

EMV Personalisation Validation Tool



Collis' EMV Personalisation Validation Tool is Confirmed & Used by VISA and JCB



Card Personalisation

With millions of credit and debit cards being issued everyday, world wide, card issuers and personalisation bureaus are extremely focused on correct card personalisation.

Interoperability is a key issue with global card usage and acceptance.

Replacing cards is an expensive process so reducing / eliminating the chance of card error is vital.

Effective testing of EMV cards is essential. To ensure thorough testing, Collis developed a set of EMV testing tools for personalisation as well as card, terminal, and host testing.

EMV Perso Validation

Collis' EMV Personalisation Validation Tool (EMV PVT) is the most thorough, comprehensive testing tool available in the market today. It is a powerful tool that simplifies quality control in personalisation.

All EMVCo specifications are fully covered. Based on Collis' extensive consulting experience, the EMV PVT includes tests defined by Collis over and above the mandated specifications ensuring you have correctly personalised, interoperable cards.

This easy-to-use testing tool is a must for any personalisation bureau or card issuer.

EMV Personalisation Validation Tool - Key Benefits

- **Collis: Global Market Leader in Personalisation Validation Tools**
- **The most comprehensive, thorough EMV PVT available!**
- **Complies to latest EMVCo, Visa, MasterCard, JCB (test) specifications**
- **Prove your cards are personalised correctly**
- **Check consistency between mag stripe / chip & embossing**
- **Ensure interoperability / world wide card acceptance**
- **Use in development and production**
- **Easy to customise**

Explore, Validate & Report

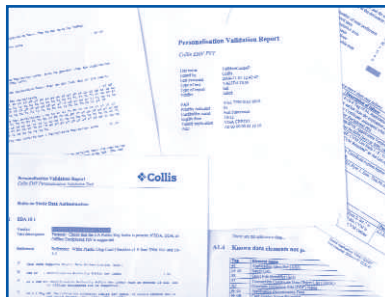
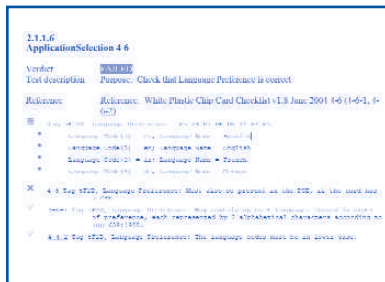
EMV Card Explorer

The first module in EMV PVT is the EMV Card Explorer. With the Explorer all the data in an EMV card is read and presented as meaningful text in an MS Word or PDF report, including the corresponding byte strings and parameter settings in the card.

Use the Explorer Tool for:

- Understanding your EMV card (data) - any brand
- Training
- Trouble shooting
- Helpdesk purposes

This tool enables you to simply browse through all the data elements in your EMV card.



Test results are interpreted in a clear MS Word / PDF format report.

Validation

Thorough testing and validation of EMV cards is an absolute must. For an efficient testing process, testing should be smooth and time-efficient.

With the simple click of a button, the EMV PVT starts to read all data from an EMV card and to perform checks on this data. The tool has different modules which tests the personalisation according to the latest (test) specifications from:

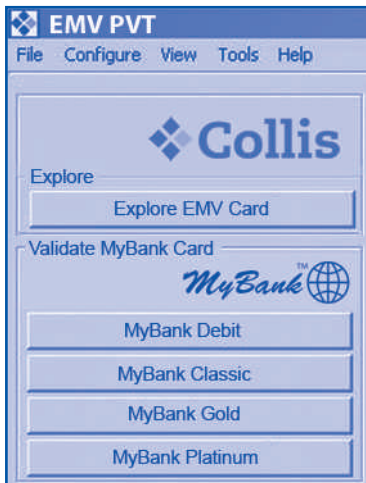
- EMVCo
- Visa VSDC, DPA, Contactless, (qVSDC, MSD, Wave),
- JCB J/Smart (1.2, 2.0)
- MasterCard M/Chip 2, M/Chip 4, PayPass, CAP
- Domestic (Interac Association Canada, Currence Netherlands, FISC Taiwan, Saudi Arabia, etc.)

The modules are easy to access by an easy-to-use navigation menu.



EMV PVT User Interface: Easy to use!

Customisation & Cryptography



EMV PVT - Easy to customise!

Clear Reporting

The test reports of the EMV PVT give a crystal clear feedback on the nature of the errors found. The report shows the exact location in the original EMVCo specifications which describes the error and specification expectation. This enables you to clearly follow and resolve the relationship of the errors found to the specifications.

Validation results are shown in the Graphical User Interface by a passed (✓) or failed (✗) indicator. Reports in MS Word / PDF format contain:

- A high-level summary
- Test case statistics
- List with failures
- Observations list (warnings)
- Report for each test with:
 - Reference to the details
 - Technical details for each test

This report immediately lets you pinpoint any tag-error, rule violation, or template mismatch.

Contactless Cards

Special versions of the EMV PVT are available to check Contactless Cards, both EMV and Magstripe. For instance for Visa Contactless (VSDC, qVSDC, MSD, Wave), and MasterCard PayPass.

Confirmed & Used

The EMV PVT is developed in close co-operation with VISA and JCB. Collis implemented all their test requirements and test specifications.

Collis' EMV PVT is used by Visa and JCB and it covers all personalisation test requirements. This is confirmed by Visa & JCB.

Customisation

Change the 'look and feel' of the user interface to your liking. For example delete buttons that are not useful or modify names displayed on buttons to make it more specific for your business.

This advanced feature gives users the opportunity to edit the configuration files of the program to adapt to their own use. You can even create new buttons to access new or customised test suites, without rewriting the program.

Cryptographic Checks

The EMV PVT features full SDA/DDA/CDA verification of the symmetric keys on the card.

Besides validating symmetric test keys, the EMV PVT is capable of validating live symmetric keys by (an optional) coupling with an Host Security Module (HSM).

Development & Production

The EMV PVT is of great use during all stages of personalisation. It saves time in:

- Application development
- Personalisation development
- Sampling of cards during batch personalisation
- Creating chip/magstripe profile
- Investigation of cards that are returned from the field (helpdesk activities)
- Training purposes and understanding of EMV

With just one click of a button, you can store, validate, retrieve, and examine all personalisation data of EMV smart card applications such as chip, magnetic stripe, and embossing data, asymmetric keys and PIN.



Product Range

EMV PVT

EMV PVT includes:

- **Card Explorer**
- **Validation Module** (testing chip/magstripe data coding, data consistency, certificates, test keys, PIN, embossing) for EMV Generic, MasterCard, Visa, JCB, CAP/DPA
- **Template Editor** which enables you to load and change profiles pre-defined by the industry (Visa /MasterCard/JCB/Collis). Use these tests as a starting point for creating your own card profiles.
- **Contactless** (Visa Contactless, PayPass).

(Reference code: EMV-PVT-P1)

Conclusion Test Platform

EMV PVT runs on top of Collis' Conclusion Test Platform. It is today's high-end development tool for protocol simulation and interface testing.

(Reference code: CP-P1)

Combined Card Reader

A chip/mag stripe reader with all required drivers.

(Reference code: CR-P1)

About Collis

Collis is the leading global competence centre in the design and testing of card transaction systems.

Collis has delivered significant contributions to the EMV and e-Identification markets for over a decade.

Unparalleled Consulting Services, best available, high quality Testing Tools and expert Training Courses from Collis' e-Business, Quality Assurance & Testing Business Units are at your service.

ISO 9001:2000 certified

EMV PVT Suite

EMV PVT Suite includes:

- **Card Explorer**
- **Validation Module** (testing chip/magstripe data coding, data consistency, certificates, test keys, PIN, embossing) for EMV Generic, MasterCard, Visa, JCB, CAP/DPA
- **Template Editor** which enables you to load and change profiles pre-defined by the industry (Visa /MasterCard/JCB/Collis). Use these tests as a starting point for creating your own card profiles.
- **Contactless** (Visa Contactless, PayPass).
- **Card Image Editor** which allows you to modify the personalised data of a physical card and validate the changes in PVT without needing to produce a new card.
- **HSM coupling** for validation of production keys.
- **Combined Card Reader**
- **Complete Customisation**
- **Installation Support**
One of our EMV experts will provide installation support onsite.
- **Training & integration**
1 day training program on the use of the EMV PVT Suite as well as total integration of the Suite with your systems is included.
(Reference code: EMV-PVT-S-P1)

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