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Thales Cogent CS500f

10 FINGERS (4-4-2) FINGERPRINT SCANNER

The Thales brand new slap scanner

DEC 2019

CS500f at a glance

The Thales Cogent CS500f is the brand new compact Ten-print live scanner offering a superior fast acquisition speed and USB 3.0 technology.

It supports collection of all 10 fingerprints in 4-4-2 format (right four fingers, left four fingers, and two thumbs) while producing high quality fingerprint images with exceptional capture speed.

- FBI IAFIS IQS Appendix F certified
- USB 3.0
- Anti fake detection (SW based)
- Multiplatform Compatibility (Win, Linux, Android)
- Flat and Rolled fingerprints
- Provided with MultiScan_SDK and fully integrated into Gemalto LiveScan Solution

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Applications

▌ **Designed with a small footprint, it can be used in a desktop setting or integrated into other systems like kiosks**

▌ **It is provided with a useful handle to improve the scanner handling in case of mobile installations**

TARGET APPLICATIONS

o **e-ID Documents, e-Passports and Visa**

o **Border Control**

o **Criminal Background Check**

o **Civil Identification**

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Main technical specifications

GENERAL	FAP	**FAP60**
	Fingerprint Types	**Four Finger Slaps** **Two Thumbs** **Single Flats/Rolls**
SCANNING AREA	Platen Scanning Windows	**3.8' x 3.1' (96mm x 79mm)**
	Flat Fingers Scanning Area	**3.2' x 3.0' (81mm x 76mm)**
	Rolled Fingers Scanning Area	**1.6' x 1.6' (40mm x 40mm)**
	Image certification	**FBI IAFIS IQS App. F**
	Resolution & Grey Scale	**500 dpi - 256 gray**
	Image compression	**WSQ, JPEG**
SPEED	Acquisition speed	**Up to 27 fps for slap (preview mode)** **Up to 25 fps for rolled**
HARDWARE	Dimensions (W x D x H)	**151mm x 148mm x 102mm**
	Weight	**1.5 Kg**
	Interface	**USB 3.0**
	Operating Temperature	**0° to 50°c**
	Operating Humidity	**10 -90% non-condensing**
	IP	**IP54**
	User Interface	**LED**
	Certifications	**CE, FCC, RoHS**
	Mounting	**Ready to be installed on a counter top**
	Buzzer	**On board programmable Buzzer**
	Kensington Lock	**YES**
	Cable	**Sealed Strain Relief USB**
SOFTWARE	Windows	**Windows 7,8.1, 10 (32/64bit)**
	Linux	**Ubuntu 14.04 (32/64 bit)**
	Android	**Android 4.4**
	Additional Software	**DactyMatch SDK**
SPECIAL	Antispoofing LFD	**YES**
	Silicon Membrane	**YES (Optional)**

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Fixing & Security features

The CS500f has a couple of very useful features:

▌ **A strain relief cable:** engineered in order to avoid the breakup of the USB cable connected to the scanner

▌ **Fixing holes:** designed to fix the scanner to fixed structures such border control officer station, enrollment kiosks and so on

▌ **Kensington Lock:** to secure the scanner in case of offices/desktop installations

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Acquisition Views

4 fingers - SLAP

Single Rolled

2 Thumbs

Thumb Rolled

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SDK Overview – MultiScan_SDK 4.3

MultiScan_SDK is always included in the product price and is divided in two distinct parts:

- **BASIC SDK**: for device management/drivers and basic image acquisition

- **FULL ENHANCED SDK**: provides a graphical user interface (with source code for a fast customization) and a full library for **image processing**: segmentation, image enhancement, matching score calculation for the sequence check, quality evaluation, image compression, etc.; **file formatting** compliant with ANSI/NIST ITL 1-2007 standard and **BioAPI 2.0 compatible** through a Biometric Service Provider (BSP) which is provided with the SDK

Multi-language support: all libraries are ready to be used with the all languages supported by the framework (C#, C++, Visual Basic). Wrappers for .NET (2.0) framework and Java are also available in the SDK. MultiScan_SDK is available for **Windows** platform at 32/64 bit, **Linux** Fedora/Ubuntu at 32/64 bit and **Android**.

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SDK Features – MultiScan_SDK 4.3

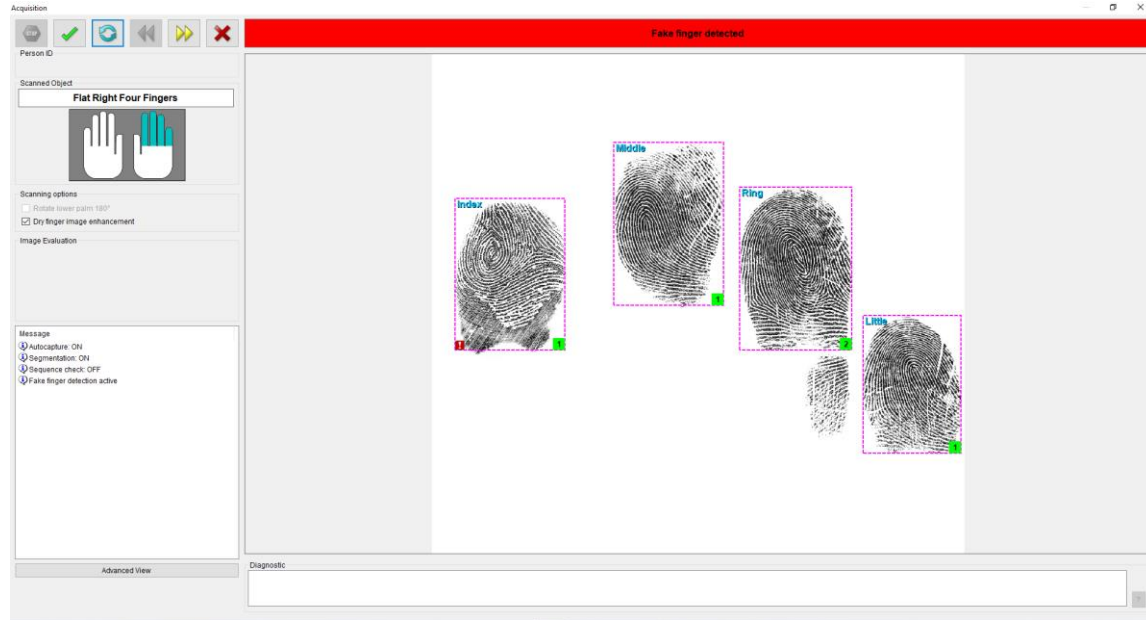|	
Acquisition	*Automatic Acquisition Start and Stop*
Rolled Fingerprint Capturing	*Display in real-time, self-adaptive to rolling speed and directions*
Adaptive Rolled Acquisition	*Rolled acquisition on all the front prism area (only for MultiScan527 - patented feature)*
Segmentation	*Automatic splitting of four-slap and two thumbs fingerprint images in single flat images*
Automatic Sequence Checking	*Eliminates incorrect fingerprint sequence scanning: hands and fingers swapping or incorrect input*
Dry Finger Image Enhancement	*Low contrasted images due to dry skin conditions are automatically improved*
Image Quality Checking	*As per NISTIR 7151 (NFIQ and NFIQ2) and Green Bit proprietary algorithm*
Sliding Detection for Flat Prints	*Detects deformations of fingerprints due to sliding during acquisition*
Artifacts Control	*Detects artifacts created during improper rolled print acquisition*
Latent prints	*Elimination of latent fingerprints & halo*
Multi OS compatibility	*Windows, Linux, Android*
WEB-API	*Web application for the development of browser-based applications*

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SDK Features – GB_FFD Anti fake detection

CS500f can be updated with a **SW Fake-Finger-Detection** (**GB_FFD**)

The **GB_FFD** solution is "software based" and does not require any physical upgrade or HW modification of the current models or installed base.

- Easy to use and very fast processing
- Fully Integrated in our MultiScan_SDK
- Intuitive user interface

-**GB_FFD** algorithms are capable to "learn" during use, thus improving efficiency over time

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