SceneVision-3D Software and Faro Focus3D Laser Scanner

Total Solutions for Crime, Accident and Fire Scene 3D Reconstruction

SceneVision-3D Software, the leading 3D crime scene reconstruction software, is used by dozens of law enforcement agencies across the U.S. Now SceneVision-3D is available integrated with the groundbreaking new 3D scanner from Faro – the Focus3D Laser Scanner. The Focus3D has revolutionized 3D laser scanning. It's a long distance, high speed, high resolution scanner – effective both indoors and out – and includes high-resolution color. It is far more compact, lighter, easier to use, and more affordable than any 3D scanner available. When combined with the measurement, analysis, and presentation capabilities of SceneVision-3D, it's an unbeatable solution for crime scene capture, reconstruction, analysis and display.

Complete Crime Scene Package
- Focus3D 120 3D Laser Scanner
- Carbon Fibre Tripod Kit
- SceneVision-3D Software
- High-performance Graphics Laptop
- SceneVision-3D Viewer
- 3D, Onsite Training

All for less than $60,000
**What can SceneVision-3D Software and the Faro Focus3D Laser Scanner Do For You?**

**Capture All the Measurements of a Scene**
- 360° scans in minutes - capture millions of measurements per scan
- The scene is captured forever! Revisit the scene any time – months or years later
- Make new measurements in the scene on demand at any time. Even during a trial.

**Quickly Produce Diagrams of a Scene**
- 5 minutes or less to align and combine each scan. Just minutes more to produce a model.
- Use the ‘wall wizard’ to quickly produce the edges of each room – with measurements
- Create 3D floor plans of buildings for emergency preparedness and training
- Add the outlines and measurements of windows, furniture and other objects
- Show measurements between any two points
- View the model from any direction
- Print images of the model or orthographic views of just the outlines you’ve created

**Add Information to the Model**
- Place markers for locations of people or objects
- Add hyperlinks to photographs and documents connected to any point in the scene
- Show bullet or blood spatter trajectories
- Measure angles and perpendicular distances
- Position figures to illustrate the crime with Poser Pro software

**Create Full-color 3D Computer Graphics Models and Color Photographic Panoramas for Analysis, and Courtroom Presentation**
- Use the Focus3D color option to capture hundreds of high-resolution photographs at the scene
- Automatically align the photographs to the laser data producing full-color ‘point clouds’
- Automatically produce a high-quality, full-color, 3D model from these point clouds – much more realistic than point clouds.
- Create ‘walk-throughs’ by identifying and saving viewpoints for display

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**Focus3D Laser Scanner Specifications**

**Ranging Unit**
- **Unambiguity interval:** 153.49m (503.58ft)
- **Range Focus:** 0.6m - 120m indoor or outdoor with low ambient light and normal incidence to a 90% reflective surface
- **Measurement speed:** 122,000 / 244,000 / 488,000 / 976,000 points/sec
- **Ranging error:** ±2mm at 10m & 25m, at 90% and 10% reflectivity

**Ranging noise:**
- @10m - raw data: 0.6mm @ 90% refl. | 1.2mm @ 10% refl.
- @10m - noise compressed: 0.3mm @ 90% refl. | 0.6mm @ 10% refl.
- @25m - raw data: 0.95mm @ 90% refl. | 2.2mm @ 10% refl.
- @25m - noise compressed: 0.5mm @ 90% refl. | 1.1mm @ 10% refl.

**Color unit**
- **Resolution:** Up to 70 megapixel color
- **Dynamic color feature:** Automatic adaption of brightness
- **Deflection unit**
  - **Vertical field of view:** 305°
  - **Horizontal field of view:** 360°
- **Vertical step size:** 0.009° (40,960 3D pixels on 360°)
- **Horizontal step size:** 0.009° (40,960 3D pixels on 360°)
- **Max. vertical scan speed:** 5,820rpm or 97Hz

**Laser (Optical transmitter)**
- **Laser power (cw Ø):** 20mW (Laser class 3R)
- **Wavelength:** 905nm
- **Beam divergence:** Typical 0.16mrad (0.009°)
- **Beam diameter at exit:** 3.8mm, circular

**Data handling and control**
- **Data storage:** SD, SDHC™, SDXC™; 32GB card included
- **Scanner control:** Via touch-screen display
- **Power supply voltage:** 19V (external supply), 14.4V (internal battery)
- **Power consumption:** 40W and 80W respectively (while battery charges)
- **Battery life:** Up to 5 hours
- **Ambient temperature:** 5° - 40°C
- **Humidity:** Non-condensing
- **Cable connector:** Located in scanner mount
- **Weight:** 5.0kg
- **Size:** 240x200x100mm³
- **Maintenance calibration:** Annual
- **Parallax-free:** Yes
- **Dual-axes inclination sensor:** Accuracy 0.015°; Range ±5°

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**SceneVision-3D Software Specifications**

- **Align multiple scans to create a single model**
- **View and present many forms of your data**
  - 3D VRML models with or without color
  - Image data in TIFF, JPEG and other standard formats
  - RTPI files (laser range data) with or without color
  - Panoramic images
  - Text files used for annotation
- **Draw on VRML, image and/or range data (in 2D or 3D)**
  - Measurement lines between any two points
  - Measurement lines from a point perpendicular to a plane
  - Points, planes, spheres, trajectory and sight lines
  - Outlines of objects
- **Identify planes corresponding to walls, floors and ceilings**
- **Patented technique for embedding high-resolution close-up photos in 3D models**
- **Add photos/images as “hot spots” in the data**
- **Add labels and text notes to any of the individual elements - points, lines, planes, hot spots**
- **Produce ‘ViewPoints’ illustrating views of people at the scene**
- **Patented blood stain pattern analysis - automatically produce trajectories in 3D models representing the path of the blood**
- **Add models of people for simulation and animation**

**System Requirements - PC/Laptop, Windows XP/Vista/7, 3D Graphics card**

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*Prices and specifications subject to change without notice*  040812