

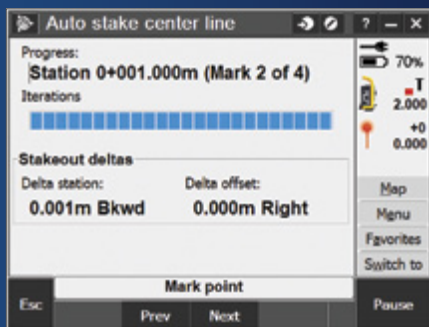
# Trimble Access Software: Mines

## Key Features

Custom built for underground mine surveys

Powerful mine auto stakeout features

Fully customizable outputs and reports



## Finish Mining Jobs Fast

Opportunities for mine surveyors working above ground to move underground is now easier to reach than ever with the Mines module for Trimble Access.

## Streamlined Workflow

The easy to follow workflow for Trimble® Access™ Mines guides you through tasks such as auto-staking lines and points with the laser pointer of a Trimble S Series Total Station or Trimble VX™ Spatial Station. The streamlined workflow is complemented by user defined settings enabling you to fine tune the operation to best suit mine conditions and your requirements.

## Define your Lines and Points

Key in, select from a DXF file, import from a CSV file, or measure the lines and points to auto stake.

## Auto Stakeout

You can auto stakeout lines and points to align a drilling rig and set out pre-defined blast hole positions.

The iterative measurement process ensures you are always staking within predefined tolerances, even with irregular surfaces. Auto stakeout uses the previously measured position to reduce the number or iterations providing faster stakeout.

By using a robotic instrument and specifying a suitable start and mark delay, surveying a mine is a one-person operation.

## Reports

Generate customized reports for surveyed mine data on the controller while in the mine.

Use these reports to check data before you come to the surface, or to transfer from the mine to your client or to the office for further processing with the office software.

## Designed for Demanding Customer Requirements

Trimble Access Mines is the ideal application for the underground mining surveyor who needs to mark up lines and points, to position a drilling rig and to mark up blast holes, which requires:

- Rugged hardware
- Flexible software designed for one person operation
- An extensive range of powerful auto stakeout routines that enable the mine surveyor to complete the job quickly
- Easy-to-use mine survey software that you can learn to be productive with after just a few hours of use



Learn more at:

<http://apps.trimbleaccess.com>

## Define the Mine

Feature	Details
<b>Center line</b>	<ul style="list-style-type: none"> <li>Defined along the back of a mine by two points or a DXF line</li> <li>Can be extended beyond the end point</li> <li>Swap softkey to change line direction</li> <li>Interval – defines points along the line</li> <li>Horizontal offset – to the line</li> <li>Vertical offset – to the line</li> <li>Station offset – along the line</li> </ul>
<b>Grade line</b>	<ul style="list-style-type: none"> <li>Defined along the wall of a mine by two points or a DXF line</li> <li>Can be extended beyond the end point</li> <li>Swap softkey to change line direction</li> <li>Interval – defines points along the line</li> <li>Horizontal offset – to the line</li> <li>Vertical offset – to the line</li> <li>Station offset – along the line</li> </ul>
<b>Laser lines</b>	<ul style="list-style-type: none"> <li>Defined transverse to the mine by two points or a DXF line</li> <li>Can also be defined relative to a Center line</li> <li>Swap softkey to change line direction</li> <li>Powerful tool to aid selection of matched pairs of points</li> <li>Redundant pairs can be removed from the list</li> </ul>
<b>Project line</b>	<ul style="list-style-type: none"> <li>Defined by two points or a DXF line</li> <li>Swap softkey to change line direction</li> </ul>
<b>Blast holes</b>	<ul style="list-style-type: none"> <li>Defined by two points or a DXF line</li> <li>Swap softkey to change line direction</li> </ul>
<b>Pivot points</b>	<ul style="list-style-type: none"> <li>Defined by two points</li> <li>Powerful tool to aid selection of matched pairs of points</li> <li>Redundant points can be removed from the list</li> </ul>

## Auto Stakeout the Mine

Feature	Details
<b>Auto Stakeout</b>	<ul style="list-style-type: none"> <li>Auto stakeout enables positions to be marked on the irregular surface of a mine to within predefined tolerances using an iterative measurement process</li> <li>Auto stakeout process controlled by: <ul style="list-style-type: none"> <li>EDM timeout</li> <li>Start delay – gives you time to walk to the location of the first point to be marked</li> <li>Mark delay – the length of time that the laser point flashes once the position is found</li> <li>Iterations</li> </ul> </li> <li>Auto stakeout deltas enable QC before marking the point</li> </ul>
<b>Center line</b>	<ul style="list-style-type: none"> <li>Positions marked along the back of a mine from points projected vertically from a predefined center line</li> <li>Dual position tolerance: <ul style="list-style-type: none"> <li>Station</li> <li>Offset</li> </ul> (Ensures position is within tolerance along the line) </li> </ul>
<b>Grade line</b>	<ul style="list-style-type: none"> <li>Positions marked along a wall of a mine from points projected horizontally from a predefined grade line</li> <li>Dual position tolerance: <ul style="list-style-type: none"> <li>Station</li> <li>Grade</li> </ul> (Ensures position is within tolerance along the line) </li> </ul>
<b>Laser lines</b>	<ul style="list-style-type: none"> <li>Positions marked along the left and right walls of a mine where predefined laser lines intersect the mine surface: <ul style="list-style-type: none"> <li>Position tolerance</li> </ul> </li> </ul>
<b>Blast holes</b>	<ul style="list-style-type: none"> <li>Positions marked on the surface of a mine where a line defined by a matched pair of points intersects the mine surface: <ul style="list-style-type: none"> <li>Position tolerance</li> </ul> </li> </ul>
<b>Pivot points</b>	<ul style="list-style-type: none"> <li>Positions marked on the back of a mine from predefined pivot points projected vertically to the back: <ul style="list-style-type: none"> <li>Position tolerance</li> </ul> </li> </ul>
<b>Project line</b>	<ul style="list-style-type: none"> <li>Positions marked on the surface of a mine where predefined lines intersect the mine surface</li> </ul>
<b>Reports</b>	<ul style="list-style-type: none"> <li>Fully customizable reports of the surveyed mine</li> </ul>

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