

# TRIMBLE FIELD SOLUTIONS IN SURVEYING





# TRIMBLE SURVEY CONTROLLERS AND FIELD SOFTWARE

## A TOTAL APPROACH TO MANAGING FIELDWORK

### **RELEASE THE FULL POTENTIAL OF YOUR SURVEYING GEAR...AND YOUR BUSINESS**

Trimble controllers and field software empower you to collect, share, and deliver surveying information faster and more easily, and to a higher professional standard. Supported by a universal interface and common workflow conventions, Trimble provides surveyors with a total approach to managing fieldwork.

Accomplish more each day with your surveying gear. Trimble Field Solutions promote faster time-to-deliverable, and improve your competitive edge with increased productivity and easy access into new, specialized applications.

### **OUR OBJECTIVE IS SIMPLE: YOUR SUCCESS**

Only you can decide what success means for your business but our field solutions are developed to meet your unique needs and requirements. With Trimble® Access™ field software available on our full suite of Trimble controllers, streamlined workflows are at your fingertips. All you need to do is to determine what form factor is right for you. Maybe you need a controller with a larger display to operate your Trimble VISION instruments or Unmanned Aircraft System. Or maybe you need a more mobile solution. Whatever your unique definition of success, you can count on Trimble Field Solutions to provide all the tools necessary to achieve your goals.

## GOING BEYOND TRADITIONAL DATA COLLECTION

Field data collection is more than simply collecting data. First, ensuring you collect the highest quality data is of utmost importance. On top of accurate data collection, the next two steps can make or break a project deadline—sending data to the office and producing top-quality deliverables. Trimble enables you to do that and more.

### COLLECT

Trimble Field Solutions work in harmony with our GNSS, optical, and other surveying instruments to gather surveying information that is unsurpassed in accuracy. Collect more data in less time and avoid rework by getting the job done right the first time. Capture the whole picture with value-add information such as geotagged digital images.

### SHARE

Nothing is more time consuming than when you have to drive all the way back to the office to share the data you just collected—especially when you're on a deadline. Now share your collected data from the field. All you need is an Internet connection to share data and other job information. Eliminate the downtime of travelling between field and office and enjoy real-time communication and collaboration between all members of your team no matter where they are.

### DELIVER

Add more value to your business by producing higher-quality deliverables more quickly...and send them directly from the field. You can even perform calculations and generate reports without a trip back to the office. Computing in the field lets you deliver faster to clients, which saves time and money.

## TRIMBLE VISION VIDEO-ASSISTED CONTROL

Trimble VISION™ technology integrates calibrated digital cameras with Trimble S6 and S8 total stations, as well as the Trimble VX™ Spatial Station. These instruments have the ability to collect survey data, stream video from the perspective of the instrument, and capture panoramic still images. Trimble Access field software overlays survey data on the streaming video, which enhances your field productivity when operating the instrument robotically.

### SEE WHAT THE INSTRUMENT SEES

Trimble VISION brings the instrument telescope to your field controller. Using live video and remote control, you see what the instrument sees. High-quality video and digital zoom make it easy to identify survey targets. Collect measurements and geo-tagged images for use throughout your Trimble surveying system. The 7 inch capacitive touch display screen on the Trimble Tablet allows you to take full advantage of these features.

### MEASURE WITH SPEED AND SAFETY

Seeking comprehensive, detailed data on project conditions and features? Trimble VISION enables surveyors to combine visual information with field measurements and design data.

### COLLECT MORE DATA IN LESS TIME

You can use Trimble VISION to produce comprehensive, detailed data on project conditions and features. By integrating survey and design information with real-time images, you can verify that you have collected all the data you need before leaving the job site.







# TRIMBLE CONTROLLERS UNLOCK THE POWER OF TRIMBLE ACCESS

ERGONOMICALLY DESIGNED AND BUILT FOR THE DEMANDING CONDITIONS SURVEYORS FACE, TRIMBLE CONTROLLERS PERFORM LIKE A TRUSTED MEMBER OF YOUR TEAM.

A range of connectivity and communication options make setup and data delivery fast and streamlined. Simply choose the form factor that best fits your preferences and requirements and pair with your Trimble GNSS receiver or total station. Matched with the industry's most sophisticated field software—Trimble Access—Trimble's survey controllers enable you to accomplish more every day.

## TRIMBLE TSC3 CONTROLLER

### A POWERFUL ENGINE FOR DRIVING TRIMBLE ACCESS SOFTWARE

- Full QWERTY or ABCD keypad options
- Large, bright high-resolution screen makes instrument control easy
- Integrated GSM/GPRS modem
- Integrated camera, compass, and communications
- Includes GPS for navigation and photo geo-tagging
- Optimized for Trimble Access Field Software

With Trimble Access field software on board and a broad feature set, the Trimble TSC3 controller integrates many of the peripheral devices modern surveyors need every day. Even Internet connectivity is built in: the integrated modem enables immediate Web connections to unlock the full potential of Trimble Access and real-time data synchronization. Just one device to have and to hold...with a battery that will last all day long, even in the most extreme environments.

## TRIMBLE TABLET RUGGED PC

### A TABLET MADE FOR SURVEYING

- Enhanced sunlight readability with 7 inch capacitive touch dual technology display system
- Fully rugged construction with Gorilla® Glass panel display
- Windows® 7 Operating system brings the office to the field
- Built-In 5MP camera for detailed image documentation
- Optimized for Trimble Access Field Software

Now there is no need to choose between the toughness and portability of a field controller and the operating power and screen resolution of a laptop—the Trimble Tablet is the one controller that does it all. Designed for ease of use and high performance mobility, the rugged Trimble Tablet provides everything you expect from a tablet computer—plus the confidence that it will perform at optimum capability and withstand the toughest conditions. Optimized for Trimble Access field software, the large display makes the tablet the perfect choice to be used in combination with any of the Trimble VISION technologies.



## TRIMBLE CU CONTROLLER

### HANDS-FREE OPERATION WITH TEXTBOOK EFFICIENCY

- Rugged specifications for reliable daily performance
- Attaches to your optical instrument for convenient hands-free operation
- Detaches in seconds to control a roving receiver or a robotic Instrument
- Optimized for Trimble Access field software

Keep both hands free while behind the instrument. The Trimble CU controller runs your choice of Trimble field software plus specialized Windows software. It also supports Bluetooth® wireless technology, so when paired with a receiver such as the Trimble R10 or Trimble R8 GNSS receiver, the system becomes 100% cable free.



## TRIMBLE SLATE CONTROLLER

### ONE DEVICE FOR BOTH VOICE AND SURVEYING DATA COLLECTION

- All-in-one device that provides both smart phone and data collection capabilities
- Familiar, easy-to-use, lightweight smartphone form factor
- Durable Gorilla Glass 4.3 inch capacitive touch display
- Communication technology enables enhanced connectivity
- Built-in 8MP camera with dual LED flash and geo-tagging/audio/video
- Optimized for Trimble Access Field Software

Powerful, connected, and compact, the lightweight Trimble Slate Controller combines the convenience and ease-of-use of a smart phone with the durability for which Trimble is known. Its slim, ergonomic design is easy to grasp and its screen provides excellent sunlight readability enabling all-day use by hard-working survey professionals. Designed for surveyors looking for straightforward technology, the Trimble Slate Controller pairs with the Trimble R4 GNSS receiver for a reliable GNSS solution when every point counts.



# TRIMBLE ACCESS FIELD SOFTWARE: SUPPORTING YOUR WORKFLOWS

WITH TRIMBLE ACCESS FIELD SOFTWARE, THE POWER IS LITERALLY 'IN YOUR HANDS' TO TAKE ON MORE JOBS AND COMPLETE THEM MORE EFFICIENTLY THAN EVER BEFORE. OUR FIELD SOFTWARE IS POWERFUL, BUT EASY TO USE, SO YOU CAN FOCUS ON GETTING EACH JOB COMPLETED.

## MAKE EVERY MINUTE OF EVERY DAY MORE PRODUCTIVE

What's in your schedule today? You might need to observe a first-order control point at one location, stake out a section of road grade at a second, and then perform an "as-built" audit at the third site. When you have multiple jobs to complete and mountains of data to move, every minute of every day counts. You can't waste time configuring your surveying gear—you need to get to work.

Designed to support your everyday work, including topographic surveys, staking, control, and more; Trimble Access offers a familiar, easy-to-use interface that will ensure your instant productivity—you'll experience less of the typical downtime associated with learning new software. Trimble Access for General Survey supports the full range of Trimble GNSS and optical sensors, plus robotic radio connections.

## SHARE DATA IN REAL TIME

When your business demands more speed through better data flow, you can bridge the gap between field and office by enabling real-time data sharing with Trimble AccessSync. At the speed of the Internet you can instantly move files, provide updates to clients, and deliver completed projects.



**General surveying capabilities are the foundation of Trimble Access field software, improving your worksite efficiency:**

- Easy-to-use feature coding including measure codes for repetitive tasks
- Feature-rich graphical COGO routines for calculating points and features
- Graphical staking of points, lines, arcs, and alignments from active maps
- Topo surveys and scan data can be used to create surfaces and perform volume computations in the field
- Audible voice prompts for easy stakeout and location of control points
- Integrated Surveying™ technology combining optical, scanning, and GNSS data, plus images, in the same job
- Trimble VISION enabled sensor control:
  - Remote control of instrument through the live video screen for positioning and measurement to prism or reflectorless targets
  - Data overlay on live video for efficient visual QC of measurements
  - Capture of metric images for photo documentation or postprocessed measurements
- The Measure codes buttons can be customized with commonly used codes
- Multiple pages of codes can be setup, with keys 1–9 providing keyboard shortcuts to measure a point with a specific code, keys A–Z to switch between multiple pages of codes
- Template pickup automates the switching of codes as you survey cross-section template

# TRIMBLE ACCESS APPLICATIONS

TRIMBLE ACCESS OFFERS OPTIONAL STREAMLINED WORKFLOWS TO GUIDE CREWS THROUGH COMMON PROJECT TYPES AND IMPROVE DATA CONSISTENCY. THESE SPECIALIZED MODULES MAKE DATA COLLECTION FAST AND EASY. AND THEY ALLOW CREWS TO FOCUS ENTIRELY ON THE DELIVERABLES—INSTEAD OF THE SOFTWARE COMMANDS FOR EACH TASK ALONG THE WAY.



The Trimble Access Roads module imports road definitions from many third-party sources, or you can key in a complete road definition that includes horizontal and vertical alignments, templates and superelevation, and widening records. A graphical stakeout workflow includes slope staking, real-time redesign, and real-time quality control.



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



Opportunities for mine surveyors working above ground to move underground is now easier to reach than ever. The easy to follow workflow guides you through tasks such as auto-staking lines and points with the laser pointer of a Trimble S Series total station.



The easy-to-follow workflow guides the user through tasks such as the automated scanning of tunnel profiles and the setout of rock bolt positions. Marking areas of underbreak is quick and easy with the laser pointer of a Trimble S Series total station or Trimble VX Spatial Station. The graphical interface provides a clear view of the as-designed versus as-built conditions.



The perfect compliment to Trimble Access, Trimble Access Services (available to all subscribers with a valid software maintenance agreement) allows users to easily share information for faster delivery from the field and last-minute changes from the office. The Trimble Connected Community™ portal enables the entire team to securely collaborate throughout the duration of the job.



Do you have the need to customize Trimble Access to do a particular task? Do you need to create advanced workflows that match your business needs? The Trimble Access Software Developer Kit provides software developers with the tools to customize and extend Trimble Access. Specialized applications created by third party developers also include applications for utilities, leveling, and more. For more information, visit [www.trimble.com/developer](http://www.trimble.com/developer)

Visit <http://apps.trimbleaccess.com> to learn about the full suite of Trimble Access applications available to you!



	Trimble Tablet	Trimble TSC3	Trimble Slate	Trimble CU
Operating System	Windows 7 Professional	Windows Embedded Handheld 6.5	Windows Embedded Handheld 6.5	Windows Embedded CE 6.0 R3
Processor/Memory	1.6 GHz, 4 GB DDR, 128 GB SSD	800 MHz, 256 MB RAM, 8 GB SSD	1.0 GHz, 512 MB RAM, 16 GB SSD	624 MHz, 128 MB SDRAM, 1 GB internal
Screen Size	7"	4.2"	4.3"	3.5"
Screen Resolution	1024 x 600	640 x 480	480 x 800	320 x 240
Touchscreen	Capacitive	Resistive	Capacitive	Resistive
Keyboard	11 button	Yes	8 button	Alphanumeric
External Speaker	Yes	Yes	Yes	Yes
Internal Camera	5MP	5MP	8MP	No
Internet Connection	3.75G GSM	3.0G GSM	3.0G GSM	via Bluetooth
Attachable to Total Station	No	No	No	Yes
Integrated Surveying (GNSS and total station support)	Yes	Yes	No	Yes
EyeFi (external camera support)	Yes	Yes	Yes	No
Internal GPS with SBAS	Yes	Yes	Yes	No
Picture Geotag with Internal GPS	Yes	Yes	Yes	No
Coarse GPS Navigation	Yes	Yes	Yes	No
Stakeout Internal Compass Support	No	Yes	Yes	No

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