



TELIUM SDK

SDK7.1 Release Note

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To: All SDK users

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1. PURPOSE OF THE DOCUMENT

This document describes the evolutions since the **SDK 6.6** which is the previous one.

2. TERMINALS COMPATIBILITY

Three terminals are added in the SDK with this release: IPP2XX, IPP3XX, ISC350

2.1 TELIUM 1

The following terminals are compatible with this SDK release:

- EFT30
- EFT SMART
- TWIN
- ML30
- CAD30
- SMART2

UCM is not managed in this SDK

2.2 TELIUM 2

The following terminals are compatible with this SDK release:

- ICT220
- ICT250 is managed with extension cards. Only the following are currently managed (only one feature available by option):
 - Card option 1 : SCR2 (=CAM2)
 - Card option 2 : GPRS / μ SD / Contactless
 - Card option 5 : μ SD / 2nd RS232
- SPM
- IPP2XX
- IPP3XX

2.3 TELIUM 3

For ISC350, you have to load the System Pack 9.01 (which is in <Your install directory>\Component\OS_ISC350).

2.4 HANDHELD TERMINALS

This SDK is compatible with these products:

- EFT930
- EFT930 BL2
 - GPRS,
 - GPRS Contactless,
 - GPRS Color,
 - GPRS Contactless Color;
 - Bluetooth,

- Bluetooth Contactless,
- Bluetooth Color;
- EFT930 BCC (Bluetooth Color Contactless).

3. HIGHLIGHTED POINTS

3.1 CTAP

C-TAP protocol is provided in this SDK for development only.

3.2 CONTACTLESS

For the contactless functionality, you must use at least the Add-on "Contactless" version 3.2 (new architecture) and 2.12 (old architecture).

IPP2XX and IPP3XX are managed by the versions 3.3 (new architecture) and 2.13 (old architecture).

3.3 UCM

Don't use this SDK on UCM.

3.4 ML30 CONTACTLESS

Mifare transactions are not supported on a ML30 Contactless.

3.5 IPP3XX

Don't use the IPP3XX LEDs API with this SDK.

3.6 HEADER FILES

3.6.1 Ingenico private functions

Some functions were removed of the header files between the SDK6.4 and the SDK6.6 because normally, they should have never been in the SDK because they are for internal use only.

Remove them from the header file prevents new applications to use them.

However, these functions are still in the libraries, so existing applications can continue to use them. To avoid a warning during the compilation you have to declare the prototypes on your side.

3.6.2 Deprecated functions

See §18 - Change of API.

Due to the XXX_libopen() functions which are now deprecated, on Ingedev version lower or equal to 7.4.0.7, there are warnings when this SDK is used with a project created by a "New Telium Project". You have to add the compilation option `_DEPRECATED_SDK71_` to remove the warnings.

3.7 ISC350

This is the first SDK managing ISC350. This product was previously managed by a specific package. However, you have to load the System Pack 9.01 (which is in <Your install directory>\Component\OS_ISC350).

3.8 BINARIES HAVING A SIZE MULTIPLE OF 1024 BYTES (TELIUM 1 TERMINALS)

With the SDKs 6.4.X, 6.5.x and 6.6, it was not possible to download binaries having a size multiple of 1024 bytes before signature. Message is "Bad signature". To avoid loading problem on these SDK, you have to check that the size of your generated application, without signature, is not a multiple of 1024 bytes. (Size of application – 676) must not be a multiple of 1024.

3.9 DIR SYSTEM VERSION DOWNGRADE

It is not possible to downgrade from a system managing directories (catalogue XXX_DIR.mYY) to a system which not manage directories (catalogue XXX.mYY).

3.10 EFT930BL2 SYSTEM VERSION DOWNGRADE

It is not possible to downgrade from the EFT930 BL2 system version embedded in the SDK 6.4.2 (or newer), to an older one. This downgrade is blocked. It is due to a change of the time base (1 s to 125 ms).

3.11 SERVICE NUMBERS

Service numbers from 1 to 100 and from 7680 à 8191 are reserved for Ingenico internal use.

3.12 EFT930 WHICH EMBED 8MO OF FLASH

It is not possible to use this SDK on EFT930 which have only 8 Mo of flash.

3.13 DOCUMENTATION

The folders under <Your Install Directory>\Document have changed. Now, most part of the documentation is inside the file SDK_TELIUM.chm.

4. TELIUM SYSTEM

New version of Telium System: **09.00**.

Following points are delivered in this release.

4.1 BOOSTER 3 ICT2XX/IPA280/IPP3XX

- 6570 Swipe is now less sensitive to anti-thief barriers.
- Of course, if terminal is located nearby such an equipment, bad encoded card reading could be less efficient.

4.2 BOOSTER 3 IPP3XX

- 6565 For IPP3XX, keyboard and display backlight are managed independently

4.3 BOOSTER 3 IPA280

- 6536 IPA280/SPM now manages low consumption mode

4.4 BOOSTER 2 ML30 & SMART2

- 6347 On ML30 contactless some ISO-4 Mifare cards were not accepted.

4.5 THUNDER

- 4271 Non contactless P30 buzzer management added
- 5158 The saving of a data by an application using RegisterPowerFailure() didn't work if it was just before "Yellow key + Point" reset
- 5357 TCPIP loopback added
- 5533 TFU 3332 : Telicapt's prnPrint hang problem fixed : there was a printing problem when using ICT220 and ICT250 terminals. The problem didn't occur on EFT930 terminals
- 6120 EFT930 didn't re-start after a low-battery state when it was connected to a barcode reader
- 6267 The new system pinpad ICT2XX is available in the system pack. This new system is included only in the non mockup ICT2XX catalogues.
- 6269 When using LDbg there was a freeze after the call to SV_read_date()
- 6339 20 s Watchdog added in shutdown procedure
- 6474 Problem of "Off-by-One" buffer overflow in FTP Server limit of use during opening of a LLT session fixed
- 6475 When FTP server was running in LLT mode, it could block if commands were too long
- 6495 There was a reset when synchronous cards were read on a P30 connected to an ICT2XX
- 6565 For IPP3XX, keyboard and display backlight are managed independently
- 6626 There was a "Bad Signature" error during a downloading by LLT if the size of the binary is a multiple of 1024 bytes on Booster 1 and 2 products

- 6638 Added a new "TWO_SIDES_SWIPE" object linker target. If OS uses this new target then reading more than 15% bit to bit jitter magnetic cards comes feasible. As this new feature consume up to 4,5Kb crypto-processor memory, only platform that due need this improvement can selected this target (RP01 & RP02 for instance).
- 6640 The download with a USB key by manager on 930 with 8MB of flash didn't work on SDK 6.5 and 6.6
Now, if the value returned by SoftwareActivate is not OK (!=0), the manager dump and display the file trace_file.lst (error message)
- 6675 Paper advance problem (software sequence is printing, then paper advance, then test of the status) solved
- 6688 Flash Full diagnostic added

4.6 HID

- 6677 New release allows to use signature capture device "Ideapad"

4.7 LDBG

- 6008 LDbg used with Ingedev: Terminal send information to PC if SoftwareActivate() fails. Need future version 7.4.1 of IngeDev to display the error on PC
- 6269 When using LDbg there was a freeze after the call to SV_read_date()

5. WI-FI

- 6540 Report, and use, real RSSI value instead of the "quality" information previously used.
- 3431 The terminal ping the gateway every minute to check the current connection state.

6. TELUM MANAGER

New version of Telium Manager: **56.00**.

Following points are delivered in this release.

6.1 EVOLUTIONS

- 4459 DLL IAM added in the French Health Care manager configuration
- 5340 Contrast menu removed on Color Terminal
- 5468 Number of remote download retries is now configurable (tag 020626 of MANAGER.PAR int format, must be non-zero)
- 5608 Now, in the terminal display always 8 stars for the GPRS password when the password is not empty.
- 5701 Information added to know if a terminal was ingetrusted or not (printed in the hardware configuration ticket)
- 5816 ML30 can now be used in Full-IP mode (needed to connect it to a WebPOS)
- 5830 IPP220 is now managed by Telium manager
- 5831 IPP250 is now managed by Telium manager
- 5973 Dax font now managed in the idle and card waiting screens
- 6351 Management of 2 contactless card taps can be done in the entry point CLESS_DEBIT

Needed with the add-on contactless 3.0

It is now possible to hide the manager menu when "F" key is pressed using PSQ_Manager_F() function:

6542 PSQ_Manager_F(0) ==> Show and allow menu
 PSQ_Manager_F(1) ==> Show and unauthorize menu
 PSQ_Manager_F(2) ==> Hide menu

A new parameter is added in order to enable or disable the ticket printing from manager:

In tag 020627 in MANAGER.PAR, use of constant below allows to customize:

6545 INHIBIT_UPDATE_SOFTWARE_TICKET_BEFORE_DOWNLOAD
 INHIBIT_UPDATE_SOFTWARE_TICKET_AFTER_DOWNLOAD
 INHIBIT_UPDATE_SOFTWARE_TICKET_REFUSED
 INHIBIT_INITIALISATION_TICKET INHIBIT_INITIALISATION_REFUSED
 INHIBIT_DOWNLOAD_M2OS_TICKET
 INHIBIT_DOWNLOAD_DLL_TICKET
 INHIBIT_DOWNLOAD_SYSTEM_TICKET

6546 Management of IPP3XX

New value for mask of GIVE_YOUR_SPECIFIC_CONTEXT entry point.

6646 If LUHN_SUPPORT_MASK is activated in support field, manager don't deal LUHN ERROR as an error (application selection is done).

6757 Firmware version is now displayed in the manager menu

It is now possible for the terminal to beep when the card can be removed

4081 Parameters are added in the Manager.PAR file : TAG_BEEP,
 TAG_ENTRY_BEEP, TAG_CARD_BEEP, TAG_ENTRY_CARD_BEEP

5831 Pinpad IPP250 managed

6.2 **CORRECTIONS**

6491 It is now nor necessary to put the parameter HTML page in the structure cGuiStructList

6647 There was a blocking state after CB payment on a CAD30 UPT

6683 For the French « Bulletin 8 », problem of emission of IPDU_CN for a PI25 of size upper than 32 fixed

6412 Initialisation and restoration messages were not in CGUI format

6541 There was a problem of refreshing software LEDS

It was not possible to open the peripheral CAM0 on service call MESSAGE_RECEIVED because "CAM0" is closed at first call of MESSAGE_RECEIVED.

6296 Now, manager saves state (open or close) of "CAM0" after the call to MESSAGE_RECEIVED. Manager restores state of "CAM0" for the next call to MESSAGE_RECEIVED.

It was not possible to display a coloured screen saver on an EFT930 GCC

6383 In SCREEN.INI, in section [ID_SCREEN] add

:IDLE_COLOR=/HOST/IMAGE.BMP

Manager manages BMP, JPG and PNG extension For PNG and JPG extension, it is needed to load Images DLL into the terminal.

6603 _clrscr didn't erase the display even if PaintGraphics() was called after

- 6616 Entry of holder number and end of validity date added
- 6197 Menu displaying all embedded application added
- 6488 DAX font was not well used in the AID confirmation screen
- 6489 When TAG_GIVE_AID_MANUAL_SELECTION was set in GIVE_AID entry point, confirmation was only asked when there was one AID in final EMV selection list. _DEL_ parameter of GIVE_AID entry point was cleared before call of GIVE_AID entry point.
- 6520 When pinpad was out of service it displayed date and time twice
- 6628 Two icons were missing : Wi-Fi configuration and GPRS Retrofit
- 5343 Handheld terminals didn't go to idle state with SDK6.6
- 6665 Manager always displayed 'Client card' during a contactless card waiting
- 6414 Color of ipp250 background managed on master terminal
- 6842 It was not possible to do a TMS call in a "very low battery" state on a EFT930 BL2 BCC
- 6890 IPP3XX : Reset Menu Manager > Diag > Local > Booster
- 6900 Beep function was not correct
- 6915 GPRS state was wrong in the ticket printed

7. **CGUI**

New version of CGUI: **01.11.**

New version of CGUI tools: **01.11.**

The Mock-up manager catalogue has to be loaded only to use the Ingedev CGUI Preview tool.

- 5569 It was not possible to remove background image with JavaScript
- 5694 Use of the new system object API's
- 5726 Check if the string to display is already justified
- 6148 It was not possible to add an empty tag during a tag replacement
- 6200 WGUI_PrintJob_PrintUrl() didn't work
- 5435 Indifferent use of '\' or '/' to browse directories
- 5513 All events are now destructed before closing
- 5800 Date conversions (From Webc to Telium and from Telium to WebC formats) were not correct
- 5913 Change of the way coordinate are computed for plugins
- 6049 Change multitap : the first character is now the number and not the alphabetic character
- 5275 Added WGUI_ERROR WGUI_Browser_Flush(WGUI_BROWSER_HANDLE browser) to clear a browser when the page is no more needed (save memory and time for reloading a new page after)
- 5287 WGU supports now 24bpp and 16bpp which decrease the resulted image size

- 5288 WGU animated format improvement
 - 5351 Added the javascript object XMLHttpRequest
 - 5460 Version 1.6 of JavaScript engine SpiderMonkey added to WGUI DLL
 - 5593 Now loading url of type javascript:"some javascript" executes "some javascript" in the browser. Previously it wrote "some javascript" on the page
- Added JSON (JavaScript Object Notation)

8. PLUG-INS

They are released in the SDK for the first time.

Version of plug-in Multimedia is: **01.04**.

Version of plug-in Signature Capture is: **01.03**.

9. DLL SECURITY

New version of DLL Security is: **03.11**.

- 6567 Management by security DLL of IPP2XX and IPP3XX

10. DLL HARDWARE

New version of DLL Hardware is: **02.35**.

- 6732 Cgui behaviour : only the binary mask was used when a numerical entry was called in the Hardware Dll
- 6531 It was not possible to do a ping when using Cgui

11. SCHEMES

No evolution of schemes: version is **03.06**.

New version of TLV schemes: version is **01.16**.

12. LINKLAYER

No evolution: version of Link Layer is: **03.10**.

13. PACK IP

No evolution: version of Pack IP is: **03.05**.

14. FTP

No evolution: version of FTP is: **01.17**.

15. SSL

No evolution: version of SSL is: **01.48**.

16. AVL (ADDED VALUE LIBRARIES)

New version of AVL: **01.08**.

- 6620 Parameters of FMG_CheckFileCoherence() were inverted in the prototype

17. SDK

- 6667 It is no more possible to install the SDK in a directory containing one of the following characters :
 - (

-)
- '

17.1 FONTS

No evolution: version of the fonts is: **01.09**.

17.2 SIMULATOR

New version of the Simulator: **02.07**.

6654 In simulation, it was not possible to print some fonts using pprintf8859()

18. CHANGE OF API

18.1 CONTEXT

Due to evolution of product ranges or software, some functions become sometimes obsolete. The deprecated functions are now grouped in the file deprecated.h. They will be removed from the SDK in the future.

We deeply advise you to clean your code by applying the new way described in the help file as soon as functions become obsolete.

Nevertheless, if you want to continue to use these functions, it is possible by adding deprecated.h and, according the information in the help file, add a compilation options. If you don't follow that, there will be a warning during the compilation.

18.2 CHANGE BETWEEN SDK6.6 AND SDK7.1

Function InitModeGraphic() is obsolete : it is now not useful : a call to InitContext() is enough.

18.3 CHANGE BEFORE SDK6.6

Here is the list of files which have been declared obsolete before the SDK 7.1 and added to deprecated.h:

```
All functions : void XXXlib_open (void);
int InitSysPpad (int);
int InitDLLSaisiePpad (void);
int is_loaded(NO_SEGMENT i);
void ET_Idf_seq (T_VERSION version,NO_SEGMENT *noseg,CHECKSUM *nochecksum);
void ET_Identifier_seq (int noappli);
void USQ_Aff_montant (unsigned long * montant ,S_MONEY * devise);
int PPS_SendClearKeyCommand (unsigned char *Domain);
unsigned char PSQ_Double90_cle ( void );
```

[END OF DOCUMENTATION]