



ANSI/NIST Fingerprint Standard Workshop

Identification Flats

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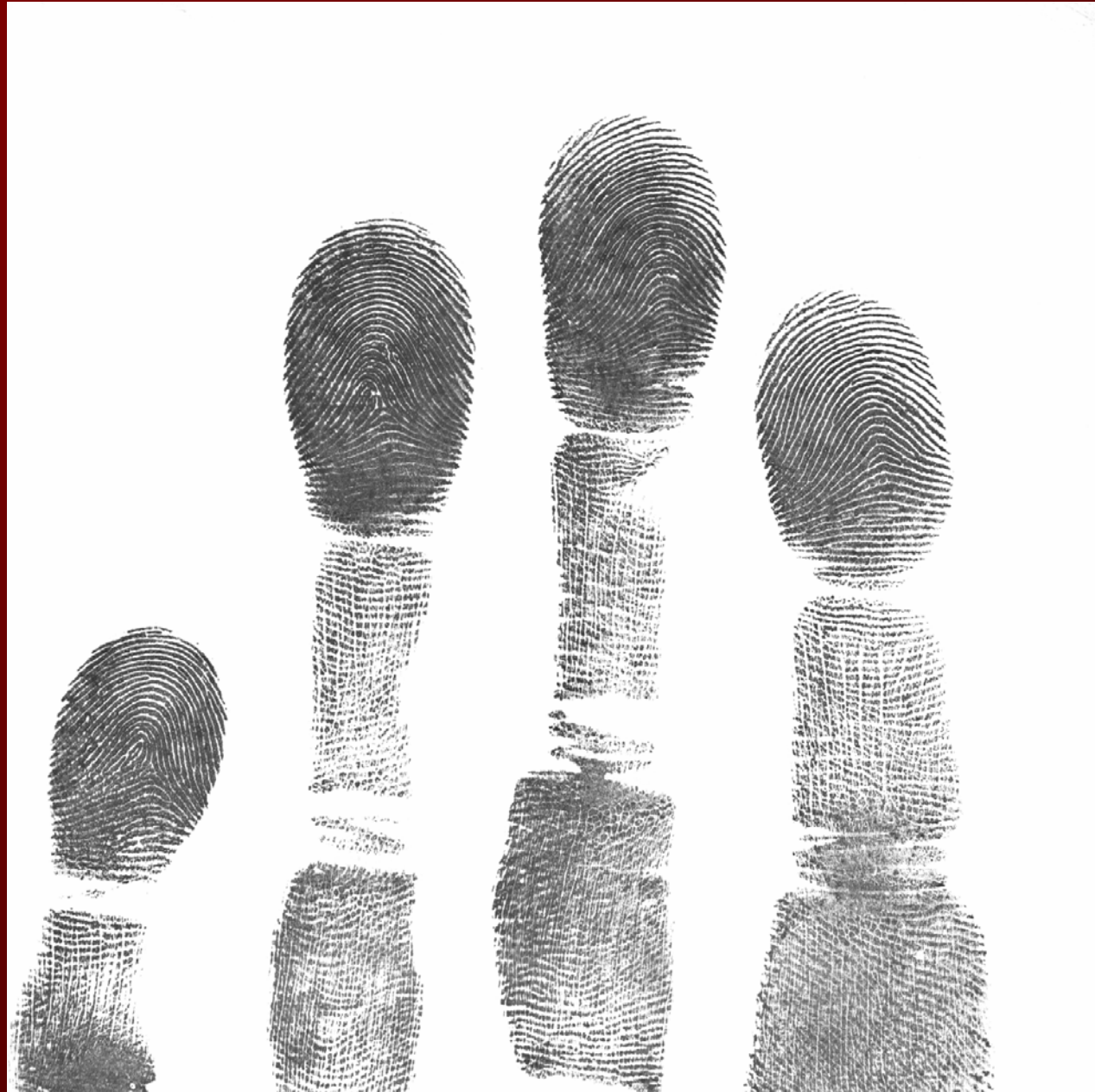
Flats Standard

Reduce fingerprint capture failures by adopting a simpler capture process

- **What are Identification Flats?**
- **N-FACS Study Results**
- **Flats Standard Requirements**
 - **Tall Platen**
 - **Segmentation**
 - **Image Quality Scores**
- **Los Angeles Study on Latent Searching**



Identification Flats





Sequence Flats





Sequence Flats





N-FACS Results

	Segmented Seq. Flats	Cross Match 2"	Heimann LS2 3"	Rolled Ink	Livescan Rolled
Dual Sub		94.3%	97.6%	93.8%	
Flats only		95.9%	97.7%		
Ohio Idents		94.5%	96.7%		
ODRC		96.1%	98.3%		98.5%
Seg Vendor A	65.4%				95.9%
Seg Vendor B	78.9%				97.0%

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Tall Platen

- **Simple robust capture protocol**
- **Reduced training requirement**
- **Better finger registration/quality**
- **No finger sequence errors**
- **No rotation/ More reliable segmentation**
- **2.25 mega pixels**

Faster, Easier, more Accurate



Type-14 Image Record





Type-14 Image Record



IQM=4



IQM=5



IQM=5



IQM=5



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Los Angeles Study

Candidate List for 1805 Ident Searches

10/12/2003 - 5/27/2004

**Currently about 2% of the records are composite
(3rd set is 'best' images)**

About 92% of the records include flats



Rolls Candidate List

<u>Candidate</u>	<u>Score</u>
002357	1705
102588	1633
107843	1403
045512	1145
310492	1022
202301	917
110235	902



Rolls + Flats + Recidivist

	<u>Candidate</u>	<u>Score</u>
F	002357	1989
R	002357	1705
R	107843	1603
R	002357	1571
F	002357	1379
F	002357	1246
R	002357	1238



Ident Candidates

Candidates	1	2	3	4	5	6
Searches	646	797	110	123	51	78

2.1 ident candidates per search on average



Ident Candidates

Flats only	224	12.4%
Rolls only	502	27.8%
Both	1079	59.8%
Total	1805	100%