



ARCHIVED

GLOSSARY

ACE-V

The acronym for a scientific method; Analysis, Comparison, Evaluation, Verification. (See each individual term.)

AFIS

The acronym for Automated Fingerprint Identification System.

ANALYSIS

In the ACE-V method, the assessment of a friction ridge impression to determine suitability for comparison.

APIS

The acronym for Automated Palm Print Identification System.

APPENDAGE

An attachment or connection within friction ridges.

ARCH - PLAIN

A fingerprint pattern in which the ridges enter on one side of the impression and flow or tend to flow out the other with a rise or wave in the center.

ARCH - TENTED

A type of fingerprint pattern that possesses either an angle, an upthrust, or two of the three basic characteristics of the loop.

ARTIFACT

1. Any distortion or alteration not in the original friction ridge impression, produced by an external agent or action.
2. Any information not present in the original object/image or inadvertently introduced by image capture, processing, compressions, transmission, display or printing.

BIAS

See COGNITIVE BIAS, CONFIRMATION BIAS, CONTEXTUAL BIAS.

BIFURCATION

The point at which one friction ridge divides into two friction ridges.

BLIND VERIFICATION

The independent Analysis, Comparison and Evaluation of one or more friction ridge impressions by another qualified examiner who has no expectation or knowledge of the conclusion of the original examiner.

BRIDGE

A connecting friction ridge between and at generally right angles to parallel running ridges.

CHARACTERISTICS

Features of the friction ridges. Commonly referred to as minutiae, Galton detail, point, feature, ridge formation, ridge morphology.

CLASSIFICATION

Alpha/numeric formula of finger and palm print patterns used as a guide for filing and searching.

COGNITIVE BIAS

Influences that may affect the reliability and validity of one's observations and conclusions.

COMPARISON

In the ACE-V method, the observation of two areas of friction ridge impressions for finding dissimilarities or similarities.

COMPETENCY

Possessing and demonstrating the requisite knowledge, skills, and abilities to perform a specific task successfully.

COMPLETE FRICTION RIDGE EXEMPLARS

A systematic recording of all friction ridge detail appearing on the palmar sides of the hands. This includes the extreme sides of the palms, and joints, tips and sides of the fingers.

COMPLEX EXAMINATION

An examination during which uncommon circumstances are encountered, e.g., the existence of high distortion, low quality or quantity, the possibility of simultaneity, or conflicts among examiners.

CONFIRMATION BIAS

Tendency to search for data or interpret information in a manner that supports one's preconceptions.

CONFLICT

When a difference of conclusion becomes apparent during the application of an examination methodology.

CONSULTATION

A significant interaction between examiners regarding one or more impressions in question.

CONTEXTUAL BIAS

The tendency to allow information or outside influences to interfere with the evaluation and interpretation of data.

CORE

The approximate center of a pattern.

DELTA

The point on a 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.

DEVIATION

1. A change in ridge path.
2. An alteration or departure from a documented policy or standard procedure.

DISCREPANCY

The presence of ridge detail in one impression that does not exist in the corresponding area of another impression.

DISSIMILARITY

A difference in appearance between two friction ridge impressions.

DISSOCIATED RIDGES

Disrupted, rather than continuous, ridges; an area of ridge units that did not form into friction ridges.

DISTAL

Farthest away from the center or point of attachment. The direction away from the body.

DISTORTION

Variances in the reproduction of friction skin caused by pressure, movement, force, contact surface, etc.

DOT

An isolated ridge unit whose length approximates its width in size.

DUCT

A tube or canal that delivers secretions or excretions.

EDGEOSCOPY

Study of the morphological characteristics of friction ridges; contour or shape of the edges of friction ridges.

ELIMINATION PRINTS

Exemplars of friction ridge skin detail of persons known to have had legitimate access to the item.

ENCLOSURE

A single friction ridge that bifurcates and rejoins after a short course and continues as a single ridge.

ENDING RIDGE

A single friction ridge that terminates within the friction ridge structure.

ERRONEOUS EXCLUSION

The incorrect determination that two friction ridge impressions did not originate from the same source.

ERRONEOUS INDIVIDUALIZATION

The incorrect determination that two friction ridge impressions originated from the same source.

EVALUATION

In the ACE-V process, after the analysis and comparison, the determination of the significance of agreement or disagreement within a friction ridge impression.

EXCLUSION

The determination that two friction ridge impressions did not originate from the same source.

EXEMPLAR

The known prints of an individual, recorded electronically, photographically, by ink or by another medium.

FINGERPRINT

An impression of the friction ridges of all or any part of the finger.

FOCAL POINTS

1. For classification, those areas that are enclosed within the pattern area of loops and whorls. They are also known as the core and the delta.
2. In ACE-V, the areas selected for comparison purposes.

FRICTION RIDGE

A raised portion of the epidermis on the palmar or plantar skin, consisting of one or more connected ridge units.

FRICTION RIDGE DETAIL (MORPHOLOGY)

An area comprised of the combination of ridge flow, ridge characteristics, and ridge structure.

FRICTION RIDGE UNIT

A single section of friction ridge containing one pore.

FURROWS

Valleys or depressions between the friction ridges.

GALTON DETAILS

A term that refers to friction ridge characteristics attributed to the research of English fingerprint pioneer, Sir Francis Galton.

HENRY CLASSIFICATION

A system of fingerprint classification named for Sir Edward Richard Henry (1850 - 1931).

IAFIS

The acronym for the Integrated Automated Fingerprint Identification System, the FBI's national AFIS.

IDENTIFICATION

1. See INDIVIDUALIZATION.

2. In some forensic disciplines, this term denotes the similarity of class characteristics.

INCIPIENT RIDGE

A friction ridge not fully developed which may appear shorter and thinner in appearance than fully developed friction ridges.

INCONCLUSIVE

The inability to either individualize or exclude corresponding areas of friction ridge detail.

INDIVIDUALIZATION

The conclusion that corresponding areas of friction ridge impressions originated from the same source.

KNOWN PRINT (FINGER, PALM, FOOT)

A recording of an individual's friction ridges with black ink, electronic imaging, photography, or other medium on a contrasting background.

LATENT PRINT

Transferred impression of friction ridge detail not readily visible; generic term used for questioned friction ridge detail.

LEVEL 1 DETAIL

Friction ridge flow and general morphological information.

LEVEL 2 DETAIL

Individual friction ridge paths and friction ridge events, e.g., bifurcations, ending ridges, dots.

LEVEL 3 DETAIL

Friction ridge dimensional attributes, e.g., width, edge shapes, and pores.

LIFT

An adhesive or other medium on which recovered friction ridge detail is preserved.

LOOP - ULNAR

A type of pattern in which one or more ridges enter upon either side, recurve, touch or pass an imaginary line between delta and core and pass out, or tend to pass out, on the same side the ridges entered. The flow of the pattern runs in the direction of the ulna bone of the forearm (toward the little finger).

LOOP - RADIAL

A type of pattern in which one or more ridges enter upon either side, recurve, touch or pass an imaginary line between delta and core and pass out, or tend to pass out, on the same side the ridges entered. The flow of the pattern runs in the direction of the radius bone of the forearm (toward the thumb).

MAJOR CASE PRINTS

See COMPLETE FRICTION RIDGE EXEMPLARS.

MARK

See LATENT PRINT.

A term commonly used in the United Kingdom and some Commonwealth countries to designate a latent impression.

MATRIX

The substance that is deposited or removed by the finger.

MEDIAL

At or near the center.

MINUTIAE

See CHARACTERISTICS.

MISSED IDENTIFICATION

The failure to make an identification (individualization) when, in fact, both friction ridge impressions are from the same source.

NGI

The acronym for Next Generation Identification – The updated version of IAFIS.

POROSCOPY

A study of the size, shape and arrangement of pores.

PROFICIENCY

The ongoing demonstration of competency.

QUALITATIVE

The clarity of information contained within a friction ridge impression.

QUANTITATIVE

The amount of information contained within a friction ridge impression.

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.

RIDGE UNIT

See FRICTION RIDGE UNIT.

SHORT RIDGE

A single friction ridge beginning, traveling a short distance, and ending.

SIMULTANEOUS IMPRESSION

Two or more friction ridge impressions from the same hand or foot deposited concurrently.

SPUR

A bifurcation with one short ridge branching off a longer ridge.

STAND-ALONE

A segment of a simultaneous impression that has sufficient information to arrive at a conclusion of individualization independent of other impressions within the aggregate.

SUBSTRATE

Surface upon which a friction ridge impression is deposited.

TECHNICAL REVIEW

Review of notes, documents and other data which forms the basis for a result [1].

TRIFURCATION

The point at which one friction ridge divides into three friction ridges.

TYPE LINES

The two innermost ridges associated with a delta that are parallel, diverge, and surround or tend to surround the pattern area.

VERIFICATION

In the ACE-V methodology, the review and independent analysis of the conclusion of another examiner.

WHORL - ACCIDENTAL

A fingerprint pattern consisting of two or more deltas and two different types of patterns (excluding the plain arch); or a pattern which possesses some of the requirements for two or more different types; or a pattern which conforms to none of the other pattern definitions.

WHORL - CENTRAL POCKET LOOP

A type of fingerprint pattern which has two deltas and at least one ridge that makes or tends to make one complete circuit, which may be spiral, oval, circular, or any variant of a circle. An imaginary line drawn between the two deltas must not touch or cross any recurving ridges within the inner pattern area.

WHORL - DOUBLE LOOP

A type of fingerprint pattern that consists of two separate loop formations with two separate and distinct sets of shoulders and two deltas.

WHORL - PLAIN

A type of fingerprint pattern that consists of one or more ridges that make or tend to make a complete circuit, with two deltas, between which, when an imaginary line is drawn, at least one recurving ridge within the inner pattern area is cut or touched.

REFERENCES

1. ASCLD/LAB 2005 Manual.

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