



Digital puts the byte on the dark room

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In the forensic laboratories of Queensland Police Headquarters a team of photo lab technicians are churning out millions of photographs each year.

Most of the photos are for investigative purposes and production in court.

To create a sense of just what goes on in the state-of-the-art labs at the Queensland Police Service (QPS) Photographic Section, picture what 45 kilometres of speed camera and red light camera film would look like or imagine flicking through 1.2 million crime scene photographs.

The QPS Photographic Section incorporates the Electronic Recording Laboratory (ERL) and has a total staff of 16 police officers, four administrative officers, nine photo lab technicians and eight ERL technicians.

The ERL analyses audio and video recordings for the whole of the QPS and processes thousands of video and audio jobs each year.

Format conversions, analysis and enhancements of closed circuit television (CCTV) security footage provide the majority of job requests.

The Photographic Section also provides photo processing and printing for the whole of the QPS.

Keeping in line with emerging digital technology the Photographic Section now also looks after all digital imaging.

Recently retired officer in charge of the Photographic Section, Inspector Terry Stewart said the major benefit of digital imaging is the provision of immediate results from crime scenes.



Photographic lab.



Forensic training.

“Digital imaging means photos taken at any crime scene in Queensland can be processed and printed almost immediately,” Mr Stewart said.

Since going digital the section has acquired a digital minilab, associated workstations and data transfer links for acceptance of secure image storage and the ability to print.

Along with crime scene photos, evidentiary photography also covers a range of new formats from CCTV, the Taxi Security Camera System, and mobile phone images.

While digital imaging opens up an exciting range of applications, integrating it into existing processes of crime scene investigation has presented some challenges for the Photographic Section.

For example there are dozens of different types of mobile phones on the market and increasingly they are being used to capture crimes being committed or other evidence.

The QPS photographic team regularly call on its creative problem solving skills when working out how to access and download images from a variety of devices.

Mobile phones are just one of the many formats presented to the section by officers wishing to access images to assist with an investigation or prosecution.

To oversee the introduction of digital imaging technologies the QPS Photographic Section has introduced a controlled

and structured roll-out of digital camera use for general evidential recording purposes.

The digital upgrade of forensic procedures requires a coordinated approach to meet both operational and information management requirements.

To date there has been several achievements in this area such as the expanded functionality of the Forensic Register database to incorporate wireless transmission for depositing and management of digital images associated with crime scene examinations.

The section has also developed and delivered Digital Photography Training and coordinates the supply of digital camera kits and field-based laptops for use by forensic officers.

Training and development within the section is also important. All officers hold tertiary qualifications in photography and imaging.

Basic photographic training is delivered to three Scenes of Crime (SOC) courses each year and training is also given to specialist officers, such as Accident Investigation Squad and Scientific officers

Advanced photographic training, and specialist skills training such as Taxi Security Camera System downloads are also available and

rigorous procedures have been developed to comply with National Association of Testing Authorities (NATA) accreditation standards.

Captured image data is saved directly to the QPS forensic register database in its original form.

A master copy for all images is kept on the secure QPS forensic register database and remains in its original state. The data on the forensic register cannot be deleted or manipulated.

QPS data storage procedures adhere to the national guidelines for digital imaging through NATA quality assurance processes.

The first areas to go totally digital have been the specialist photographers followed by the regional SOC officers. This presents a benefit with the recording of evidence directly from a crime scene.

Interacting with the crime scene

One of the latest developments available in the suite of digital technology within the Photographic Section is Interactive Crime Scene Recording (ICSR).

ICSR uses digital images to create a virtual crime scene for investigators and subsequently juries to “walk” through.

The ICSR is the most advanced tool being used in Queensland to document crime scenes.

The 360 degree photographic recording provides a complete view from a designated “node”.

Nodes can then be linked together to provide a “walk through” effect for the viewer.

Unlike video - which plays from start to finish - ICSR allow complete freedom of movement and vision within the nodal range.

The ICSR system also provides the ability to link in actual crime scene photos, videos, 3D modelling, DNA profiles and fingerprints.

This means an investigator can walk through a crime scene and examine fine detail by clicking on a hotspot that links to other evidence such as fingerprints.

It is also an inclusive system and permits all of the forensic evidence to be presented in unison and permits the court to assess the evidence in a comprehensive manner. ■

