

# 3DM Analyst

## Education Edition

**Easy, quick and inexpensive Training Tool**

The **3DM Analyst (Education Edition)** is a low cost 3D tool for use in educational institution laboratory training. It is easy to use and is specifically designed for images taken with any inexpensive digital still camera or scanned aerial photos. The system can calculate the 3D co-ordinates of objects within the image as it is viewed in stereo — in full 3D with enhanced image draping!

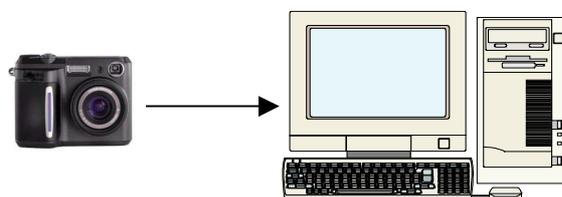
**Step 1**

Take two images of a scene from different positions.



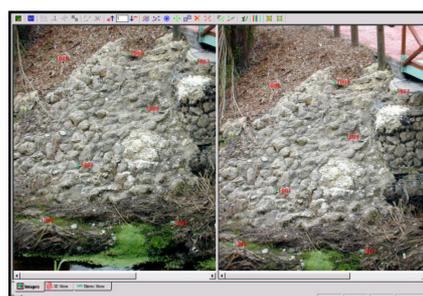
**Step 2**

Transfer images from the digital camera into PC.



**Step 3**

Add distributed natural control points.  
Compute a Stereo model orientation on the PC using the bundle adjustment.

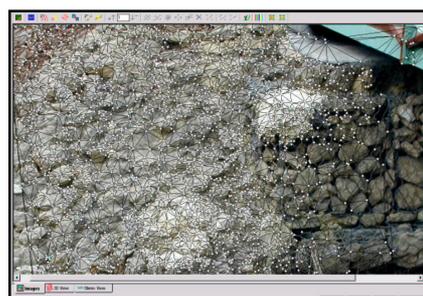


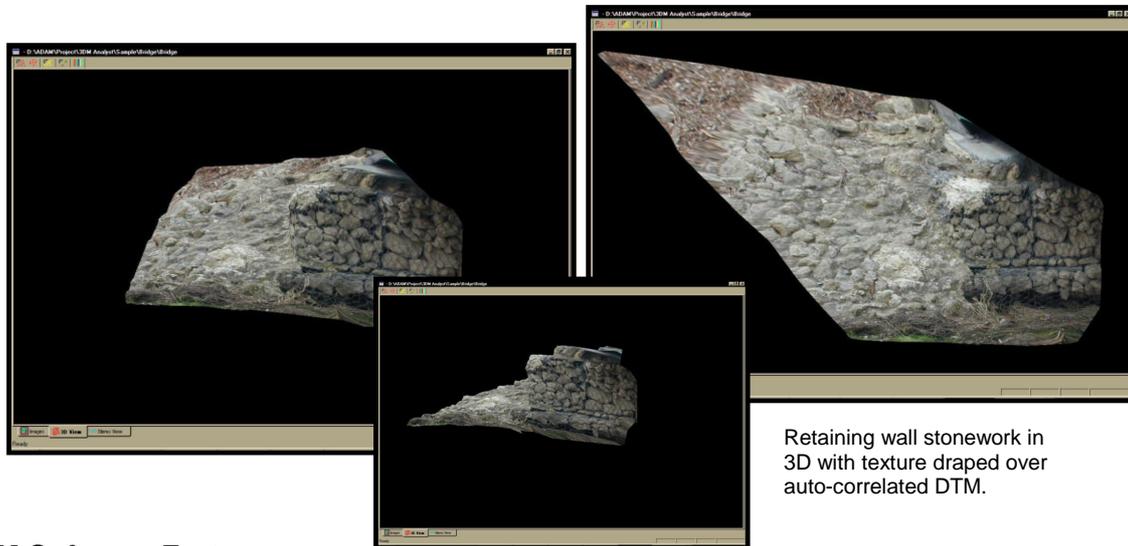
**Step 4**

Using a stereo display:

- Define boundaries
- Measure 3D distances
- Digitise lines and points
- Create automatic DTMs
- Produce contours

DXF Export data to other software packages





### 3DM Software Features:

- 3D distance measurement in stereo
- 3D Point measurement in stereo
- **Automatic** DTM generation
- Camera calibration
- Point measurement in image mode (non-stereo) with image correlation
- 3D polyline digitising
- 3D texture draping
- **Full Stereo** model orientation
- Epipolar re-sampling of images for easy stereo viewing

### Stereo Viewing options:

The **3DM Analyst** is delivered with a stereo-enabled graphics card, the 3Dlabs Oxygen VX1. Stereo Viewing is achieved using StereoGraphics™ stereo viewing products. The recommended configuration is dependent on the end user requirements. See table below:

<b>Single User</b>	<b>Crystal EYES Wired</b>	<b>A single pair of stereo glasses is wired to the graphics card.</b>
<b>Multiple Users</b>	<b>Crystal EYES ZScreen 2000</b>	<b>A polarising screen is placed in front of the monitor (up to 21"). Stereo viewing is achieved by wearing inexpensive lightweight polarised glasses without any wiring. Ideal for training, teaching and group meetings.</b>

### System requirements:

Any modern PC can run the 3DM Analyst (Education Edition), however a fast CPU (500MHz+) and large amounts of memory (256MB+) will improve performance. A large monitor with a fast refresh rate (at least 100Hz at 1024x768) is recommended for comfortable stereo viewing.

### Cameras / accuracy:

Any digital still camera can be used, but the newer, higher resolution models will give better results. Further improvement can be obtained using the 3DM Analyst (Education Edition) camera calibration feature.

For more information please contact:

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