

# Real-Time Reality Capture Solution

GTL-1200



Scanning Robotic Total Station  
Construction Verification Every Day

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# Construction Verification Every Day

GTL-1200

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**Quick layout and scanning with a single instrument**

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**Wi-Fi enables point clouds to be transmitted wirelessly**

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**Proven robotic total station design, integrated with a scanner**

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**Full dome scan in seconds, now with 2x point cloud resolution**

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**Scan density tailored to minimize software processing time**

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**Point clouds accurately matched to BIM model coordinates**



With this new instrument, one person can cut the time of a conventional topo in half and we no longer have to do the extra day of time and labor for that floor flatness and floor levelness report. That translates to a savings of around 60% in labor costs per pour.



**Edgar Valenzuela**  
TAS Concrete engineer

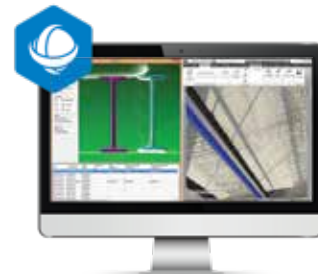


## Point Cloud Processing

### **MAGNET® Collage, Collage Web and Collage Site**

Collect, process, and analyze point cloud data from the GTL-1200.

- Effortless point cloud registration process
- Web-based sharing of point clouds and meshes
- Faster processing with true GPU utilization
- Integration with construction verification workflows
- Visualize scan data directly from a computer tablet



## Construction Verification

### **ClearEdge3D Verity for Navisworks®**

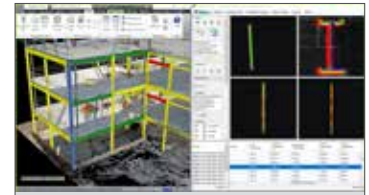
Verify construction quality in a fraction of the time by comparing as-built scans to BIM design and fabrication models.

- 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-1200
- Take full-dome scans and panoramic photos at every set up

### PROCESS

- Collect, process, and analyze 3D points clouds with MAGNET Collage or Collage Site
- 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



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