

Foxit PDF SDK for Mac Objective-C 11.1 Upgrade Warnings

This document contains a list of items that developers looking to upgrade to Foxit PDF SDK for Mac Objective-C 11.1 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 11.1 from version 11.0

If you are upgrading from version 11.0 to version 11.1, please take note of the changes that occurred between version 11.0 and version 11.1.

- In **FSActionCallback** protocol, add some new callback functions as below:

```
- (void) notifyBeginDoJob: (FSPDFDoc *) document
    event_type: (FSJavascriptModifyItemInfoJavaScriptEventType) event_type

- (void) notifyAfterDataChange: (FSPDFDoc *) document
    modify_item_info: (FSJavascriptModifyItemInfo *) modify_item_info

- (void) notifyEndDoJob: (FSPDFDoc *) document
    event_type: (FSJavascriptModifyItemInfoJavaScriptEventType) event_type

- (BOOL) initModifyItem: (FSPDFDoc *) document
    item_type: (FSActionCallbackModifyItemType) item_type
    page_index: (int) page_index
    dict_name: (NSString *) dict_name

- (void) resetModifyItem: (FSPDFDoc *) document

- (int) getVisiblePageCount: (FSPDFDoc *) document

- (int) getVisiblePage: (FSPDFDoc *) document
    index: (int) index
```

- In **FSDocProviderCallback** protocol, add a new callback function as below:

```
- (void) notifyWidgetChangeInfo: (FSXFADoc *) doc
    change_info: (FSXFAWidgetModifyInfo *) change_info
```

- Some APIs have been changed in version 11.1. The following table lists the APIs mapping between version 11.0 and 11.1.

Class/Protocol	SDK 11.0	SDK 11.1
FSActionCallback	- (FSRectF*) getPageWindowRect	- (FSRectF*) getPageWindowRect: (FSPDFDoc *) document page_index: (int) page_index
FSIconProviderCallback	- (FSPDFPage*) getIcon: (FSAnnotType) annot_type icon_name: (NSString *) icon_name color: (unsigned int) color	- (FSPDFPage*) getIcon: (FSAnnotType) annot_type icon_name: (NSString *) icon_name color: (unsigned int) color annot_dict: (FSPDFDictionary *) annot_dict

Upgrading to version 11.0 from version 10.1

If you are upgrading from version 10.1 to version 11.0, please take note of the changes that occurred between version 10.1 and version 11.0.

- The multi-thread-safe API [\(void\) enableThreadSafety: \(BOOL\) is_enable_thread_safety](#) is being gradually deprecated. Foxit PDF SDK will further enhance support for document-level thread safety. This requires users to ensure that each document runs on only one thread.

Furthermore, given the particularities of XFA and JavaScript, Foxit PDF SDK has introduced the parameter [enable_js_xfa_threadsafety](#) in [+\[FSErrorCode initializeWithJSXFAThreadsafety:key:is_optimize_memory:enable_js_xfa_threadsafety:\]](#), allowing users to enable document-level thread safety for XFA and JavaScript.

- In **FSTableGeneratorCallback** protocol, add a new callback function as below:

```
- (FSPageBasicInfo*) GetNewPageBasicInfo: (int)    page_index
    rest_table_height:                (float)    rest_table_height
    table_width:                      (float)    table_width
```

- Some APIs have been changed in version 11.0. The following table lists the APIs mapping between version 10.1 and 11.0.

Class/Protocol	SDK 10.1	SDK 11.0
FSPDFDoc	- (FSPagingSealSignature *) addPagingSealSignature: (FSRange*) page_range width: (float) width height: (float) height	- (FSPagingSealSignature *) addPagingSealSignature: (FSRange*) page_range width: (float) width height: (float) height to_check_permission: (BOOL) to_check_permission
FSDocProviderCallback	- (void) setFocus: (FSXFAWidget *) xfa_widget	- (void) setFocus: (FSXFAWidget *) xfa_widget is_relayout: (bool) is_relayout

Class/Protocol	SDK 10.1	SDK 11.0
FSHTML2PDFSettingData	<ul style="list-style-type: none"> - (id) initWithPage_width: (float) page_width page_height: (float) page_height is_to_page_scale: (BOOL) is_to_page_scale page_margin: (FSRectF*) page_margin is_convert_link: (BOOL) is_convert_link rotate_degrees: (FSRotation) rotate_degrees is_generate_tag: (BOOL) is_generate_tag page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode to_generate_bookmarks: (BOOL) to_generate_bookmarks scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode encoding_format: (FSHTML2PDFSettingDataHTML2PDFEncodingFormat) encoding_format to_render_images: (BOOL) to_render_images to_remove_underline_for_link: (BOOL) to_remove_underline_for_link to_set_headerfooter: (BOOL) to_set_headerfooter headerfooter_title: (NSString *) headerfooter_title headerfooter_url: (NSString *) headerfooter_url bookmark_root_name: (NSString *) bookmark_root_name to_resize_objects: (BOOL) to_resize_objects to_print_background: (BOOL) to_print_background to_optimize_tag_tree: (BOOL) to_optimize_tag_tree media_style: (FSHTML2PDFSettingDataHTML2PDFMediaStyle) media_style to_load_active_content: (BOOL) to_load_active_content to_disable_sandbox: (BOOL) to_disable_sandbox to_use_blacklist: (BOOL) to_use_blacklist 	<ul style="list-style-type: none"> - (id) initWithPage_width: (float) page_width page_height: (float) page_height is_to_page_scale: (BOOL) is_to_page_scale page_margin: (FSRectF*) page_margin is_convert_link: (BOOL) is_convert_link rotate_degrees: (FSRotation) rotate_degrees is_generate_tag: (BOOL) is_generate_tag page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode to_generate_bookmarks: (BOOL) to_generate_bookmarks scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode encoding_format: (FSHTML2PDFSettingDataHTML2PDFEncodingFormat) encoding_format to_render_images: (BOOL) to_render_images to_remove_underline_for_link: (BOOL) to_remove_underline_for_link to_set_headerfooter: (BOOL) to_set_headerfooter headerfooter_title: (NSString *) headerfooter_title headerfooter_url: (NSString *) headerfooter_url bookmark_root_name: (NSString *) bookmark_root_name to_resize_objects: (BOOL) to_resize_objects to_print_background: (BOOL) to_print_background to_optimize_tag_tree: (BOOL) to_optimize_tag_tree media_style: (FSHTML2PDFSettingDataHTML2PDFMediaStyle) media_style to_load_active_content: (BOOL) to_load_active_content to_disable_sandbox: (BOOL) to_disable_sandbox to_use_blacklist: (BOOL) to_use_blacklist to_hide_header: (BOOL) to_hide_header to_hide_footer: (BOOL) to_hide_footer

Class/Protocol	SDK 10.1	SDK 11.0
		to_deny_local_file_access: (BOOL) to_deny_local_file_access
	- (void) set: (float) page_width page_height: (float) page_height is_to_page_scale: (BOOL) is_to_page_scale page_margin: (FSRectF*) page_margin is_convert_link: (BOOL) is_convert_link rotate_degrees: (FSRotation) rotate_degrees is_generate_tag: (BOOL) is_generate_tag page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode to_generate_bookmarks: (BOOL) to_generate_bookmarks scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode encoding_format: (FSHTML2PDFSettingDataHTML2PDFEncodingFormat) encoding_format to_render_images: (BOOL) to_render_images to_remove_underline_for_link: (BOOL) to_remove_underline_for_link to_set_headerfooter: (BOOL) to_set_headerfooter headerfooter_title: (NSString *) headerfooter_title headerfooter_url: (NSString *) headerfooter_url bookmark_root_name: (NSString *) bookmark_root_name to_resize_objects: (BOOL) to_resize_objects to_print_background: (BOOL) to_print_background to_optimize_tag_tree: (BOOL) to_optimize_tag_tree media_style: (FSHTML2PDFSettingDataHTML2PDFMediaStyle) media_style to_load_active_content: (BOOL) to_load_active_content to_disable_sandbox: (BOOL) to_disable_sandbox to_use_blacklist: (BOOL) to_use_blacklist	- (void) set: (float) page_width page_height: (float) page_height is_to_page_scale: (BOOL) is_to_page_scale page_margin: (FSRectF*) page_margin is_convert_link: (BOOL) is_convert_link rotate_degrees: (FSRotation) rotate_degrees is_generate_tag: (BOOL) is_generate_tag page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode to_generate_bookmarks: (BOOL) to_generate_bookmarks scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode encoding_format: (FSHTML2PDFSettingDataHTML2PDFEncodingFormat) encoding_format to_render_images: (BOOL) to_render_images to_remove_underline_for_link: (BOOL) to_remove_underline_for_link to_set_headerfooter: (BOOL) to_set_headerfooter headerfooter_title: (NSString *) headerfooter_title headerfooter_url: (NSString *) headerfooter_url bookmark_root_name: (NSString *) bookmark_root_name to_resize_objects: (BOOL) to_resize_objects to_print_background: (BOOL) to_print_background to_optimize_tag_tree: (BOOL) to_optimize_tag_tree media_style: (FSHTML2PDFSettingDataHTML2PDFMediaStyle) media_style to_load_active_content: (BOOL) to_load_active_content to_disable_sandbox: (BOOL) to_disable_sandbox to_use_blacklist: (BOOL) to_use_blacklist to_hide_header: (BOOL) to_hide_header

Class/Protocol	SDK 10.1	SDK 11.0
		to_hide_footer: (BOOL) to_hide_footer to_deny_local_file_access: (BOOL) to_deny_local_file_access

Upgrading to version 10.1 from version 10.0

If you are upgrading from version 10.0 to version 10.1, please take note of the changes that occurred between version 10.0 and version 10.1.

- In **FTiledWatermarkSettings** class:
 1. add a new property called **flags**. By default, the tiled watermark is no longer positioned at the top. To retain the original behavior, where the watermark appears at the top, you need to set the property **flags** to **FTiledWatermarkSettingsFlagOnTop**.
 2. the constructor function has added a new parameter as below:

SDK 10.0:

```
- (id) initWithRow_space: (float) row_space
    col_space: (float) col_space
    rotation: (float) rotation
    opacity: (int) opacity
    scale: (int) scale
```

SDK 10.1:

```
- (id) initWithRow_space: (float) row_space
    col_space: (float) col_space
    rotation: (float) rotation
    opacity: (int) opacity
    scale: (int) scale
    flags: (unsigned int) flags
```

3. the function **set** has added a new parameter as below:

SDK 10.0:

```
- (void) set: (float) row_space
    col_space: (float) col_space
    rotation: (float) rotation
    opacity: (int) opacity
    scale: (int) scale
```

SDK 10.1:

- (void) set:	(float)	row_space
col_space:	(float)	col_space
rotation:	(float)	rotation
opacity:	(int)	opacity
scale:	(int)	scale
flags:	(unsigned int)	flags

- In FSImageObject class, the - (FSBitmap *) cloneBitmap: (FSGraphicsObjects*) graphics_objects function has been deprecated and replaced with - (FSBitmap *) cloneBitmapWithPage: (FSPDFPage*) page graphics_objects: (FSGraphicsObjects*) graphics_objects.

Upgrading to version 10.0 from version 9.2

There is only one minor upgrade warning in this release when moving from version 9.2 to version 10.0:

- For Compliance module, the compliance resource files have been updated, please contact Foxit support team or sales team to get the latest resource files package.

Only the latest engine can be used with version 10.0, using the older engine will cause errors. Version 9.2 is not compatible with the latest engine, it will throw errors in multi-threading situations.

Upgrading to version 9.2 from version 9.1

There is only one minor upgrade warning in this release when moving from version 9.1 to version 9.2:

- In **FSActionCallback** protocol, add five new callback functions as below:

```
- (void) enablePageLoop: (BOOL) is_loop
- (BOOL) isPageLoop
- (void) setDefaultPageTransitionMode: (NSString *) trans_type
trans_di: (NSString *) trans_di
- (BOOL) isCurrentDocOpenedInBrowser
- (void) postMessageToHtml: (NSArray< NSString * > *) message
```

Upgrading to version 9.1 from version 9.0

If you are upgrading from version 9.0 to version 9.1, please take note of the changes that occurred between version 9.0 and version 9.1.

- For Compliance module, the compliance resource files have been updated, please contact Foxit support team or sales team to get the latest resource files package.
- In **FSActionCallback** protocol:
 1. add a new callback function as below:

```
- (FSSOAPResponseInfo*) soapRequest: (FSSOAPRequestProperties *) request_params
```

2. the function **openDoc** has been changed as below:

SDK 9.0:

```
- (BOOL) openDoc: (NSString *) file_path password: (NSString *) password
```

SDK 9.1:

```
- (FSPDFDoc*) openDoc: (NSString *) file_path password: (NSString *) password
```

Upgrading to version 9.0 from version 8.4.2

If you are upgrading from version 8.4.2 to version 9.0, please take note of the changes that occurred between version 8.4.2 and version 9.0.

- For HTML to PDF module, the HTML to PDF engine has been upgraded, please contact Foxit support team or sales team to get the latest engine files package.
- The version of clang used for building and compiling the Foxit PDF SDK for Mac (x64) has been upgraded from 9.1.0 to 11.0.3.
- In **FSActionCallback** protocol:
 1. add four new callback functions as below:

```
- (void) query: (NSString *) keywords search_scope: (FSActionCallbackSearchScope)
search_scope search_option: (FSSearchOption *) search_opion di_path: (NSString *)
di_path
- (FSSearchIndexConfig*) addSearchIndex: (NSString *) di_path selected: (bool) is_selected
- (bool) removeSearchIndex: (FSSearchIndexConfig *) search_index_config
- (NSArray<NSString*>*) getSignatureAPStyleNameList
```

2. the function **selectPageNthWord** has been changed as below:

SDK 8.4.2:

```
- (void) selectPageNthWord: (int) page_index word_index: (int) word_index  
is_show_selection: (BOOL) is_show_selection
```

SDK 9.0:

```
- (void) selectPageNthWord: (int) page_index start_offset: (int) start_offset  
end_offset: (int) end_offset is_show_selection: (BOOL) is_show_selection
```

Upgrading to version 8.4.2 from version 8.4.1

There are no upgrade warnings when moving from version 8.4.1 to version 8.4.2. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

Upgrading to version 8.4.1 from version 8.4

There is only one minor upgrade warning in this release when moving from version 8.4 to version 8.4.1:

- For HTML to PDF module, the HTML to PDF engine has been upgraded, please contact Foxit support team or sales team to get the latest engine files package.

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 **FSActionCallback** protocol:
 1. Add thirty-one new callback functions as below:

```
-(void)setCurrentPage:(FSPDFDoc*)document  
destination:(FSDestination*)destination;  
-(void)closeDoc:(FSPDFDoc*)document is_prompt_to_save:(BOOL)is_prompt_to_save;  
-(BOOL)isLocalFile:(FSPDFDoc*)document;  
-(NSString*)getAttachmentsFilePath:(FSPDFDoc*)pdf_doc name:(NSString*)name;  
-(NSString*)getExtractedEmbeddedFilePath:(FSPDFDoc*)pdf_doc name:(NSString*)name;  
-(BOOL)print:(FSPDFDoc*)document print_params:(FSPrintParams*)print_params;  
-(NSString*)getUntitledBookmarkName;  
-(NSArray<NSString*>*)getPrinterNameList;  
-(BOOL)addToolButton:(FSButtonItem*)button_item;  
-(BOOL)removeToolButton:(NSString*)button_name;
```



```

-(FSMenuListArray*) getMenuitemNameList;
-(BOOL) addMenuItem:(FSMenuItemConfig*)menu_item_config
is_prepend:(BOOL)is_prepend;
-(BOOL) addSubMenu:(FSMenuItemConfig*)menu_item_config;
-(BOOL) showDialog:(FSDialogDescriptionConfig*)dlg_config;
-(BOOL) getFullScreen;
-(void) setFullScreen:(BOOL)is_full_screen;
-(void) onFieldValueChanged:(NSString*)field_name
type:(FSActionCallbackJSFieldValueChangeType)type
value_before_changed:(NSArray<NSString*>*)value_before_changed
value_after_changed:(NSArray<NSString*>*)value_after_changed;
-(void)updateLogicalLabel;
-(FSActionCallbackJsMailResult)mailDoc:(FSPDFDoc*)document
to_address:(NSString*)to_address cc_address:(NSString*)cc_address
bcc_address:(NSString*)bcc_address subject:(NSString*)subject
message:(NSString*)message is_ui:(BOOL)is_ui;
-(NSString*)getTemporaryFileName:(FSPDFDoc*)document
file_name:(NSString*)file_name;
-(id<FSMediaPlayerCallback>) openMediaPlayer:(FSPlayerArgs*)player_args;
-(NSString*)getTemporaryDirectory;
-(void)scroll:(FSPointF*)point;
-(void)selectPageNthWord:(int)page_index word_index:(int)word_index
is_show_selection:(BOOL)is_show_selection;
-(FSPointF*)getMousePosition;
-(FSRectF*)getPageWindowRect;
-(FSActionCallbackLayoutMode)getLayoutMode;
-(void)setLayoutMode:(FSActionCallbackLayoutMode)layout_mode
is_cover_mode:(BOOL)is_cover_mode;
-(float)getPageScale;
-(void)setPageScale:(FSDestinationZoomMode)zoom_mode dest:(FSDestination*)dest;
-(FSDestinationZoomMode)getPageZoomMode;

```

- In **FSPDFPage** class:

1. The function **transform** has added a new parameter as below:

SDK 8.3:

```

-(BOOL)transform: (FSMatrix2D*)matrix need_transform_clip_path:
(BOOL)need_transform_clip_path need_transform_annotations;

```

SDK 8.4:

```
-(BOOL)transform: (FSMatrix2D*)matrix need_transform_clip_path:
    (BOOL)need_transform_clip_path need_transform_annotations:
    (BOOL)need_transform_annotations;
```

- Remove **FSPagingSeal** class.

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.

- For HTML to PDF module, the HTML to PDF engine has been upgraded, please contact Foxit support team or sales team to get the latest engine files package.
- In **FSFreeText** class, the following property has been deprecated:

```
- (FSAlignment) alignment
```

- In **FSActionCallback** protocol:

1. the function **popupMenu** has added a new parameter as below:

SDK 8.2:

```
- (NSString*) popupMenu: (FSMenuListArray *) menus
```

SDK 8.3:

```
- (NSString*) popupMenu: (FSMenuListArray *) menus
    is_selected_item: (NSNumber **) is_selected_item
```

2. the function **SubmitForm** has added a new parameter as below:

SDK 8.2:

```
- (BOOL) submitForm: (FSPDFDoc *) document
    form_data: (NSData *) form_data
    url: (NSString *) url
```

SDK 8.3:

```
- (BOOL) submitForm: (FSPDFDoc *) document
    form_data: (NSData *) form_data
    url: (NSString *) url
    file_format_type: (FSFileType) file_format_type
```

3. add a new callback function as below:

```
- (FSMenuItemEx*) popupMenuEx: (FSMenuItemExArray *) menus
    is_selected_item: (NSNumber **) is_selected_item
```

- In **FSHTML2PDFSettingData** class:

1. the constructor function has added new parameters as below:

SDK 8.2:

```
- (id) initWithPage_width:      (float)      page_width
page_height:                  (float)      page_height
is_to_page_scale:             (BOOL)        is_to_page_scale
page_margin:                  (FSRectF*)    page_margin
is_convert_link:              (BOOL)        is_convert_link
rotate_degrees:               (FSRotation)  rotate_degrees
is_generate_tag:              (BOOL)        is_generate_tag
page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode
to_generate_bookmarks:        (BOOL)        to_generate_bookmarks
scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode
```

SDK 8.3:

```
- (id) initWithPage_width:      (float)      page_width
page_height:                  (float)      page_height
is_to_page_scale:             (BOOL)        is_to_page_scale
page_margin:                  (FSRectF*)    page_margin
is_convert_link:              (BOOL)        is_convert_link
rotate_degrees:               (FSRotation)  rotate_degrees
is_generate_tag:              (BOOL)        is_generate_tag
page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode
to_generate_bookmarks:        (BOOL)        to_generate_bookmarks
scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode
encoding_format: (FSHTML2PDFSettingDataHTML2PDFEncodingFormat) encoding_format
to_render_images: (BOOL) to_render_images
to_remove_underline_for_link: (BOOL) to_remove_underline_for_link
to_set_headerfooter: (BOOL) to_set_headerfooter
headerfooter_title: (NSString *) headerfooter_title
headerfooter_url: (NSString *) headerfooter_url
bookmark_root_name: (NSString *) bookmark_root_name
to_resize_objects: (BOOL) to_resize_objects
to_print_background: (BOOL) to_print_background
to_optimize_tag_tree: (BOOL) to_optimize_tag_tree
media_style: (FSHTML2PDFSettingDataHTML2PDFMediaStyle) media_style
```

2. the function **set** has added new parameters as below:

SDK 8.2:

```
- (void) set:      (float)      page_width
page_height:      (float)      page_height
```

is_to_page_scale:	(BOOL)	is_to_page_scale
page_margin:	(FSRectF*)	page_margin
is_convert_link:	(BOOL)	is_convert_link
rotate_degrees:	(FSRotation)	rotate_degrees
is_generate_tag:	(BOOL)	is_generate_tag
page_mode:	(FSHTML2PDFSettingDataHTML2PDFPageMode)	page_mode
to_generate_bookmarks:	(BOOL)	to_generate_bookmarks
scaling_mode:	(FSHTML2PDFSettingDataHTML2PDFScalingMode)	scaling_mode

SDK 8.3:

- (void) set:	(float)	page_width
page_height:	(float)	page_height
is_to_page_scale:	(BOOL)	is_to_page_scale
page_margin:	(FSRectF*)	page_margin
is_convert_link:	(BOOL)	is_convert_link
rotate_degrees:	(FSRotation)	rotate_degrees
is_generate_tag:	(BOOL)	is_generate_tag
page_mode:	(FSHTML2PDFSettingDataHTML2PDFPageMode)	page_mode
to_generate_bookmarks:	(BOOL)	to_generate_bookmarks
scaling_mode:	(FSHTML2PDFSettingDataHTML2PDFScalingMode)	scaling_mode
encoding_format:	(FSHTML2PDFSettingDataHTML2PDFEncodingFormat)	encoding_format
to_render_images:	(BOOL)	to_render_images
to_remove_underline_for_link:	(BOOL)	to_remove_underline_for_link
to_set_headerfooter:	(BOOL)	to_set_headerfooter
headerfooter_title:	(NSString *)	headerfooter_title
headerfooter_url:	(NSString *)	headerfooter_url
bookmark_root_name:	(NSString *)	bookmark_root_name
to_resize_objects:	(BOOL)	to_resize_objects
to_print_background:	(BOOL)	to_print_background
to_optimize_tag_tree:	(BOOL)	to_optimize_tag_tree
media_style:	(FSHTML2PDFSettingDataHTML2PDFMediaStyle)	media_style

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.

- For Compliance module, the compliance resource files have been updated, please contact Foxit support team or sales team to get the latest resource files package.
- For HTML to PDF module, the HTML to PDF engine has been upgraded, please contact Foxit support team or sales team to get the latest engine files package.
- In **FSFillerAssistCallback** protocol, add a new callback function as below:

- (void) reportInvalidValue:	(NSString *)	form_field_name
------------------------------	--------------	-----------------

```
invalid_value: (NSString *)    invalid_value
```

- In **FSHTML2PDFSettingData** class:

1. the constructor function has added a new parameter as below:

SDK 8.1:

```
- (id) initWithPage_width:    (float)    page_width
page_height:                (float)    page_height
is_to_page_scale:           (BOOL)    is_to_page_scale
page_margin:                (FSRectF*) page_margin
is_convert_link:            (BOOL)    is_convert_link
rotate_degrees:             (FSRotation) rotate_degrees
is_generate_tag:            (BOOL)    is_generate_tag
page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode
to_generate_bookmarks:      (BOOL)    to_generate_bookmarks
```

SDK 8.2:

```
- (id) initWithPage_width:    (float)    page_width
page_height:                (float)    page_height
is_to_page_scale:           (BOOL)    is_to_page_scale
page_margin:                (FSRectF*) page_margin
is_convert_link:            (BOOL)    is_convert_link
rotate_degrees:             (FSRotation) rotate_degrees
is_generate_tag:            (BOOL)    is_generate_tag
page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode
to_generate_bookmarks:      (BOOL)    to_generate_bookmarks
scaling_mode: (FSHTML2PDFSettingDataHTML2PDFScalingMode) scaling_mode
```

2. the function **set** has added a new parameter as below:

SDK 8.1:

```
- (void) set:                (float)    page_width
page_height:                (float)    page_height
is_to_page_scale:           (BOOL)    is_to_page_scale
page_margin:                (FSRectF*) page_margin
is_convert_link:            (BOOL)    is_convert_link
rotate_degrees:             (FSRotation) rotate_degrees
is_generate_tag:            (BOOL)    is_generate_tag
page_mode: (FSHTML2PDFSettingDataHTML2PDFPageMode) page_mode
to_generate_bookmarks:      (BOOL)    to_generate_bookmarks
```

SDK 8.2:

- (void) set:	(float)	page_width
page_height:	(float)	page_height
is_to_page_scale:	(BOOL)	is_to_page_scale
page_margin:	(FSRectF*)	page_margin
is_convert_link:	(BOOL)	is_convert_link
rotate_degrees:	(FSRotation)	rotate_degrees
is_generate_tag:	(BOOL)	is_generate_tag
page_mode:	(FSHTML2PDFSettingDataHTML2PDFPageMode)	page_mode
to_generate_bookmarks:	(BOOL)	to_generate_bookmarks
scaling_mode:	(FSHTML2PDFSettingDataHTML2PDFScalingMode)	scaling_mode

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.

- In **FSFillerAssistCallback** protocol, add seven callback functions as below:

```
- (void *) createPopupMenu
- (BOOL) appendPopupMenuitem: (const void *) h_popup_menu
    popup_menu_item: (FSFillerAssistCallbackPopupMenuitem) popup_menu_item
    default_string: (NSString *) default_string
- (BOOL) enablePopupMenuitem: (const void *) h_popup_menu
    popup_menu_item: (FSFillerAssistCallbackPopupMenuitem) popup_menu_item
    is_enabled: (BOOL) is_enabled
- (BOOL) showPopupMenu: (const void *) h_popup_menu
    point: (FSPointF *) point
- (void) destroyPopupMenu: (const void *) h_popup_menu
- (void) setClipboardText: (NSString *) text
- (NSString*) getClipboardText
```

- In **FSIdentityProperties** class:

1. add four properties as below:

```
NSString * department
NSString * first_name
NSString * last_name
NSString * title
```

- the constructor function of **FSIdentityProperties** has added four new parameters as below:

SDK 8.0:

```
- (id) initWithCorporation: (NSString *) corporation
    email: (NSString *) email
    login_name: (NSString *) login_name
    name: (NSString *) name
```

SDK 8.1:

```
- (id) initWithCorporation: (NSString *) corporation
    email: (NSString *) email
    login_name: (NSString *) login_name
    name: (NSString *) name
    first_name: (NSString *) first_name
    last_name: (NSString *) last_name
    title: (NSString *) title
    department: (NSString *) department
```

- the function **set** has added four new parameters as below:

SDK 8.0:

```
- (void) set: (NSString *) corporation
    email:      (NSString *) email
    login_name: (NSString *) login_name
    name:       (NSString *) name
```

SDK 8.1:

```
- (void) set: (NSString *) corporation
    email:      (NSString *) email
    login_name: (NSString *) login_name
    name:       (NSString *) name
    first_name: (NSString *) first_name
    last_name: (NSString *) last name
    title:     (NSString *) title
    department: (NSString *) department
```

- In **FSActionCallback** protocol, add a new callback function as below:

```
- (BOOL) setIdentityProperties: (FSIdentityProperties *) identity_properties
```

Upgrading to version 8.0 from version 7.6

There are two minor upgrade warnings in this release when moving from version 7.6 to version 8.0:

- In **FSHTML2PDFSettingData** class, the constructor function has added a new parameter as below:

SDK 7.6:

- (id) initWithPage_width:	(float)	page_width
page_height:	(float)	page_height
is_to_page_scale:	(BOOL)	is_to_page_scale
page_margin:	(FSRectF*)	page_margin
is_convert_link:	(BOOL)	is_convert_link
rotate_degrees:	(FSRotation)	rotate_degrees
is_generate_tag:	(BOOL)	is_generate_tag
page_mode:	(FSHTML2PDFSettingDataHTML2PDFPageMode)	page_mode

SDK 8.0:

- (id) initWithPage_width:	(float)	page_width
page_height:	(float)	page_height
is_to_page_scale:	(BOOL)	is_to_page_scale
page_margin:	(FSRectF*)	page_margin
is_convert_link:	(BOOL)	is_convert_link
rotate_degrees:	(FSRotation)	rotate_degrees
is_generate_tag:	(BOOL)	is_generate_tag
page_mode:	(FSHTML2PDFSettingDataHTML2PDFPageMode)	page_mode
to_generate_bookmarks:	(BOOL)	to_generate_bookmarks

- In **FSPDFPage** class, the function **addSignatureWithSignatureType** has added a new parameter as below:

SDK 7.6:

- (FSSignature *) addSignatureWithSignatureType:	(FSRectF*)	rect
field_name:	(NSString *)	field_name
signature_type:	(FSSignatureSignatureType)	signature_type

SDK 8.0:

- (FSSignature *) addSignatureWithSignatureType:	(FSRectF*)	rect
field_name:	(NSString *)	field_name
signature_type:	(FSSignatureSignatureType)	signature_type
to_check_permission:	(BOOL)	to_check_permission

Upgrading to version 7.6 from version 7.5

There are two minor upgrade warnings in this release when moving from version 7.5 to version 7.6:

- In **FSActionCallback** protocol, add a new callback interface as below:

```
-(NSString*) browseFile: (BOOL) is_open_dialog  
                      file_format: (NSString*) file_format  
                      file_filter: (NSString*) file_filter;
```

- Remove the value (**FSLTVVerifierVerifyModeETSI**) of the enumeration **FSLTVVerifierVerifyMode**.

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 **FSHeaderFooter** class:

- The parameters of constructor function have been changed:

SDK 7.4:

initWithFont:	(FSFont*)	font
text_size:	(float)	text_size
text_color:	(unsigned int)	text_color
page_range:	(FSPageNumberRange*)	page_range
page_margin:	(FSRectF*)	page_margin
has_text_shrunked:	(BOOL)	has_text_shrunked
has_fixedsize_for_print:	(BOOL)	has_fixedsize_for_print
start_page_number:	(int)	start_page_number
content:	(FSHeaderFooterContent*)	content

SDK 7.5:

initWithFont:	(FSFont*)	font
text_size:	(float)	text_size
text_color:	(unsigned int)	text_color
page_range:	(FSPageNumberRange*)	page_range
page_margin:	(FSRectF*)	page_margin
has_text_shrunked:	(BOOL)	has_text_shrunked
has_fixedsize_for_print:	(BOOL)	has_fixedsize_for_print
start_page_number:	(int)	start_page_number
content:	(FSHeaderFooterContent*)	content

is_to_embed_font:	(BOOL)	is_to_embed_font
is_underline:	(BOOL)	is_underline

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

SDK 7.4:

(void) set:	(FSFont*)	font
text_size:	(float)	text_size
text_color:	(unsigned int)	text_color
page_range:	(FSPageNumberRange*)	page_range
page_margin:	(FSRectF*)	page_margin
has_text_shrunked:	(BOOL)	has_text_shrunked
has_fixedsize_for_print:	(BOOL)	has_fixedsize_for_print
start_page_number:	(int)	start_page_number
content:	(FSHeaderFooterContent*)	content

SDK 7.5:

(void) set:	(FSFont*)	font
text_size:	(float)	text_size
text_color:	(unsigned int)	text_color
page_range:	(FSPageNumberRange*)	page_range
page_margin:	(FSRectF*)	page_margin
has_text_shrunked:	(BOOL)	has_text_shrunked
has_fixedsize_for_print:	(BOOL)	has_fixedsize_for_print
start_page_number:	(int)	start_page_number
content:	(FSHeaderFooterContent*)	content
is_to_embed_font:	(BOOL)	is_to_embed_font
is_underline:	(BOOL)	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 value (**FSMonolImageSettingsImageCompressjpeg2**) of the enumeration class **FSMonolImageSettingsMonolImageCompressMode** has been renamed to **FSMonolImageSettingsImageCompressjbig2**.
- In **FSMarkup** class:

The functions below have been removed from version 7.4:

```

-(int) getStateAnnotCount: (FSMarkupStateModel) model
-(FSNote*) getStateAnnot: (FSMarkupStateModel) model index: (int) index

```

And then add a new function as below:

```

-(FSNoteArray*) getStateAnnots: (FSMarkupStateModel) model

```

- In **FSActionCallback** protocol, add three callback functions as below:

```

-(FSPDFDoc*) getCurrentDoc
-(FSPDFDoc*) createBlankDoc
-(BOOL) openDoc: (NSString*) file_path password: (NSString*) password

```

- 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	SDK 7.3	SDK 7.4
FSMarkup	-(FSNote*) addStateAnnot: (FSMarkupStateModel) model state: (FSMarkupState) state	-(FSNote*) addStateAnnot: (NSString *) title model: (FSMarkupStateModel) model state: (FSMarkupState) state;
FSPDFDoc	-(SWIGTYPE_HeaderFooter*) getEditableHeaderFooter	-(FSHeaderFooter*) getEditableHeaderFooter
	-(void) addHeaderFooter: (SWIGTYPE_p_HeaderFooter*) headerfooter;	-(void) addHeaderFooter: (FSHeaderFooter*) headerfooter;
	-(void) updateHeaderFooter: (SWIGTYPE_p_HeaderFooter*) headerfooter	-(void) updateHeaderFooter: (FSHeaderFooter*) headerfooter
FSTextSearch	-(id) initWithDocument: (FSPDFDoc*) document cancel: (id<FSSearchCancelCallback>) cancel	-(id) initWithDocument: (FSPDFDoc*) document cancel: (id<FSSearchCancelCallback>) cancel flags: (int) flags
FSFreeText	FSMatrix2D* textMatrix	deprecated

Upgrading to version 7.3 from version 7.2

If you are upgrading from version 7.2 to version 7.3, please take note of the changes that occurred between version 7.2 and version 7.3.

For the version 7.3 release of Foxit PDF SDK for Java, there are some minor changes as below:

- Change the enumeration **FSImageObjectColorSpace** to **FSColorSpaceType**.
- Change the enumeration **FSFieldFlagChoiseMultiSelect** to **FSFieldFlagChoiceMultiSelect**.

- Add a new callback function (- (**BOOL**) **isCertTrustedRoot:(NSData *) cert**) in the **FSTrustedCertStoreCallback** class.

Upgrading to version 7.2 from version 7.1

There is only one minor upgrade warning in this release when moving from version 7.1 to version 7.2. In this release we worked hard to ensure that no modifications to existing code bases would be required when upgrading.

The parameter type of the function **FSImageSettings::setQuality** has been changed as below:

SDK 7.1:

- (void) setQuality: (**int**) quality

SDK 7.2:

- (void) setQuality: (**FSImageSettingsImageCompressQuality**) quality

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 **FSConnectedPDF** class has been removed.
- Some APIs have been changed in version 7.1. Note that the APIs related to ConnectedPDF in the PDFDoc class have also been removed. The following table lists the APIs mapping between version 7.0 and 7.1.

Class	SDK 7.0	SDK 7.1
FSFont	- (FSFontCharset) getCharset:(FSPDFDoc*) document	- (FSFontCIDCharset) getCIDCharset:(FSPDFDoc*) document
FSLine	- (void) setMeasureUnit: (int) measure_type unit:(NSString *) unit	- (void) setMeasureUnit: (FSMarkupMeasureType) measure_type unit:(NSString *) unit
	- (NSString *) getMeasureUnit:(int) measure_type	- (NSString *) getMeasureUnit:(FSMarkupMeasureType) measure_type
	- (void) setMeasureConversionFactor:(int) measure_type factor:(float) factor	- (void) setMeasureConversionFactor:(FSMarkupMeasureType) measure_type factor:(float) factor
	- (float) getMeasureConversionFactor:(int) measure_type	- (float) getMeasureConversionFactor:(FSMarkupMeasureType) measure_type
FSPDFDoc	- (BOOL) isCPDF	Removed

Class	SDK 7.0	SDK 7.1
	- (BOOL) isCDRM	Removed
	- (NSString *) getDocURI	Removed
	- (NSString *) getEndpoint	Removed

Upgrading to version 7.0 from version 6.4

There are three minor upgrade warnings in this release when moving from version 6.4 to version 7.0:

- The value of enumeration **FSSignatureStateUnknown** has been changed from 0 to 0x80000000.
- The return type of **FSPDFObject::getString** has been changed from **NSString** to **NSData**.
- The functions **FSSignature::startVerify** and **FSSignatureCallback::verifySigState** are only used to verify the integrity of a signature instead of the validity of a signature, so that the return value of **verifySigState** in the default signature callback has been changed from "VALID/INVALID" to "NOCHANGE/CHANGE".

Upgrading to version 6.4 from version 6.3

There are two minor upgrade warnings in this release when moving from version 6.3 to version 6.4:

- The function **FSRenderer::setTransformAnnotIcon** has been deprecated.
- The parameter "**is_transform_icon**" of the function **FSAnnot::getDeviceRect** has been deprecated.

Upgrading to version 6.3 from version 6.2.1

There is only one minor upgrade warning in this release 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.

The property name of **FSField.defaultValue** has been changed to **FSField.default_value**.

Upgrading to version 6.2.1 from version 6.2

There is only one upgrade warning in this release 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.

Add a callback interface **WidgetEvent** in **FSDocProviderCallback** protocol to execute xfa widget event when you create or destroy xfa widget.