pro beam

Introduction to teaching with EB-Vision

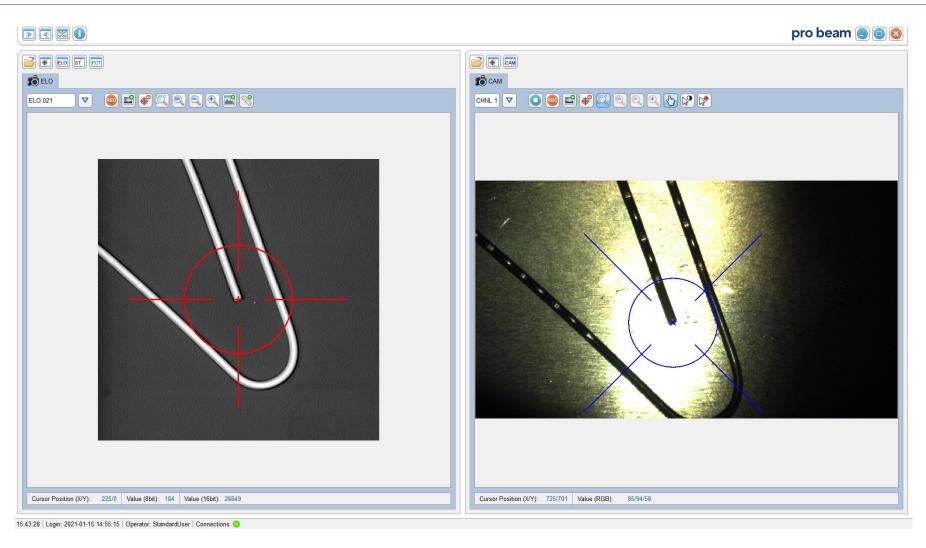
Ole Schmidt, R&D

pro-beam GmbH & Co. KGaA Innovation Club Welding, September 2025

www.pro-beam.com

Manual positioning with CAM or ELO

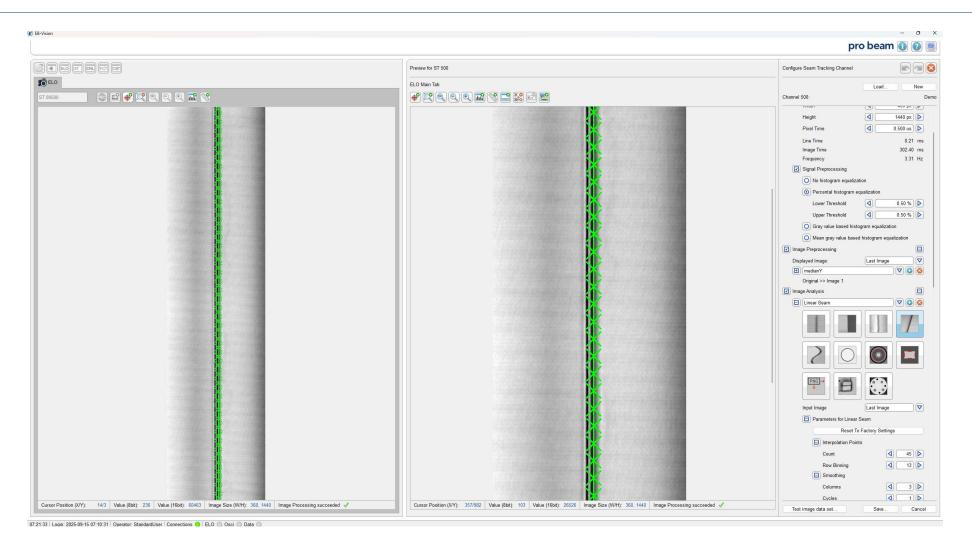
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• Teaching done "offline" (welding is done in a following step)

Automatic positioning using Automatic Seam Tracking

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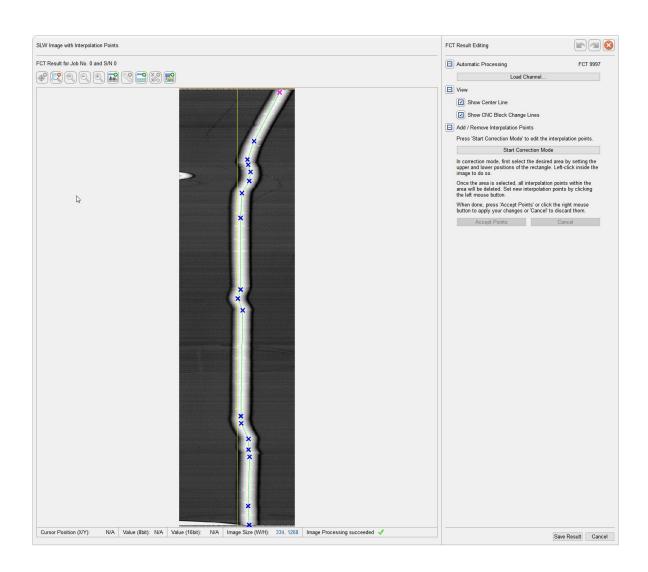


Teaching still offline, but automatic positioning for well known shapes

Automatic positioning using Free Contour Tracking

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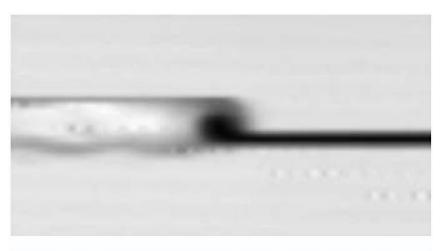
- Teaching still offline
- Based on Scanning-Like-Welding image with vertical joint alignment

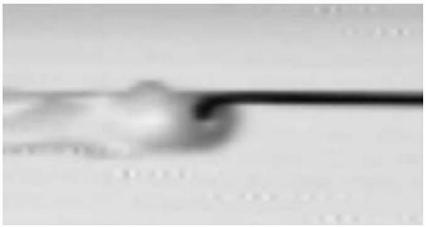


Online ELO: manual correction in live mode

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- Short interrupt of welding process to obtain ELO image
 - Typical settings:
 - Acquisition interval 10 Hz
 - Image capture time 1 ms
- Allows for manual correction during welding process
- To be used when optical camera is not useful anymore





• Given a start point on the seam and a starting direction we can automatically follow the seam independent of its shape

