



MorphoKit Software Development Kit

Version 5.26.1

RELEASE NOTES

For online updates: please connect to our web site <http://www.biometric-terminals.com>
For support: please contact our hotline hotline.biometrics@morpho.com

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For known incompatibilities with previous MorphoKit 5.x versions see the corresponding paragraph below.

Integrated Package

- MorphoKit SDK binaries dependencies:
 - Boost C++ Libraries
 - For Windows 1.70.0
 - For Linux 1.61.0
 - MorphoAcquisition 1.2.9
 - **MSOSDK 6.32.0.0**
 - LiveScan Access Control 2.2.0
 - Morpho Access Control Interface 6.2.5
 - MorphoImageConvert 1.12.0
 - **Morpho Live Scan** 3.4.1.0(Windows, Ubuntu) ,3.5.0.0(Fedora), **3.6.3.0(Android)**
- MorphoKit SDK runtime and redistributable dependencies packages:
 - Microsoft .NET Framework 4.0 4.0.30319.1
 - Microsoft .NET Framework 4.5 4.5.50709.17929
 - Microsoft Visual C++ 2005 Redistributable 6.0.2900.2180
 - Microsoft Visual C++ 2008 Redistributable 9.0.30729.17
 - Microsoft Visual C++ 2010 Redistributable 10.0.30319.1
 - Microsoft Visual C++ 2013 Redistributable 12.0.30501.0
- MorphoKit SDK supported biometric sensor devices:
 - MSOCBM Windows, Linux and Android
 - MSOFINGER VP Windows, Linux and Android
 - MorphoTop Slim Windows, Linux 64 bits (Ubuntu 18, Fedora 27) **and Android 9**
 - MorphoWave Desktop Windows
 - MorphoWave Compact Windows
- MorphoKit SDK supported biometric sensor devices drivers:
 - **MSO USB drivers 4.3.0.0**
 - MorphoBopDriverForFingerOTF 2.25.0
 - FlyCapture2 2.6.3.3
 - MTop Slim driver 1.2.3.17

- MorphoKit SDK supported biometric sensor devices firmwares:
 - **CBM-E3 firmware** **03.05.e**
 - CBM-E2 firmware 13.01.d
 - MSO MSO 300/301/OEM firmware 11.03.k
 - FINGER VP firmware 01.10.b
 - MTop Slim firmware 41.27
- MorphoKit SDK license protection:
 - License protection software:
 - **Multiprotect Licence Management** **4.16.1**
 - Sentinel RMS License Manager 9.2.0
 - License protection dongle drivers:
 - Morpho Dongle drivers 4.0.0.7
 - SafeNet Dongle drivers (Sentinel System Driver) 7.5.8

New Features

MorphoKit 5.26 (released on 28/02/2020)

- Acquisition, authentication and identification with MTop Slim device under Android 9.
- Support additional Android versions (7, 8 and 9) for Biometric operations and single finger acquisition.
- Enrolment workflow with MTop Slim device on Win (C++/.Net) & Linux (C++).
- Support of biometrics exceptions with MTop Slim device on Win (C++/.Net) & Linux (C++).
- Configuration of the live image resolution for MTop Slim.

Bug Fixes

- Java sample & GenericAcquisitionComponentJavaSample don't detect finger print device on Windows 10.

Removed Features

- Android Kitkat (4.4) is no more supported.

Warnings

- While doing operations using MorphoWave Desktop ® product (acquisition, enrolment, fast matching) no application other than the biometric application using MorphoKit should run on the capture PC.
- It is necessary to place the "initBlock.dat" and "QCT.cfg" files (present in <MorphoKitInstallDirectory>/Bin/<platform>) in the folder from where any application integrating MorphoKit is called.
- In Android, it is necessary to install and start MSO USB Service in order to read License installed on Fingerprint sensors.

Known Problems

- Some Antiviruses may detect some MorphoKit delivered files as Trojan. These are false positive alerts. Whitelisting procedure is ongoing in some Antivirus companies.

Limitations

- Android Kitkat (4.4) is no more supported.

- MTopSlim is only supported in Android 9.
- MTopSlim operations might fail in 32 bits platforms due to lack of memory.
- MultiFingerAcquisitionComponent sample may crash when switching between languages.
- MorphoKit on Android OS does not support Face biometry since version 5.21
- MorphoKit does not handle standby and hibernate modes while doing fingerprint acquisition with MorphoTop Slim device, or while enrolling with MorphoWave Compact device
- When doing fingerprint acquisition with MorphoTop Slim device, the device unplug will not be detected by MorphoKit to stop current acquisition
- Using MorphoKit for slap acquisition on MorphoWave Desktop needs at least a quad core processor working machine.
- Using multi-finger record involves setting the position of each finger. If one or more finger of the record has an unknown position, matching will be slower. It is recommended to provide the correct position for each finger.
- MorphoKit cannot split templates that have several views of duplicate finger data within ISO-19794-2 or ANSI-378 templates.

Known Incompatibilities

- MorphoKit SDK Android hangs after an acquisition timeout if MSO USB Service is launched on the Android device.
- MorphoKit, while commanding MorphoWave Desktop sensor, shall not be used in parallel of MorphoBop SDK.
- Face algorithm has changed since MorphoKit 5.21 : templates made with older version of MorphoKit are no longer compatible and then images need to be coded again.

Supported platforms

- Microsoft Windows 7, 8 and 10 (32 and 64 bits).
- Ubuntu (from 12.04 to 18.04 LTS) (32 and 64 bits).
- Fedora 23 and 27 (32 and 64 bits).
- Suse Linux Enterprise Server 12 SP3.
- Android from 5.0 (Lollipop) to Android 9.0 (Pie).

Previous Versions

MorphoKit 5.25.1 (released on 26/11/2019)

- Support armeabi-v7a.
- Fix bug MTop Slim: incorrect event of finger detection once the acquisition starts.

MorphoKit 5.24 (released on 11/10/2019)

- Support MTop Slim for Linux.
- Support Rolled capture, authentLive and identLive with MTop Slim.
- Support of Ubuntu 18.04
- MultiFingerAcquisition Component for MWC.

MorphoKit 5.23 (released on 25/03/2019)

- Integration of MSO USB Driver 4.2.1.
- Support of Capture with MorphoWave Compact.

MorphoKit 5.22 (released on 30/01/2019)

- Integration of MSO SDK 6.21.3 supporting Microsoft Windows USBSER.
- Support of Access Control Enrolment mode with MorphoWave Desktop.

- Support of BarCode reading through identification function for MorphoWave Desktop.
- Support of Ubuntu 16.04 and Suse Linux Enterprise Server 12 SP3.

MorphoKit 5.21 (released on 07/12/2018)

- New face algorithm integrated to increase the biometry accuracy.

MorphoKit 5.19 (released on 28/09/2018)

- Enrolment with MorphoWave Compact (including biometric exceptions)
- Live image with MorphoTop Slim device on Windows with C++ and C#
- Fingerprint acquisition with MorphoTop Slim device on Windows with Java

MorphoKit 5.18 (released on 07/09/2018)

- Fingerprint acquisition with MorphoTop Slim device on Windows with C++ and C#

MorphoKit 5.17 (released on 08/06/2018)

- Enrolment with MorphoWave Compact device

MorphoKit 5.16 (released on 13/04/2018)

- Using MorphoKit for slap acquisition on MorphoWave Desktop is now available for both Windows 32 and 64-bits applications (both Windows 7 and 10 OS)
- New FPQC module to support old BMS USK
- Add new USK features in MorphoKit classes
 - AdvancedQualityCheck and AdvancedRecordQualityCheck in Coder class
 - UniquenessCheck in Authenticator class
 - SlapThumbsSegment in Segmenter class
- Support of Fedora 27

MorphoKit 5.15 (released on 12/10/2017)

- Enable taggant option in Themida so as MorphoKit binaries are not detected as viruses.
- WSQ compress/decompress on Android sample.

MorphoKit 5.13 (released on 06/03/2017)

- Support Microsoft Windows 10 (32 and 64 bits) except MorphoWave Desktop and BTO500.

MorphoKit 5.12 (released on 30/01/2017)

- Rolled fingerprints are fully supported by MorphoKit Coder class.

MorphoKit 5.11 (released on 27/01/2017)

- Add an API which permits the enrollment of a face image and then exports the image as a resized/compressed JPEG image which does not exceed 50kB.
- MorphoKit Java Android: support of fingerprint acquisition.
- MorphoKit Java Android: support of coding, authentication and identification operations for Face Biometry.
- MorphoKit .Net sample: add functionality to enroll using a BMP image.
- MorphoKit Android Java Sample: coding, authentication and identification operations for fingerprint biometry.
- MorphoKit Android native package: coding and authentication operations for fingerprint biometry.
- Add NFIQ compute method to MorphoKit API
- Add WSQ coding in GenericAcquisition Java sample
- MorphoKit Linux : Java support from Oracle JDK 1.6 update 45
- Support of Linux SUSE 11 SP1.

- All MorphoKit native features are wrapper in .Net
- New image conversion class
- Silent installation of MorphoKit
- Update MorphoSmart™ SDK integrated version to 6.14.5.0

MorphoKit 5.10 (released on 20/04/2016)

- FFD (False Finger Detection) on MorphoWave Desktop device.
- Support of fingers in biometric exception (amputated or bandaged).
- Possibility of changing enrollment parameters dynamically without stopping and restarting enrollment operation
- Advanced enrolment for MorphoWave Desktop

MorphoKit 5.9 (released on 16/10/2015)

- Support of face and iris biometry: coding, authentication and identification operations. Supported image formats are 8, 24 and 32 bits per pixel RAW and BMP images.
- Java sample for face biometry provided. Supported functions include loading 2 face images, retrieving quality and retrieving the matching result. For match result a HIT or No HIT is returned along with the match score and the distances between the eyes. Face acquisition from a webcam is supported on the Windows platforms.
- Java sample for iris biometry provided with examples for coding, authentication and identification.
- Include support of standard templates ANSI INCITS 378-2009, and ISO/IEC 19794-2:2011.

MorphoKit 5.8 (release scheduled by Q3 2015)

- Support of Finger3+ feature: this will allow optimizing the enrolment flow and rate by accepting a hand without the little finger.

MorphoKit 5.7

- Support of MorphoWave Desktop product (4-finger device) with the following features, on Windows 32-bit only:
 - Fingers capture
 - Enrolment
 - Fast matching: authentication, identification
- Authentication using multifinger records for both search and reference elements
- Matchings become 1,2 to 4 times faster on multi-core chipsets thanks to new multi-thread architecture
- Samples (DotNET and Java) supporting both single finger devices and the MorphoWave Desktop® device
- Support of matching between juvenile and adult biometric data, provided that templates are generated by MorphoKit in the expected Morpho proprietary formats (pkLite, CFV, pkComp, pkMat)

MorphoKit 5.6

- Linux 64 bits support.

MorphoKit 5.5

- New platform supported: Microsoft Windows 8.1 (but DFR-500/BTO-500 sensors are not certified under this platform).
- Linux 32 bits support.
- X64 Libraries and drivers
- MorphoKit Java Wrapper and Java sample
- Upgrade biometrics algorithms

MorphoKit 5.3

- Support Microsoft Windows 8 (but DFR-500/BTO-500 sensors are not certified under this platform).

MorphoKit 5.2

- Support of the template format (Morpho proprietary): PkLite.
- Support of the operating system: Windows Server 2008 R2.
- Fix of a crash when enrolling using the card format: ISO-19794-2 FMC NS and ISO-19794-2 FMC CS.
- The error codes raised by exceptions are now documented in the API reference.

MorphoKit 5.1

- L-1 ID DFR-500/BTO-500 fingerprint sensors are now supported for acquisition within MorphoKit.
- Microsoft DEP (Data Execution Prevention) full compatibility.
- MorphoKit native C++ exceptions compatible with C++ standard exception (see API Reference).
- Possibility to get both multimodal template and fingerprint template at the same time at enrollment process using MorphoKit_FVP.
- Add Vietnamese translation in MorphoAcquisition.
- Correct some mistakes in the ReadMeFirst.chm document.
- Suppress prints on standard output that may crash application with GUI
- Fix an application crash when performing an enroll in MorphoKit FVP without defining a Quality Event Handler.
- ActiveMKit_Enroll component is now deprecated within MorphoKit.
- ActiveMKit_Matcher component is now deprecated within MorphoKit.

MorphoKit 5.0.0

- Update MorphoSmart™ drivers (3.56.0.1).
- Multimodal (finger vein & fingerprint) template acquisition and matching capabilities.
- Compatibility with MorphoSmart™ FINGER VP devices as fingerprint sensor.
- A new MorphoAcquisition acquisition component for both fingerprint only and multimodal acquisition.
- New samples demonstrating above features.

MorphoKit 4.0.4

- Validated under Windows 7 Operating Systems (32 & 64 bits).
- Add Live Quality Threshold adjustment (dedicated to skilled operators).
- Make Force Finger On Top optional.
- Display final quality score in AcquisitionComponent.
- Add German translation.
- Documentation improvements (especially Coders and native C++ interface documentation).
- Update MorphoSmart™ firmware (09.02.c).
- Sagem Sécurité becomes Morpho.
- German translation added.

MorphoKit 4.0.3

- Add consolidated acquisition support for standard formats.
- Add conversion between standard formats.
- Add CBEFF format support.
- Improved documentation, particularly the first steps for MorphoKit use.
- New documentation for ActiveMKit_Enroll.dll (ActiveX interface).

- Corrected samples for compiling out-of-the-box after installation.
- Bug fixes in acquisition and mfcacq samples.
- Live image display can be disabled.
- Bug fix in the MSO firmware version detection, firmware 09.00c is now accepted.
- Provides Windows Vista .reg files for COM interop registration.
- ActiveX interface has been completed to offer more of the native MorphoKit functionalities.
- Italian translation added.

MorphoKit 4.0.2

- Fix IDENT* licenses checking (identification against biometric database larger than 5000 persons).

MorphoKit 4.0.1

- Modified matching score after consolidated acquisition.
- Fix composite quality calculation.

MorphoKit 4.0.0

- Dropped MSO100, MorphoTouch and Matrox scanners support.
- Classification no more supported.
- New C/C++ and native .NET interfaces.
- Finger detection in MSO.
- BioAPI 1.1 interface support.
- License simplification and new license management with Sagem Sécurité Licence Manager.
- Thread safe.