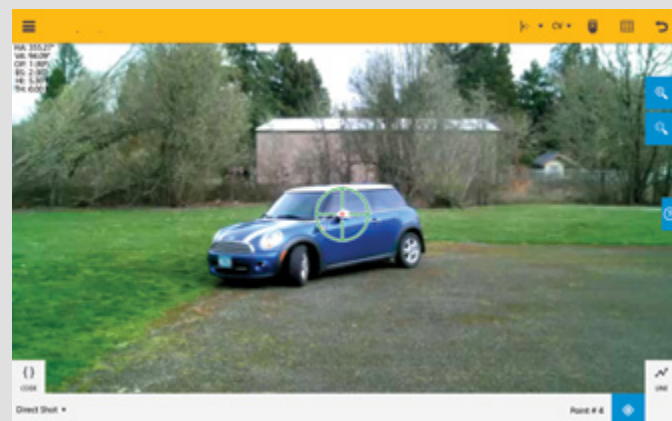
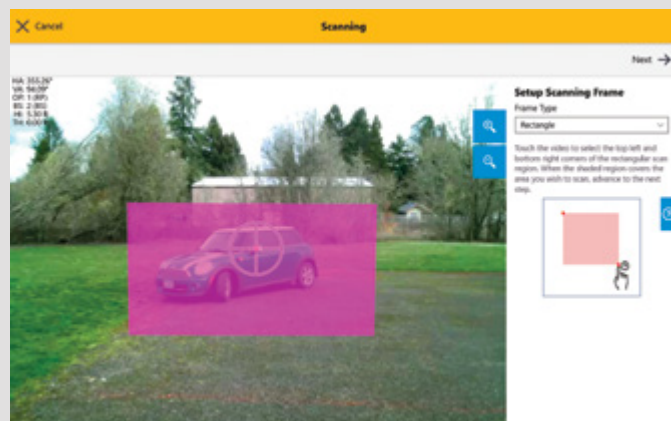


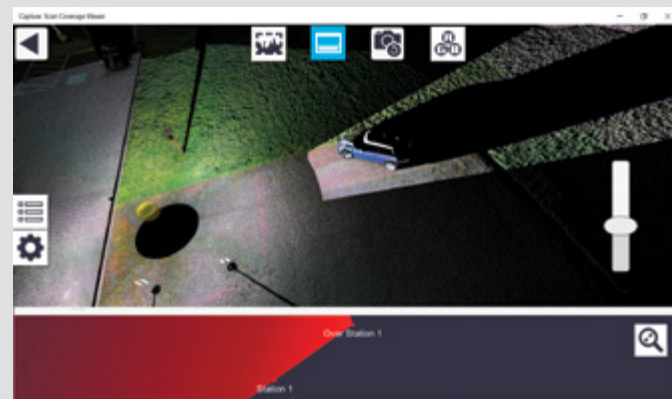
Trimble Forensics SX10 Solution



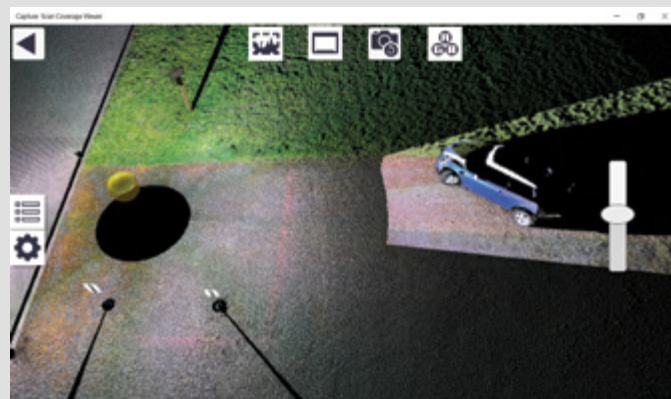
Camera view from SX10 within Capture for pointing cross hairs.



Rectangular scan setup for SX10 of object within Capture.



Scan coverage view within Capture showing keymap



Scan coverage view without keymap.

- 1 Standard deviation according to ISO17123-3.
- 2 Standard deviation according to ISO17123-4.
- 3 Single measurement, target static.
- 4 Standard clear conditions (No haze. Overcast or moderate sunlight with very light heat shimmer, visibility about 10 km).
- 5 Under perfect conditions (Overcast, visibility about 40 km, no heat shimmer).
- 6 Normal conditions (Moderate sunlight, visibility about 10 km, some heat shimmer).
- 7 The capacity in -20 °C is 75% of the capacity at +20 °C.
- 8 Standard deviation of fitted position of a sphere target.

Specifications subject to change without notice.



Contact your local Trimble Authorized Distribution Partner for more information

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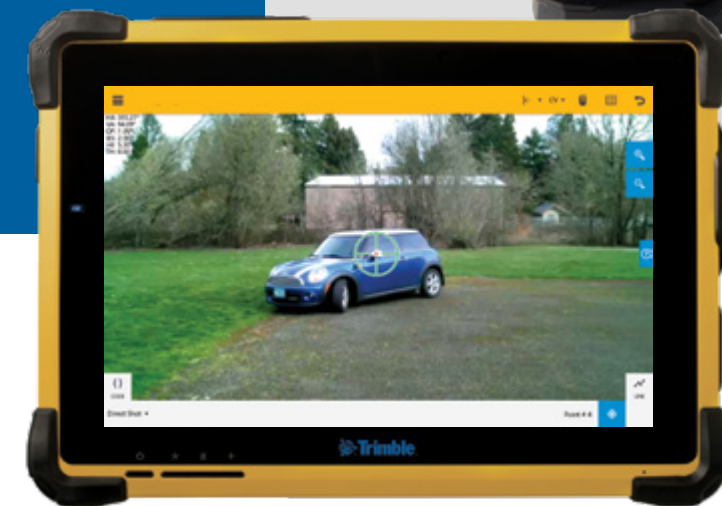
ASIA-PACIFIC
Trimble Navigation
Singapore PTE Limited
3 HarbourFront Place
#13-02 HarbourFront Tower Two
Singapore 099254
SINGAPORE

Trimble Forensics SX10 Solution

KEY FEATURES

- ▶ Combines surveying, imaging and high speed 3D scanning in one revolutionary solution
- ▶ Trimble's Lightning 3DM enables both high-accuracy total station measurements and high-speed scanning capability
- ▶ Scanning speeds of up to 26,000 Hz at ranges up to 600 m and the smallest spot size in the industry—a mere 14 mm at 100 m
- ▶ Improved Trimble® VISION™ technology allows for fast and easy capture of high resolution site imagery
- ▶ Complete integration with familiar workflows of Trimble Forensics Capture and Trimble RealWorks® Forensics
- ▶ Seamlessly works on Trimble T10 field tablet to operate the SX10
- ▶ Scanning, image capture and robotic control of the SX10 all accomplished with Capture
- ▶ View point cloud coverage in the field
- ▶ View and edit in 2D and 3D

Learn more:
forensics.trimble.com



SURVEY PERFORMANCE		
ANGLE MEASUREMENT		
Sensor type		Absolute encoder with diametrical reading
Angle measurement accuracy ¹		1" (0.3 mgon)
Angle display (least count)		0.1" (0.01 mgon)
AUTOMATIC LEVEL COMPENSATOR		
Type		Centered dual-axis
Accuracy		0.5" (0.15 mgon)
Range		±5.4' (±100 mgon)
Electronic 2-axis level, with a resolution of		0.3" (0.1 mgon)
Circular level in tribrach		8'/2 mm
DISTANCE MEASUREMENT		
Accuracy		
Prism mode	Standard ²	1 mm + 1.5 ppm
	Tracking ^{2,3}	2 mm + 1.5 ppm
DR mode	Standard ²	2 mm + 1.5 ppm
Measuring time		
Prism mode	Standard	1.6 s
DR mode	Standard	1.2 s
Range		
Prism mode ⁴	1 prism	1 m – 5.500 m
DR mode	Kodak White Card (Catalog number E1527795)	1 m – 800 m
	Kodak Grey Card (Catalog number E1527795)	1 m – 450 m
Autolock and Robotic Range		
	Autolock range - traverse 50 mm ⁵	1 m – 800 m
	Autolock range - 360 prism	1 m – 300 m ⁶ / 700 m ⁵
	Angle accuracy ¹	1"
SCANNING PERFORMANCE		
GENERAL SCANNING SPECIFICATIONS		
Scanning principle		Band scanning using rotating prism in telescope
Measurement rate		26.6 kHz
Point spacing		6.25 mm, 12.5 mm, 25 mm or 50 mm @ 50 m
Field-of-view		360° x 300°
Coarse scan; full dome - 360° x 300° (horizontal angle x vertical angle) Density: 1 mrad, 50 mm spacing @ 50 m		Scan time: 12 minutes
Standard scan; area scan - 90° x 45° (horizontal angle x vertical angle) Density: 0.5 mrad, 25 mm spacing @ 50 m		Scan time: 6 minutes
RANGE MEASUREMENT		
Range principle		Ultra-high speed time-of-flight powered by Trimble Lightning technology
Range		
	Kodak White Card (Catalog number E1527795)	0.9 m – 600 m
	Kodak Gray Card (Catalog number E1527795)	0.9 m – 350 m
Range noise		
	@ 50 m on 18–90% reflectivity	1.5 mm
	@ 120 m on 18–90% reflectivity	1.5 mm
	@ 200m on 18-90% reflectivity	1.5 mm
	@ 300m on 18-90% reflectivity	2.5 mm
Scanning Accuracy		
	Scanning Angular Accuracy	5" (1.5mgon)
	3D position Accuracy @ 100m ⁸	2.5 mm
EDM SPECIFICATIONS		
Light source		Pulsed laser 1550 nm; Laser class 1M
Beam divergence DR mode		0.2 mrad
Laser spot size at 100 m (FWHM)		14 mm
Atmospheric correction		Available through field and office software
IMAGING PERFORMANCE		
Imaging principle		3 calibrated cameras in telescope powered by Trimble VISION technology
Cameras total field of view		360° x 300°
Live view frame rate (depending on connection)		Up to 15 fps
File size of one total panorama with overview camera		15 MB – 35 MB

IMAGING PERFORMANCE		
Panorama measurement time/resolution		
Overview panorama	Full dome 360° x 300° (Horizontal angle x vertical angle) with 10% overlap	3 minutes, 40 images, 20 mm @ 50 m per pixel
Primary panorama	Area capture 90° x 45° (Horizontal angle x vertical angle) with 10 % overlap	3 minutes, 48 images, 4.4 mm @ 50 m per pixel
CAMERAS SPECIFICATIONS		
General Camera Specifications		
Resolution of each camera chip		5 MP (2592 x 1944 pix)
File format of images		.jpeg
Field of view max		57.5° (horizontal) x 43.0° (vertical)
Field of view min		0.65° (horizontal) x 0.5° (vertical)
Total zoom (no interpolation)		84 x
35 mm equivalent focal length		36–3000 mm
Exposure modes		Auto, spot exposure
Manual exposure brightness		±5 steps
White balance modes		Auto, daylight, incandescent, overcast
Temperature compensated optics		Yes
Calibrated cameras		Yes
Overview Camera		
Position		Parallel to measurement axis
One pixel corresponds to		20 mm @ 50 m
Primary Camera		
Position		Parallel to measurement axis
One pixel corresponds to		4.4 mm @ 50 m
Telescope Camera		
Position		Coaxial
Focusing		Automatic, manual
Focusing distance		1.7 m to infinity
One pixel corresponds to		0.88 mm @ 50 m
Pointing precision (std dev 1 sigma)		1" (HA: 1.5 cc, VA: 2.7 cc)
Plummet Camera		
Usable range		1.0–2.5 m
Resolution on ground - one pixel corresponds to		0.2 mm @ 1.55 m instrument height
Accuracy		0.5 mm @ 1.55 m instrument height
GENERAL SPECIFICATIONS		
Communication		WiFi, 2.4 Ghz Spread Spectrum, cabled (USB 2.0)
IP-rating		IP55
Operating temperature range		-20 °C to 50 °C
SYSTEM SPECIFICATIONS		
SERVO SYSTEM		
MagDrive servo technology		Integrated servo/angle sensor electromagnetic direct drive
Clamps and slow motions		Servo-driven
CENTERING		
Centering system		Trimble 3-pin
Plummets		Built-in video plummet
		Split optics tribrach with optical plummet
POWER SUPPLY		
Internal battery		Rechargeable Li-Ion battery 11.1 V, 6.5 Ah
Operating time⁷		
One internal battery		Approx. 2–3 hours
Three internal batteries in multi-battery adapter		Approx. 6–9 hours
WEIGHT AND DIMENSIONS		
Instrument		7.5 kg
Tribrach		0.7 kg
Internal battery		0.35 kg
Trunnion axis height		196 mm
Front lens aperture		56 mm