



# Reference manual

for Sorax PDF SDK - ActiveX Edition  
version 2.00

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## **Features**

### ***Supported PDF version***

PDF 1.7 standard. Handling of linearized and non-linearized PDF files.

### ***Fonts***

Handling of Type1, Type3, TrueType simple and CID, Type0 composite embedded or external fonts.

### ***Streams***

ASCII hexadecimal, ASCII base-85, LZW and Flate, Run length, Group 3 or Group 4 CCITT facsimile (fax), JBIG2, DCT and JPX decode filters

### ***Colors***

Handling of RGB, Gray, CMYK, ICCBased, Lab, Indexed, Separation color formats.

### ***Patterns***

Tiling and shadings patterns

### ***Printing***

PS, EPS, BMP printing. OPI support.

### ***Encryption***

Supporting of 40 and 128 bit encryption-level. Handling of User and Owner password.

## Methods

### ***ResetConfig***

This function sets the initialization file, that necessary to handle PDF files.

**VARIANT\_BOOL ResetConfig(LPSTR lpszFileName);**

#### **Parameters**

*lpszFileName*

Name and path of the initialization file.

#### **Return value**

TRUE, if the initialization file exists and processed, otherwise FALSE.

### ***OpenDoc***

Opens a PDF document.

**OLE\_HANDLE OpenDoc(LPSTR lpszFileName,  
LPSTR lpszUserPwd,  
LPSTR lpszOwnerPwd);**

#### **Parameters**

*lpszFileName*

Name and path of the PDF file, witch is to be opened.

*lpszUserPwd*

User password for opening.

*lpszOwnerPwd*

Owner password.

#### **Return value**

Handle of the document, in case of successful opening. NULL, in case of opening failure, and sets the error code, wich is accessible with GetLastError().

### ***CloseDoc***

Closes an opened PDF document.

**BOOL CloseDoc(OLE\_HANDLE hDoc);**

#### **Parameters**

*hDoc*

Handle of the document.

#### **Return value**

TRUE, in case of successful reading. FALSE, in case of invalid document handle.

### ***ExportDoc***

Export pages from PDF document.

**VARIANT\_BOOL ExportDoc(OLE\_HANDLE hDoc,  
BSTR lpszFileName,  
LONG nFromPage,  
LONG nToPage,  
LONG nExpType);**

#### **Parameters**

*hDoc*

Handle of document.

*lpszFileName*

Output file name.

*nFromPage*

The first page in the range to be exported.

*nToPage*

The last page in the range to be exported.

*nExpType*

Type of export.

#### **Return value**

TRUE, if the processing was successful. FALSE, in case of invalid document handle.

### ***GetPageCount***

Gets the number of pages.

```
int GetPageCount(OLE_HANDLE hDoc);
```

#### **Parameters**

*hDoc*

Handle of the document.

#### **Return value**

Number of the pages, or -1, in case of invalid document handle.

### ***GetDocInfo***

Gets the information-structure of a PDF file.

```
BSTR GetDocInfo(OLE_HANDLE hDoc);
```

#### **Parameters**

*hDoc*

Document handle.

#### **Return value**

A character string, separated with '|' characters. The string represents the information-structure.

### ***GetPageLabel***

Getting the label of a page.

```
BSTR GetPageLabel(OLE_HANDLE hDoc, LONG nPage);
```

#### **Parameters**

*hDoc*

*Document handle.*

*nPage*

The number of the page for which a label is needed.

#### **Return value**

A character string. The string represents the label of page.

***GetDocOutline***

Processes the bookmarks of a PDF document.

**LONG GetDocOutline(OLE\_HANDLE hDoc);**

**Parameters**

*hDoc*

Handle of document.

**Return value**

Number of entries, or  $-1$ , in case of invalid document handle.

***GetDocFontInfo***

Processes the fonts of a PDF document.

**VARIANT\_BOOL GetDocFontToPageInfo(OLE\_HANDLE hDoc,  
LONG nFromPage,  
LONG nToPage);**

**Parameters**

*hDoc*

Handle of document.

*nFromPage*

The first page in the range.

*nToPage*

The last page in the range.

**Return value**

Number of entries, or  $-1$ , in case of invalid document handle.



## ***PrintDirect***

Allows to send PDF data directly to the printer.

```
VARIANT_BOOL PrintDirect(OLE_HANDLE hDoc,  
    BSTR lpszPrinterName,  
    LONG nFromPage,  
    LONG nToPage,  
    SHORT nFlags);
```

### **Parameters**

*hDoc*

Handle of document.

*lpszPrinterName*

Name of printer.

*nFromPage*

The first page in the range to be printed.

*nToPage*

The last page in the range to be printed.

*nFlags*

The printing mode and the other settings belonging to the chosen mode can be set here. The possible values of the settings can be found under the entry-word „Constants”.

### **Return value**

TRUE, if the processing was successful. FALSE, in case of invalid document handle.

### **CreateView**

Creates a PDF-View window.

```
OLE_HANDLE CreateView(OLE_HANDLE hDoc,  
    LONG nLeft, LONG nTop, LONG nRight, LONG nBottom,  
    OLE_HANDLE hParentWnd,  
    UINT uID);
```

#### **Parameters**

*hDoc*

Handle of document.

*nLeft, nTop, nRight, nBottom*

Specifies the size and the position of the window.

*hParentWnd*

Handle of parent window.

*nID*

Identifier of the window.

#### **Return value**

Handle of the created window, or NULL, in case of error. Error code is accessible with GetLastError().

### **DestroyView**

Destroys a PDF-View window.

```
void DestroyView(OLE_HANDLE hWnd);
```

#### **Parameters**

*hWnd*

Handle of the window.

***AttachDoc***

Attaches a document handle to a window.

```
VARIANT_BOOL AttachDoc(OLE_HANDLE hWnd,  
                        OLE_HANDLE hDoc);
```

**Parameters**

*hWnd*

Handle of the window.

*hDoc*

Document handle.

**Return value**

TRUE, in case of successful processing, otherwise FALSE.

***DetachDoc***

Detaches a document handle from a window.

```
OLE_HANDLE DetachDoc(OLE_HANDLE hWnd);
```

**Parameters**

*hWnd*

Handle of the window.

**Return value**

Handle of the detached document, in case of successful processing, otherwise 0.

***DoOpenAction***

Execution of the PDF Document opening action (if there is one).

```
VARIANT_BOOL DoOpenAction(OLE_HANDLE hWnd);
```

**Parameters**

*hWnd*

Handle of the window.

**Return value**

TRUE, in case of successful processing, otherwise FALSE.

### ***SetViewMode***

Setting the mode of appearance for the view panel. In practice, it is nothing else, but the operation that realizes the change between the full screen and the normal view.

**LONG SetViewMode(OLE\_HANDLE hWnd, LONG nMode);**

#### **Parameters**

*hWnd*

Handle of the window.

*nMode*

View mode.

#### **Return value**

The identifier of the view mode used prior to the setting or in the case of an error: 0.

### ***SetViewLayout***

Setting the layout used in the view panel.

**LONG SetViewLayout(OLE\_HANDLE hWnd, LONG nLayout);**

#### **Parameters**

*hWnd*

Handle of the window.

*nLayout*

View layout.

#### **Return value**

The identifier of the layout used prior to the current setup or in the case of an error: 0.

### ***SetActiveTool***

Activating the current tool.

**LONG SetActiveTool(OLE\_HANDLE hWnd, LONG nTool);**

#### **Parameters**

*hWnd*

Handle of the window.

*nTool*

Tool identifier.

#### **Return value**

The identifier of the tool that was used prior to the setup or in the case of an error: 0.

***AutoScroll***

Launching or stopping automatic scroll.

**LONG AutoScroll(OLE\_HANDLE hWnd, LONG nState, LONG nParam);**

**Parameters**

*hWnd*

Handle of the window.

*nState*

Scroll command. Launching or stopping scroll, or query about its stage. For the possible values and their explanations, see the list of constants.

*nParam*

Time elapsed between two scrolls in the thousandth of a second. This value will determine the speed of the scrolling.

**Return value**

0, in case of successful processing, otherwise -1.

***ShowPage***

Displays a PDF page in the window.

**void ShowPage(OLE\_HANDLE hWnd,  
LONG nPage,  
FLOAT fDPI);**

**Parameters**

*hWnd*

Handle of the window.

*nPage*

The number of the page to be displayed.

*fDPI*

The scale of resolution (in DPI) of the page to be displayed.

**RotatePage**

Rotation of a PDF page.

```
void RotatePage(OLE_HANDLE hWnd,  
                LONG nRotate);
```

**Parameters**

*hWnd*

Handle of the window.

*nRotate*

The value of the measure of rotation. Possible values: 0, 90, 180, 270.

**SelectAll**

Selecting all the textual content or cancelling any selection in the document.

```
VARIANT_BOOL SelectAll(OLE_HANDLE hWnd, VARIANT_BOOL bSelect);
```

**Parameters**

*hWnd*

Handle of the window.

*bSelect*

In the case of TRUE, all the textual content will become selected in the document.  
In the case of FALSE, all the selections in the area become inactive.

**Return value**

TRUE, in case of successful processing, otherwise FALSE.

**Copy**

Copies the selected content of a PDF page to the clipboard.

```
VARIANT_BOOL Copy(OLE_HANDLE hWnd);
```

**Parameters**

*hWnd*

Handle of the window.

**Return value**

TRUE, in case of successful processing, otherwise FALSE.

***Print***

Printing PDF page(s).

**LONG Print(OLE\_HANDLE hWnd);**

**Parameters**

*hWnd*

Handle of the window.

**Return value**

0, in case of successful processing, otherwise -1.

***Find***

Searching for text in the document.

**void Find(OLE\_HANDLE hWnd);**

**Parameters**

*hWnd*

Handle of the window.

***GetPrevPage***

Depending on the current layout it returns the number of the page previously displayed. If there is only one page, it returns the page previously displayed. In the case of a continuous layout the determination of the previous page in this view happens in relation to the (current) page that occupies the largest space.

**LONG GetPrevPage(OLE\_HANDLE hWnd, LONG nCurPage);**

**Parameters**

*hWnd*

Handle of the window.

*nCurPage*

Current page. The number of the previous page will be determined in relation to this page.

**Return value**

The previous page number to be displayed, or in case of an error: 0.

### ***GetNextPage***

Depending on the current layout it returns the subsequent page number to be displayed, or if there is only one page, the subsequent page to be displayed. In the case of a continuous layout the determination of the subsequent page in this view happens in relation to the (current) page that occupies the largest space.

**LONG GetNextPage(OLE\_HANDLE hWnd, LONG nCurPage);**

#### **Parameters**

*hWnd*

Handle of the window.

*nCurPage*

Current page. The number of the subsequent page will be specified in relation to this page.

#### **Return value**

The subsequent page number to be displayed, or in case of an error: 0.

### ***DoOutlineAction***

Hopping to the position specified in the Outline identifier.

**LONG DoOutlineAction(OLE\_HANDLE hWnd, ULONG ulID);**

#### **Parameters**

*hWnd*

Handle of the window.

*ulID*

Outline identifier.

#### **Return value**

0, in case of successful processing, otherwise -1.



## Events

### ***SelectionChanged***

The state of the textual selection has changed on the displayed page.

**void SelectionChanged(VARIANT\_BOOL bSelection);**

#### **Parameters**

*bSelection*

Indicates, that text has been selected or a selection has been put an end of.

### ***PageChanged***

The displayed page, or its attributes has been changed.

**void PageChanged(LONG nPage,  
                  FLOAT fDPI,  
                  VARIANT\_BOOL\* pbShowPage);**

#### **Parameters**

*nPage*

Page number.

*fDPI*

Resolution.

*pbShowPage*

Redraw setting.

### ***ScrollPosChanged***

The position of the document has been changed in the view panel.

**void ScrollPosChanged(int nBar);**

#### **Parameters**

*nBar*

The scroll bar constant that shows the direction of the displacement. Possible values SB\_VSCROLL or SB\_HSCROLL.

***DocumentChanged***

The displayed document of the window has been changed.

**void DocumentChanged(BSTR lpszFileName);**

**Parameter**

*lpszFileName*

File name with complete access path.

***Searching***

Searching in the document.

**void Searching(LONG nPage, VARIANT\_BOOL bRun);**

**Parameter**

*nPage*

The page to search on.

*bRun*

Indicates the state of the searching.

***InsertOutlineItem***

Inserting a bookmark-item into the tree.

**void InsertOutlineItem(LPCTSTR lpszTitle,  
USHORT nLevel,  
VARIANT\_BOOL bExpanded,  
ULONG ulID);**

**Parameter**

*lpszTitle*

Title of the bookmark.

*nLevel*

Level to insert it.

*bExpanded*

Item is expanded or not.

*ulID*

Identifier of the bookmark.

### ***InsertFontInfoItem***

Inserting a font information item.

```
void InsertFontInfoItem(LPCTSTR lpszFontName,  
                        ULONG ulFontFlags,  
                        LPCTSTR lpszActFontName,  
                        ULONG ulActFontFlags,  
                        LONG nPage);
```

#### **Parameter**

*lpszFontName*

The name of the font.

*ulFontFlags*

Font flags. For the possible values and their explanations, see the list of constants.

*lpszActFontName*

Item is expanded or not.

*ulActFontFlags*

The applied Font flags. For the possible values and their explanations, see the list of constants.

*nPage*

The page number where the font can be found.

## Constants

### *for the static arrays of the SPDINFO structure*

**SPDINFO\_STR\_SIZE** **0xFF**

The maximum length of the character string of the information structure (SPDINFO).

### *Export types*

**SPD\_EXPORT\_TEXT** **0x0001**

Export as a text.

**SPD\_EXPORT\_BMP** **0x0002**

Export as a bitmap.

**SPD\_EXPORT\_XML** **0x0003**

Export as a xml.

### *Font info flags*

**SPD\_FIF\_TYPE\_TYPE1** **0x0001**

Type1 font.

**SPD\_FIF\_TYPE\_TRUETYPE** **0x0002**

TrueType font.

**SPD\_FIF\_TYPE\_EMBEDDED** **0x0004**

Embedded font.

**SPD\_FIF\_TYPE\_SUBSET** **0x0008**

Subset font.

**SPD\_FIF\_TYPE\_CID** **0x0010**

CID font.

**SPD\_FIF\_ENC\_ANSI** **0x0100**

ANSI encoding.

**SPD\_FIF\_ENC\_IDENTITYH** **0x0200**

IDENTITYH encoding.

**SPD\_FIF\_ENC\_IDENTITYV** **0x0400**

IDENTITYV encoding.

**SPD\_FIF\_ENC\_BUILTIN** 0x0800

BuiltIn encoding.

**SPD\_FIF\_ENC\_CUSTOM** 0x1000

Custom encoding.

### ***for Printing***

**SPVPF\_MODE\_BMP** 0x0001

Printing as a bitmap.

**SPVPF\_MODE\_PS** 0x0002

Printing as a PostScript.

**SPVPF\_PSF\_LEVEL1** 0x0008

Supporting the PS Level1 standard.

**SPVPF\_PSF\_LEVEL2** 0x0010

Supporting the PS Level2 standard.

**SPVPF\_PSF\_LEVEL3** 0x0020

Supporting the PS Level3 standard.

**PVPF\_PSF\_SEPARATION** 0x0080

Separation.

**PVPF\_EMB\_PSFONTS** 0x0F00

Fonts are embedded in the PS file.

**PVPF\_DUPLEX** 0x4000

Duplex printing.

**PVPF\_QUICKPRINT** 0x8000

Quick printing.

### ***View layout***

**PVL\_GETVIEWLAYOUT** 0x00

Query about the current layout.

**PVL\_SINGLEPAGE** 0x01

Single page layout.

<b>PVL_TWOUP</b>	<b>0x02</b>
Tow-page layout.	
<b>PVL_CONTINUOUS</b>	<b>0x04</b>
Continuous layout.	
<b>PVL_SHOWHGAP</b>	<b>0x10</b>
Display of horizontal page gaps.	
<b>PVL_SHOWVGAP</b>	<b>0x20</b>
Display of vertical page gaps.	

### ***View mode***

<b>PVM_GETVIEWMODE</b>	<b>0x00</b>
Query for the mode of the current view.	
<b>PVM_NORMAL</b>	<b>0x01</b>
Activating normal view window.	
<b>PVM_FULLSCREEN</b>	<b>0x02</b>
Activating the full screen view window.	

### ***View scale***

<b>PVS_ZOOM</b>	<b>0</b>
Setting the value of the zoom.	
<b>PVS_ACTUALSIZE</b>	<b>-1</b>
Displays the pages in the original 100% size.	
<b>PVS_FITWIDTH</b>	<b>-2</b>
Aligns the extent of the zoom to the width of the window.	
<b>PVS_FITPAGE</b>	<b>-3</b>
Aligns the extent of the zoom to the full page display.	

### ***Auto scroll flags***

<b>PVASF_GETSTATE</b>	<b>0x00</b>
Query for the current state.	

<b>PVASF_SCROLL</b>	<b>0x01</b>
Launches or stops the scroll.	
<b>PVASF_DIR_UP</b>	<b>0x02</b>
Scrolls up the document.	
<b>PVASF_DIR_DOWN</b>	<b>0x04</b>
Scrolls down the document.	

### ***Cursor tools***

<b>PVCT_HAND</b>	<b>0x01</b>
Hand tool.	
<b>PVCT_SELECT</b>	<b>0x02</b>
Select tool.	
<b>PVCT_ZOOM_MARQUEE</b>	<b>0x03</b>
Marquee zoom tool.	
<b>PVCT_ZOOM_DYNAMIC</b>	<b>0x04</b>
Dynamic zoom tool.	
<b>PVCT_SNAPSHOT</b>	<b>0x05</b>
Making a snapshot.	

### ***Error codes***

<b>ERROR_INVALID_FILE</b>	<b>7001</b>
File open failure. Invalid file name or incorrect PDF file.	
<b>ERROR_INVALID_USER_PASSWORD</b>	<b>7002</b>
Invalid user password.	
<b>ERROR_INVALID_DOCUMENT_HANDLE</b>	<b>7003</b>
Invalid document handle.	
<b>ERROR_INVALID_VIEW_HANDLE</b>	<b>7004</b>
Invalid view window handle.	
<b>ERROR_PAGE_NOT_EXISTS</b>	<b>7005</b>
Nonexistent page.	
<b>ERROR_PERM_COPY</b>	<b>7006</b>
To copy to the clipboard is not permitted.	

<b>ERROR_PERM_PRINT</b>	<b>7007</b>
Printing is not permitted.	
<b>ERROR_PRINTER_INFO</b>	<b>7008</b>
Printer information cannot be queried.	
<b>ERROR_EXPORT_CCO</b>	<b>7021</b>
An object to be exported cannot be created.	
<b>ERROR_EXPORT_CIO</b>	<b>7022</b>
It is not possible to initialize the object to be exported.	
<b>ERROR_EXP_BMP_NEM</b>	<b>7031</b>
The memory is not enough for the execution of the export operation.	
<b>ERROR_EXP_BMP_FILECREATE</b>	<b>7032</b>
The file to be exported cannot be created.	



## Initializer file

Specifying the default settings of the PDF view window.

### **General section**

FontPath - Enumeration of the fonts' access paths.  
TextEncoding - Encoding of the text.

### **FontMap section**

Assigning the fonts.

Syntax:

FontName = ExtFontFile, where  
FontName - Name of the Font.  
ExtFontFile - External font file specified with complete access path.

For example:

```
Courier=c:\SPdf\resources\fonts\x1.pfb
Courier-Bold= c:\SPdf\resources\fonts\x2.pfb
.
.
```

### **Export section**

Assigning unicode characters.

Bmp.DPI - Resolution of exported images (default: 72).  
Xml.Text - Add text to the exported xml file (default: no).  
Xml.Font - Add font changes to the exported xml file (default: yes).  
Xml.Graph - Add vector graphics to the exported xml file (default: no).  
Xml.EmbeddedImage - Extract embedded images from the pdf source file and save them (default: no).  
Xml.EmbeddedFonts - Extract embedded images from the pdf source file and save them (default: no).

You will be able to find the extracted files in ElementsOf.<pdf\_src> directory, whereabouts the pdf\_src string is the title of PDF source file.