

OSAC 2021-N-0020

Best Practice

Recommendations for

Limited Examinations

Friction Ridge Subcommittee
Physics/Pattern Scientific Area Committee
Organization of Scientific Area Committees (OSAC) for Forensic Science



Draft OSAC Proposed Standard

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Best Practice Recommendations for Limited Examinations

Prepared by
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9 **1. Introduction**

- 10 1.1. This document has been developed with the objective of improving the quality and
11 consistency of friction ridge examination practices.
12
- 13 1.2. For the purposes of this document, examinations include both latent print processing
14 conducted in a laboratory setting and friction ridge comparisons. These examinations
15 and their results should be within the examination’s limitations and/or the probative
16 needs of the customer and provided to customers in a timely manner. In some cases,
17 limiting or deferring certain examinations that do not provide additional value to the
18 needs of the case provides more timely results to the customer and conserves the
19 resources of the forensic service provider (FSP).
20
- 21 1.3. Limited examinations are exams that are not exhaustive; evidence may exist that has not
22 been partially or fully processed and/or latent prints exist that have not been analyzed
23 and/or compared.
24
- 25 1.3.1. Limited examinations are not random sampling methods.
26
- 27 1.4. In some situations, limited examinations are advantageous to FSPs for any of the
28 following reasons (not an all-inclusive list):
29 1.4.1. probative value of the evidence
30 1.4.2. crime type considerations (i.e. people versus property)
31 1.4.3. backlog reduction
32 1.4.4. increased case throughput
33 1.4.5. effective resource allocation and usage
34
- 35 1.5. If limited examinations are performed, they should be performed in a manner that
36 has the lowest assessed risk on the evidence and case.
37
- 38 1.6. In this document, the following verbal forms are used: “*shall*” indicates a requirement,
39 “*should*” indicates a recommendation; “*may*” indicates permission; and “*can*” indicates a
40 possibility or capability.
41

42 **2. Scope**

- 43 2.1. This document describes what limited examinations are and provides the best practice
44 recommendations on how limited examinations should be conducted. It also describes
45 what documentation is necessary if limited examinations are utilized by a forensic
46 service provider.
47
- 48 2.2. This document does not address limiting the collection and preservation of evidence.
49

50 **3. Terms and Definitions**

51 For the purposes of this document, the following terms and definitions apply.

52

53 3.1. Comparison (phase of the Examination methodology): The search for and detection of
54 similarities and differences in the observed data between two potentially corresponding
55 friction ridge impressions.

56

57 3.2. Customer: Client, authority, organization or person(s) requesting the forensic services.

58

59 3.3. Examination: The act or process of observing, searching, detecting, recording,
60 prioritizing, collecting, analyzing, measuring, comparing, and/or interpreting.

61

62 3.4. Examiner (Friction Ridge)/Competent Friction Ridge Examiner: An individual who has
63 successfully completed their FSP’s training program and has demonstrated to the FSP
64 that they possess the knowledge, skills and abilities to perform the tasks required of their
65 current position. An individual authorized to conduct friction ridge examinations for the
66 FSP by observing and interpreting data, making decisions, forming conclusions and
67 opinions, issuing reports and/or providing testimony.

68

69 3.5. Forensic Service Provider (FSP): A forensic science entity or forensic science
70 practitioner providing forensic science services.

71

72 3.6. Friction Ridge Detail/Features: The combination of ridge flow, ridge characteristics, and
73 ridge structure of friction ridge skin, as observed and reproduced in an impression. A
74 large subset of the observed data used to compare and interpret similarity or dissimilarity
75 between two impressions.

76

77 3.7. Minutia: The point where a friction ridge begins, terminates, or splits into two or more
78 ridges. A subset of the friction ridge detail/features traditionally consisting of ridge
79 endings, bifurcations, and dots/short ridges used to compare and interpret similarity and
80 dissimilarity between two impressions.

81

82 3.8. Observed Data: Any demonstrable information observed within an impression that an
83 examiner relies upon to reach a decision, conclusion or opinion. This has historically
84 been expressed as “features” or “minutiae,” but the use of the broader term “observed
85 data” is inclusive of other types of data that may be considered beyond minutiae, such as
86 quality, scars, creases, edge shapes, pore structure, and other friction ridge features.

87

88 **4. General Recommendations**

89 4.1. Evidence Processing

90

91 4.1.1. The probative value of evidence should be assessed when deciding which
92 evidence to process first (i.e. not processing items determined to be irrelevant to

- 93 the case, halting comparisons after multiple identifications have been made to the
94 same individual, etc.).
- 95
- 96 4.1.2. Offense type may be considered when determining which cases to process first.
97 Offenses that present a more egregious threat to public safety may be prioritized;
98 however, consideration should be given when determining the extent to which any
99 particular case may be examined.
- 100
- 101 4.1.3. When considering backlog mitigation strategies, selecting specific processing
102 techniques with higher sensitivity instead of conducting full sequential processing
103 may be necessary to improve efficiency and throughput. When selecting limited
104 processing techniques, the FSP should consider the potential of a given technique
105 for negating subsequent processing. At a minimum, any friction ridge detail of
106 potential value that has been developed shall be photographed and/or retained and
107 the integrity of the item shall be maintained for potential future examination.
108 Backlog reduction may also include conducting limited processing of certain
109 items (e.g. cartridge cases, locks, etc.) that have a low success rate.
- 110
- 111 4.1.4. FSP submission guidelines may include packaging recommendations that will
112 maximize latent print processing results (i.e. separating drugs from the packaging
113 prior to submission).
- 114
- 115 4.2. Friction Ridge Impression Comparisons
- 116
- 117 4.2.1. Examiners may compare and search friction ridge impressions on the most
118 probative items where friction ridge detail is developed first and may stop when
119 the investigative needs of the customer have been met (i.e. person(s) of interest
120 is/are identified). Additional comparisons can be completed by the request of the
121 customer.
- 122
- 123 4.2.2. Develop and retain all suitable friction ridge impressions; however, defer any
124 remaining manual comparisons once each named person of interest has been
125 identified on the surface or item(s).
- 126
- 127 4.2.3. Submit and search all AFIS quality friction ridge impressions first and report any
128 conclusions made from the automated searches. Non-AFIS quality friction ridge
129 impression comparisons may be completed upon an additional request from the
130 customer.
- 131
- 132 4.2.4. Perform automated searches using auto-extracted minutiae first (e.g. an LFIS
133 search) and if no identifications are made, perform a second search by using
134 manually-encoded minutiae or ‘cleaning up’ the auto-extracted minutiae.
- 135
- 136 4.2.5. Limit the number of respondents reviewed from the automated system candidate
137 response list or adjust the score that must be obtained in order to review the
138 respondents.

139
140 4.2.6. FSP policy may allow or require the restriction on which databases are searched
141 to reduce the amount of time spent on each examination (e.g. only search a local
142 database for specific types of crimes).

143
144 4.3. Necessary Documentation and Reporting

145
146 4.3.1. The FSP shall communicate with the relevant stakeholders and customers when
147 performing limited examinations; both to determine if the examination is still
148 required and to establish the extent or order of the examinations.

149
150 4.3.2. Any FSP that performs or plans to perform limited examinations shall notify any
151 customers of that policy in advance. The extent of the examination shall be
152 documented in the case file and reported to the customer. This documentation
153 shall include any evidence that was not processed and/or any friction ridge
154 impressions that were of value that were not compared.

155
156 4.3.3. Any limited examination approach should be conducted with respect to reducing
157 the inhibition of future processing and/or comparisons. This would allow
158 additional examinations at a later date. It is up to the FSP to weigh the costs
159 versus benefits in deciding whether to implement a limited examination policy.
160

161 **5. Appendix A: Change Log**

Version	Date	Change
1.0	DD/MM/YYYY	Original Issue

162