

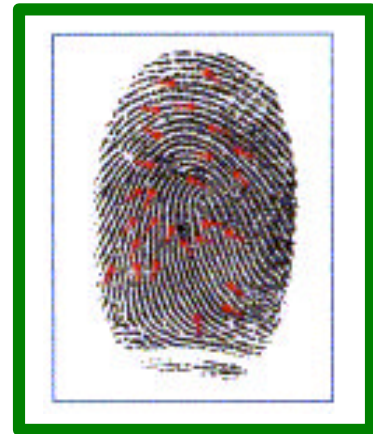
The  *SAGEM MORPHO, Inc.* **Biometric Process**



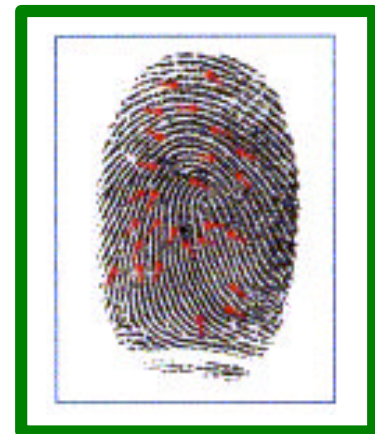
Step 1: Finger is scanned and viewed by the MorphoTouch access unit at the point of entry.

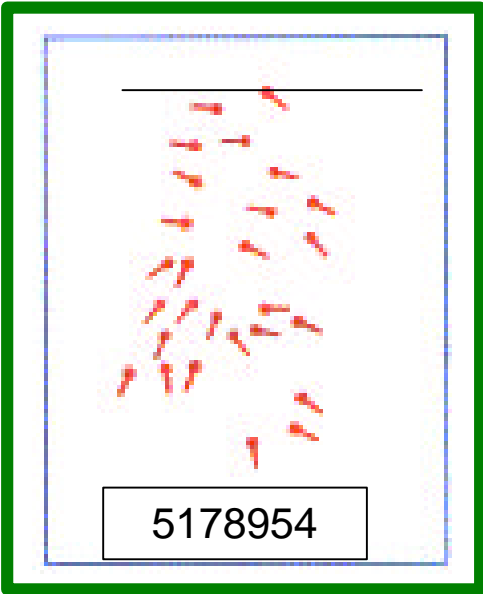


Step 2: In applications for children (under the age of 18) the image is standardized and resized before processing.



Step 3: System develops a grid of intersection points from the swirls and arcs of the scanned finger.





Step 4: The image is discarded from the record and is no longer available to the system or any operator. Only a “Template” remains that indicates the intersection points.



207895.3094.92345.128056.1239
87.10294.24360.193245.3495.29
83.07895.3094.92345.128056.12
3987.10294.24360.193245.3495.
2983.7895.3094.92345.128056.1
23987.10294.24360.193245.3495
.2983.207895.3094.92345.12805
6.123987.10294.24360.193245.3
495.2983.07895.3094.92345.128
056.123987.10294.24360.193245
.3495.2983.7895.3094.92345.128
056.123987.10294.24360.193245
.3495.2983.207895.3094.92345.1
28056.123987.10294.24360.1932
45.3495.2983.07895.3094.92345.
128 5178954 0.193
245 2345.

Step 5: In fact, all that the MorphoTouch stores and recognizes for each individual is a set of numbers that can only be interpreted as a template.



The system only remembers and processes numbers for each individual, just like a social security number. The advantages with a biometric approach is that the number cannot be duplicated, lost or stolen, and, uniqueness is defined by the individual.

The differences between forensic (or, criminal) applications and the MorphoTouch commercial product:

- **The MorphoTouch captures only 1 or 2 fingers**
- **Forensic AFIS applications capture all 10 fingers**

- **The MorphoTouch captures flat images**
- **Forensic AFIS applications capture rolled images**

- **Flat images reveal the center of the finger and require only a minimum of unique identifying points (around 40)**
- **Rolled images are called “nail to nail” because they capture unique identifying points on the entire finger surface area in order to collect the maximum number of unique identifying points (around 112)**

- **For applications involving children, the MorphoTouch standardizes and resizes the image before looking for unique identifying points.**
- **In forensic applications, finger resizing and standardization is not allowed.**

- **Data taken from a resized (children’s) image on a MorphoTouch system cannot be used on a forensic system**
- **Data taken from a forensic system juvenile record cannot be used on a MorphoTouch system**

- The primary purpose of a forensic system is to identify suspects based upon latent images taken from a crime scene
- The purpose of the MorphoTouch is to quickly and accurately verify a person already known to the system

FAQ's

“Can my child’s finger print be taken off of the MorphoTouch?” **No. The finger print image is not stored, only evaluated.**

“OK, so can my child’s fingerprint data be taken off the MorphoTouch and used to re-create their fingerprint?” **No. There is no way for any fingerprint computer, or for that matter, any fingerprint expert, to extract the record and reconstruct a person’s fingerprint image from this data. To be clear, there is no possibility of “reverse identification” as it is called in the biometric industry.**

“But can my child’s fingerprint *data* be taken off the MorphoTouch and used as is on another fingerprinting system?” **No. Because of the way the image is evaluated, the resulting record is useless to a forensic application.**

“Can my child’s fingerprint be copied or used by anyone else?” **No.** It is not possible to duplicate or falsify fingerprints with the accuracy necessary for unique identification.