



M.O.S.T. Toolz™

Microprocessor Card Development Kits



Each edition of M.O.S.T. Toolz includes one of the four readers/scanners shown above.

M.O.S.T. Toolz™ is a development platform for multifunction and high security M.O.S.T. Card® smart card systems. Available in contact, dual mode, and biometric editions, the kits feature user-friendly configuration and demonstration software for rapid system development, powerful middleware for advanced reader functions, and includes up to 17 microprocessor smart cards for system and card file setup. The M.O.S.T. Card Configuration Utility™ helps you build an on-card file system with direct calls to the M.O.S.T. Card. High level commands can be sent through the Winplex® API to the card reader. Fully documented C# (.NET), C++ (.NET), Java, and Visual Basic programming examples complete the kit. Programmers can create a smart card-based ID or transaction system that updates and secures files while setting a variety of defensive measures to protect user ID, card access, and file information. CardLogix gives you the power to deliver multiple products and services on a single card, allowing for fast system design and easy updating without the need for card re-issuance.

M.O.S.T. Toolz™ Development Kits Include

- M.O.S.T. Card Configuration Utility™
- Winplex® API and Middleware
- M.O.S.T. Card Demo Software (includes demo cards and programming examples)
- 12 M.O.S.T. Cards (+5 M.O.S.T. Cards with Biometric Series)
- Your choice of smart card reader and/or fingerprint scanner
- PC/SC Reader Configuration Utility
- M.O.S.T. Card Bad Select Counter Utility to reset “Bad Select” counter
- Support for Windows 7 and 8
- A variety of idbiox® CFS templates that support the idbiox ID Credential Ecosystem
- M.O.S.T. Toolz™ User Manual
- Winplex® User Manual

M.O.S.T. Card Configuration Utility™

- User-friendly interface for configuring M.O.S.T. card file structures (CFSs)
- Key configuration function to randomize all keys with one click
- On-card data editor to load and edit user data instantly
- Card file list and label manager with memory resource manager
- User configurable NFC UID lengths

Winplex® API and Middleware

- Over 160 standard functions including card latching, LED control, and reading magnetic stripes (reader-specific)
- M.O.S.T. Biometric Series kits provide additional biometric functions for capture, matching, and compression
- PC/SC card reader support
- Programming examples in C# (.NET framework)

M.O.S.T. Card Demo Software (includes demo cards and programming examples)

- Hello World Demo: How to write a large binary file to the card
- Data Protection Demo: How to protect data with a Global Password and more
- Winplex Demo: Overview of M.O.S.T. Card functions
- Transaction Demo: How to initialize value with ePurse, linear EFs and cyclic EFs
- eSignature Demo: How to sign a data package with FIPS 198-1 signature
- Fingerprint Demo: How to capture, validate, and store ICAO fingerprints (Biometric Series only)



M.O.S.T. Toolz Kit Options

Part Number	Edition	Card Reader/Scanner
9 700 001	M.O.S.T Toolz™	Contact smart card reader
9 700 009	M.O.S.T Toolz™	Dual mode (contact and contactless) smart card reader
9 700 010	M.O.S.T Toolz™ Biometric Series Fingerprint	Single-digit optical fingerprint scanner and contact smart card reader
9 700 015	M.O.S.T Toolz™ Fingerprint Upgrade to Dual Mode Kit	Single-digit optical fingerprint scanner

M.O.S.T Toolz Reader/Scanner Options



Contact Smart Card Reader



Contact/Contactless Smart Card Reader



Fingerprint Scanner + Contact Smart Card Reader



Fingerprint Scanner

Card File Directory
Employee_3036_XXXXX_C8.cfs

- EF - 6240
- EF - 6241
- EF - 6242
- DF - 0600
 - PURSE - 0640
 - LINEAR - 8641
 - EF - 8642
 - CYCLIC - 0643
 - EF - 8644
 - EF - 8645
 - EF - 8646
 - EF - 8647
 - CHV - 8680
 - APP - 9090
 - DF - 9000
 - EF - 9040
 - EF - 9043
 - EF - 9045
 - APP - 9090
 - DF - D600
 - EF - D640
 - EF - D641
 - EF - D642
 - APP - D690

Card File List

PName	Type	3F Bytes	FS Bytes	Total
3F00	MF		27	27
2F01	ATR		36	36
3000	DF		32	32
3040	EF	30	18	48
3041	EF	10	18	28
3042	EF	8	18	26
3043	EF	2	18	20
3090	APP	38	38	76
3F80	CHV	34	34	68
3F90	APP	38	38	76
4000	DF		32	32
4043	EF	4000	18	4018
4044	EF	4000	18	4018
4048	EF	4000	18	4018
4049	EF	4000	18	4018
4080	CHV	34	34	68
4090	APP	38	38	76
4300	DF		32	32
4340	EF	30	18	48
4341	EF	40	18	58
4342	EF	30	18	48
4343	EF	30	18	48
5000	DF		32	32
5040	EF	20	18	38

File Properties
File Number: DB40 Encryption Status: None
File Name: CCC
Security Settings:
Read: Always Accessible
Write: APP Protected DB90
Update: APP Protected DB90
Invalidate: APP Protected DB90
Rehabilitate: APP Protected DB90
File Size: 144

File Description
Card Capability Container includes: ISID, CARDiss, IF#, UNICODE Version #, LDS type, LDS version number, LDS file name, Data encoding method, RID AIDs

File System Configuration - CLXSU624KC8/T=CLED
Memory Used: 42540 Available: 35460 Maximum: 78000

Edit EF File
EF File: DB40 CCC File Size: 144
Number: CCC Name: (16 characters) (65535 Bytes Max)

Elemental File
File Security:
Read: Always Accessible
Write: APP Protected DB90
Update: APP Protected DB90
Invalidate: APP Protected DB90
Rehabilitate: APP Protected DB90
 Encrypted Session Required BAC

File Description
Card Capability Container includes: ISID, CARDiss, IF#, UNICODE Version #, LDS type, LDS version number, LDS file name, Data encoding method, RID AIDs

Edit AES Keys

AES Key Hex Values

Key 1: C2 -194 -78 -C3 -43 -CF -RE -1D -18 -A1 -D4 -RE -A5 -F2 -11 -5D -7E -DA -7A -AA -C2 -A4 -EA -F5 -74 -F2 -AF -FC -EE -02 -14 -9F

Key 2: 75 -3F -23 -C2 -B2 -53 -0C -43 -A3 -0E -D0 -38 -3A -3F -00 -5C -2A -F5 -F0 -C1 -27 -CC -0C -7A -B4 -58 -30 -A4 -A1 -C2 -C3 -F0

Key 3: 0C -17A -39 -32 -29 -C3 -01 -60 -54 -04 -49 -0C -F0 -3A -04 -0D -06 -09 -19 -FC -48 -58 -F4 -53 -F6 -A9 -03 -45 -57 -0C -94 -45

Key 4: 15 -A2 -94 -11 -0C -CF -03 -49 -A9 -2C -1C -80 -09 -38 -AF -95 -28 -1A -B1 -F7 -8A -C3 -E8 -00 -DA -03 -E9 -B1 -BE -98 -C4 -57

Key 5: 20 -177 -66 -03 -68 -8A -60 -05 -8F -0F -75 -72 -BA -0E -AE -48 -AC -2D -CA -3E -A0 -6F -6A -00 -6E -08 -2A -C2 -74 -C1 -E5 -30

Key 6: 20 -08 -02 -05 -4F -57 -25 -57 -C5 -F2 -38 -C5 -58 -A4 -88 -70 -15 -79 -99 -A0 -90 -08 -06 -3F -09 -26 -08 -05 -50 -7A -BA -7A

Note - AES Keys are not written to the smart card using this tool. Use these fields to store your keys for use during production personalization by CardLogix. When using AES128, the first 16 bytes of the key are used. When using AES192, the first 24 bytes of the key are used. When using AES256, all 32 bytes of the key are used.