

# Trimble Access

## SOFTWARE: MONITORING

### MONITOR PROJECTS WITH EASE AND CONFIDENCE

#### Simplified Monitoring for Survey and Construction Professionals

Surveyors looking for a fast entry to deformation monitoring can take advantage of the Monitoring application for the Trimble® Access™ software suite. The Monitoring module guides surveyors through a step-by-step process that speeds up setup, data collection, reporting, and return visits to the same monitoring projects.

This application is ideal for the occasional monitoring job, or for periodic monitoring jobs where a permanent monitoring program is not required.

- ▶ Monitoring structures (existing or during construction)
- ▶ Monitoring land deformation or movement
- ▶ Control surveys

#### Flexible site setup and definition

Define your monitoring site using the intuitive set up wizard. The flexible target definition enables you to measure, key in, or import previously measured rounds as well as parameters for epoch and displacement tolerances reducing set up time. Set up your monitoring site only once for monitoring multiple points in different sessions.

#### Automated measurement scheduling and movement warnings

Start your monitoring measurements with any of the standard instrument setup techniques such as resection or on a known point. Monitoring points can be stored automatically or by manually aiming using Autolock®, FineLock™, Long Range FineLock, and DR modes providing methods for a variety of scenarios.

As measurements are collected, the system will alert you of any movements outside of the specified tolerance - compared with either the first or previous epoch. Displacements and statistics can be viewed during or after the survey.

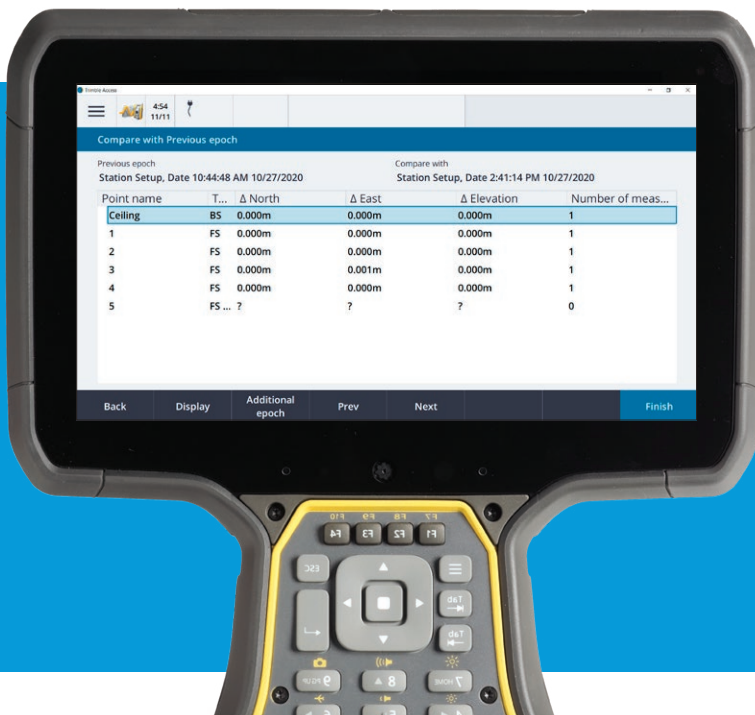
#### Output and Reports

With the Monitoring application you can easily analyze your data while in the field. View point displacements for each measurement session and generate time-based displacement reports and scatter plots for trend analysis all in the palm of your hand.

For detailed processing and analysis, export data into specialized software such as Trimble 4D Control™ or Trimble Business Center™.

#### Streamline Automated Monitoring Setup with T4D Control

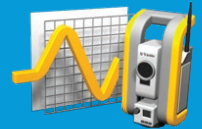
Utilize the site setup functionality in Trimble Access Monitoring to prepare targets layout in the field and automatically send this information to T4D Control to start the automated monitoring process. When using the Settop M1 total station controller for automated monitoring, use the Send to Settop M1 to transfer all site setup information.



## Key Features

- ▶ Time-based auto total station measurements
- ▶ Define movement thresholds and generate warnings
- ▶ Direct data analysis and reporting in the field
- ▶ Site setup for automated monitoring with T4D Control

Learn more at:  
<http://apps.trimbleaccess.com>



## JOB DEFINITION AND SITE SETUP

FEATURE	DETAILS
The job file contains all the information required to start monitoring points	<ul style="list-style-type: none"> <li>• Job properties</li> <li>• Station details                             <ul style="list-style-type: none"> <li>– Known Point, Resection</li> </ul> </li> <li>• Backsight point details                             <ul style="list-style-type: none"> <li>– Multiple backsights supported</li> </ul> </li> <li>• Monitoring Point List:                             <ul style="list-style-type: none"> <li>– Name, Coordinates, Target information, Order in which targets are observed</li> </ul> </li> <li>• Timing information:                             <ul style="list-style-type: none"> <li>– Epoch intervals</li> </ul> </li> <li>• Tolerances for point movement:                             <ul style="list-style-type: none"> <li>– Horizontal, Vertical</li> </ul> </li> <li>• Other Job settings:                             <ul style="list-style-type: none"> <li>– Observation order, EDM timeout, Units</li> </ul> </li> </ul>
Add Monitoring Points	<ul style="list-style-type: none"> <li>• Measuring</li> <li>• Key in</li> <li>• Import via *.csv file (Trimble Survey Controller rounds csv file format is supported)</li> </ul>

## MONITORING AND SCHEDULING

FEATURE	DETAILS
Views	<ul style="list-style-type: none"> <li>• Progress summary of the current epoch, and the timing details</li> <li>• A point list showing measurement progress and the number of epochs measured to each point</li> <li>• A map of the points being monitored and the current orientation of the instrument</li> </ul>
On screen alerts	<ul style="list-style-type: none"> <li>• If a point can not be measured</li> <li>• If a point has moved outside the specified tolerance</li> </ul>
Temperature, pressure and level information	<ul style="list-style-type: none"> <li>• Entered at the start of each observation session</li> <li>• Update the temperature at any time during monitoring and the corrections will apply to the next epoch</li> </ul>
Automated or Manual mode	<ul style="list-style-type: none"> <li>• Automate rounds using Autolock, FineLock, Long Range FineLock, or DR modes</li> <li>• Select Manual as the target lock method; the instrument automatically turns to the target and pauses to allow you to sight and measure the target</li> </ul>

## REPORTING AND REVIEW

FEATURE	DETAILS
Review displacements	<ul style="list-style-type: none"> <li>• View the largest movement for each epoch (compared with the first or previous epoch) and then drill down to see the movement of each point within an epoch</li> </ul>
Export reports from the field	<ul style="list-style-type: none"> <li>• Epoch comparison with previous coordinates; shows the movement of every point in every epoch compared with the previous epoch – displacements above the tolerances specified are highlighted red</li> <li>• Epoch comparison with reference coordinates</li> <li>• Microsoft Word report with scatter plots and trend charts for each point showing displacement over time</li> </ul>
Export other file types	<ul style="list-style-type: none"> <li>• CSV coordinate and observation round files</li> <li>• JobXML for import into Trimble 4D Control or Trimble Business Center office software</li> <li>• Monitoring Job (for averaged coordinates)</li> </ul>
Automated monitoring site setup exchange	<ul style="list-style-type: none"> <li>• Transfer a site setup through the Settop M1 to Trimble 4D Control</li> <li>• Exchange site setup information with T4D Control</li> </ul>

## SYSTEM REQUIREMENTS

### Instruments:

- ▶ Trimble S5, S7, S9, and S9 HP total stations
- ▶ Trimble SX10 scanning total station

### Controllers:

- ▶ TCU5 onboard controller
- ▶ TSC7 controller
- ▶ T10 tablet

### Trimble Access Versions

- ▶ Windows 2017.xx to 2020.xx and above
- ▶ Android 2020.10 and above



Contact your local Trimble Authorized Distribution Partner for more information

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