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

TOPCON CONSTRUCTION VERIFICATION WORKFLOW

TRADITIONAL VERIFICATION WORKFLOWS
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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