

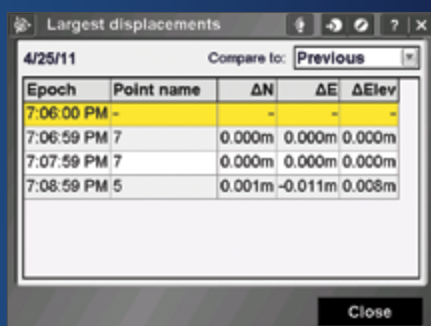
# Trimble Access Software: Monitoring

## Key Features

Simple monitoring workflows

Streamline return surveys to the same site

Direct data analysis and reporting in the field



4/25/11 Compare to: Previous

Epoch	Point name	ΔN	ΔE	ΔElev
7:06:00 PM	-	-	-	-
7:06:59 PM	7	0.000m	0.000m	0.000m
7:07:59 PM	7	0.000m	0.000m	0.000m
7:08:59 PM	5	0.001m	-0.011m	0.008m

Close

## Monitor Projects with Ease and Confidence

### Streamlined Workflow

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.

The workflow is streamlined for regular, but not necessarily continuous, control and deformation surveys.

### Job Definition

Use the Import points wizard to import station, backsight and/or foresight points.

Measure, key in or import target definitions and define your job parameters such as epoch interval and displacement tolerances, ready for future monitoring sessions. You set up your job only once, even if you want to monitor your points in different sessions, on different days.

Your job definition is saved independently from your observations in a simple XML format.

### Surveying

Set up your instrument on a known point or perform a resection.

Points stored in the monitoring job can be measured automatically or by manually aiming to the target, with a choice of measurement modes including Autolock®, FineLock™, Long Range FineLock, and DR mode—depending on your instrument capabilities.

As you run the survey, the system will alert you of any movements outside of the specified tolerance – compared with either the first or previous epoch. You can even view measurement displacements during the survey. The observations are stored independently for each survey session, with the original job being reused for all subsequent monitoring sessions.

### Output and Reports

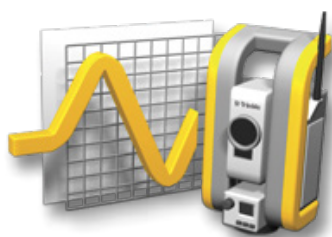
With the Monitoring application, you can easily view point displacements on the measurement session and then generate reports that compare the known coordinates with the measurements over time.

With the Monitoring application you can easily analyze your data while still in the field, or transfer the data to the office for further processing. You can also view reports showing scatter plots and trends of movement over time can be viewed with common applications such as Microsoft® Excel® or Word, or you can import your data into specialized software such as Trimble 4D Control™ or Trimble Business Center.

### Designed for Customers' Demanding Requirements

The Trimble Access Monitoring application is specifically for the monitoring customer. It also makes it easy for existing Trimble Access customers to expand into new market opportunities. 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



Learn more at:

<http://apps.trimbleaccess.com>

## Job Definition

Feature	Details
<b>The job file contains all the information required to start monitoring points</b>	<ul style="list-style-type: none"> <li>• Job properties</li> <li>• Station details                             <ul style="list-style-type: none"> <li>– Known Point</li> <li>– 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</li> <li>– Coordinates</li> <li>– Target information</li> <li>– 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</li> <li>– Vertical</li> </ul> </li> <li>• Other Job settings:                             <ul style="list-style-type: none"> <li>– Observation order</li> <li>– EDM timeout</li> <li>– Units</li> </ul> </li> </ul>
<b>Points can be added to the list by...</b>	<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>

## System Requirements

### Instruments:

- Trimble VX™ Spatial Station (video not supported)
- Trimble S6 total station
- Trimble S8 total station

*Radio & USB only connections.*

### Controllers:

- Trimble CU controller
- TSC2® controller
- TSC3 controller

## Surveying

Feature	Details
<b>Views</b>	<ul style="list-style-type: none"> <li>• Summary of the progress 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>
<b>On screen alerts</b>	<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>
<b>Temperature, pressure and level information</b>	<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>
<b>Automated or Manual</b>	<ul style="list-style-type: none"> <li>• Automated rounds if using Autolock, FineLock or Long Range FineLock</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

Feature	Details
<b>Review displacements</b>	<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>
<b>Export reports from the field</b>	<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>
<b>Export other file types</b>	<ul style="list-style-type: none"> <li>• CSV coordinates</li> <li>• Observation CSV file</li> <li>• JobXML for import into Trimble 4D Control, or Trimble Business Center or Trimble Access General Survey software</li> <li>• Monitoring Job (for averaged coordinates)</li> </ul>

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