Foxit PDF SDK for Android 9.0 Upgrade Warnings

This document contains a list of items that developers looking to upgrade to Foxit PDF SDK for Android 9.0 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 9.0 from version 8.4

If you are upgrading from version 8.4 to version 9.0, please take note of the changes that occurred between version 8.4 and version 9.0.

- The com.foxit.uiextensions.modules.**PageNavigationModule** has been changed to com.foxit.uiextensions.modules.**pagenavigation.PageNavigationModule**.
- Some APIs have been changed in version 9.0. The following table lists the APIs mapping between version 8.4 and 9.0.

Class(.java)	**SDK 8.4**	**SDK 9.0**
com.foxit.sdk.**ActionCallback**	public boolean openDoc(String file_path, String password)	public **PDFDoc** openDoc(String file_path, String password)
	public void selectPageNthWord(int page_index, int word_index, boolean is_show_selection)	public void selectPageNthWord(int page_index, **int start_offset, int end_offset,** boolean is_show_selection)
com.foxit.sdk.common.**Font**	public Font embed(PDFDoc document)	public Font embed(PDFDoc document, **boolean is_add_all_unicodes**)
com.foxit.sdk.fts.**SearchCallback**	public int retrieveSearchResult(String file_path, int page_index, String match_result, int match_start_text_index, int match_end_text_index)	public int retrieveSearchResult(String file_path, int page_index, String match_result, int match_start_text_index, int match_end_text_index, **String sentence, int match_sentence_start_text_index, int match_sentence_end_text_index**)
com.foxit.sdk.pdf.**PagingSealConfig**	public PagingSealConfig(int paging_seal_position, float offset, float first_page_percent, boolean is_on_perforation)	public PagingSealConfig(int paging_seal_position, float offset, float first_page_percent, boolean is_on_perforation, **int paging_seal_style**)
	public void set(int paging_seal_position, float offset, float first_page_percent, boolean is_on_perforation)	public void set(int paging_seal_position, float offset, float first_page_percent, boolean is_on_perforation, **int paging_seal_style**)

Upgrading to version 8.4 from version 8.3

If you are upgrading from version 8.3 to version 8.4, please take note of the changes that occurred between version 8.3 and version 8.4.

- In com.foxit.sdk.pdf.**PDFPage** class, the parameters of **transform** function have been changed.

  SDK 8.3:

  ```
  public boolean transform(Matrix2D matrix, boolean need_transform_clip_path)
  ```

  SDK 8.4:

  ```
  public boolean transform(Matrix2D matrix, boolean need_transform_clip_path, boolean need_transform_annotations)
  ```

- From 8.4 version, the whole com.foxit.sdk.pdf.annots.**PagingSeal** class has been removed.

- In com.foxit.sdk.pdf.annots.**Annot**, the attribute "**public final static int *e_PagingSeal*** = 29" has been removed.

Upgrading to version 8.3 from version 8.2

If you are upgrading from version 8.2 to version 8.3, please take note of the changes that occurred between version 8.2 and version 8.3.

- Some classes have been renamed in version 8.3. The following table lists the changes between version 8.2 and 8.3.

SDK 8.2	**SDK 8.3**
public interface com.foxit.uiextensions.annots.IAnnotationPermission	public interface com.foxit.uiextensions.annots.**IAnnotationsPermission**

- Some APIs have been changed in version 8.3. The following table lists the APIs mapping between version 8.2 and 8.3.

Class(.java)	**SDK 8.2**	**SDK 8.3**
com.foxit.sdk.**ActionCallback**	public String popupMenu(MenuListArray menus)	public String popupMenu(MenuListArray menus, **boolean is_selected_item**)
	public boolean submitForm(PDFDoc document, byte[] form_data, String url)	public boolean submitForm(PDFDoc document, byte[] form_data, String url, **int file_format_type**)

Class(.java)	SDK 8.2	SDK 8.3
com.foxit.sdk.**MenuList**	public MenuList(int level, String name)	public MenuList(int level, String name, **MenuListArray sub_menu_list_array**)
	public void set(int level, String name)	public void set(int level, String name, **MenuListArray sub_menu_list_array**)
com.foxit.sdk.pdf.annots. **Ink**	public PathArray getEiaInkList()	public PathArray **getEIAInkList()**
com.foxit.uiextensions.**UIExtensionsManager**	public IAnnotationPermission getAnnotationPermission()	public **IAnnotationsPermission getAnnotationsPermission()**
	public void setAnnotationPermission(IAnnotationPermission permission)	public void **setAnnotationsPermission(IAnnotationsPermission permission)**

Upgrading to version 8.2 from version 8.1

If you are upgrading from version 8.1 to version 8.2, please take note of the changes that occurred between version 8.1 and version 8.2.

- In com.foxit.uiextensions.controls.toolbar.**ToolbarItemConfig** Class, the attribute ***ITEM_TOPBAR_READINGMARK*** has been renamed to ***ITEM_TOPBAR_BOOKMARK***.
- In com.foxit.sdk.pdf.**TableOfContentsConfig** class, the parameters of constructor function and **set** function have been changed as follows:

SDK 8.1	SDK 8.2
public TableOfContentsConfig(String title, Int32Array bookmark_level_array, boolean is_show_serial_number)	public TableOfContentsConfig(String title, Int32Array bookmark_level_array, boolean is_show_serial_number, **boolean include_toc_pages**)
public void set(String title, Int32Array bookmark_level_array, boolean is_show_serial_number)	public void set(String title, Int32Array bookmark_level_array, boolean is_show_serial_number, **boolean include_toc_pages**)

Upgrading to version 8.1 from version 8.0

If you are upgrading from version 8.0 to version 8.1, please take note of the changes that occurred between version 8.0 and version 8.1.

- From 8.1 version, the whole **com.foxit.sdk.pdf.annots.PSInkData** and **com.foxit.sdk.pdf.annots.PSInkPointDataArray** classes have been removed.

- Some APIs have been changed in version 8.1. The following table lists the APIs mapping between version 8.0 and 8.1.

Class(.java)	SDK 8.0	SDK 8.1
com.foxit.sdk.**IdentityProperties**	public IdentityProperties(String corporation, String email, String login_name, String name)	public IdentityProperties(String corporation, String email, String login_name, String name, **String first_name**, **String last_name**, **String title**, **String department**)
	public void set(String corporation, String email, String login_name, String name)	public void set(String corporation, String email, String login_name, String name, **String first_name**, **String last_name**, **String title**, **String department**)
com.foxit.sdk.pdf.**PDFPage**	public Signature addSignature(RectF rect, String field_name, int signature_type)	public Signature addSignature(RectF rect, String field_name, int signature_type, **boolean to_check_permission**)
com.foxit.sdk.pdf.annots.**FreeText**	public boolean isTextOverFlow()	removed
	public void **setTextOverFlow**(boolean **is_text_over_flow**)	public void **allowTextOverflow**(boolean **is_text_overflow**)
com.foxit.sdk.pdf.annots.**PSInk**	public void setPSInkData(PSInkData dataarray)	removed
	public PSInkData getPSInkData()	removed
com.foxit.sdk.pdf.interform.**Form**	public void reload()	removed

Upgrading to version 8.0 from version 7.6

Foxit PDF SDK for Android 8.0 is a major new version of Foxit PDF SDK for Android. In this release, the built-in UI in the UI Extensions Component has changed dramatically. Please take note of the changes that occurred between version 7.6 and version 8.0 if you are upgrading from version 7.6 to version 8.0.

1. The scan feature implementation has made some changes as follows:

   SDK 7.6:

```
private void showScannerList() {
   FragmentManager fragmentManager = getActivity().getSupportFragmentManager();
   mScannerList = (DialogFragment) fragmentManager.findFragmentByTag("ScannerList");
   if (mScannerList == null)
      mScannerList = PDFScanManager.createScannerFragment(null);
   AppDialogManager.getInstance().showAllowManager(mScannerList, fragmentManager,
"ScannerList", null);
}
```

SDK 8.0:

```
final PDFScanManager pdfScanManager = PDFScanManager.instance();
pdfScanManager.showUI(getActivity());
```

2. Some constants or attributes have been changed in version 8.0. The following table lists the changes between version 7.6 and 8.0.

Class (.java)	SDK 7.6	SDK 8.0
ReadStateConfig	STATE_EDIT STATE_SIGNATURE STATE_ANNOTTOOL STATE_CREATE_FORM STATE_PAGENAVIGATION	removed
	--	STATE_AUTOFLIP STATE_REDACT
ToolbarItemConfig	ITEM_BOTTOMBAR_COMMENT ITEM_BOTTOMBAR_SIGN ITEM_BOTTOMBAR_FILLSIGN	removed
SDK 7.6: **MoreMenuConfig** Has changed to **SDK 8.0** **MoreMenuConstants**	ANNOT_BAR_ITEM_MORE GROUP_FILE ITEM_CREATE_FORM	removed
	GROUP_PROTECT	ITEM_PRIMARY_PROTECT
	GROUP_ANNOTATION GROUP_FORM	ITEM_PRIMARY_COMMENT_FIELDS (Merge into one)
	ITEM_SAVE_AS	ITEM_SECONDARY_SAVE_AS
	ITEM_REDUCE_FILE_SIZE	ITEM_SECONDARY_REDUCE_FILE_SIZE
	ITEM_PRINT_FILE	ITEM_SECONDARY_PRINT
	ITEM_SNAPSHOT	ITEM_SECONDARY_SCREEN
	ITEM_REMOVESECURITY_PASSWORD	ITEM_PROTECT_REMOVE_PASSWORD
	ITEM_TRUST_CERTIFICATE	ITEM_PROTECT_TRUSTED_CERTIFICATES
	ITEM_RESET_FORM	ITEM_COMMENTS_FIELDS_RESET_FORM_FIELDS
	ITEM_IMPORT_FORM	ITEM_COMMENTS_FIELDS_IMPORT_FORM_DATA
	ITEM_EXPORT_FORM	ITEM_COMMENTS_FIELDS_EXPORT_FORM_DATA
	ITEM_ANNOTATION_IMPORT	ITEM_COMMENTS_FIELDS_IMPORT_COMMENTS
	ITEM_ANNOTATION_EXPORT	ITEM_COMMENTS_FIELDS_EXPORT_COMMENTS
PanelSpec	PanelSpec.PanelType.ReadingBookmarks	PanelSpec.BOOKMARKS
	PanelSpec.PanelType.Outline	PanelSpec.OUTLINE
	PanelSpec.PanelType.Annotations	PanelSpec.ANNOTATIONS
	PanelSpec.PanelType.Attachments	PanelSpec.ATTACHMENTS
	PanelSpec.PanelType.Signatures	PanelSpec.SIGNATURES

3. Some classes have been renamed in version 8.0. The following table lists the changes between version 7.6 and 8.0.

SDK 7.6	SDK 8.0
public class MenuGroup	public interface IMenuGroup
public class MenuItem	public interface IMenuItem
public class MoreMenuConfig	public class MoreMenuConstants

4. Some APIs have been changed in version 8.0. The following table lists the changes between version 7.6 and 8.0.

SDK 7.6 (class)	SDK 7.6	SDK 8.0 (class)	SDK 8.0
UIExtensionsManager	boolean isHiddenPanel(com.foxit.uiextensions.controls.panel.PanelSpec.PanelType panelType);	--	removed

UIExtensionsManager	void setPanelHidden(boolean isHidden, PanelSpec.PanelType panelType);	**IPanelManager**	void addPanel(PanelSpec panelSpec);
			void addPanel(int index, PanelSpec panelSpec);
			void removePanel(int panelType);

UIExtensionsManager	IMultiLineBar getSettingBar();	UIExtensionsManager	IViewSettingsWindow getSettingWindow();
IMenuView	void addMenuGroup(MenuGroup group);	IMenuView	IMenuGroup addGroup(CharSequence title); IMenuGroup addGroup(int groupId, CharSequence title); IMenuGroup addGroupAt(int index, CharSequence title); IMenuGroup addGroupAt(int index, int groupId, CharSequence title);

IMenuView	void removeMenuGroup(int tag);	IMenuView	void removeGroup(int groupId);
			void removeGroup(int groupId);
			void removeGroup(IMenuGroup group);

IMenuView	void setGroupVisibility(int visibility, int tag);	**IMenuGroup**	void setVisible(boolean visible)
IMenuView	int getGroupVisibility(int tag);	**IMenuGroup**	boolean isVisible();
IMenuView	MenuGroup getMenuGroup(int tag);	IMenuView	IMenuGroup getGroup(int groupId); IMenuGroup getGroupAt(int index);
IMenuView	void addMenuItem(int groupTag, MenuItem item);	**IMenuGroup**	IMenuItem addItem(IMenuItem item) IMenuItem addItem(CharSequence title) IMenuItem addItem(Drawable icon, CharSequence title) IMenuItem addItem(int itemId, Drawable icon, CharSequence title) IMenuItem addItem(int itemId, CharSequence title)

SDK 7.6 (class)	SDK 7.6	SDK 8.0 (class)	SDK 8.0
			IMenuItem addItemAt(int index, CharSequence title) IMenuItem addItemAt(int index, @DrawableRes int iconRes, CharSequence title) IMenuItem addItemAt(int index, int itemId, @DrawableRes int iconRes, CharSequence title) IMenuItem addItem(View customView); IMenuItem addItem(int itemId, View customView); IMenuItem addItemAt(int index, View customView); IMenuItem addItemAt(int index, int itemId, View customView);

IMenuView	void removeMenuItem(int groupTag, int itemTag);	**IMenuGroup**	void removeItem(IMenuItem item);
			void removeItem(int itemId);
			void removeItemAt(int index);

IMenuView	void setItemVisibility(int visibility, int groupTag, int itemTag);	**IMenuItem**	void setVisible(boolean visible);
IMenuView	int getItemVisibility(int groupTag, int itemTag);	**IMenuItem**	boolean getVisible();
PanelHost	PanelSpec getSpec(com.foxit.uiextensions.controls.panel.PanelSpec.PanelType panelType);	PanelHost	PanelSpec getSpec(int panelType);
PanelHost	void setCurrentSpec(com.foxit.uiextensions.controls.panel.PanelSpec.PanelType panelType);	PanelHost	void setCurrentSpec(int panelType);
PanelSpec	PanelType getPanelType()	PanelSpec	int getPanelType()

IPanelManager	**IPanelManager.OnShowPanelListener**
	
	interface OnShowPanelListener{
	void onShow();
	}
		IPanelManager	**IPanelManager.OnPanelEventListener**
			
			interface OnPanelEventListener {
			void onPanelOpened();
			void onPanelClosed();
			}

IPanelManager	PanelHost getPanel();	IPanelManager	PanelHost getPanelHost();
IPanelManager	void showPanel(PanelSpec.PanelType panelType);	IPanelManager	void showPanel(int panelType);
IPanelManager	void setOnShowPanelListener(OnShowPanelListener listener);	IPanelManager	void registerPanelEventListener(OnPanelEventListener listener); void unregisterPanelEventListener(OnPanelEventListener listener);
IPanelManager	PopupWindow getPanelWindow();	--	removed

SDK 7.6 (class)	SDK 7.6	SDK 8.0 (class)	SDK 8.0
BaseBar	boolean removeItemByItem(IBaseItem item)	BaseBar	boolean removeItem(IBaseItem item)
BaseBar	void setBarVisible(boolean visible)	BaseBar	void setVisible(boolean visible)
IMainFrame	IMultiLineBar getSettingBar();	IMainFrame	IViewSettingsWindow getSettingWindow();
IMainFrame	void hideSettingBar();	IMainFrame	void hideSettingWindow();
IMainFrame	boolean addSubViewToTopBar(View subView, int index, LinearLayout.LayoutParams params); boolean removeSubViewFromTopBar(View subView);	IMainFrame	ViewGroup getTopActionView();
IMainFrame	BaseBar getEditDoneBar(); BaseBar getFormBar(); MoreTools getMoreToolsBar(); BaseBar getToolSetBar();	--	removed

Upgrading to version 7.6 from version 7.5.1

There are no upgrade warnings when moving from version 7.5.1 to version 7.6. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 7.5.1 from version 7.5

There are no upgrade warnings when moving from version 7.5 to version 7.5.1. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 7.5 from version 7.4

There are two minor upgrade warnings in this release when moving from version 7.4 to version 7.5. In **com.foxit.sdk.pdf.HeaderFooter** class:

- The parameters of constructor function of **HeaderFooter** have been changed:

  SDK 7.4:

HeaderFooter (Font font, float text_size, int text_color, PageNumberRange page_range, RectF page_margin, boolean has_text_shrinked, boolean has_fixedsize_for_print, int start_page_number, HeaderFooterContent content)

SDK 7.5:

HeaderFooter (Font font, float text_size, int text_color, PageNumberRange page_range, RectF page_margin, boolean has_text_shrinked, boolean has_fixedsize_for_print, int start_page_number, HeaderFooterContent content, **boolean is_to_embed_font**, **boolean is_underline**)

- The parameters of **set** function have been changed:

  SDK 7.4:

  void **set**(Font font, float text_size, int text_color, PageNumberRange page_range, RectF page_margin, boolean has_text_shrinked, boolean has_fixedsize_for_print, int start_page_number, HeaderFooterContent content)

  SDK 7.5:

  void **set**(Font font, float text_size, int text_color, PageNumberRange page_range, RectF page_margin, boolean has_text_shrinked, boolean has_fixedsize_for_print, int start_page_number, HeaderFooterContent content, **boolean is_to_embed_font**, **boolean is_underline**)

Upgrading to version 7.4 from version 7.3

If you are upgrading from version 7.3 to version 7.4, please take note of the changes that occurred between version 7.3 and version 7.4.

- The minimum Android API level has been updated to API 19 (Android 4.4).
- In com.foxit.sdk.pdf.annots.**Markup** class:

  The functions below have been removed from version 7.4:

```
public int getStateAnnotCount(int model)

public Note getStateAnnot(int model, int index)
```

  And then add a new function as below:

```
public NoteArray getStateAnnots(int model)
```

- Some functions and attributes have been changed in version 7.4. The following table lists the APIs mapping between version 7.3 and 7.4.

Class(.java)	SDK 7.3	SDK 7.4
TextSearch	public TextSearch(PDFDoc document, SearchCancelCallback cancel)	public TextSearch(PDFDoc document, SearchCancelCallback cancel, **int flags**)
Markup	public Note addStateAnnot(int model, int state)	public Note addStateAnnot(**String title**, int model, int state)
MonoImageSettings	public final static int **e_ImageCompressjpeg2** = 10004	public final static int **e_ImageCompressjbig2** = 10004

Upgrading to version 7.3 from version 7.2.1

There is only one minor upgrade warning in this release when moving from version 7.2.1 to version 7.3.

The parameter type of the function com.foxit.sdk.pdf.CertificateSecurityHandler.**initialize** has been changed as below:

SDK 7.2.1:

boolean com.foxit.sdk.pdf.CertificateSecurityHandler.initialize(**CertificateEncryptData** encrypt_data, **String** encrypt_key) throws **com.foxit.sdk.PDFException**

SDK 7.3:

boolean com.foxit.sdk.pdf.CertificateSecurityHandler.initialize(**CertificateEncryptData** encrypt_data, **byte []** encrypt_key) throws **com.foxit.sdk.PDFException**

Upgrading to version 7.2.1 from version 7.2

Foxit PDF SDK for Android 7.2.1 is a minor new version of Foxit PDF SDK for Android. In this release, the UI for scanning feature has been extracted from the UI Extensions Component. It provides a UI library for scanning feature called "**FoxitPDFScan-UI.aar**", as well as the open source project for the UI library called "**pdfscan**". So that if you had integrated the scan module in your project, you should reference both the "**FoxitMobileScanningRDK.aar**" and "**FoxitPDFScan-UI.aar**" libraries and modify the imported package name in your code.

Upgrading to version 7.2 from version 7.1

There is a major upgrade warning when moving from version 7.1 to version 7.2. Starting with version 7.2, Foxit PDF SDK for Android will only support AndroidX, and no longer support Android support library. Therefore, if you want to move from version 7.1 to version 7.2, you should migrate your project to AndroidX. To learn more about the migration, please refer to the "developer_guide_android.pdf" in the "docs" folder.

Upgrading to version 7.1 from version 7.0

If you are upgrading from version 7.0 to version 7.1, please take note of the changes that occurred between version 7.0 and version 7.1.

- From 7.1 version, the whole **com.foxit.sdk.addon.ConnectedPDF** class has been removed.
- Some APIs have been changed in version 7.1. Note that the APIs related to ConnectedPDF in the **PDFViewCtrl** or **PDFDoc** classes have also been removed. The following table lists the APIs mapping between version 7.0 and 7.1.

Class(.java)	**SDK 7.0**	**SDK 7.1**
Font	Public int **getCharset**(PDFDoc document)	Public int **getCIDCharset**(PDFDoc document)
IBaseItem	interface **OnClickListener**	interface **OnItemClickListener**
	interface **onLongPressListener**	interface **OnItemLongPressListener**
	Public void **setOnClickListener** (OnClickListener l)	Public void **setOnItemClickListener** (OnItemClickListener l)
	Public void **setOnLongPressListener** (onLongPressListener l)	Public void **setOnItemClickListener** (OnItemClickListener l)
PDFViewerCtrl	IConnectedPDFEventListener	removed
	public IConnectedPDFEventListener **getConnectedPdfEventListener**()	removed
	public void **setConnectedPDFEventListener**(IConnectedPDFEventListener listener)	removed
PDFDoc	public boolean **isCPDF**()	removed
	public boolean **isCDRM**()	removed
	public String **getDocURI**()	removed
	public String **getEndpoint**()	removed

Upgrading to version 7.0 from version 6.4

Foxit PDF SDK for Android 7.0 is a major new version of Foxit PDF SDK for Android. Please take note of the changes that occurred between version 6.4 and version 7.0 if you are upgrading from version 6.4 to version 7.0.

1. Constants changes

Some constants have been changed in version 7.0. The following table lists the changes between version 6.4 and 7.0.

Class (.java)	SDK 6.4	SDK 7.0
CompareResultInfo	e_CompareResultTypeDeleteTable	removed
	e_CompareResultTypeInsertTable	removed
	e_CompareResultTypeReplaceTable	removed
Comparison	e_CompareTypeTable	removed
PDFViewCtrl	PAGELAYOUTMODE_CONTINUOUS	removed
ToolbarItemConfig	ANNOT_BAR_ITEM_MORE	removed
	ANNOT_BAR_ITEM_OK	ITEM_ANNOT_BAR_OK
	ITEM_PROPERTY_TAG	ITEM_ANNOT_PROPERTY
	ANNOT_BAR_ITEM_CONTINUE	ITEM_ANNOT_BAR_CONTINUE
	ITEM_TOPBAR_BACK_TAG	ITEM_TOPBAR_BACK
	ITEM_TOPBAR_READINGMARK_TAG	ITEM_TOPBAR_READINGMARK
	ITEM_TOPBAR_SEARCH_TAG	ITEM_TOPBAR_SEARCH
	ITEM_TOPBAR_MORE_TAG	ITEM_TOPBAR_MORE
	ITEM_BOTTOMBAR_LIST_TAG	ITEM_BOTTOMBAR_LIST
	ITEM_BOTTOMBAR_VIEW_TAG	ITEM_BOTTOMBAR_VIEW
	ITEM_BOTTOMBAR_COMMENT_TAG	ITEM_BOTTOMBAR_COMMENT
	ITEM_BOTTOMBAR_SIGN_TAG	ITEM_BOTTOMBAR_SIGN
	ITEM_LINE_TAG	ITEM_ANNOT_BAR_LINE
	ANNOTS_BAR_ITEM_CIR_TAG	ITEM_ANNOT_BAR_CIRCLE
	ANNOTS_BAR_ITEM_SQU_TAG	ITEM_ANNOT_BAR_SQUARE
	ANNOTS_BAR_ITEM_CALLOUT	ITEM_ANNOT_BAR_CALLOUT
	ANNOTS_BAR_ITEM_SQG_TAG	ITEM_ANNOT_BAR_SQUIGGLY
	ITEM_MULTI_SELECT_TAG	ITEM_ANNOT_BAR_MULTI_SELECT
	ITEM_NOTE_TAG	ITEM_ANNOT_BAR_NOTE
	ITEM_HIGHLIGHT_TAG	ITEM_ANNOT_BAR_HIGHLIGHT
	ANNOTS_BAR_ITEM_STO_TAG	ITEM_ANNOT_BAR_STRIKEOUT
	ANNOTS_BAR_ITEM_TYPEWRITE	ITEM_ANNOT_BAR_TYPEWRITE
	ANNOTS_BAR_ITEM_CARET	ITEM_ANNOT_BAR_CARET
	ANNOTS_BAR_ITEM_REPLACE	ITEM_ANNOT_BAR_REPLACE
	ANNOTS_BAR_ITEM_PEN	ITEM_ANNOT_BAR_PEN
	ANNOTS_BAR_ITEM_POLYGON	ITEM_ANNOT_BAR_POLYGON
	ITEM_ANNOTSBAR_MORE_TAG	ITEM_ANNOT_BAR_MORE
	DONE_BAR_ITEM_UNDO	ITEM_BAR_UNDO
	DONE_BAR_ITEM_REDO	ITEM_BAR_REDO
IMultiLineBar	TYPE_FACING_MODE	TYPE_FACINGPAGE

Class (.java)	SDK 6.4	SDK 7.0
	TYPE_COVER_MODE	TYPE_COVERPAGE

2. Classes and APIs changes

There were some changes to the classes and APIs in version 7.0. The following table lists the changes between version 6.4 and 7.0.

Class (.java)	SDK 6.4	SDK 7.0
PDFObject	public String getString()	public byte[] getString()
ReflowPage	public Matrix2D getDisplayMatrix(float offset_x, float offset_y)	public Matrix2D getDisplayMatrix(float offset_x, float offset_y, int width, int height, int rotate)
IMultiLineBar	public interface IML_ValueChangeListener	public interface IValueChangeListener
BaseBar	public void setItemSpace(int space)	public void setItemInterval(int space)
IPanelManager	void updatePanel()	removed
LocalizationUtil	LocalizationUtil	removed
IPDFReader	IMainFrame getMainFrame()	removed
	DocumentManager getDocumentManager()	removed
UIExtensionsManager	public DocumentManager getDocumentManager()	removed

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.fxcrt.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.fxcrt.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
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

SDK 5.1	SDK 6.0
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.RMSSecurityCallback	com.foxit.sdk.pdf.RMSSecurityCallback
com.foxit.sdk.pdf.security.RMSSecurityHandler	com.foxit.sdk.pdf.RMSSecurityHandler
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.PDFViewCtrl.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**)
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)

Class	SDK 4.0	SDK 5.0
	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.

<table>
<tr><th>Class 4.0</th><th>SDK 4.0</th><th>Class 5.0</th><th>SDK 5.0</th></tr>
<tr><td rowspan="11">PDFDoc</td><td>public boolean hasMetadataKey(java.lang.String key)</td><td rowspan="10">PDFMetaData</td><td>public boolean hasKey(java.lang.String key)</td></tr>
<tr><td>public DateTime getCreationDateTime()</td><td>public DateTime getCreationDateTime()</td></tr>
<tr><td>public DateTime getModifiedDateTime()</td><td>public DateTime getModifiedDateTime()</td></tr>
<tr><td>public void setCreationDateTime(DateTime dateTime)</td><td>public void setCreationDateTime(DateTime dateTime)</td></tr>
<tr><td>public void setModifiedDateTime(DateTime dateTime)</td><td>public void setModifiedDateTime(DateTime dateTime)</td></tr>
<tr><td>public String getMetadataValue(String key)</td><td>public String getValue(String key)</td></tr>
<tr><td>public int getMetadataValueCount(String key)</td><td>public int getValueCount(String key)</td></tr>
<tr><td>public String getMetadataValueByIndex(String key, int index)</td><td>public String getValueByIndex(String key, int index)</td></tr>
<tr><td>public void setMetadataArray(String key, String[] valueArray)</td><td>public void setValues(String key, String[] valueArray)</td></tr>
<tr><td>public PageLabel getPageLabelInfo(int index)</td><td>PDFPageLabels</td><td>new PDFPageLabels(PDFDoc document)</td></tr>
<tr><td>public int getPageLabelRangeCount()</td><td colspan="2">Removed</td></tr>
</table>

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()		