

# Release Notes - EMDK for Android v4.0

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[Important News](#)

[Introduction](#)

[Description](#)

[Device Compatibility](#)

[Installation Requirements](#)

[Usage Notes](#)

[Known Issues](#)

[Part Number and Release Date](#)

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## Important News

Please note that the EMDK for Android version 4.x is the next evolution of the DataCapture SDK. While the DataCapture SDK was not explicitly named “EMDK”, this initially released version is considered the EMDK for Android v1.0. The EMDK for Android version 4.x contains all of the EMDK for Android v1.0 functionality (Intent APIs), and reinforces our commitment in supporting development using the standard Android Intent inter-application messaging system. As devices continue to progress, the EMDK for Android will provide access to those new capabilities through our Profile Manager and APIs, including Intents.

The EMDK for Android v4.x provides developers with a comprehensive set of tools to easily create powerful line of business applications for enterprise mobility devices and is designed for use with Google Android SDK and Android Developer Tools (ADT). The EMDK for Android includes class libraries, sample applications with source code, as well as all of the associated documentation to help your applications take full advantage of what our devices have to offer. It also includes an exclusive Profile Manager Technology within the Android Studio IDE and Eclipse IDE, providing a GUI based development tool. This allows you to write fewer lines of code resulting in reduced development time, effort and errors.

Applications accessing EMDK for Android v4.x APIs are required to use the “com.symbol.emdk” package. However, applications using DataCapture intents delivered by EMDK for Android v1.0 must continue to use the “com.motorolasolutions.emdk.datawedge” package.

**The Eclipse Android Developer Tools have been officially deprecated:** Google has announced the termination of support for ADT/Eclipse for Android development by the end of 2015. From 2016 onwards, Android Studio will be the only tool supported by Google for Android development. In line with this announcement, EMDK for Android v4.0 will be the last version to support ADT/Eclipse development. It is strongly recommended that all the existing Eclipse and ADT projects are migrated to Android Studio as soon as possible. Please refer to the Google documentation [Migrating to Android Studio](#) for an overview of the migration process.

The [EMDK for Android Help](#) documentation is now available only online. The EMDK installation will no longer install the documentation on the development PC. A link to the online documentation is provided with the EMDK installer.

The [EMDK Samples](#) are now available online for downloading to the PC. The EMDK installation will no longer install the samples on the development PC. A link to the online samples is provided with the EMDK installer.

## Introduction

The EMDK for Android provides developers with the tools necessary for creating applications that target the enterprise mobility 'Android' libraries, such as Barcode and SimulScan. This developer kit is designed for use with Android Studio or Android Developer Tools (ADT)/Eclipse.

## Description

1. Added support for multiple MX versions in EMDK Wizard. Previous EMDK versions supported MX version either 4.2 or 4.4. In this version, MX versions 4.2, 4.4 and 5.0 are supported. When creating or updating a profile, the targeted MX version must be selected. For more information on MX versions, refer to [Choosing an MX Version](#).
  - An existing profile can be upgraded to a later of version of MX using the Profile Upgrade feature in the EMDK Profile Manager.
2. Added support for the following MX v4.4 features in the Profile Manager:
  - Additional Locale - Updated UI Manager with Additional Locale Control support for SPANISH, US\_SPANISH, BRAZILIAN PORTUGUESE and PORTUGUESE.
  - Password Masking/ Encryption - PrivateKeyPassword/ KeystorePassword in Certificate Manager and AttPassword/ TmobilePassword/ CustomPassword in GPRS Manager values can now be encrypted.
3. Added support for the MX v5.0 in the Profile Manager:
  - Vendor Specific DHCP Options - Updated DHCP Manager that has the Vendor Specific DHCP Options support so that the device can be configured such that it will ask and set vendor specific attributes.
  - PAC File - Updated Wi-Fi feature that has the PAC file support so that it can be used for changing proxy settings centrally and the devices will change their settings accordingly.
  - Screen Capture Control - Updated Display Manager that has the Screen Capture Control support so that it can be used for controlling the ability to capture the device screen by users of the device specially when sensitive information is shown on the device.
4. Added support for Payment APIs. The Payment APIs are used for performing EMV and Magstripe Payment transactions when using the PD40 Payment device with MC40 Jelly Bean and MC40 KitKat.
5. Added support for Serial Communication APIs. This feature provides simple APIs to enable/disable serial communication port, write and read data to/from remote devices attached to TC75 KitKat and TC70 KitKat RevB devices. This feature requires installing an OSUpdate on the device. To obtain a copy of the OSUpdate, contact your Sales team and ask for the fix provided by SPR 28877.
6. Added support for ScanData.getRawData() in EMDK Barcode API. Previous versions of EMDK has only ScanData.getData() method which returns scanned barcode data as UTF-8 encoded string independent of the charset used in the barcode and there was no way for the application to get non UTF-8 encoded barcode. The ScanData.getRawData() provides an option for application to get raw decoded data and encode using charset used in the Barcode.
7. Added support for AimingPattern and IlluminationMode in ImagerSpecific configuration of Barcode API.
8. Added new capabilities to Activity Selection when creating a Data Capture profile using EMDK Wizard:
  - Ability to define wildcard character “\*”. If a profile needs to be associated with all the activities in an application, “\*” can be used instead of defining each activity name. This was not supported in previous EMDK versions.
  - Ability to define activity names with any naming format. Earlier EMDK versions were supporting only the activity names that has application name as a prefix in their activity name. Now users can define any type of activity names.

Refer to the help documentation for detailed information on using activity selection.

9. Added new method `getInstanceAsync()` to `EMDKManager`. The EMDK Feature Manager object returned by this method is guaranteed to be usable immediately. The feature manger object returned by the existing method `getInstance()`, may not be ready to be used immediately, especially after a device reboot.
10. The [EMDK for Android Help](#) documentation is now available only online. The EMDK installation will no longer install the documentation on the development PC. A link to the online documentation is provided with the EMDK installer.
11. The [EMDK Samples](#) are now available online for downloading to the PC. The EMDK installation will no longer install the samples on the development PC. A link to the online samples is provided with the EMDK installer.
12. Fixed: In the Barcode API, the WAITING and IDLE states were invoked twice instead of once.
13. Fixed: `isContinuousScan` flag in Barcode API would always return false even when the ContinuousScan feature is successfully set.
14. Fixed: The `emdkName` with a hyphen character (-) could not be used in the `CreateNameValuePair()` in Profile API.
15. Fixed: The `paramValue` cannot have period character (.) when using `CreateNameValuePair()` in Profile API.
16. Fixed: Enhanced the exception handling in EMDK to avoid `NullPointerException` and `DataFormatException`.

**Note:** Using the EMDK for Android v4.0 features require the latest EMDK device runtime on the device.

To determine the EMDK device runtime version of the device:

1. Launch the “Settings” application on the device.
2. Select “Apps”.
3. Select “ALL” apps view.
4. Select “EMDK Service” to see “App info”.

If the version is lower than “4.0.2.0”, you must update the device by following the steps mentioned below:

1. Refer to the Public Software section and download `EMDK-OSUPDATE-040003.zip`.
2. Extract `EMDK-OSUPDATE-040003.zip` into a temporary folder.
3. Copy the content of “EMDK-OSUPDATE-040003” into “<install-dir>\Symbol EMDK for Android\v4.0\Device Runtime Deployment”.
4. Run `Deployment.bat` under "Device Runtime Deployment" folder to update the device.
5. Refer to the Device Updates section in Readme for more information.

## Device Compatibility

This software release has been approved for use with the following devices.



Device	Android Jelly Bean	Android KitKat
MC18		*
MC32N0	*	
MC40	*	*
MC67	*	
MC92		*
TC55	*	*
TC70		*
TC75		*

## Installation Requirements

The following software must be installed prior to using the EMDK for Android.

- Microsoft® Windows 7 (32-bit and 64-bit) or Microsoft® Windows 8 (32-bit and 64-bit) or Microsoft® Windows 8.1 (32-bit and 64-bit)
- [Java Development Kit \(JDK\)](#) v7u45 or higher
- [Android Developer Tools \(ADT\)](#) v22.3.0-887826 or higher. Remember the “ADT Installation” folder for later use.
- Close Android Studio or Eclipse sessions if already running.

**Note:** The Android 4.1.2 (API 16) package must be installed in the development environment in order to target EMDK 4.0 (API 16) add-on and the Android 4.4.2 (API 19) package must be installed in the development environment in order to target EMDK 4.0 (API 19) add-on. In addition to API platforms the Android SDK Build-tools rev.21.1.x must be downloaded and installed.

## Usage Notes

None.

## Known Issues

1. When using camera for scanning, creating and releasing the BarcodeManager repeatedly might lead to scanner instability on some products. The application should keep the Barcode session open. This issue does not occur if the Imager or Laser is used for scanning.

## **Part Number and Release Date**

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