

# eviXmatic 2.0

Automatic Scanning  
and Measuring System



## What is eviXmatic 2.0?

Designed and engineered by Evatronix, eviXmatic is an automated five-axis 3D scanning system that enables measuring and quality inspection of objects with minimal operator's involvement. Dedicated "Automation" module built into the scanner software eviXscan 3D Suite allows to connect the device with the scanner in an easy way.

eviXmatic enables to create user-defined scanning scenarios for every object to be scanned with the device. Such scanning scenarios can be composed of several individual scan steps, each of them defines the scanner position with respect to the scanned object and specific scanning parameters to be applied in a given scanning position. After acquiring all the scans in the scenario, the system software performs an automatic merging of the scans and generates the STL file. When combined with Geomagic Control X Automation server, the system can create - in a fully automated way - a pre-defined quality control report for the scanned object.

The API provided in eviXscan 3D Suite allows to trigger the scan scenario with an external signal or device. This can be applied, for example, to a QR code reader that sends the part reference number to the eviXscan 3D Suite software which, after the identification, executes the specific scanning scenario defined for this specific QR code.

## Automatic quality control

eviXmatic is conceived for repetitive, fast, precise measuring and quality inspection tasks and as such is a valuable addition to any production line where objects of complex shapes are manufactured and need to be verified.

eviXmatic may be seen as a docking station for the eviXscan 3D scanners, which perform full-field, non-contact object measurements with high accuracy. Scans gathered by the system may be compared against a reference CAD model with the use of Geomagic Control X Automation Server, InnovMetric's Polyworks or other quality inspection tools.

The scanner integrated in the eviXmatic system can be detached and used as a stand-alone scanning system to perform other scanning tasks if necessary.

# Advantages of eviXmatic

Support for automated calibration of the scanner

Ability to define and store user-defined measurement sequences as scanning scenarios

Ability to call the same scanning scenario several times, it ensures repeatability of the scanning process without the need for user intervention

Automatic execution of multiple scanning scenarios

Ability to use QR code readers or other triggering devices for identification of a scanned object and associated scanning scenario

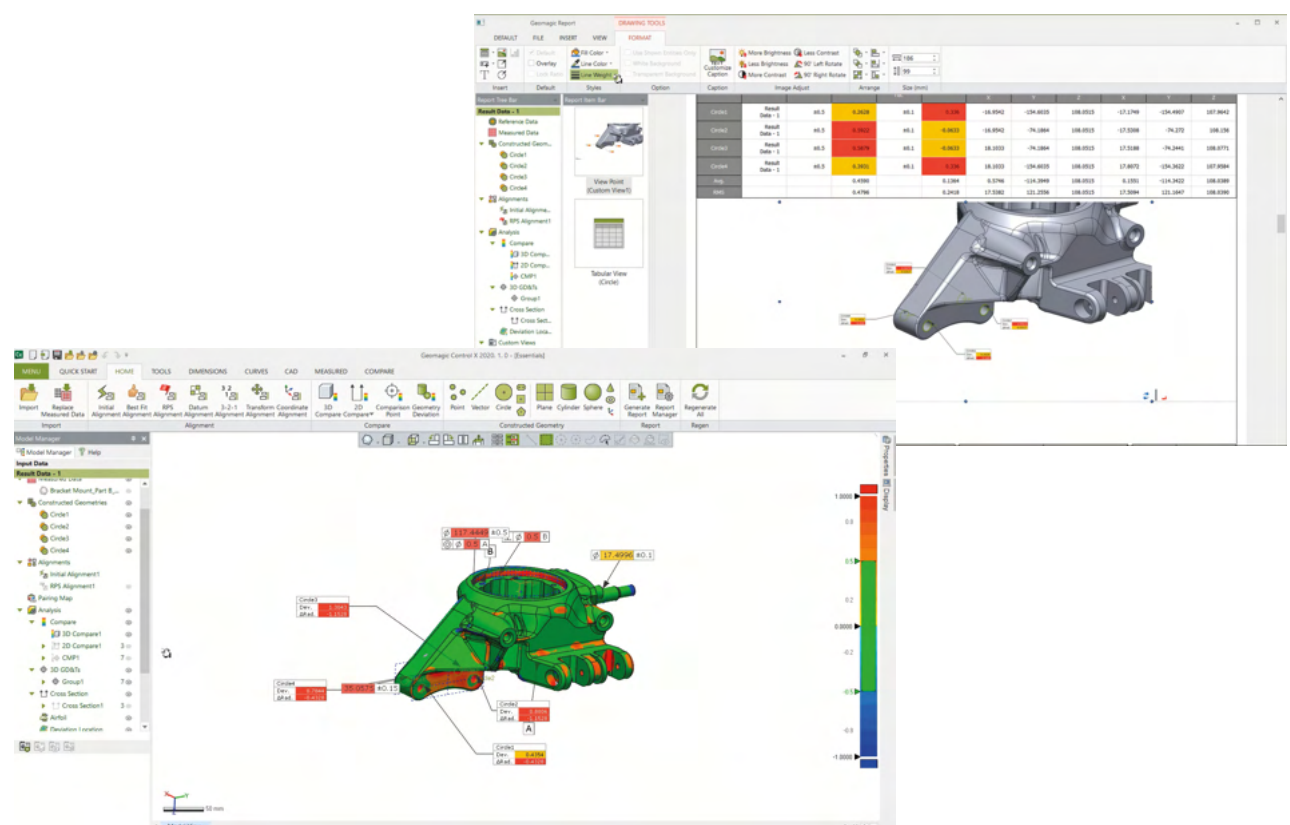
Integration with Geomagic Control X automation server for fully automatic generation of quality inspection reports

5 axes of the device allow for flexible manipulation of both the scanner and the scanned object -  
- providing functionality similar a robot, but at a lower price

Support for mounting frames to fix scanned objects - the use of such frames enables the collection of measurement data from each side of the scanned object, at all angles

Support for calibrated artifacts and fixtures with coded markers for fast alignment of multiple scans

Device adapted to 24/7 operation in production environment



## Functional features

Maximum dimensions of scanned object	250 x 800 mm
Maximum allowable load for object aligned with the axis of rotary table	50 kg
Rotary table diameter	400 mm
Number of motorized axes	5
Maximum object displacement	rotary table: 360° rotation
	horizontal: 1200 mm linear movement
Maximum 3D scanner displacement	tilt: from -90° to +40°
	rotate: -90° to +90°
Drive type	stepper motors
Device dimensions	length: 1560 mm
	width: 750 mm
	height: 1560 mm
Power supply	eviXmatic: 230 V AC 221W
	external power supply: 24 V DC

## Scanning characteristics

	eviXscan 3D Optima+ M
Light-source	Blue LED
Cameras	2 x 7 Mpix
Accuracy	up to 0.009 mm
Measuring range	320 x 190 x 120 mm
Point density	117 pt/mm <sup>2</sup>
Software	eviXscan 3D Suite
Export formats	stl, ply, obj, asc, bin
Interfaces	USB 3.0







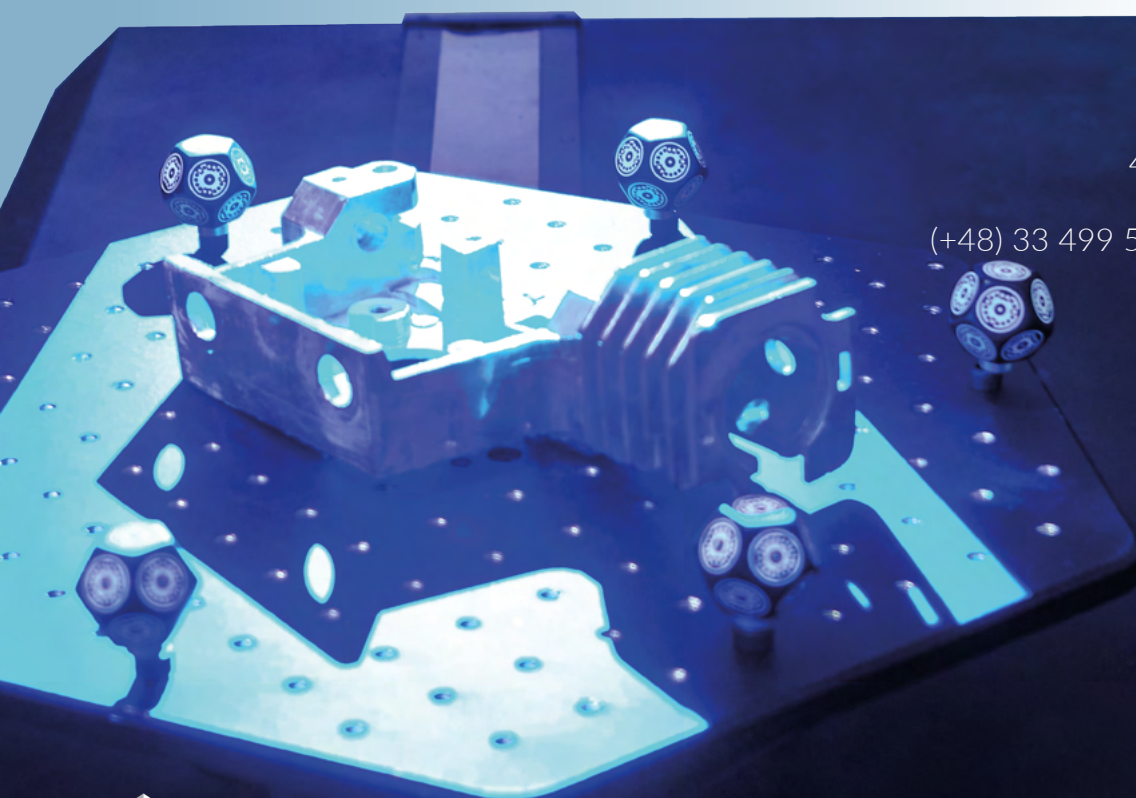
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