

The Fingerprint Inquiry | Scotland

Appendix 9 Glossary

Inquiry terminology, acronyms and common fingerprinting terms¹

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| The 2005 Act | The Inquiries Act 2005, an Act of the UK Parliament, extending to the whole of the UK. Together with The Inquiries (Scotland) Rules 2007 the legislation under which the Inquiry operated (see "the Inquiry legislation"). |
| The 2007 Rules | The Inquiries (Scotland) Rules 2007 (SSI 2007/560) - subordinate legislation, made by Scottish Ministers under the 2005 Act. |
| ACE-V | Analysis, Comparison, Evaluation, Verification, a sequential process used in fingerprint analysis. |
| ACPOS | Association of Chief Police Officers in Scotland |
| advocate | Scottish lawyer, member of the Faculty of Advocates, equivalent to English barrister |
| advocate depute (AD) | Lawyers who prosecute criminal cases in the High Court of Justiciary in Scotland. Typically experienced practising members of the Faculty of Advocates or solicitor advocates. With the Lord Advocate and Solicitor General known collectively as Crown Counsel. |
| AFIS | Automated Fingerprint Identification System(s) |
| affirmed | Before giving evidence at the Inquiry hearings witnesses either took the oath (see below) or affirmed that their evidence would be truthful. |
| AFR | Automatic Fingerprint Recognition, the AFIS in use in SCRO |
| APRG | ACPOS Presidential Review Group |
| artefact | Any distortion or alteration not in the original friction ridge impression, produced by an external agent or action; any information not present in the original object or image, inadvertently introduced by image capture, processing, compressions, transmission, display, and printing.* |
| awards | Decisions by the Chairman under the Inquiry legislation to allow the payment of expenses of various kinds to core participants and witnesses. |
| bifurcation | The point at which one friction ridge divides into two friction ridges.* |
| case envelope | Pre-printed envelope used by SCRO for storing items received or created during an investigation, with fields for the results of comparisons and other information. |
| characteristics | Features of the friction ridges - also called for example minutiae, points, Galton characteristics - level 2 detail. The two main types are a ridge ending (where a ridge terminates) and a bifurcation (where it splits into two branches). |
| charting PC | Used by SCRO to create enlargements of a mark and a print for display in court. |
| clarity | or "quality": describes how well the details from three-dimensional friction ridges are reproduced in the two-dimensional impression (print or mark) |
| CMRT | Change Management Review Team (appointed by APRG in 2000) |
| comparator | A split image projection screen used to view fingerprint images |

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| COPFS | Crown Office and Procurator Fiscal Service - the prosecution authority in Scotland |
| core | The approximate centre of a fingerprint pattern.* |
| core participant | An individual or organisation so designated by the Chairman under the Inquiry legislation. |
| CP | Core participant |
| CPD | The Inquiry's core participant databases. Alternatively, Continuing Professional Development |
| CRFP | Council for the Registration of Forensic Practitioners |
| dead print form | The form on which fingerprint impressions are taken from the body of a deceased person. As seen by the Inquiry the form has one impression per digit unlike ten-print forms which have a plain and a rolled impression of each digit. |
| determinations | Under the Inquiry legislation the Chairman's power to make awards of expenses is subject to conditions and qualifications determined by Scottish Ministers. See URL: http://thefingerprintinquiryscotland.org.uk/inquiry/30.html |
| delta | The point on a friction ridge at or nearest to the point of divergence of two type lines, and located at or directly in front of the point of divergence.* |
| distortion | Variances in the reproduction of friction skin caused for example by pressure, movement, force, contact surface.* |
| DNA | Deoxyribonucleic acid contains the genetic information in cells, carried in the sequence of its four constituent base units or nucleotides. The sequence of nucleotides defines individual hereditary characteristics. DNA 'fingerprinting' employs various analytical techniques to identify individuals by determining their specific DNA sequences. |
| dot | An isolated friction ridge unit whose length approximates its width in size.* Sometimes called an island. |
| elimination | Used in connection with the fingerprints of persons who had legitimate access to a crime scene, such as residents or police officers. If such a person's print matched a mark, that mark was said to be eliminated rather than identified. |
| enclosure | A single friction ridge that bifurcates and rejoins after a short course and continues as a single friction ridge,* sometimes called a "lake". |
| ending ridge | see ridge ending |
| exclusion | The determination by a fingerprint examiner that there is sufficient quality and quantity of detail in disagreement to conclude that two areas of friction ridge impression did not originate from the same source.* |
| exemplar | The known print of an individual, recorded electronically, photographically, by ink, or by another medium.* In the Inquiry Report called "print" (as compared to the unknown which in the Report is referred to as a "mark"). |
| FBI | Federal Bureau of Investigation, an agency of the United States Department of Justice. |
| fingerprint | An impression of the friction ridges of all or any part of the finger.* |
| Form 13B | A triplicate form used by scene of crime officers and SCRO. |
| fragmentary and insufficient | Term used when a mark is considered to contain insufficient detail to allow a comparison and identification to take place or when a mark suffers from |

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| | considerable distortion, superimposition or lacks clarity (or a combination of some, or all, of these factors). |
| friction ridge | A raised portion of the epidermis on the palmar or plantar skin, consisting of one or more connected ridge units.* |
| friction ridge analysis | Analysis of the friction ridges, also called fingerprint comparison, fingerprint identification or individualisation. |
| FSS | Forensic Science Service (a government owned company providing forensic science services to the police forces of England and Wales). |
| hearings | The 58 public sessions of the Inquiry chaired by the Chairman. |
| HOLMES | Home Office Large Major Enquiry System, a database used by police forces for major investigations. |
| HOSDB | Home Office Scientific Development Branch formerly the Home Office Police Scientific Development Branch (PSDB) |
| HMA | Her Majesty's Advocate, term used to describe the Lord Advocate in citations of court cases. |
| HMCICS | Her Majesty's Chief Inspector of Constabulary for Scotland |
| HMICS | Her Majesty's Inspectorate of Constabulary for Scotland |
| IAI | International Association for Identification |
| IB | Identification Bureau |
| identification | In some forensic disciplines, this term denotes the similarity of class characteristics, see "individualisation".* |
| incipient ridge | A friction ridge not fully developed that may appear shorter and thinner than fully developed friction ridges.* |
| inconclusive | A conclusion reached by an examiner that neither sufficient agreement exists to individualise nor sufficient disagreement exists to exclude.* |
| indictment | In the Scottish criminal justice system the name of the document served on the accused in more serious criminal cases. It sets out the charges about the crimes the accused is alleged to have committed. |
| individualisation | The determination of an examiner that there is sufficient quality and quantity of detail in agreement to conclude that two friction ridge impressions originated from the same source.* |
| Inquiries Act 2005 | see "The 2005 Act" |
| Inquiries Rules | see "The 2007 Rules" |
| the Inquiry legislation | The statutory basis for the Inquiry - the 2005 Act and the 2007 Rules. |
| island | see "dot" |
| ISO | International Organisation for Standardisation |
| known print | see "exemplar" |
| lake | see "enclosure" |

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| latent print, latent impression | Transferred impression of friction ridge detail not readily visible.* |
| level 1 detail | Friction ridge flow and general morphological information,* the general flow pattern or overall friction ridge pattern eg loop, whorl, arch - first level detail. |
| level 2 detail | Individual friction ridge paths and associated events, including minutiae* e.g. bifurcations, ending ridges. 'Galton characteristics', 'points' and 'minutiae' are all terms for level two features. Second level detail. |
| level 3 detail | Friction ridge dimensional attributes (e.g. width, edge shapes, and pores)* - third level detail. |
| lift | An adhesive or other medium used to transfer a friction ridge impression from a substrate.* |
| locus | Scene where a crime or incident took place. |
| Lord Advocate | The senior law officer of the Crown in Scotland. Among other responsibilities the Lord Advocate is head of the system of prosecution in Scotland. |
| mark | Term commonly used in the United Kingdom and some Commonwealth countries to designate a latent impression. Used in the Inquiry Report to denote a fingerprint found in connection with a crime to differentiate it from a "print". |
| marks worksheet | Form used by scene of crime officers and SCRO. Listed marks and result of fingerprint examination. |
| minutiae | see "characteristics" |
| morphology | The form and structure of, in this instance, living things. |
| MSP | Member of the Scottish Parliament |
| NAFIS | The National Automated Fingerprint Identification System, first introduced to all police forces in England and Wales, later developed as part of the IDENT1 system. |
| NAS | The National Academy of Sciences in the U.S.A. |
| NNS | Non Numeric Standard, a term used to describe the non numeric approach to fingerprint work adopted in England & Wales in 2001 and Scotland in 2006. |
| NPIA | National Policing Improvement Agency (formerly NTC) |
| NTC | National Training Centre for Scientific Support to Crime Investigation |
| oath | see "sworn" |
| OIG | Office of the Inspector General (authors of the 2006 report 'A Review of the FBI's Handling of the Brandon Mayfield Case' and the follow-up report in 2011) |
| OR | Official Report - the transcript of the proceedings of the Scottish Parliament. |
| oral evidence | Evidence given in person by someone speaking in an Inquiry hearing. |
| perjury | The giving of false evidence on oath; lying while giving evidence on oath. |
| precognition | A statement taken from a witness by a statement taker (precognoscer) or solicitor which is not generally seen by the witness to be checked for accuracy and is not generally signed by the witness. |

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| Precognition | The collective term applied to the volume of materials (precognitions, expert reports, documentary productions and analysis of the evidence) provided to the advocate depute in order to prepare for and to conduct a trial. |
| procurator fiscal | The public prosecutor in criminal courts in Scotland other than the High Court where an advocate depute prosecutes. The procurator fiscal ('fiscal' for short) also works with advocate deputes in the preparation of cases for the High Court. |
| proof | The hearing of evidence (or trial) in a civil case in Scotland. |
| PSNI | Police Service of Northern Ireland |
| Q.C. | Queen's Counsel (senior advocate) |
| QD2, QI2, Y7 etc | Designations given by scene of crime officers to marks found in the investigation into Miss Ross's murder. |
| quality | The clarity of information contained within a friction ridge impression.* |
| quantity | The amount of information contained within a friction ridge impression.* |
| ridge ending | Where a ridge terminates; ending ridge - a single friction ridge that terminates within the friction ridge structure.* An example of second level detail. |
| ridge flow | The direction of one or more friction ridges; see "level 1 detail".* |
| ridge path | The course of a single friction ridge; see "level 2 detail".* |
| SCRO | Scottish Criminal Record Office |
| SE | Scottish Executive, term used to describe both Scottish Ministers and their staff between 1999 (when the devolution arrangements for Scotland under the Scotland Act 1998 came into effect) and 2007. |
| SERIS-MPS | Specialist Evidence Recovery Imaging Service-Metropolitan Police Service |
| SFS | Scottish Fingerprint Service |
| SG | Scottish Government, term used to describe Scottish Ministers and their staff from 2007. |
| SIO | Senior Investigating Officer - lead police officer |
| SOCO | Scene of crime officer |
| SOP(S) | Standard Operating Procedure(s) |
| SP | Scottish Parliament |
| special case | Term used for the most serious crimes such as murder or rape |
| SPSA | Scottish Police Services Authority |
| spur | A bifurcation with one short friction ridge branching off a longer friction ridge.* |
| substrate | The surface upon which a friction ridge impression is deposited.* |
| SWGFAST | Scientific Working Group on Friction Ridge Analysis, Study and Technology, sponsored by the US Institute of Justice and the FBI |
| sworn | Before giving evidence at the hearings witnesses were sworn i.e. they made a declaration under oath that their evidence would be truthful. Witnesses were given the option to be sworn or to affirm (see above). |

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| tenprint | A controlled recording of available fingers of an individual using black ink, electronic imaging, photography, or other medium on a contrasting background.* |
| terms of reference | The scope of the Inquiry set out by Scottish Ministers under the Inquiry legislation. |
| TIE | Trace-identify-eliminate: a police term applied to individuals who may be of interest to the police in relation to an investigation. |
| trial | The hearing of a case in criminal proceedings. |
| UKAS | United Kingdom Accreditation Service, national body responsible for assessing and accrediting the competence of organisations in the fields of calibration, testing, inspection and in the certification of systems, products and personnel. |
| URN | Unique Reference Number, the unique crime reference number allocated immediately the crime is made known. The URN allocated to the investigation of the murder of Miss Ross was UC01050197. |
| volume case | Term used for crimes such as house-breaking and motor crime, as compared to a special case. |
| witness | A person who gives evidence in a court case or Inquiry. At the Inquiry some witnesses gave both written and oral evidence, some only written. |

Footnotes

1 Some definitions shown* are taken from the glossary produced by SWGFAST, Scientific Working Group on Friction Analysis, Study and Technology (Version 3) (2011), Standard Terminology of Friction Ridge Examination, (Scientific Working Group on Friction Analysis, Study and Technology), URL: http://www.swgfast.org/documents/terminology/110323_Standard-Terminology_3.0.pdf