

# EMV Personalisation Validation Tool

## CPT Batch

Speeds up development and payment scheme certification. Enables batch testing and QC for issuing valid EMV cards

**SUPPORTED PAYMENT SCHEMES INCLUDE:**

EMV  
EMVCo L3

- ABI
- American Express
- ATH
- BKM Troy
- Cartes Bancaire
- CPA
- Credibanco
- Discover D-PAS
- eftpos
- Interac
- JCB
- JetCo
- mada
- Mastercard
- MCCS
- NCCS
- NETS
- NSICCS
- PBOC
- Pure
- RuPay
- UnionPay
- Visa
- SERMEPA Advantis



To achieve payment scheme certification, card issuers must ensure their cards comply with their chosen payment scheme's personalisation requirements. To prevent the costly production of invalid EMV cards and delays in the formal card personalisation process required by the payment schemes, the Barnes EMV Personalisation Validation Tool enables issuers to validate and pre-certify their cards against the latest payment scheme requirements, as well as their own business requirements.

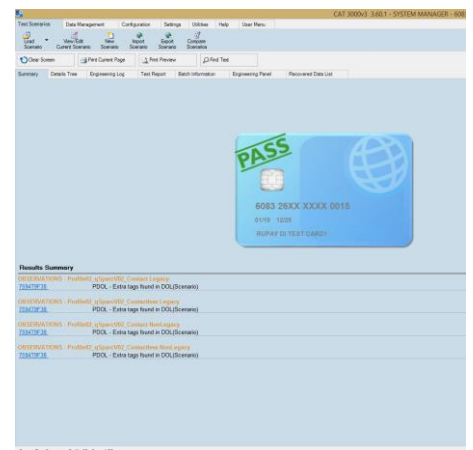
The new Barnes 60H Motorised Triple Interface Reader working with Barnes CPT Batch software allows you to gain efficiency when testing batches of cards. You can stack up to 60 embossed cards for testing and free up staff to perform other work while the tests are performed without further user intervention.

New Batch 20/04/2020 12:08

Test started 20/04/2020 12:21  
 Completed 20/04/2020 12:27  
 Equipment CPT 3000v3 Ser. No. 0001/0004 Software Ver 3.61.0  
 Profile EMV Default  
 Tests Performed 20  
 Unique Cards Tested 3  
 Cards Failed 1

**Test Results**

Card	Card id	Operator	Time	Result
1	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:21	Pass
2	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:22	Pass
3	374284xxxxxx2004 5BF2	SYSTEM MANAGER	20/04/2020 12:22	Fail
4	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:23	Pass
5	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:23	Pass
6	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:23	Pass
7	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:23	Pass
8	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:24	Pass
9	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:24	Pass
10	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:24	Pass
11	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:25	Pass
12	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:25	Pass
13	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:25	Pass
14	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:25	Pass
15	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:25	Pass
16	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:26	Pass
17	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:26	Pass
18	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:26	Pass
19	455598xxxxxx3582 386E	SYSTEM MANAGER	20/04/2020 12:27	Pass
20	446281xxxxxx9496 9EE5	SYSTEM MANAGER	20/04/2020 12:27	Pass



## Solution Highlights

- Quickly tests that data on the chip and magnetic stripe are correct and valid according to issuer profiles and all major payment scheme specifications.
- Supports all payment devices: contact and contactless cards, mobile phones, tokens.
- Software developed in collaboration with Visa and Mastercard, and also used by American Express, Discover, JCB, major banks and card bureaus globally.
- Essential in all EMV chip card issuing, personalisation, implementation and support operations.

### Dual Hopper option with lock

100 un-embossed cards or 60 embossed cards



## Features and Benefits



### THE BARNES ADVANTAGE

Barnes is the chosen test tool of Banks & Issuers, Card Manufacturers, Personalisation Bureaus and Test Laboratories worldwide.

Here are some reasons why:

### BUSINESS AGILITY

Barnes test tools are easy to use by both technical and non-technical users, and speed up card development and payment scheme certification.

### COST ELIMINATION

The high business costs and wasted resources of producing and issuing invalid cards are eliminated.

### RISK REDUCTION

The reputational risk of issuing invalid EMV cards to end customers is reduced.

### FUTURE PROOFED

Barnes works in partnership with all major payment schemes. As scheme rules evolve, Barnes rapidly makes updated test script packs available to customers via the Barnes website.

### SERVICE EXCELLENCE

Our clients have every confidence that, whatever their test requirement, the Barnes team is always on-hand to deliver expert advice and fast support.

### Multiple Application Tests

In a single card insertion, the tool confirms the data on the chip and magnetic stripe is correct and valid according to the issuer profile. The card account number and issue / expiry dates are displayed for visual verification of the card embossing indent print. Optionally, the card livery can be displayed to verify the correct card stock has been used.

### Multi-level User Interface

The tool is designed to be easy to use for both the non-technical operator and at the same time provides detailed technical information for IT and engineering staff. Production control features include User Access Control, Batch Test and Event Logging, which are supplemented with intuitive data element displays for problem solving and data analysis.

### Powerful Diagnostic Tools

Data displays include Card Test Result Summary; Detailed Test Result Tree and Full Engineering Log. Hyperlinks between the various levels of displays and directly to the EMV and payment scheme specification references allow the user to quickly identify and diagnose problems.

### PCI Security

PCI compliant masking, log-out and user controls enable full control of personal cardholder data on screen and in reports.

### Adaptable Test Scenarios and Scripts

Users can easily define "QuickTest" profiles to test their own chip data requirements, in line with, or in place of, payment scheme requirements. Test scripts are not restricted to EMV; other types of smart card application can also be tested, for example payment, security and loyalty applications.

### Cryptographic Authentication

Static (SDA), Dynamic (DDA) and Combined (CDA) data authentication is fully supported by the tool. RSA algorithms are also supported.

### Key Management

Complete with a comprehensive set of Visa, Mastercard, JCB and Discover public keys. Additional keys can be imported through a key management system.

### Network Capability

The tool can be used in a networked environment with individualised user access levels and settings. All test scripts, scenarios, standard profiles, public keys and reporting for multiple tools can be managed centrally, ensuring consistency across all units.

### Remote Testing

Issuers and scheme authorities can securely evaluate and approve cards remotely, eliminating the costs and delays of sending sample cards around the world.

## Optional Solutions

### Host Simulation Module

Adds the ability to verify secret keys either in software or with the optional Hardware Security Module connectivity.

### Payment Scheme Certification Test Modules

Allow certification tests to be performed to accelerate payment scheme approval.

*The Barnes 3K7 reader is required for certification testing.*

- Mastercard CPV
- Visa GPR
- eftpos CPC
- JCB
- Discover D-PAS CPV
- RuPay
- GIE CB



## Technical Specification

### Software:

- OS: Windows 7 & 10 (32-bit & 64-bit)

### Card Readers:

*For Batch Testing:*

- Barnes 60H Triple Interface reader with hopper for batch testing

*For Single Card Testing:*

- Barnes 3K7 Triple Interface reader (Magnetic Stripe, Contact and Contactless chip)
- Barnes 3R1 reader for metal/titanium cards
- PC/SC reader compatible

