

# Software Development Kit DEVKIT GLOBAL

Software and hardware programming tools for 13.56MHz contactless technologies



## The essential tool for software personalization

The DevKit allows to explore the main STid RFID readers capabilities. This development kit includes softwares libraries and the RFID technology adoption. A programming interface (DLL for Windows, C# and Delphi examples) allows quick and easy integration of the device into your programs. This tool simplifies middleware interfacing and facilitates enterprise or custom applications.

## SDK content

### ► Library for Windows environment

- Communication and security functions of the reader/encoder
- Read/write and security functions for Mifare Ultralight C®, Mifare Classic®, Mifare Plus®, DESFire®, DESFire EV1®, MONEO, CPS3 and NFC contactless technologies.
- Application General Functions: to initialize the library, create and close logical connections to Readers, set COM parameters and perform other general operations such as cryptographic operations.

### ► SSCP protocol

- The development kit enables data confidentiality between the reader and the controller, with the secure communication protocol SSCP. This protocol offers data encryption (AES) and mutual authentication (HMAC-SHA-1) prior to any communication.
- The SSCP protocol is open and based upon public security algorithms for more reliability, transparency and durability

### ► Test API (SESPro)

- Testing all the commands of the reader
- All functions available for each supported chip: settings, read, write, encryption.

- Implementing security of SSCP protocol
- Readers firmware update

### ► Code examples in Delphi and .Net.C#

### ► Material provided in the kit

1	Desktop reader encoder: STR W35EPH55AA1
1	CD-ROM with soft SDK
3	DESFire EV1 2k cards
3	DESFire EV1 4k cards
3	DESFire EV1 8K cards
2	Mifare Classic 1k cards
1	Mifare+ S 2k (4 bytes UID)
1	Mifare+ S 4k (4 bytes UID)
Part number	DEVKITMIFAREGLOBAL



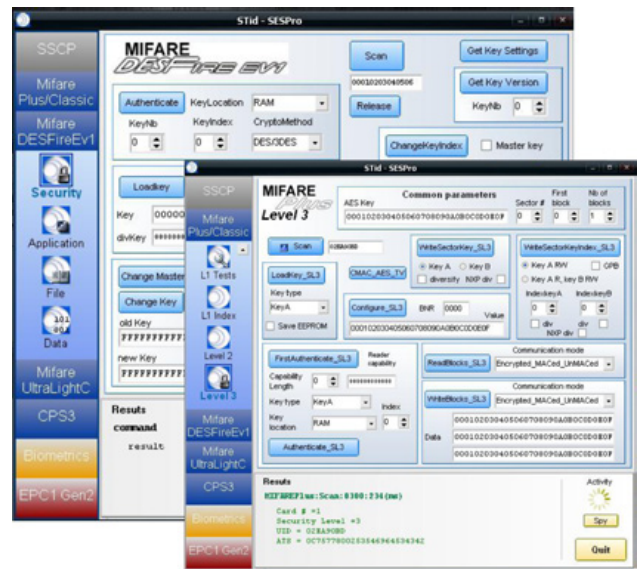
## SSCP Mifare Global software

System requirements	Microsoft® Windows® 98ME, XP, Windows 2000, Windows Vista® or Windows 7
	50 Mo
STR Reader driver	CD-ROM reader
STR Reader driver	USB FTDI Microsoft® Windows® 95ME, 2000, XP, Vista® & Windows 7

## STR Reader/encoder

Operating frequency/standards	13.56 MHz. ISO14443A, ISO14443B (PUP1), ISO18092
Chip compatibility	Mifare Ultralight®, Mifare Ultralight® C, Mifare Classic®, Mifare Plus®, Mifare DESFire®, Mifare DESFire EV1®, NFC, SMART MX series, CPS3 cards, Moneo (type A)
Functions	Read and write
Reading distances*	Up to 5 cm
Communication interfaces	USB (SSCP protocol: STid Secure Common Protocol)
Power supply	Powered by interface (USB)
Material	ABS
Dimensions	126 x 80 x 30 mm
Operating temperatures	0°C to + 70°C
Part number	STRW35EPH55AA1

\*Caution: information about the distance of communication: measured from the centre of the antenna, depending on the type of identifier, size of the identifier, operating environment of the reader, power supply voltage and reading functions (secure reading).



### User-friendly interface

The Mifare Global software is easy to use for integrating SSCP Secure Protocol and Reading/Writing functions of Ultralight C, Mifare Classic, Mifare Plus and Mifare DESFire EV1 chips in your applications.

Part number	DEVKITMIFAREGLOBAL
-------------	--------------------

### High security range (W32, W33, S32, S33)



## Other kits



**Enrollment Kit - SWEDGE**  
Enrollment kit to import card numbers directly to any applications (keyboard/wedge emulation).



**Programming Kit - SECARD**  
13.56 MHz Mifare SECARD programming kit + fingerprint device to create user cards with fingerprint data.



**UHF Programming Kit - ULTRYS**  
UHF programming kit to create «configuration cards» for readers and «user cards».



**UHF SDK**  
Kit to integrate SSCP protocol and reading/writing UHF functions in your applications.



Legal statements: STid is a trademark of STid SA. Mifare® is a NXP trademark. All other trademarks are property of their respective owners. This document is the exclusive property of STid. STid reserves the right to stop any product or service for any reason and without any liability - Noncontractual photographs

### Headquarters

20 Parc d'activités des Pradeaux  
13850 Gréasque, FRANCE  
+33 (0)4 42 12 60 60  
+33 (0)4 42 12 60 61  
info@stid.com

### Paris IDF Agency

Immeuble Le Fahrenheit  
28, rue de la Redoute  
92260 Fontenay-aux-Roses, FRANCE  
+33 (0)1 43 50 11 43  
+33 (0)1 43 50 27 37  
info@stid.com

### STid UK

Innovation centre  
Gallows Hill, Warwick  
CV34 6UW, United Kingdom  
+44 (0) 1926 217 884  
+44 (0) 1926 217 701  
info@stid.com

### STid America

Varsovia 57, Interior 501, Colonia Juárez  
CP 06600, Delegación Cuauhtémoc  
México D.F.  
+52 (55) 52 56 47 06  
+52 (55) 52 56 47 07  
info@stid-america.com