

# **OSAC 2023-S-0026**

## **Technical Report for Task- Relevant Information in Friction Ridge Examination**

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



**OSAC Proposed Standard**

**OSAC 2023-S-0026**

**Technical Report for Task-Relevant  
Information in Friction Ridge  
Examination**

Prepared by  
Friction Ridge Subcommittee  
Version: 2.1  
October 2024

---

**Disclaimer:**

This OSAC Proposed Standard was written by the Friction Ridge Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science following a process that includes an [open comment period](#). This Proposed Standard will be submitted to a standard developing organization and is subject to change.

There may be references in an OSAC Proposed Standard to other publications under development by OSAC. The information in the Proposed Standard, and underlying concepts and methodologies, may be used by the forensic-science community before the completion of such companion publications.

Any identification of commercial equipment, instruments, or materials in the Proposed Standard is not a recommendation or endorsement by the U.S. Government and does not imply that the equipment, instruments, or materials are necessarily the best available for the purpose.

To be placed on the OSAC Registry, certain types of standards receive a Scientific and Technical Review (STR). The STR process is vital to OSAC's mission of generating and recognizing scientifically sound standards for producing and interpreting forensic science results. The STR shall provide critical and knowledgeable reviews of draft standards to ensure that the published methods that practitioners employ are scientifically valid, and the resulting claims are trustworthy.

The STR consists of an independent and diverse panel, which may include subject matter experts, human factors scientists, quality assurance personnel, and legal experts as applicable. The

selected group is tasked with evaluating the proposed standard based on a defined list of scientific, administrative, and quality assurance-based criteria.

For more information about this important process, please visit our website at: <https://www.nist.gov/organization-scientific-area-committees-forensic-science/scientific-technical-review-str-process>

Version No.	Issue Date	Section	Reason
2.0	Oct 1, 2024	--	Added to the OSAC Registry and publicly announced.
2.1	October 4, 2024	4.2.3	Corrected “examplars” to “exemplars.”

## Table of Contents

1	Introduction .....	5
2	Scope .....	5
3	Terms and Definitions.....	5
4	General Information .....	6
5	Informative References .....	7

## Technical Report for Task-Relevant Information in Friction Ridge Examination

### 1 Introduction

**1.1** This document has been developed with the objective of improving the quality and consistency of friction ridge examination practices.

### 2 Scope

**2.1** This document specifies information that is task-relevant and task-irrelevant to the Analysis, Comparison, and Evaluation phases of friction ridge examinations.

**2.2** This document does not address other tasks that friction ridge examiners perform, such as collection, preservation, processing, conducting Automated Biometric Identification System (ABIS) searches, conflict resolution, and verification. This document also does not address the relevance of information necessary for administrative tasks, accreditation requirements, or reporting of results.

**2.3** This document does not address requirements or recommendations for managing exposure to task-irrelevant information in friction ridge examinations.

### 3 Terms and Definitions

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

#### 3.1

##### **exemplar expression**

The deliberately recorded images or impressions from the friction ridge skin of an individual.

NOTE 1 to entry: Examples may include, but are not limited to, inked tenprints, inked palm prints, Livescan prints, powder and lift prints, casted/molded prints, or photographs of friction ridge skin.

#### 3.2

##### **matrix**

The substance that is deposited or removed by the friction ridge skin when making an impression, e.g., sweat, oils, blood, dust, etc.

#### 3.3

##### **questioned impression**

An impression or image of friction ridge skin whose source or identity is unknown; it can include latent impressions, impressions from an unknown source or a known source.

### **3.4**

#### **substrate**

surface or material upon which a substance is deposited.

### **3.5**

#### **task-relevant**

Information is task-relevant for analytic tasks if it is necessary for drawing conclusions:

- i. About the propositions applicable to the analyst's task,
- ii. From the physical evidence that has been designated for examination,
- iii. Through the correct application of an accepted analytic method by a competent analyst.

### **3.6**

#### **task-irrelevant**

Information is task-irrelevant if it is not necessary for drawing conclusions about the propositions applicable to the analyst's task.

NOTE 1 to entry: Information that is irrelevant for friction ridge examination may well be relevant for other administrative, analytical, or reporting tasks.

## **4 General Information**

**4.1** Only the following information is considered task-relevant for the Analysis, Comparison, and Evaluation phases of friction ridge examination.

**4.1.1** Questioned impressions

**4.1.2** Substrate

**4.1.3** Matrix

**4.1.4** Processing methods

**4.1.5** Collection methods

**4.1.6** Orientation and location of impressions

**4.1.7** Environmental/locality from which questioned impressions were recovered.

**4.2** The following information is considered task-relevant for the Comparison and Evaluation phases of friction ridge examination only.

**4.2.1** Exemplar impressions

**4.2.2** Date of collection

**4.2.3** Whether any exemplars were generated by a database search, the size of any databases searched, and any search parameters.

**4.3** All information not enumerated in Sections 4.1-4.2 is presumed task-irrelevant for the Analysis, Comparison, and Evaluation phases of friction ridge examination. It is not possible to enumerate an exhaustive list of information that is task-irrelevant for friction ridge examinations. Information that is task-irrelevant for the Analysis, Comparison, and Evaluation phases of friction ridge examination includes, but is not limited to, the following.

**4.3.1** Results of other forensic services

**4.3.2** Documentation and/or conclusions by other friction ridge examiners

**4.3.3** Crime type

**4.3.4** Procedural status of each case and/or how the sources of exemplar impressions relate to case (e.g., suspect, victim)

**4.3.5** Other evidence or investigative information, whether forensic or not

**4.3.6** Any information about the identity, relationship to the investigation, criminal history, or demographic information about the source(s) or exemplar(s)

**4.3.7** Identities of personnel involved in the investigation, e.g., submitting officer

**4.3.8** Lab and agency case numbers

**4.3.9** Item number(s)

**4.3.10** Automated Biometric Identification System (ABIS) rank and/or score

**4.3.11** Any information about the reference population (the population of potential donors of questioned impressions)

## 5 Informative References

**5.1** National Commission on Forensic Science, Ensuring That Forensic Analysis is Based Upon Task-Relevant Information, Technology, (2015), available online:  
<https://www.justice.gov/ncfs/file/818196/download>.

## 6 Appendix A: Change Log

Version	Date	Change
1.0	DD/MM/YYYY	Original Issue