

Card Simulator

KaNest[®]-ICC



With KaNest[®]-ICC, Galitt provides a card simulator to check the compliance of card acceptance systems (“Level 2 testing”) based on ISO 7816 (smart card) & ISO 14443 (contactless card) standards.

KaNest[®]-ICC and its Test Suites are used to debug, evaluate and/or validate the acceptance devices:

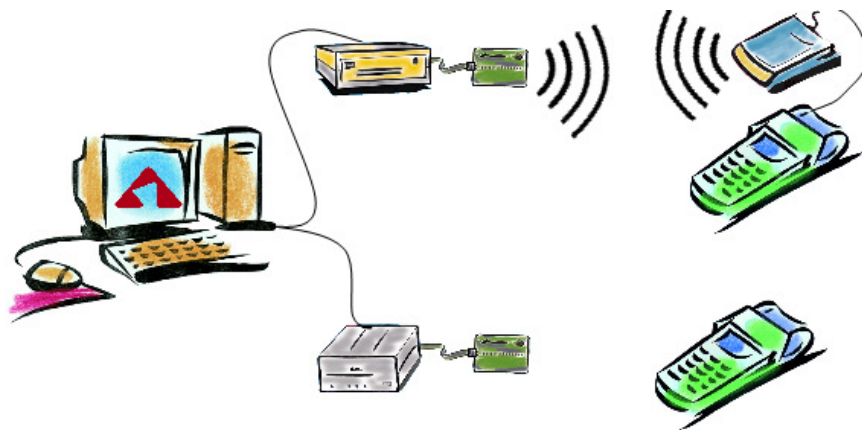
- POS terminal;
- ATMs;
- ...

based on card standards (EMV, Entry Point, *PayPass*[™], *payWave*[™], Calypso, Moneo...).

KaNest[®]-ICC gives the ability to perform End-to-End integration testing when combined with KaNest[®], the Host Simulator from Galitt.

Key features

- Simulator of smart cards and contactless cards
- Full multi-application simulation
- Off-the-shelf recognized Test Suites
- Automatic mechanism for test selection
- Automated diagnoses
- Easy settings
- Flexible and fast analysis of test results
- Spy function
- Automation capabilities & remote control
- Option to be combined with a Host Simulator
- Easy to use in End-to-End integration testing



Galitt Advantage

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

- KaNest[®]-ICC EMV Level 2 Terminal Test Suites are qualified by EMVCo and used by EMVCo accredited laboratories for evaluating EMV compliant devices.
- Numerous 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 probe or through a virtual probe to ease debugging and regression testing; testing execution can be thus fully automated.

CONTACT TEST SUITES

EMVCo

- EMV Level 2 qualified

American Express

- AEIPS qualified

DISCOVER

- DN E2E (D-PAS) qualified

Diners

- DCI E2E (D-PAS) qualified

MasterCard

- M-TIP interfaced with the TSE
- M-TIP Field Interoperability
- M-TIP US Maestro qualifications ongoing

Visa

- ADVT confirmed

INTERAC

- INTERAC for which KaSYS Canada, the Galitt Canadian partner, has been approved by INTERAC as a test tool vendor.

JCB

- TCI confirmed

OSCar

- OSCar POI Phase 1 qualified and phase 2 qualification ongoing

KaNest®-ICC

- KaNest®-ICC simulates nominal and unexpected behavior of contact and contactless cards for testing any card acceptance system and verifying the conformance to specifications.
- The simulator relies on the ICC-S module simulating ISO 7816 smart cards (T=0 or T=1 protocol) or ISO 14443 contactless cards (Type A or B).

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.

CONTACTLESS TEST SUITES

EMVCo

- EMV Entry Point Level 2 qualified

American Express

- Expresspay qualification ongoing

DISCOVER

- DN E2E (D-PAS) qualified
- Contactless D-PAS qualification ongoing

Diners

- DN E2E (D-PAS) qualified
- Contactless D-PAS qualification ongoing

MasterCard

- *PayPass™ v3.x* EMV Contactless Kernel 2
- *PayPass™ M-TIP v3.x* Subset 6
- *PayPass™ M-TIP v3.x* Subset 8
- *PayPass™ M-TIP v3.x* Subset US qualifications ongoing
- *PayPass™ M/Chip* & *PayPass™ Mag-stripe*

Visa

- *payWave™ qVSDC* & *payWave™ MSD* confirmed
- EMV Contactless Kernel 3 confirmed
- CDET confirmed
- VpTT (Europe)
- qVSDC Device Module (US) confirmed

JCB

- TCI Contactless confirmed

OSCar

- OSCar POI Phase 1 qualified and phase 2 qualification ongoing

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

- Application layer ("Level 2 & 3") for
- Contact and contactless acceptance devices
 - Multi-applications

Probes

Simcos® 2 (Galitt)

- For contact only
- Supporting T=0 and T=1

NomadLAB (KEOLABS)

- For contact & contactless
- Supporting T=0 and T=1
- Supporting Type A and B

X-CORE T Series (SMARTWARE)

- For contact & contactless
- Supporting T=0 and T=1
- Supporting Type A and B

ContactLAB (KEOLABS)

- For contact Single Wire Protocol (SWP) only

Virtual TCP/IP probe

Repositories

- EMV
- VIS VSDC
- M/Chip
- AEIPS
- Expressway
- TCI
- D-PAS
- OSCar
- CB-EMV
- INTERAC
- *payWave™* (VCPS)
- *PayPass™*

Hardware Configuration

Single PC (4GHz or above)

- Windows™ 7 SP1
 - Windows™ 8
- 32 or 64 bit