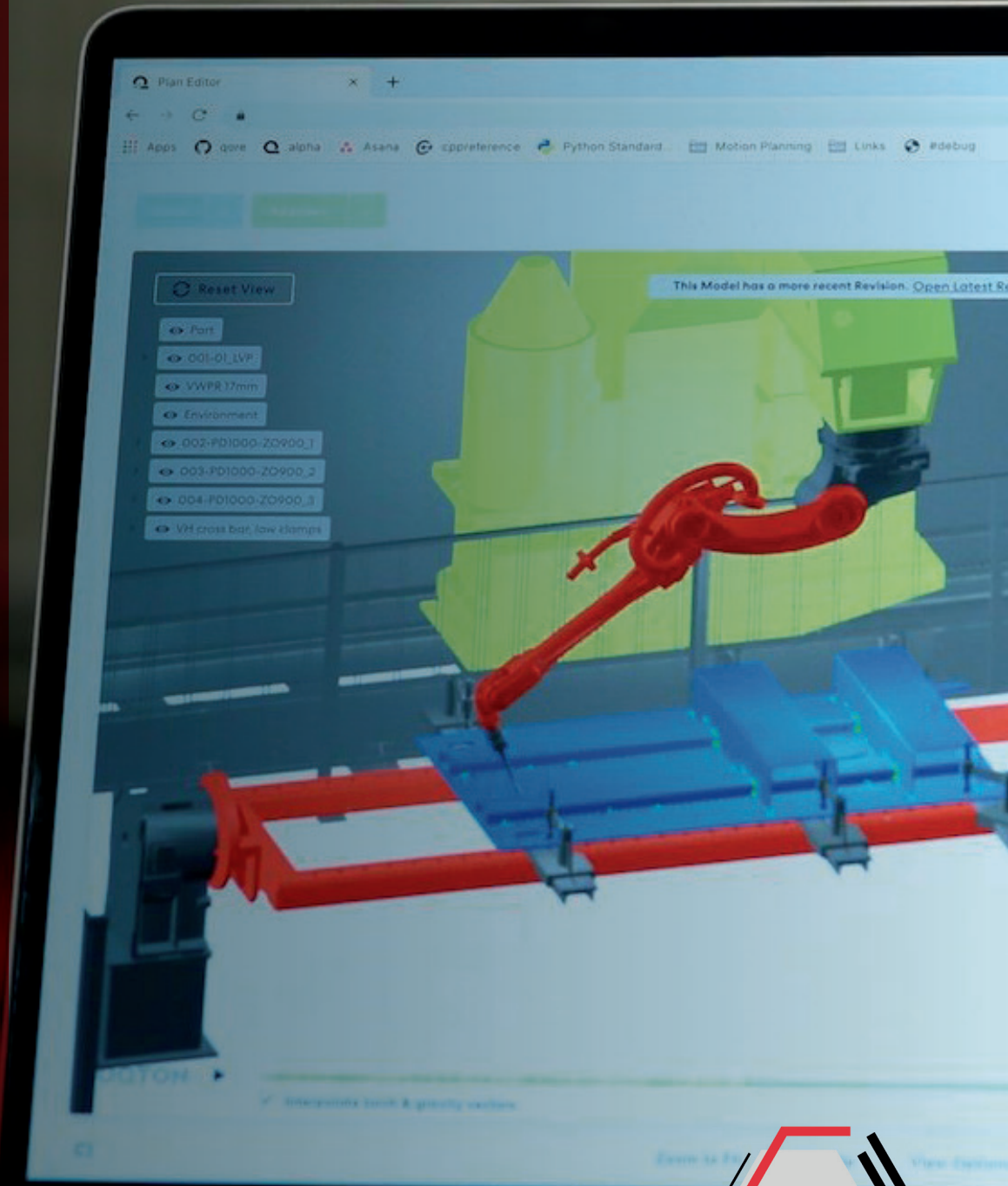Valk Welding Group
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Automatic Robot Programming with ArcNC

ARP powered by ArcNC
for Panasonic

Automatic Robot Programming with ArcNC

'ArcNC for Panasonic' is a pioneering offline programming software for robotic welding, facilitating numerous companies in overcoming the shortage of welders and skilled programmers for welding robots. This software has already demonstrated remarkable success with several companies.

Easy programming of industrial welding robots

The global shortage of welding personnel has been met by welding robots for some time. However, this has led to a shortage of experienced robot programmers. Consequently, many companies are turning to simple automation systems not specifically designed for welding technology, resulting in limited output, efficiency, and lifespan. Valk Welding aims to keep the programming of industrial welding robots as simple as possible.

From small series to single pieces

In collaboration with ArcNC, we have developed 'ArcNC for Panasonic,' an offline Automatic Robot Programming (ARP) software solution. It combines the advantages of industrial welding robots with exceedingly simple robot programming. This is achieved without the need for a welder to be present and without causing production downtime. With this advancement, serial and single-piece production no longer presents an obstacle to robotic welding.
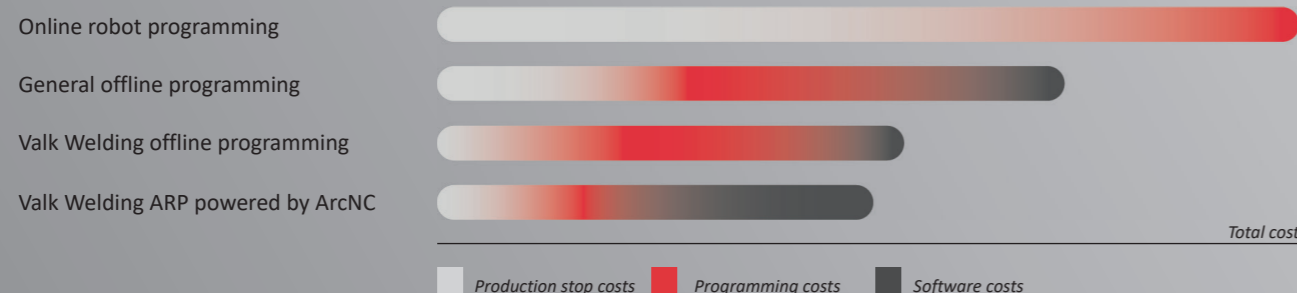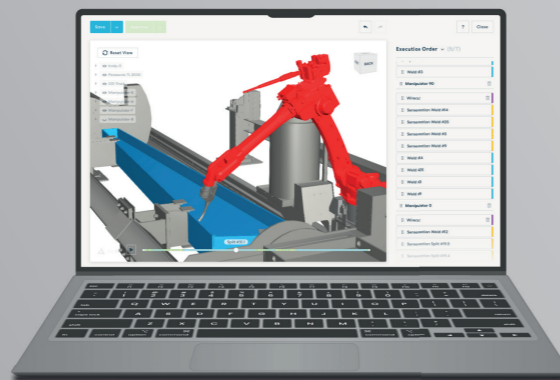
Faster and more economical

Offline robot programming with ArcNC provides significant advantages compared to manual and general offline programming. Not only does it achieve 3-5 times higher production output than a manual welder, but it also significantly reduces programming costs.

Training and service

For ArcNC for Panasonic, only a half-day introduction is required (compared to 3-5 days for both manual and general offline programming). You can attend this training remotely or on location in Alblasserdam. Moreover, we remain available for questions or other issues afterward.

Are you interested in ArcNC for Panasonic or in need of more information? Feel free to contact us at info@valkwelding.com or discuss the possibilities with your trusted contact person within Valk Welding.

ArcNC for Panasonic automates the following tasks:
- Identifying welds in 3D files.
- Developing best practice suggestions using AI.
- Programming search movements to accommodate tolerances.
- Collision-free programming of all robot movements.
- Converting the program to the appropriate robot language.

How does it work?

1. Log in to the cloud-based software.

2. Upload a 3D CAD file of your product to be welded (STEP file).

3. Confirm or modify the automatically found welds. You can lengthen, shorten, merge, split (stitch weld), or even upload 3D-defined welds.

4. Confirm the generated welding program or adjust proposed robot and torch positions, welding sequences, manipulator position, weld direction, touch sensing, and weld parameters.

5. Download the generated welding program via the download button.

6. Import the downloaded file into DTPS.

Watch the demonstration video

Online robot programming

General offline programming

Valk Welding offline programming

Valk Welding ARP powered by ArcNC

Total cost

Production stop costs   Programming costs   Software costs

Valk Welding ARP ArcNC programming

Online / Offline programming

Manual welding

"The welding robot offers productivity that is 3-5 times higher than manual welding. The ArcNC software complements this with convenience and cost efficiency that is almost 9 times higher than with traditional robot programming."

The strong connection