
FM300U

Reader

Product Specification

DOC. VERSION 1.0

Startek Engineering Incorporated

Sep 2017

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Specification Revision History

Doc. Version	Revision Description	Date
1.	Initial version	2017/09/29

1. General Description

Latest fingerprint reader introduced by Startek, FM300U, is a high-quality CMOS-based optical reader. It captures images and verifies fingerprints at high speed and its performance in image capture lies in between a high-cost CCD-based fingerprint reader and a general CMOS-based reader. In the newly implemented FM300U, it overcomes the problem some other optical readers have in requiring constantly replacing lens coating to speed up fingerprint image scanning. In addition, the image distortion rate of FM300U is decreased dramatically from 15% of a general CMOS reader to less than 1%. Its Modular Transfer Function (MTF) value has also been improved to more than 40% comparing to 30%~20% for a general CMOS reader. These features of FM300U represent a breakthrough in optical fingerprint reader technology.



2. Features

- USB 2.0 Interface (High Speed)
- Fast scanning & matching speed
- Real-life applications: no problem in verifying smeared, scarred, stained and smudged fingers.
- PIV certification
- PIV capabilities ported to a verification scanner – absolutely low FTE
- Ergonomic design to guide finger position for effective scanning
- Non-distorted image quality
- Choice to set different security levels for different FRR/FAR demand
- Small template size, ISO approved.
- Suitably protected against dust and water ingress.
- The reader is totally shock proof, for accidental falls from table.(under 4 feet free fall)
- Support verification on various server platforms

3. Application Information

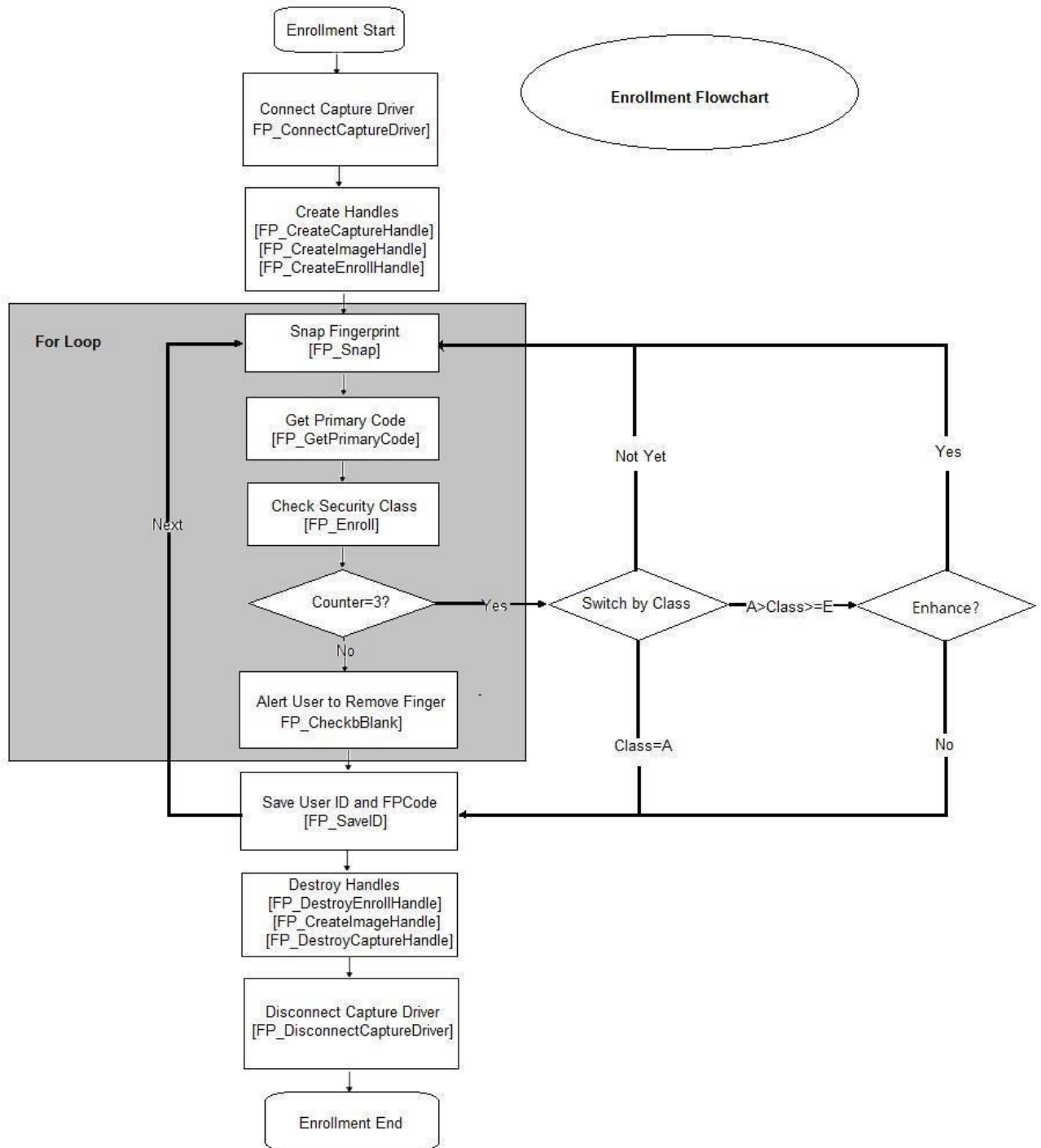
- E-commerce and online shopping
- Time and attendance
- ERP identity identification and staff management
- Electronic banking services
- Government access control and identity identification

4. Specification

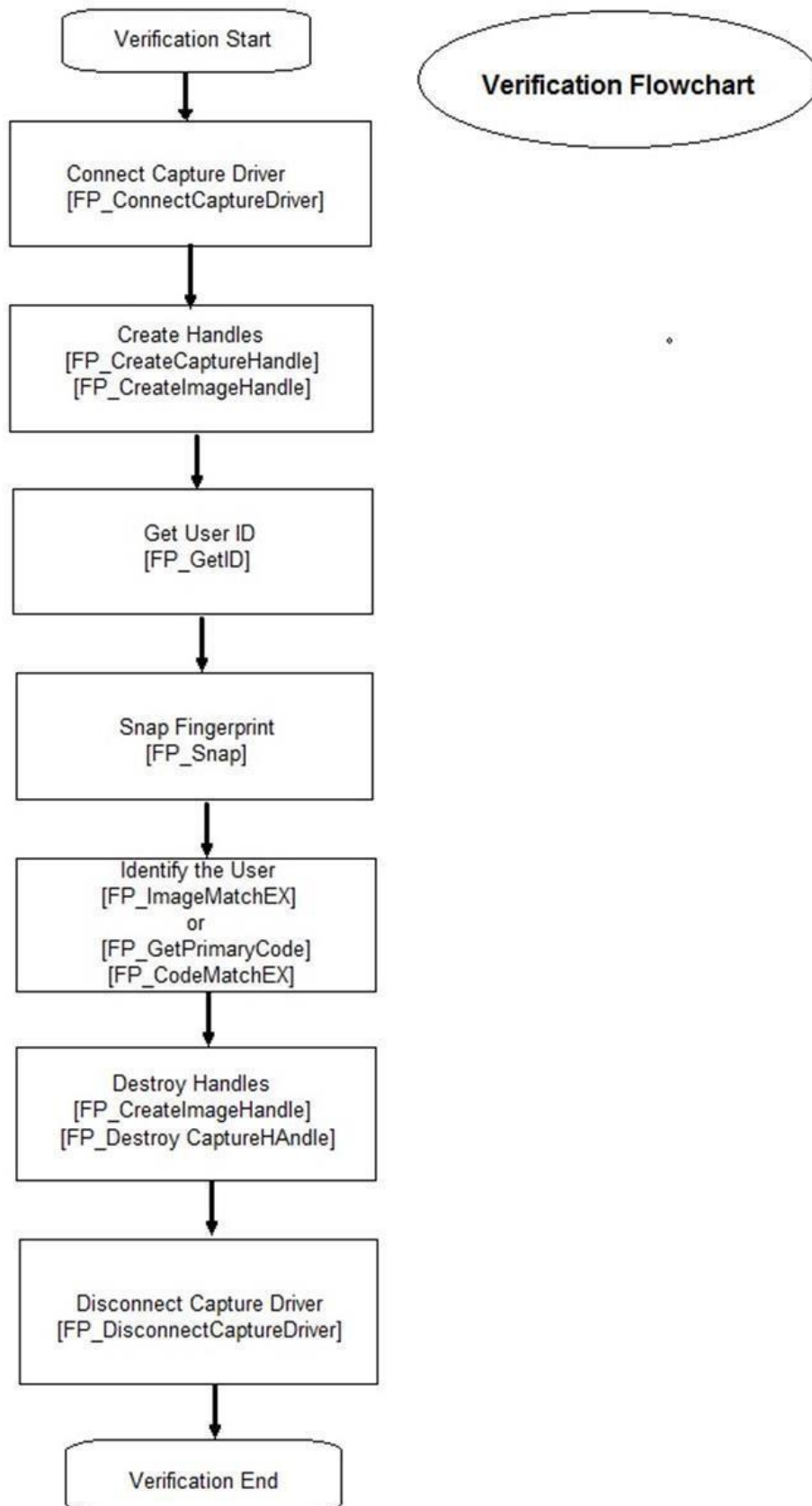
Sensors	CMOS
Scanning Speed	1/15 sec
Image Resolution	500 dpi (H), 500 dpi (V)
Platen Size	20 x 21 mm (H x V)
Image Size	264 x 324 pixel (H x V) / 360 x 400 pixel (H x V)
Gray Level	8 bit/pixel, 256 gray
Image Ration of Length to Width	1:1
Interface	USB 2.0 Hi-Speed
Power	1W, (via USB port)(200mA, stand by:60mA)
Dimension	100 x 60 x 50 mm (L x M x H)
Operating Temperature	0°C ~ 50°C
Operating Humidity	90% RH or less, noncondensing
Operating Systems Supported	Windows 10/8/7/XP
Image Capture Speed	0.2~0.4 sec (varies according to finger condition)
Verification Speed	< 0.1 sec 100,000 matching per sec (Startek's Bio-server)
FAR	1/100,000
FRR	1/100
ESD	15KV

5. SDK ProcessFlowchart


The following diagram shows the simplified enrollment process flow :



The following diagram shows the simplified verification process flow:



6. PIV Approval

Main Category	Firm ^	Product & Description		FAP	Specification	Certified	Modified
Mobile ID, PIV Single Finger Capture Devices	Startek Engineering, Inc.	FM300 (FM300U and FM300E) FM300 (FM300U and FM300E) single finger liveness capture device without membrane at 500ppi (PIV-071006 and Mobile ID FAP 10) NOTE: Not appropriate for use in direct sunlight.		10	PIV	4/2017	4/26/2017
   1 10  							Displaying items 1 - 1 of 1

7. ANSI/INCITS 378 Approval Authorization Letter

<http://fips201ep.cio.gov/apl.php>

Approval Authorization Letter

15 September 2008
April Giles
1800 F. Street N.W.
Washington, D.C. 20405

Re: Approval Authorization Letter
Case File Number 723

To: Ed Morris:

The Approval Authority officially approves the following Product/Service. Please add it to the Approved FIPS 201 Products and Services List

Supplier Name:	STARTEK Engineering Inc.
Name of Product or Service:	STARTEK ANSI/INCITS 378 Template Generator for PIV
Part Number:	002B0110
Hardware Version:	N/A
Software Version:	1.0
Firmware Version:	N/A

Restrictions:

- None

Sincerely,

April Giles

April Giles
Approval Authority
202.501.1123
April.giles@gsa.gov