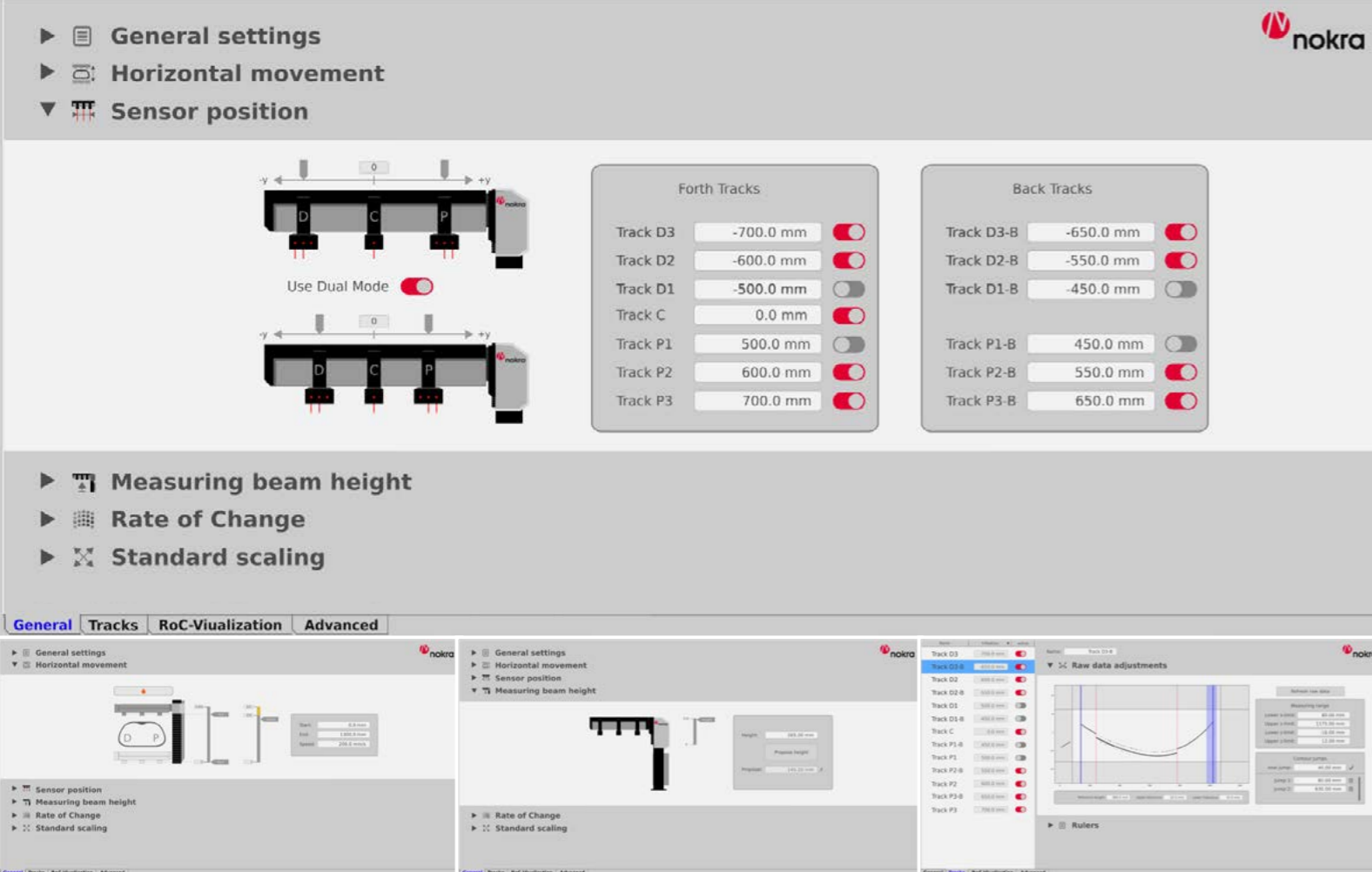


# easy.glass



software upgrade for enhanced usability and performance



# software upgrade for enhanced usability and performance

## Enhanced usability

90 % of current software issues related to customer's nokra systems can be traced back to a misadjustment in the measurement recipes. The new recipe editor was completely restructured. New visualizations support a much easier, faster and error-free measurement recipe configuration.

„The new visual environment is perfect!“

– Robin Mauer –

Bending Specialist @ Saint Gobain Sekurit

- Intuitive handling by easier-to-use HMI
- 90 % less production stops and scrapped windshields caused by false recipe settings
- 60 % time savings for recipe setups
- PLC mapping and access to measurement raw data is now available within the editor
- All relevant settings can be adjusted in one single menu.
- New setup mode allows to easily move the system to any position during maintenance

## Improved performance

A new algorithm was developed to improve the performance of the system. The analysis of the measurement raw data is more efficient which leads to a better contour fit so the final results are much more precise. The repeatability of the gauge is enhanced by up to 100 %.

The correlation between nokra measurements and measurements in final inspection is more accurate than ever allowing for an early stage quality prediction right after bending even for the most highest value windshield models.

- New, improved algorithm
- Early stage prediction of final quality even for most complex and highest value models
- Repeatability enhanced by up to 100 %
- Optimized default parameters for measurements

- Every measurement is linked to the corresponding glass ID
- TCP/IP interface, communication via MQTT (others on request)
- TLS encryption to comply with safety regulations
- All results available in JSON file format
- New flexible approach to data storage: smaller, more stable databases and easier backups

## Industry 4.0 ready data management

We transformed our data processing to an Industry 4.0 standard. For full traceability of every windshield every measurement is now linked to the corresponding glass ID. The measurement results are not only available via Profibus or Profinet anymore but also via TCP/IP. All result files are now additionally saved in a new format which can be opened on every office PC. They can automatically be retrieved via MQTT. The entire communication is protected by TLS encryption to comply with common safety regulations.

Also a new flexible approach to the database makes it more stable and allows for faster access, rebuilding and easier backups.



... a passion for precision.

## Your partner

nokra Optische Prüftechnik und Automation GmbH was founded in 1991 as a spin-off from Fraunhofer Institute for Laser Technology (ILT) and Fraunhofer Institute for Production Technology (IPT) in Aachen. As a medium-sized technology company we develop, produce and distribute laser based measurement devices for automatic inline inspection of geometric properties of pro-

ducts in the metal, automotive and glass industry. Products to be inspected are rolled products (coils, plates, profiles) in the steel, aluminium and non-ferrous metal industry, large-diameter pipes as well as vehicle components, e.g. camshafts and crankshafts, axle supports, automotive glazing.



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