

MAXscan™

HANDY ~~3D~~ SCAN™



LARGER THAN
LIFE!

MAX 
SCAN™



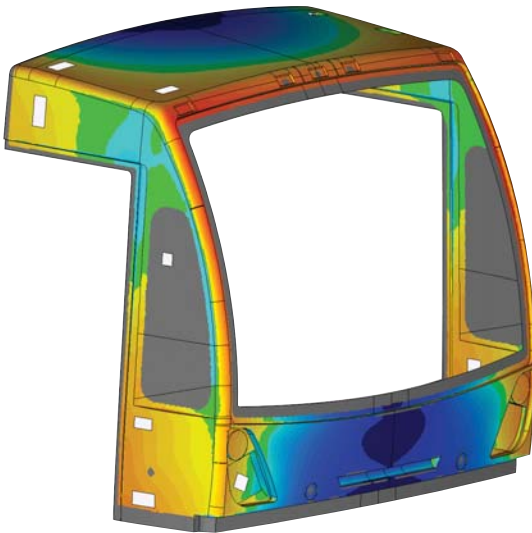
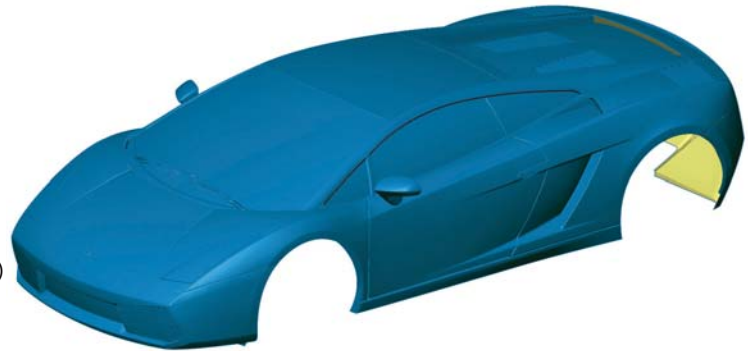
UP TO THIS DAY AND WITH CONVENTIONAL SCANNING TECHNOLOGY, MAINTAINING HIGH ACCURACY WHEN 3D SCANNING LARGE OR VERY LARGE PARTS - SUCH AS FULL-SIZE CARS AND ENTIRE AIRCRAFTS - HAS ALWAYS BEEN A GREAT CHALLENGE. THIS TIME IS NOW OVER. HERE IS THE MAXscan™, THE NEWEST PORTABLE AND HANDHELD LASER SCANNER FEATURING THE HANDYSCAN 3D™ TECHNOLOGY, COMBINED WITH LARGE-SCALE PHOTOGRAMMETRY OPTIMIZATION CAPABILITIES.

EXTENSIVE LENGTH. LARGE SURFACE. BULKINESS. THESE ARE NO LONGER ISSUES, THANKS TO THE MAXscan. THIS NEW LASER SCANNER HAS BEEN DESIGNED FOR A SOLE PURPOSE : TO BRING LARGE PARTS DATA ACQUISITION TO THE MAXIMUM LEVEL OF ACCURACY EVER REACHED WITH A 2-IN-1 DEVICE. WHEN DEALING WITH LARGE PARTS, THE MAXscan LASER SCANNER IS THE MOST POWERFUL ALLY IN REVERSE ENGINEERING AND INSPECTION.

APPLICATIONS & SOLUTIONS

_ Reverse Engineering:

- Surface reconstruction
- 3D modeling
- Tooling & jigs development
- Maintenance, repair and overhaul (MRO)
- Finite Element Analysis (FEA)



_ Inspection:

- Non contact inspection
- First article inspection
- Supplier quality inspection
- Part-to-CAD inspection
- Conformity assessment of 3D models against the original parts / production tooling
- Conformity assessment of manufactured parts against the originals.

_ Other applications include 3D archiving, complex shape acquisition, measurements archiving, damage assessment, digital models & mock-ups and rapid prototyping.

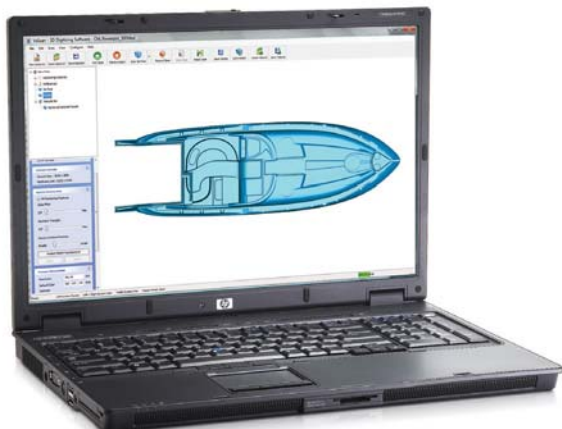


BENEFITS

- **High accuracy on large parts:** Thanks to built-in photogrammetric capabilities, this scanner offers the highest data accuracy in its class for 3D scanning of large parts. Contrary to measuring arm systems or CMM, the MAXscan's process involves no leapfrog or multiple set-ups, which prevents exponential error accumulation.



- **Limitless working volume:** Facilitates and quickens the measuring process of large parts, as the working volume available with the MAXscan is limitless and configurable, unlike conventional measuring systems that would require several set-ups.
- **Merge-free, one-step process:** All scanning and photogrammetric data are automatically stored and processed into the MAXscan's unique, high accuracy reference model, in one simple step. No external post-alignment required, as the scans are directly acquired in position in the reference model.
- **Truly portable:** Fits in a case the size of a carry-on, easy to carry on the job site, from plant to plant or to exterior locations.
- **MAXimum freedom of movement:** No external tracking or positioning devices are needed. The system's operating mode allows the user to move freely around the part.



- **Self-positioning:** Since the positioning system is affixed to the part itself, fluctuations in the surrounding environment, such as vibrations or wind, have no impact on the data acquisition speed or accuracy.
- **True automatic multiresolution:** The new Decimate Triangles slider makes it possible to keep a higher resolution when needed while keeping larger triangles on flat surfaces, thus producing lighter .STL files.
- **Affordable:** Most affordable 2-in-1 scanning system to generate data of photogrammetry-level accuracy.
- **Handheld device:** The device's shape and weight distribution allows for use on extended periods without leading to musculo-skeletal problems.
- **Versatile and user-friendly:** Allows the scanning of objects of virtually any shape, color or finish in confined spaces. Very short learning curve, no extensive training.



Each MAXscan comes with VxScan™, Creaform's proprietary data acquisition software that powers the Handyscan 3D laser scanners line-up. This software provides true automatic multiresolution and real time 3D rendering visualization. VxScan is easy to learn and use, and offers powerful options such as enhanced direct .stl generation, surface optimization algorithms, improved compatibility (64 bits) and more!



Built-in photogrammetry functionalities

Software photogrammetry functionalities include photogrammetric processing, control software for post-processing and reporting, automatic on-the-job calibration, automatic referencing, adapter correction and feature measurement.

TECHNICAL SPECIFICATIONS

Weight	1.27 kg (2.80 lbs)
Dimensions	172 x 260 x 216 mm (6.75 x 10.2 x 8.5 in)
Measurement	18,000 measures/s
Laser Class	II (eye-safe)
Resolution in x, y, z axis	0.1 mm (0.004 in)
Accuracy	Up to 50 µm (0.002 in)
ISO	20 µm + 25 µm/m
Depth of field (scan)	30 cm (12 in)
Output formats	.dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr

COMPATIBLE SOFTWARE

Paired up with the following software, the MAXscan laser scanner delivers great performance:

- _ CATIA V5: HSM™, the Handyscan Scanning Module for CATIA V5, is available from Creaform
- _ Geomagic: The plug-ins for STUDIO and QUALIFY are provided with VxScan
- _ PolyWorks: Plug-ins are available from Innovmetric for the IMEdit & IMInspect modules
- _ Rapidform: The Handyscan 3D interface is included with every installation of XOS, XOR and XOY
- _ µLog XG, Metrolog XG and Metrolog V5: Plug-in included with µLog XG. For the other 2 software, the plug-in can be purchased from Creaform and metrologic group

Other software platforms: Please contact our specialists at info@creaform3d.com



Included:

Scanning

Calibration plate
Ergonomic support
FireWire cable
ExpressCard connecting card
Power supply
2,500 Handyscan 3D positioning targets

Photogrammetry

Magnetic reference cross (1)
Scale bars, 1340 mm (2)
150 adhesive coded targets
(# 2-150)

2 carrying cases (1/scanning device, 1/scale bars) and 1-year warranty on parts and labour



Optional:

Field Pack (for outdoors, in-the-field scanning)
Laptop computer (Creaform strongly recommends the purchase of its certified computer, as it guarantees the scanner's optimum performance)
Magnetic, reusable scanning positioning targets
Target applicator
Etc. (For more optional photogrammetry accessories, contact us)

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