

Card Testing

KaNest®-ICC



With KaNest®-ICC, Galitt provides a tool designed to test and validate contact and contactless cards, embedding one or several applications, as well as new contactless form factors.

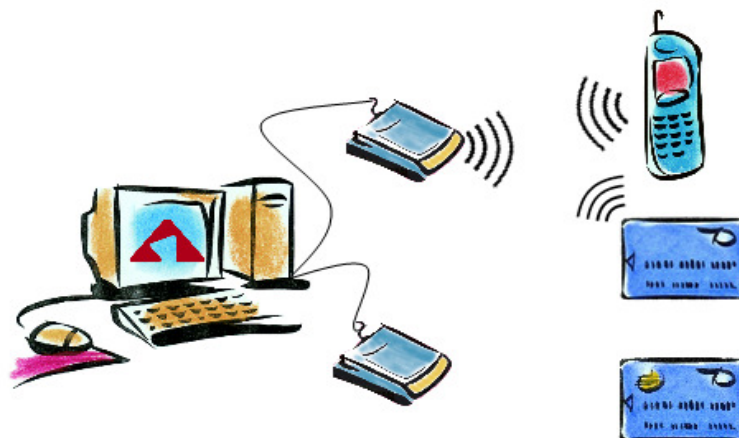
KaNest®-ICC allows to:

- simulates the commands from an acceptance device to a card;
- check the conformity of card applications (level 2 testing) based on ISO 7816 or ISO 14443 standard through advanced tests.

Galitt offers with the simulator various Card Test Suites implementing the Test Plans issued by the major Payment Schemes.

Key features

- Simulator of exchanges generated by acceptance device
- Test of contact & contactless cards
- Full multi-application testing
- Off-the-shelf recognized Test Suites
- Automatic mechanism of test selection
- Easy settings
- Flexible and fast analysis of test results
- Spy function
- Automation capabilities & remote control



Galitt Advantage

KaNest®-ICC is recognized as the state-of-the-art simulator for interoperability testing:

- Several KaNest®-ICC Test Suites have been “confirmed” or “verified” by payment schemes (Visa, JCB, DCI, CB...) as “capable of supporting the Test Cases” they have defined.
- The Tester View allows test automation and time saving. It provides several results views ranging from an overall summary of the test campaign to an in-depth analysis of the transaction flow.
- Tests can be performed through a physical reader or through a virtual reader to ease debugging and regression testing; testing execution can be thus fully automated.
- Galitt has been the first Test Tools provider qualified by GlobalPlatform for its GP UICC Test Suite.

GlobalPlatform TEST SUITES

GlobalPlatform

All GP Card Test Suites **qualified** by GlobalPlatform to be officially used to evaluate compliance to specific GlobalPlatform card configurations:

- **GP UICC**
- **GP UICC Amendment C** (Contactless Extension)
- **GP UICC Memory Management Extension**
- **GP UICC Amendment B**
- **GP BFC** (Basic Financial Configuration)
- **GP MG** (Mapping Guidelines)
- **GP Common Implementation**
- **SWP & HCI** (Single Wire Protocol & Host Controller Interface)
- **GP ID**

All qualified



KaNest®-ICC

- KaNest®-ICC simulates the commands generated by an acceptance device in order to test the behavior of a card and to verify the conformance to specifications.
- KaNest®-ICC can test any ISO 7816 smart card using either T=0 or T=1 protocol or ISO 14443 contactless card based on Type A or B.
- The simulator relies on the ICC-A module, the device simulation module, which sends commands to the card and validate card responses.
- KaNest®-ICC gives the capabilities to spy the dialogue between an acceptance device and a card in both contact and contactless modes.

AUTOMATION

Tests are automated through an easy-to-use interface ("Tester View") or performed in a step-by-step mode ("Engineering View").

All Test Suites include an automatic test selection as well as logging and reporting features.

CARD & MOBILE TEST SUITES

EMVCo

- **CMP AAUI qualified**



DISCOVER & Diners

- **D-PAS qualified**

Visa

- **VCBP** (Visa Cloud Based Payment)

OPTIONS

- **Device simulation module: ICC-A:** reading and capture of physical cards.
- **Card Image Module: ICC-I:** creation of virtual test cards by directly keying card data or by capturing a physical card and then deriving it.
- **Repository Edition Module: ICC-E:** edition of rules and formats used to simulate card – terminal exchanges.
- **Remote Control Module: ICC-D:** API allowing any Windows™ application to drive remotely the simulator (test scripts and reports).
- **HP Quality Center Module:** driving and update of the simulator by HP Quality Center software.

Technical specifications

Tested Functions

Functional behavior

- Cryptography
- Application layer (Level 2)
- Contact smart cards
- Contactless cards
- New contactless form factors

Readers

NomadLAB (KEOLABS)

- For contact (ISO 7816) and Single Wire Protocol (SWP)
- Supporting T=0 and T=1

ContactLAB (KEOLABS)

- For contact (ISO 7816) and Single Wire Protocol (SWP)
- Supporting T=0 and T=1

US^{nano}® (SMARTWARE)

XPC/SC readers

- For contact and contactless

Virtual TCP/IP reader

Repositories

- VIS VSDC
- M/Chip
- D-PAS
- GlobalPlatform
- EMV
- payWave™ (VCPS)
- PayPass™
- ...

Mobile

- VMCPS
- EMV CMP AAUI
- HCI/SWP

Hardware Configuration

Single PC (4GHz or above)

- Windows™ 7 SP1
- Windows™ 8

32 or 64 bit