

# DATA PREPARATION



## Fast and efficient solution for the issuance of EMV payment cards, both in batch or single step mode.

MultiPerso Data preparation software receives data in different formats and from multiple sources, performs all necessary manipulations with input data, and forwards the prepared data for further personalization and chip encoding. Two operational models are supported – batch mode for separate data preparation and single step mode for complete personalization in one-pass processing. All major types of payment card products are supported – Visa, MasterCard, American Express, Diners Club, and custom EMV CPA cards.

### OVERVIEW

In general, Card Management Systems provide raw card data which has to be enriched with cryptographic keys and the additional tags required for smart-card applications, thus preparing cards for further personalization and chip encoding.

The process of data enrichment and preparation for EMV personalization is provided by the Data preparation software. MultiPerso Data preparation provides a simple and comprehensive solution for banks and other organizations to issue cards based on smart chip technology.

This software performs data preparation for all principal EMV smart card types, which can be used either in international networks or in local payment projects. Standard payment functionality can be combined with additional applications, such as customer loyalty or social security programs.

MultiPerso Data preparation software receives card application and cardholder profile data, keys and certificates from multiple sources. The data is checked and prepared according to the defined setup and moved forward in the overall card-personalization process. It supports present and future smart card technologies and requirements, such as contact and contactless interfaces, mobile and multi-application environments, and post-issuance application management.

When needed, data preparation software directly interacts with cryptographic devices to generate encrypted data in compliance with EMV standards for smart card personalization. Software interfaces to a Hardware Security Module (HSM) in order to carry out key generation, key derivation, and digital signing. MultiPerso Data preparation is not strictly tied to any specific brand of HSM appliances; it can be integrated with existing production environments according to the client's preferences.

**MultiPerso Data preparation software allows to issue cards in both batch and single step modes:**

**MultiPerso Data preparation Batch** provides manipulations with input data separately from the encoding of smart card chips. Data preparation may include transformation of data formats, crypto operations, generation of certain EMV data blocks, etc. Prepared data can be fed to personalization machines or can be sent to another personalization centres for further processing and personalization of smart cards. This mode is suitable for premium-range personalization machines or when smart cards are personalized by several personalization bureaus in a distributed environment.

**MultiPerso Data preparation Single Step** performs manipulations with input data from card management system and immediately sends it to personalization machines for encoding of smart card chips for each card. This mode is suitable for medium-range personalization machines or for instant issuing.

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## FUNCTIONALITY

- Provides high-speed data preparation for the card issuance process
- Protects data and provides audit reports
- Reduces or completely eliminates manual processes
- Makes operations fast, secure, and fully automated
- Modular architecture allows issuers to adapt the software to the existing environment and to configure it for specific program requirements, quickly and easily
- Easy installation and configuration
- Interfaces with third party systems, such as card management systems, HSMs and personalization systems with minimal impact on existing systems
- Thanks to its flexibility, the software supports wide range of card products and technologies (e.g. magnetic stripe, SDA or DDA chips, single- and multi-applications, Visa or MC brands)
  
- Supports EMV Data Preparation for the following applications:
  - Visa VSDC
  - Visa Paywave MSD / qVSDC
  - Visa DPA (Dynamic Passcode)
  - MasterCard M/Chip / CAP
  - MasterCard Paypass
  - AMEX AEIPS
  - Diners / Discovery (CPA)
  
- Supports Data format:
  - P3
  - CPS
  - Customer defined via configuration
  
- Supports standards:
  - EMV
  - Global Platform

## BENEFITS

- Support for all major card products: Visa, MasterCard, American Express, Diners Club, custom EMV CPA cards
- Fast and flexible data preparation process for smart cards
- System performance can be upgraded by choosing the appropriate HSM appliance(s)
- Seamless integration with existing environments and third-party card personalization systems
- Two operational models: Batch processing or Single step
- User friendly interface for definition and maintenance of multiple card products and personalization profiles
- Compliance with strict security requirements set by international payment organizations

