

Foxit PDF SDK for Android 6.4 Upgrade Warnings

This document contains a list of items that developers looking to upgrade to Foxit PDF SDK for Android 6.4 from previous version should pay attention to. Changes to code may be required in order for your projects to compile using the new version.

Upgrading to version 6.4 from version 6.3

There are no upgrade warnings when moving from version 6.3 to version 6.4. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 6.3 from version 6.2.1

There are no upgrade warnings when moving from version 6.2.1 to version 6.3. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 6.2.1 from version 6.2

There are no upgrade warnings when moving from version 6.2 to version 6.2.1. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 6.2 from version 6.1

There are no upgrade warnings when moving from version 6.1 to version 6.2. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 6.1 from version 6.0

There is only one upgrade warning when moving from version 6.0 to version 6.1. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

In the "libs" folder, the *FoxitRDK.jar* and ".so" libraries has been repackaged to a single AAR file called "*FoxitRDK.aar*". The library will be loaded internally, which reduces the operational processes and is more user-friendly. To learn more about how to integrate with latest Foxit PDF SDK for Android, see the "developer_guide_android.pdf" in the "docs" folder. The following files that were required for previous release are no longer needed and should be removed from your project:

- libs/FoxitRDK.jar
- libs/arm64-v8a/librdk.so

- libs/armeabi-v7a/librdk.so
- libs/x86/librdk.so
- libs/x86_64/librdk.so (support from version 6.1)

Upgrading to version 6.0 from version 5.1

If you are upgrading from version 5.1 to version 6.0, please take note of the changes that occurred between version 5.1 and version 6.0.

Note: In version 6.0, the name of the SDK has been changed from **Foxit MobilePDF SDK for Android** to **Foxit PDF SDK for Android**, which will belong to the Foxit PDF SDK products.

1. Remove PDFReader class

In version 6.0, Foxit PDF SDK for Android removes the **PDFReader** class, and moves the wrapped APIs in PDFReader class to UI Extensions Component.

2. UI elements loading changes

In version 6.0, all UI elements including top/bottom bar are loaded by default as long as UIExtensionsManager is added. So, if you do not want to use the default basic UI design, you should disable the top toolbar and bottom toolbar using the following API calls:

```
void enableTopToolbar(boolean isEnabled)
void enableBottomToolbar(boolean isEnabled)
```

3. API Usage changes

In version 6.0, downcast is disabled for inherited classes. Caller should create or get a subclass object from the super object. For example:

Version 5.1:

```
// Example1:
Annot a = page.getAnnot(0);
if(a.getType() == Annot.e_annotUnderline)
{
    // Downcast.
    Underline u = (Underline)a;
    // Call methods such as u.xxx.
}

// Example2:
PDFObject obj = dict.getElement("key");
if(obj.getType() == PDFObject.e_objStream)
{
    // Downcast.
    PDFStream stream = (PDFStream)obj;
}
```

Version 6.0:

```
// Example1:
Annot a = page.getAnnot(0);
if(a.getType() == Annot.e_Underline)
{
    // Downcast disabled, create an underline object from annot.
    Underline u = new Underline(a);
    // Call methods such as u.xxx.
}

// Example2:
PDFObject obj = dict.getElement("key");
if(obj.getType() == PDFObject.e_Stream)
{
    // Get the subclass object from the super.
    PDFStream stream = obj.getStream();
}
```

4. Classes and APIs changes

There were some changes to the classes in version 6.0, such as namespaces and class names. Some APIs were removed from version 6.0.

The following table lists the classes and APIs mapping between version 5.1 and 6.0.

SDK 5.1	SDK 6.0
com.foxit.sdk.common.ActionHandler	com.foxit.sdk.ActionCallback
com.foxit.sdk.common.DefaultAppearance	com.foxit.sdk.pdf.annots.DefaultAppearance
com.foxit.sdk.common.FileRead	com.foxit.sdk.common.fxcrf.FileReaderCallback
com.foxit.sdk.common.FileSpec	com.foxit.sdk.pdf.FileSpec
com.foxit.sdk.common.IdentityProperties	com.foxit.sdk.IdentityProperties
com.foxit.sdk.common.Notifier	com.foxit.sdk.common.NotifierCallback
com.foxit.sdk.common.Pause	com.foxit.sdk.common.fxcrf.PauseCallback
com.foxit.sdk.common.PDFError	com.foxit.sdk.common.Constants
com.foxit.sdk.common.PDFException	com.foxit.sdk.PDFException
com.foxit.sdk.common.PDFPath	com.foxit.sdk.common.Path
com.foxit.sdk.common.RecoveryManager	Removed
com.foxit.sdk.pdf.action.Action	com.foxit.sdk.pdf.actions.Action
com.foxit.sdk.pdf.action.Destination	com.foxit.sdk.pdf.actions.Destination
com.foxit.sdk.pdf.action.GotoAction	com.foxit.sdk.pdf.actions.GotoAction
com.foxit.sdk.pdf.action.JavaScriptAction	com.foxit.sdk.pdf.actions.JavaScriptAction
com.foxit.sdk.pdf.action.LaunchAction	com.foxit.sdk.pdf.actions.LaunchAction
com.foxit.sdk.pdf.action.RemoteGotoAction	com.foxit.sdk.pdf.actions.RemoteGotoAction
com.foxit.sdk.pdf.action.URIAction	com.foxit.sdk.pdf.actions.URIAction
com.foxit.sdk.pdf.annots.AnnotIconProvider	com.foxit.sdk.pdf.annots.IconProviderCallback
com.foxit.sdk.pdf.fdf.FDFDoc	com.foxit.sdk.fdf.FDFDoc
com.foxit.sdk.pdf.form.ChoiceOption	com.foxit.sdk.pdf.interform.ChoiceOption
com.foxit.sdk.pdf.form.Form	com.foxit.sdk.pdf.interform.Form

SDK 5.1	SDK 6.0
com.foxit.sdk.pdf.form.FormControl	com.foxit.sdk.pdf.interform.Control
com.foxit.sdk.pdf.form.FormField	com.foxit.sdk.pdf.interform.Field
com.foxit.sdk.pdf.form.FormFiller	com.foxit.sdk.pdf.interform.Filler
com.foxit.sdk.pdf.form.FormFillerAssist	com.foxit.sdk.pdf.interform.FillerAssistCallback
com.foxit.sdk.pdf.graphics.PDFFormXObject	com.foxit.sdk.pdf.graphics.FormXObject
com.foxit.sdk.pdf.graphics.PDFGraphicsObject	com.foxit.sdk.pdf.graphics.GraphicsObject
com.foxit.sdk.pdf.graphics.PDFImageObject	com.foxit.sdk.pdf.graphics.ImageObject
com.foxit.sdk.pdf.graphics.PDFMarkedContent	com.foxit.sdk.pdf.graphics.MarkedContent
com.foxit.sdk.pdf.graphics.PDFPathObject	com.foxit.sdk.pdf.graphics.PathObject
com.foxit.sdk.pdf.graphics.PDFShadingObject	com.foxit.sdk.pdf.graphics.ShadingObject
com.foxit.sdk.pdf.graphics.PDFTextObject	com.foxit.sdk.pdf.graphics.TextObject
com.foxit.sdk.pdf.graphics.PDFTextState	com.foxit.sdk.pdf.graphics.TextState
com.foxit.sdk.pdf.image.PDFImage	com.foxit.sdk.common.Image
com.foxit.sdk.pdf.layer.LayerContext	com.foxit.sdk.pdf.LayerContext
com.foxit.sdk.pdf.layer.LayerNode	com.foxit.sdk.pdf.LayerNode
com.foxit.sdk.pdf.layer.LayerPrintData	com.foxit.sdk.pdf.LayerPrintData
com.foxit.sdk.pdf.layer.LayerTree	com.foxit.sdk.pdf.LayerTree
com.foxit.sdk.pdf.layer.LayerZoomData	com.foxit.sdk.pdf.LayerZoomData
com.foxit.sdk.pdf.psi.PSI	com.foxit.sdk.pdf.PSI
com.foxit.sdk.pdf.psi.PSICallback	com.foxit.sdk.pdf.PSICallback
com.foxit.sdk.pdf.security.CertificateSecurityCallback	com.foxit.sdk.pdf.CertificateSecurityCallback
com.foxit.sdk.pdf.security.CertificateSecurityHandler	com.foxit.sdk.pdf.CertificateSecurityHandler
com.foxit.sdk.pdf.security.CustomSecurityCallback	com.foxit.sdk.pdf.CustomSecurityCallback
com.foxit.sdk.pdf.security.CustomSecurityHandler	com.foxit.sdk.pdf.CustomSecurityHandler
com.foxit.sdk.pdf.security.RMSecurityCallback	com.foxit.sdk.pdf.RMSecurityCallback
com.foxit.sdk.pdf.security.RMSecurityHandler	com.foxit.sdk.pdf.RMSecurityHandler
com.foxit.sdk.pdf.security.SecurityCallback	com.foxit.sdk.pdf.SecurityCallback
com.foxit.sdk.pdf.security.StandardSecurityHandler	com.foxit.sdk.pdf.StdSecurityHandler
com.foxit.sdk.pdf.signature.Signature	com.foxit.sdk.pdf.Signature
com.foxit.sdk.pdf.signature.SignatureHandler	com.foxit.sdk.pdf.SignatureCallback
com.foxit.sdk.pdf.watermark.Watermark	com.foxit.sdk.pdf.Watermark
com.foxit.sdk.pdf.watermark.WatermarkSettings	com.foxit.sdk.pdf.WatermarkSettings
com.foxit.sdk.pdf.watermark.WatermarkTextProperties	com.foxit.sdk.pdf.WatermarkTextProperties
com.foxit.sdk.pdf.DocumentsSource	com.foxit.sdk.fts.DocumentsSource
com.foxit.sdk.pdf.FullTextSearch	com.foxit.sdk.fts.FullTextSearch
com.foxit.sdk.pdf.SearchCallback	com.foxit.sdk.fts.SearchCallback
com.foxit.sdk.pdf.RankMode	com.foxit.sdk.fts.FullTextSearch.RankMode
com.foxit.sdk.pdf.PDFGraphicsObjects	com.foxit.sdk.pdf.GraphicsObjects
com.foxit.sdk.pdf.PDFMetadata	com.foxit.sdk.pdf.Metadata
com.foxit.sdk.pdf.PDFPageLabels	com.foxit.sdk.pdf.PageLabels
com.foxit.sdk.pdf.PDFPageLinks	Removed
com.foxit.sdk.pdf.PDFTextLink	com.foxit.sdk.pdf.TextLink
com.foxit.sdk.pdf.PDFTextSearch	com.foxit.sdk.pdf.TextSearch
com.foxit.sdk.pdf.PDFTextSelect	com.foxit.sdk.pdf.TextPage
com.foxit.sdk.pdf.Renderer	com.foxit.sdk.common.Renderer
com.foxit.sdk.PDFViewCtrl1.IDocEventListener -void onDocModified(PDFDoc document)	Removed

Upgrading to version 5.1 from version 5.0

There are no upgrade warnings when moving from version 5.0 to version 5.1. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 5.0 from version 4.0

Foxit MobilePDF SDK 5.0 is a major new version of Foxit MobilePDF SDK. Please take note of the changes that occurred between version 4.0 and version 5.0 if you are upgrading from version 4.0 to version 5.0.

1. Configuration file changes

In version 5.0, the **"defaultReader"** field has been removed from the configuration file. Now, if you use the configuration file to instantiate UIExtensionsManager, it is equivalent to setting **"defaultReader"** to **"true"**. If you do not use the configuration file, it is equivalent to setting **"defaultReader"** to **"false"**.

2. Constants changes

Some constants in **PDFDoc** class have been moved to **PDFPageLabels** class, and one constant has been removed from version 5.0.

Class 4.0	SDK 4.0	Class 5.0	SDK 5.0
PDFDOC	e_pageLabelStyleNone	PDFPageLabels	e_pageLabelStyleNone
PDFDOC	e_pageLabelStyleDecimalNums	PDFPageLabels	e_pageLabelStyleDecimalNums
PDFDOC	e_pageLabelStyleUpperRomanNums	PDFPageLabels	e_pageLabelStyleUpperRomanNums
PDFDOC	e_pageLabelStyleLowerRomanNums	PDFPageLabels	e_pageLabelStyleLowerRomanNums
PDFDOC	e_pageLabelStyleUpperLetters	PDFPageLabels	e_pageLabelStyleUpperLetters
PDFDOC	e_pageLabelStyleLowerLetters	PDFPageLabels	e_pageLabelStyleLowerLetters
PDFDOC	e_saveFlagObjectStream	Removed	

3. APIs and classes changes

Some APIs or classes have been changed from version 4.0 to version 5.0. **PDFLabel** class has been renamed to **PDFPageLabels**, and the name, parameter, and return value of some functions have been changed.

Class	SDK 4.0	SDK 5.0
PageLabel	PageLabel class	PDFPageLabels class
Reflow	setRenderContent(long renderContentFlag)	setRenderContentFlags(long renderContentFlag)
Signature	public int startSign(String savePath, String certPath, byte[] password, int digestAlgorithm, Pause pause, Object clientData)	public Progressive startSign(String certPath, byte[] password, int digestAlgorithm, Object clientData, Pause pause, String savePath)
	public int startVerify(Pause pause, Object clientData)	public Progressive startVerify(Object clientData, Pause pause)

Class	SDK 4.0	SDK 5.0
PDFDoc	public int startImportPagesFromFilePath(int dstIndex, long flags, String layerName, String srcFilePath, byte[] password, int[] pageRanges, Pause pause)	public Progressive startImportPagesFromFilePath(int dstIndex, long flags, String layerName, String srcFilePath, byte[] password, int[] pageRanges, Pause pause)
	public int startImportPages(int dstIndex, long flags, String layerName, PDFDoc srcDoc, int[] pageRanges, Pause pause)	public Progressive startImportPages(int dstIndex, long flags, String layerName, PDFDoc srcDoc, int[] pageRanges, Pause pause)
PDFPage	public int startParse(long flag, Pause pause, boolean isReparse)	public Progressive startParse(long flag, Pause pause, boolean isReparse)
ReflowPage	public int startParse(Pause pause)	public Progressive startParse(Pause pause)
Renderer	public int startRender(PDFPage page, Matrix matrix, Pause pause)	public Progressive startRender(PDFPage page, Matrix matrix, Pause pause)
Renderer	public int startRenderReflowPage(ReflowPage reflowPage, Matrix matrix, Pause pause)	public Progressive startRenderReflowPage(ReflowPage reflowPage, Matrix matrix, Pause pause)
GraphState	set(int blendMode, float lineWidth, int lineJoin, float miterLimit, int lineCap, float dashPhase, float[] dashes)	set(int blendMode, float lineWidth, int lineJoin, float miterLimit, int lineCap, float dashPhase, float[] dashes, int dashCount _)

Most of the **create*** functions have been removed from version 5.0. Now you can use the constructors to instantiate an object directly.

Class	SDK 4.0	SDK 5.0
FileSpec	create(PDFDoc pdfDoc)	new FileSpec(PDFDoc document)
	createFromPDFObj(PDFDoc pdfDoc, PDFObject pdfObj)	new FileSpec(PDFDoc document, PDFObject object)
Font	create(String fontName, long fontStyles, int weight, int charset)	new Font(String fontName, long fontStyles, int weight, int charset)
	createStandard(int fontID)	new Font(int fontID)
PDFPath	create()	new PDFPath()
FDFDoc	create(int fdfDocType)	new FDFDoc(int fdfDocType)
	loadFromFilePath(String path)	new FDFDoc(String path)
	loadFromMemory(byte[] buffer)	new FDFDoc(byte[] buffer)
	loadFromHandler(FileRead pFileRead)	new FDFDoc(FileRead fileRead)
FormFiller	create(Form form, FormFillerAssist assist)	new FormFiller(Form form, FormFillerAssist assist)
LayerContext	create(PDFDoc doc, int usageType)	new LayerContext(PDFDoc document, int usageType)
LayerTree	create(PDFDoc doc)	new LayerTree(PDFDoc doc)
PSI	create(Bitmap bitmap, boolean simulate)	new PSI(Bitmap bitmap, boolean simulate)
	create(int width, int height, boolean simulate)	new PSI(int width, int height, boolean simulate)
CertificateSecurityHandler	create()	new CertificateSecurityHandler()
StandardSecurityHandler	create()	new StandardSecurityHandler()
PDFDoc	create()	new PDFDoc()
	createFromFilePath(String path)	new PDFDoc(String path)
	createFromMemory(byte[] buffer)	new PDFDoc(byte[] buffer)
	createFromHandler(FileRead fileRead)	new PDFDoc(FileRead fileRead)

Class	SDK 4.0	SDK 5.0
PDFPageLinks	create(PDFPage page)	new PDFPageLinks(PDFPage page)
PDFTextSearch	create(PDFDoc doc, Pause pause)	new PDFTextSearch(PDFDoc doc, Pause pause)
PDFTextSelect	create(PDFPage page)	new PDFTextSelect(PDFPage page)
ReflowPage	create(PDFPage pdfPage)	new ReflowPage(PDFPage pdfPage)
Renderer	create(Bitmap bitmap)	new Renderer(Bitmap bitmap)

Some functions in **PDFDoc** class have been removed from version 5.0. Most of them are replaced by the functions in **PDFMetaData** and **PDFPageLabels** classes.

Class 4.0	SDK 4.0	Class 5.0	SDK 5.0
PDFDoc	public boolean hasMetadataKey (java.lang.String key)	PDFMetaData	public boolean hasKey (java.lang.String key)
	public DateTime getCreationDateTime ()		public DateTime getCreationDateTime ()
	public DateTime getModifiedDate ()		public DateTime getModifiedDate ()
	public void setCreationDateTime (DateTime dateTime)		public void setCreationDateTime (DateTime dateTime)
	public void setModifiedDate (DateTime dateTime)		public void setModifiedDate (DateTime dateTime)
	public String getMetadataValue (String key)		public String getValue (String key)
	public int getMetadataValueCount (String key)		public int getValueCount (String key)
	public String getMetadataValueByIndex (String key, int index)		public String getValueByIndex (String key, int index)
	public void setMetadataArray (String key, String[] valueArray)		public void setValues (String key, String[] valueArray)
	public PageLabel getPageLabelInfo (int index)	PDFPageLabels	new PDFPageLabels (PDFDoc document)
	public int getPageLabelRangeCount ()	Removed	

The **continue*** functions in version 4.0 have been replaced by **continueProgress()** in Progressive class.

Class 4.0	SDK 4.0	Class 5.0	SDK 5.0
PDFDoc	public int continueImportPages ()	Progressive	public int continueProgress ()
PDFPage	public int continueParse ()		
Signature	public int continueSign ()		
	public int continueVerify ()		
ReflowPage	public int continueParse ()		
Renderer	public int continueRender ()		