

Components list

Library Name	Version	Path	To be deployed	API for developers
<b>MULTISCAN SDK 3.3 32-bit</b>				
an2ktool.exe		MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For running the EFTSRecGen_ImgProcTool_Cpp and EFTSRecGen_ImgProcTool_Cs examples	NA
EFTSRecGen_ImgProcTool_Cpp.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
EFTSRecGen_ImgProcTool_Cs.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
GbAnEngineExample_Console_Cpp.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
GbAnEngineExample_Console_Cs.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
GbFinImgExample_Cpp.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
GbFinImgExample_Cs.exe	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
GBMSAPI C++ Example.exe	3.3.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	NA	NA
GBMSAPI CS Example.exe	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	NA	NA
GBMSAPI_GettingStarted_Cpp_Example.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	NA	NA
GBMSAPI_GettingStarted_CS_Example.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	NA	NA
GBMSDemo.exe	1.15.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
TestGBFIR_GUI_CS.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
TestGBMSGUI.exe	1.5.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	NA	NA
AN2K_LIB.dll	2.0.0.3	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
AN2K_NET_WRAPPER.dll	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
Bozorth.dll	1.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
BOZORTH_NET_WRAPPER.dll	3.1.0.1	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
cygwin1.dll	1.5.21	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For running the EFTSRecGen_ImgProcTool_Cpp and EFTSRecGen_ImgProcTool_Cs examples	NA
DS40U.dll	1.4.0.1	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
DS84C.dll	1.4.0.4	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
DS84U.dll	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
DSBeep.dll	1.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	Yes
FSM26U.dll	2.6.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
GBFINIMG.dll	4.1.0.3	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBFINIMG_NET_WRAPPER.dll	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
GBFIR.dll	1.0.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBFIR_NET_WRAPPER.dll	3.1.0.1	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
GBImgTran.dll	1.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	No
GBJPEG.dll	2.2.1.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBMSAPI.dll	3.3.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	Yes
GBMSAPI_NET.dll	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	For .NET applications	Yes
GBMSGUI.dll	1.14.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBMSGUI_NET.dll	1.14.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
GBMSGUI_Qt.dll	1.8.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBNFIQ.dll	1.0.0.2	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
GBNFIQ_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
JPEG_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
lfs.dll	1.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
LFS_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
MC517.dll	2.1.0.3	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
MS500U.dll	3.5.0.1	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
MS527.dll	3.0.0.3	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
QtCore4.dll	4.7.4.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	No
QtGui4.dll	4.7.4.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	No

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Visascan.dll	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
VSQuality.dll	2.0.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	No
VsRoll.dll	4.4.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN	Yes	No
WSQPack.dll	2.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	Yes	Yes
WSQPack.dll	2.0.0.2	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\WSQ_2002_32bit	Only when the WSQ certification is required	Yes
WSQ_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN	For .NET applications	Yes
<b>MULTISCAN SDK 3.3 64-bit</b>				
GbAnEngineExample_Console_Cpp.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
GbAnEngineExample_Console_Cs.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
GbFinImgExample_Cpp.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
GbFinImgExample_Cs.exe	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
GBMSAPI C++ Example_64.exe	3.3.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	NA	NA
GBMSAPI CS Example.exe	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	NA	NA
GBMSAPI_GettingStarted_Cpp_Example_64.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	NA	NA
GBMSAPI_GettingStarted_CS_Example.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	NA	NA
GBMSDemo.exe	1.15.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
GBMSGUIExample.exe		MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
TestGBFIR_GUI_CS.exe	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
TestGBMSGUI.exe	1.5.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	NA	NA
AN2K_LIB.dll	2.0.0.3	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
AN2K_NET_WRAPPER.dll	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
Bozorth.dll	1.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
BOZORTH_NET_WRAPPER.dll	3.1.0.1	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
DS40U.dll	1.4.0.1	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
DS84C.dll	1.4.0.4	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
DSBeep.dll	1.1.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	Yes
FSM26U.dll	2.6.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
GBFINIMG.dll	4.1.0.3	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBFINIMG_NET_WRAPPER.dll	3.3.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
GBFIR.dll	1.0.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBFIR_NET_WRAPPER.dll	3.1.0.1	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
GBFRSW.dll	1.3.4.1	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	No
GBImgTran.dll	2.0.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	No
GBJPEG.dll	2.2.1.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBMSAPI.dll	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	Yes
GBMSAPI_NET.dll	3.2.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	For .NET applications	Yes
GBMSGUI.dll	1.14.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBMSGUI_NET.dll	1.14.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
GBMSGUI_Qt.dll	1.8.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBNFIQ.dll	1.0.0.2	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
GBNFIQ_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
JPEG_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
lfs.dll	1.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
LFS_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes
MC517.dll	2.1.0.3	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
MS527.dll	3.0.0.3	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
QtCore4.dll	4.8.6.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	No
QtGui4.dll	4.8.6.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	No
VsRoll.dll	4.4.0.0	MULTISCAN_SDK_3_3\SDK\BASIC\RUN_64	Yes	No
WSQPack.dll	2.0.0.4	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	Yes	Yes
WSQ_NET_WRAPPER.dll	3.1.0.0	MULTISCAN_SDK_3_3\SDK\FULL ENHANCED\RUN_64	For .NET applications	Yes

Modifications BASIC SDK

<b>BASIC SDK</b>	<b>Date</b>	<b>Description</b>
Basic 1.0	February 2009	- Original Version
Basic 1.1	April 2009	- Added support for DS40 and bugs fixing
Basic 2.0	May 2009	<ul style="list-style-type: none"> <li>- New release of MS500u.dll, VSRoll.dll</li> <li>- New object for DactyScan 40 (FLAT_2_INDEXES)</li> <li>- Bug fixing</li> <li>- All .NET components recompiled with strong name signature</li> </ul>
Basic 2.1	July 2009	- Bug fixing for FULL ENHANCED SDK and new release of Overview documentation
Basic 2.2	August 2009	- New MS500 library (version 2.0.0.2)
Basic 2.3	November 2009	<ul style="list-style-type: none"> <li>- New release of low level libraries (see Library list sheet)</li> <li>- Added SetFrameRate functionality (valid for DS84 and DS26 devices only)</li> <li>- Bug fixing</li> <li>- Added RollToLeft/RollToRight messages</li> <li>- New graphical style for examples (adaptation for screens with 768 rows)</li> <li>- Source code for GBMSAPI .NET wrapper</li> <li>- Added SetManualLEDControlFunctionality (for DS84,DS26i and DS40 devices)</li> </ul>
Basic 2.4	February 2010	- Added support for MC500 and MSC500 (Chinese market) devices and bugs fixing
Basic 2.5	September 2010	<ul style="list-style-type: none"> <li>- New release of low level libraries (see Library list sheet)</li> <li>- Added manual roll preview stop (for DS84 and DS40i devices)</li> <li>- Added DactyScan 40i device support (with DS40u low level library)</li> <li>- Added SetImageRotation functionality</li> <li>- Added DSBeep library to support system sound functionality on Win Vista, 7, and 64 bit in general</li> <li>- Bug fixing</li> </ul>
Basic 2.6	March 2011	<ul style="list-style-type: none"> <li>- New release of low level libraries (see Library list sheet)</li> <li>- Added support for High Speed preview (for MC500 and MSC500 devices)</li> <li>- Added support for Full resolution preview (for MS500, MC500 and MSC500 devices)</li> <li>- Green Bit Universal WHQL Certified USB drivers, for both 32-bit and 64-bit Windows</li> <li>- USB drivers uninstaller utility is part of drivers setup</li> <li>- Added "getting started" console examples</li> <li>- Bug fixing</li> </ul>
Basic 2.7	November 2011	<ul style="list-style-type: none"> <li>- Added support for DS84C and MC517 devices</li> <li>- Enhanced support for Frame rate setting</li> <li>- Added new function for getting Calibration Image size</li> <li>- Added new function for getting scanner statistics</li> <li>- Added support for reading/writing user data into device eeprom</li> <li>- Added new feature that allows to retrieve scanner name and fw version from usb directly</li> <li>- Added Roll standard (GA or IQS) selection feature</li> <li>- Added bulk 1024 transfer option (via ini fil- for scanners supporting this</li> <li>- Bug fixing</li> </ul>

# Modifications BASIC SDK

Basic 2.8	June 2012	<ul style="list-style-type: none"> <li>- Added sound to MC517</li> <li>- Added image rotation (180 degrees only) to MC517</li> <li>- Added support for MSC517 device</li> <li>- Added support for RGB display</li> <li>- Enhanced support for getting frame rate range</li> <li>- Added ini file for GBMSAPI library (log support and full resolution preview forced for DS84C device)</li> <li>- Added support to DactyScan 32 Device</li> <li>- Bug fixing</li> </ul>
Basic 2.9	September 2013	<ul style="list-style-type: none"> <li>- added Dry finger image enhancement feature (can be activated by means of the "GBMSAPI_EnableDrySkinImgEnhance" API in the GBMSAPI library or by means of a specific item in the .ini file related to the scanner)</li> <li>- added dry/wet diagnostic</li> <li>- added support for dry/wet diagnostic and warnings on LCD display (MSC517 at moment)</li> <li>- added user data storage support for DS40i and DS32 devices</li> <li>- Bug fixing</li> </ul>
Basic 3.0	December 2013	<ul style="list-style-type: none"> <li>- added support for MS527 device</li> <li>- added new acquisition areas (see GBMSAPI_Defines.h file- for ANSI-NIST ITL-2011 supplemental objects)</li> <li>- added new functions for supporting new acquisition areas (see GBMSAPI_Library.h file)</li> <li>- Bug fixing</li> </ul>
Basic 3.1	May 2014	<ul style="list-style-type: none"> <li>- Adaptive Roll Area Positioning</li> <li>- Roll Direction Forcing</li> <li>- External Roll Composition</li> <li>- Background Image Update</li> <li>- new Greenbit Universal Driver version – 2.76</li> <li>- Dry fingerprint enhancement feature is enabled by default for all scanner models that support it</li> <li>- Bug fixing</li> </ul>
Basic 3.2	July 2014	<ul style="list-style-type: none"> <li>- Added two new acquirable objects (at moment supported by M(S)C517 device only):</li> <li>- Up-rolled single finger and Down-rolled single finger (These new objects can be acquired on IQS and GA Roll areas, and support adaptive roll area positioning)</li> <li>- Added two specific messages that indicate the roll direction for the objects above described: GBMSAPI_DM_VSROLL_ROLL_DIRECTION_DOWN GBMSAPI_DM_VSROLL_ROLL_DIRECTION_UP</li> <li>- Added support for 64-bit</li> <li>- Added possibility to block rolled objects composition (see GBMSAPI_ROLL_EnableBlockComposition(...) function)</li> <li>- Bug fixing</li> </ul>
Basic 3.3	March 2015	<ul style="list-style-type: none"> <li>- Added support for ROLLED HYPOTHENAR object</li> <li>- Added LEDs color control during acquisition (see GBMSAPI_EnableLEDColorSettingDuringAcquisition(...) function)</li> <li>- optimized acquisition start time for MS527, MC517, DS84C scanners</li> <li>- Bug fixing</li> </ul>

Modifications FULL ENHANCED SDK

<b>FULL ENHANCED SDK</b>	<b>Date</b>	<b>Description</b>
Full Enhanced 1.0	February 2009	Original Version
Full Enhanced 1.1	April 2009	libraries upgrade for the following components: - GBMSAPI.dll (upgrade to version 1.1.0.0) - GBJPEG.dll (upgrade to version 2.2.0.0)
Full Enhanced 2.0	May 2009	libraries upgrade for the following components: - WSQPack.dll (upgrade to version 2.0.0.1) - GBMSGUI_NET.dll (upgrade to version 1.2.0.1) - All .NET components recompiled with strong name signature
Full Enhanced 2.1	July 2009	bug fixing - FULL ENHANCED .NET Wrappers: problems with signature
Full Enhanced 2.2	August 2009	bug fixing
Full Enhanced 2.3	November 2009	- New release of low level libraries (see Library list sheet) - Added "Back" button in GBMSGUI interface - Added functionalities in AN2K library (update record 1, delete record from ANSI-NIST file) - Adaptation of GBMSGUI to new messages (see Basic 2.3) - Source code for .NET wrapper of Image Processing Tools - Bug fixing
Full Enhanced 2.4	February 2010	- New release of low level libraries (see Library list sheet) - Bug fixing
Full Enhanced 2.5	September 2010	- Added GBMSGUI_VCL library (written in C++ with Borland components) - Added manual roll preview stop (for DS84 and DS40i devices) - Added DactyScan 40i device support - Added SetImageRotation functionality - Added MultiMatch SDK 1.1 trial version - Bug fixing
Full Enhanced 2.6	March 2011	- Added support for High Speed preview - Bug fixing
Full Enhanced 2.7	November 2011	- Changes for making GBMSGUI work on Linux Mono framework - New features for GBMSGUI (all platforms): - Added possibility to clear undesired segments inside roll of flat single finger images in case of "Ambiguous slap detected" diagnostic message - Added 180 degrees lower palm rotation option - new features for GBFINIMG library: - Possibility to set missing fingers for automatic segmentation - Added fast processing feature - Added new object (single flat finger) - Extended inclination range for 2-thumbs and single flat finger objects - Added function for checking 180 degrees rotation - Added GBMSGUI_QT (written in C++ with QT components) - Image Processing Tools .NET wrapper re-written in C# (for compatibility with Linux Mono Framework) - Added possibility to set missing fingers before starting acquisition sequence in the GBMSDemo and in the VCL and QT test programs - Added GBFIR Library with its NET and JAVA wrappers - Bug fixing

Modifications FULL ENHANCED SDK

Full Enhanced 2.8	June 2012	<ul style="list-style-type: none"> <li>- Added new option to gbfinimg library for automatic segment naming also in case of incomplete slap</li> <li>- Added live segment quality evaluation and option for automatic segment naming in case of incomplete slap in GBMSGUI library</li> <li>- Added support for all the devices specified in BASIC SDK</li> <li>- Bug fixing</li> </ul>
Full Enhanced 2.9	September 2013	<ul style="list-style-type: none"> <li>- added Dry finger image enhancement feature (can be enabled by checking the corresponding checkbox in the GBMSGUI interface)</li> <li>- added dry/wet diagnostic (shown by an icon only on GBMSGUI interface)</li> <li>- Improvements to gbfinimg.dll features</li> <li>- New &lt;ImageProcessingOptions&gt; in gbfinimg library (see gbfinimg.h file) : <ul style="list-style-type: none"> <li>- REFINE_FINGERPRINT_CONTRAST_AND_CLEAN_BACKGROUND</li> </ul> </li> <li>- Scanner license mechanism added to gbfinimg library (see "GBFINIMG_GetLicenseInfo" function in gbfinimg.h file)</li> <li>- added function SelectFingerContactEvaluationMode in GBMSGUI library</li> <li>- Bug fixing</li> </ul>
Full Enhanced 3.0	December 2013	<ul style="list-style-type: none"> <li>- added support for MS527 device</li> <li>- added support for new ANSI-NIST ITL-2011 and EBTS 10.0 supplemental objects</li> <li>- Bug fixing</li> </ul>
Full Enhanced 3.1	May 2014	<ul style="list-style-type: none"> <li>- Added support for creation of Type-1, Type-4, Type-14, Type-15 records following the AN ITL-2011 standard</li> <li>- added possibility of records customization for ANSI-NIST ITL standard</li> <li>- added support for newer BASIC features in GBMSGUI library</li> <li>- Image processing support for supplemental (Major cas- prints as per the AN ITL-2011 and EBTS 10.0 standard (gbfinimg.dll)</li> <li>- Bug fixing</li> </ul>
Full Enhanced 3.2	July 2014	<ul style="list-style-type: none"> <li>- Added 64-bit support</li> <li>- Added new fetures to GBMSDemo configuration</li> <li>- Bug fixing</li> </ul>
Full Enhanced 3.3	March 2015	<ul style="list-style-type: none"> <li>- Added support of UPPER HALF PALM including segmentation and completeness/quality check of medial/proximal phalanges and of interdigital area</li> <li>- Added sequence check extended to the UPPER HALF PALM</li> <li>- Added Identity check of interdigital area between UPPER and LOWER HALF PALM</li> <li>- Added feedback of block auto-capture on LEDs (for scanners supporting LED interface)</li> <li>- Modified Live segments quality evaluation (replaced by a new one option): auto-capture is blocked until a given quality level is achieved or a (configurable) timeout expires</li> <li>- Added support for ROLLED HYPOTHENAR object</li> <li>- Added displaying of "fast" quality value for PALM objects if palm-print quality calculation option is not set</li> <li>- Added Upper Half, Lower Half and Writer's palm upright orientation check: all should be captured as closely as possible to an upright, vertical position</li> <li>- Bug fixing</li> </ul>