Update to "Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information" for multiple finger capture designations
ANSI/NIST-ITL 1a-2009

Description:

This is an extension of the table*, Finger Position Code & Maximum Image Dimensions* in order to include additional finger combinations. The extension is to Table 12 in Part 1 and Table 212 in Part 2. This brings the ANSI/NIST standards into harmony with "*Mobile ID Device Best Practice Recommendation Version 1.0"* (NIST Special Publication 500-280). Only the table extension is subject to vote.

The "*Mobile ID Device Best Practice Recommendation Version 1.0" (BPR)* was developed by a working group established by the Advisory Policy Board (APB) to the Federal Bureau of Investigation (FBI). The Working Group was comprised of representatives from Government (US and international), academia, and industry. It met over thirteen months and produced several drafts before reaching a consensus on the final version that was then issued as a NIST Special Publication.

The document is intended to assist organizations that process and exchange biometric data captured and acquired from a Mobile ID device without regard to any peculiarities of that device. Information captured, compiled and formatted in accordance with the BPR and compliant with the target system's implementation of the ANSI/NIST-ITL 1-2007 or ANSI/NIST 2-2008 standards can be transmitted and seamlessly exchanged. This update does not impact any existing parts of Part 1 or Part 2 of the standard.

The working group recognized the need to be able to transmit data captured from multiple fingers simultaneously. The ANSI/NIST finger position codes are extended to allow for this type of data. Note that Table 12(Part1) and Table 212 (Part 2) are identical. The codes start at 0 and go to 19. Palm codes utilize numbers 20 through 36 in Record Type 15. Thus, the additional finger codes (used for the simultaneous capture of multiple fingers) adopted in the BPR start at 40.

Text to be inserted immediately following the existing Note to Table 12 in Part 1 and Table 212 part 2:

The above table is *extended* with **minimum** dimensions for common 2-finger and 3-finger combinations captured by mobile ID devices. Note that mobile devices can use the codes defined in the above table, as well as those presented here.

Table 12.A (Table 212.A for Part 2)

Finger position	Finger code	Min image area (cm^2)	Min Width (mm)	Min Width (in)	Min Length (mm)	Min Length (in)
2-Finger Combinations						
Right index/middle	40	15.47	40.6	1.6	38.1	1.5
Right middle/ring	41	15.47	40.6	1.6	38.1	1.5
Right ring/little	42	15.47	40.6	1.6	38.1	1.5
Left index/middle	43	15.47	40.6	1.6	38.1	1.5
Left middle/ring	44	15.47	40.6	1.6	38.1	1.5
Left ring/little	45	15.47	40.6	1.6	38.1	1.5
Right index/ Left index	46	15.47	40.6	1.6	38.1	1.5
3-Finger Combinations						
Right index/middle/ring	47	24.19	63.5	2.5	38.1	1.5
Right middle/ring/little	48	24.19	63.5	2.5	38.1	1.5
Left index/middle/ring	49	24.19	63.5	2.5	38.1	1.5
Left middle/ring/little	50	24.19	63.5	2.5	38.1	1.5

All who voted approved the table update unanimously. Some voted "Yes with comments". These comments are summarized below:

1) It may be helpful to provide guidance on maximum dimensions.
2) There is no need for the minimum image area, given the width and length columns.
3) It might be better to change mm to cm.
4) The minimum areas for codes 42, 45, 48 and 50 may not be sufficient. The use of these codes is also like to be minimal.
5) It should be noted that Tables 12 and 212 are extended with minimum dimensions for common *simultaneous* 2-finger and 3-finger combinations captured by mobile ID devices. Note that mobile devices can use the codes defined in the Table 12 and 212 as well as those presented here.

6) The titles of the finger combinations are given from the thumb outwards (that is, left to right for the right hand and right to left for the left hand). “Right index / Left index” means that the right index placed on the right portion of the imaging area and the left index on the left portion of that same imaging area.
7) The standard as it is currently written is restricted to a continuous sensor image capture for the multiple fingers. Similar conditions could occur for sensors placed in close proximity and capturing the separate finger images simultaneously, but currently the standard requires them to be transmitted separately.