

# MIFARE PLUS MANAGER

Code: PT-MPM  
Version: 1.0 24/04/2014

Mifare PLUS Manager (MPLUSM) is The Tool for the management of Mifare PLUS ICs which allows a seamless migration from Mifare Classic ICs.

## MPLUS MANAGER KEY APPLICATIONS

Tool to help the seamless migration from Mifare Classic contactless systems to Mifare PLUS high security cards<sup>1</sup> systems.

## HOW IT WORKS

Once the migration SAM has been generated with the keys to be implemented in the Mifare PLUS card, the **Mifare PLUS Manager (MPLUSM)** Tool will help in the different stages of the process.

Step 1: Recording the AES keys, increasing the security level to SL1 and formatting the card.

Step 2: Increasing card level to SL2 o SL3.

## MPLUS Manager FEATURES

**License Control:** USB pen drive.

**SAM accepted:** Mifare SAM AV1 and AV2 (mode AV1 or AV2).

**Cards:** Mifare PLUS X and Mifare PLUS S.

**Type of keys:**

AES and CRYPTO KEYS  
16 Bytes 3DES, 24 Bytes 3DES, AES128, AES192.

**Type of formatting map:** Fixed and variable.

Allows massive operation with a mechanical dispenser.

Connection to the Central Management System to inform of the operations.

**Others:**

Secured Application  
Users and Profiles management  
Compatible with any PC-SC readers  
Friendly and Easy to use  
Spanish language supported

## PALMA TOOLS SAM SECURITY TOOLS WORLDWIDE



1. Please refer to the Palma Tool document "MIFARE PLUS MANAGER (MPM) Mifare PLUS and Migration from Mifare CLASSIC for more information.

## MPLUS USE CASE

A Transport Authority with a Mifare Classic Contactless Smart Card Ticketing System wants to migrate to Mifare PLUS, making the following steps.

Generate the new SAM with the [MSAM Manager Tool](#).

With the new SAM and the original CRYPTO1 key of the Mifare Classic and its original formatting data the [MIFARE PLUS MANAGER TOOL \(MPM\)](#) generates the Mifare PLUS cards and security level 1 (SL1) from level 0 and with the all necessary keys (AES for the sectors and migration, and CRYPTO1) and formats then for normal production as any Mifare Classic card, and are distributed instead of the classic cards.

All the equipment is modified to accept Mifare PLUS cards.

When all equipment is ready, the [MIFARE PLUS MANAGER TOOL \(MPM\)](#) is used to increase the security level to SL2 or SL3.

## TECHNICAL SPECIFICATIONS

### Product Features

#### Platform requirements

Minimum RAM memory	1 GB
Operating System	Windows 7 and previous versions
USB ports	1 for migration SAM 1 for CARD WRITER 1 for the license 1 If mechanical dispensing mechanism is used

#### Application Parameters

Number users for recording cards	Unlimited but controlled
Access with contactless card	none or 1
Keys visibility	Visible or no visible to user

#### Data encryption

User Password	Always required
Access Contactless cards SN	Always required
SAM Keys	Always required if stored internally
Keys stored on contactless cards	Configurable none -1-2
Multi language	Multilanguage: Spanish-English and ready for other Latin alphabet languages

#### Look Personalization

Logos	Configurable
Application Wallpaper	Configurable
Customer Name	Configurable
Partner/Distributor name logo	Configurable

#### Operation configuration

Different card personalizations	Unlimited
Step Control	AES recording, level increase and personalization can be done in different steps

#### Operation and card log

Information	Serial number and operations with the card
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#### Application Users

Management	Profile an User's Management
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#### Reports

Activity reports	By card, user, or date
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