

MC9090-Z RFID Software v2.2.5 Release Notes

Release Notes

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Introduction

This *Release Notes* is meant for customers. The *Release Notes* lists new features, any specific usage instructions, and any known issue.

The release notes document cover changes since MC9090 RFID software 1.3 release. The features and issues mentioned in this document are applicable for the following products (unless mentioned explicitly in the feature)

- MC9090-Z

Software Download

MC9090-Z

The version 2.2.5 software update package includes the files required to update MC-9090-Z Handheld RFID reader. The steps to be followed for installation are as follows:-

- Copy MCRFIDInstall_2_2_5.CAB to \Temp folder on the terminal.
- Tap once on the MCRFIDInstall_2_2_5.CAB to perform the installation.
- Confirm any prompt to uninstall/overwrite any existing version.
- Device will reboot after the installation and enable RFID service on the device

Version Info	
Component / Description	F/W & H/W Version
ML	2.54.553
PM	11.27.1
OS	05.02.19590
OEM Version	01.09.0000

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Air Beam	4.66
RD Client	4.66
Radio module Firmware	2.0.26
Radio module OEM version	2.0.26
Radio Library	2.02.05
Mobile RFID server version	2.02.05
RFID 3 API	5.2.0.10
Fusion	2.57.0.0.018R-WM-PHOTON
BT	1.2.6 build 24200

New Features summary

The following new features are part of current release.

- Fujitsu Custom command support
- ETSI EN 302.208 v 1.4.1 compliance
- QT Custom Command support for Monza 4QT Tag
- ChangeConfig Custom Command support for NXP G2iL / G2iL+
- BlockWrite operation patched to support number of words to write per operation
- XPC Word support
- Optimization of data transfer to support faster tag reads.
- Increased the maximum number of select filters to 8.
- Changes to stop transmitting RF continuously in EU Readers if no tag is seen for more than 20 seconds
- Optimizations to improve the time taken for single access operations (particularly write operations).
- RFID3 API Support for 64 bit processor for the Host C Dll

Major Issues Addressed

- Failure when writing more than 54 words.
- Optimizations in RFID3 API .NET Dll to run the threads in background mode for better user experience with the applications (like Biztalk).
- Access operations being performed on multiple tags with same EPC even though the Opspec has a stop trigger with operation count 1.
- Default select command has been removed which means that customer is fully in control as to when to enable select commands.

New Features Description

Fujitsu Custom command support

Support for Fujitsu custom commands for 64K and 8K tags have been added as part of the current release. The following Fujitsu custom commands are supported.

For Fujitsu 64KB Tag

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1. Change Word Lock
2. Change Block Lock
3. Read Block Lock
4. Change Block group password
5. Burst Write
6. Burst Erase

For Fujitsu 8KB Tag

1. Area Read Lock
2. Area Write Lock
3. Area Write Lock without password
4. Change area group password

QT Custom Command support for Monza 4QT Tag:

Support has been added in LLRP as well as RFID3 API to support QT Custom feature on Monza 4QT Tag. This is added as a Custom OpSpec extension as part of the LLRP Access Spec. This command is honored only when reader sets CanSupportImpinjCustomCommandsparameter to TRUE in GET_READER_CAPABILITIES_RESPONSE Message. Reader Management as well as the web interface have been extended to provide the success / failure statistics of QT Operations.

ChangeConfig Custom Command support for NXP G2iL / G2iL+:

Support has been added in LLRP as well as RFID3 API to support ChangeConfig Custom feature on NXP G2iL / G2iL+.. This is added as a Custom OpSpec extension as part of the LLRP Access Spec. This command is honored only when reader sets CanSupportNXPCustomCommandsparameter to TRUE in GET_READER_CAPABILITIES_RESPONSE Message. Reader Management as well as the web interface have been extended to provide the success / failure statistics of Change Config Operations.

BlockWrite:

The number of words that can be written at one time varies from tag chip vendor. This number usually depends on the block size supported by a particular tag. We also found that the more words are sent at one time, the least reliable the block write operation becomes. To overcome these two issues we have defined a new register to specify the number of words used in block write operation: MOT_HST_BLOCKWRITE_SIZE at address 0xD203 is the new register, and its default value is 8 words.

XPC Word:

There were two issues: XPC was not being reported, and secondly, the issue was that when app using RFID API3 tries to access tag data from a specific XPC tag by calling the synchronous access method of API3 (ReadWait, WriteWait, etc.), Reader executes the corresponding access operation unsuccessfully. This issue happened because the MAC post filter was not taking XPC words and XI/XEB bits into account when comparing EPC ID data which was created based on TagSpec. Both issues have been addressed.

Increase in maximum supported transmit power:

MC9090-Z EU will supported maximum selectable transmit power level upto 29.8 dBm. Prior software releases supported maximum of 28.3 dBm.

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Regulatory compliance

This updated software on an MC9090-Z EU will allow the device to operate in ETSI EN 302.208 v 1.4.1 standard compliant mode.

This version also addresses a compliance issues issue existing in software release 1.3, 2.0 and 2.1 in US readers. Customers using these versions are suggested to upgrade to this release.

Known Issues

The following SPR's related to MC9000 series of devices can potentially affect the working of MC9090-Z. It is recommended to install the fixes for these SPR when they are available

1. **SPR 18160** - Device.exe error and adapter unavailable after suspend resume
2. **Hot Fix Release (Fusion_2.57.0.0.023B_WM61.ARM) for Fusion Stack**
3. **SPR 19441** - WiFi-Adaptor not found issue in MC9090 on warm boot
4. **SPR 18448** - WT4090 (**Affects MC9090-Z**) Adapter Unavailable after suspend resume
5. **SPR 19226** - WT4090 (**Affects MC9090-Z**) Adapter Unavailable after suspend resume. Adapter can be recovered only by rebooting the device