

The Trimble VX Spatial Station



Left: An automatic drawing created on the rectified image within Trimble RealWorks Survey software (the user can trace out the first window and the software will then find and draw the other windows).

Right: Image shows the creation of the 3D model from the rectified image in Trimble RealWorks Survey.

It's not unusual to find a digital camera as standard equipment for a survey crew. Providing photos of monuments, project sites and other evidence is a routine part of the surveyor's work. Now—instead of a flat drawing and some simple snapshots—imagine giving your client a 3D walkthrough tour of their project.

The Trimble® VX™ Spatial Station* combines optical and scanning technologies to collect information that surveyors can use to produce 2D and 3D deliverables. Using the high-resolution camera built into the Trimble VX, images become part of the 3D measurement and analysis process. The result is greater detail, more information for clients and less time on the jobsite. Here's an example:


A survey crew uses the Trimble VX Spatial Station to capture photographs of a building. In addition to the photos, the crew uses the instrument to measure a few points on the side of the building. Using normal traverse methods, the surveyors move around the building, capturing images and points on each

side. In the office, the measured points and images are loaded into Trimble RealWorks Survey™ software. Each photo is rectified using the points measured on that side of the building. The rectified images can be combined to produce a 3D photo image of the building. Now, simply by using images and a handful of measured points, you can determine the 3D coordinates of any point on the structure.

The Trimble VX also works as a high-detail 3D scanner. Surveyors can quickly collect large numbers of points using the Trimble VX. The point clouds can be combined with photos to create photorealistic 3D models. Because the position and orientation of the Trimble VX can be precisely known, it requires little effort to combine the images and point clouds. The 3D results are ready for export to CAD files for design systems. Trimble RealWorks Survey lets you create KMZ data, so your 3D models can become part of a Google Earth image.

The Trimble VX is ideal for detailed, complex projects such as ALTA surveys, facade preservation and surveys for

additions or redevelopment. The combination of speed, georeferenced photos and accurate position measurements is a powerful tool to increase productivity and reduce rework. The Trimble VX can function just like a total station as well. So when you're not collecting images and 3D scans, you can use it for stakeout, topo and other surveying activities. With robotic operation and direct reflex measurement, the Trimble VX stays busy for the entire workday.

By using the Trimble VX Spatial Station, you can deliver your data in the language of pictures. When you provide clear and detailed visual images of projects to your clients, it's easier for them to understand the data and make better decisions. Creating high-quality 2D and 3D deliverables is a snap with the Trimble Spatial Imaging system. The high-resolution information sets you apart from competitors and adds value to the service you provide for your clients. 

**The Trimble VX Spatial Station is also available without the scanning feature.*