



## TRIMBLE FX SCANNER

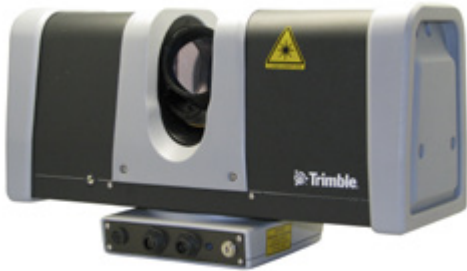
### KEY FEATURES

Designed for performance in facilities management, cultural, forensic and other applications

Data capture rate >216,000 points per second

Clean low-noise data

Compact design



The Trimble® FX Scanner is an advanced 3D laser measurement instrument for use where fast acquisition of clean, accurate data is paramount. With a 360° x 270° field of view, average data capture rates of 216,000 points per second and compact design for easy movement, the Trimble FX system accelerates your project management.

#### IT'S ALL IN THE DATA

The Trimble FX Scanner allows users to measure existing conditions quickly and accurately, creating a high-resolution image. Each pixel in the image represents a 3D point in space that can be used for virtual surveying, producing as-built surveys or to create 2D and 3D CAD entities. The Trimble FX Scanner creates clean, low noise data, reducing the number of hours needed in the office to process the data. And thanks to its compact design, the Trimble FX can be moved easily and quickly from station to station, making the best use of available time.

#### FLEXIBILITY

The Trimble FX Scanner in conjunction with Trimble FX Controller software offer users extreme flexibility to create low to high resolution datasets. This allows the system to be used in a variety of project types including facilities management (facades, BIM...), cultural (heritage sites, archeology...), railways, etc., especially when environments are heavily congested.

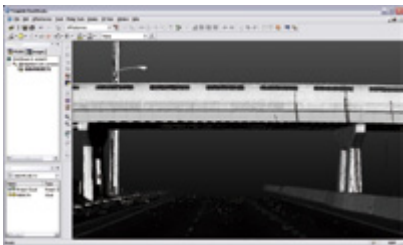
#### TRIMBLE FX: PART OF A BIGGER PICTURE

The Trimble FX 3D Scanner is just one advanced component of a superior surveying and Spatial Imaging solution that lets you capture, extract and analyze spatial data. Combining the Trimble FX Scanner, and the powerful Trimble RealWorks office software, the complete system enables surveyors and geospatial professionals to generate compelling deliverables for clients.

Trimble RealWorks full-featured software enables you to visualize, explore, and manipulate the rich scan and image data of an as-built scene. It incorporates a set of useful tools like the step-by-step approach that many users have come to appreciate. It also allows surveyors and engineers to produce compelling intermediate or final deliverables for direct output or export to industry standard CAD platforms.

#### TOTAL SOLUTION

Data from the Trimble FX Scanner can be used alone in Trimble RealWorks, or it can be combined with data from other Trimble surveying instruments such as the Trimble GX™ 3D Scanner, the Trimble VX™ Spatial Station and other optical and GNSS instruments. Users can integrate information from past projects into Trimble RealWorks in order to augment deliverables to meet customers needs.



Trimble FX data inside Trimble RealWorks software

# TRIMBLE FX SCANNER

## PERFORMANCE

Ambiguity Range	1-pass: 70 m; 2-pass: 70/140 m
Recommended range <sup>1,2</sup>	
1-pass	up to 60 m (50% reflectivity); 35m (30% reflectivity)
2-pass	up to 80 m (50% reflectivity); 45m (30% reflectivity)
Scanning speed	216,000 points per second (average)
Typical scan time	.5 minutes (single pass)
Range uncertainty	1 mm @ 15 m single pass (on 90% reflectivity)
Target acquisition	std dev. <1 mm @ 15 m
Distance accuracy (std dev.)	.06 mm @ 11 m; 0.8 mm @ 21 m; (on 90% reflectivity). .24 mm @ 50 m; 1-pass HQ: 0.6 mm @11 m; 2-pass: 0.45 mm @ 11 m; 0.5 mm @ 21 m; 1.5 mm @ 50 m
Position accuracy	0.4 mm @ 11m; 0.8 mm @21m; 2mm @ 50 m
Angle uncertainty	<30 arc second (1.6 mm @ 11 m; 3 mm @21 m; 8 mm @ 50 m)
Angular resolution	8 sec
Scan grid (V)	configurable
Min. scan increment (V)	40 arc sec (~190 µrad); 1.9 mm @ 10 m; 4 mm @ 21 m; 9.8 mm @ 50 m
Min. scan increment (H)	.20 arc sec (~95 µrad)
Max. sample density (V)	4 mm @ 21 m
Beam diameter	2.3 mm @ 5 m; 16 mm @ 46m

## SYSTEM SPECIFICATIONS

Scanner type	phase shift
Laser wavelength	.685 nm (red)
Laser type	continuous wave
Laser power	15mW
Laser class (IEC EN60825-1)	3R
Field of view	360° x 270°
Status indicators	system on

## PHYSICAL

Dimensions	425 L x 164 W x 237 H mm (16.7 L x 6.5 W x 9.4 H in)
Weight	11 kg (24 lb)
Power Supply	DC 19–24V, 3.5A AC 110–220V
Power consumption	40 W (65 W peak)
Instrument case	.626 L x 492 W x 350 D mm (24.7 L x 19.4 W x 13.8 D in) weight: 31.8 kg (70 lb) with scanner
Environmental	.calibrated
Operating temperature	5 °C to 45 °C non-condensing atmosphere

## FIELD SOFTWARE

### Trimble FX Controller field software

- Requires notebook or desktop PC running Windows XP 32-bit

### Recommended minimum specifications

Minimum personal computer hardware:

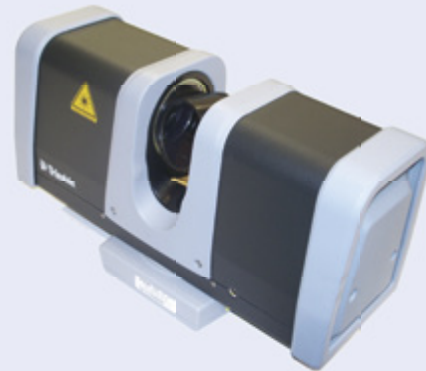
- Intel Pentium 4 or later (or compatible), 2 GHz or higher
- 2 GB RAM (4GB recommended)
- 256 MB OpenGL graphics card
- USB 2.0 port
- Microsoft Windows XP Professional with SP1 or SP2
- Microsoft .NET 2.0 runtime, available as a free download from Microsoft
- DirectX 9.0B, available as a free download from Microsoft

## FUNCTIONS

- Single or double pass scanning;
- Configurable resolution;
- Configurable scanning field of view;
- Export directly to Trimble RealWorks software

## STANDARD ACCESSORIES

- Instrument case
- AC Power Supply 110/220V
- Batteries
- Power on key (x2)
- USB2 cable (3 m)
- Fuse, 4 Amp



Trimble FX scanner

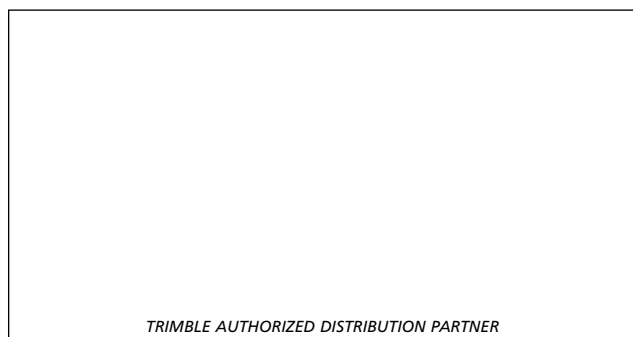


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1 Range and precision depend on atmospheric conditions, size and reflectivity of targets, angles of incidence and background radiation.

2 Range specified to indicated reflectivities (99% of points)

Specifications subject to change without notice.



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