



GTL-1000

REAL-TIME REALITY CAPTURE SOLUTION



**Construction Verification
Every Day**



Construction Verification Every Day

- Quick layout and scanning with a single instrument
- Instant point cloud registration
- Proven robotic total station design integrated with a scanner
- Full dome scan and images in seconds
- Scan density tailored to minimize software processing time
- Accurately match point clouds to BIM coordinates



The GTL-1000 will increase productivity on site by accelerating the construction process and identifying design challenges more efficiently than traditional methods... which will significantly benefit the industry as a whole; reducing cost and program duration...



Nick Salmons

Principal Laser Scanning Surveyor
Balfour Beatty Construction

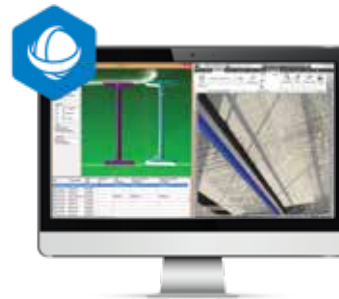


Point Cloud Processing

MAGNET® Collage and Collage Web

Process, combine, and analyze 3D point clouds from the GTL-1000.

- Effortless point cloud registration process
- Web-based sharing of point clouds and meshes
- Faster processing with true GPU utilization
- Complete integration with construction verification workflows



Construction Verification

ClearEdge3D Verity for Navisworks®

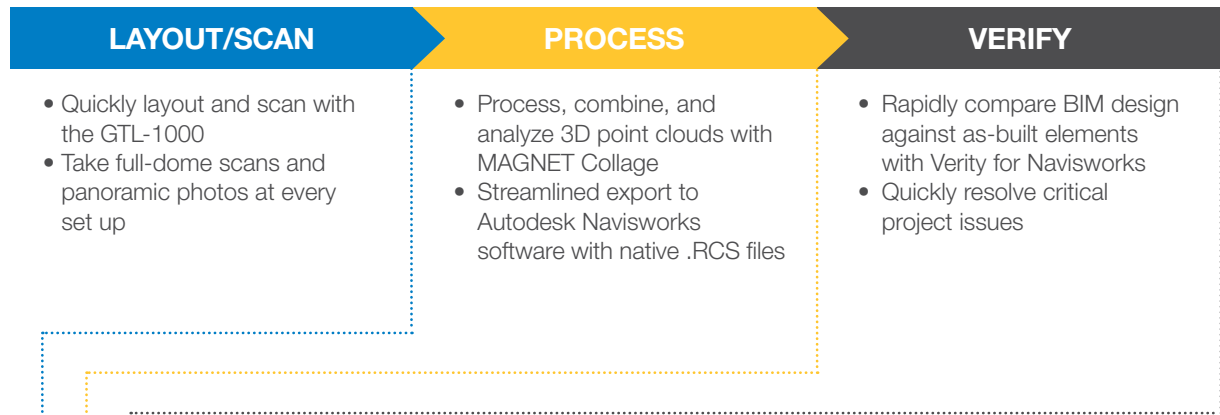
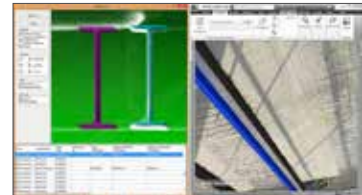
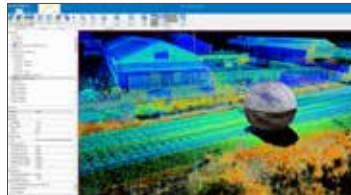
Verify construction quality in a fraction of the time by comparing as-built scans to BIM design and fabrication models.

- Reduce risks to budgets and schedules
- Clear indication of whether as-builts are within tolerance
- Increase project profitability by avoiding rework
- Fully integrated with Autodesk® Navisworks
- Quickly update coordination model to as-built conditions



Simplified Construction Verification Workflows

Our scanning solutions help you work more productively, more efficiently, and keep teams better informed. Together with ClearEdge3D Verity, the simplified verification workflows cover a range of applications including documenting job site as-built conditions and performing construction verification to ensure project accuracy is built 100% to plan.



LAYOUT/SCAN

- Quickly layout and scan with the GTL-1000
- Take full-dome scans and panoramic photos at every set up

PROCESS

- Process, combine, and analyze 3D point clouds with MAGNET Collage
- Streamlined export to Autodesk Navisworks software with native .RCS files

VERIFY

- Rapidly compare BIM design against as-built elements with Verity for Navisworks
- Quickly resolve critical project issues

○ ● ● ● **FINISH**

10%

TOPCON CONSTRUCTION VERIFICATION WORKFLOW

TRADITIONAL VERIFICATION WORKFLOWS

○ START

● FINISH



Increase Productivity and Reduce Costs

Current construction industry estimates show rework and delays bring about 20% higher costs versus budget. Traditional spot checking of completed work leaves verification gaps that result in significant cost overruns and lost profits.

The Topcon real-time construction verification workflow:

- Offers complete scan versus BIM construction verification that's 10 times faster than traditional methods
- Transforms spot checking to a digital real-time reality capture solution to layout, scan, and verify every day
- Provides digital reports with visual heat maps combined with numerical offset data for as-built confirmation

Applications include:



Mechanical / Plumbing



Structural Steel



Structural Concrete



Plant / Equipment Installation



Layout



Prefabricated / Modular



For more information:
topconpositioning.com/gtl-1000

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