

GTL-1000

REAL-TIME REALITY CAPTURE SOLUTION





Construction Verification. Every Day.

- Quick layout and scanning with a single instrument
- Instantaneous point registration on hardware
- Proven integrated robotic total station design
- Full dome field-of-view scan and images in seconds
- Tailored scan density to minimize software processing time for construction verification

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...



Point Cloud Processing

MAGNET® Collage and Collage Web

Vendor-neutral software to process, combine, and analyze 3D point clouds from diverse terrestrial scanners.

- Guided point cloud registration process
- Share and collaborate with 3D point clouds and meshes
- Faster processing with true GPU utilization
- Complete integration with GTL-1000 and construction verification workflow development are fully supported



Principal Laser Scanning Surveyor Balfour Beatty Construction

Construction Verification

ClearEdge3D Verity for Navisworks®

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

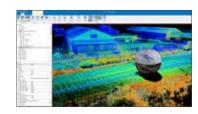
- · Reduce risks to budgets and schedules
- Clear indication of construction quality with as-built tolerances
- Increase project profitability by avoiding rework
- Fully integrated with Autodesk® Navisworks
- Quickly update coordination model to as-built conditions

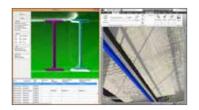


Simplified Construction Verification Workflows

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 panorama photos at every set up

PROCESS

- Process, combine, and analyze 3D point clouds from diverse terrestrial scanners with MAGNET Collage
- Streamline 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 decisions visually

FINISH

TOPCON CONSTRUCTION VERIFICATION WORKFLOW

TRADITIONAL VERIFICATION WORKFLOWS

START

FINISH



Increase Productivity and Reduce Costs

For the construction industry, current estimates show re-work and delays bring about 20% higher costs versus budget. Due to the use of conventional tools and limited manpower, just spot checking 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



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