Polybios 1.3

Making History In PDF

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1 General information

1.1 Introduction

Polybios is a plugin for Hollywood that allows you to easily create PDF documents from Hollywood scripts. On top of that, Polybios can also open existing PDF documents and convert their pages into Hollywood brushes. In fact, when converting PDF pages into Hollywood brushes, Polybios will create vector brushes for you which can be scaled, rotated and transformed without any losses in quality (unless bitmap graphics are embedded inside the PDF document of course).

Polybios comes with over 200 functions for creating PDF documents of all sorts. It supports graphics primitives, text in different encodings including Unicode, embedding fonts as well as images and Hollywood brushes inside PDF documents. On top of that Polybios supports the creation of password-protected PDF documents, encrypted PDF documents, compression, file attachments, annotations, extended graphics states, info dictionaries, RGB, CMYK and gray color spaces, different viewing modes, transition effects, links, and permission flags for PDF documents. Transformation of PDF objects is fully supported too. Finally, Polybios can also create PDF documents with an easy-to-navigate outline that can be used as a table of contents as well.

Polybios also has support for extracting text from PDF pages, getting all bookmarks in a document, handling links on PDF pages, and it is also possible to search pages. Furthermore, Polybios allows you to query the position of text on PDF pages, making it possible to implement text marking functionality, for instance.

Polybios comes with extensive documentation in various formats like PDF (of course), HTML, AmigaGuide, and CHM that contains detailed descriptions about all functions and methods offered by the plugin. On top of that, over 25 example scripts are included in the distribution archive to get you started really quickly.

All of this makes Polybios the ultimate PDF tool for Hollywood that contains everything to empower you to make history in PDF!

1.2 Terms and conditions

This software uses LibHaru by Takeshi Kanno and Antony Dovgal. See Section A.1 [LibHaru license], page 165, for details.

This software uses LuaHPDF by Kurt Jung. See Section A.2 [LuaHPDF license], page 165, for details.

This software uses PDFium by the PDFium authors. See Section A.3 [PDFium license], page 165, for details.

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1.3 Requirements

- Hollywood 7.1 or better
- on macOS, Polybios requires at least 10.9 on x86 and x64 systems and 10.5 on PowerPC systems
- on Android, at least version 5.0 is required
- if you use WinUAE, you need at least WinUAE 4.2.1 or Polybios can crash because of a bug in WinUAE's 68020 emulation

1.4 Installation

Installing Polybios is straightforward and simple: Just copy the file `polybios.hwp` for the platform of your choice to Hollywood's plugins directory. On all systems except on AmigaOS and compatibles, plugins must be stored in a directory named `Plugins` that is in the same directory as the main Hollywood program. On AmigaOS and compatible systems, plugins must be installed to `LIBS:Hollywood` instead. On macOS, the `Plugins` directory must be inside the `Resources` directory of the application bundle, i.e. inside the `HollywoodInterpreter.app/Contents/Resources` directory. Note that `HollywoodInterpreter.app` is stored inside the `Hollywood.app` application bundle itself, namely in `Hollywood.app/Contents/Resources`.

Afterwards merge the contents of the `Examples` folder with the `Examples` folder that is part of your Hollywood installation. All Polybios examples will then appear in Hollywood's GUI and you can launch and view them conveniently from the Hollywood GUI or IDE.

On Windows you should also copy the file `Polybios.chm` to the `Docs` directory of your Hollywood installation. Then you will be able to get online help by pressing F1 when the cursor is over a Polybios function in the Hollywood IDE.

On Linux and macOS copy the `Polybios` directory that is inside the `Docs` directory of the Polybios distribution archive to the `Docs` directory of your Hollywood installation. Note that on macOS the `Docs` directory is within the `Hollywood.app` application bundle, i.e. in `Hollywood.app/Contents/Resources/Docs`.

2 About Polybios

2.1 Credits

Polybios was written by Andreas Falkenhahn, based on work done by Takeshi Kanno, Antony Dovgal, Kurt Jung and the PDFium authors. Special thanks go to Sebastian Bauer for adding rudimentary wide character support to clib2 so that PDFium can be compiled on AmigaOS 4 as well. Further thanks go to Stefan "Bebbo" Franke for maintaining a recent version of gcc that can compile for the Motorola 680x0 series.

If you need to contact me, you can either send an e-mail to andreas@airsoftsoftwair.de or use the contact form on http://www.hollywood-mal.com.

2.2 Frequently asked questions

This section covers some frequently asked questions. Please read them first before asking on the mailing list or forum because your problem might have been covered here.

Q: How can I modify existing PDF documents?

A: That's currently not supported but planned for a future version of Polybios.

Q: Why doesn't Polybios support the conversion of PDF pages to vector brushes on AROS?

A: That's because PDFium requires a compiler capable of handling C++11 and wide characters which is currently unavailable for AROS. But this will hopefully change in the future so that AROS users can convert PDF pages into Hollywood brushes too.

Q: Why aren't Chinese/Japanese/Korean (CJK) characters drawn correctly in my document?

A: Make sure you have a TrueType font that has CJK support installed. For example, install Konatu on your system and CJK characters should be drawn correctly.

Q: The 68k version of Polybios doesn't work under OS4 emulation.

A: It seems that the OS4 JIT has problems dealing with Polybios' PDF renderer which is a 5 MB binary. If you really want to use the 68k version of Polybios on OS4, you need to disable JIT for the file LIBS:Hollywood/Polybios.ext. Then it should work.

Q: Is there a Hollywood forum where I can get in touch with other users?

A: Yes, please check out the "Community" section of the official Hollywood Portal online at http://www.hollywood-mal.com.

Q: Where can I ask for help?

A: There's a lively forum at http://forums.hollywood-mal.com and we also have a mailing list which you can access at airsoft_hollywood@yahoogroups.com. Visit http://www.hollywood-mal.com for information on how to join the mailing list.

Q: I have found a bug.

A: Please post about it in the dedicated sections of the forum or the mailing list.

2.3 Future

Here are some things that are on my to do list:

- add support for rendering PDF pages on AROS
- add support for editing existing PDF documents

Don't hesitate to contact me if Polybios lacks a certain feature that is important for your project.

2.4 History

Please see the file `history.txt` for a complete change log of Polybios.

3 Viewing PDFs

3.1 Overview

There are two different methods of viewing PDF documents with Polybios in Hollywood: You can either load individual PDF pages as vector brushes or you can load an entire PDF document as a Hollywood animation in which the document's pages are simply mapped to individual anim frames. Whatever way you choose, Polybios will always map PDF pages to vector objects in Hollywood so that they can be scaled, rotated, and transformed without any losses in quality.

To use Polybios from your Hollywood script, you first need to initialize the plugin at the beginning of your script by using the following line:

```
@REQUIRE "polybios"
```

There are also some additional arguments that you can pass to the `@REQUIRE` preprocessor command. The following arguments are currently available:

`NoVectorAnim:`
: When loading PDFs as Hollywood anims, Polybios will automatically create vector animations if the Hollywood version used with Polybios supports it. If you don't want that, set this tag to `True`. Note that if you set this tag to `True`, there will be quality losses when scaling or transforming the animation that contains the PDF pages. Defaults to `False`. (V1.3)

3.2 Loading pages as vector brushes

To load PDF pages as vector brushes you have to open the PDF document using the `pdf.OpenDocument()` function and then convert the desired pages to Hollywood vector brushes using the `pdf.GetBrush()` command.

Here is an example:

```
pdf.OpenDocument(1, "test.pdf")
pdf.GetBrush(1, 1, 1)
DisplayBrush(1, #CENTER, #CENTER)
FreeBrush(1)
pdf.CloseDocument(1)
```

The code above will open the PDF document named `test.pdf` and convert its first page to a vector brush. It will then show this vector brush in the center of the display. Note that the vector brush will still depend on the PDF document so it is not allowed to call `pdf.CloseDocument()` on the document while you still need the brush. That's why we free the brush first and close the document afterwards. Otherwise there will be an error.

You can find out the number of pages in the PDF document by first getting the object type for PDF documents and then using Hollywood's `GetAttribute()` function, like so:

```
PDF_DOCUMENT = pdf.GetObjectType()
numpages = GetAttribute(PDF_DOCUMENT, 1, #PDFATTRPAGES)
```

The code above gets the number of pages from the PDF document that uses the identifier 1 and stores it in the variable `numpages`.

3.3 Loading PDFs as anims

Alternatively, Polybios offers to load an entire PDF document into a Hollywood anim object. You can then access the individual pages by simply obtaining the anim's frames.

Here's how to load a PDF document as a Hollywood anim:

```
LoadAnim(1, "test.pdf", {FromDisk = True})
For Local k = 1 To GetAttribute(#ANIM, 1, #ATTRNUMFRAMES)
   DisplayAnimFrame(1, #CENTER, #CENTER, k)
   WaitLeftMouse
Next
```

The code above shows all pages of a PDF document. You need to press the left mouse button to skip to the next page.

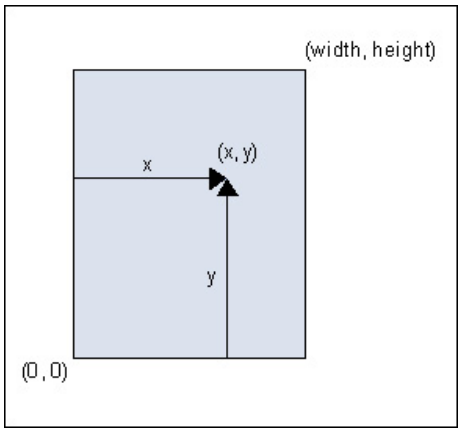
Note that we set `FromDisk` tag to `True` in our `LoadAnim()` call. This is very important because otherwise all PDF pages will be loaded and buffered in memory which can be a huge waste with larger PDF documents.

Of course, you could also load the PDF document with the @ANIM preprocessor command instead of `LoadAnim()`.

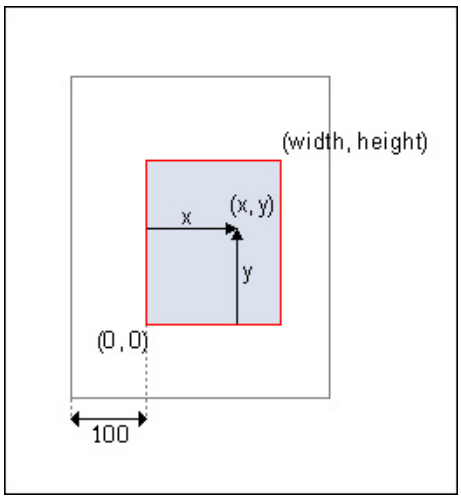
4 Creating PDFs

4.1 Coordinate system

Note that PDF documents use a different coordinate system than Hollywood. In the default coordinate system of PDF, shown below, the lower-left corner is at coordinates (0, 0), and the upper-right corner is at coordinates (width, height). The default resolution is 72dpi. In Hollywood the upper-left corner is at (0, 0).



An application can change the coordinate system by invoking `page:Concat()`. For example, if an application invokes `page:Concat(0.5, 0, 0, 0.5, 100, 100)` in the default state, the coordinate system shown above is transformed to the new system shown in the figure below:

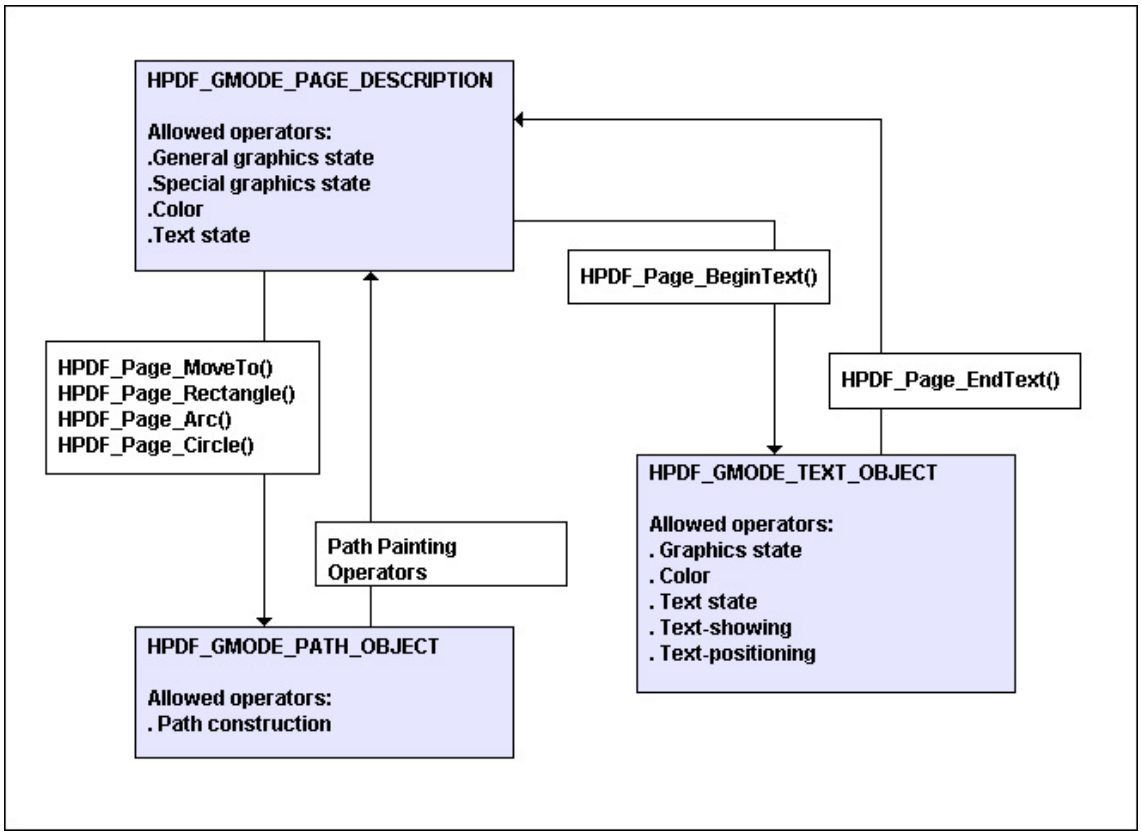


4.2 Graphics mode

In Polybios, each page object maintains a flag named "graphics mode". The graphics mode corresponds to the graphics object of the PDF specification.

The graphics mode is changed by invoking particular functions. The functions that can be invoked are decided by the value of the graphics mode.

The following figure shows the relationships of the graphics mode.



4.3 Painting paths

A path is composed of straight and curved line segments. Paths define shapes and regions.

Vector graphics are drawn by the following steps:

1. Set graphics states (such as line width, dash pattern, color...) using graphics state operators or color operators.
2. Start new path using `page:MoveTo()`, `page:Rectangle()`, `page:Arc()`, or `page:Circle()`.
3. Append to path using path construction operators.
4. Stroke or paint the path using path painting operators.

Here is a list of graphics state operators:

```
page:Concat()
page:SetDash()
page:SetFlat()
page:SetLineCap()
page:SetLineJoin()
page:SetLineWidth()
page:SetMiterLimit()
```

Here is a list of color operators:

```
page:SetCMYKFill()
page:SetCMYKStroke()
page:SetGrayFill()
page:SetGrayStroke()
page:SetRGBFill()
page:SetRGBStroke()
```

Here is a list of path construction operators:

```
page:Arc()
page:Circle()
page:CurveTo()
page:CurveTo2()
page:CurveTo3()
page:LineTo()
page:MoveTo()
page:Rectangle()
```

Here is a list of path painting operators:

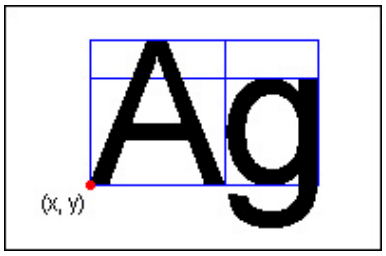
```
page:ClosePathFillStroke()
page:ClosePathEofillStroke()
page:ClosePathStroke()
page:Eofill()
page:EofillStroke()
page:EndPath()
page:Fill()
page:FillStroke()
page:Stroke()
```

4.4 Painting text

Text is drawn by the following steps:

1. Start drawing text by invoking `page:BeginText()`.
2. Set text states (such as font, filling color...) using text state operators or color operators. At least `page:SetFontAndSize()` must be invoked once before invoking text painting operators.
3. Set text positioning by invoking text positioning operators.
4. Show text by invoking text painting operators.
5. Repeat steps 2 to 4 if necessary.
6. Finish drawing text by invoking `page:EndText()`.

The figure below explains text positioning:



You can see that, in contrast to Hollywood's coordinate system, the PDF document's coordinate system for placing text starts at the bottom and extends upwards.

Here is a list of text state operators:

```
page:SetCharSpace()
page:SetFontAndSize()
page:SetHorizontalScaling()
page:SetTextLeading()
page:SetTextRenderingMode()
page:SetTextRise()
page:SetWordSpace()
```

Here is a list of text positioning operators:

```
page:MoveTextPos()
page:SetTextMatrix()
```

Here is a list of text painting operators:

```
page:ShowText()
page:ShowTextNextLine()
page:TextOut()
page:TextRect()
```

4.5 Colors

Colors are specified using three real numbers (i.e. ones with a decimal point) in the form R G B where each number defines the amount of red (R), green (G) and blue (B) in a color. The valid numbers are from 0.0 to 1.0 inclusive.

4.6 Font types

There are several types of fonts available in Polybios.

Base14 font:
: The built-in font of PDF. Available in all viewer applications.

Type1 font:
: A font format used by PostScript.

TrueType font:
: Widely used outline font format.

CID font: Font format for multi-byte characters. Developed by Adobe.

Hollywood scripts can use `doc:GetFont()` to get a font handle. Before that, one of the following functions must be used to load the font before invoking `doc:GetFont()`: (except for Base14 fonts, those are always available and needn't be loaded)

```
HPDF_LoadType1FontFromFile()
HPDF_LoadTTFontFromFile()
HPDF_LoadTTFontFromFile2()
HPDF_UseCNSFonts()
HPDF_UseCNTFonts()
HPDF_UseJPFonts()
HPDF_UseKRFonts()
```

4.7 Base14 fonts

Base14 fonts are built into PDF and all viewer applications can display these fonts. An application can get a Base14 font handle any time by invoking `doc:GetFont()`. PDF files which use base14 fonts are smaller than those which use other type of fonts. Moreover, PDF processing is faster because there is no need to load external fonts. However, Base14 fonts are only able to display the Latin-1 character set. To use other character sets, an application must use other fonts.

The following are built-in Base14 fonts. They are available in every PDF viewer:

```
Courier
Courier-Bold
Courier-Oblique
Courier-BoldOblique
Helvetica
Helvetica-Bold
Helvetica-Oblique
Helvetica-BoldOblique
Times-Roman
Times-Bold
Times-Italic
Times-BoldItalic
Symbol
ZapfDingbats
```

4.8 Type1 fonts

Type1 is a format of outline fonts developed by Adobe. An AFM file is necessary to use an external Type1 font with Polybios. When a Hollywood script uses an external Type1 font, it has to invoke `doc:LoadType1Font()` before invoking `doc:GetFont()`. The return value of `doc:LoadType1Font()` is used as the font name parameter of `doc:GetFont()`. If a PFA/PFB file is specified when invoking `doc:LoadType1Font()`, the glyph data of the font is embedded into the PDF file. Otherwise, only metrics data in AFM file is embedded.

Here is an example:

```
fontname = doc:LoadType1Font("a010013l.afm", "a010013l.pfb")
hfont = doc:GetFont(fontname, "CP1250")
page:SetFontAndSize(hfont, 10.5)
```

4.9 TrueType fonts

Polybios can use TrueType fonts. There are two types of TrueType fonts: The first format, which uses the ".ttf" extension, contains only one font in its file. The second format, which uses the ".ttc" extension, contains multiple fonts in its file. That is why `doc:LoadTTFont()` has a parameter which is used to specify the index of the font to load. If the additional parameter `embedding` is set to `True` when invoking `doc:LoadTTFont()`, the subset of the font is embedded into the PDF file. If not, only the marix data is stored in the PDF file. In this case a viewer application may use an alternative font if it cannot find the font.

Here is an example:

```
fontname = doc:LoadTTFont("arial.ttf", True)
hfont = doc:GetFont(fontname, "CP1250")
page:SetFontAndSize(hfont, 10.5)
```

Note that Polybios can use only TrueType fonts which have a Unicode cmap and one of the following tables: "OS/2", "cmap", "cvt ", "fpgm", "glyf", "head", "hhea", "hmtx", "loca", "maxp", "name", "post", "prep".

4.10 CID fonts

CID fonts are a multi-byte character font format developed by Adobe. Two simplified Chinese fonts, one traditional Chinese fonts, four Japanese fonts, and four Korean fonts are available in Polybios. Hollywood scripts have to invoke the following functions once before using CID fonts:

`doc:UseCNSFonts()`
: Makes simplified Chinese fonts (SimSun, SimHei) become available.

`doc:UseCNTFonts()`
: Makes traditional Chinese fonts (MingLiU) become available.

`doc:UseJPFonts()`
: Makes Japanese fonts (MS-Mincyo, MS-Gothic, MS-PMincyo, MS-PGothic) become available.

`doc:UseKRFonts()`
: Makes Korean fonts (Batang, Dotum, BatangChe, DotumChe) become available.

Here is an example:

```
doc:UseJPFonts()
doc:UseJPEncodings()
hfont = doc:GetFont("MS-Mincyo", "90ms-RKSJ-H")
page:SetFontAndSize(hfont, 10.5)
```

4.11 Encodings

The following single-byte encodings are available in Polybios. Hollywood scripts can get an encoding handle by using `doc:GetEncoder()`:

`StandardEncoding`
: The default encoding of PDF

`MacRomanEncoding`
: The standard encoding of macOS

`WinAnsiEncoding`
: The standard encoding of Windows

`FontSpecific`
: Use the built-in encoding of a font

`ISO8859-2`
: Latin Alphabet No.2

`ISO8859-3`
: Latin Alphabet No.3

`ISO8859-4`
: Latin Alphabet No.4

`ISO8859-5`
: Latin Cyrillic Alphabet

`ISO8859-6`
: Latin Arabic Alphabet

`ISO8859-7`
: Latin Greek Alphabet

`ISO8859-8`
: Latin Hebrew Alphabet

`ISO8859-9`
: Latin Alphabet No. 5

`ISO8859-10`
: Latin Alphabet No. 6

`ISO8859-11`
: Thai, TIS 620-2569 character set

`ISO8859-13`
: Latin Alphabet No. 7

`ISO8859-14`
: Latin Alphabet No. 8

`ISO8859-15`
: Latin Alphabet No. 9

`ISO8859-16`
: Latin Alphabet No. 10

`CP1250` Microsoft Windows Codepage 1250 (EE)

`CP1251` Microsoft Windows Codepage 1251 (Cyrl)

`CP1252` Microsoft Windows Codepage 1252 (ANSI)

`CP1253` Microsoft Windows Codepage 1253 (Greek)

`CP1254` Microsoft Windows Codepage 1254 (Turk)

`CP1255` Microsoft Windows Codepage 1255 (Hebr)

`CP1256` Microsoft Windows Codepage 1256 (Arab)

`CP1257` Microsoft Windows Codepage 1257 (BaltRim)

`CP1258` Microsoft Windows Codepage 1258 (Viet)

`KOI8-R` Russian Net Character Set

The following multi-byte encodings are available in Polybios:

`GB-EUC-H` EUC-CN encoding

`GB-EUC-V` Vertical writing version of GB-EUC-H

`GBK-EUC-H`
: Microsoft Code Page 936 (lfCharSet 0x86) GBK encoding

`GBK-EUC-V`
: Vertical writing version of GBK-EUC-H

`ETen-B5-H`
: Microsoft Code Page 950 (lfCharSet 0x88) Big Five character set with ETen extensions

`ETen-B5-V`
: Vertical writing version of ETen-B5-H

`90ms-RKSJ-H`
: Microsoft Code Page 932, JIS X 0208 character

`90ms-RKSJ-V`
: Vertical writing version of 90ms-RKSJ-V

`90msp-RKSJ-H`
: Microsoft Code Page 932, JIS X 0208 character (proportional)

`EUC-H` JIS X 0208 character set, EUC-JP encoding

`EUC-V` Vertical writing version of EUC-H

`KSC-EUC-H`
: KS X 1001:1992 character set, EUC-KR encoding

`KSC-EUC-V`
: Vertical writing version of KSC-EUC-V

`KSCms-UHC-H`
: Microsoft Code Page 949 (lfCharSet 0x81), KS X 1001:1992 character set plus 8822 additional hangul, Unified Hangul Code (UHC) encoding (proportional)

`KSCms-UHC-HW-H`
: Microsoft Code Page 949 (lfCharSet 0x81), KS X 1001:1992 character set plus 8822 additional hangul, Unified Hangul Code (UHC) encoding (fixed width)

`KSCms-UHC-HW-V`
: Vertical writing version of KSCms-UHC-HW-H

`UTF-8` UTF-8 encoding.

A Hollywood script has to invoke one of the following functions before using multi-byte encodings:

`doc:UseCNSEncodings()`
: It makes simplified Chinese encodings (GB-EUC-H, GB-EUC-V, GBK-EUC-H, GBK-EUC-V) become available.

`doc:UseCNTEncodings()`
: Makes traditional Chinese encodings (ETen-B5-H, ETen-B5-V) become available.

`doc:UseJPEncodings()`
: Makes Japanese encodings (90ms-RKSJ-H, 90ms-RKSJ-V, 90msp-RKSJ-H, EUC-H, EUC-V) become available.

`doc:UseKREncodings()`
: Makes Korean encodings (KSC-EUC-H, KSC-EUC-V, KSCms-UHC-H, KSCms-UHC-HW-H, KSCms-UHC-HW-V) become available.

`doc:UseUTFEncodings()`
: Makes UTF-8 encoding become available.

5 Tutorial

5.1 Tutorial

This tutorial will teach you how to create your first PDF document with Polybios. The PDF document will contain two pages, one with a circle and one with a "Hello World" text.

First, you need to create a document object. This is done by calling `pdf.CreateDocument()` which creates a document object for you. The document object handle which is returned by `pdf.CreateDocument()` is then used in the following steps.

```
doc = pdf.CreateDocument()
```

As a second step you can set some document attributes. For example, here we set compression, encryption, page mode, and a password:

```
; set compression mode
doc:SetCompressionMode(#HPDF_COMP_ALL)

; set page mode to use outlines
doc:SetPageMode(#HPDF_PAGE_MODE_USE_OUTLINE)

; set password
doc:SetPassword("owner", "user")
```

After setting document attributes call `doc:AddPage()` to add a page to the document. The page handle returned is used in later operations on the page.

```
page1 = doc:AddPage()
```

To insert a new page before an existing page, `doc:InsertPage()`. For example, to insert `page0` before `page1`, do the following:

```
page0 = doc:InsertPage(page1)
```

After creating a new page, you can set some page attributes if necessary. Here we set the page size to B5 and the orientation to landscape:

```
page1:SetSize(#HPDF_PAGE_SIZE_B5, #HPDF_PAGE_LANDSCAPE)
```

Now that we have set up everything we can start adding content to the page. For example, this is how we add a "Hello World" text to the page:

```
font = doc:GetFont("Times-Roman")
page0:SetFontAndSize(font, 24)
page0:BeginText()
page0:TextOut(60, 60, "Hello World!")
page0:EndText()
```

We can also draw graphics primitives to the page, for example a filled circle:

```
page1:SetRGBFill(1.0, 0, 0)
page1:MoveTo(100, 100)
page1:LineTo(100, 180)
page1:Circle(100, 100, 80)
page1:Fill()
```

When you're done adding content to your pages, you'll probably want to save the PDF document to disk. This is possible by using the `doc:SaveToFile()` function. Here is how to save our PDF document:

```
doc:SaveToFile("test.pdf")
```

Now that we are finished, we have to free all resources belonging to the document object. This is done by calling the `doc:Free()` method, like so:

```
doc:Free()
```

Note that now that we have freed the document and all of its resources, we must no longer use any handles belonging to this document. In our case this means that we must no longer access the following handles: `doc`, `page0`, `page1`, and `font`. Thus, it is a good idea to set them to `Nil` so that Hollywood's garbage collector can kill them:

```
doc = Nil
page0 = Nil
page1 = Nil
font = Nil
```

Of course, you can also declare them as local variables and then they will be eaten by the garbage collector automatically once they become inaccessible.

That's it, congratulations, you have just created your first PDF document with Polybios!

6 General functions

6.1 pdf.CloseDocument

NAME

pdf.CloseDocument – close PDF document

SYNOPSIS

```
pdf.CloseDocument(id)
```

FUNCTION

This function closes a document opened using `pdf.OpenDocument()` and frees all of its resources.

Note that this function must only be used for documents opened using `pdf.OpenDocument()`. Documents created using `pdf.CreateDocument()` must be freed using the `doc:Free()` method.

Also note that `pdf.CloseDocument()` must not be called before all vector brushes obtained via `pdf.GetBrush()` from the document have been freed.

INPUTS

`id`	identifier of the PDF document to be closed

6.2 pdf.CreateDocument

NAME

pdf.CreateDocument – create a new PDF document

SYNOPSIS

```
doc = pdf.CreateDocument()
```

FUNCTION

`pdf.CreateDocument()` creates a new document object and returns its handle. You can then use all documents methods with this handle. On failure, `Nil` is returned.

When you're done with your document, don't forget to call `doc:Free()` on it to free all of its resources.

INPUTS

none

RESULTS

`doc`	handle to a document

6.3 pdf.DeviceToPage

NAME

pdf.DeviceToPage – convert screen coordinates to page coordinates (V1.2)

SYNOPSIS

```
x, y = pdf.DeviceToPage(id, page, startx, starty, sizex, sizey, rotate,
           devicex, devicey)
```

FUNCTION

This function can be used to convert the screen coordinates of the point specified by `devicex` and `devicey` to page coordinates.

The `rotate` argument can be used to specify the page orientation. This can be set to the following special values:

`0:` Normal.

`1:` Rotated 90 degrees clockwise.

`2:` Rotated 180 degrees.

`3:` Rotated 90 degrees counter-clockwise.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

The page coordinate system has its origin at the left-bottom corner of the page, with the X-axis on the bottom going to the right, and the Y-axis on the left side going up. Note that this coordinate system can be altered when you zoom, scroll, or rotate a page, however, a point on the page should always have the same coordinate values in the page coordinate system.

The device coordinate system is device dependent. For screen devices, its origin is at the left-top corner of the window.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)
`startx`	left pixel position of the display area in device coordinates
`starty`	top pixel position of the display area in device coordinates
`sizex`	horizontal size (in pixels) for displaying the page
`sizey`	vertical size (in pixels) for displaying the page
`rotate`	page orientation (see above for possible values)
`devicex`	x value in device coordinates to be converted
`devicey`	y value in device coordinates to be converted

RESULTS

`x`	converted x value in page coordinates
`y`	converted y value in page coordinates

6.4 pdf.FindNext

NAME

pdf.FindNext – find next instance of search string (V1.1)

SYNOPSIS

```
res = pdf.FindNext(id, page)
```

FUNCTION

This function can be used to continue a search operation initiated by `pdf.FindStart()`. Specifically, `pdf.FindNext()` will find the next occurrence of the search string passed to `pdf.FindStart()`. If another instance of the search string could be found, `pdf.FindNext()` will return `True` and you can get the information about where the string was found using `pdf.GetFindResult()`. Otherwise, `False` is returned.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to search (starting from 1)

RESULTS

`res`	`True` if the search string could be found, `False` otherwise

6.5 pdf.FindPrev

NAME

pdf.FindPrev – find previous instance of search string (V1.1)

SYNOPSIS

```
res = pdf.FindPrev(id, page)
```

FUNCTION

This function can be used to continue a search operation initiated by `pdf.FindStart()`. Specifically, `pdf.FindPrev()` will find the previous occurrence of the search string passed to `pdf.FindStart()`. If another instance of the search string could be found, `pdf.FindPrev()` will return `True` and you can get the information about where the string was found using `pdf.GetFindResult()`. Otherwise, `False` is returned.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to search (starting from 1)

RESULTS

`res` `True` if the search string could be found, `False` otherwise

6.6 pdf.FindStart

NAME

pdf.FindStart – initiate search operation (V1.1)

SYNOPSIS

```
pdf.FindStart(id, page, s$[, flags, idx])
```

FUNCTION

This function can be used to start a new search operation on the page specified by `page` in the document specified by `id`. You have to pass the string that the page should be searched for in the `s$` argument. The optional argument `flags` can be used to configure additional options for the search operation. The `flags` parameter can be a combination of the following special constants:

`#PDFFIND_MATCHCASE:`
: If this flag is set, the search operation will be done in a case-sensitive way.

`#PDFFIND_MATCHWHOLEWORD:`
: If this flag is set, a search result is only triggered if `s$` matches a whole word.

By default, the search operation starts at the beginning of the page. You can change this by passing a character index to start the search at in the optional `idx` parameter. Note that character indices start at 0. Passing -1 in the `idx` parameter will start the search at the end of the page.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

After you have called `pdf.FindStart()` to initiate the search operation, you then have to call either `pdf.FindNext()` or `pdf.FindPrev()` to actually execute the search operation.

INPUTS

`id` identifier of the PDF document to use

`page` page number to search (starting from 1)

`s$` string to search for

`flags` optional: combination of flags specifying additional options (see above) (defaults to 0)

`idx` optional: character index to start search at (defaults to 0)

6.7 pdf.FreePage

NAME

pdf.FreePage – free PDF document page (V1.1)

SYNOPSIS

```
pdf.FreePage(id, page)
```

FUNCTION

This function can be used to free a PDF document page loaded by `pdf.LoadPage()`. You have to pass the identifier of the PDF document to use in the `id` argument and the page number to free in the `page` argument. The page number must be in the range of 1 to the total number of pages in the document. The PDF document specified by `id` must have been opened using `pdf.OpenDocument()` before.

INPUTS

`id` identifier of the PDF document to use

`page` page number to free (starting from 1)

6.8 pdf.GetBookmarks

NAME

pdf.GetBookmarks – get all bookmarks in a document (V1.1)

SYNOPSIS

```
t = pdf.GetBookmarks(id)
```

FUNCTION

This function can be used to get all bookmarks in the PDF document specified by `id`. This PDF document must have been opened using `pdf.OpenDocument()`.

On return, `pdf.GetBookmarks()` will generate a table containing all bookmarks in the document. For each entry, the table will have the following fields initialized:

`Title:` The bookmark's title text.

`Action:` This field specifies what should happen if the respective bookmark is clicked. This will be set to one of the following special constants:

`#PDFACTION_GOTO:`
Skip to page in current document.

`#PDFACTION_REMOTEGOTO:`
Skip to page in another document.

`#PDFACTION_URI:`
Open an URI.

`#PDFACTION_LAUNCH:`
Launch a program.

`#PDFACTION_UNSUPPORTED:`
Unknown action.

`Target:` This will be set to the bookmark's target. Depending on `Action`, this may be set to a page number, a URI, or the path to an external file.

`Children:`
If the bookmark can be unfolded, this item will be set to another table containing the same elements as its parent. Bookmarks can be infinitely nested.

INPUTS

`id` identifier of the PDF document to use

RESULTS

`t` table containing all document bookmarks (see above)

6.9 pdf.GetBoundedText

NAME
pdf.GetBoundedText – get text within bounding rectangle (V1.1)

SYNOPSIS
```
t$ = pdf.GetBoundedText(id, page, left, top, right, bottom)
```

FUNCTION
This function can be used to extract the text that is within the bounding rectangle specified by `left`, `top`, `right`, and `bottom` from a page. If there is no text within the specified bounding rectangle, an empty string is returned.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

`left` left boundary

`top` top boundary

`right` right boundary

`bottom` bottom boundary

RESULTS

`t$` the text within the bounding rectangle

6.10 pdf.GetBrush

NAME

pdf.GetBrush – get PDF page as vector brush

SYNOPSIS

```
[id, t] = pdf.GetBrush(id, page, brid[, transparent, getlinks])
```

FUNCTION

This function can be used to convert a page from the PDF document specified by `id` to a vector brush using the identifier `brid`. If you pass `Nil` in `brid`, `pdf.GetBrush()` will automatically choose a vacant identifier and return it.

The page to convert must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document. The PDF document specified by `id` must have been opened using `pdf.OpenDocument()`.

The optional parameter `transparent` allows you to specify whether you'd like the page background to be transparent or white. If you pass `True` here, you'll get a vector brush in which the page background is completely transparent by using alpha channel transparency. Otherwise the page background will be white and your vector brush won't use any transparency.

Note that the vector brush will still depend on the PDF document so it is not allowed to call `pdf.CloseDocument()` on the document while you still need the brush.

Also note that you should only use this function for pages that haven't been loaded with `pdf.LoadPage()` before. If you want to convert a page that has been loaded using `pdf.LoadPage()` to a brush, use the `pdf.GetBrushFromPage()` function instead. See Section 6.11 [pdf.GetBrushFromPage], page 28, for details.

Starting with Polybios 1.1, there is an optional argument called `getlinks`. If this is set to `True`, `pdf.GetBrush()` will return a table containing all links in the page. The table is returned as the second return value if `getlinks` is set to `True`. For each entry, the table will have the following fields initialized:

`Action`: This field specifies what should happen if the respective link is clicked. This will be set to one of the following special constants:

`#PDFACTION_GOTO`:
: Skip to page in current document.

`#PDFACTION_REMOTEGOTO`:
: Skip to page in another document.

`#PDFACTION_URI`:
: Open an URI.

`#PDFACTION_LAUNCH`:
: Launch a program.

`#PDFACTION_UNSUPPORTED`:
: Unknown action.

`Target`: This will be set to the link's target. Depending on `Action`, this may be set to a page number, a URI, or the path to an external file.

`Left:` Left edge of the link's bounding rectangle.

`Top:` Top edge of the link's bounding rectangle.

`Right:` Right edge of the link's bounding rectangle.

`Bottom:` Bottom edge of the link's bounding rectangle.

INPUTS

`id` identifier of the PDF document to use

`page` page number to convert (starting from 1)

`brid` identifier for the vector brush or `Nil` for auto id selection

`transparent`
optional: `True` for a transparent page background, `False` for a white page background

`getlinks` optional: `True` if page links should be returned (see above) (defaults to `False`) (V1.1)

RESULTS

`id` optional: identifier of the brush; will only be returned when you pass `Nil` as argument 3 (see above)

`t` optional: table containing all page links (see above) (V1.1)

6.11 pdf.GetBrushFromPage

NAME

pdf.GetBrushFromPage – get PDF page as vector brush (V1.1)

SYNOPSIS

```
[id] = pdf.GetBrushFromPage(id, page, brid[, transparent])
```

FUNCTION

This function can be used to convert a page from the PDF document specified by `id` to a vector brush using the identifier `brid`. If you pass `Nil` in `brid`, `pdf.GetBrush()` will automatically choose a vacant identifier and return it.

The page to convert must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

The optional parameter `transparent` allows you to specify whether you'd like the page background to be transparent or white. If you pass `True` here, you'll get a vector brush in which the page background is completely transparent by using alpha channel transparency. Otherwise the page background will be white and your vector brush won't use any transparency.

Note that the vector brush will still depend on the PDF document so it is not allowed to call `pdf.CloseDocument()` on the document before freeing the brush. It also is not allowed to call `pdf.FreePage()` before freeing the brush.

If you want to convert a PDF page into a brush without being forced to load the page using `pdf.LoadPage()` first, use the `pdf.GetBrush()` function. See Section 6.10 [pdf.GetBrush], page 27, for details.

INPUTS

`id` identifier of the PDF document to use

`page` page number to convert (starting from 1)

`brid` identifier for the vector brush or `Nil` for auto id selection

`transparent`
optional: `True` for a transparent page background, `False` for a white page background

RESULTS

`id` optional: identifier of the brush; will only be returned when you pass `Nil` as argument 3 (see above)

6.12 pdf.GetCharBox

NAME

pdf.GetCharBox – get bounding rectangle of character (V1.1)

SYNOPSIS

```
left, top, right, bottom = pdf.GetCharBox(id, page, idx)
```

FUNCTION

This function can be used to get the bounding box of the character at index `idx` on the page specified by `page`. Note that character indices start at 0 whereas page indices start at 1.

The page specified in the `page` argument must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

`idx` index of character whose bounding rectangle to retrieve (starting from 0)

RESULTS

`left` left boundary

`top` top boundary

`right` right boundary

`bottom` bottom boundary

6.13 pdf.GetCharIndexAtPos

NAME

pdf.GetCharIndexAtPos – get character at page position (V1.1)

SYNOPSIS

```
idx = pdf.GetCharIndexAtPos(id, page, x, y[, xt, yt])
```

FUNCTION

This function can be used to get the index of a character at or nearby the position specified by `x` and `y` on the page. The optional `xt` and `yt` parameters can be used to specify a tolerance value (in point units) that should be used when getting the character.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

`pdf.GetCharIndexAtPos()` will return the zero-based index of the character at, or nearby the point specified by `x` and `y`. If there is no character at or nearby the point, the return value will be -1. If an error occurs, -3 will be returned.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)
`x`	x position to use
`y`	y position to use
`xt`	optional: x tolerance value (defaults to 0)
`yt`	optional: y tolerance value (defaults to 0)

RESULTS

`idx`	index of character at the specified point or -1 or -3 (see above)

6.14 pdf.GetCharOrigin

NAME

pdf.GetCharOrigin – get origin of character (V1.1)

SYNOPSIS

```
x, y = pdf.GetCharOrigin(id, page, idx)
```

FUNCTION

This function can be used to get the origin of the character at the index specified by `idx` (starting at 0).

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)
`idx`	character index to use (starting from 0)

RESULTS

`x`	x position of origin
`y`	y position of origin

6.15 pdf.GetCropBox

NAME

pdf.GetCropBox – get crop box from page dictionary (V1.2)

SYNOPSIS

```
left, top, right, bottom = pdf.GetCropBox(id, page)
```

FUNCTION

This function can be used to get the "CropBox" entry from the page dictionary. The page specified in the `page` argument must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)

RESULTS

`left`	left boundary
`top`	top boundary
`right`	right boundary
`bottom`	bottom boundary

6.16 pdf.GetFindResult

NAME

pdf.GetFindResult – get result of search operation (V1.1)

SYNOPSIS

```
idx, len = pdf.GetFindResult(id, page)
```

FUNCTION

This function can be used to get the result of a search operation after `pdf.FindNext()` or `pdf.FindPrev()` has returned `True`. In that case, `pdf.GetFindResult()` will return

the character index of the search string's occurrence on the page as well as its length. Character indices start from 0.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)

RESULTS

`idx`	start offset of next occurrence of search string on page
`len`	length of search string

6.17 pdf.GetLastError

NAME

pdf.GetLastError – get last error code (V1.1)

SYNOPSIS

```
error = pdf.GetLastError()
```

FUNCTION

If `pdf.OpenDocument()` fails, `pdf.GetLastError()` can be used to get additional information why the document couldn't be opened. This is especially useful to find out if the document couldn't be opened because it is password-protected.

`pdf.GetLastError()` will return one of the following error codes:

`#PDFERR_SUCCESS:`
No error occurred.

`#PDFERR_UNKNOWN:`
An unknown error occurred.

`#PDFERR_FILE:`
The file couldn't be found.

`#PDFERR_FORMAT:`
The file format couldn't be recognized.

`#PDFERR_PASSWORD:`
The PDF document is password-protected.

`#PDFERR_SECURITY:`
Security settings forbid opening of this document.

`#PDFERR_PAGE:`
The page table is corrupted.

Note that you have to call `pdf.GetLastError()` immediately after `pdf.OpenDocument()` to get the correct result code.

INPUTS

none

RESULTS

`error` last error code

6.18 pdf.GetMediaBox

NAME

pdf.GetMediaBox – get media box from page dictionary (V1.2)

SYNOPSIS

```
left, top, right, bottom = pdf.GetMediaBox(id, page)
```

FUNCTION

This function can be used to get the "MediaBox" entry from the page dictionary. The page specified in the `page` argument must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

RESULTS

`left` left boundary

`top` top boundary

`right` right boundary

`bottom` bottom boundary

6.19 pdf.GetMetaText

NAME

pdf.GetMetaText – get meta text from document (V1.1)

SYNOPSIS

```
t$ = pdf.GetMetaText(id, attr$)
```

FUNCTION

This function can be used to get meta text from the PDF document specified by `id`. This PDF document must have been opened using `pdf.OpenDocument()`. The `attr$` argument specifies which text to get. This must be a string and can be set to the following values:

`Title:` Document's title.

`Author:` Document's author.

`Subject:` Document's subject.

`Keywords:`
Keywords.

`Creator` Document's creator.

`Producer:`
Document's producer.

`CreationDate`
Document's creation date.

`ModDate:` Document's last modification date.

Note that meta texts aren't always set. If there is no meta text for the specified attribute, an empty string is returned.

INPUTS

`id` identifier of the PDF document to use

`attr$` string specifying the meta data to get (see above for possible values)

RESULTS

`t$` meta data retrieved from document

6.20 pdf.GetObjectType

NAME

pdf.GetObjectType – get PDF document object type

SYNOPSIS

```
type = pdf.GetObjectType()
```

FUNCTION

This function returns the object type used by PDF documents loaded using the `pdf.OpenDocument()` function. You can then use this object type with functions from Hollywood's object library such as `GetAttribute()`, `SetObjectData()`, `GetObjectData()`, etc.

In particular, Hollywood's `GetAttribute()` function may be used to query certain properties of PDF documents loaded using `pdf.OpenDocument()`. The following attributes are currently supported by `GetAttribute()` for PDF documents:

`#PDFATTRPAGES:`
Returns the number of pages in the document.

`#PDFATTRVERSION:`
Returns the PDF version this document uses. This will be an integer number, e.g. 14 for 1.4, 15 for 1.5, etc. (V1.1)

`#PDFATTRPERMISSIONS:`
Returns a 32-bit integer describing the document's permission flags. Please refer to the PDF Reference for detailed descriptions on permissions. (V1.1)

INPUTS
none

RESULTS

`type` internal PDF document type for use with Hollywood's object library

EXAMPLE

```
pdf.OpenDocument(1, "test.pdf")
PDF_DOCUMENT = pdf.GetObjectType()
numpages = GetAttribute(PDF_DOCUMENT, 1, #PDFATTRPAGES)
```

The code above opens `test.pdf` and queries the number of pages in the document via `GetAttribute()`.

6.21 pdf.GetPageLabel

NAME
pdf.GetPageLabel – get page label text (V1.1)

SYNOPSIS

```
l$ = pdf.GetPageLabel(id, page)
```

FUNCTION

This function can be used to get the label of the page specified by the `page` argument. This must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

Note that page labels aren't always set. If there is no label for the page, an empty string is returned.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

RESULTS

`l$` page's label

6.22 pdf.GetPageLen

NAME
pdf.GetPageLen – get number of characters on page (V1.1)

SYNOPSIS

```
len = pdf.GetPageLen(id, page)
```

FUNCTION

This function can be used to get the number of characters on the page specified by the `page` argument. This must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()`

with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

RESULTS

`len` number of characters on page

6.23 pdf.GetPageLinks

NAME

pdf.GetPageLinks – get all links on a PDF page (V1.1)

SYNOPSIS

```
t = pdf.GetPageLinks(id, page)
```

FUNCTION

This function can be used to get all links from a PDF page. The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and it must have been loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been opened using `pdf.OpenDocument()`.

On return, `pdf.GetPageLinks()` will generate a table containing all links in the page. For each entry, the table will have the following fields initialized:

`Action:` This field specifies what should happen if the respective link is clicked. This will be set to one of the following special constants:

`#PDFACTION_GOTO:`
Skip to page in current document.

`#PDFACTION_REMOTEGOTO:`
Skip to page in another document.

`#PDFACTION_URI:`
Open an URI.

`#PDFACTION_LAUNCH:`
Launch a program.

`#PDFACTION_UNSUPPORTED:`
Unknown action.

`Target:` This will be set to the link's target. Depending on `Action`, this may be set to a page number, a URI, or the path to an external file.

`Left:` Left edge of the link's bounding rectangle.

`Top:` Top edge of the link's bounding rectangle.

`Right:` Right edge of the link's bounding rectangle.

`Bottom:` Bottom edge of the link's bounding rectangle.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

RESULTS

`t` table containing all page links (see above)

6.24 pdf.GetRects

NAME

pdf.GetRects – get bounding rectangles of character range (V1.1)

SYNOPSIS

```
t = pdf.GetRects(id, page, idx, len)
```

FUNCTION

This function can be used to get a series of rectangles that encloses the text starting at the index specified by `idx`, spanning over `len` number of characters. Note that character indices start at 0. If you pass -1 in `len`, `pdf.GetRects()` will automatically extend the selection to all remaining characters.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

This function will return a table containing one subtable per bounding rectangle. Each of those subtables will have the following fields initialized:

`Left:` Left boundary.

`Top:` Top boundary.

`Right:` Right boundary.

`Bottom:` Bottom boundary.

INPUTS

`id` identifier of the PDF document to use

`page` page number to use (starting from 1)

`idx` character index to use (starting from 0)

`len` number of characters to use or -1 for all remaining characters

RESULTS

`t` table containing a series of bounding rectangles (see above)

6.25 pdf.GetText

NAME
pdf.GetText – get text on page (V1.1)

SYNOPSIS
```
t$ = pdf.GetText(id, page, idx, len)
```

FUNCTION
This function can be used to extract the text starting at the index specified by `idx` and spanning over `len` number of characters from a page. Note that character indices start at 0. If you pass -1 in `len`, `pdf.GetText()` will automatically extract all remaining characters after the specified index.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()` with the `text` argument set to `True`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)
`idx`	character index to use (starting from 0)
`len`	number of characters to use or -1 for all remaining characters

RESULTS

`t$`	text that has been extracted

6.26 pdf.GetVersion

NAME
pdf.GetVersion – get libHaru version

SYNOPSIS
```
ver$ = pdf.GetVersion()
```

FUNCTION
This function can be used to query the version of libHaru used by Polybios. It will return a version string.

INPUTS
none

RESULTS

`ver$`	libHaru version string

6.27 pdf.IsPDF

NAME
pdf.IsPDF – check if file is a valid PDF document (V1.1)

SYNOPSIS
```
ok = pdf.IsPDF(f$)
```

FUNCTION
This function checks if the file specified by `f$` is in the PDF format and returns `True` if it is, `False` otherwise.

INPUTS

`f$`	file to check

RESULTS

`ok`	`True` if the specified file is a PDF document

6.28 pdf.LoadPage

NAME
pdf.LoadPage – load page from PDF document (V1.1)

SYNOPSIS
```
pdf.LoadPage(id, page[, loadtext])
```

FUNCTION
This function can be used to load a page from the PDF document specified by `id`. The page to load must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document. The PDF document specified by `id` must have been opened using `pdf.OpenDocument()` before.

If the optional argument `loadtext` is set to `True`, `pdf.LoadPage()` will also load the page's text. This is necessary if you want to use functions that deal with text on a PDF page, e.g. `pdf.GetText()` or `pdf.FindStart()`.

When you're done with the page, you should call `pdf.FreePage()` to free its resources. This is also done automatically when calling `pdf.CloseDocument()`. See Section 6.7 [pdf:FreePage], page 25, for details.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to load (starting from 1)
`loadtext`	optional: `True` if the page's text should be loaded (defaults to `False`)

6.29 pdf.OpenDocument

NAME

pdf.OpenDocument – open PDF document

SYNOPSIS

```
[id] = pdf.OpenDocument(id, file$[, t])
```

FUNCTION

This function opens an existing PDF document which is specified by `file$` and assigns the identifier `id` to it. If you pass `Nil` in `id`, `pdf.OpenDocument()` will automatically choose a vacant identifier and return it.

The optional table argument allows you to configure further options:

`Password:`
: If the document is password-protected, you can specify the password needed to open this document here.

`Adapter:`
: This tag allows you to specify one or more file adapters that should be asked to open the specified file. This must be set to a string containing the name(s) of one or more adapter(s). Defaults to `default`. See your Hollywood manual for more information on file adapters.

If `pdf.OpenDocument()` fails, `pdf.GetLastError()` can be used to get additional information why the document couldn't be opened. This is especially useful to find out if the document couldn't be opened because it is password-protected. See Section 6.17 [pdf.GetLastError], page 32, for details.

INPUTS

`id` identifier for the PDF document or `Nil` for auto id selection

`file$` file to load

`table` optional: table specifying further options (see above)

RESULTS

`id` optional: identifier of the document; will only be returned when you pass `Nil` as argument 1 (see above)

6.30 pdf.PageToDevice

NAME

pdf.PageToDevice – convert page coordinates to screen coordinates (V1.2)

SYNOPSIS

```
x, y = pdf.PageToDevice(id, page, startx, starty, sizex, sizey, rotate,
           pagex, pagey)
```

FUNCTION

This function can be used to convert the page coordinates of the point specified by `pagex` and `pagey` to screen coordinates.

The `rotate` argument can be used to specify the page orientation. This can be set to the following special values:

`0:` Normal.

`1:` Rotated 90 degrees clockwise.

`2:` Rotated 180 degrees.

`3:` Rotated 90 degrees counter-clockwise.

The page to use must be specified in the `page` argument. It must be a number in the range of 1 to the total number of pages in the document and the page must have been previously loaded using `pdf.LoadPage()`. The PDF document specified by `id` must have been previously opened using `pdf.OpenDocument()`.

The page coordinate system has its origin at the left-bottom corner of the page, with the X-axis on the bottom going to the right, and the Y-axis on the left side going up. Note that this coordinate system can be altered when you zoom, scroll, or rotate a page, however, a point on the page should always have the same coordinate values in the page coordinate system.

The device coordinate system is device dependent. For screen devices, its origin is at the left-top corner of the window.

INPUTS

`id`	identifier of the PDF document to use
`page`	page number to use (starting from 1)
`startx`	left pixel position of the display area in device coordinates
`starty`	top pixel position of the display area in device coordinates
`sizex`	horizontal size (in pixels) for displaying the page
`sizey`	vertical size (in pixels) for displaying the page
`rotate`	page orientation (see above for possible values)
`pagex`	x value in page coordinates
`pagey`	y value in page coordinates

RESULTS

`x`	x value in device coordinates
`y`	y value in device coordinates

7 Annotation methods

7.1 annot:SetBorderStyle

NAME

annot:SetBorderStyle – set appearance of text annotation

SYNOPSIS

```
status = annot:SetBorderStyle(subtype, width, dashon, dashoff, dashphase)
```

FUNCTION

`annot:SetBorderStyle()` defines the appearance of a text annotation. `subtype` must be one of the following constants:

`#HPDF_BS_SOLID:`
: Solid rectangle

`#HPDF_BS_DASHED:`
: Dashed rectangle

`#HPDF_BS_BEVELED:`
: Embossed rectangle

`#HPDF_BS_INSET:`
: Engraved rectangle

`#HPDF_BS_UNDERLINED:`
: Single line under the bottom of the annotation

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`subtype` one of the constants listed above

`width` the width of an annotation's border

`dashon` the dash style

`dashoff` the dash style

`dashphase`
: the dash style

RESULTS

`status` status code

7.2 annot:SetCMYKColor

NAME

annot:SetCMYKColor – set CMYK color

SYNOPSIS

```
status = annot:SetCMYKColor(cmyk)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `cmyk` parameter must be a table with the following fields initialized:

`C` Cyan level of color.

`Y` Yellow level of color.

`M` Magenta level of color.

`K` Black level of color.

All values must be between 0 and 1.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`cmyk` CMYK color

RESULTS

`status` status code

7.3 annot:SetFreeTextAnnot2PointCalloutLine

NAME

annot:SetFreeTextAnnot2PointCalloutLine – set free text annotation two point callout line

SYNOPSIS

```
status = annot:SetFreeTextAnnot2PointCalloutLine(startpoint, endpoint)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The parameters `startpoint` and `endpoint` must be tables that describe a point each. Thus, each of those tables must contain the fields `x` and `y`.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`startpoint`
start point

`endpoint` end point

RESULTS

`status` status code

7.4 annot:SetFreeTextAnnot3PointCalloutLine

NAME

annot:SetFreeTextAnnot3PointCalloutLine – set free text annotation three point callout line

SYNOPSIS

```
status = annot:SetFreeTextAnnot3PointCalloutLine(startpoint, kneepoint,
             endpoint)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The parameters `startpoint`, `kneepoint`, and `endpoint` must be tables that describe a point each. Thus, each of those tables must contain the fields `x` and `y`.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`startpoint`
: start point

`kneepoint`
: knee point

`endpoint` end point

RESULTS

`status` status code

7.5 annot:SetFreeTextAnnotDefaultStyle

NAME

annot:SetFreeTextAnnotDefaultStyle – set free text annotation default style

SYNOPSIS

```
status = annot:SetFreeTextAnnotDefaultStyle(style)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`style` default style

RESULTS

`status` status code

7.6 annot:SetFreeTextAnnotLineEndingStyle

NAME

annot:SetFreeTextAnnotLineEndingStyle – set free text annotation line ending style

SYNOPSIS

```
status = annot:SetFreeTextAnnotLineEndingStyle(startstyle, endstyle)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The parameters `startstyle` and `endstyle` must be one of the following constants:

```
#HPDF_LINE_ANNOT_NONE
#HPDF_LINE_ANNOT_SQUARE
#HPDF_LINE_ANNOT_CIRCLE
#HPDF_LINE_ANNOT_DIAMOND
#HPDF_LINE_ANNOT_OPENARROW
#HPDF_LINE_ANNOT_CLOSEDARROW
#HPDF_LINE_ANNOT_BUTT
#HPDF_LINE_ANNOT_ROPENARROW
#HPDF_LINE_ANNOT_RCLOSEDARROW
#HPDF_LINE_ANNOT_SLASH
```

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`startstyle`
: start style

`endstyle`
: end style

RESULTS

`status`
: status code

7.7 annot:SetGrayColor

NAME

annot:SetGrayColor – set gray color

SYNOPSIS

```
status = annot:SetGrayColor(gray)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `gray` parameter must be between 0 and 1.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`gray`
: gray color

RESULTS

`status` status code

7.8 annot:SetLineAnnotCaption

NAME

annot:SetLineAnnotCaption – set line annotation caption

SYNOPSIS

```
status = annot:SetLineAnnotCaption(show, pos, horz, vert)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `pos` argument must be one of the following constants:

```
#HPDF_LINE_ANNOT_CAP_INLINE
#HPDF_LINE_ANNOT_CAP_TOP
```

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`show` boolean value that indicates whether to show the caption

`pos` caption position (see above for possible values)

`horz` horizontal offset

`vert` vertical offset

RESULTS

`status` status code

7.9 annot:SetLineAnnotLeader

NAME

annot:SetLineAnnotLeader – set line annotation leader

SYNOPSIS

```
status = annot:SetLineAnnotLeader(len, extlen, offsetlen)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`len` length

`extlen` extended length

`offsetlen`
: offset length

RESULTS

`status` status code

7.10 annot:SetLineAnnotPosition

NAME

annot:SetLineAnnotPosition – set line annotation position

SYNOPSIS

```
status = annot:SetLineAnnotPosition(startpoint, startstyle, endpoint,
             endstyle)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `startstyle` and `endstyle` parameters must be one of the following constants:

```
#HPDF_LINE_ANNOT_NONE
#HPDF_LINE_ANNOT_SQUARE
#HPDF_LINE_ANNOT_CIRCLE
#HPDF_LINE_ANNOT_DIAMOND
#HPDF_LINE_ANNOT_OPENARROW
#HPDF_LINE_ANNOT_CLOSEDARROW
#HPDF_LINE_ANNOT_BUTT
#HPDF_LINE_ANNOT_ROPENARROW
#HPDF_LINE_ANNOT_RCLOSEDARROW
#HPDF_LINE_ANNOT_SLASH
```

The parameters `startpoint` and `endpoint` must be tables that describe a point each. Thus, each of those tables must contain the fields `x` and `y`.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`startpoint`
: start point

`startstyle`
: start style (see above for possible values)

`endpoint` end point

`endstyle` end style (see above for possible values)

RESULTS

`status` status code

7.11 annot:SetLinkAnnotBorderStyle

NAME

annot:SetLinkAnnotBorderStyle – set annotation border style

SYNOPSIS

```
status = annot:SetLinkAnnotBorderStyle(width, dashon, dashoff)
```

FUNCTION

`annot:SetLinkAnnotBorderStyle()` defines the style of the annotation's border.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`width` the width of an annotation's border

`dashon` the dash style

`dashoff` the dash style

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_ANNOTATION` - An invalid annotation handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid width value was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

7.12 annot:SetLinkAnnotHighlightMode

NAME

annot:SetLinkAnnotHighlightMode – set highlight appearance

SYNOPSIS

```
status = annot:SetLinkAnnotHighlightMode(mode)
```

FUNCTION

`annot:SetLinkAnnotHighlightMode()` defines the appearance when a mouse clicks on a link annotation. `mode` can be one of the following constants:

`#HPDF_ANNOT_NO_HIGHTLIGHT`
: No highlighting.

`#HPDF_ANNOT_INVERT_BOX`
: Invert the contents of the area of annotation.

`#HPDF_ANNOT_INVERT_BORDER`
: Invert the annotation's border.

`#HPDF_ANNOT_DOWN_APPEARANCE`
: Dent the annotation.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`mode` one of the constants listed above

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_ANNOTATION` - An invalid annotation handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

7.13 annot:SetMarkupAnnotCloudEffect

NAME

annot:SetMarkupAnnotCloudEffect – set markup annotation cloud effect

SYNOPSIS

```
status = annot:SetMarkupAnnotCloudEffect(cloudintensity)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`cloudintensity`
cloud effect

RESULTS

`status` status code

7.14 annot:SetMarkupAnnotCreationDate

NAME

annot:SetMarkupAnnotCreationDate – set markup annotation creation date

SYNOPSIS

```
status = annot:SetMarkupAnnotCreationDate(value)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

`value` must be a table containing a datetime description. The table must contain the following fields:

`Day:` Between 1 and 31 (depends on the month).

`Month:` Between 1 and 12.

`Year:` The year.

`Hour:` Between 0 and 23.

`Minutes:` Between 0 and 59.

`Seconds:` Between 0 and 59.

`Ind:` Relationship of local time to Universal Time. This can be `" "`, `"+"`, `"-"`, or `"Z"`.

`Off_Hour:`
If `ind` is not space, 0 to 23 is valid. Otherwise, ignored.

`Off_Minutes:`
If `ind` is not space, 0 to 59 is valid. Otherwise, ignored.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`value` datetime description

RESULTS

`status` status code

7.15 annot:SetMarkupAnnotIntent

NAME

annot:SetMarkupAnnotIntent – set markup annotation intent

SYNOPSIS

```
status = annot:SetMarkupAnnotIntent(intent)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `intent` parameter must be one of the following constants:

```
#HPDF_ANNOT_INTENT_FREETEXTCALLOUT
#HPDF_ANNOT_INTENT_FREETEXTTYPEWRITER
#HPDF_ANNOT_INTENT_LINEARROW
#HPDF_ANNOT_INTENT_LINEDIMENSION
#HPDF_ANNOT_INTENT_POLYGONCLOUD
#HPDF_ANNOT_INTENT_POLYLINEDIMENSION
#HPDF_ANNOT_INTENT_POLYGONDIMENSION
```

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`intent` desired intent (see above for possible values)

RESULTS

`status` status code

7.16 annot:SetMarkupAnnotInteriorCMYKColor

NAME

annot:SetMarkupAnnotInteriorCMYKColor – set markup annotation interior CMYK color

SYNOPSIS

```
status = annot:SetMarkupAnnotInteriorCMYKColor(cmyk)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `cmyk` parameter must be a table with the following fields initialized:

`C`	Cyan level of color.
`Y`	Yellow level of color.
`M`	Magenta level of color.
`K`	Black level of color.

All fields must contain values between 0 and 1.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`cmyk`	CMYK color as a table

RESULTS

`status`	status code

7.17 annot:SetMarkupAnnotInteriorGrayColor

NAME

annot:SetMarkupAnnotInteriorGrayColor – set markup annotation interior gray color

SYNOPSIS

```
status = annot:SetMarkupAnnotInteriorGrayColor(gray)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`gray`	gray color

RESULTS

`status`	status code

7.18 annot:SetMarkupAnnotInteriorRGBColor

NAME

annot:SetMarkupAnnotInteriorRGBColor – set markup annotation interior RGB color

SYNOPSIS

```
status = annot:SetMarkupAnnotInteriorRGBColor(rgb)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `rgb` parameter must be a table containing the following fields:

`R` Red level of color.

`G` Green level of color.

`B` Blue level of color.

All fields must be values between 0 and 1.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`rgb` RGB color as a table

RESULTS

`status` status code

7.19 annot:SetMarkupAnnotInteriorTransparent

NAME

annot:SetMarkupAnnotInteriorTransparent – set markup annotation interior transparent

SYNOPSIS

```
status = annot:SetMarkupAnnotInteriorTransparent()
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

7.20 annot:SetMarkupAnnotPopup

NAME

annot:SetMarkupAnnotPopup – set markup annotation popup

SYNOPSIS

```
status = annot:SetMarkupAnnotPopup(popup)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`popup` annotation object to be used as popup

RESULTS

`status` status code

7.21 annot:SetMarkupAnnotQuadPoints

NAME

annot:SetMarkupAnnotQuadPoints – set markup annotation quad points

SYNOPSIS

```
status = annot:SetMarkupAnnotQuadPoints(lb, rb, rt, lt)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The parameters `lb`, `rb`, `rt`, and `lt` must be tables that describe a point each. Thus, each of those tables must contain the fields `x` and `y`.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`lb` left bottom point

`rb` right bottom point

`rt` right top point

`lt` left top point

RESULTS

`status` status code

7.22 annot:SetMarkupAnnotRectDiff

NAME

annot:SetMarkupAnnotRectDiff – set markup annotation rect diff

SYNOPSIS

```
status = annot:SetMarkupAnnotRectDiff(rect)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`rect` rect diff

RESULTS

`status` status code

7.23 annot:SetMarkupAnnotSubject

NAME

annot:SetMarkupAnnotSubject – set markup annotation subject

SYNOPSIS

```
status = annot:SetMarkupAnnotSubject(subj)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`subj` subject for markup annotation

RESULTS

`status` status code

7.24 annot:SetMarkupAnnotTitle

NAME

annot:SetMarkupAnnotTitle – set markup annotation title

SYNOPSIS

```
status = annot:SetMarkupAnnotTitle(name)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`name` title for markup annotation

RESULTS

`status` status code

7.25 annot:SetMarkupAnnotTransparency

NAME

annot:SetMarkupAnnotTransparency – set markup annotation transparency

SYNOPSIS

```
status = annot:SetMarkupAnnotTransparency(value)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`value` transparency setting

RESULTS

`status` status code

7.26 annot:SetNoColor

NAME

annot:SetNoColor – set no color

SYNOPSIS

```
status = annot:SetNoColor()
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

7.27 annot:SetPopupAnnotOpened

NAME

annot:SetPopupAnnotOpened – set visibility state of popup annotation

SYNOPSIS

```
status = annot:SetPopupAnnotOpened(open)
```

FUNCTION

`annot:SetPopupAnnotOpened()` defines whether the popup annotation is initially open.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`open` `True` means the annotation initially displayed open

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_ANNOTATION` - An invalid annotation handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

7.28 annot:SetRGBColor

NAME

annot:SetRGBColor – set RGB color

SYNOPSIS

```
status = annot:SetRGBColor(rgb)
```

FUNCTION

This method is currently undocumented in libHaru. Complain to the libHaru authors.

The `rgb` parameter must be a table with the following fields initialized:

`R` Red level of color.

`G` Green level of color.

`B` Blue level of color.

All values must be between 0 and 1.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`rgb` RGB color

RESULTS

`status` status code

7.29 annot:SetTextAnnotIcon

NAME

annot:SetTextAnnotIcon – set annotation icon

SYNOPSIS

```
status = annot:SetTextAnnotIcon(icon)
```

FUNCTION

`annot:SetTextAnnotIcon()` defines the style of the annotation's icon. `icon` can be one of the following constants:

```
#HPDF_ANNOT_ICON_COMMENT
#HPDF_ANNOT_ICON_KEY
#HPDF_ANNOT_ICON_NOTE
#HPDF_ANNOT_ICON_HELP
#HPDF_ANNOT_ICON_NEW_PARAGRAPH
#HPDF_ANNOT_ICON_PARAGRAPH
#HPDF_ANNOT_ICON_INSERT
```

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`icon` one of the constants listed above

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_ANNOTATION` - An invalid annotation handle was set.

`#HPDF_ANNOT_INVALID_ICON` - An invalid icon-style was specified.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

7.30 annot:SetTextAnnotOpened

NAME

annot:SetTextAnnotOpened – set visibility state of text annotation

SYNOPSIS

```
status = annot:SetTextAnnotOpened(open)
```

FUNCTION

`annot:SetTextAnnotOpened()` defines whether the text-annotation is initially open.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`open` `True` means the annotation initially displayed open

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_ANNOTATION` - An invalid annotation handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

8 Destination methods

8.1 dest:SetFit

NAME
dest:SetFit – fit page within window

SYNOPSIS
`status = dest:SetFit()`

FUNCTION
`dest:SetFit()` sets the appearance of the page to displaying entire page within the window.

INPUTS
none

RESULTS
`status` status code

ERRORS
`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

8.2 dest:SetFitB

NAME
dest:SetFitB – fit bounding box of page within window

SYNOPSIS
`status = dest:SetFitB()`

FUNCTION
`dest:SetFitB()` sets the appearance of the page to magnifying to fit the bounding box of the page within the window.

INPUTS
none

RESULTS
`status` status code

ERRORS
`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

8.3 dest:SetFitBH

NAME
dest:SetFitBH – fit bounding box width to window

SYNOPSIS

```
status = dest:SetFitBH(top)
```

FUNCTION

`dest:SetFitBH()` defines the appearance of a page to magnifying to fit the width of the bounding box of the page within the window and setting the top position of the page to the value of the `top` parameter.

INPUTS

`top`	the top coordinate of the page

RESULTS

`status`	status code

ERRORS

`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

8.4 dest:SetFitBV

NAME

dest:SetFitBV – fit bounding box height to window

SYNOPSIS

```
status = dest:SetFitBV(left)
```

FUNCTION

`dest:SetFitBV()` defines the appearance of a page to magnifying to fit the height of the bounding box of the page within the window and setting the left position of the page to the value of the `left` parameter.

INPUTS

`left`	the left coordinates of the page

RESULTS

`status`	status code

ERRORS

`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

8.5 dest:SetFitH

NAME

dest:SetFitH – fit page width to window

SYNOPSIS

```
status = dest:SetFitH(top)
```

FUNCTION

`dest:SetFitH()` defines the appearance of a page to magnifying to fit the width of the page within the window and setting the top position of the page to the value of the `top` parameter.

INPUTS

`top` the top coordinate of the page

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

8.6 dest:SetFitR

NAME

dest:SetFitR – fit page to rectangle

SYNOPSIS

```
status = dest:SetFitR(left, bottom, right, top)
```

FUNCTION

`dest:SetFitR()` defines the appearance of a page to magnifying the page to fit a rectangle specified by `left`, `bottom`, `right` and `top`.

INPUTS

`left` the left coordinates of the page

`bottom` the bottom coordinates of the page

`right` the right coordinates of the page

`top` the top coordinates of the page

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

8.7 dest:SetFitV

NAME
dest:SetFitV – fit page height to window

SYNOPSIS
```
status = dest:SetFitV(left)
```

FUNCTION
`dest:SetFitV()` defines the appearance of a page to magnifying to fit the height of the page within the window and setting the left position of the page to the value of the `left` parameter.

INPUTS

`left`	the left coordinate of the page

RESULTS

`status`	status code

ERRORS
`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

8.8 dest:SetXYZ

NAME
dest:SetXYZ – define page appearance

SYNOPSIS
```
status = dest:SetXYZ(left, top, zoom)
```

FUNCTION
`dest:SetXYZ()` defines the appearance of a page with three parameters which are `left`, `top` and `zoom`.

INPUTS

`left`	the left coordinates of the page
`top`	the top coordinates of the page
`zoom`	the page magnified factor; this value must be between 0.08(8%) to 32(3200%)

RESULTS

`status`	status code

ERRORS
`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.

`#HPDF_INVALID_PARAMETER` - An invalid value was set at either left, top or zoom parameter.

9 Document methods

9.1 doc:AddPage

NAME
doc:AddPage – add new page to document

SYNOPSIS
`page = doc:AddPage()`

FUNCTION
`doc:AddPage()` creates a new page and adds it after the last page of a document.

`doc:AddPage()` returns the handle of created page object on success. Otherwise, it returns an error code and the error handler is called.

INPUTS
none

RESULTS

`page` handle to a page

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.2 doc:AddPageLabel

NAME
doc:AddPageLabel – add page labeling range

SYNOPSIS
`status = doc:AddPageLabel(pagenum, style, firstpage[, prefix])`

FUNCTION
`doc:AddPageLabel()` adds a page labeling range for the document. The page label is shown in the thumbnails view.

`style` must be one of the following special constants:

`#HPDF_PAGE_NUM_STYLE_DECIMAL:`
Arabic numerals (1 2 3 4).

`#HPDF_PAGE_NUM_STYLE_UPPER_ROMAN:`
Uppercase roman numerals (I II III IV).

`#HPDF_PAGE_NUM_STYLE_LOWER_ROMAN:`
Lowercase roman numerals (i ii iii iv).

`#HPDF_PAGE_NUM_STYLE_UPPER_LETTERS:`
Uppercase letters (A B C D).

`#HPDF_PAGE_NUM_STYLE_LOWER_LETTERS:`
Lowercase letters (a b c d).

When `doc:AddPageLabel()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

`pagenum` the first page that applies this labeling range

`style` a valid numbering style (see above)

`firstpage`
the first page number to use

`prefix` optional: the prefix for the page label

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_PAGE_NUM_STYLE_OUT_OF_RANGE` - An invalid page numbering style is specified.

9.3 doc:AttachFile

NAME

doc:AttachFile – attach file to document

SYNOPSIS

```
file = doc:AttachFile(f$)
```

FUNCTION

`doc:AttachFile()` attaches the file specified by `f$` to the document and returns a handle to the embedded file or `Nil` on error.

INPUTS

`f$` path to a file that should be attached

RESULTS

`file` handle to the attached file

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.4 doc:CreateExtGState

NAME

doc:CreateExtGState – create extended graphics state object

SYNOPSIS

```
egs = doc:CreateExtGState()
```

FUNCTION

`doc:CreateExtGState()` creates a new extended graphics state object.

When `doc:CreateExtGState()` succeeds, it returns the handle of the created extended graphics state object. Otherwise, it returns `Nil` and the error handler is invoked.

INPUTS

none

RESULTS

`egs`	handle to an extended graphics state object

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.5 doc:CreateImageFromBrush

NAME

doc:CreateImageFromBrush – create new image from Hollywood brush

SYNOPSIS

```
img = doc:CreateImageFromBrush(id[, table])
```

FUNCTION

`doc:CreateImageFromBrush()` creates an image from the Hollywood brush specified by `id`. The image will always use the RGB color space, i.e. `#HPDF_CS_DEVICE_RGB`.

The optional argument `table` can be used to configure further options:

`UseJPEG:` If this parameter is set to `True`, the image will be compressed using the JPEG file format. You can use the `Quality` field to set the compression level. If `UseJPEG` is set to `False`, the image won't be compressed, but you can use `doc:SetCompressionMode()` to activate compression for image data, although this won't be as good as JPEG. Defaults to `False`.

`Quality:` Here you can specify a value between 0 and 100 indicating the compression quality for the JPEG format. A value of 100 means best quality, 0 means worst quality. Defaults to 90 which means pretty good quality.

When `doc:CreateImageFromBrush()` succeeds, it returns the handle of an image object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`id`	identifier of brush to convert into image

`table` optional: further parameters in a table (see above)

RESULTS

`img` handle to an image

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_COLOR_SPACE` - An invalid color_space value is specified.

`#HPDF_INVALID_IMAGE` - The size of an image data is invalid.

9.6 doc:CreateImageFromMem

NAME

doc:CreateImageFromMem – create new image from memory data

SYNOPSIS

```
img = doc:CreateImageFromMem(data, width, height, colorspace, bpc)
```

FUNCTION

`doc:CreateImageFromMem()` creates an image from raw pixel data in memory. The `data` argument must be a memory pointer obtained via Hollywood's `GetMemPointer()` function. This function loads the data without any conversion so it is usually faster than the other functions. `bpc` specifies the bit size of each color component and can be either 1, 2, 4, or 8.

The `colorspace` argument must be one of `#HPDF_CS_DEVICE_GRAY`, `#HPDF_CS_DEVICE_RGB`, or `#HPDF_CS_DEVICE_CMYK`. See Section 9.24 [doc:LoadRawImage], page 78, for details.

When `doc:CreateImageFromMem()` succeeds, it returns the handle of an image object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`data` the pointer to the image data

`width` the width of an image file

`height` the height of an image file

`colorspace`
`#HPDF_CS_DEVICE_GRAY` or `#HPDF_CS_DEVICE_RGB` or `#HPDF_CS_DEVICE_CMYK` is allowed

`bpc` the bit size of each color component; valid values are either 1, 2, 4, 8

RESULTS

`img` handle to an image

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_COLOR_SPACE` - An invalid color_space value is specified.

`#HPDF_INVALID_IMAGE` - The size of an image data is invalid.

9.7 doc:CreateOutline

NAME

doc:CreateOutline – create outline object

SYNOPSIS

```
otl = doc:CreateOutline(parent, title, encoder)
```

FUNCTION

`doc:CreateOutline()` creates a new outline object.

When `doc:CreateOutline()` succeeds, it returns the handle of created outline object. Otherwise, it returns `Nil` and the error handler is invoked.

INPUTS

`parent`	the handle of an outline object which comes to the parent of the created outline object; if `Nil`, the outline is created as a root outline
`title`	the caption of the outline object
`encoder`	the handle of an encoding object applied to the title; if `Nil`, the document's encoding is used

RESULTS

`otl`	handle to an outline

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_OUTLINE` - An invalid parent outline is specified.

9.8 doc:Free

NAME

doc:Free – free document object

SYNOPSIS

```
doc:Free()
```

FUNCTION

`doc:Free()` frees a document object and all resources.

Note that after calling `doc:Free()` you must no longer use any handles belonging to this document, e.g. page handles, font handles, and of course the document handle itself.

INPUTS

none

9.9 doc:GetCurrentEncoder

NAME

doc:GetCurrentEncoder – get current encoder of document

SYNOPSIS

```
enc = doc:GetCurrentEncoder()
```

FUNCTION

`doc:GetCurrentEncoder()` gets the handle of the current encoder of the document object. The current encoder is set by invoking `doc:SetCurrentEncoder()` and it is used to process text when an application calls `doc:SetInfoAttr()`. The default value of it is `Nil`.

It returns a handle of an encoder object or `Nil`.

INPUTS

none

RESULTS

`enc`	handle to an encoder

9.10 doc:GetCurrentPage

NAME

doc:GetCurrentPage – return current page object

SYNOPSIS

```
page = doc:GetCurrentPage()
```

FUNCTION

`doc:GetCurrentPage()` returns the handle of current page object.

When `doc:GetCurrentPage()` succeeds, it returns the handle of a current page object. Otherwise it returns `Nil`.

INPUTS

none

RESULTS

`page`	handle to a page

9.11 doc:GetEncoder

NAME

doc:GetEncoder – get encoder object from name

SYNOPSIS

```
enc = doc:GetEncoder(encodingname)
```

FUNCTION

`doc:GetEncoder()` gets the handle of an encoder object by specified encoding name.

See Section 4.11 [Encodings], page 14, for a list of valid encoding names.

When `doc:GetEncoder()` succeeds, it returns the handle of an encoder object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`encodingname`
: a valid encoding name (see above)

RESULTS

`enc` handle to an encoder

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODING_NAME` - An invalid encoding name was set.

9.12 doc:GetError

NAME

doc:GetError – get last error code

SYNOPSIS

```
status = doc:GetError()
```

FUNCTION

`doc:GetError()` returns the last error code of specified document object.

Note that some functions also set a detailed error code. `doc:GetErrorDetail()` can be used to get this detailed error code.

Returns the last error code of document object, or `#HPDF_OK` if no last error.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

9.13 doc:GetErrorDetail

NAME

doc:GetErrorDetail – get detailed error code

SYNOPSIS

```
status = doc:GetErrorDetail()
```

FUNCTION

When an error occurs, some functions set a detailed error code. `doc:GetErrorDetail()` returns this detailed error code.

INPUTS
none

RESULTS
`status` status code

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

9.14 doc:GetFont

NAME
doc:GetFont – get handle of font object

SYNOPSIS
```
font = doc:GetFont(fontname[, encodingname])
```

FUNCTION
`doc:GetFont()` gets the handle of a requested font object.

See Section 4.6 [Fonts], page 12, for a list of valid font names.

See Section 4.11 [Encodings], page 14, for a list of valid encoding names.

When `doc:GetFont()` succeeds, it returns the handle of a font object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS
`fontname` a valid font name

`encodingname`
optional: a valid encoding name (defaults to current encoding)

RESULTS
`font` handle to a font

ERRORS
`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_INVALID_FONT_NAME` - An invalid font name was set.

`#HPDF_INVALID_ENCODING_NAME` - An invalid encoding name was set.

`#HPDF_UNSUPPORTED_FONT_TYPE` - An unsupported font type was set.

9.15 doc:GetInfoAttr

NAME
doc:GetInfoAttr – get text from info dictionary

SYNOPSIS
```
str = doc:GetInfoAttr(type)
```

FUNCTION

`doc:GetInfoAttr()` gets an attribute value from info dictionary.

When `doc:GetInfoAttr()` succeeds, it returns the string value of the info dictionary element specified by `type`. If the information has not been set or an error has occurred, it returns `Nil`.

See Section 9.32 [doc:SetInfoAttr], page 83, for possible types that can be passed to this method.

INPUTS

`type`	info dictionary element to query

RESULTS

`str`	text of info dictionary element

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_PARAMETER` - An invalid type parameter was set.

9.16 doc:GetPageByIndex

NAME

doc:GetPageByIndex – get page handle from index

SYNOPSIS

```
page = doc:GetPageByIndex(idx)
```

FUNCTION

`doc:GetPageByIndex()` returns the page that is at the specified index.

INPUTS

`idx`	page index

RESULTS

`page`	handle to a page

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_INVALID_PAGE_INDEX` - The page index is invalid.

9.17 doc:GetPageLayout

NAME

doc:GetPageLayout – get current page layout setting

SYNOPSIS

```
layout = doc:GetPageLayout()
```

FUNCTION

`doc:GetPageLayout()` returns the current setting for page layout.

When `doc:GetPageLayout()` succeeds, it returns the current setting for page layout. If page layout is not set, it returns `#HPDF_PAGE_LAYOUT_EOF`.

See Section 9.35 [doc:SetPageLayout], page 85, for possible page layouts.

INPUTS

none

RESULTS

`layout`	page layout constant

9.18 doc:GetPageMode

NAME

doc:GetPageMode – get document display mode

SYNOPSIS

```
mode = doc:GetPageMode()
```

FUNCTION

`doc:GetPageMode()` returns the current setting for page mode.

See Section 9.36 [doc:SetPageMode], page 86, for possible page modes.

When `doc:GetPageMode()` succeeds, it returns the current setting for page mode.

INPUTS

none

RESULTS

`mode`	current document page mode

9.19 doc:GetViewerPreference

NAME

doc:GetViewerPreference – get viewer preferences

SYNOPSIS

```
flags = doc:GetViewerPreference()
```

FUNCTION

`doc:GetViewerPreference()` gets the viewer preferences for the document.

See Section 9.40 [doc:SetViewerPreference], page 89, for a list of supported preferences.

INPUTS

none

RESULTS

`flags`	viewer preferences for this document

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

9.20 doc:InsertPage

NAME

doc:InsertPage – insert new page into document

SYNOPSIS

```
page = doc:InsertPage(target)
```

FUNCTION

`doc:InsertPage()` creates a new page and inserts it just before the specified page.

`doc:InsertPage()` returns the handle of the newly created page object on success. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`page` the handle of a page object that should be the successor of the new page

RESULTS

`page` handle to a page

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

9.21 doc:LoadFont

NAME

doc:LoadFont – load font using Hollywood

SYNOPSIS

```
font = doc:LoadFont(name[, weight, slant, embed])
```

FUNCTION

`doc:LoadFont()` loads a font using Hollywood and registers it in the document object. If the optional `embed` argument is set to `True`, the glyph data of the font is embedded, otherwise only the matrix data is included in the PDF file.

Note that only TrueType fonts can be used with this method. You cannot use bitmap fonts in PDF documents.

The optional arguments `weight` and `slant` can be used to specify a font weight and slant. The following can be passed in the `weight` parameter:

```
#FONTWEIGHT_THIN
#FONTWEIGHT_EXTRALIGHT
#FONTWEIGHT_ULTRALIGHT
#FONTWEIGHT_LIGHT
```

```
#FONTWEIGHT_BOOK
#FONTWEIGHT_NORMAL (default)
#FONTWEIGHT_REGULAR
#FONTWEIGHT_MEDIUM
#FONTWEIGHT_SEMIBOLD
#FONTWEIGHT_DEMIBOLD
#FONTWEIGHT_BOLD
#FONTWEIGHT_EXTRABOLD
#FONTWEIGHT_ULTRABOLD
#FONTWEIGHT_HEAVY
#FONTWEIGHT_BLACK
#FONTWEIGHT_EXTRABLACK
#FONTWEIGHT_ULTRABLACK
```

The following constants can be passed in the `slant` parameter:

```
#FONTSLANT_ROMAN (default)
#FONTSLANT_ITALIC
#FONTSLANT_OBLIQUE
```

When `doc:LoadTTFont()` succeeds, it returns the name of a font. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`name`	name of a font to load through Hollywood
`weight`	optional: desired font weight (defaults to `#FONTWEIGHT_NORMAL`)
`slant`	optional: desired font slant (defaults to `#FONTSLANT_ROMAN`)
`embed`	optional: if this parameter is set to `True`, the glyph data of the font is embedded, otherwise only the matrix data is included in PDF file

RESULTS

`font`	name of the font as a string

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_FONT_EXISTS` - The font of the same name has already been registered.

`#HPDF_TTF_INVALID_CMAP` - Failed to load .ttf file.

`#HPDF_TTF_INVALID_FORMAT` - Failed to load .ttf file.

`#HPDF_TTF_MISSING_TABLE` - Failed to load .ttf file.

`#HPDF_TTF_CANNOT_EMBEDDING_FONT` - The font doesn't allow embedding.

9.22 doc:LoadJPEGImage

NAME

doc:LoadJPEGImage – load external JPEG image

SYNOPSIS

```
img = doc:LoadJPEGImage(filename)
```

FUNCTION

`doc:LoadJPEGImage()` loads an external JPEG image file.

When `doc:LoadJPEGImage()` succeeds, it returns the handle of an image object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`filename` path to a JPEG image file

RESULTS

`img` handle to an image

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_UNSUPPORTED_JPEG_FORMAT` - Unsupported JPEG image format.

9.23 doc:LoadPNGImage

NAME

doc:LoadPNGImage – load external PNG image

SYNOPSIS

```
img = doc:LoadPNGImage(filename[, cache])
```

FUNCTION

`doc:LoadPNGImage()` loads an external PNG image file. The optional `cache` argument allows you to set whether this method should cache the whole PNG image in memory or not. If you need to embed a PNG image several times, it is faster to set this argument to `True`.

Note that when embedding PNG images in a PDF, they are not embedded in PNG format but as raw, uncompressed pixels (although you can activate compression for the pixel data by calling `doc:SetCompressionMode()`). The only image format which can be embedded directly inside PDF documents is JPEG. Use `doc:LoadJPEGImage()` to load a JPEG image for embedding in a PDF.

When `doc:LoadPNGImage()` succeeds, it returns the handle of an image object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`filename` path to a PNG image file

`cache` optional: whether caching should be enabled (defaults to `False`)

RESULTS

`img` handle to an image

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_UNSUPPORTED_FUNC` - The library is not configured to use PNGLIB.

`#HPDF_LIBPNG_ERROR` - Failed when invoking PNGLIB's function.

`#HPDF_INVALID_PNG_IMAGE` - Invalid PNG format.

9.24 doc:LoadRawImage

NAME

doc:LoadRawImage – load raw image from file

SYNOPSIS

```
img = doc:LoadRawImage(filename, width, height, colorspace)
```

FUNCTION

`doc:LoadRawImage()` loads an image from raw pixel data stored in an externa file. This function loads the data without any conversion. So it is usually faster than the other functions. Pixels are stored line by line from top to bottom in the color format specified by the `colorspace` parameter which must be set to one of the following constants:

`#HPDF_CS_DEVICE_GRAY:`
: 8 bit gray scale image. The gray scale color space describes each pixel with one byte. For each byte, 0 is maximum dark, and 255 is maximum light. The size of the image data is `width * height` bytes.

`#HPDF_CS_DEVICE_RGB:`
: 24 bit RGB color image. The 24 bit RGB color space describes each pixel with three bytes (red, green, blue). For each byte, 0 is maximum dark, 255 maximum light. The size of the image data is `width * height * 3` bytes.

`#HPDF_CS_DEVICE_CMYK`
: 32 bit CMYK color image. The 32 bit CMYK color space describes each pixel with four bytes (cyan, magenta, yellow, black). The size of the image data is `width * height * 4` bytes. For each byte, 0 is maximum dark, 255 maximum light.

When `doc:LoadRawImage()` succeeds, it returns the handle of an image object. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`filename` a path to an image file

`width` the width of the raw pixel data

`height` the height of the raw pixel data

`colorspace`
: `#HPDF_CS_DEVICE_GRAY`, `#HPDF_CS_DEVICE_RGB` or `#HPDF_CS_DEVICE_CMYK` (see above)

RESULTS

`img` handle to an image

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_COLOR_SPACE` - An invalid color_space value is specified.

`#HPDF_INVALID_IMAGE` - The size of an image data is invalid.

`#HPDF_FILE_IO_ERROR` - Cannot read data from the file.

9.25 doc:LoadTTFont

NAME

doc:LoadTTFont – load TrueType font from file

SYNOPSIS

```
font = doc:LoadTTFont(filename, embedding[, index])
```

FUNCTION

`doc:LoadTTFont()` loads a TrueType font from an external file and registers it in the document object. If the optional `index` argument is set to a positive value, this function will load the TrueType font at the specified index from a TrueType collection file instead.

When `doc:LoadTTFont()` succeeds, it returns the name of a font. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`filename` path to a TrueType font (.ttf) or TrueType font collection (.ttc) file

`embedding`
if this parameter is set to `True`, the glyph data of the font is embedded, otherwise only the matrix data is included in PDF file

`index` optional: index of font to be loaded from TrueType font collection (defaults to -1)

RESULTS

`font` name of the font as a string

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_FONT_EXISTS` - The font of the same name has already been registered.

`#HPDF_INVALID_TTC_INDEX` - The value specified at index parameter exceeds the number of fonts.

`#HPDF_INVALID_TTC_FILE` - Failed to load .ttc file.

`#HPDF_TTF_INVALID_CMAP` - Failed to load .ttf file.

`#HPDF_TTF_INVALID_FORMAT` - Failed to load .ttf file.

`#HPDF_TTF_MISSING_TABLE` - Failed to load .ttf file.

`#HPDF_TTF_CANNOT_EMBEDDING_FONT` - The font doesn't allow embedding.

9.26 doc:LoadType1Font

NAME

doc:LoadType1Font – load a Type1 font

SYNOPSIS

```
font = doc:LoadType1Font(afmfilename, pfmfilename)
```

FUNCTION

`doc:LoadType1Font()` loads a Type1 font from an external file and registers it in the document object.

When `doc:LoadType1Font()` succeeds, it returns the name of a font. Otherwise, it returns `Nil` and the error handler is called.

INPUTS

`afmfilename`
: path to an AFM file

`pfmfilename`
: path to a PFA/PFB file

RESULTS

`font` name of the font as a string

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_FONT_EXISTS` - The font of the same name has already been registered.

`#HPDF_INVALID_AFM_HEADER` - Cannot recognize AFM file.

`#HPDF_INVALID_CHAR_MATRICS_DATA` - Cannot recognize AFM file.

`#HPDF_INVALID_N_DATA` - Cannot recognize AFM file.

`#HPDF_UNSUPPORTED_TYPE1_FONT` - Cannot recognize PFA/PFB file.

9.27 doc:ResetError

NAME

doc:ResetError – reset last error code

SYNOPSIS

```
doc:ResetError()
```

FUNCTION

Once an error code is set, IO processing functions cannot be invoked. In the case of executing a function after the cause of the error is fixed, an application have to invoke `doc:ResetError()` to clear error-code before executing functions.

INPUTS
none

9.28 doc:SaveToFile

NAME
doc:SaveToFile – save document to a file

SYNOPSIS
`status = doc:SaveToFile(filename)`

FUNCTION
`doc:SaveToFile()` saves the current document to a file.

Returns `#HPDF_OK` on success, otherwise it returns an error code and the error handler is called.

INPUTS

`filename` The name of file to save.

RESULTS

`status` status code

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_FILE_IO_ERROR` - An error occurred while processing file I/O.

9.29 doc:SetCompressionMode

NAME
doc:SetCompressionMode – set document compression mode

SYNOPSIS
`status = doc:SetCompressionMode(mode)`

FUNCTION
`doc:SetCompressionMode()` sets the mode of compression. `mode` can be a combination of the following flags:

`#HPDF_COMP_NONE:`
No compression. This cannot be combined with any other flags.

`#HPDF_COMP_TEXT:`
Compress the contents stream of the page.

`#HPDF_COMP_IMAGE:`
Compress the streams of the image objects.

`#HPDF_COMP_METADATA:`
Other stream datas (fonts, cmaps and so on) are compressed.

`#HPDF_COMP_ALL:`
All stream data is compressed. This is the same as setting `#HPDF_COMP_TEXT`, `#HPDF_COMP_IMAGE`, and `#HPDF_COMP_METADATA` together.

When `doc:SetCompressionMode()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`mode` a combination of the flags listed above

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_INVALID_COMPRESSION_MODE` - An invalid compression mode was specified.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.30 doc:SetCurrentEncoder

NAME

doc:SetCurrentEncoder – set current encoder for document

SYNOPSIS

```
status = doc:SetCurrentEncoder(encodingname)
```

FUNCTION

`doc:SetCurrentEncoder()` sets the current encoder for the document.

See Section 4.11 [Encodings], page 14, for a list of valid encoding names.

When `doc:SetCurrentEncoder()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

`encodingname`
the name of an encoding (see above)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODING_NAME` - An invalid encoding name was set.

9.31 doc:SetEncryptionMode

NAME

doc:SetEncryptionMode – set document encryption mode

SYNOPSIS

```
status = doc:SetEncryptionMode(mode[, keylen])
```

FUNCTION

`doc:SetEncryptionMode()` set the encryption mode. As a side effect, it ups the version of PDF to 1.4 when the mode is set to `#HPDF_ENCRYPT_R3`.

The following encryption modes are currently supported:

`#HPDF_ENCRYPT_R2:`
: Use "Revision 2" algorithm. `keylen` is automatically set to 5 (40 bits).

`#HPDF_ENCRYPT_R3:`
: Use "Revision 3" algorithm. `keylen` can be 5 (40 bits) to 16 (128bits).

When `doc:SetEncryptionMode()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`mode`	one of the encryption modes listed above
`keylen`	specify the byte length of encryption key; only needed for `#HPDF_ENCRYPT_R3` (defaults to 5, i.e. 40 bits)

RESULTS

`status`	status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_INVALID_ENCRYPT_KEY_LEN` - An invalid key length was specified.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.32 doc:SetInfoAttr

NAME

doc:SetInfoAttr – set text of info dictionary attribute

SYNOPSIS

```
status = doc:SetInfoAttr(type, value)
```

FUNCTION

`doc:SetInfoAttr()` sets the text of an info dictionary attribute, using the current encoding of the document. The `type` parameter can be one of the following constants:

`#HPDF_INFO_AUTHOR:`
: Document's author

`#HPDF_INFO_CREATOR:`
: Document's creator

`#HPDF_INFO_TITLE:`
: Document's title

`#HPDF_INFO_SUBJECT:`
: Document's subject

`#HPDF_INFO_KEYWORDS:`
: Keywords describing the document

When `doc:SetInfoAttr()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`type` one of the constants listed above

`value` text to use for setting the attribute

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_PARAMETER` - An invalid type parameter was set.

9.33 doc:SetInfoDateAttr

NAME

doc:SetInfoDateAttr – set a datetime attribute in info dictionary

SYNOPSIS

```
status = doc:SetInfoDateAttr(type, value)
```

FUNCTION

`doc:SetInfoDateAttr()` sets a datetime attribute in the info dictionary. `type` must be one of the following constants:

`#HPDF_INFO_CREATION_DATE:`
: Document's creation date

`#HPDF_INFO_MOD_DATE:`
: Document's last modification date

`value` must be a table containing a datetime description. The table must contain the following fields:

`Day:` Between 1 and 31 (depends on the month).

`Month:` Between 1 and 12.

`Year:` The year.

`Hour:` Between 0 and 23.

`Minutes:` Between 0 and 59.

`Seconds:` Between 0 and 59.

`Ind:` Relationship of local time to Universal Time. This can be `" "`, `"+"`, `"-"`, or `"Z"`.

`Off_Hour:`
If `ind` is not space, 0 to 23 is valid. Otherwise, ignored.

`Off_Minutes:`
If `ind` is not space, 0 to 59 is valid. Otherwise, ignored.

INPUTS

`type` one of the constants listed above

`value` table containing a datetime description

RESULTS

`status` status code

9.34 doc:SetOpenAction

NAME
doc:SetOpenAction – set document's initial page

SYNOPSIS
```
status = doc:SetOpenAction(dst)
```

FUNCTION
`doc:SetOpenAction()` set the first page to appear when a document is opened. `dst` must be a valid destination object created by `page:CreateDestination()`.

When `doc:SetOpenAction()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`dst` valid destination object

RESULTS

`status` status code

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_DESTINATION` - An invalid destination object was set.

9.35 doc:SetPageLayout

NAME
doc:SetPageLayout – set how pages should be displayed

SYNOPSIS

```
status = doc:SetPageLayout(layout)
```

FUNCTION

`doc:SetPageLayout()` sets how the pages should be displayed. If this attribute is not set, the setting of the viewer application is used.

`layout` can be one of the following constants:

`#HPDF_PAGE_LAYOUT_SINGLE:`
: Only one page is displayed.

`#HPDF_PAGE_LAYOUT_ONE_COLUMN:`
: Display the pages in one column.

`#HPDF_PAGE_LAYOUT_TWO_COLUMN_LEFT:`
: Display in two columns. Odd page number is displayed left.

`#HPDF_PAGE_LAYOUT_TWO_COLUMN_RIGHT:`
: Display in two columns. Odd page number is displayed right.

When `doc:SetPageLayout()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`layout` one of the page layout constants (see above)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_PAGE_LAYOUT_OUT_OF_RANGE` - An invalid page layout is specified.

9.36 doc:SetPageMode

NAME

doc:SetPageMode – set how document should be displayed

SYNOPSIS

```
status = doc:SetPageMode(mode)
```

FUNCTION

`doc:SetPageMode()` sets how the document should be displayed.

`mode` can be one of the following constants:

`#HPDF_PAGE_MODE_USE_NONE:`
: Display the document with neither outline nor thumbnail.

`#HPDF_PAGE_MODE_USE_OUTLINE:`
: Display the document with outline pane.

`#HPDF_PAGE_MODE_USE_THUMBS`:
Display the document with thumbnail pane.

`#HPDF_PAGE_MODE_FULL_SCREEN`:
Display the document with full screen mode.

When `doc:SetPageMode()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`mode` a valid page mode (see above for possible options)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_PAGE_MODE_OUT_OF_RANGE` - An invalid page mode is specified.

9.37 doc:SetPagesConfiguration

NAME

doc:SetPagesConfiguration – set maximum number of pages

SYNOPSIS

```
status = doc:SetPagesConfiguration(page_per_pages)
```

FUNCTION

In the default setting, a document object has one "Pages" object as root of pages. All "Page" objects are created as children of the "Pages" object. Since a "Pages" object can own only 8191 children objects, the maximum number of pages are 8191 pages. Additionally, the state that there are a lot of "Page" object under one "Pages" object is not good, because it causes performance degradation of a viewer application.

An application can change the setting of a pages tree by invoking `doc:SetPagesConfiguration()`. If `page_per_pages` parameter is set to more than zero, a two-tier pages tree is created. A root "Pages" object can own 8191 "Pages" object, and each lower "Pages" object can own `page_per_pages` "Page" objects. As a result, the maximum number of pages becomes `8191 * page_per_pages` page. An application cannot invoke `doc:SetPagesConfiguration()` after a page is added to document.

When `doc:SetPagesConfiguration()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`page_per_pages`
specify the numbers of pages that a "Pages" object can own.

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle is set.

`#HPDF_INVALID_DOCUMENT_STATE` - A page object already exists in a document.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.38 doc:SetPassword

NAME

doc:SetPassword – set document password

SYNOPSIS

```
status = doc:SetPassword(ownerpwd[, userpwd])
```

FUNCTION

`doc:SetPassword()` sets a password for the document. If the password is set, document contents are encrypted. The owner can change the permission of the document. Note that the owner password must not be the same as the user password. The user password is optional.

When `doc:SetPassword()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`ownerpwd` the password for the owner of the document

`userpwd` optional: the password for the user of the document.

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_PASSWORD` - Owner password is `Nil`, zero length string, or same value as user password.

9.39 doc:SetPermission

NAME

doc:SetPermission – set document permissions

SYNOPSIS

```
status = doc:SetPermission(permission)
```

FUNCTION

`doc:SetPermission()` sets the permission flags for the document. `permission` must be combination of the following flags:

`#HPDF_ENABLE_READ:`
: User can read the document.

`#HPDF_ENABLE_PRINT:`
User can print the document.

`#HPDF_ENABLE_EDIT_ALL:`
User can edit the contents of the document other than annotations, form fields.

`#HPDF_ENABLE_COPY:`
User can copy the text and the graphics of the document.

`#HPDF_ENABLE_EDIT:`
User can add or modify the annotations and form fields of the document.

When `doc:SetPermission()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is called.

INPUTS

`permission`
one or more permission flags (see above)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

9.40 doc:SetViewerPreference

NAME

doc:SetViewerPreference – set viewer preferences

SYNOPSIS

```
status = doc:SetViewerPreference(flags)
```

FUNCTION

`doc:SetViewerPreference()` sets the viewer preferences for the document.

`flags` can be a combination of the following options:

`#HPDF_HIDE_TOOLBAR:`
Hide viewer's toolbar.

`#HPDF_HIDE_MENUBAR:`
Hide viewer's menu bar.

`#HPDF_HIDE_WINDOW_UI`
Hide viewer's user interface.

`#HPDF_FIT_WINDOW:`
Fit document in viewer window.

`#HPDF_CENTER_WINDOW:`
Center document in viewer window.

`#HPDF_PRINT_SCALING_NONE:`
Disable scaling when printing.

INPUTS

`flags` one or more viewer flags (see above)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

9.41 doc:UseCNSEncodings

NAME

doc:UseCNSEncodings – enable simplified Chinese encodings

SYNOPSIS

```
status = doc:UseCNSEncodings()
```

FUNCTION

`doc:UseCNSEncodings()` enables simplified Chinese encodings. After `doc:UseCNSEncodings()` is invoked, an application can use the following simplified Chinese encodings:

- GB-EUC-H
- GB-EUC-V
- GBK-EUC-H
- GBK-EUC-V

When `doc:UseCNSEncodings()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The encoding of the same name has already been registered.

9.42 doc:UseCNSFonts

NAME

doc:UseCNSFonts – enable simplified Chinese fonts

SYNOPSIS

```
status = doc:UseCNSFonts()
```

FUNCTION

`doc:UseCNSFonts()` enables simplified Chinese fonts. After `doc:UseCNSFonts()` has been called, an application can use the following simplified Chinese fonts:

- SimSun
- SimSun,Bold
- SimSun,Italic
- SimSun,BoldItalic
- SimHei
- SimHei,Bold
- SimHei,Italic
- SimHei,BoldItalic

When `doc:UseCNSFonts()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The font of the same name has already been registered.

9.43 doc:UseCNTEncodings

NAME

doc:UseCNTEncodings – enable traditional Chinese encodings

SYNOPSIS

```
status = doc:UseCNTEncodings()
```

FUNCTION

`doc:UseCNTEncodings()` enables traditional Chinese encodings. After `doc:UseCNTEncodings()` is invoked, an application can use the following traditional Chinese encodings:

- GB-EUC-H

- GB-EUC-V
- GBK-EUC-H
- GBK-EUC-V

When `doc:UseCNTEncodings()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The encoding of the same name has already been registered.

9.44 doc:UseCNTFonts

NAME

doc:UseCNTFonts – enable traditional Chinese fonts

SYNOPSIS

```
status = doc:UseCNTFonts()
```

FUNCTION

`doc:UseCNTFonts()` enables traditional Chinese fonts. After `doc:UseCNTFonts()` has been called, an application can use the following traditional Chinese fonts:

- MingLiU
- MingLiU,Bold
- MingLiU,Italic
- MingLiU,BoldItalic

When `doc:UseCNSFonts()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The font of the same name has already been registered.

9.45 doc:UseJPEncodings

NAME
doc:UseJPEncodings – enable Japanese encodings

SYNOPSIS
```
status = doc:UseJPEncodings()
```

FUNCTION
`doc:UseJPEncodings()` enables Japanese encodings. After `doc:UseJPEncodings()` is invoked, an application can use the following Japanese encodings:

- 90ms-RKSJ-H
- 90ms-RKSJ-V
- 90msp-RKSJ-H
- EUC-H
- EUC-V

When `doc:UseJPEncodings()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS
none

RESULTS
`status` status code

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The encoding of the same name has already been registered.

9.46 doc:UseJPFonts

NAME
doc:UseJPFonts – enable Japanese fonts

SYNOPSIS
```
status = doc:UseJPFonts()
```

FUNCTION
`doc:UseJPFonts()` enables Japanese fonts. After `doc:UseJPFonts()` has been called, an application can use the following Japanese fonts:

- MS-Mincyo
- MS-Mincyo,Bold
- MS-Mincyo,Italic
- MS-Mincyo,BoldItalic
- MS-Gothic

- MS-Gothic,Bold
- MS-Gothic,Italic
- MS-Gothic,BoldItalic
- MS-PMincyo
- MS-PMincyo,Bold
- MS-PMincyo,Italic
- MS-PMincyo,BoldItalic
- MS-PGothic
- MS-PGothic,Bold
- MS-PGothic,Italic
- MS-PGothic,BoldItalic

When `doc:UseJPFonts()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The font of the same name has already been registered.

9.47 doc:UseKREncodings

NAME

doc:UseKREncodings – enable Korean encodings

SYNOPSIS

```
status = doc:UseKREncodings()
```

FUNCTION

`doc:UseKREncodings()` enables Korean encodings. After `doc:UseKREncodings()` is invoked, an application can use the following Korean encodings:

- KSC-EUC-H
- KSC-EUC-V
- KSCms-UHC-H
- KSCms-UHC-HW-H
- KSCms-UHC-HW-V

When `doc:UseKREncodings()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS
none

RESULTS
`status` status code

ERRORS
`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The encodingof the same name has already been registered.

9.48 doc:UseKRFonts

NAME
doc:UseKRFonts – enable Korean fonts

SYNOPSIS
```
status = doc:UseKRFonts()
```

FUNCTION
`doc:UseKRFonts()` enables Korean fonts. After `doc:UseKRFonts()` has been called, an application can use the following Korean fonts:

- DotumChe
- DotumChe,Bold
- DotumChe,Italic
- DotumChe,BoldItalic
- Dotum
- Dotum,Bold
- Dotum,Italic
- Dotum,BoldItalic
- BatangChe
- BatangChe,Bold
- BatangChe,Italic
- BatangChe,BoldItalic
- Batang
- Batang,Bold
- Batang,Italic
- Batang,BoldItalic

When `doc:UseKRFonts()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS
none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The font of the same name has already been registered.

9.49 doc:UseUTFEncodings

NAME

doc:UseUTFEncodings – enable UTF-8 encodings

SYNOPSIS

```
status = doc:UseUTFEncodings()
```

FUNCTION

`doc:UseUTFEncodings()` enables UTF-8 encodings. After `doc:UseUTFEncodings()` is invoked, an application can include UTF-8 encoded Unicode text (up to 3-byte UTF-8 sequences only). An application can use the following Unicode encodings (but only with TrueType fonts):

– UTF-8

When `doc:UseUTFEncodings()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

none

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_DOCUMENT` - An invalid document handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_DUPLICATE_REGISTRATION` - The encoding of the same name has already been registered.

10 Encoder methods

10.1 encoder:GetByteType

NAME
encoder:GetByteType – byte type in text

SYNOPSIS
```
t = encoder:GetByteType(text, index)
```

FUNCTION
`encoder:GetByteType()` returns the type of byte in the text at the specified position index.

INPUTS

`text`	text string
`index`	index within the text string

RESULTS

`t`	byte type

10.2 encoder:GetType

NAME
encoder:GetType – get type of encoding object

SYNOPSIS
```
t = encoder:GetType()
```

FUNCTION
`encoder:GetType()` gets the type of an encoding object.

INPUTS
none

RESULTS

`t`	encoder type

10.3 encoder:GetUnicode

NAME
encoder:GetUnicode – convert character to Unicode

SYNOPSIS
```
ucode = encoder:GetUnicode(code)
```

FUNCTION
`encoder:GetUnicode()` converts a specified character code to Unicode.

INPUTS

`code` a character code to convert

RESULTS

`ucode` character code in Unicode

10.4 encoder:GetWritingMode

NAME

encoder:GetWritingMode – get writing mode of encoding object

SYNOPSIS

```
mode = encoder:GetWritingMode()
```

FUNCTION

`encoder:GetWritingMode()` returns the writing mode for the encoding object.

INPUTS

none

RESULTS

`mode` writing mode

11 ExtGState methods

11.1 extgs:SetAlphaFill

NAME

extgs:SetAlphaFill – set filling transparency

SYNOPSIS

```
status = extgs:SetAlphaFill(value)
```

FUNCTION

`extgs:SetAlphaFill()` defines the transparency for filling.

When `extgs:SetAlphaFill()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

`value` the alpha value for filling; it must be between 0 and 1

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_OBJECT` - An invalid ExtGState handle was set.

`#HPDF_EXT_GSTATE_READ_ONLY` - The ExtGState object is read only.

`#HPDF_EXT_GSTATE_OUT_OF_RANGE` - An invalid value was set at value parameter.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

11.2 extgs:SetAlphaStroke

NAME

extgs:SetAlphaStroke – set stroking transparency

SYNOPSIS

```
status = extgs:SetAlphaStroke(value)
```

FUNCTION

`extgs:SetAlphaStroke()` defines the transparency for stroking.

When `extgs:SetAlphaStroke()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

`value` the alpha value for stroking; it must be between 0 and 1

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_OBJECT` - An invalid ExtGState handle was set.

#HPDF_EXT_GSTATE_READ_ONLY - The ExtGState object is read only.

#HPDF_EXT_GSTATE_OUT_OF_RANGE - An invalid value was set at value parameter.

#HPDF_FAILED_TO_ALLOC_MEM - Memory allocation failed.

11.3 extgs:SetBlendMode

NAME

extgs:SetBlendMode – set blend mode

SYNOPSIS

```
status = extgs:SetBlendMode(bmode)
```

FUNCTION

`extgs:SetBlendMode()` sets the method of blending.

The `bmode` parameter must be one of the following constants:

```
#HPDF_BM_NORMAL
#HPDF_BM_MULTIPLY
#HPDF_BM_SCREEN
#HPDF_BM_OVERLAY
#HPDF_BM_DARKEN
#HPDF_BM_LIGHTEN
#HPDF_BM_COLOR_DODGE
#HPDF_BM_COLOR_BUM
#HPDF_BM_HARD_LIGHT
#HPDF_BM_SOFT_LIGHT
#HPDF_BM_DIFFERENCE
#HPDF_BM_EXCLUSHON
```

When `extgs:SetBlendMode()` succeeds, it returns `#HPDF_OK`. Otherwise, it returns an error code and the error handler is invoked.

INPUTS

`bmode` desired blend mode (see above for possible values)

RESULTS

`status` status code

ERRORS

#HPDF_INVALID_OBJECT - An invalid ExtGState handle was set.

#HPDF_EXT_GSTATE_READ_ONLY - The ExtGState object is read only.

#HPDF_EXT_GSTATE_OUT_OF_RANGE - An invalid value was set at value parameter.

#HPDF_FAILED_TO_ALLOC_MEM - Memory allocation failed.

12 Font methods

12.1 font:GetAscent

NAME
font:GetAscent – get vertical ascent of font

SYNOPSIS
```
asc = font:GetAscent()
```

FUNCTION
`font:GetAscent()` gets the vertical ascent of the font.

Returns font vertical ascent on success. Otherwise, returns 0.

INPUTS
none

RESULTS

`asc`	vertical ascent

12.2 font:GetBBox

NAME
font:GetBBox – get font bounding box

SYNOPSIS
```
bbox = font:GetBBox()
```

FUNCTION
`font:GetBBox()` gets the bounding box of the font. This returns a table that has the `left`, `top`, `right`, and `bottom` fields initialized. On success, the fields are set to the font's bounding box, otherwise all fields are 0.

INPUTS
none

RESULTS

`bbox`	font's bounding box

12.3 font:GetCapHeight

NAME
font:GetCapHeight – get uppercase baseline distance

SYNOPSIS
```
ch = font:GetCapHeight()
```

FUNCTION
`font:GetCapHeight()` gets the distance from the baseline of uppercase letters.

Returns font cap height on success. Otherwise, returns 0.

INPUTS
none

RESULTS
`ch` font cap height

12.4 font:GetDescent

NAME
font:GetDescent – get vertical descent of font

SYNOPSIS
```
desc = font:GetDescent()
```

FUNCTION
`font:GetDescent()` gets the vertical descent of the font.

Returns font vertical descent on success. Otherwise, returns 0.

INPUTS
none

RESULTS
`desc` vertical descent

12.5 font:GetEncodingName

NAME
font:GetEncodingName – get font's encoding name

SYNOPSIS
```
name = font:GetEncodingName()
```

FUNCTION
`font:GetEncodingName()` gets the encoding name of the font.

Returns font encoding name on success. Otherwise, returns `Nil`.

INPUTS
none

RESULTS
`name` font encoding name

12.6 font:GetFontName

NAME
font:GetFontName – get font name

SYNOPSIS
```
name = font:GetFontName()
```

FUNCTION

`font:GetFontName()` gets the name of the font.

Returns font name on success. Otherwise, returns `Nil`.

INPUTS

none

RESULTS

`name` font name

12.7 font:GetUnicodeWidth

NAME

font:GetUnicodeWidth – get Unicode character width

SYNOPSIS

```
w = font:GetUnicodeWidth(code)
```

FUNCTION

`font:GetUnicodeWidth()` gets the width of a Unicode character in a specific font. The actual width of the character on the page can be calculated as follows:

```
char_width = font:GetUnicodeWidth(font, UNICODE)
actual_width = char_width * FONT_SIZE / 1000
```

Returns character width on success. Otherwise, returns `Nil`.

INPUTS

`code` a Unicode character

RESULTS

`w` Unicode character width

12.8 font:GetXHeight

NAME

font:GetXHeight – get lowercase baseline distance

SYNOPSIS

```
xh = font:GetXHeight()
```

FUNCTION

`font:GetXHeight()` gets the distance from the baseline of lowercase letters.

Returns font x-height value on success. Otherwise, returns 0.

INPUTS

none

RESULTS

`xh` x height value

12.9 font:MeasureText

NAME

font:MeasureText – calculate text byte length

SYNOPSIS

```
bl, rw = font:MeasureText(text, len, width, fontsize, charspace,
              wordspace, wordwrap)
```

FUNCTION

`font:MeasureText()` calculates the byte length which can be included within the specified width.

The `wordwrap` parameter configures how words should be wrapped: Suppose there are three words: `"ABCDE"`, `"FGH"`, and `"IJKL"`. Also, suppose the substring until `"J"` can be included within the width (12 bytes). If `wordwrap` is `False` the function returns 12. If `wordwrap` parameter is `True`, it returns 10 (the end of the previous word).

On success, returns byte length which can be included within specified width. Otherwise, returns 0.

INPUTS

`text`	the text to use for calculation
`len`	the length of the text
`width`	the width of the area to put the text
`fontsize`	the size of the font
`charspace`	the character spacing
`wordspace`	the word spacing
`wordwrap`	boolean indicating whether to enable wordwrapping

RESULTS

`bl`	byte length
`rw`	real width of text

12.10 font:TextWidth

NAME

font:TextWidth – get text width

SYNOPSIS

```
t = font:TextWidth(text, len)
```

FUNCTION

`font:TextWidth()` gets the total width of the text, the number of characters, and the number of words.

This method returns a table that has the following fields initialized:

`NumChars:`
: The number of characters.

`NumWords:`
: The number of words (obsolete). Use `NumSpace` instead (see below).

`Width:`
: The total width of the text.

`NumSpace:`
: The number of words.

In case of an error, all table elements will be set to 0.

INPUTS

`text`
: the text to get width

`len`
: the byte length of the text

RESULTS

`t`
: table containing calculation results

13 Image methods

13.1 image:AddSMask

NAME
image:AddSMask – add stencil mask

SYNOPSIS
`status = image:AddSMask(smask)`

FUNCTION
`image:AddSMask()` adds a stencil mask image. `smask` must be a gray-scale image.

INPUTS
`smask` handle of an image object which is used as the stencil mask

RESULTS
`status` status code

13.2 image:GetBitsPerComponent

NAME
image:GetBitsPerComponent – get bits per component

SYNOPSIS
`bpc = image:GetBitsPerComponent()`

FUNCTION
`image:GetBitsPerComponent()` gets the number of bits used to describe each color component.

INPUTS
none

RESULTS
`bpc` bits per component

13.3 image:GetColorSpace()

NAME
image:GetColorSpace() – get image color space

SYNOPSIS
`name = image:GetColorSpace()`

FUNCTION
`image:GetColorSpace()` gets the name of the image's color space.

INPUTS
none

RESULTS

`name` color space name

13.4 image:GetHeight

NAME

image:GetHeight – get image height

SYNOPSIS

```
h = image:GetHeight()
```

FUNCTION

`image:GetHeight()` gets the height of the image of an image object.

INPUTS

none

RESULTS

`h` image height

13.5 image:GetSize

NAME

image:GetSize – get image size

SYNOPSIS

```
w,h = image:GetSize()
```

FUNCTION

`image:GetSize()` gets the size of the image of an image object.

INPUTS

none

RESULTS

`w` image width

`h` image height

13.6 image:GetWidth

NAME

image:GetWidth – get image width

SYNOPSIS

```
w = image:GetWidth()
```

FUNCTION

`image:GetWidth()` gets the width of the image of an image object.

INPUTS
none

RESULTS

`w`	image width

13.7 image:SetColorMask

NAME
image:SetColorMask – set transparent color

SYNOPSIS
```
status = image:SetColorMask(rmin, rmax, gmin, gmax, bmin, bmax)
```

FUNCTION
`image:SetColorMask()` sets the transparent color of the image by the RGB range values. The color within the range is displayed as a transparent color. The image must be in RGB color space.

INPUTS

`rmin`	the lower limit of red; it must be between 0 and 255
`rmax`	the upper limit of red; it must be between 0 and 255
`gmin`	the lower limit of green; it must be between 0 and 255
`gmax`	the upper limit of green; it must be between 0 and 255
`bmin`	the lower limit of blue; it must be between 0 and 255
`bmax`	the upper limit of blue; it must be between 0 and 255

RESULTS

`status`	status code

ERRORS
`#HPDF_INVALID_IMAGE` - An invalid image handle was set.
`#HPDF_INVALID_COLOR_SPACE` - An image other than RGB color was specified.
`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.
`#HPDF_INVALID_PARAMETER` - An invalid value is specified.

13.8 image:SetMaskImage

NAME
image:SetMaskImage – set mask image

SYNOPSIS
```
status = image:SetMaskImage(maskimage)
```

FUNCTION
`image:SetMaskImage()` sets the mask image. `maskimage` must be a 1-bit gray-scale image.

INPUTS

`maskimage`
handle of an image object which is used as the image mask

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_IMAGE` - An invalid image handle was set.

`#HPDF_INVALID_BIT_PER_COMPONENT` - An invalid bit-per-component.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

14 Outline methods

14.1 outline:SetDestination

NAME
outline:SetDestination – set destination object

SYNOPSIS
`status = outline:SetDestination(dst)`

FUNCTION
`outline:SetDestination()` sets a destination object which becomes a target to jump to when the outline is clicked.

INPUTS

`dst`	specify the handle of an destination object

RESULTS

`status`	status code

ERRORS
`#HPDF_INVALID_OUTLINE` - An invalid outline handle was set.
`#HPDF_INVALID_DESTINATION` - An invalid destination handle was set.
`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

14.2 outline:SetOpened

NAME
outline:SetOpened – set node's open mode

SYNOPSIS
`status = outline:SetOpened(opened)`

FUNCTION
`outline:SetOpened()` sets whether this node is opened or not when the outline is displayed for the first time.

INPUTS

`opened`	specify whether the node is opened or not

RESULTS

`status`	status code

ERRORS
`#HPDF_INVALID_OUTLINE` - An invalid outline handle was set.
`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15 Page methods

15.1 page:Arc

NAME
page:Arc – append arc to path

SYNOPSIS
`status = page:Arc(x, y, radius, ang1, ang2)`

FUNCTION
`page:Arc()` appends a circle arc to the current path. Angles are given in degrees, with 0 degrees being vertical, upward, from the (x,y) position.

INPUTS

`x`	the x center point of the circle
`y`	the y center point of the circle
`radius`	the radius of the circle
`ang1`	the angle of the begining of the arc
`ang2`	the angle of the end of the arc; it must be greater than `ang1`

RESULTS

`status`	status code

15.2 page:BeginText

NAME
page:BeginText – begin text object

SYNOPSIS
`status = page:BeginText()`

FUNCTION
`page:BeginText()` begins a text object and sets the text position to (0, 0).

INPUTS
none

RESULTS

`status`	status code

15.3 page:Circle

NAME
page:Circle – append circle to path

SYNOPSIS
`status = page:Circle(x, y, radius)`

FUNCTION
`page:Circle()` appends a circle to the current path.

INPUTS

`x`	x center point of the circle
`y`	y center point of the circle
`radius`	the radius of the circle

RESULTS

`status`	status code

15.4 page:Clip

NAME
page:Clip – modify clipping path

SYNOPSIS
`status = page:Clip()`

FUNCTION
`page:Clip()` modifies the current clipping path by intersecting it with the current path using the nonzero winding number rule. The clipping path is only modified after the succeeding painting operator. To avoid painting the current path, use the function `page:EndPath()`.

Following painting operations will only affect the regions of the page contained by the clipping path. Initially, the clipping path includes the entire page. There is no way to enlarge the current clipping path, or to replace the clipping path with a new one. The functions `page:GSave()` and `page:GRestore()` may be used to save and restore the current graphics state, including the clipping path.

INPUTS
none

RESULTS

`status`	status code

15.5 page:ClosePath

NAME
page:ClosePath – close subpath

SYNOPSIS
```
status = page:ClosePath()
```

FUNCTION
`page:ClosePath()` appends a straight line from the current point to the start point of sub path. The current point is moved to the start point of sub path.

INPUTS
none

RESULTS
`status` status code

15.6 page:ClosePathEofillStroke

NAME
page:ClosePathEofillStroke – close, even odd fill and paint path

SYNOPSIS
```
status = page:ClosePathEofillStroke()
```

FUNCTION
`page:ClosePathEofillStroke()` closes the current path, fills the current path using the even-odd rule, then paints the path.

INPUTS
none

RESULTS
`status` status code

15.7 page:ClosePathFillStroke

NAME
page:ClosePathFillStroke – close, winding fill and paint path

SYNOPSIS
```
status = page:ClosePathFillStroke()
```

FUNCTION
`page:ClosePathFillStroke()` closes the current path, fills the current path using the nonzero winding number rule, then paints the path.

INPUTS
none

RESULTS

`status` status code

15.8 page:ClosePathStroke

NAME

page:ClosePathStroke – close and paint path

SYNOPSIS

```
status = page:ClosePathStroke()
```

FUNCTION

`page:ClosePathStroke()` closes the current path. Then it paints the path.

INPUTS

none

RESULTS

`status` status code

15.9 page:Concat

NAME

page:Concat – concatenate matrix

SYNOPSIS

```
status = page:Concat(a, b, c, d, x, y)
```

FUNCTION

`page:Concat()` concatenates the page's current transformation matrix and the specified matrix.

For example, if you want to rotate the coordinate system of the page by 45 degrees, use `page:Concat()` as follows:

```
Local rad1 = 45 / 180 * #PI
page:Concat(Cos(rad1),Sin(rad1),-Sin(rad1),Cos(rad1),220,350)
```

To change the coordinate system of the page to 300 dpi, use `page:Concat()` as follows:

```
page:Concat(72.0 / 300.0, 0, 0, 72.0 / 300.0, 0, 0)
```

Invoke `page:GSave()` before `page:Concat()`. Then the change by `page:Concat()` can be restored by invoking `page:GRestore()`.

```
; save the current graphics states
page:GSave(page)

; concatenate the transformation matrix
page:Concat(72.0 / 300.0, 0, 0, 72.0 / 300.0, 0, 0)

; show text on the translated coordinates
```

```
page:BeginText()
page:MoveTextPos(50, 100)
page:ShowText("Text on the translated coordinates")
page:EndText(page)

; restore the graphics states
page:GRestore()
```

An application can invoke `page:GSave()` when the graphics mode of the page is in `#HPDF_GMODE_PAGE_DESCRIPTION`.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS

`a`	scaling x coordinate
`b`	rotation x coordinate
`c`	rotation y coordinate
`d`	scaling y coordinate
`x`	translation x coordinate
`y`	translation y coordinate

RESULTS

`status`	status code

15.10 page:CreateCircleAnnot

NAME

page:CreateCircleAnnot – create circle annotation object

SYNOPSIS

```
ant = page:CreateCircleAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateCircleAnnot()` creates a new circle annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.11 page:CreateDestination

NAME

page:CreateDestination – create destination object

SYNOPSIS

```
dst = page:CreateDestination()
```

FUNCTION

`page:CreateDestination()` creates a new destination object for the page.

INPUTS

none

RESULTS

`dst`	handle to a destination

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15.12 page:CreateFreeTextAnnot

NAME

page:CreateFreeTextAnnot – create free text annotation object

SYNOPSIS

```
ant = page:CreateFreeTextAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateFreeTextAnnot()` creates a new free text annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.13 page:CreateHighlightAnnot

NAME

page:CreateHighlightAnnot – create highlight annotation object

SYNOPSIS

```
ant = page:CreateHighlightAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateHighlightAnnot()` creates a new highlight annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.14 page:CreateLineAnnot

NAME

page:CreateLineAnnot – create line annotation object

SYNOPSIS

```
ant = page:CreateLineAnnot(text, encoder)
```

FUNCTION

`page:CreateLineAnnot()` creates a new line annotation object for the page.

INPUTS

`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.15 page:CreateLinkAnnot

NAME

page:CreateLinkAnnot – create link annotation object

SYNOPSIS

```
ant = page:CreateLinkAnnot(rect, dst)
```

FUNCTION

`page:CreateLinkAnnot()` creates a new link annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of clickable area

`dst` a handle of destination object to jump to

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_DESTINATION` - An invalid destination handle is specified.

15.16 page:CreatePopupAnnot

NAME

page:CreatePopupAnnot – create popup annotation object

SYNOPSIS

```
ant = page:CreatePopupAnnot(rect, parent)
```

FUNCTION

`page:CreatePopupAnnot()` creates a new popup annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of the clickable area

`parent` parent annotation object

RESULTS

`ant` handle to an annotation

15.17 page:CreateProjectionAnnot

NAME

page:CreateProjectionAnnot – create projection annotation object

SYNOPSIS

```
ant = page:CreateProjectionAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateProjectionAnnot()` creates a new projection annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of the clickable area

`text` the text to be displayed

`encoder` an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.18 page:CreateSquareAnnot

NAME

page:CreateSquareAnnot – create square annotation object

SYNOPSIS

```
ant = page:CreateSquareAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateSquareAnnot()` creates a new square annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of the clickable area

`text` the text to be displayed

`encoder` an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.19 page:CreateSquigglyAnnot

NAME

page:CreateSquigglyAnnot – create squiggly annotation object

SYNOPSIS

```
ant = page:CreateSquigglyAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateSquigglyAnnot()` creates a new squiggly annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of the clickable area

`text` the text to be displayed

`encoder` an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.20 page:CreateStampAnnot

NAME

page:CreateStampAnnot – create stamp annotation object

SYNOPSIS

```
ant = page:CreateStampAnnot(rect, stamp, text, encoder)
```

FUNCTION

`page:CreateStampAnnot()` creates a new stamp annotation object for the page.

The `stamp` parameter must be one of the following constants:

```
#HPDF_STAMP_ANNOT_APPROVED
#HPDF_STAMP_ANNOT_EXPERIMENTAL
#HPDF_STAMP_ANNOT_NOTAPPROVED
#HPDF_STAMP_ANNOT_ASIS
#HPDF_STAMP_ANNOT_EXPIRED
#HPDF_STAMP_ANNOT_NOTFORPUBLICRELEASE
#HPDF_STAMP_ANNOT_CONFIDENTIAL
#HPDF_STAMP_ANNOT_FINAL
#HPDF_STAMP_ANNOT_SOLD
#HPDF_STAMP_ANNOT_DEPARTMENTAL
#HPDF_STAMP_ANNOT_FORCOMMENT
#HPDF_STAMP_ANNOT_TOPSECRET
#HPDF_STAMP_ANNOT_DRAFT
#HPDF_STAMP_ANNOT_FORPUBLICRELEASE
```

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area
`stamp`	stamp annotation type (see above for possible values)
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.21 page:CreateStrikeOutAnnot

NAME

page:CreateStrikeOutAnnot – create strike out annotation object

SYNOPSIS

```
ant = page:CreateStrikeOutAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateStrikeOutAnnot()` creates a new strike out annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle of the clickable area

`text` the text to be displayed

`encoder` an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.22 page:CreateTextAnnot

NAME

page:CreateTextAnnot – create text annotation object

SYNOPSIS

```
ant = page:CreateTextAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateTextAnnot()` creates a new text annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect` a rectangle where the annotation is displayed

`text` the text to be displayed

`encoder` an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant` handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.23 page:CreateTextMarkupAnnot

NAME

page:CreateTextMarkupAnnot – create text markup annotation object

SYNOPSIS

```
ant = page:CreateTextMarkupAnnot(rect, text, encoder, subtype)
```

FUNCTION

`page:CreateTextMarkupAnnot()` creates a new text markup annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

The `subtype` parameter must be one of the following constants:

```
#HPDF_ANNOT_TEXT_NOTES
#HPDF_ANNOT_LINK
#HPDF_ANNOT_SOUND
#HPDF_ANNOT_FREE_TEXT
#HPDF_ANNOT_STAMP
#HPDF_ANNOT_SQUARE
#HPDF_ANNOT_CIRCLE
#HPDF_ANNOT_STRIKE_OUT
#HPDF_ANNOT_HIGHTLIGHT
#HPDF_ANNOT_UNDERLINE
#HPDF_ANNOT_INK
#HPDF_ANNOT_FILE_ATTACHMENT
#HPDF_ANNOT_POPUP
#HPDF_ANNOT_3D
#HPDF_ANNOT_SQUIGGLY
#HPDF_ANNOT_LINE
#HPDF_ANNOT_PROJECTION
#HPDF_ANNOT_WIDGET
```

INPUTS

`rect`	a rectangle of the clickable area
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used
`subtype`	subtype of annotation object (see above for possible values)

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.24 page:CreateUnderlineAnnot

NAME

page:CreateUnderlineAnnot – create underline annotation object

SYNOPSIS

```
ant = page:CreateUnderlineAnnot(rect, text, encoder)
```

FUNCTION

`page:CreateUnderlineAnnot()` creates a new underline annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area
`text`	the text to be displayed
`encoder`	an encoder handle which is used to encode the text; if it is `Nil`, the default encoding is used

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

`#HPDF_INVALID_ENCODER` - An invalid encoder handle is specified.

15.25 page:CreateURILinkAnnot

NAME

page:CreateURILinkAnnot – create web link annotation object

SYNOPSIS

```
ant = page:CreateURILinkAnnot(rect, uri)
```

FUNCTION

`page:CreateURILinkAnnot()` creates a new web link annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of clickable area
`uri`	URL of destination to jump to

RESULTS

`ant`	handle to an annotation

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15.26 page:CreateWidgetAnnot

NAME

page:CreateWidgetAnnot – create widget annotation object

SYNOPSIS

```
ant = page:CreateWidgetAnnot(rect)
```

FUNCTION

`page:CreateWidgetAnnot()` creates a new widget annotation object for the page.

The `rect` parameter must be a table which contains `left`, `top`, `right`, and `bottom` fields that describe a rectangle.

INPUTS

`rect`	a rectangle of the clickable area

RESULTS

`ant`	handle to an annotation

15.27 page:CurveTo

NAME

page:CurveTo – append Bezier curve to path

SYNOPSIS

```
status = page:CurveTo(x1, y1, x2, y2, x3, y3)
```

FUNCTION

`page:CurveTo()` appends a Bezier curve to the current path using the control points (x1, y1) and (x2, y2) and (x3, y3), then sets the current point to (x3, y3).

INPUTS

`x1`	x coordinate of control point `#1`
`y1`	y coordinate of control point `#1`
`x2`	x coordinate of control point `#2`
`y2`	y coordinate of control point `#2`
`x3`	x coordinate of curve destination point
`y3`	y coordinate of curve destination point

RESULTS

`status`	status code

15.28 page:CurveTo2

NAME

page:CurveTo2 – append Bezier curve to path

SYNOPSIS

```
status = page:CurveTo2(x2, y2, x3, y3)
```

FUNCTION

`page:CurveTo2()` appends a Bezier curve to the current path using the current point and (x2, y2) and (x3, y3) as control points. Then, the current point is set to (x3, y3).

INPUTS

`x2`	x coordinate of control point `#1`
`y2`	y coordinate of control point `#1`
`x3`	x coordinate of control point `#2`
`y3`	y coordinate of control point `#2`

RESULTS

`status`	status code

15.29 page:CurveTo3

NAME

page:CurveTo3 – append Bezier curve to path

SYNOPSIS

```
status = page:CurveTo3(x1, y1, x3, y3)
```

FUNCTION

`page:CurveTo3()` appends a Bezier curve to the current path using two specified points. The point (x1, y1) and the point (x3, y3) are used as the control points for a Bezier curve and current point is moved to the point (x3, y3)

INPUTS

`x1`	x coordinate of control point `#1`
`y1`	y coordinate of control point `#1`
`x3`	x coordinate of control point `#2`
`y3`	y coordinate of control point `#2`

RESULTS

`status`	status code

15.30 page:DrawImage

NAME
page:DrawImage – draw image to page

SYNOPSIS
```
status = page:DrawImage(image, x, y, width, height)
```

FUNCTION
`page:DrawImage()` shows an image in one operation.

INPUTS

`image`	the handle of an image object
`x`	horizontal coordinate for image
`y`	vertical coordinate for image
`width`	the width of the region where image is displayed
`height`	the height of the region where image is displayed

RESULTS

`status`	status code

15.31 page:Ellipse

NAME
page:Ellipse – append ellipse to path

SYNOPSIS
```
status = page:Ellipse(x, y, xradius, yradius)
```

FUNCTION
`page:Ellipse()` appends an ellipse to the current path.

INPUTS

`x`	x center point of the ellipse
`y`	y center point of the ellipse
`xradius`	horizontal radius of the ellipse
`yradius`	vertical radius of the ellipse

RESULTS

`status`	status code

15.32 page:EndPath

NAME
page:EndPath – end path

SYNOPSIS
`status = page:EndPath()`

FUNCTION
`page:EndPath()` ends the path object without filling or painting.

INPUTS
none

RESULTS
`status` status code

15.33 page:EndText

NAME
page:EndText – end a text object

SYNOPSIS
`status = page:EndText()`

FUNCTION
`page:EndText()` ends a text object.

INPUTS
none

RESULTS
`status` status code

15.34 page:EoClip

NAME
page:EoClip – modify clipping path using even-odd rule

SYNOPSIS
`status = page:EoClip()`

FUNCTION
`page:Clip()` modifies the current clipping path by intersecting it with the current path using the even-odd rule. The clipping path is only modified after the succeeding painting operator. To avoid painting the current path, use the function `page:EndPath()`.

Following painting operations will only affect the regions of the page contained by the clipping path. Initially, the clipping path includes the entire page. There is no way to enlarge the current clipping path, or to replace the clipping path with a new one. The functions `page:GSave()` and `page:GRestore()` may be used to save and restore the current graphics state, including the clipping path.

INPUTS
none

RESULTS
`status` status code

15.35 page:Eofill

NAME
page:Eofill – fill current path using even-odd rule

SYNOPSIS
```
status = page:Eofill()
```

FUNCTION
`page:Eofill()` fills the current path using the even-odd rule.

INPUTS
none

RESULTS
`status` status code

15.36 page:EofillStroke

NAME
page:EofillStroke – fill and paint current path using even-odd rule

SYNOPSIS
```
status = page:EofillStroke()
```

FUNCTION
`page:EofillStroke()` fills the current path using the even-odd rule, then paints the path.

INPUTS
none

RESULTS
`status` status code

15.37 page:ExecuteXObject

NAME
page:ExecuteXObject – execute X object

SYNOPSIS
```
status = page:ExecuteXObject(xobj)
```

FUNCTION
`page:ExecuteXObject()` executes the specified X object.

INPUTS

`xobj`	handle to an X object

RESULTS

`status`	status code

15.38 page:Fill

NAME
page:Fill – fill current path

SYNOPSIS
```
status = page:Fill()
```

FUNCTION
`page:Fill()` fills the current path using the nonzero winding number rule.

INPUTS
none

RESULTS

`status`	status code

15.39 page:FillStroke

NAME
page:FillStroke – fill and paint current path

SYNOPSIS
```
status = page:FillStroke()
```

FUNCTION
`page:FillStroke()` fills the current path using the nonzero winding number rule, then paints the path.

INPUTS
none

RESULTS

`status`	status code

15.40 page:GetCharSpace

NAME
page:GetCharSpace – get current character spacing

SYNOPSIS
```
charspace = page:GetCharSpace()
```

FUNCTION
`page:GetCharSpace()` gets the current value of the page's character spacing.

INPUTS
none

RESULTS

`charspace`
current character spacing

15.41 page:GetCMYKFill

NAME
page:GetCMYKFill – get CMYK filling color

SYNOPSIS
```
t = page:GetCMYKFill()
```

FUNCTION
`page:GetCMYKFill()` returns the current value of the page's filling color. `page:GetCMYKFill()` is valid only when the page's filling color space is `#HPDF_CS_DEVICE_CMYK`.

This function returns a table with the following fields initialized:

`C` Cyan level of color.

`Y` Yellow level of color.

`M` Magenta level of color.

`K` Black level of color.

All fields contain values between 0 and 1.

INPUTS
none

RESULTS

`t` current CMYK filling color

15.42 page:GetCMYKStroke

NAME
page:GetCMYKStroke – get current CMYK stroking color

SYNOPSIS
```
t = page:GetCMYKStroke()
```

FUNCTION
`page:GetCMYKStroke()` returns the current value of the page's stroking color. `page:GetCMYKStroke()` is valid only when the page's stroking color space is `#HPDF_CS_DEVICE_CMYK`.

This function returns a table with the following fields initialized:

`C` Cyan level of color.

`Y` Yellow level of color.

`M` Magenta level of color.

`K` Black level of color.

All fields contain values between 0 and 1.

INPUTS
none

RESULTS
`t` current CMYK stroking color

15.43 page:GetCurrentFont

NAME
page:GetCurrentFont – get current font

SYNOPSIS
```
font = page:GetCurrentFont()
```

FUNCTION
`page:GetCurrentFont()` gets the handle of the page's current font.

INPUTS
none

RESULTS
`font` handle to a font

15.44 page:GetCurrentFontSize

NAME
page:GetCurrentFontSize – get current font size

SYNOPSIS
```
size = page:GetCurrentFontSize()
```

FUNCTION
`page:GetCurrentFontSize()` gets the size of the page's current font.

INPUTS
none

RESULTS

`size`	current font size

15.45 page:GetCurrentPos

NAME
page:GetCurrentPos – get current path position

SYNOPSIS
```
x, y = page:GetCurrentPos()
```

FUNCTION
`page:GetCurrentPos()` gets the current position for path painting.

An application can invoke `page:GetCurrentPos()` only when graphics mode is `#HPDF_GMODE_PATH_OBJECT`.

INPUTS
none

RESULTS

`x`	current x position
`y`	current y position

15.46 page:GetCurrentTextPos

NAME
page:GetCurrentTextPos – get current text position

SYNOPSIS
```
x, y = page:GetCurrentTextPos()
```

FUNCTION
`page:GetCurrentTextPos()` gets the current position for drawing text.

An application can invoke `page:GetCurrentTextPos()` only when graphics mode is `#HPDF_GMODE_TEXT_OBJECT`.

INPUTS
none

RESULTS

`x`	current x position
`y`	current y position

15.47 page:GetDash

NAME
page:GetDash – get current dash pattern

SYNOPSIS
```
t = page:GetDash()
```

FUNCTION
`page:GetDash()` gets the current pattern of the page.

This method will return a table that has the following fields initialized:

`ptn`	A table containing the individual on and off sections of the pattern.
`num_ptn`	The number of elements in the `ptn` table.
`phase`	The phase in which the pattern begins.

See Section 15.81 [page:SetDash], page 150, for details.

INPUTS
none

RESULTS

`t`	table containing the current dash pattern (see above)

15.48 page:GetFillingColorSpace

NAME
page:GetFillingColorSpace – get filling color space

SYNOPSIS
```
cs = page:GetFillingColorSpace()
```

FUNCTION
`page:GetFillingColorSpace()` returns the current value of the page's filling color space. This will be one of `#HPDF_CS_DEVICE_GRAY`, `#HPDF_CS_DEVICE_RGB` or `#HPDF_CS_DEVICE_CMYK`.

INPUTS
none

RESULTS

`cs`	current filling color space

15.49 page:GetFlat

NAME
page:GetFlat – get current flatness

SYNOPSIS
```
flat = page:GetFlat()
```

FUNCTION
`page:GetFlat()` gets the current value of the page's flatness.

INPUTS
none

RESULTS
`flat` current flatness

15.50 page:GetGMode

NAME
page:GetGMode – get current graphics mode

SYNOPSIS
```
mode = page:GetGMode()
```

FUNCTION
`page:GetGMode()` gets the current graphics mode.

The following graphics modes are available:

```
#HPDF_GMODE_PAGE_DESCRIPTION
#HPDF_GMODE_PATH_OBJECT
#HPDF_GMODE_TEXT_OBJECT
#HPDF_GMODE_CLIPPING_PATH
#HPDF_GMODE_SHADING
#HPDF_GMODE_INLINE_IMAGE
#HPDF_GMODE_EXTERNAL_OBJECT
```

INPUTS
none

RESULTS
`mode` current graphics mode

15.51 page:GetGrayFill

NAME
page:GetGrayFill – get gray filling color

SYNOPSIS
```
gray = page:GetGrayFill()
```

FUNCTION
`page:GetGrayFill()` returns the current value of the page's filling color. `page:GetGrayFill()` is valid only when the page's filling color space is `#HPDF_CS_DEVICE_GRAY`.

INPUTS
none

RESULTS

`gray`	current gray filling color

15.52 page:GetGrayStroke

NAME
page:GetGrayStroke – get gray stroking color

SYNOPSIS
```
gray = page:GetGrayStroke()
```

FUNCTION
`page:GetGrayStroke()` returns the current value of the page's stroking color. `page:GetGrayStroke()` is valid only when the page's stroking color space is `#HPDF_CS_DEVICE_GRAY`.

INPUTS
none

RESULTS

`gray`	current gray stroking color

15.53 page:GetGStateDepth

NAME
page:GetGStateDepth – get graphics state stack

SYNOPSIS
```
d = page:GetGStateDepth()
```

FUNCTION
`page:GetGStateDepth()` returns the number of the page's graphics state stack.

INPUTS
none

RESULTS

`d`	current graphics state stack

15.54 page:GetHeight

NAME
page:GetHeight – get page height

SYNOPSIS
```
h = page:GetHeight()
```

FUNCTION
`page:GetHeight()` gets the height of a page.

INPUTS
none

RESULTS

`h`	page height

15.55 page:GetHorizontalScaling

NAME
page:GetHorizontalScaling – get current horizontal scaling

SYNOPSIS
```
s = page:GetHorizontalScaling()
```

FUNCTION
`page:GetHorizontalScaling()` returns the current value of the page's horizontal scaling for drawing text.

INPUTS
none

RESULTS

`s`	horizontal scaling value

15.56 page:GetLineCap

NAME
page:GetLineCap – get current line cap style

SYNOPSIS
```
cap = page:GetLineCap()
```

FUNCTION
`page:GetLineCap()` gets the current line cap style of the page.
See Section 15.89 [page:SetLineCap], page 153, for a list of available line cap styles.

INPUTS
none

RESULTS

`cap`	current line cap style

15.57 page:GetLineJoin

NAME
page:GetLineJoin – get current line join style

SYNOPSIS
```
linejoin = page:GetLineJoin()
```

FUNCTION
`page:GetLineJoin()` gets the current line join style of the page.
See Section 15.90 [page:SetLineJoin], page 154, for a list of available line join styles.

INPUTS
none

RESULTS
`linejoin` current line join style

15.58 page:GetLineWidth

NAME
page:GetLineWidth – get line width of page

SYNOPSIS
```
w = page:GetLineWidth()
```

FUNCTION
`page:GetLineWidth()` gets the current line width of the page.

INPUTS
none

RESULTS
`w` current line width

15.59 page:GetMiterLimit

NAME
page:GetMiterLimit – get current miter limit

SYNOPSIS
```
limit = page:GetMiterLimit()
```

FUNCTION
`page:GetMiterLimit()` gets the current value of the page's miter limit.

INPUTS
none

RESULTS
`limit` current miter limit

15.60 page:GetRGBFill

NAME

page:GetRGBFill – get current RGB filling color

SYNOPSIS

```
t = page:GetRGBFill()
```

FUNCTION

`page:GetRGBFill()` returns the current value of the page's filling color. `page:GetRGBFill()` is valid only when the page's filling color space is `#HPDF_CS_DEVICE_RGB`.

This function returns a table with the following fields initialized:

`R` Red level of color.

`G` Green level of color.

`B` Blue level of color.

All fields contain values between 0 and 1.

INPUTS

none

RESULTS

`t` current RGB filling color

15.61 page:GetRGBStroke

NAME

page:GetRGBStroke – get RGB stroking color

SYNOPSIS

```
t = page:GetRGBStroke()
```

FUNCTION

`page:GetRGBStroke()` returns the current value of the page's stroking color. `page:GetRGBStroke()` is valid only when the page's stroking color space is `#HPDF_CS_DEVICE_RGB`.

This function returns a table with the following fields initialized:

`R` Red level of color.

`G` Green level of color.

`B` Blue level of color.

All fields contain values between 0 and 1.

INPUTS

none

RESULTS

`t` current RGB stroking color

15.62 page:GetStrokingColorSpace

NAME
page:GetStrokingColorSpace – get stroking color space

SYNOPSIS
```
cs = page:GetStrokingColorSpace()
```

FUNCTION
`page:GetStrokingColorSpace()` returns the current value of the page's stroking color space. This will be one of `#HPDF_CS_DEVICE_GRAY`, `#HPDF_CS_DEVICE_RGB` or `#HPDF_CS_DEVICE_CMYK`.

INPUTS
none

RESULTS

`cs`	current stroking color space

15.63 page:GetTextLeading

NAME
page:GetTextLeading – get current line spacing

SYNOPSIS
```
l = page:GetTextLeading()
```

FUNCTION
`page:GetTextLeading()` returns the current value of the page's line spacing.

INPUTS
none

RESULTS

`l`	current line spacing

15.64 page:GetTextMatrix

NAME
page:GetTextMatrix – get current text transformation matrix

SYNOPSIS
```
m = page:GetTextMatrix()
```

FUNCTION
`page:GetTextMatrix()` gets the current text transformation matrix of the page.

This method will return the transformation matrix in a table with the following fields initialized:

`a`	Scaling x coordinate

`b`	Rotation x coordinate
`c`	Rotation y coordinate
`d`	Scaling y coordinate
`x`	Translation x coordinate
`y`	Translation y coordinate

INPUTS

none

RESULTS

`m`	current text transformation matrix

15.65 page:GetTextRenderingMode

NAME

page:GetTextRenderingMode – get current text rendering mode

SYNOPSIS

```
mode = page:GetTextRenderingMode()
```

FUNCTION

`page:GetTextRenderingMode()` returns the current value of the page's text rendering mode.

See Section 15.100 [page:SetTextRenderingMode], page 159, for a list of available text rendering modes.

INPUTS

none

RESULTS

`mode`	current text rendering mode

15.66 page:GetTextRise

NAME

page:GetTextRise – get current text rising

SYNOPSIS

```
rise = page:GetTextRise()
```

FUNCTION

`page:GetTextRise()` returns the current value of the page's text rising.

INPUTS

none

RESULTS

`rise`	current text rising

15.67 page:GetTransMatrix

NAME
page:GetTransMatrix – get current transformation matrix

SYNOPSIS
```
m = page:GetTransMatrix()
```

FUNCTION
`page:GetTransMatrix()` gets the current transformation matrix of the page.

This method will return the transformation matrix in a table with the following fields initialized:

`a`	Scaling x coordinate
`b`	Rotation x coordinate
`c`	Rotation y coordinate
`d`	Scaling y coordinate
`x`	Translation x coordinate
`y`	Translation y coordinate

INPUTS
none

RESULTS

`m`	transformation matrix

15.68 page:GetWidth

NAME
page:GetWidth – get page width

SYNOPSIS
```
w = page:GetWidth()
```

FUNCTION
`page:GetWidth()` gets the width of the page.

INPUTS
none

RESULTS

`w`	page width

15.69 page:GetWordSpace

NAME
page:GetWordSpace – get current word spacing

SYNOPSIS
`wordspace = page:GetWordSpace()`

FUNCTION
`page:GetWordSpace()` returns the current value of the page's word spacing.

INPUTS
none

RESULTS
`wordspace`
current word spacing

15.70 page:GRestore

NAME
page:GRestore – restore graphics state

SYNOPSIS
`status = page:GRestore()`

FUNCTION
`page:GRestore()` restore the graphics state which is saved by `page:GSave()`.

INPUTS
none

RESULTS
`status` status code

15.71 page:GSave

NAME
page:GSave – save current graphics parameters

SYNOPSIS
`status = page:GSave()`

FUNCTION
`page:GSave()` saves the page's current graphics parameters. An application can invoke `page:GSave()` up to 28 times and can restore the saved parameter by invoking `page:GRestore()`.

The parameters that are saved by `page:GSave()` are:

- Character Spacing
- Clipping Path

- Dash Mode
- Filling Color
- Flatness
- Font
- Font Size
- Horizontal Scaling
- Line Width
- Line Cap Style
- Line Join Style
- Miter Limit
- Rendering Mode
- Stroking Color
- Text Leading
- Text Rise
- Transformation Matrix
- Word Spacing

INPUTS

none

RESULTS

`status` status code

15.72 page:LineTo

NAME

page:LineTo – append line to path

SYNOPSIS

```
status = page:LineTo(x, y)
```

FUNCTION

`page:LineTo()` appends a line from the current point to the specified point.

INPUTS

`x` x coordinate of end point of the path

`y` y coordinate of end point of the path

RESULTS

`status` status code

15.73 page:MeasureText

NAME

page:MeasureText – get byte length of text

SYNOPSIS

```
bl, rw = page:MeasureText(text, width, wordwrap)
```

FUNCTION

`page:MeasureText()` calculates the byte length which can be included within the specified width.

The `wordwrap` parameter configures how words should be wrapped: Suppose there are three words: "ABCDE", "FGH", and "IJKL". Also, suppose the substring until "J" can be included within the width (12 bytes). If `wordwrap` is `False` the function returns 12. If `wordwrap` parameter is `True`, it returns 10 (the end of the previous word).

INPUTS

`text`	the text whose length to compute
`width`	the width of the area to put the text
`wordwrap`	boolean that says whether wordwrapping should be used

RESULTS

`bl`	byte length of text
`rw`	real width of text

15.74 page:MoveTextPos

NAME

page:MoveTextPos – change current text position

SYNOPSIS

```
status = page:MoveTextPos(x, y[, lead])
```

FUNCTION

`page:MoveTextPos()` changes the current text position, using the specified offset values. If the current text position is (x1, y1), the new text position will be (x1 + x, y1 + y).

If the optional argument `lead` is set to `True`, the text leading is set to -y.

INPUTS

`x`	x offset for text
`y`	y offset for text
`lead`	optional: whether or not to set text leading to -y

RESULTS

`status`	status code

15.75 page:MoveTo

NAME
page:MoveTo – start new subpath

SYNOPSIS
```
status = page:MoveTo(x, y)
```

FUNCTION
`page:MoveTo()` starts a new subpath and move the current point for drawing path. `page:MoveTo()` sets the start point for the path to the point (x, y).

INPUTS

`x`	x start point for drawing path
`y`	y start point for drawing path

RESULTS

`status`	status code

15.76 page:MoveToNextLine

NAME
page:MoveToNextLine – move current position to next line

SYNOPSIS
```
status = page:MoveToNextLine()
```

FUNCTION
`page:MoveToNextLine()` moves current position for the drawing text depending on current text showing point and text leading. The new position is calculated with current text transition matrix.

Returns `#HPDF_OK` on success. Otherwise, returns an error code and the error handler is invoked.

INPUTS
none

RESULTS

`status`	status code

15.77 page:Rectangle

NAME
page:Rectangle – append rectangle to path

SYNOPSIS
```
status = page:Rectangle(x, y, width, height)
```

FUNCTION
`page:Rectangle()` appends a rectangle to the current path.

INPUTS

`x`	x coordinate of lower left point of the rectangle
`y`	y coordinate of lower left point of the rectangle
`width`	width of the rectangle
`height`	height of the rectangle

RESULTS

`status`	status code

15.78 page:SetCharSpace

NAME

page:SetCharSpace – set character spacing

SYNOPSIS

```
status = page:SetCharSpace(value)
```

FUNCTION

`page:SetCharSpace()` sets the character spacing for text.

INPUTS

`value`	the character spacing (initial value is 0)

RESULTS

`status`	status code

15.79 page:SetCMYKFill

NAME

page:SetCMYKFill – set CMYK filling color

SYNOPSIS

```
status = page:SetCMYKFill(c, m, y, k)
```

FUNCTION

`page:SetCMYKFill()` sets the filling color. The individual parameters must all be between 0 and 1.

INPUTS

`c`	level of cyan
`m`	level of magenta
`y`	level of yellow
`k`	level of black

RESULTS

`status`	status code

15.80 page:SetCMYKStroke

NAME

page:SetCMYKStroke – set CMYK stroking color

SYNOPSIS

```
status = page:SetCMYKStroke(c, m, y, k)
```

FUNCTION

`page:SetCMYKStroke()` sets the stroking color. The individual parameters must all be between 0 and 1.

INPUTS

`c`	level of cyan
`m`	level of magenta
`y`	level of yellow
`k`	level of black

RESULTS

`status`	status code

15.81 page:SetDash

NAME

page:SetDash – set dash pattern for lines

SYNOPSIS

```
status = page:SetDash([pattern, phase])
```

FUNCTION

`page:SetDash()` sets the dash pattern for lines in the page. `pattern` needs to be a table containing between 0 and 8 elements of dashes and gaps. When called without parameters, line dashing will be disabled.

Here are some common patterns:

```
page:SetDash({3}, 1)
page:SetDash({7,3}, 2)
page:SetDash({8,7,2,7}, 0)
```

INPUTS

`pattern`	optional: pattern of dashes and gaps used to stroke paths
`phase`	optional: the phase in which the pattern begins (default is 0)

RESULTS

`status`	status code

15.82 page:SetExtGState

NAME
page:SetExtGState – apply extended graphics state

SYNOPSIS
`status = page:SetExtGState(extgstate)`

FUNCTION
`page:SetExtGState()` applies the graphics state to the page.

INPUTS
`extgstate`
the handle of an extended graphics state object

RESULTS
`status` status code

15.83 page:SetFlat

NAME
page:SetFlat – set current flatness

SYNOPSIS
`status = page:SetSlat(flatness)`

FUNCTION
`page:SetFlat()` sets the current value of the page's flatness.

INPUTS
`flatness` desired flatness

RESULTS
`status` status code

15.84 page:SetFontAndSize

NAME
page:SetFontAndSize – set font and size

SYNOPSIS
`status = page:SetFontAndSize(font, size)`

FUNCTION
`page:SetFontAndSize()` sets the type of font and size leading.

INPUTS
`font` the handle of a font object

`size` the size of a font

RESULTS

`status` status code

15.85 page:SetGrayFill

NAME

page:SetGrayFill – set gray filling color

SYNOPSIS

```
status = page:SetGrayFill(gray)
```

FUNCTION

`page:SetGrayFill()` sets the filling color.

INPUTS

`value` the value of the gray level between 0 and 1

RESULTS

`status` status code

15.86 page:SetGrayStroke

NAME

page:SetGrayStroke – set gray stroking color

SYNOPSIS

```
status = page:SetGrayStroke(gray)
```

FUNCTION

`page:SetGrayStroke()` sets the stroking color.

INPUTS

`value` the value of the gray level between 0 and 1

RESULTS

`status` status code

15.87 page:SetHeight

NAME

page:SetHeight – set page height

SYNOPSIS

```
status = page:SetHeight(value)
```

FUNCTION

`page:SetHeight()` changes the height of a page.

INPUTS

`value` the new page height; valid values are between 3 and 14400

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_PAGE_INVALID_SIZE` - An invalid size was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15.88 page:SetHorizontalScaling

NAME

page:SetHorizontalScaling – set horizontal scaling for text

SYNOPSIS

```
status = page:SetHorizontalScaling(value)
```

FUNCTION

`page:SetHorizontalScaling()` sets the horizontal scaling for text.

INPUTS

`value` the value of horizontal scaling (initially 100)

RESULTS

`status` status code

15.89 page:SetLineCap

NAME

page:SetLineCap – set line cap style

SYNOPSIS

```
status = page:SetLineCap(linecap)
```

FUNCTION

`page:SetLineCap()` sets the shape to be used at the ends of lines.

The `linecap` parameter must be one of the following constants:

`#HPDF_BUTT_END`
: Line is squared off at path endpoint

`#HPDF_ROUND_END`
: End of line becomes a semicircle whose center is at path endpoint

`#HPDF_PROJECTING_SCUARE_END`
: Line continues beyond endpoint, goes on half the endpoint stroke width

INPUTS

`linecap` the desired line cap style (see above)

RESULTS

`status` status code

15.90 page:SetLineJoin

NAME

page:SetLineJoin – set line join style

SYNOPSIS

```
status = page:SetLineJoin(linejoin)
```

FUNCTION

`page:SetLineJoin()` Sets the line join style in the page.

The `linejoin` parameter must be one of the following constants:

`#HPDF_MITER_JOIN`
: Use miter join (a sharp angled corner). This is the default join mode.

`#HPDF_ROUND_JOIN`
: Join lines by drawing their ends as circles. This gives a thick pen impression.

`#HPDF_BEVEL_JOIN`
: Join lines by cutting off the line ends at the half of the line width.

INPUTS

`linejoin` the desired line join style (see above)

RESULTS

`status` status code

15.91 page:SetLineWidth

NAME

page:SetLineWidth – set stroking width

SYNOPSIS

```
status = page:SetLineWidth(linewidth)
```

FUNCTION

`page:SetLineWidth()` sets the width of the line used to stroke a path.

INPUTS

`linewidth`
: the line width to use (default is 1)

RESULTS

`status` status code

15.92 page:SetMiterLimit

NAME
page:SetMiterLimit – set miter limit

SYNOPSIS
```
status = page:SetMiterLimit(miterlimit)
```

FUNCTION
Sets the miter limit. This defaults to 10.

INPUTS
`miterlimit`
desired miter limit

RESULTS
`status` status code

15.93 page:SetRGBFill

NAME
page:SetRGBFill – set RGB fill color

SYNOPSIS
```
status = page:SetRGBFill(r, g, b)
```

FUNCTION
`page:SetRGBFill()` sets the filling color. The individual color components must be between 0 and 1.

INPUTS
`r` red level of new color
`g` green level of new color
`b` blue level of new color

RESULTS
`status` status code

15.94 page:SetRGBStroke

NAME
page:SetRGBStroke – set RGB stroking color

SYNOPSIS
```
status = page:SetRGBStroke(r, g, b)
```

FUNCTION
`page:SetRGBStroke()` sets the stroking color. The individual color components must be between 0 and 1.

INPUTS

`r`	red level of new color
`g`	green level of new color
`b`	blue level of new color

RESULTS

`status`	status code

15.95 page:SetRotate

NAME

page:SetRotate – set page rotation

SYNOPSIS

```
status = page:SetRotate(angle)
```

FUNCTION

`page:SetRotate()` sets the rotation angle of the page.

INPUTS

`angle`	the rotation angle of the page; it must be a multiple of 90 degrees

RESULTS

`status`	status code

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_PAGE_INVALID_ROTATE_VALUE` - An invalid rotation angle was set.

15.96 page:SetSize

NAME

page:SetSize – set page size and direction

SYNOPSIS

```
status = page:SetSize(size, direction)
```

FUNCTION

`page:SetSize()` changes the size and direction of a page to a predefined size.

The `size` parameter must be one of the following constants:

`#HPDF_PAGE_SIZE_LETTER`
: 8.5 x 11 inches (612 x 792 pixels)

`#HPDF_PAGE_SIZE_LEGAL`
: 8.5 x 14 inches (612 x 1008 pixels)

`#HPDF_PAGE_SIZE_A3`
: 297 x 420 mm (841.89 x 1199.551 pixels)

`#HPDF_PAGE_SIZE_A4`
: 210 x 297 mm (595.276 x 841.89 pixels)

`#HPDF_PAGE_SIZE_A5`
: 148 x 210 mm (419.528 x 595.276 pixels)

`#HPDF_PAGE_SIZE_B4`
: 250 x 353 mm (708.661 x 1000.63 pixels)

`#HPDF_PAGE_SIZE_B5`
: 176 x 250 mm (498.898 x 708.661 pixels)

`#HPDF_PAGE_SIZE_EXECUTIVE`
: 7.25 x 10.5 inches (522 x 756 pixels)

`#HPDF_PAGE_SIZE_US4x6`
: 4 x 6 inches (288 x 432 pixels)

`#HPDF_PAGE_SIZE_US4x8`
: 4 x 8 inches (288 x 576 pixels)

`#HPDF_PAGE_SIZE_US5x7`
: 5 x 7 inches (360 x 504 pixels)

`#HPDF_PAGE_SIZE_COMM10`
: 4.125 x 9.5 inches (297 x 684 pixels)

The `direction` parameter must be one of the following constants:

`#HPDF_PAGE_PORTRAIT`
: Set the longer value to vertical.

`#HPDF_PAGE_LANDSCAPE`
: Set the longer value to horizontal.

INPUTS

`size` predefined page size value (see above)

`direction`
: the direction of the page (see above for possible values)

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_PAGE_INVALID_SIZE` - An invalid size was set.

`#HPDF_PAGE_INVALID_DIRECTION` - An invalid direction was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15.97 page:SetSlideShow

NAME

page:SetSlideShow – set page transition mode

SYNOPSIS

```
status = page:SetSlideShow(type, disptime, transtime)
```

FUNCTION

`page:SetSlideShow()` configures the setting for slide transition of the page. The `disptime` specifies the display duration of the page in seconds whereas the `transtime` parameter must be set to the duration of the transition effect in seconds.

The `type` parameter configures the actual effect and can be one of the following values:

```
#HPDF_TS_WIPE_RIGHT
#HPDF_TS_WIPE_UP
#HPDF_TS_WIPE_LEFT
#HPDF_TS_WIPE_DOWN
#HPDF_TS_BARN_DOORS_HORIZONTAL_OUT
#HPDF_TS_BARN_DOORS_HORIZONTAL_IN
#HPDF_TS_BARN_DOORS_VERTICAL_OUT
#HPDF_TS_BARN_DOORS_VERTICAL_IN
#HPDF_TS_BOX_OUT
#HPDF_TS_BOX_IN
#HPDF_TS_BLINDS_HORIZONTAL
#HPDF_TS_BLINDS_VERTICAL
#HPDF_TS_DISSOLVE
#HPDF_TS_GLITTER_RIGHT
#HPDF_TS_GLITTER_DOWN
#HPDF_TS_GLITTER_TOP_LEFT_TO_BOTTOM_RIGHT
#HPDF_TS_REPLACE
```

INPUTS

`type` the transition style (see above for possible values)

`disptime` the display duration of the page (in seconds)

`transtime` the duration of the transition effect (in seconds)

RESULTS

`status` status code

15.98 page:SetTextLeading

NAME

page:SetTextLeading – set text leading

SYNOPSIS

```
status = page:SetTextLeading(value)
```

FUNCTION

`page:SetTextLeading()` sets the text leading (line spacing) for showing text.

INPUTS

`value`	the value of text leading (initial value is 0)

RESULTS

`status`	status code

15.99 page:SetTextMatrix

NAME

page:SetTextMatrix – set text transformation matrix

SYNOPSIS

```
status = page:SetTextMatrix(a, b, c, d, x, y)
```

FUNCTION

`page:SetTextMatrix()` sets a transformation matrix for text to be drawn in using `page:ShowText()`. The function `page:TextRect()` does not use the active text matrix.

Returns `#HPDF_OK` on success, otherwise an error code.

INPUTS

`a`	scaling x coordinate
`b`	rotation x coordinate
`c`	rotation y coordinate
`d`	scaling y coordinate
`x`	translation x coordinate
`y`	translation y coordinate

RESULTS

`status`	status code

15.100 page:SetTextRenderingMode

NAME

page:SetTextRenderingMode – set text rendering mode

SYNOPSIS

```
status = page:SetTextRenderingMode(mode)
```

FUNCTION

`page:SetTextRenderingMode()` sets the text rendering mode.

The `mode` parameter must be one of the following constants:

```
#HPDF_FILL
```

```
#HPDF_STROKE
#HPDF_FILL_THEN_STROKE
#HPDF_INVISIBLE
#HPDF_FILL_CLIPPING
#HPDF_STROKE_CLIPPING
#HPDF_FILL_STROKE_CLIPPING
#HPDF_CLIPPING
```

The default text rendering mode is `#HPDF_FILL`.

INPUTS

`mode` the text rendering mode (see above for possible modes)

RESULTS

`status` status code

15.101 page:SetTextRise

NAME

page:SetTextRise – modulate y position of text

SYNOPSIS

```
status = page:SetTextRise(value)
```

FUNCTION

`page:SetTextRise()` moves the text position in vertical direction by the amount of `value`. Useful for making subscripts or superscripts.

INPUTS

`value` text rise, in user space units

RESULTS

`status` status code

15.102 page:SetWidth

NAME

page:SetWidth – set page width

SYNOPSIS

```
status = page:SetWidth(value)
```

FUNCTION

`page:SetWidth()` changes the width of a page.

INPUTS

`value` the new page width; valid values are between 3 and 14400

RESULTS

`status` status code

ERRORS

`#HPDF_INVALID_PAGE` - An invalid page handle was set.

`#HPDF_PAGE_INVALID_SIZE` - An invalid size was set.

`#HPDF_FAILED_TO_ALLOC_MEM` - Memory allocation failed.

15.103 page:SetWordSpace

NAME

page:SetWordSpace – set word spacing

SYNOPSIS

```
status = page:SetWordSpace(value)
```

FUNCTION

`page:SetWordSpace()` sets the word spacing for text.

INPUTS

`value` the value of word spacing (initial value is 0)

RESULTS

`status` status code

15.104 page:SetZoom

NAME

page:SetZoom – set page zoom

SYNOPSIS

```
status = page:SetZoom(zoom)
```

FUNCTION

`page:SetZoom()` sets the zoom factor for the page.

INPUTS

`zoom` the desired zoom setting

RESULTS

`status` status code

15.105 page:ShowText

NAME

page:ShowText – print text

SYNOPSIS

```
status = page:ShowText(text)
```

FUNCTION
`page:ShowText()` prints the text at the current position on the page.

INPUTS
`text` the text to print

RESULTS
`status` status code

15.106 page:ShowTextNextLine

NAME
page:ShowTextNextLine – break line and print text

SYNOPSIS
```
status = page:ShowTextNextLine(text[, wordspace, charspace])
```

FUNCTION
`page:ShowTextNextLine()` moves the current text position to the start of the next line, then prints the text at the current position on the page. If the optional arguments `wordspace` and `charspace` are specified, this method will also set the word and character spacing before printing the text.

INPUTS
`text` the text to print

`wordspace`
optional: word spacing for text

`charspace`
optional: char spacing for text

RESULTS
`status` status code

15.107 page:Stroke

NAME
page:Stroke – stroke current path

SYNOPSIS
```
status = page:Stroke()
```

FUNCTION
`page:Stroke()` paints the current path.

INPUTS
none

RESULTS
`status` status code

15.108 page:TextOut

NAME

page:TextOut – print text at position

SYNOPSIS

```
status = page:TextOut(xpos, ypos, text)
```

FUNCTION

`page:TextOut()` prints the text on the specified position.

INPUTS

`xpos`	x position where the text is to be displayed
`ypos`	y position where the text is to be displayed
`text`	the text to show

RESULTS

`status`	status code

15.109 page:TextRect

NAME

page:TextRect – print text inside region

SYNOPSIS

```
status, len = page:TextRect(left, top, right, bottom, text, align)
```

FUNCTION

`page:TextRect()` prints the text inside the specified region.

The `align` parameter must be one of the following constants:

`#HPDF_TALIGN_LEFT`
: The text is aligned to left.

`#HPDF_TALIGN_RIGHT`
: The text is aligned to right.

`#HPDF_TALIGN_CENTER`
: The text is centered.

`#HPDF_TALIGN_JUSTIFY`
: Add spaces between the words to justify both left and right side.

INPUTS

`left`	left coordinate of region
`top`	top coordinate of region
`right`	right coordinate of region
`bottom`	bottom coordinate of region
`text`	the text to show

`align` the alignment of the text (one of the following)

RESULTS

`status` status code

`len` the number of characters printed in the area

15.110 page:TextWidth

NAME

page:TextWidth – get text width

SYNOPSIS

```
w = page:TextWidth(text)
```

FUNCTION

`page:TextWidth()` gets the width of the text in the current font size, character spacing and word spacing.

INPUTS

`text` the text whose width to get

RESULTS

`w` text width

Appendix A Licenses

A.1 LibHaru license

A.2 LuaHPDF license

A.3 PDFium license

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