

Card Simulator

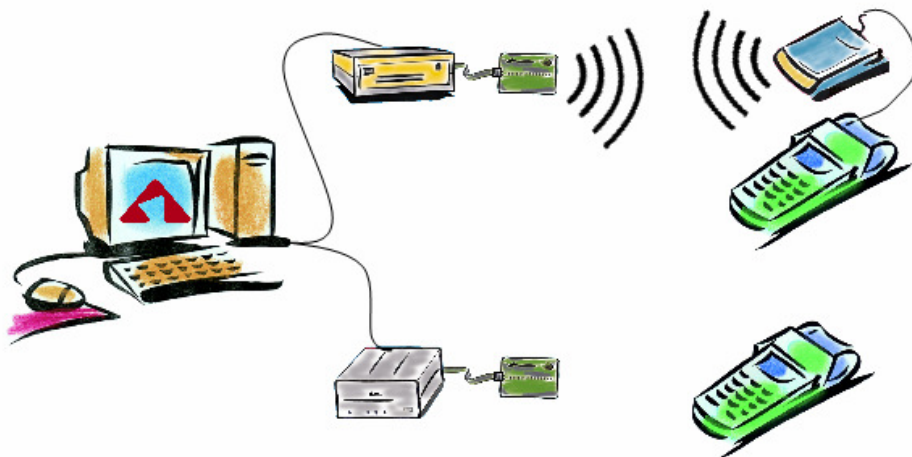
With **KaNest[®]-ICC**, GALITT provides a card simulator to **check the compliance of card acceptance systems** (“level 2 testing”) based on ISO 7816 (**smart card**) & ISO 14443 (**contactless card**) standards.

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, *PayPass[™]*, *payWave[™]*, GP, IAS, 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, 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

- **EMV v4.x Level 2 Suite** qualified by EMVCo for the EMVCo Level 2 Type Approval and used by EMVCo accredited laboratories.
- **ADVT Suite** confirmed by Visa to be fully capable of emulating the ADVT test cards.
- **CCD FOR VSDC Suite** confirmed by Visa to be “capable of testing whether a product is in conformance with Common Core Definitions and, Generic EMV Transport function”.
- **ETEC Suite** implementing the MasterCard ETEC (Easy Test Cards) cards and their related Test Cases.
- **JIT Suite** confirmed by JCB as capable of simulating JIT Test Cards (“J/Smart Integration Tests”) to test their acceptance on a terminal.
- **VLP Suite** implementing the “Visa Low Value Payment – VIS 1.4 – Terminal Test Plan” and confirmed by Visa as “capable of supporting” these Test Cases.
- **INTERAC Suite** for which KaSYS Canada, the GALITT Canadian subsidiary, has been approved by INTERAC as a test tool vendor.
- **CB5.2 Suite** implementing CB5.2 Test Cases (MPE) and verified by the French Groupement des Cartes Bancaires.

KaNest®-ICC

KaNest®-ICC simulates the nominal or unexpected behavior of a contact or contactless card 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).

CONTACTLESS TEST SUITES

- **EMV Entry Point Level 2 Suite** implementing the “EMVCo Entry Point Type Approval – Test Cases” defined by EMVCo.
- **PayPass™ M/Chip Suite** and **PayPass™ Mag Stripe Suite** implementing the “PayPass™ Test Cases for Level 2 Terminal Testing” as defined by MasterCard for respectively the *PayPass™* M/Chip card acceptance and the *PayPass™* Mag Stripe card acceptance.
- **payWave™ qVSDC Suite confirmed by Visa** as capable of implementing the “Test Plan for Visa Contactless Payment Specification – qVSDC Contactless Readers”.
- **payWave™ MSD Suite confirmed by Visa** as capable of implementing the “MSD Contactless Reader Test Plan for Visa Contactless Payment Specification”.

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.

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).

Technical Specifications

Tested Functions

- Application layer (“level 2”) for
- Contact and contactless acceptance devices
 - Multi-applications

Probes

- Simcos® 2 (GALITT)
- For contact only
 - Supporting T=0 and T=1
 - RS232 connection

SC-ProxiCARD (RAISONANCE)

- For contactless only
- Supporting Type B
- USB connection

X-CORE T Series (SMARTWARE)

- For contact & contactless
- Supporting T=0 and T=1
- Supporting Type A and B
- USB or Ethernet connection

- Virtual TCP/IP probe

Repositories

Contact

- EMV
- VIS VSDC
- M/Chip
- J/Smart
- GlobalPlatform
- CB B0'-EMV, Moneo/BMS2
- INTERAC

Contactless

- VIS VSDC including VCPS
- M/Chip including *PayPass™*
- Moneo BMS2

Hardware Configuration

- Pentium PC (1 GHz or above)
- XGA monitor
 - 1 Gb RAM
 - 1 Gb hard disk space
 - CD-ROM drive
 - USB port (license key – dongle)
 - Serial port for the probe
 - Windows™ XP SP2 or SP3 (recommended)