ULW Approach for Sharing Latent Identification Services (ANSI/NIST Standard)

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Sharing Latent Identification Services

- Requirements
- ANSI/NIST Record
- ULW – Encode once, search anywhere
- The way forward

The Problem

Most latent prints are not searched beyond the local AFIS

- **Resource limits**
- **Falling ID rate with successive AFIS**
- **Awkward or no connectivity**
- **Duplicate encoding steps**

Sharing Latent Identification Services

Cross-jurisdictional searches are often high profile cases where anything less then full accuracy is of very limited value

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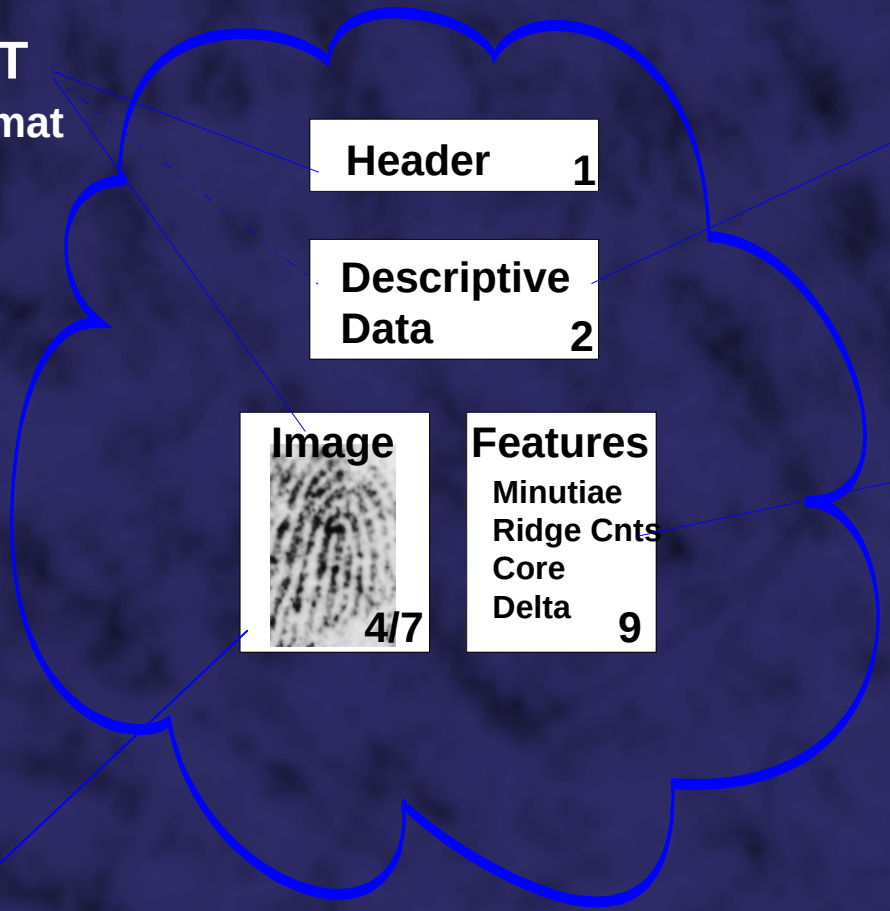
AFIS are highly optimized to their native feature set

Must provide each AFIS with its native characterization to insure full accuracy

Latent Search Record

ANSI/NIST
Data Format

EFTS
Required Fields



AFIS Vendor's Specifications

Image Quality Specifications

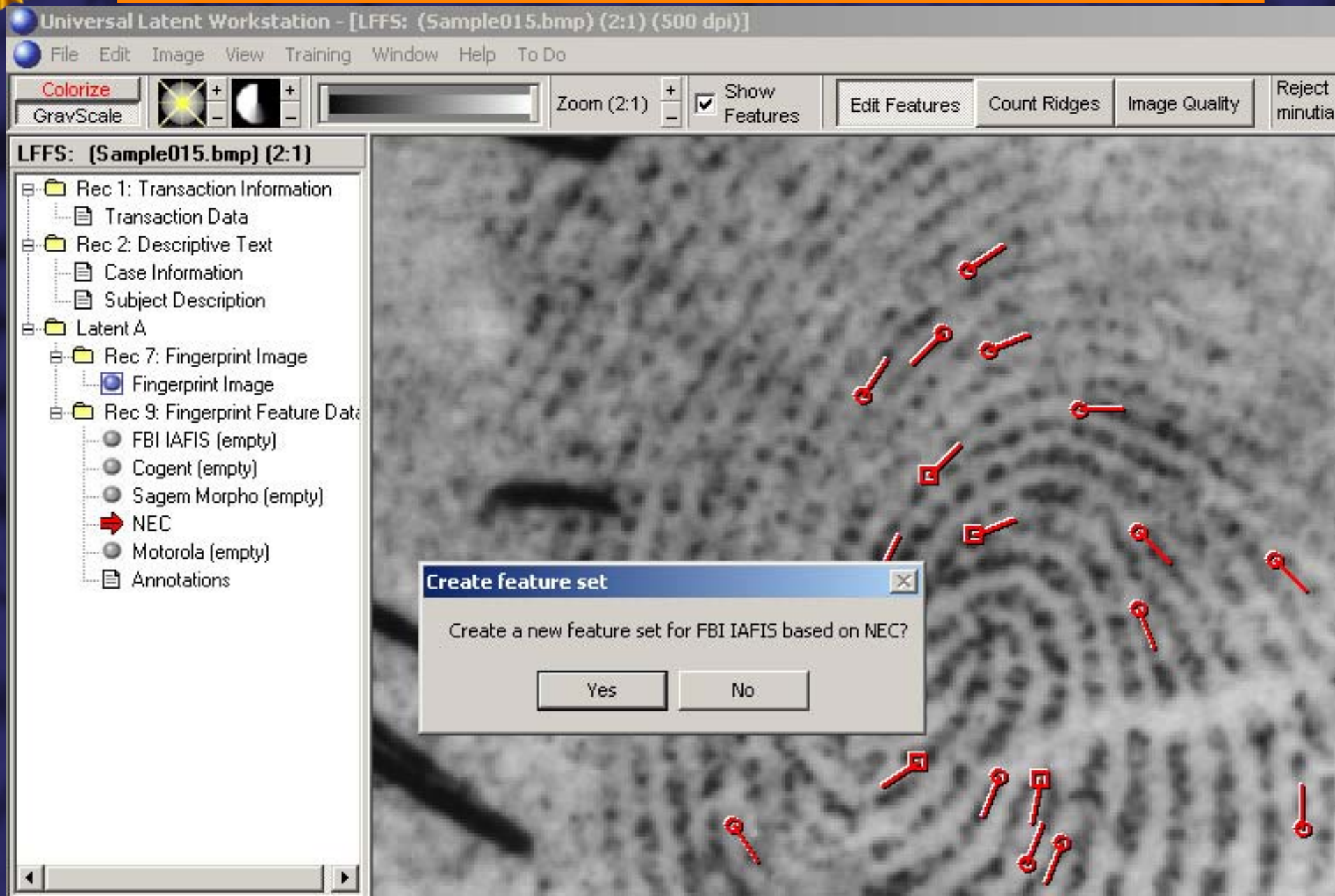
ANSI/NIST Type 9 Record

9:013 ⋮ 9:030	FBI IAFIS Features
9:031 ⋮ 9:055	Cogent Features
9:056 ⋮ 9:070	Printrak Features
9:071 ⋮ 9:099	SAGAM MORPHO Features
9:100 ⋮ 9:125	NEC Features

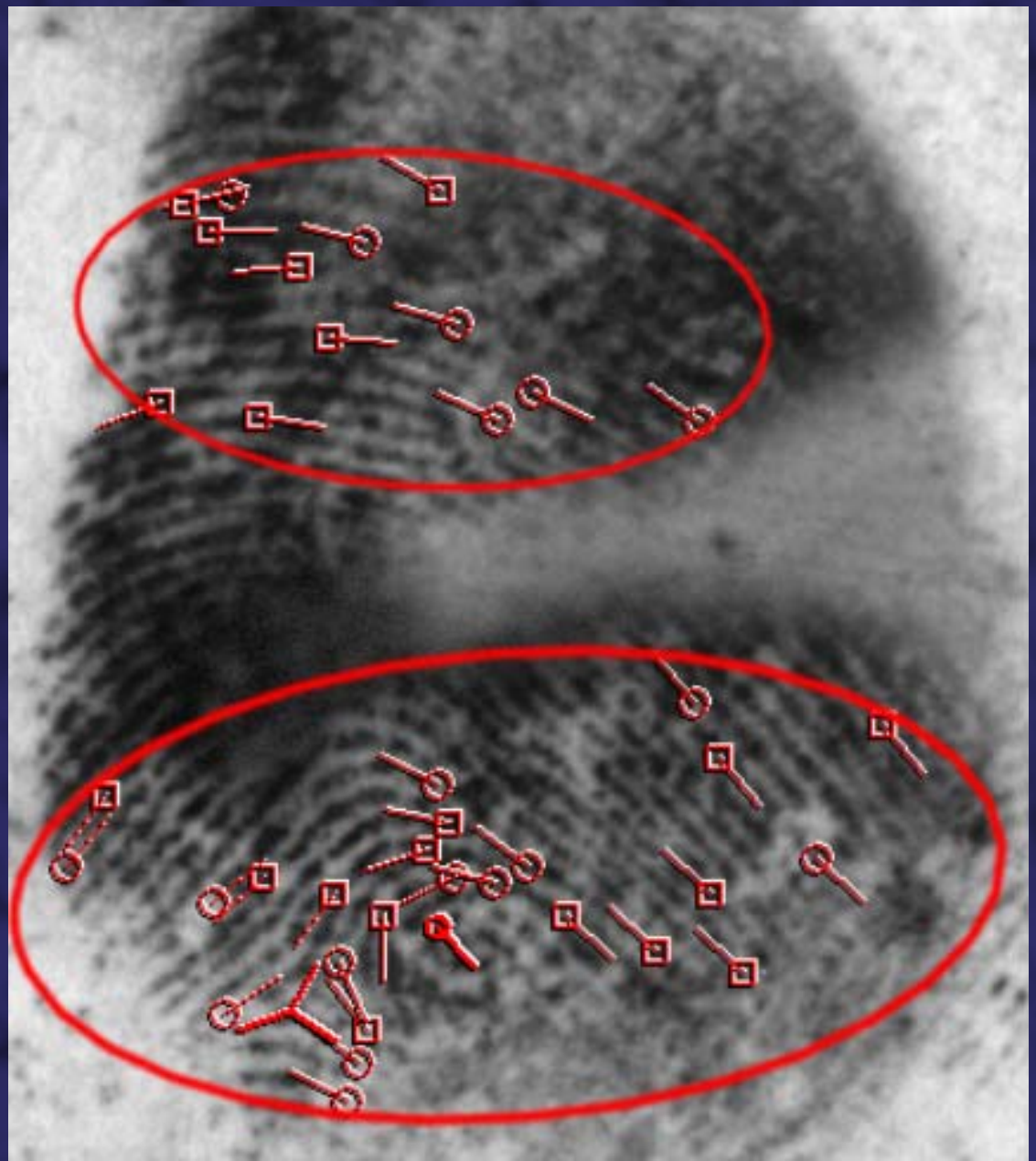
ANSI/NIST
Type 9 Record

- 9.001: Logical Record Length
- 9.002: Image Designation Character
- 9.015: Number of Minutiae
- 9.016: Fingerprint Characterization Process
- 9.017: Pattern Classification
- 9.020: Orientation Uncertainty
- 9.021: Core Attributes
- 9.022: Delta Attributes
- 9.023: Minutiae & Ridge Count Data
- ⋮

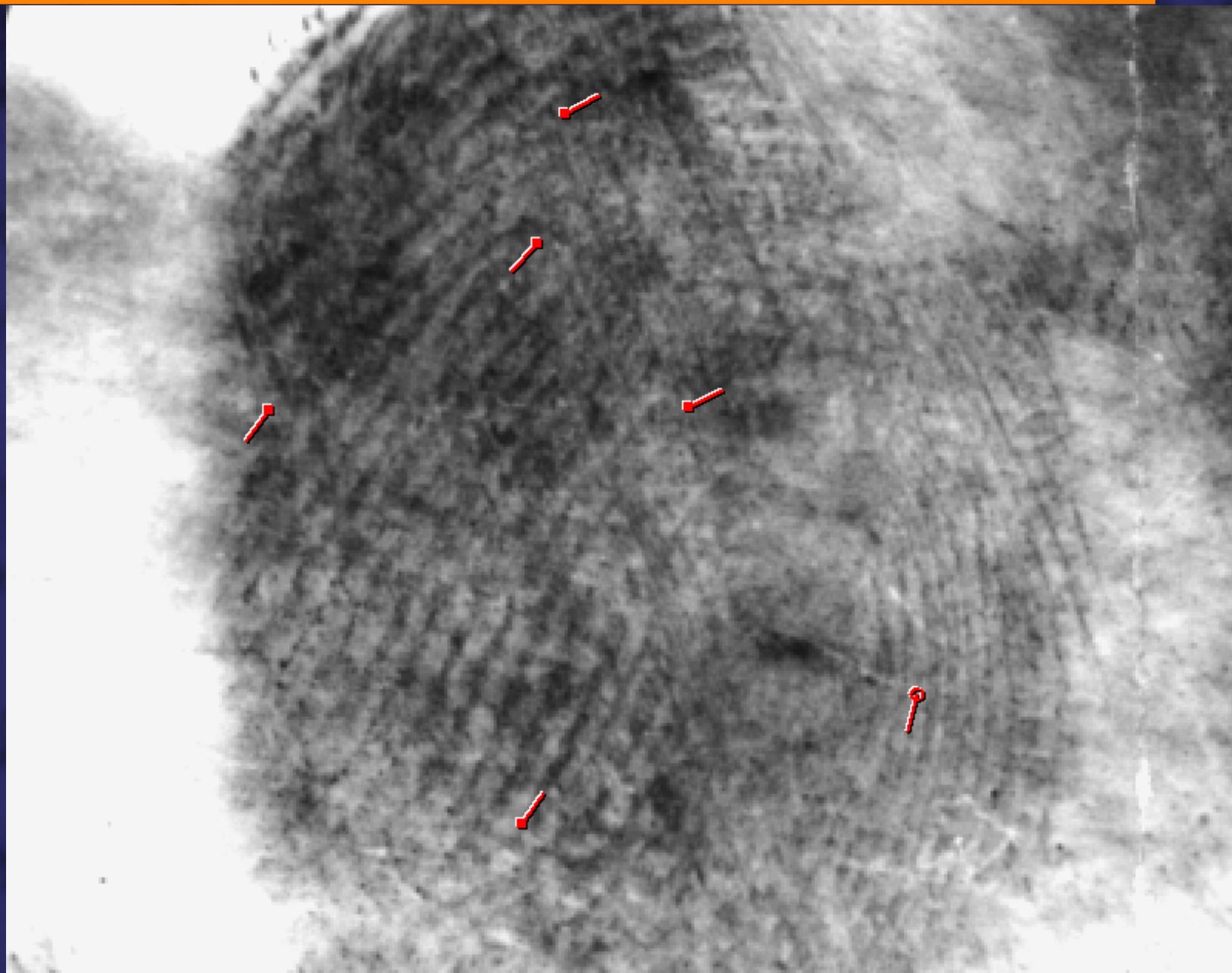
Universal Latent Workstation (ULW)



Minutiae Clusters



Isolated Minutia



The Challenge

Insure that the automated encoding or trans-coding stops short of errors and provide the examiner with oversight and revision options