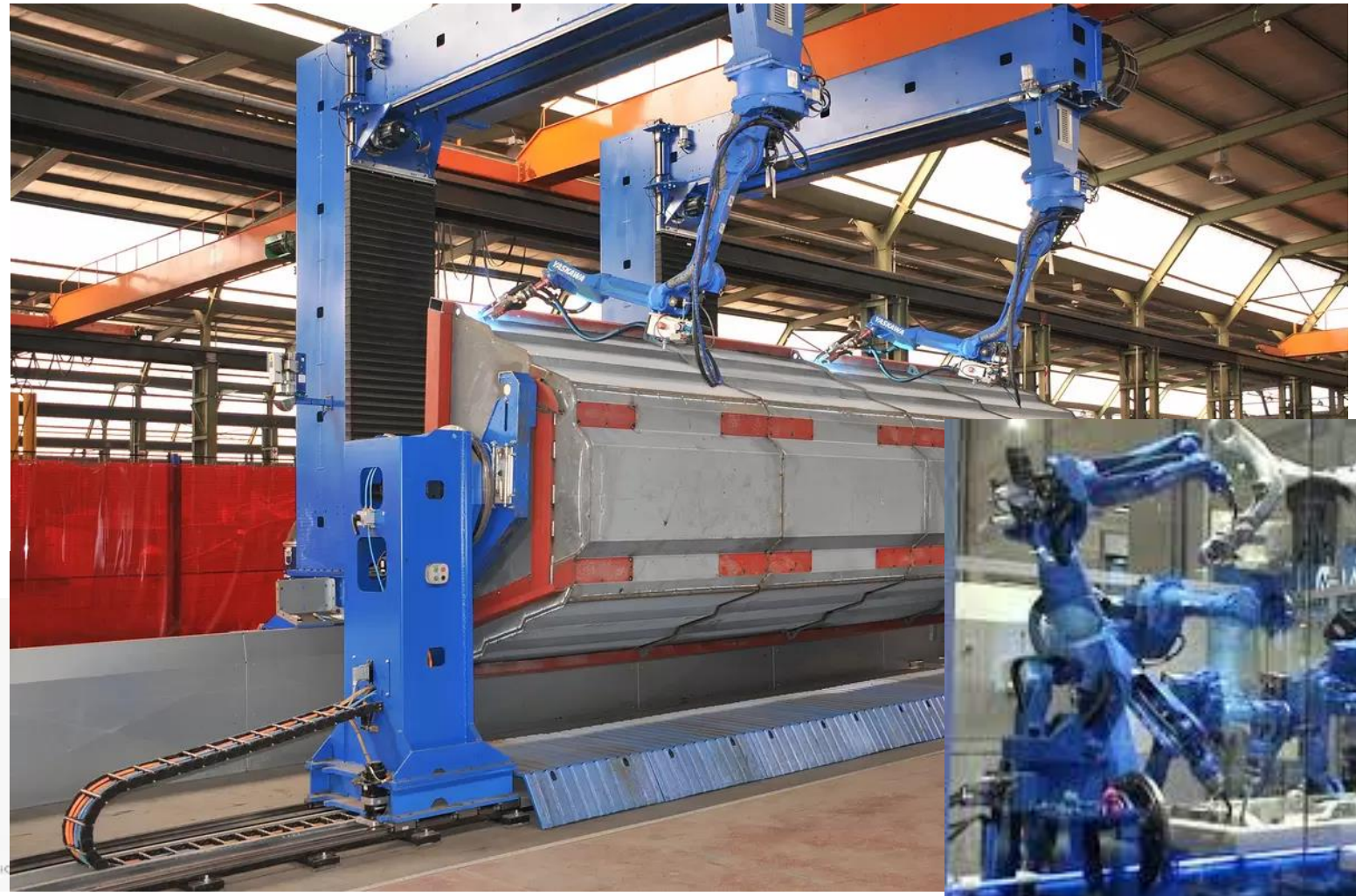


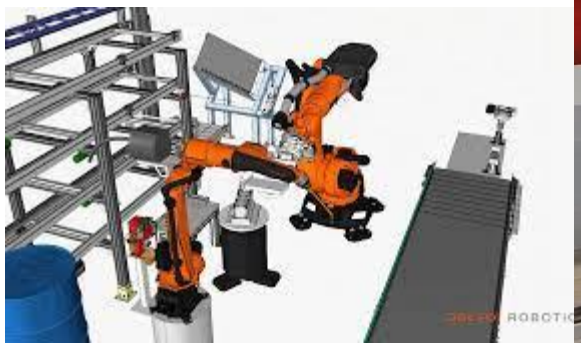
Delfoi ARC

Automated offline programming for
Arc welding (MIG, MAG, TIG) and laser welding

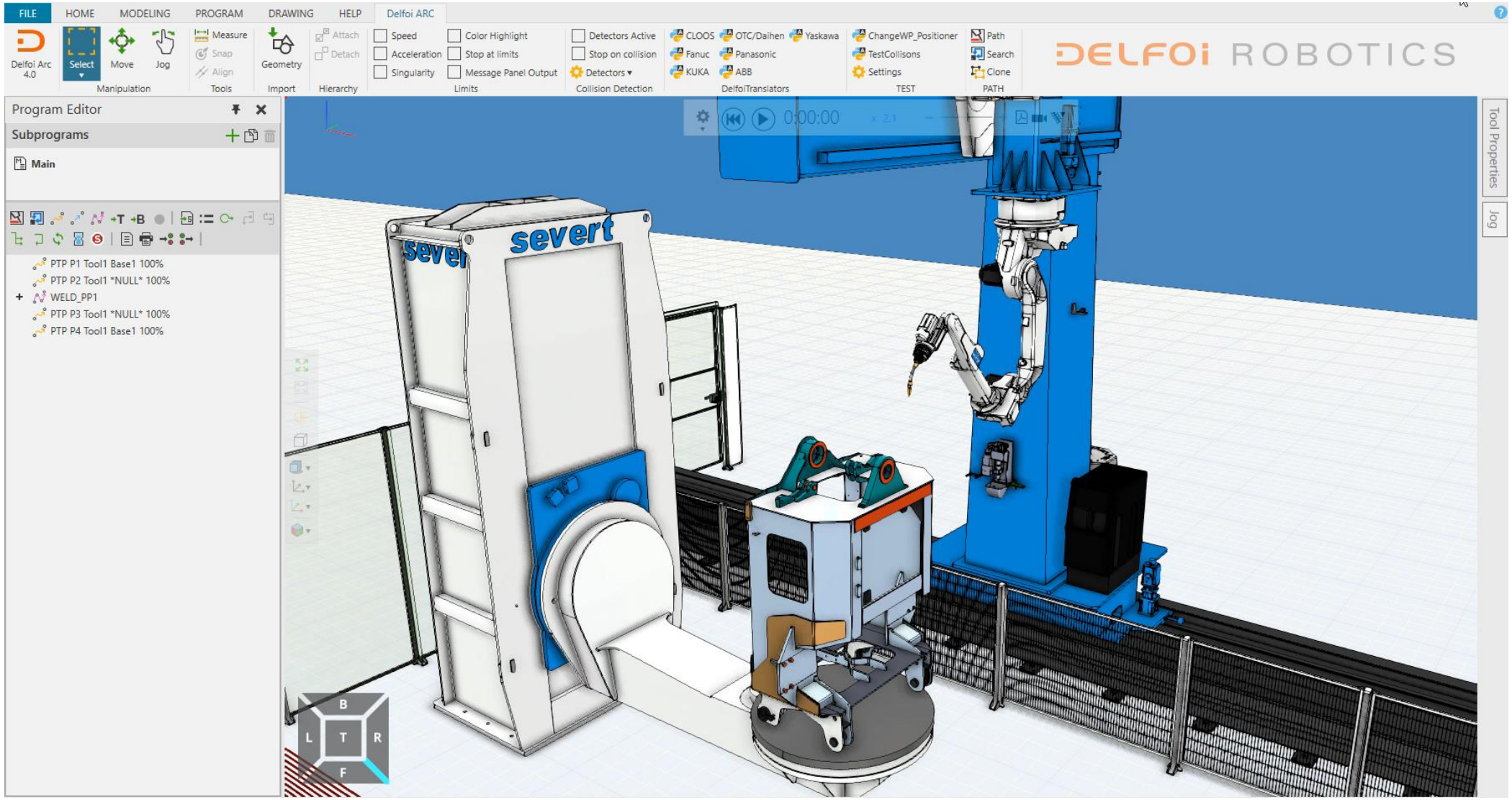
DELFOI

Easy programming for complex systems with multiple axis

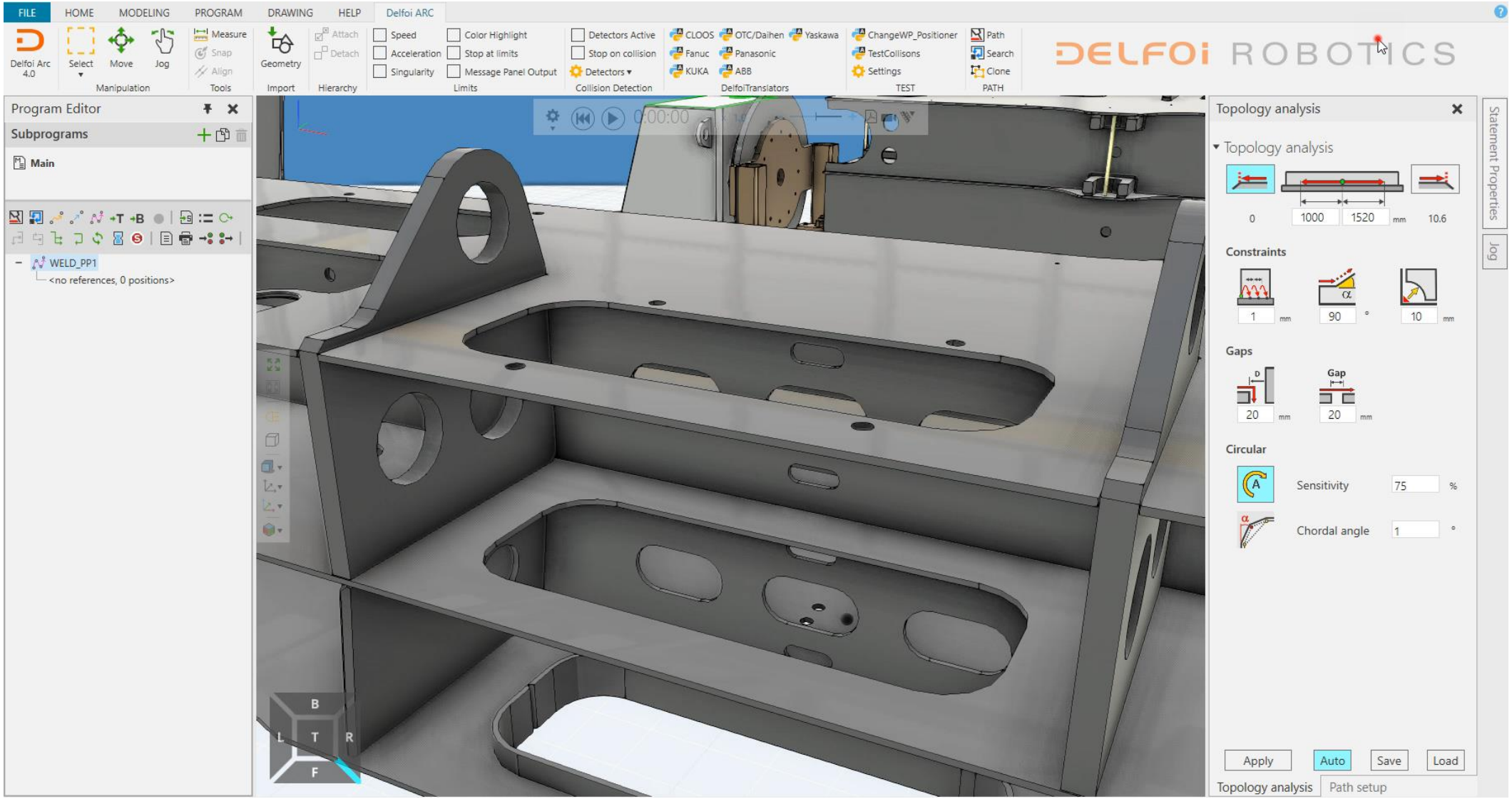




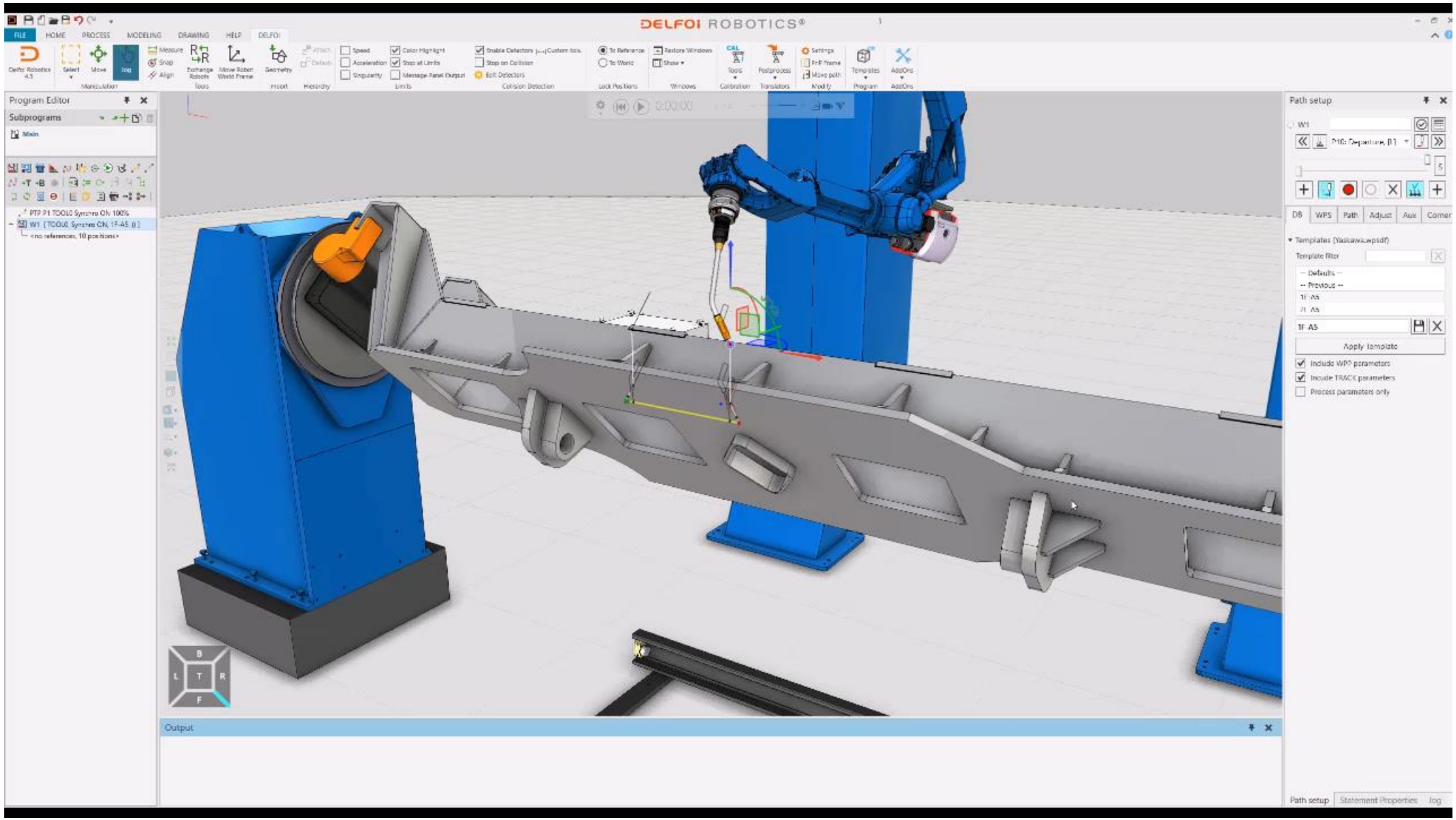
Automatic calculation of external axis values



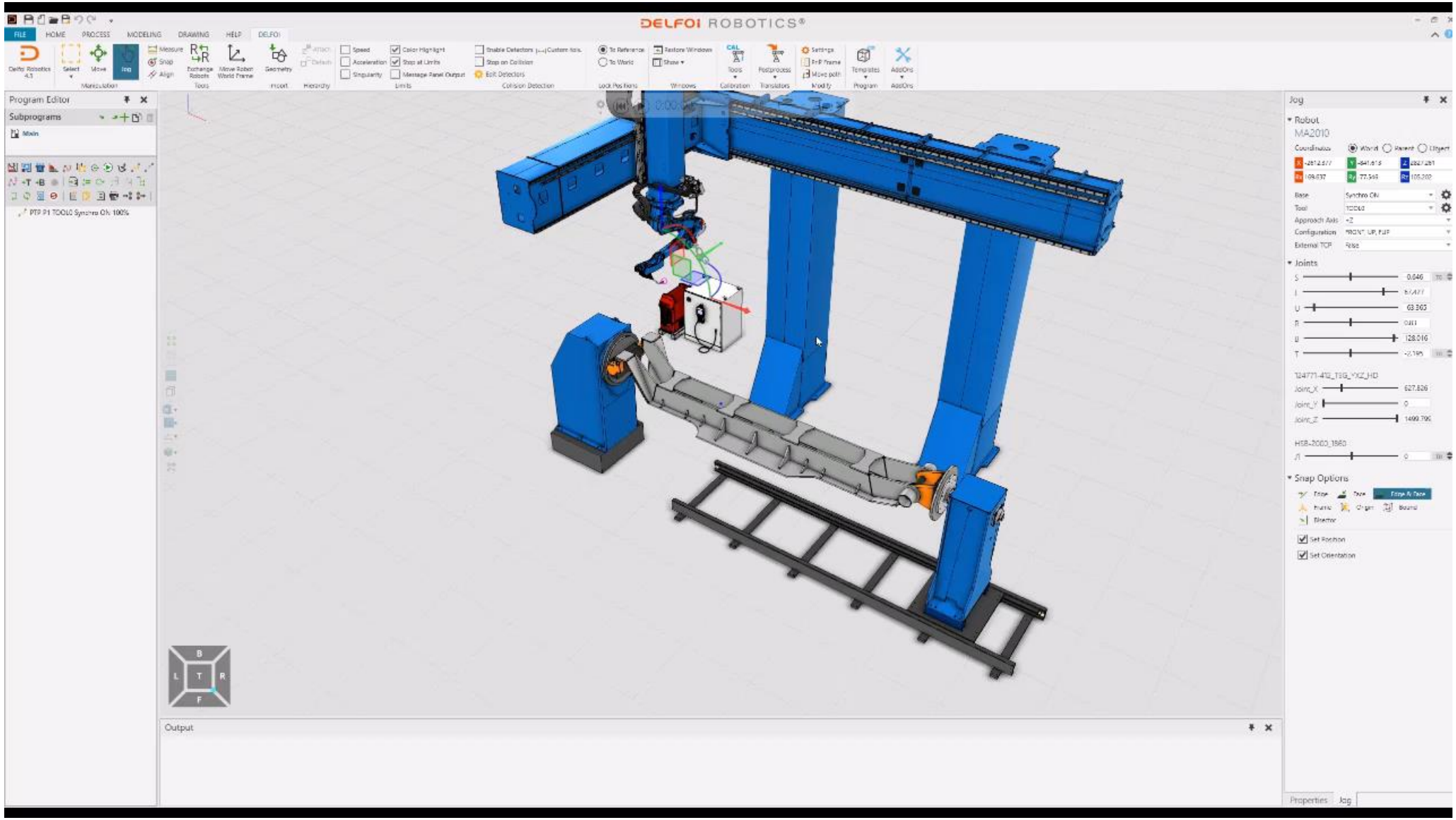
One-click Programming – 16 teach points only in 2 seconds



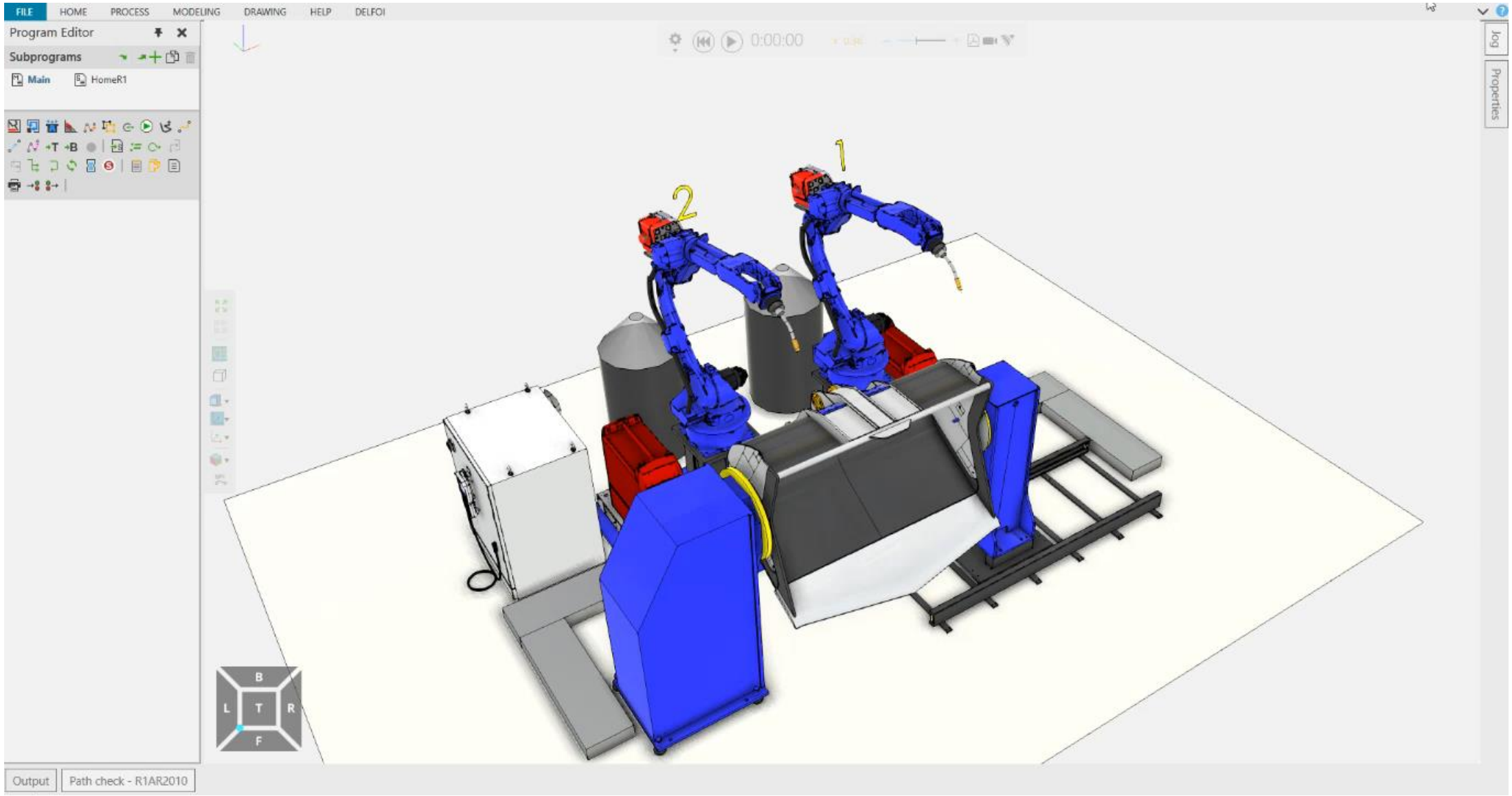
One-click Programming – 23 teach points only in few seconds



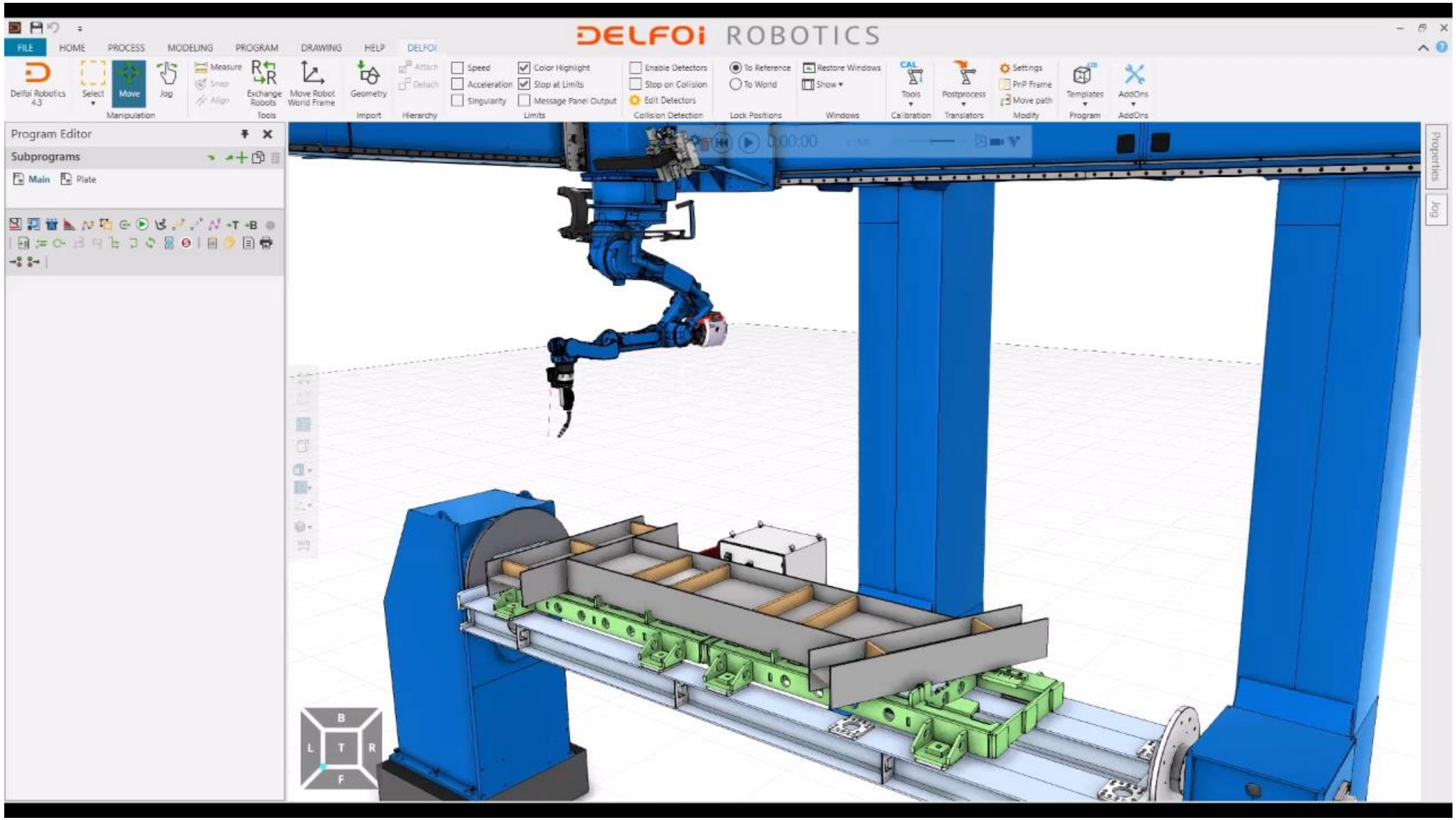
Fast verifying and downloading



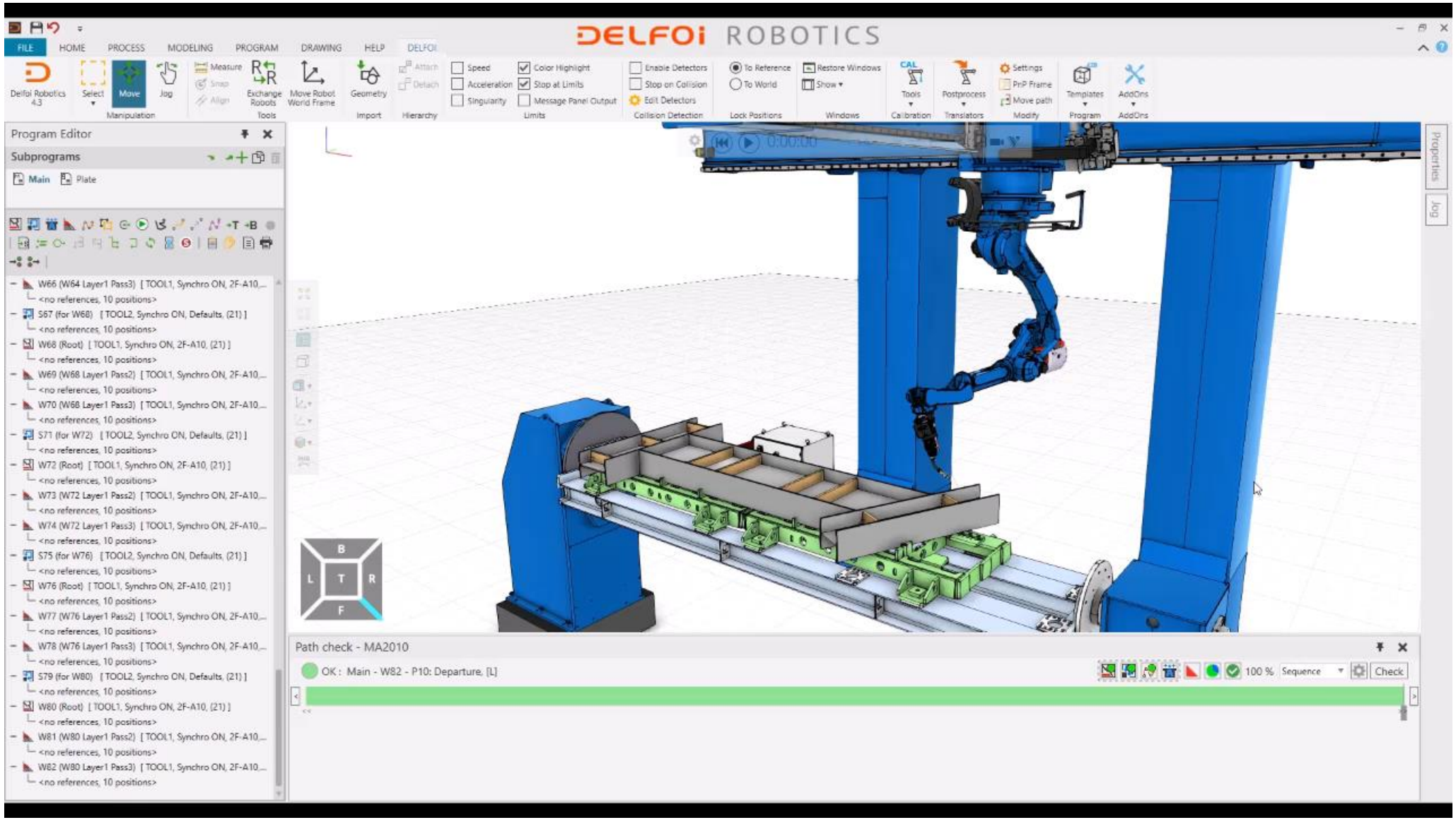
Dual-robot programming – copying programs from one robot to another



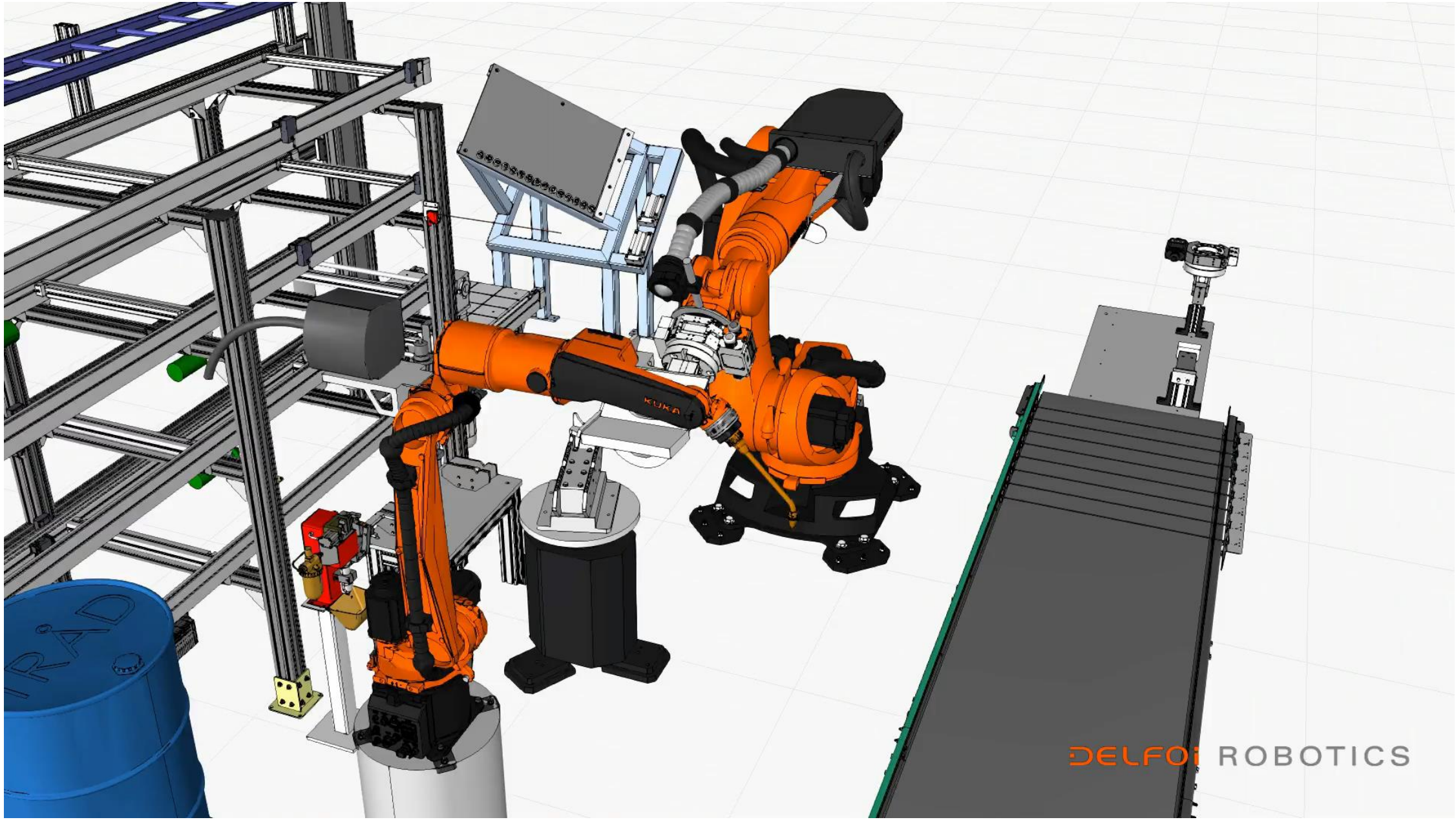
Automatic programming (feature templates)



Automatic Sequencing of Welding order



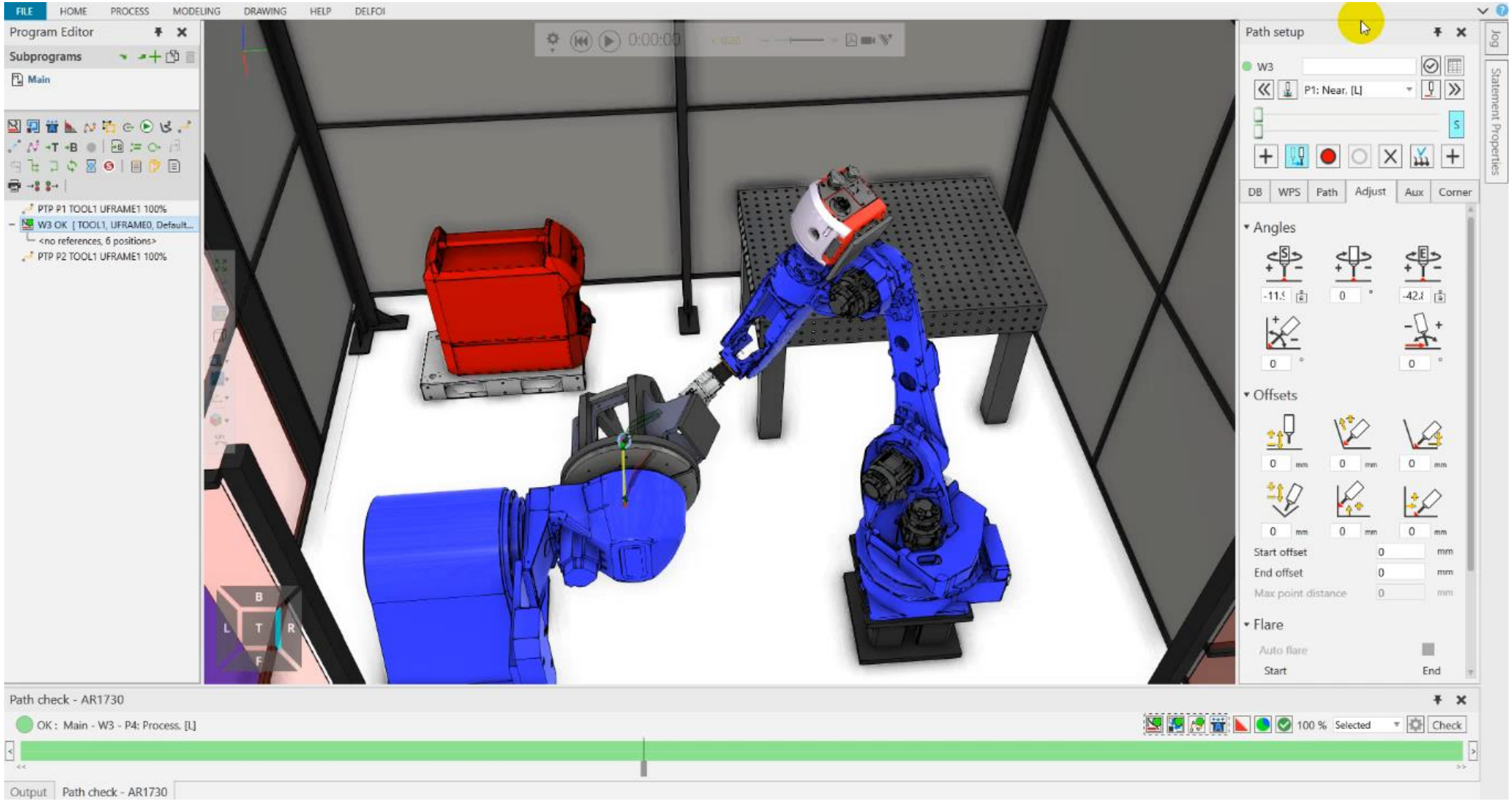
Jigless welding



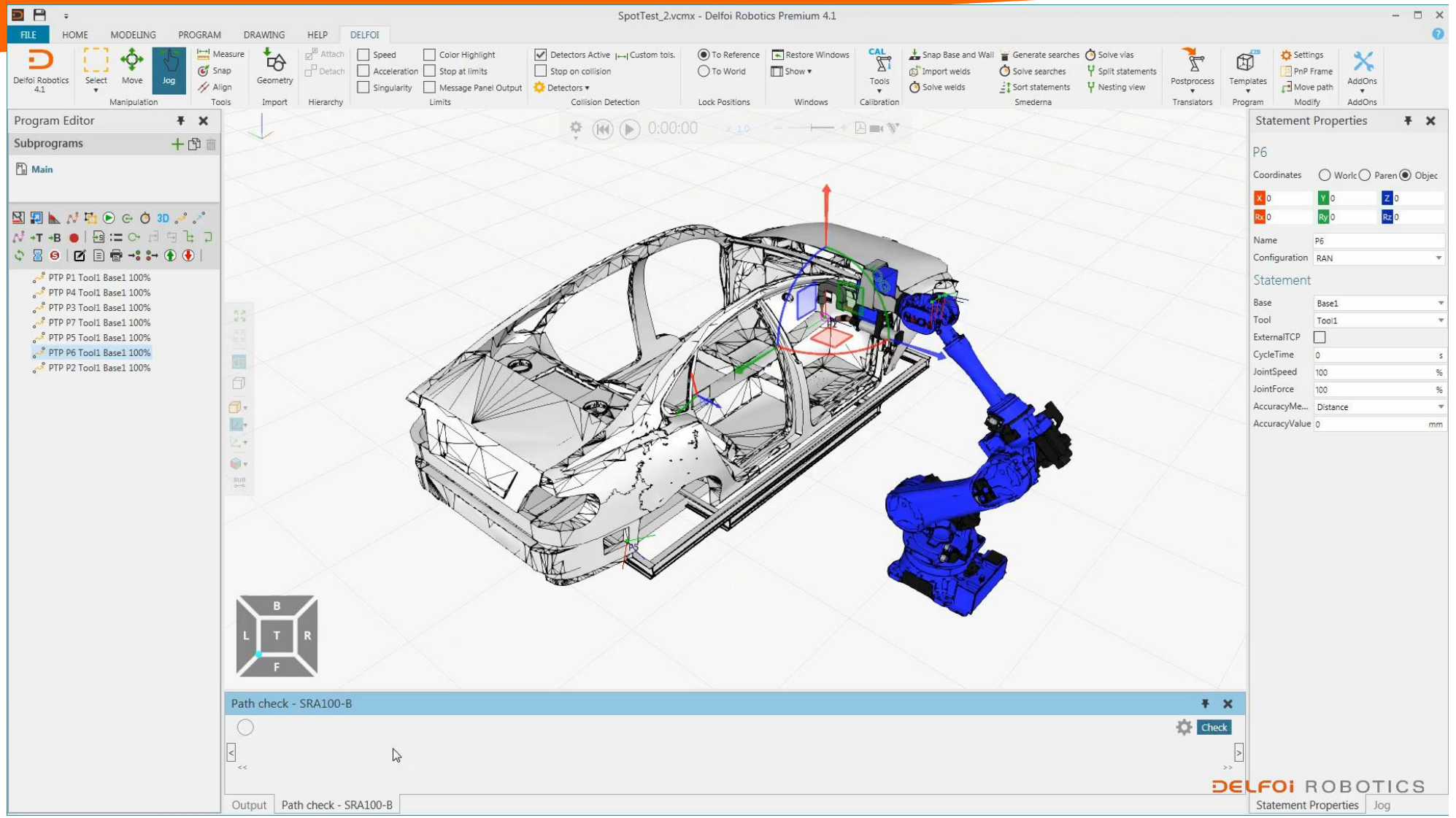
New Developments

New applications and even faster…

Automatic Path Solver



NEW - Automatic Path Planning to be released in December



Customers

Flag ship customers

Customer Industries

CNH INDUSTRIAL

VOLVO

KUHN

BAE SYSTEMS

DELFOI ROBOTICS

Delfoi customer examples…

DELFOI

We make *complex* easy and efficient