



beyond
payment

TELIUM SDK 9.0.1 RELEASE NOTE

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1. Standard development platforms

1.1. List of compatible terminals

This SDK release is compatible with the following products.

1.1.1. Wireless

Telium 2:

- iWL220B, iWL220G,
- iWL250B, iWL250G ,
- iWL250 3G,
- iWL250 2SCR (2SCR stands for 2 Smart Card Reader),
- iWL280 (Signature capture),
- iWL350 (For development only)

Telium 1:

- EFT930 Color
- EFT930 Black and White

1.1.2. Countertop terminals

Telium 2:

- iCT220, iCT250,
- E532

Telium 1:

- EFT SMART Plus,
- EFT SMART,
- EFT30

1.1.3. Signature capture terminals (Retail pinpads)

Telium 2:

- iSC250,
- iSC350

1.1.4. Pinpads

Telium 2:

- iPP320, iPP350,
- iPP3xx used as a smart card reader (Pinpad emulation mode).

Telium 1:

- ML30, ML30 color, ML30 color contactless.

'Booster only' pinpads:

- iPP220, iPP250, iPP280, PPC30, PPR30, P30, P30 Contactless, PP30, PP30S.

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1.1.5. Unattended

Telium 1:

- See UCM add-on package for the exhaustive list of CAD30.

Telium 2:

- iUC150, IUC180, iUP250 (for development only)

1.1.6. Satellite terminals

Telium 2:

- iST150.

Telium 1:

- TeliumPass Plus.

1.1.7. Mobile payment

Telium 2:

- iMP3xx (only hardware V4 are supported since SDK 8.0.1),
- SPM (iPA280).

1.1.8. French health care

- TWINs.

1.2. Terminals certified PCI V3

The following terminals are certified for PCI v3:

iWL220	Since SDK 8.0.1
iWL250	Since SDK 8.0.1
iWL280	Since SDK 8.0.1
iSC250	Since SDK 8.0.1
iPP320	Since SDK 8.1
iPP350	Since SDK 8.1
iMP350	Since SDK 8.2
iCT2xx	Since SDK 8.2
iPP2xx	Since SDK 8.2
iWL350	Since SDK 9.0

1.3. Public Key Infrastructure

This release supports PKI V3.

2. What's new?

Issues solved are detailed in paragraph 4.

Here are main evolutions coming with this Telium SDK release compared to the release 9.0.

- Improvement on GOAL:
 - Optimization for applications developed with LibGr running on GOAL terminals,
 - Some fixes and improvements for GOAL applications.

3. Highlighted points

3.1. Restriction for iPA280 and PCI PED 2.x compliance

During the PCI PED 2.x certification of the iPA280 devices, some constraints have been put at the level of communication of sensitive data from the Secure Payment Module (SPM) to the external world. The PDA part of the product has to be considered as the external world. The reason of this restriction is that the scope of the PCI PED evaluation was the SPM, which has a secure Telium architecture, and not the iPA280 product as a whole.

The restriction forbids communicating:

- Any APDU command response;
- Any cardholder data (i.e. ISO tracks 1 & 2 and their EMV counterpart).

It is also forbidden to receive APDU command queries from the external and to relay them to the smartcard. The restriction imposed by PCI SSC is not limited to banking cards. Direct communication to other types of cards (e.g. loyalty) is not allowed.

The communication APIs to establish communication between SPM and PDA propose some interfaces. It is for sure possible to address communication by using lower level functionalities. This must not be used to circumvent the protocol restrictions for communication.

Since cardholder data must remain within the SPM, the implication of this restriction is that payment applications have to be executed in the SPM and can not be based on a split design between SPM and PDA parts of the device. The PDA can be used for merchant application only (i.e. advertising, product selection)

3.2. GOAL catalogues naming rule

The integration of GOAL in the Telium SDK 9.0 had introduced changes in the Telium Manager catalogues provided.

The naming rules have been maintained for compatibility and to minimize the changes for users.

This sheet describes the application compatibility and Telium Manager MMI regarding names of catalogues.

Thunder	Catalogues names	Application compatibility	Telium Manager MMI
Thunder 1 and 2	xxx_GOAL_yyy.mZZ	GOAL and Libgr	GOAL
Thunder 1 and 2	xxx_CGUI_yyy.mZZ	CGUI, GOAL and Libgr	GOAL
Thunder 1 and 2	xxx_yyy.mZZ	Libgr	Libgr
Thunder 3	xxx_GOAL_yyy.mZZ	GOAL and Libgr	GOAL
Thunder 3	xxx_yyy.mZZ	CGUI, GOAL and Libgr	GOAL

The Telium manager displayed with CGUI interface doesn't exist anymore; it is replaced by the GOAL interface. The name xxx_CGUI_yyy.mZZ for a catalogue means that it is compatible with CGUI applications but the Manager interface is GOAL.

The Telium Manager catalogues xxx MOCKUP.mZZ don't exist anymore. They were designed to use the Ingedev preview feature. If you want to use this feature, you have to load in your terminal, the catalogue CGUI_PREVIEW_PROXY.mZZ which is in the directory Components\CGUI_PREVIEW_PROXY, additionally to the CGUI manager catalogue.

The Telium Manager catalogues include NanoX, the plug-in Signature Capture and the plug-in Multimedia. So, the plug-ins are no more delivered in the directory \Component\plugins.

3.3. Contactless

3.3.1. Best practices for Contactless

3.3.1.1. Field on/off

The contactless field is to be activated only when a contactless card is waited by the terminal. It must be stopped when the management of the contactless card is finished.

If the contactless field is opened all the time:

- On wireless terminals, product battery autonomy is reduced a lot;
- The contactless module and antenna are highly stressed and reliability could decrease quickly with time;

Applications have to manage the opening and the closing of the field according their business logic.

3.3.1.2. Implicit selection

Following terminals having the contactless feature inside are concerned: iWL2xx, iCT250, iSC2xx, iSC3xx, EFT930 GCC, EFT930 BCC, iPP3XX, iPA280 (SPM), ML30C and P30C.

Implicit selection is not recommended and must be managed with caution.

Due to physical reason, implicit selection can lead to unexpected issues, for example, at the beginning of the swipe, the card would possibly enter the antenna field and contactless chip would be handled instead of magnetic track.

3.3.1.3. Use of PSTN modem with contactless activated

The electro-magnetic field created when the contactless is activated, on an integrated terminal, prevents the usage of the PSTN modem with contactless activated.

This is not a software issue, and no software solution exists. The contactless field shall not be activated at the same time as the modem.

Currently, the issue exists only on the iCT250, which is the only Ingenico integrated terminal with contactless and PSTN modem.

(For instance, on EFT930BCC or EFT930GCC with modem, it works, because the modem is on the cradle, and the distance between the modem and the contactless field is sufficient).

3.3.2. Add-on Contactless

The add-on contactless doesn't exist anymore.

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All components provided previously in this package are now by default since Telium SDK 8.1. It concerns

- TPass library and component;
- Entry point component;
- GTL library;
- Contactless sample.

3.3.3. Card supported

The list of cards supported by this SDK is given in the paragraph 8: Supported card types .

Recommendation:

Even if a card is managed since an old SDK or Add-On Contactless, usage of a recent SDK is strongly recommend because bugs could have been fixed.

3.4. Family name

The family name, defined in the descriptor used to sign the binary, must follow the pattern “<NAME><VV><AA>” where:

- NAME is the radical of application (maximum 7 ASCII characters);
- VV is the version (2 number);
- AA is the amendment (2 number)

3.5. Pinpad system

To avoid problems when a non mock-up pinpad is linked to a mock-up terminal, the terminal mock-up catalogues don't include pinpad systems. So, you have to load the pinpad system (located in the directory “Component\OS”) according to the pinpad you are using.

3.6. DIR system version downgrade

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

3.7. Reserved numbers

Service numbers from 1 to 100 and from 0x1E00 à 0x1FFF are reserved for Ingenico internal use. Tag numbers used by applications must be taken in the range 0x9FA000-0x9FAFFF.

3.8. EFT930 embedding 8MB of flash

It is possible to use this SDK on EFT930 which has only 8 MB of flash (special system catalogue is provided: EFT930_8MO_PROD.m31). This catalogue is not a DIR one. If you use Ingestate you may need some adjustments: please contact your R&D Regional Interface for more information.

For SDK 8.0.x, SDK 8.1 and SDK 8.1.1:

It is forbidden to load a catalogue designed for 8MB terminals on a terminal loaded with a generic catalogue (that is to say non-8 MB). You must contact the Ingenico support for the rules of this migration.

3.9. Fix in link layer

A bug has been identified in the LinkLayer component, in versions 3.22 and 3.23 (SDK 8.1.2, SDK 8.1.3, SDK 8.2 and SDK 8.2.1).

For these versions only, on Bluetooth terminals, not associated with any base, the connection (call to LL_Connect()) fails when using the physical link LL_PHYSICAL_V_DEFAULT_TCPIP, with return code -1013 (LL_ERROR_NETWORK_NOT_SUPPORTED).

This bug is now corrected in SDK 9.0 (Link Layer version 3.25)

3.10. PCI PTS version

In order to know the PCI PTS version of the product, you can use the ioctl

SYS_IOCTL_GET_PCI_PTS_VERSION returns PCI_PTS_V2 or PCI_PTS_V3 (or -1 if the ioctl is not implemented). This function is only implemented on Telium2.

The function GetTerminalPKIVersion() allows to know the PKI Version (return is PKIV1 or PKIV3).

4. Issues solved in this release by component

See table in chapter 7 “Versions of components” for the list of versions of components provided in this Telium SDK.

Main points delivered in this release are listed below.

4.1. Telium System

Following points are delivered in this release.

Internal tracker	SUPTTEL	Description
11184		Corrected issue on booster reboot when previous exception on swipe management.
11311	SUPTTEL-2649	Remote debugger when terminal is in HID mode issue fixed If the terminal is forced in USB-HID mode and the connection used for the LDBG link is by default the USB port, the terminal is forced in USB-CDC mode during the debug session.
11210	SUPTTEL-3311	Fix for iPP350 sometimes rebooting when contactless transaction was started with synchronous card inserted
11189	SUPTTEL-3378	Fixed terminal reset due to a lack of RAM memory. More precisely: When a driver for synchronous card was launched on thunder side, the OS booster allocates RAM for loading, copying and executing this driver. This RAM is kept allocated to avoid the reloading of the driver in case same driver is used. So the RAM memory available is decreased. The bug fix consists in releasing the allocated RAM in case of power_down / fclose.
11475		Management of "GPRS only" SIMs
11534		Added external Bluetooth printer and Bluetooth driver in the iMP3xx catalogues
11560	SUPTTEL-3267	Improvement: reduced swipe sensitivity (only on ICT-GPRS terminal)

4.2. Telium Manager

4.2.1. Evolutions

Following points are delivered in this release.

Internal tracker	SUPTTEL	Description
10017		Use of GOAL in Manager
10591	SUPTTEL-2935	__LoadDefaultOptions () didn't work all the time on an iWL250 Bluetooth with Ethernet base.

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11367		New catalogues for healthcare : iMP3, iWL280 Catalogues for healthcare removed : ML30
11481	SUPTTEL-3505	Allows entry of the character * (star) in the PABX initialisation string.
11568		Character '(' was twice in default table for alphanumerical entry
11569		Bug fixed when allocated resources using IAM
11622		On EFT930 Morpho: Fixed freeze when editing hardware configuration ticket
11625		<p>GetGeneralStatus() improvement: To start card management at start-up, to use GetGeneralStatus() function, put this code and call this function in AFTER_RESET entry point</p> <pre>void ActivateCardManagement(void) { S_STATE_PARAM state_param; PSQ_read_state_param(&state_param); state_param.EnableCamManagement=1; PSQ_write_state_param(&state_param); }</pre>

4.3. Security

4.3.1. DLL Security

No evolution.

4.3.2. Security Extend library

Following points are delivered in this release.

Internal tracker	SUPTTEL	Description
9369		Fixed compilation issue with use of SEC_extend.h
9491	SUPTTEL-2148	Function SEC_DukptCBCCipher with algo type TLV_TYPE_TDESDUKPT froze Booster 1 terminals

4.3.3. DLL E2EE

No evolution.

4.3.4. DLL Digest

No evolution.

4.3.5. Schemes

Last schemes certified are included in this SDK.

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4.4. Communication

4.4.1. Link Layer

No evolution.

4.4.2. Pack IP

No evolution.

4.4.3. DLL SSL

Internal tracker	SUPTEL	Description
11165	SUPTEL-3354	Add support of CRL file. CRL file must be added to the SSL profile with SSL_ProfileAddCertificateCA function.
11488		Possibility to use DLL SSL on an SSL connexion not managed by DLL SSL.
11527		There were some uninitialized variables used during SSL connection on iMP3xx only.

4.4.4. FTP

No evolution.

4.4.5. SNMP

No evolution.

4.5. Display

4.5.1. GOAL

Following points are delivered in this release.

Internal tracker	SUPTEL	Description
11493		The progress-bar text property is not correctly managed
11632	SUPTEL-3620	G_Extended_Entry : on ICT250, not possible to exit via Cancel (red button). Idem on IWL280 (OK by touchscreen but not by keyboard)
11631	SUPTEL-3665	cGUI Performance - Delayed Response from scrollbar when large amount of text displayed on TextArea Control
		Adds picture image cache
		Adding vectorized mode in drawing widgets (@ref GL_Drawing_SetVectorized, @ref GL_Drawing_GetVectorized)
		Adding draw area in drawing widgets (@ref GL_Drawing_DrawArea, @ref GL_Drawing_GetPixelType)
		Changing the internal behavior of scrollbars (the min and max now shows the movement of the slider)

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		Added ability to scroll the view by the code C (@ref GL_ScrollView_GetVerticalRange, @ref GL_ScrollView_GetHorizontalRange, @ref GL_ScrollView_Move)
		Added ability to define a mask user in an input field (@ref GL_Widget_GetUserChar, @ref GL_Widget_SetUserChar)
		The cancel button will exit the dialog keyboard
		Reducing the size of text on dialog boxes
		Remove the image of the virtual keyboard on the function @ref GL_Dialog_Scheme

4.5.2. DLL Image

No evolution.

4.5.3. Fonts

No evolution.

4.5.4. CGUI / CGUI tools

Internal minor change.

4.5.5. Plug-ins

Now delivered in Telium manager catalogues as described above.

4.6. Contactless

4.6.1. DLL TPass

Following points are delivered in this release.

Internal tracker	SUPTel	Description
7871	TFU 4977 SUPTel-1464	When the selected AID is used by more than one application, the new service CLESS_SERVICE_CUST_DEBIT_SAME_AID is called to determine which application will manage the card.

4.6.2. Entry Point

No evolution.

4.6.3. TeliumPass

No evolution.

4.7. Applications

4.7.1. Incendo Online browser

Technical documentation and the Incendo SDK are provided with Ingedev (from version 7.8.0).

4.7.1.1. Memory

Before deploying this solution, please check the memory usage of your terminals.

4.7.1.2. Migration to this version

4.7.1.2.1. Migration from a version before 3.0.4

Incendo Online smart browser was previously delivered as an independent package (up to version 3.0.3). It was designed to be signed with region security keys.

The version in this Telium SDK is signed with manufacturer key. So the application type is different between these two versions. If you have already deployed the browser, to migrate to the version included in a Telium SDK, you must manage the change of application type. For further details, please contact the Incendo support.

4.7.1.3. Compatibility

4.7.1.3.1. Terminals managed

Minimal hardware prerequisites are:

- Terminal is Ethernet or GPRS;
- Terminals is Ingetrust ready;
- Minimum of 16 MB of Flash is mandatory;
- 16 MB of RAM are recommended but not mandatory. 8 MB is possible if terminal is Incendo Online only (no other applications).

Incendo Online is compatible with the following terminals:

- iCT220, iCT250,
- iWL220, iWL250

You must not use it on other terminals.

Support of EFT930 color, iSC250, iSC350 and iWL280 will be available in a future release.

4.7.1.3.2. EMV packages compatibility

Incendo smart Browser is compatible with the following EMV packages:

- Version 19 or 20.1

4.7.1.4. Evolutions

Please read the release note under \Applications\IncendoBrowser.

4.7.2. Image Loader

At the end of the Telium SDK setup you can choose to install Image Loader on your PC. Documentation is available in this installed package.

4.7.2.1. Evolutions

No evolution.

4.8. AVL

Following points are delivered in this release.

Internal tracker	SUPTEL	Description
11553	SUPTEL-3626	AVLcpp.lib provided for GCC4

4.9. Full configuration for local download for iPP320 in pinpad emulation mode

A binary concatenates the Telium system (including contactless driver) and the Telium manager for an iPP3 used in pinpad emulation for local download mode. It is delivered in the directory: Component\iPP3_EmulationPinpad\Package
Please see description in the CHM help file of the Telium SDK (SDK General Documentation > HOW TO DEVELOP user guide > How to use iPP3xx as a smart card reader).

This package is not updated for SDK 9.0.1.

4.9.1. DLL PPLoad evolution

The DLL PPLoad is present in the host terminal and allows the loading of the full configuration to the iPP3.
No evolution.

4.10. SDK features

Following points are delivered in this release.

Internal tracker	SUPTEL	Description
11552	SUPTEL-3627	TLV Tree presentation documentation was missing in SDK 9.0

5. Evolutions in API

5.1. Deprecated functions

SEC_DukptComputeMAC_AC() and SEC_DukptVerifyMAC_AC are now deprecated. If you want to continue to use it until its definitive removal, you have to had to compile your application with the define _DEPRECATED_SDK90_.

6. Add-ons to Telium SDK

The following table presents the versions of recommended add-ons to use with this SDK.

Add on	Recommended version to use with this SDK	Comment
Easy Path To EMV	20.2	

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Add On Contactless (New architecture)	Removed	Components previously in this add-on are in the Telium SDK since 8.1
Easy Path To Contactless	3. 07.02	
Add On PCL for iPA280	1.18	
Add On PCL for iWP	1.15	
Add On PCL for iMP3xx	1.02	
Add On Morpho	1.06	
Add On Telicapt	2.17	
Add On UCM	2.06.01	
Add On SPDH	1.01	
Add On APACS 40 Generic	1.08	
Add On ISO8583 Generic	3.02	



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7. Version of components

The following table compiles the versions of components provided in this version of the SDK and in the previous ones. In this table, grey cells correspond to evolution of the component.

SDK	System	Manager	DLL Hardware	Security							Communication					Display								Contactless					Applications		AVL	iPP320 in emulation mode	
				DLL Security	DLL Security Extend	DLL E2EE	TLV Schemes	Schemes	Pinlib	IAPP	Link Layer	Pack IP	FTP	SNMP	SSL	DLL Image	Fonts	Cgui	GOAL	NanoX	Cgui tools	Signature capture	Multimedia	DLL Tpass	Entry Point	GTL	Telium Pass	Vending Pass	Incendo Online browser	Image Loader		DLL PPLoad	iPP3 conf
9.0.1	1104	6503	2.62	3.21	2.08	4.02	2.06	3.07	1.10	1.10	3.25	3.11	1.21	1.01	1.83	1.01	1.10	2.01	3.06	(10)	1.10	(10)	(10)	2.32	0.22	1.16	2.24	3.01	03.01.01	1.06	1.19	1.03	3.00
9.0	1102	6501	2.61	3.21	2.07	4.02	2.06	3.07	1.10	1.10	3.25	3.11	1.21	1.01	1.79	1.01	1.10	2.00	3.05	2.07	1.10	2.10	2.10	2.31	0.22	1.16	2.24	3.01	03.01.00	1.06	1.18	1.03	3.00
8.2 GOAL	1092	6598	2.60	3.21	2.04	4.02	2.06	3.07	1.10	1.10	3.22	3.10	1.21	1.01	1.69	1.01	1.10	2.00	3.03	2.04	1.10	2.10	2.10	2.30	0.22	1.16	2.23	3.01	03.01.00	1.06	1.17	1.03	NA
8.2.1	1092	6403	2.58	3.21	2.04	4.02	2.06	3.07	1.10	1.10	3.22	3.10	1.21	1.01	1.69	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.30	0.22	1.16	2.23	3.01	03.01.00	1.06	1.17	1.03	2.06
8.2	10.80	64.02	2.58	3.21	2.04	4.02	2.06	3.07	1.10	1.10	3.22	3.10	1.21	1.01	1.69	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.30	0.22	1.16	2.23	3.01	03.01.00	1.06	1.17	1.03	2.05
8.1.3	10.79 (9)	63.05	2.55	3.20	2.04	4.02	2.06	3.07	1.10	1.10	3.22	3.09	1.20	1.01	1.65	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.30	0.21	1.16	2.23	3.01	03.00.05	1.06	1.16	1.03	2.04
8.1.2	10.72 (8)	63.04	2.55	3.20	2.04	4.02	2.06	3.07	1.10	1.10	3.22	3.09	1.20	1.01	1.65	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.30	0.21	1.16	2.23	3.01	03.00.05	1.06	1.16	1.02	2.03
8.1.1	10.70 (7)	63.02	2.55	3.20	2.04	4.01	2.06	3.07	1.10	1.10	3.21	3.09	1.20	1.01	1.65	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.29	0.21	1.16	2.23	3.01	03.00.05	1.06	1.16	1.02	2.01
8.1	10.64	63.00	2.55	3.20	2.04	4.01	2.06	3.07	1.10	1.10	3.21	3.09	1.20	1.01	1.63	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09	2.29	0.21	1.16	2.23	3.01	03.00.05	1.06	1.16	1.01	2.01
8.0.2	10.50	62.04	2.54	3.20	2.04	1.01	2.04	3.06	1.10	1.10	3.20	3.08	1.20	1.01	1.61	1.01	1.10	1.17	-	1.24	1.10	1.09	1.09						03.00.04	1.06	1.16		
8.0.1	10.46	62.03	2.53	3.20	2.04	1.01	2.04	3.06	1.10	1.10	3.20	3.08	1.20	1.01	1.61	1.01	1.10	1.17	-	1.24	1.10	1.08	1.09						03.00.04	1.06	1.15		
8.0	10.35	62.00	2.50	3.20	2.04	1.01	2.04	3.06	1.10	1.10	3.20	3.08	1.20	1.01	1.61	1.01	1.10	1.17		1.23	1.10	1.07	1.08							1.06	1.15		

(10) Plug-ins are now in the Manager catalogues

(9) 10.67 for iMP3, 10.77 for iWL280, 10.79 for the other terminals

(8) 10.67 for iMP3, 10.73 for iWL280, 10.72 for the other terminals

(7) 10.67 for iMP3, 10.70 for the other terminals



Release Note

8. Supported card types

This table shows the minimal version of package (add-on contactless and SDK) for the support of a type of card by a terminal.

Product	EMV 1.1	EMV 2.0	EMV 2.0.1	Mifare 1K	Mifare 4K	Mifare UltraLight	STM	Innovatron Calypso
Telium Pass+	Add-On 3.0	-	-	Add-On 3.0	Add-On 3.5	Add-On 3.5	Add-On 3.5	Add-On 3.6
Vending Pass	Add-On 3.0	-	-	Add-On 3.0	Add-On 3.6	Add-On 3.5	Add-On 3.5	Add-On 3.5
P30	SDK 5.8 Add-On 3.0	-	-	SDK 5.8 Add-On 3.0	SDK 7.2 Add-On 3.5	SDK 6.4.1 Add-On 3.5	-	-
ML30	SDK 5.8 Add-On 3.0	-	-	SDK 5.8 Add-On 3.0	SDK 6.6 Add-On 3.5	SDK 6.4.1 Add-On 3.5	-	-
CAD30UCR + EPSUM A40	SDK 5.8 Add-On 3.0	-	-	SDK 5.8 Add-On 3.0	SDK 7.1 Add-On 3.5	SDK 6.2.2 Add-On 3.5	SDK 5.8 Add-On 3.5	SDK 7.3 Add-On 3.5
EFT930CC	SDK 6.2 Add-On 3.0	-	-	SDK 6.2 Add-On 3.0	SDK 7.1 Add-On 3.5	SDK 6.4 Add-On 3.5	-	SDK 7.1 Add-On 3.5
iCT250	SDK 6.4 Add-On 3.0	-	-	SDK 6.4 Add-On 3.0	SDK 7.1 Add-On 3.5	SDK 6.4 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.6
iPA280	SDK 6.4 Add-On 3.0	-	-	SDK 6.4 Add-On 3.0	SDK 7.1 Add-On 3.5	SDK 6.4 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.6
iPP220 iPP250	-	SDK 7.1 Add-On 3.2	-	SDK 7.1 Add-On 3.2	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.2 Add-On 3.5
iPP280	-	SDK 7.5 Add-On 3.7	-	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7
iPP320 iPP350	-	SDK 7.1 Add-On 3.2	-	SDK 7.1 Add-On 3.2	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.5	SDK 7.1 Add-On 3.6
iSC250	-	-	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7
iSC350	-	SDK 7.2 Add-On 3.2	-	SDK 7.2 Add-On 3.2	SDK 7.2 Add-On 3.5	SDK 7.2 Add-On 3.5	SDK 7.2 Add-On 3.5	SDK 7.1 Add-On 3.6
iWL220 iWL250	-	-	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7
iWL280	-	-	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10
iMP3xx	-	-	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10	SDK 8.0.1 Add-On 3.10
iST150 (TeliumPass emulation)	-	-	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7	SDK 7.5 Add-On 3.7
iST150 (Intelligent mode)	-	-	SDK 7.5 Add-On 3.9	SDK 7.5 Add-On 3.9	SDK 7.5 Add-On 3.9	SDK 7.5 Add-On 3.9	SDK 7.5 Add-On 3.9	SDK 7.5 Add-On 3.9

WARNING: Integrity of TELIUM Manager and TELIUM System must be respected

You shall respect the integrity of SDK components (c.f. list)

and **never mix components from different SDKs**, except following INGENICO requirements.

INGENICO only guarantees a standard package. Partial or modified packages cannot be either downloaded, nor supported, nor guaranteed by INGENICO.

This SDK is available on CDROM format on request or can be downloaded from INGENICO FTP server.