

Kofax Mobile SDK

2.2.0

Release Notes



© 2014 Kofax, Inc., 15211 Laguna Canyon Road, Irvine, California 92618, U.S.A. All rights reserved. Use is subject to license terms.

Third-party software is copyrighted and licensed from Kofax's suppliers.

This product is protected by U.S. Patent No. 6,370,277.

THIS SOFTWARE CONTAINS CONFIDENTIAL INFORMATION AND TRADE SECRETS OF KOFAX, INC. USE, DISCLOSURE OR REPRODUCTION IS PROHIBITED WITHOUT THE PRIOR EXPRESS WRITTEN PERMISSION OF KOFAX, INC.

Kofax, the Kofax logo, and the Kofax product names stated herein are trademarks or registered trademarks of Kofax, Inc. in the U.S. and other countries. All other trademarks are the trademarks or registered trademarks of their respective owners.

U.S. Government Rights Commercial software. Government users are subject to the Kofax, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

You agree that you do not intend to and will not, directly or indirectly, export or transmit the Software or related documentation and technical data to any country to which such export or transmission is restricted by any applicable U.S. regulation or statute, without the prior written consent, if required, of the Bureau of Export Administration of the U.S. Department of Commerce, or such other governmental entity as may have jurisdiction over such export or transmission. You represent and warrant that you are not located in, under the control of, or a national or resident of any such country.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Contents

Legal Notice	2
Release Notes	5
Version Information	5
Changes in This Release	5
Known Issues	5
Cannot Upgrade Database from 2.1 into the Schema for 2.2	5
With Sony Xperia Z1s Captures Unfocused Images	6
Android App Will Not Run in Emulator with Google Maps API Enabled	6
MICR/Signature Not Detected on Clear Image	6
Writing AppStats Data to File May Cause Issues	6
PostNet Bar Code Search is Slower Than Other Bar Code Symbolologies	7
Cannot Download Document Type to Illegal Character in Shortcut Name	7
Droid Razr Maxx Stability Value Not Stable	7
HTC Thunderbolt May Crash When Using Torch	7
Certain ASUS Transformer TF101 Tablets May Freeze When Specifying Resolutions	8
Level Indicator Sluggish With Continuous Page Detection	8
Blue Overlay Obscures Viewer At Certain Sizes	8
Certain Screen Resolutions Problematic	8
Extreme DPI Settings Not Supported	9
Overexposed Images if Lighting Changes from Dark to Bright	9
Removed Images Still Visible in Gallery	10
Unable to Capture with Pitch Set to 180	10
iOS: Unfocused Images Captured Despite the Camera Reporting Focused	10
In Video Mode, LED Inconsistent Across Devices	11
Cannot Capture Backside of Check	11
Camera Feed Upside Down on Landscape Tablets	11
MICR Data Extracted From Image With No MICR Line	11
SDK Does Not Report KFS Out of Disk Space	12
Resolved Issues	12
Tilt Not Required in Image Capture Control	12
Cannot Use Flash on Certain Samsung Devices	12
Flash Fired Continuously on Some Devices	12
Level Indicator Sluggish in Image Capture Control on Some Devices	13
Nexus 10: Flash Did Not Work in Capture Mode	13
Android Applications Crash With Invalid License	13
BankRight: Unable to Capture Multiple Driver Licenses	13

Quick Analysis Did Not Consistently Indicate Blurred Images 13

Some Devices Captured Full Size Images in Video Mode 14

Android: Level Indicator Switching Phases Rapidly 14

BankRight: Selecting Certain Bar Code Types 14

Pressing BankRight Back Button Causes Login Failure 14

Asus Transformer Camera Feed not Centered 14

Asus Transformer Camera Feed not Centered 15

Motorola MotoX Sensor Handling 15

Race Condition May Cause iPhones to Crash 15

Unable to Select Certain Cases from Case List 15

Review Image Screen Doesn't Appear when Review is ON 16

returnCameraEvents Method 16

“Use Kofax Server” Switch Blocks Custom URL 16

In iOS, Multiple Deprecation Errors when Compiling for iPad2 16

Some Android Models May Have Imaging Issues 16

Release Notes

Please read these notes carefully because they contain information that is not included in the SDK documentation.

Version Information

The Kofax Mobile SDK version can be found by looking in the `versions.txt` file that is included in delivered product.

Changes in This Release

Major new features and enhancements in this release include:

- Added a bar code reader engine to perform page level bar code reads.
- Added the ability to cancel image processing functions already in progress.
- Improved overall image processing performance.
- Added support for 64 bit processing (iOS only).
- Added support for hybrid applications based on PhoneGap.
- Added hybrid sample hybrid application using PhoneGap.
- Added the ability to collect usage and other metrics via the App Statistics interface.
- Improved page detection under sub-optimal lighting conditions (glare).
- Added the ability to specify image resolution (within the limits of the device).
- Enhancements to the BankRight sample app:
 - Improved driver license recognition to use both extracted and bar code data.
 - The sample app was largely rewritten to reflect platform specific best practices.
 - Reduced dependencies on interactions with external servers.
 - Added the ability to check for MICR when photographing the back side of a check, as a check to make sure it is not the front of the check.
- Multiple bug fixes.

Known Issues

This section contains information about potential problems that you could encounter while using the SDK. Workarounds are provided as applicable.

Cannot Upgrade Database from 2.1 into the Schema for 2.2

In AppStats, an error (`KMC_UT_CREATE_DB_FAILED`) is generated when attempting to upgrade the AppStats database from SDK version 2.1 into the 2.2 schema. (378258)

This only happens if the SQL Database has exported/written the AppStats data via:

```
(int)writeToFile
```

or:

```
(int) export: (NSString *) exportFilePath  
withFormat: (KUTappStatsExportFormat)exportFormat
```

Affected platforms and/or devices:

- iOS

Workaround: None.

With Sony XPERIA Z1s Captures Unfocused Images

When using the image capture control in video capture mode with continuous capture on, it is very easy to capture unfocused images, particularly in low light conditions. (378258)

Affected platforms and/or devices:

- Android
- Sony XPERIA Z1s

Workaround: Ensure there is adequate lighting, try turning the torch on.

Android App Will Not Run in Emulator with Google Maps API Enabled

The Android BankRight app will not run in the Android emulator when the Google maps API is enabled. (352625)

Affected platforms and/or devices:

- Android

Workaround: Removing Google Maps from the AndroidManifest.xml will allow the BankRight app to run in the emulator appropriately.

MICR/Signature Not Detected on Clear Image

When a clear image is captured, the MICR or the signature may not be detected and error is thrown. This is a random issue. (360700)

Affected platforms and/or devices:

- iOS
- Android

Workaround: None.

Writing AppStats Data to File May Cause Issues

To avoid possible synchronization issues, turn AppStats off before writing the data to a file. (376049)

Affected platforms and/or devices:

- Android

Workaround: None.

PostNet Bar Code Search is Slower Than Other Bar Code Symbologies

Depending on the device and the bar codes being read, search times will vary but will in general be up to ten times slower when searching for the same number of postnet symbologies as when searching for another symbology. (370107)

Affected platforms and/or devices:

- All

Workaround: None.

Cannot Download Document Type to Illegal Character in Shortcut Name

If an & (ampersand) is used in the name of a shortcut in the administration console, the document type will fail to download. Instead a `kfxLibUtilities: Error Code: 0x301C` error is returned. (366967)

Affected platforms and/or devices:

- iOS

Workaround: Do not use & in the name of the shortcut.

Droid Razr Maxx Stability Value Not Stable

When trying to capture with page detection, the stability value occasionally jumps between 86~87 to 100, even when the phone motionless. This side effect makes it difficult to capture when page detection is enabled. (375515)

Affected platforms and/or devices:

- Android
- Droid Razr Maxx

Workaround: None.

HTC Thunderbolt May Crash When Using Torch

In the Android Image Capture control, when using the Torch on the HTC Thunderbolt the lamp will hold a steady light before capturing the image, but after a continuous capture or force capture event, occasionally may flash and cause the application to crash. (369559)

Affected platforms and/or devices:

- Android
- HTC Thunderbolt

Workaround: None, the SDK will throw an exception if this device is used with the torch.

Certain ASUS Transformer TF101 Tablets May Freeze When Specifying Resolutions

The camera on ASUS Transformer TF101 tablets with the following kernel version may freeze when specifying resolutions. (346009)

- Kernel Version: 2.6.39.4
- Build Number: IML74K.US_epad-9.2.1.24-20120503

This issue has not been observed on the following:

- Kernel: 2.6.36.3-00001-g9a21gc1
- Build: HTK75.US_epad-8.6.5.21-20111216

Affected platforms and/or devices:

- Android
- ASUS Transformer TF101

Workaround: Don't rapidly switch between resolutions on affected devices.

Level Indicator Sluggish With Continuous Page Detection

On the iPhone 4, the motion of the level indicator becomes quite choppy and is difficult to use. In addition, it may jump back to the center of the screen, even if the device is not level. This happens when continuous page is on in either video or capture mode. (346683)

Affected platforms and/or devices:

- iOS
- iPhone 4

Workaround: Don't use continuous page detection with this device, use auto page detection instead.

Blue Overlay Obscures Viewer At Certain Sizes

A blue overlay obscures the viewfinder at certain custom X and Y values (both dimensions must be from 200 to 215). This issue has only been observed on the LG Lucid. (346319)

Affected platforms and/or devices:

- Android
- LG Lucid

Workaround: If you experience this issue, try changing the size.

Certain Screen Resolutions Problematic

Under poor lighting conditions, when the below resolutions are used with the image capture view, the iPhone 4 camera repeatedly seeks focus for a prolonged period of time (up to thirty seconds). When using the video capture frame, camera focus becomes unresponsive. Also, the level indicator remains yellow, and even if the view in the preview screen becomes focused, the camera still does not take a picture. (343578)

Note that this is not unique to the Kofax Mobile SDK and could occur in any app that attempts to use these resolutions on an iPhone4.

The resolutions causing these problems are:

- Preset 1280x720
- PresetHigh
- iFrame 1280x720
- InputPriority

Affected platforms and/or devices:

- iOS
- iPhone 4

Workaround: Avoid using these resolutions with the iPhone 4 unless you can ensure ideal lighting. Also, you can disable the video mode and instead use the image capture frame with Photo resolution to capture high resolution images. Other iOS devices do not exhibit this issue.

Note Another alternative is to leave the torch on while capturing images with these resolutions. This may yield better results, however when using this approach try to minimize glare from the torch lamp.

Extreme DPI Settings Not Supported

On the low side, setting a DPI below 30 is not supported. On the high side, problems appear when the dpi is set in the thousands, the exact value depending on the device and its configuration. (306154, 306152, 345439, 345420)

Specific problems may vary, for example there may be memory alerts, parts of the screen may turn black, and in the worst case the application may crash. As a general rule of thumb, try to use a DPI value between 200 and 300.

Affected platforms and/or devices:

- Android
- iOS

App should include logic to confirm to enforce minimum and maximum DPI settings.

Overexposed Images if Lighting Changes from Dark to Bright

When attempting to capture a driver license, check, or bill, if the device camera is in a dark area, the camera compensates for the darkness by setting the exposure to high. If the lighting suddenly changes to bright, the camera does not reset the exposure to compensate when the flash fires as a focus aid. This causes the view to be stuck in an overexposed state, resulting in a badly washed out image. (344839)

This may happen, for example, when setting the device on a table top such that virtually all the light entering the lens is blocked by the table surface. When the device is lifted from the table the flash fires, and light floods the lens, but the image does not adjust.

Affected platforms and/or devices:

- Android

- Samsung Galaxy Note Pro 12.2
- Samsung Galaxy Tab 10.1

Workaround: Make sure the flash is off. Or, force the camera to reset the exposure by rotating the device or by relaunching the capture control.

Removed Images Still Visible in Gallery

After using the SDK to delete images from the image gallery, thumbnails may still be visible when subsequently viewing the gallery. (342182)

Affected platforms and/or devices:

- Android

Workaround: Make sure your app refreshes the image gallery after removing an image. You can do this by rescanning the media programmatically.

Unable to Capture with Pitch Set to 180

Setting certain pitch (declination) values may prevent the device from capturing an image. The SDK allows a range of declination values based on the limits of the device, and does not prohibit values within that range, even when those values lead to problems, such as setting the pitch to 180 (which would be the equivalent of taking a picture while upside down). It is up to the app to enforce what the developer considers to be a reasonable range of values for the pitch. In general, any value from 0 (horizontal) to 90 (vertical) should work without issues. (344237)

Affected platforms and/or devices:

- Android
- iOS

Workaround: Restrict the pitch range to something reasonable.

iOS: Unfocused Images Captured Despite the Camera Reporting Focused

It is possible to capture an out of focus image with the Image Capture Control even though the camera reports that the lens is focused. This normally happens when page detect is set to automatic or continuous and when all the stability/levelness settings are satisfied but the camera physically cannot focus because the lens is too close to the document. Despite this, eventually the camera incorrectly reports that it is focused. If the user then gently moves the device far enough away from the document for it to normally be able to focus, the resulting image is still out of focus. In order for this to happen, the device must be moved gently enough that the settings are continuously satisfied. If the settings are exceeded, even if just for an instant, the camera will refocus at the new distance. (343400)

Affected platforms and/or devices:

- iOS

Workaround: None

In Video Mode, LED Inconsistent Across Devices

During Capture with Video Mode On and Flash On, there is inconsistent flash lamp behavior across devices. For some devices the lamp is on and for other devices the lamp is off. (322722)

Affected platforms and/or devices:

- Android

Workaround: None

Cannot Capture Backside of Check

When using a LenovoYoga, an app may not be able to capture the backside of certain checks. The issue occurs when a check does not have enough data on it for the LenovoYoga camera to focus successfully. (324517)

Affected platforms and/or devices:

- Android
- LenovoYoga

Workaround: None.

Camera Feed Upside Down on Landscape Tablets

Some tablets (those which are designed such that landscape mode is the natural orientation) may exhibit a problem where the camera view appears inverted in the tablet screen. (306611)

This occurs when rapidly rotating the device 180 degrees one or more times.

Affected platforms and/or devices:

- Android
- Asus Transformer
- Galaxy Tab 10.1
- Nexus 10
- Possibly others

Workaround: When rotating the tablet, pause for a few moments every 90 degrees. Alternatively, disable the auto-rotate screen option.

MICR Data Extracted From Image With No MICR Line

MICR data is returned in metadata when processing an image without a MICR line. (283904)

Affected platforms and/or devices:

- Android

App should include logic to confirm that returned MICR data is valid.

SDK Does Not Report KFS Out of Disk Space

KFS will reject new jobs when hard disk free space falls below a configurable limit. When the free space on the server falls below this limit, all devices connecting to KFS are supposed to report a server low disk space message at login, so that the end user will know that new jobs cannot be submitted. (23824)

Mobile devices currently do not report this message at login. Instead, the following error messages will appear when attempting to submit a job: "An error occurred submitting the case - Unknown transaction ID: [GUID]" or "Unknown transaction ID: [GUID] (Code 3)."

Affected platforms and/or devices:

- KMC Library

Resolved Issues

This section contains information about issues that have been resolved in prior releases of this product.

Tilt Not Required in Image Capture Control

On Android devices, while in continuous capture mode, before recapturing an image, the user should be required to tilt the device away from level to reset the levelness and stability thresholds. This was not happening, resulting in a continuous stream of images. (324703)

Affected platforms and/or devices:

- Android

Cannot Use Flash on Certain Samsung Devices

During image capture with the flash enabled, the level indicator froze and the image capture view was sluggish. (324740)

Affected platforms and/or devices:

- Android
- Samsung 12.2
- Samsung Note 10.1

Flash Fired Continuously on Some Devices

After abruptly switching from a dark to light environment (such as picking the tablet up from a table), the flash fired repeatedly, resulting in a washed out image. This happened when the flash was set to "Auto". (345226)

If the user moved the device, the flash would pause. As soon as the device was stable again, the flash resumed firing, which made it almost impossible to take a properly exposed image.

Affected platforms and/or devices:

- Android
- Samsung S4

- Samsung S3

Level Indicator Sluggish in Image Capture Control on Some Devices

In the Image Capture Control, the level indicator was laggy, which made it difficult to use. The indicator would not recover or speed up, even if the user paused and waited for it to "catch up" to the current state. (366480)

Affected platforms and/or devices:

- Android
- Asus Memo Pad
- Moto X

Nexus 10: Flash Did Not Work in Capture Mode

On the Nexus 10, when in capture mode with the flash setting on, the flash did not fire. (324897)

Affected platforms and/or devices:

- Android
- Nexus 10

Android Applications Crash With Invalid License

Attempting to run an Android application without a valid license caused the app to crash. (322330)

Affected platforms and/or devices:

- Android

BankRight: Unable to Capture Multiple Driver Licenses

Capturing the front of a driver license, selecting Use, and then navigating back to the Home screen caused the app to crash if you immediately tried to capture the next image. (307418)

Affected platforms and/or devices:

- iOS
- iPhone 4
- BankRight

Quick Analysis Did Not Consistently Indicate Blurred Images

When requesting a quick analysis with the image processor API, the app may or may not have requested a reference image. When requesting a quick analysis without an image, the "blurry" setting was missed, and consequently the Quick Analysis Results object was not correctly setup. (323424)

Affected platforms and/or devices:

- iOS

Some Devices Captured Full Size Images in Video Mode

On some devices, using `takePicture` while in video mode resulted in capturing a full size image. (324939)

Affected platforms and/or devices:

- Android

The following devices are known to exhibit this behavior. There may be others.

- HTC One
- LG G Pad 8.3
- Nexus 10
- Samsung Mega
- Samsung S3

Android: Level Indicator Switching Phases Rapidly

On the Motorola Moto G, the level indicator rapidly switched between states. (322233)

Affected platforms and/or devices:

- Android
- Moto G

BankRight: Selecting Certain Bar Code Types

When scanning for bar codes on the back of a driver license, the app occasionally inappropriately recognized Code 39 bar codes. When this happened, no data was returned from the bar code. (307667)

Affected platforms and/or devices:

- Android
- BankRight

Pressing BankRight Back Button Causes Login Failure

If the Back button was repeatedly pressed immediately after the Check Deposit viewer screen appears, the app failed to log out of the server after returning to the Welcome screen. This made it impossible to log in again. (307433)

Affected platforms and/or devices:

- Android
- BankRight

Asus Transformer Camera Feed not Centered

Asus Transformer tablets (which are designed such that landscape mode is the natural orientation) exhibited a problem where the camera view appears off center in the tablet screen. (306608)

This was a known issue with the device firmware. To solve this problem ensure that your tablet has been upgraded to the most current version of the firmware.

Affected platforms and/or devices:

- Android
- Asus Transformer

Asus Transformer Camera Feed not Centered

Asus Transformer tablets (which are designed such that landscape mode is the natural orientation) exhibited a problem where the camera view appears off center in the tablet screen. (306608)

This was a known issue with the device firmware. To solve this problem ensure that your tablet has been upgraded to the most current version of the firmware.

Affected platforms and/or devices:

- Android
- Asus Transformer

Motorola MotoX Sensor Handling

There is a hardware compatibility issue for level detection when using the SKD ImageCaptureView class with the Motorola Moto X. When creating an App for this device, use the setMotionSensorType API method to bypass this compatibility issue. (293678)

Usage example:

```
((ImageCaptureView) preview).setMotionSensorType(MotionSensorType.RAW); // to force use raw sensors (accelerometer and magnetic sensors) for motion detect.
```

Note This API method is only supported for this device, do not use with other devices.

Affected platforms and/or devices:

- Android
- Motorola Moto X

Race Condition May Cause iPhones to Crash

A race-condition occurs during bar code capture when removing the bar code control from view. This most frequently causes the iPhone 4with iOS 7.1 to crash. However, in rare instances, this may also be seen on newer iPhones and older versions of iOS. (316394)

Affected platforms and/or devices:

- iPhone
- iOS

Unable to Select Certain Cases from Case List

If a personal shortcut has been configured in KFS 4.0.1, cases in the mobile application cannot be selected if they follow the personal shortcut in the list of cases. Also, that shortcut will be visible to all members of the same group. (SPR00116929)

Affected platforms and/or devices:

- iOS

Review Image Screen Doesn't Appear when Review is ON

The Review Image screen doesn't appear even though Review is set to ON but Auto-processing and Quality Feedback are both OFF. (SPR00116621)

When auto-processing and image quality feedback are OFF and review image is ON, after selecting a document from the camera roll or after capturing a document from the camera source, the review image is shown briefly and is then automatically dismissed without giving the user a chance to review the image.

Affected platforms and/or devices:

- iOS

returnCameraEvents Method

The SDK contains a returnCameraEvents method that must be set to True in order for an app to take advantage of page detect, levelness and stability threshold events. If this is left at the default or set to False, these threshold events are not returned. iOS was missing this method. (324720)

Affected platforms and/or devices:

- Android
- iOS

Workaround: None.

“Use Kofax Server” Switch Blocks Custom URL

This issue occurs when an application is launched using a custom URL and the “Use Kofax Server” setting is also “ON.” Under these conditions, the application ignores the login credentials in the custom URL. (SPR00116376)

Affected platforms and/or devices:

- iOS KMC Library

In iOS, Multiple Deprecation Errors when Compiling for iPad2

Developers are likely to see numerous deprecation errors when using XCode to compile the application for iPad2. These errors have no known impact on running the application and can be safely ignored. (SPR00115355)

Affected platforms and/or devices:

- iOS Sample Apps

Some Android Models May Have Imaging Issues

In some cases, pictures taken with some Android phone models may have poor resolution. (SPR00112259, SPR00115464)

If you experienced such issues, they should be resolved now.

Affected platforms and/or devices:

- Android

