



Enhancing Public Safety through 3D Reality Capture

**Capture every detail
in high definition with
millimetre-accuracy**

Public safety takes many forms, from crowd control and security at public events to analysing crash and crime scenes. Having full visibility of evidence, threat points and environments is essential to keeping the public safe and ensuring justice for victims. 3D reality capture is a process of scanning and capturing a crime scene, crash, environment or public event in a digital 3D model, combining measurement and imagery to provide a detailed, accurate and complete electronic copy of the space. With the ability to analyse, fly-through, zoom-in, measure and annotate imagery, 3D reality capture offers an accessible technology that anyone can use.

Empowering the User

New innovations in 3D reality capture have created solutions that can be used with minimal training to ensure public safety. Simple one-touch operation, lightweight scanners and automated software make it easier than ever to quickly apply 3D technology for improved evidence gathering, crowd control, traffic management and workflows. Lightweight portable scanners can be quickly deployed to scan an area in minutes, allowing crime and crash scenes to be cleared quickly, with minimal disruption. With automated software tools and edge computing scans and imagery can be checked on site, registered and built into a 360° detailed digital replica of the area faster than ever before.

**Clear crime and
crash scenes
quicker with fast
laser scanning**



Benefiting Public Safety

3D environment
that can be **explored**
and **analysed**

Documentation
of entire scene
in detail

Simple-to-use
hardware and
automated software

Remove scene
degradation with
walk-through **for jurors**

Fast scanning
to **minimise disruption**
and delays

Court-ready evidence
through automated
verification tools

Analyse movement
of people at public events
to ensure safety

Security and event
staff training
in advance

Understanding
threats and risks in
digital reality



Exploring Environments

High definition images and millimetre-accurate scans provide a complete representation of an environment that can be explored in detail.

Evidence Gathering

3D reality capture records every detail of a crime scene, verified and certified by automated software tools to enable its use in court. Evidence can be analysed in detail, homing in on key areas, overlaying trajectories, or providing jurors with fly-throughs so they can truly understand the scene. Crime scene degradation has always been a problem for prosecutors; jurors visiting crime scenes rarely get a true impression, but with 3D reality capture the scene is captured as it was, in every detail and documented ready for trial.

Crash Scene Analysis

Clearing a crash scene, opening roads and minimising disruption is always a pressure on investigators. With laser scanners that capture all the detail in a matter of minutes, scenes can be documented in minute detail and quickly cleared. One-touch operation and automated software enables novice users to operate equipment with minimal training, while edge computing allows scan results to be checked in minutes, ensuring crucial evidence is captured in high definition.

Smoother Event Management

Creating a digital environment of an event site helps organisers understand crowd behaviour, identify bottle necks, map escape routes and model scenarios to improve public safety and ensure effective crowd control. Security and event staff can be trained in advance using a digital representation of the site so they understand where public safety might be an issue and how to deal with possible scenarios.

Understanding Threats

Here security is of paramount importance, as creating an accurate model of an area can highlight threats and risks not readily apparent from a walk through. When environments can be examined and scenarios played, potential threats are easily identified and can be effectively mitigated. Being able to explore an environment in 3D, zoom-in on details and annotate threats provides security services, organisers and first responders with a powerful visual tool to ensure public and individual safety.

**Court-ready
evidence,
automatically
verified and
certified**



To learn more about 3D reality capture solutions and how they can improve public safety and evidence gathering, contact Leica Geosystems at leica-geosystems.com