

3D Laser Scanning for Forensic Investigations

Plowman Craven is at the forefront in applying the latest measurement technology to assist forensic teams in their investigations. 3D laser scanning and the recent rapid advances in high-dynamic range photography have led to quicker delivery, greater accuracy and easier interpretation.

Forensic investigators, emergency teams, insurance companies and health and safety executives have all benefited from fast access to accurate measurement information.

Applications:

- Scene capture and preservation of evidence
- Examination of witness statements
- Event/scenario progression
- Expert witness support
- Modelling and analysis

Plowman Craven has been involved in a considerable number of crime scenes, counter terrorism, incident investigations and reconstructions.

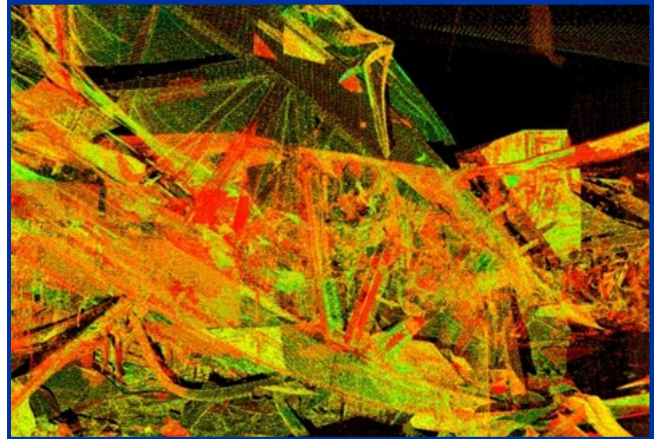
Notable high profile investigations include:

- The Princess Diana inquiry
- 2005 London bombings
- Ipswich serial murders
- Potters Bar rail incident
- Yarls Wood Removal Centre
- Atherstone warehouse fire

3D Laser Scanning

Mainstream laser scanning instruments collect high accuracy (+/- 3mm) data at over 500,000 points a second, providing millions of measurements in three dimensions called point clouds.

The result is an organised digital representation of a subject which is delivered quickly, efficiently and accurately. Real-time access to this data can provide critical measurements instantly, or post process can provide the measurement platform to perform data analysis through to creating 3D models.



3D laser scanning – fire damaged building

Our specialist close range scanners capture the details of objects which require sub-millimetre accuracy and a high resolution.

We can capture and model these objects to tolerances finer than a human hair. Data can then be supplied for animation, 3D printing or milling.



3D laser scanning – Boeing 747

Benefits of 3D laser scanning:

- Rapid site data collection – ‘hand back’ scene quickly
- Completeness of data – reduces returns to site
- Immediate data record and accessible measurements
- Operates remotely and in difficult situations
- Improved safety and non contamination
- Collects data from complicated environments

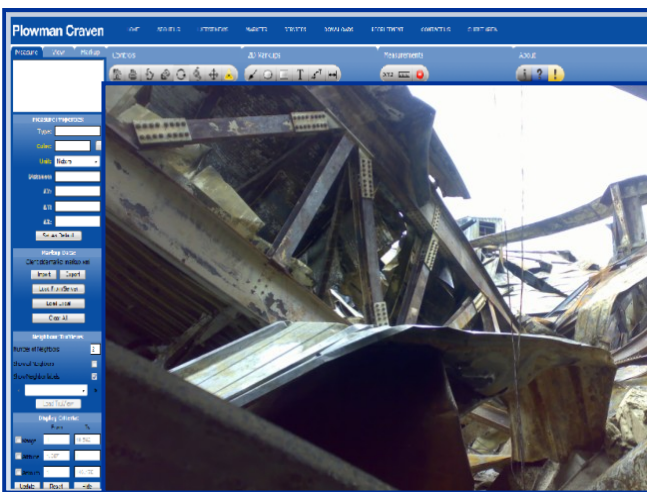


High Dynamic Range Photography (TruView)

From laser scanned on-site positions, high dynamic range photography can be taken and mapped onto the actual point cloud data.

This can be viewed within the supplied free and easy to use viewer application called "TruView". TruView gives the user the ability to view high a definition photorealistic duplicate of the site environment. The user can pan, zoom and accurately measure any visible details. Comments, remarks and hyperlinks can be added and views can be saved and exported.

An added advantage is its multi-user capacity – unlimited password protected access via the internet/intranet allows virtual real-time interactive communication between relevant parties.



Interactive 'TruView' – fire damaged building

3D laser scanning and TruView can be applied to many scenarios. Plowman Craven has experience in working in varying locations from nuclear environments through to terrorist incidents. All this is backed up by a dedicated and experienced team of surveyors and 3D modellers who are available on a 24/7 callout basis. All are security vetted and have attended courses on forensic awareness.

Plowman Craven is a neutral, independent organisation whose expertise can be used by all parties involved.

Benefits of TruView:

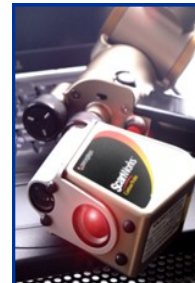
- Early access to data and quicker decision making
- High dynamic range photography
- Measurement and investigation
- Internet access and multi-user facility
- Move around easily in a visual tour of the site
- Attach notes/hyperlinks/legal documentation

Free Consultation

We are happy to visit your office to provide a free consultation and further discuss your unique requirements and the benefits of laser scanning. Contact us for further information.



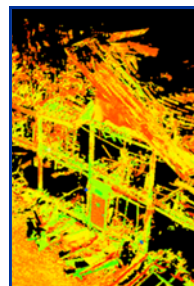
Crime



Legal



Terrorism



Fire



Traffic

About Plowman Craven

Plowman Craven is an innovative Geomatics company, a trusted name which offers a broad range of measurement services across numerous and diverse markets. Operating worldwide, our highly skilled and motivated team make a difference by providing timely, collaborative and accurate solutions to meet your requirements.

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