# Kofax Power PDF JavaScript Reference Guide

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# Symbols Used In This Guide



The accompanying text provides cross-reference links, tips, or general information that can add to your understanding of a topic.



The accompanying text provides key information about a step or action that might produce unexpected results if not followed precisely.



Read the accompanying text carefully. This text can help you avoid making errors that might negatively affect program behavior.

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## Chapter 1

# JavaScript API Guide

#### Preface

This document describes elements supported by the JavaScript API of Power PDF 4.

## About this guide

This guide details the JavaScript objects, properties, methods, and constants currently supported by the Power PDF JavaScript API. Each topic has a short description, most of them provide an example too. Descriptions concentrate on structures and connections specific to Power PDF and are not intended to provide information on general JavaScript or PDF issues. This document aims to provide help for interactive PDF programmers and intelligent document designers.

## Requirements

#### Software requirements

 You need Power PDF 3.0 or later, either Standard or Advanced edition installed and running on your computer.

Note Power PDF 2.x also supports JavaScript, but only with a subset of assets.

#### Personal requirements

- The ideal reader is familiar with basic JavaScript 1.6 programming concepts such as variables, decisions, cycles, properties, methods, objects, and events. This guide is not a textbook for JavaScript programming but requires the reader to understand programming on a beginner level at least.
- The knowledge of the Power PDF user interface is required to manage to build scenarios for examples. Not required, but advantageous to know the PDF file format structure.

#### Related documentation

This document refers to the following sources:

- PDF Reference version 1.7
- XFA Specification, Version 2.2

#### Other useful sources:

Power PDF Online Help — Refer to the online help for details on features and concepts in Power PDF.

• JavaScript core tutorials and reference — Refer to the core documentation, reference, or tutorials to learn more about the JavaScript language, programming concepts, and assets.

#### Introduction

Power PDF has a built in JavaScript engine providing scripting capabilities for designers of interactive PDF documents, for plug-in developers or form designers. The engine covers most of the functionality of the software, making possible to script:

- · Form processing
- · Batch processing
- · Data import and export

Power PDF provides several ways to run or call JavaScript.

- · JavaScript Console
- · Document JavaScript
- · PDF document events

For details on working with JavaScript refer to the *Using JavaScripts* topic in the Power PDF online help.

JavaScript libraries added to the application's JavaScript folder share their functions for any script running in Power PDF. Users need to install their libraries the following way:

1. Prepare your JavaScript library (.js) files. A single file may contain multiple functions.

Note No limitation on the number of files to add.

Note The size of the .js files is limited to 4MB.

2. Copy the .js files to the following folder:

%AppData%\Kofax\PDF\PowerPDF\JavaScript

3. Restart Power PDF.

To try your JavaScript function do the following:

- 1. In Power PDF start the JavaScript console at Edit > JavaScript > JavaScript Console .
- **2.** Type the name of the function with the required actual parameters, then press Ctrl + Enter. For example:

MyFunction(MyParameter);

3. Verify the output of your function.

# Syntax and objects

Power PDF follows the core JavaScript syntax and uses an object hierarchy following application and document features and structures.

Note All identifiers are case sensitive in JavaScript.

#### Static objects

Power PDF JavaScript has the built in objects (such as app or Doc) to reflect Power PDF features and PDF document structure. Most of the objects are dynamic, but the following objects are static and managed by the application:

- app
- event
- global
- · search
- security
- util

Other objects are dynamic, so you can assign them to a variable. This script assigns a newly created document to the oDOC variable:

```
var oDOC = app.newDoc();
```

Now all properties and methods are accessible with this variable. This script displays the Print dialog:

```
oDOC.print();
```

#### **Arguments**

Methods may receive their arguments two ways:

 Standard argument list — Separate neighboring arguments by a comma, and provide them in the order specified in the method definition.

```
app.alert( "Power PDF 3.0", 3);
```

• Single object argument with corresponding property names and values — Surround the argument object by curly brackets. Specify an argument by its parameter name, followed by a colon and a value. Separate argument specifications by a comma.

```
app.alert({ cMsg: "Power PDF 3.0", nIcon: 3});
```

#### **Paths**

You should provide *device-independent paths* in some method arguments (refer to *PDF Reference version 1.7* for details on the format).

#### Safe Path

Safe path means the following:

- Paths passed to JavaScript methods and properties writing to files may not point to a system or critical folder (such as the Windows folder or the root folder).
- The specified file name extension should correspond to the data type to write.
- · Some methods are blocked to overwrite any file.

A path or a file name considered not safe raises a NotAllowedError exception and the method fails.

#### **Privileged Context**

Some methods can only run in privileged context. Privileged context provides an elevated state where special operations (which are restricted in other contexts) may run. The following may grant privileged context:

- Running in the JavaScript Console
- Running as a Document Action (Document JavaScript), see getPath for an example.

## **Dummy Data in Code Samples**

This document uses various dummy data in the code samples. You need to replace the following samples with production data:

- Domain names (such as example.com)
- E-mail addresses (such as john.doe@example.com)
- Paths (such as /C/IDs/JohnDoe.pfx)

# JavaScript API

The following chapters describe the supported JavaScript objects in alphabetical order.

## **Annotation**

This object describes a Power PDF annotation. Annotations are designed with the annotation tool, and they have a randomized name (such as 5e944574-926d-c926-6eb7-e5bf3e230653). Since the user cannot gather these names using the UI, currently the best way of accessing annotations is calling the Doc.getAnnots method, which returns with an array of Annotation objects. All objects in this array have the annotation name in their name property, so annotations can be accessed and renamed, as it is demonstrated in the example provided for the name property (see name for details).

To access an annotation by name with JavaScript first it should be bound to a variable using the Doc.getAnnot.

```
var oAnnot = this.getAnnot(0, "ReviewNotes");
```

As this script assigned the variable, you can then reach the annotation named "ReviewNotes" on the first page (page numbering starts with 0) by means of the variable oAnnot.

The following example shows how to read and write object properties. The first script line stores the type of the annotation in the variable mytype, then the second line of code changes the author to John Doe.

```
var mytype = oAnnot.type; // reads property
oAnnot.author = "John Doe"; // writes property
```

# Annotation types

There are different kind of Annotations, the type can be determined by checking the type property. The table below lists annotation types, providing all documented properties.

| Annotation type | Properties   |
|-----------------|--|
| Caret           | author, borderEffectIntensity, borderEffectStyle, caretSymbol, contents, creationDate, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width   |
| Circle          | author, borderEffectIntensity, borderEffectStyle, contents, creationDate, dash, fillColor, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width   |
| FileAttachment  | attachlcon, author, borderEffectIntensity, borderEffectStyle, contents, creationDate, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, point, print, readOnly, rect, refType, rotate, strokeColor, style, subject, oggleNoView, type, width  |
| FreeText        | alignment, author, borderEffectIntensity, borderEffectStyle, callout, contents, creationDate, dash, fillColor, hidden, inReplyTo, intent, lineEnding, lock, modDate, name, noView, opacity, page, print, readOnly, rect, refType, rotate, strokeColor, style, subject, textFont, toggleNoView, type, width   |
| Highlight       | author, borderEffectIntensity, borderEffectStyle, contents, creationDate, dash, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width  |
| Ink             | author, borderEffectIntensity, borderEffectStyle, contents, creationDate, dash, gestures, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width  |
| Line            | arrowBegin, arrowEnd, author, borderEffectIntensity,borderEffectStyle, contents, creationDate, dash, doCaption, fillColor, hidden, inReplyTo, intent, leaderExtend, leaderLength, lock, modDate, name, noView, opacity, page, points, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width |
| Polygon         | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, dash, fillColor, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, vertices, width  |
| PolyLine        | arrowBegin, arrowEnd, author, borderEffectIntensity,borderEffectStyle, contents, creationDate, dash, fillColor, hidden, inReplyTo, intent, lock, modDate, name, noView,opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, vertices, width                                       |
| Sound           | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, point, print, readOnly, rect, refType, rotate, soundIcon, strokeColor, style, subject, toggleNoView, type, width   |
| Square          | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, dash, fillColor, hidden, inReplyTo, intent, lock, modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width  |
| Squiggly        | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, hidden, inReplyTo, intent, lock, modDate,name, noView, opacity, page, popupOpen, popupRect, print, quads, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width   |

| Annotation type | Properties  |
|-----------------|---|
| Stamp           | AP, author, borderEffectIntensity, borderEffectStyle,contents, creationDate, hidden, inReplyTo, intent, lock,modDate, name, noView, opacity, page, popupOpen, popupRect, print, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type                    |
| StrikeOut       | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, hidden, inReplyTo, intent, lock, modDate,name, noView, opacity, page, popupOpen, popupRect, print, quads, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width          |
| Text            | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, hidden, inReplyTo, intent, lock, modDate, name, noView, notelcon, opacity, page, point, popupOpen,popupRect, print, readOnly, rect, refType, rotate,strokeColor, style, subject, toggleNoView, type, width |
| Underline       | author, borderEffectIntensity, borderEffectStyle, contents,creationDate, hidden, inReplyTo, intent, lock, modDate,name, noView, opacity, page, popupOpen, popupRect, print, quads, readOnly, rect, refType, rotate, strokeColor, style, subject, toggleNoView, type, width          |

# **Annotation properties**

Some properties are stored as names, others are represented by strings in the PDF document. A name property can have 127 characters at most. For further details refer to *PDF Reference version 1.7*.

# alignment

| Description | Determines the alignment of the text for a FreeText annotation. |
|-------------|---|
| Values      | 0 — Left aligned 1 — Centered 2 — Right aligned                 |
| Туре        | Number  |
| Access      | Read/Write  |
| Annotations | FreeText  |

#### AP

| Description | The name of the standard stamp fashion to use when the stamp annotation is displayed. In Power PDF, changing the AP property does not change the graphical design but alters only the Subject line on the Author and Subject tab of the Stamp Properties dialog box. |
|-------------|--|
|             | Note To find a particular name stamp search the Stamps folder.   |
|             |  |

| Values      | Approved  |
|-------------|---|
|             | AsIs  |
|             | Confidential  |
|             | Departmental  |
|             | Draft   |
|             | Experimental  |
|             | Expired   |
|             | Final   |
|             | ForComment  |
|             | ForPublicRelease  |
|             | NotApproved   |
|             | NotForPublicRelease   |
|             | Sold  |
|             | TopSecret   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | Stamp   |
| Example     | Add a Final stamp to the first page of the document, then run this script to change its AP property to Expired.           |
|             | <pre>var aAnnots = this.getAnnots({    nPage:0 }); var oAN = this.getAnnot(0, aAnnots[0].name); oAN.AP = "Expired";</pre> |

icons

# arrowBegin

| Description | Specifies the line cap style that describes the shape to be used at the start of the line annotation. |
|-------------|---|
| Values      | None (default)  |
|             | OpenArrow   |
|             | CloseArrow  |
|             | ROpenArrow  |
|             | RCloseArrow   |
|             | Butt  |
|             | Diamond   |
|             | Circle  |
|             | Square  |
|             | Slash   |
| Туре        | String  |
| Access      | Read/Write  |

| Annotations | Line, PolyLine |  |
|-------------|----------------|--|
|-------------|----------------|--|

# arrowEnd

| Description | Specifies the line cap style that describes the shape to be used at the end of the line annotation. |
|-------------|---|
| Values      | None (default)  |
|             | OpenArrow   |
|             | CloseArrow  |
|             | ROpenArrow  |
|             | RCloseArrow   |
|             | Butt  |
|             | Diamond   |
|             | Circle  |
|             | Square  |
|             | Slash   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | Line, PolyLine  |

## attachIcon

| Description | The label of an icon that is used when the annotation is displayed. |
|-------------|---|
| Values      | Paperclip   |
|             | PushPin (default)   |
|             | Graph   |
|             | Tag   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | FileAttachment  |

# author

| Description | Represents the author of the annotation. |
|-------------|--|
| Туре        | String                                   |
| Access      | Read/Write                               |
| Annotations | All                                      |

# borderEffectIntensity

| Description Represents the intensity of the border effect. | escription | ne border effect. |
|--|------------|-------------------|
|--|------------|-------------------|

| Туре        | Number     |
|-------------|------------|
| Access      | Read/Write |
| Annotations | All        |

# borderEffectStyle

| Description | Currently, there are only two border values supported; empty string and ℂ for cloudy. |
|-------------|---|
| Values      | "" (empty string)   |
|             | С   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | All   |

# callout

| Description | An array of four or six numbers that denotes a callout line connected to the free text annotation. |
|-------------|--|
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | FreeText   |

# caretSymbol

| Description | The icon related to the Caret annotation, which shows the presence of text edits. |
|-------------|---|
| Values      | "" (empty string) P (paragraph symbol) S (space symbol)                           |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | Caret   |

## contents

| Description | Provides the content of an annotation that has a connected pop-up window. For file attachment and sound annotations, it defines the text that is displayed as a description. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Annotations | All  |

```
Add a Note annotation to the first page of the document, then run this script to fill its contents property.

var aAnnots = this.getAnnots({
    nPage:0
});

var oAN = this.getAnnot(0, aAnnots[0].name);
oAN.contents = "This note was filled by JavaScript.";
```

## creationDate

| Description | Creation date and time of the annotation. |
|-------------|---|
| Туре        | Date                                      |
| Access      | Read                                      |
| Annotations | All                                       |

#### dash

| Description | This array specifies the sequence of dashes and gaps in a dashed border. |
|-------------|--|
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | FreeText,Line, PolyLine, Polygon, Circle, Square, Ink                    |

#### **Related concepts**

style

#### doc

| Description | Specifies the Doc object of the document where the annotation is placed. |
|-------------|--|
| Туре        | Doc object   |
| Access      | Read   |
| Annotations | All  |

# doCaption

| Description | When the property holds true the rich contents are drawn in the line appearance |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Annotations | Line  |

## fillColor

| Description | Defines the background color for fillable annotations.      |
|-------------|---|
| Values      | Values are set using transparent, gray, RGB or CMYK colors. |
| Туре        | Color   |
| Access      | Read/Write  |
| Annotations | Circle, Square, Line, Polygon, PolyLine, FreeText           |

# gestures

| Description | An array of arrays, each describing a stroked path by a series of x and y coordinate offsets within a default user space. The points along the path are linked by straight lines or curves, dependent on the implementation. |
|-------------|--|
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | Ink  |

## hidden

| Description | When this property is true, the annotation is not displayed, not printable, and the user cannot interact with it. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Annotations | all   |

# inReplyTo

| Description | When the property value is non-empty, then this annotation defines the name value of the annotation that this annotation is in reply to. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Annotations | All  |

## Related concepts

#### inReplyTo

## intent

| Description | With this property the markup annotation type acts differently, which depends on the planned use of the annotation. This property is specified for all the annotations but presently have values of intent only for free text, pplygon, and line annotations |
|-------------|--|
| Туре        | String   |

| Access      | Read/Write   |
|-------------|--|
| Annotations | Note Refer to the Annotations with special appearances table that lists the tools that are used for creating annotations with special appearances, which are available through UI. |

## Annotations with special appearances

| UI                | Annotation type | Intent           |
|-------------------|-----------------|------------------|
| Callout Tool      | FreeText        | FreeTtextCallout |
| Cloud Tool        | Polygon         | PolygonCloud     |
| Arrow Tool        | Line            | LineArrow        |
| Dimensioning Tool | Line            | LineDimension    |

# leaderExtend

| Description | Defines the leader line extensions length that originates from both endpoints of the line, and is perpendicular to it. These line extensions are exactly 180 degrees from the leader lines. |
|-------------|---|
| Values      | >= 0 (0 is the default, when there is no leader line extension)   |
| Туре        | Number  |
| Access      | Read/Write  |
| Annotations | Line  |

# leaderLength

| Description | Defines the length of the leader lines that originates from both endpoints of the line, which is perpendicular to the line. The negative length value indicates an alternate orientation of the leader lines. |
|-------------|---|
| Values      | (0 is the default, when there is no leader line)  |
| Туре        | Number  |
| Access      | Read/Write  |
| Annotations | Line  |

# lineEnding

| Description | Defines the way the end of a callout line is stroked, and is applicable only to free text annotation |
|-------------|--|
|             | when the value of intent is FreeTextCallout.   |

| Values      | None (default) |
|-------------|----------------|
|             | OpenArrow      |
|             | ClosedArrow    |
|             | ROpenArrow     |
|             | RClosedArrow   |
|             | Butt           |
|             | Diamond        |
|             | Circle         |
|             | Square         |
|             | Slash          |
| Туре        | String         |
| Access      | Read/Write     |
| Annotations | FreeText       |

# lock

| Description | When the property holds true, the annotation is locked, that is similar to being read-only. Locked annotations are only accessible through the properties dialog box in the UI. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Annotations | All   |

## Related concepts

## readOnly

## modDate

| Description | States the date when the annotation was last modified.  |
|-------------|---|
| Туре        | Date  |
| Access      | Read/Write  |
| Annotations | All   |
| Example     | Add a Note annotation to the first page of the document, then run this script to display its last modification date on the console.                               |
|             | <pre>var aAnnots = this.getAnnots({    nPage:0 }); var oAN = this.getAnnot(0, aAnnots[0].name); console.println(util.printd("mmmm dd, yyyy", oAN.modDate));</pre> |

#### name

| Description | Specifies an annotation name and the value of which is used by the <code>Doc.getAnnot</code> method to search and access the methods and properties of the annotation.  |
|-------------|---|
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | All   |
| Example     | This code uses getAnnots to retrieve annotation object names, then grabs the very first annotation on page 0 by getAnnot and renames it.  var aAnnots = this.getAnnots({     nPage:0,     nSortBy: ANSB_Author,     bReverse: false });  var oAN = this.getAnnot(0, aAnnots[0].name);  if (aAnnots.length > 0)     oAN.name = "FirstOnPage0"; console.println("The name of the very first annotation is: " +     oAN.name); |

# notelcon

| Description | Specifies the icon label which is used to display the annotation. |
|-------------|---|
| Values      | Check   |
|             | Circle  |
|             | Comment   |
|             | Cross   |
|             | Help  |
|             | Insert  |
|             | Key   |
|             | NewParagraph  |
|             | Note (default)  |
|             | Paragraph   |
|             | RightArrow  |
|             | RightPointer  |
|             | Star  |
|             | UpArrow   |
|             | UpLeftArrow   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | Text  |

## noView

| Description | When the property holds true the annotation is hidden, and appears only when used for |  |
|-------------|---|--|
|             | printing.   |  |

| Values      | None       |
|-------------|------------|
| Туре        | Boolean    |
| Access      | Read/Write |
| Annotations | All        |

# opacity

| Description | Specifies a constant opacity value, which is used for painting the annotation. This value is applicable to all visible parts of the annotation, excluding the pop-up window, which is displayed when the annotation opens. |
|-------------|--|
| Values      | 0.0-1.0 (the default is 0.5)   |
| Туре        | Number   |
| Access      | Read/Write   |
| Annotations | All  |

## page

| Description | Specifies the page where the annotation is placed. |
|-------------|--|
| Values      | None   |
| Туре        | Integer  |
| Access      | Read/Write   |
| Annotations | All  |

# point

| Description | An array with two numbers [Xul, Yul] defining the upper left-hand corner in default user space of the icon meant for a sound, text, or a file attachment annotation. |
|-------------|--|
| Values      | None   |
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | Text, Sound, FileAttachment  |

## Related concepts

#### notelcon

# points

| Description | An array of two point [[X1, Y1], [X2, Y2]] arrays defining the starting and the ending coordinates of the line in the default user space. |
|-------------|---|
| Values      | None  |

| Туре        | Array      |
|-------------|------------|
| Access      | Read/Write |
| Annotations | Line       |

 $arrow \\ Begin$ 

arrowEnd

# popupOpen

| Description | If the property holds true, the pop-up text appears to be open when the page is displayed. |
|-------------|--|
| Values      | None   |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Annotations | All except FreeText, Sound, and FileAttachment   |

# popupRect

| Description | A four number [xll, yll, xur, yur] array that defines the lower-left x, lower-left y, upper-left x, and upper-right y coordinates of the rectangle of the pop-up annotation window, which is related to a parent annotation. The coordinates should be interpreted in the default user space. |
|-------------|---|
| Values      | None  |
| Туре        | Array   |
| Access      | Read/Write  |
| Annotations | All except FreeText, Sound, FileAttachment  |

# print

| Description | If this property is set true, then the annotation appears on the print output, otherwise not. |
|-------------|---|
| Values      | None  |
| Туре        | Boolean   |
| Access      | Read/Write  |
| Annotations | All   |

# quads

|        | An array of quad lists defining the coordinates of quadrilaterals in the default user space. A quad list itself is also an array of four coordinate points (4×2 numbers altogether) defining an area comprises one or more word of contiguous text underlying the annotation. |
|--------|---|
| Values | None  |

| Туре        | Array                                     |
|-------------|---|
| Access      | Read/Write                                |
| Annotations | Highlight, StrikeOut, Underline, Squiggly |

## rect

| Description | The rect array contains four numbers [xll, yll, xur, yur] to define the lower-left x, lower-left y, upper-left x, and upper-right y coordinates in the default user space. This way rect represents the rectangle that specifies the area of the annotation on the page. |
|-------------|--|
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | All  |

#### **Related concepts**

## popupRect

# readOnly

| Description | When this property holds true the annotation is displayed but do not interact with the user. |
|-------------|--|
| Values      | None   |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Annotations | All  |

# refType

| Description | Specifies the reference type of an annotation, it differentiates the relationship that <code>inReplyTo</code> denotes either as plain threaded discussion relationship or a group relationship. |
|-------------|---|
| Values      | R   |
|             | Group   |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | All   |

## Related concepts

#### inReplyTo

#### rotate

| Description | Defines the number of degrees the annotation is rotated counter-clockwise with respect to the |
|-------------|---|
|             | page. Only applicable to free text annotations.   |

| Values      | 0, 90, 180, 270 <b>degrees</b> |
|-------------|--------------------------------|
| Туре        | Integer                        |
| Access      | Read/Write                     |
| Annotations | FreeText                       |

# soundlcon

| Description | Defines the icon for the sound annotation. |
|-------------|--|
| Values      | Sound                                      |
|             | Mic  |
|             | Ear  |
| Туре        | String                                     |
| Access      | Read/Write                                 |
| Annotations | Sound                                      |

## strokeColor

| Description | Specifies the display color of the annotation. For free text annotation, strokeColor specifies the border and the text colors. |
|-------------|--|
| Values      | Values are defined by using transparent, gray, RGB or CMYK color objects.  |
| Туре        | Array  |
| Access      | Read/Write   |
| Annotations | All  |

# style

| Description | Specifies the border style. This property is defined for all the annotation types, but it is applicable only to line, free text, circle, square,polyline, polygon, and ink annotations. |
|-------------|---|
| Values      | S (solid) D (dashed)  |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | All   |

## Related concepts

dash

# subject

| Description | The text used for the short description of the subject of the annotation. This text is displayed also in the title bar of the pop-up window or the properties dialog box. |
|-------------|---|
| Values      | None  |
| Туре        | String  |
| Access      | Read/Write  |
| Annotations | All   |

# toggleNoView

| Description | If this property holds true, then the noView flag is toggled when the annotation is selected, or mouse hovers over the annotation. Setting both noView and toggleNoView to true turns the annotation object practically invisible. |
|-------------|--|
| Values      | None   |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Annotations | All  |

## Related concepts

noView

toggleNoView

# type

| Description | Specifies the annotation type. Annotation type cannot be modified by setting this property. |
|-------------|---|
| Values      | Text  |
|             | FreeText  |
|             | Line  |
|             | Square  |
|             | Circle  |
|             | Polygon   |
|             | PolyLine  |
|             | Highlight   |
|             | Underline   |
|             | Squiggly  |
|             | StrikeOut   |
|             | Stamp   |
|             | Caret   |
|             | Ink   |
|             | FileAttachment  |
|             | Sound   |
| Туре        | String  |

| Access      | Read |
|-------------|------|
| Annotations | All  |

## vertices

| Description | An array of coordinate arrays specifying the coordinates (horizontal and vertical respectively) of each vertex consisting a polygon or polyline annotation in the default user space. |
|-------------|---|
| Туре        | Array of arrays   |
| Access      | Read/Write  |
| Annotations | Polygon, PolyLine   |

## width

| Description | Specifies the border width in points. Zero results in no border. |
|-------------|--|
| Values      | 0-12 (1 is the default)  |
| Туре        | Number   |
| Access      | Read/Write   |
| Object Type | Square, Circle, Line, Ink, FreeText                              |

## **Annotation methods**

# destroy

| Description | Destroys the annotation, eliminating it from the page. As a result the object becomes invalid.  |
|-------------|---|
| Annotations | All   |
| Example     | The following script deletes the very first annotation (if there is any) on the first page.  var aAnnots = this.getAnnots({    nPage:0 }); var oAN = this.getAnnot(0, aAnnots[0].name); |
|             | oAN.destroy();  |

# app

This static object represents the Power PDF application instance currently running. Provides tools related to timing, view, printing, paths, and others.

# App properties

## activeDocs

| Description | An array containing a Doc object for each document currently opened, including the hidden                         |
|-------------|---|
|             | ones. If there are no active documents, then this is an empty array.  |
| Туре        | Array   |
| Access      | Read  |
| Example     | This code lists the title of each opened documents to the console.  |
|             | <pre>var aDocs = app.activeDocs; for (var i=0; i &lt; aDocs.length; i++)   console.println(aDocs[i].title);</pre> |
|             |   |

## calculate

| Description | Set this property to false to stop the automatic calculation of the fields. The default is true. |
|-------------|--|
|             | Note This property is deprecated, use Doc.calculate instead.                                     |
|             |  |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Object Type | None   |

#### **Related concepts**

Doc.calculate

# focusRect

| Description | Set this property to false to turn off the dotted rectangle drawn around the UI control (check box, button, radio button or signature) which currently has the keyboard focus. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Example     | This script turns off the focus rectangle.   |
|             | <pre>app.focusRect = false;</pre>  |

# formsVersion

| Description | This property holds the version number of the form viewer software module.         |
|-------------|--|
|             | <b>Note</b> formsVersion may return a different version number than viewerVersion. |
| Туре        | Number   |
| Access      | Read   |

| Example | This script queries both the viewer and form software version numbers.  |
|---------|---|
|         | <pre>console.println("Version of the form software: " + app.formsVersion); console.println("Version of the viewer software: " +     app.viewerVersion); console.println("Variation of the viewer application: " +     app.viewerVariation);</pre> |
|         | <pre>console.println("Type of the viewer: " + app.viewerType);</pre>  |

viewerVersion

viewerType

viewerVariation

## fromPDFConverters

| Description | This array of strings contains all file type conversion IDs.  |
|-------------|---|
| Туре        | Array   |
| Access      | Read  |
| Example     | This script list all type-conversion IDs to the console.  |
|             | <pre>for ( var i = 0; i &lt; app.fromPDFConverters.length; i++)   console.println("#" + i + ": " + app.fromPDFConverters[i]);</pre> |

#### fs

| Description | A FullScreen object, which grants access to presentation mode properties. |
|-------------|---|
| Туре        | Object  |
| Access      | Read  |

#### **Related concepts**

FullScreen object

FullScreen.isFullScreen

## fullscreen

| Description | Determines if the application is in normal or foll screen (presentation) mode. |
|-------------|--|
|             | Note This property is deprecated, please use isFullScreen instead.             |
|             |  |
| Туре        | Boolean  |
| Access      | Read/Write   |

#### **Related concepts**

FullScreen object

#### FullScreen.isFullScreen

# language

| Description | The application language code.  |
|-------------|---|
| Values      | <ul> <li>CHS — Chinese Simplified</li> <li>CHT — Chinese Traditional</li> <li>DAN — Danish</li> <li>DEU — German</li> <li>ENU — English</li> <li>ESP — Spanish</li> <li>FRA — French</li> <li>ITA — Italian</li> <li>KOR — Korean</li> <li>NLD — Dutch</li> <li>NOR — Norwegian</li> <li>PTB — Brazilian Portugese</li> <li>SUO — Finnish</li> <li>SVE — Swedish</li> </ul> |
| Туре        | String  |
| Access      | Read  |
| Example     | This code prints the current language code to the console.  console.println("Current language code is: " + app.language);   |

# numPlugIns

| Description | This property holds the number of the currently loaded plug-ins in Power PDF. |
|-------------|---|
|             | Note This property is deprecated, use app.plugins.length instead.             |
|             |   |
| Туре        | Number  |
| Access      | Read  |

#### **Related concepts**

plugIns

# openInPlace

| Description | Set this property to true to open cross-document links in the current window/tab. Set this property to false to open cross-document links in a new window/tab. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |

| Example | Run this code to open cross-document links in a new window or in a new tab. |
|---------|---|
|         | <pre>app.openInPlace = false;</pre>   |

# platform

| Description | This property indicates the operation system in use.                          |
|-------------|---|
| Values      | WIN   |
|             | MAC   |
| Туре        | String  |
| Access      | Read  |
| Example     | This code prints the current OS code to the console.                          |
|             | <pre>console.println("The code of the current OS is: " + app.platform);</pre> |

# plugIns

| Description | This array contains one plug-in object for each plug-in currently loaded.  |
|-------------|--|
| Туре        | Array  |
| Access      | Read   |
| Example     | <pre>This code lists all plug-ins to the console. var aPL = app.plugIns; var nPl = aPL.length; console.println("there are " + nPl + " plug-in(s) loaded:"); for ( var i = 0; i &lt; nPl; i++)   console.println("\#"+i+" - " + aPL[i].name);</pre> |

# printerNames

| Description | This array lists the available printers, returning an empty array if there are no printers installed on the system. Use any of these items in the printerName property of the PrintParams object.                       |
|-------------|---|
| Туре        | Array of Strings  |
| Access      | Read  |
| Example     | This script prints the list of printers to the console.   |
|             | <pre>var aPn = app.printerNames; var nPn = aPn.length; console.println("There are " + nPn +" printer(s) available:"); for ( var i = 0; i &lt; nPn; i++)   console.println("#" + i + " - " + app.printerNames[i]);</pre> |

#### **Related concepts**

getPrintParams

# viewerType

| Description | This property reports which viewer application is running. Valid values are: |
|-------------|--|
|             | • Reader   |
|             | • Exchange   |
|             | • Exchange-Pro   |
| Туре        | String   |
| Access      | Read   |
| Example     | See the example provided for the formsVersion method.                        |

formsVersion

viewerVariation

viewerVersion

## viewerVariation

| Description | This property holds the variation of the viewer application. |
|-------------|--|
| Values      | Reader   |
|             | Fill-in  |
|             | Business Tools   |
|             | Full   |
| Туре        | String   |
| Access      | Read   |
| Example     | See the example provided for the formsVersion method.        |

#### **Related concepts**

formsVersion

viewerType

viewerVersion

## viewerVersion

| Description | This property holds the version number of the viewer application.                  |
|-------------|--|
|             | <b>Note</b> formsVersion may return a different version number than viewerVersion. |
|             |  |
| Туре        | Number   |
| Access      | Read   |
| Example     | See the example provided for the formsVersion method.                              |

#### **Related concepts**

formsVersion

viewerType viewerVariation

# App methods

## alert

| Description  | Launches a message dialog box.   |
|--------------|--|
| Parameters   | cMsg — Provide a string value to display as the message.  nIcon — (optional) The type of the icon:  • 0 — Error (white X on a red disk, default)  • 1 — Warning (exclamation mark on a yellow traffic sign)  • 2 — Question (question mark on a blue disk)  • 3 — Status (blue information sign)  nType — (optional) This code determines what button group to display:  • 0 — A single OK button (default)  • 1 — OK, Cancel  • 2 — Yes, No  • 3 — Yes, No, Cancel  cTitle — (optional) Specify the text displayed in the title here. The default is Power PDF Standard or Power PDF Advanced.  oDoc — (optional) The Doc object to associate the message with. |
| Return value | The return value depends on the type of button nButton pressed by the user:  • 1 — OK  • 2 — Cancel  • 3 — No  • 4 — Yes   |
| Example      | This code displays a message box with a question and offers Yes, No, or Cancel.  app.alert({    cMsg: "Is Power PDF the best PDF editor?",    nIcon: 2,    nType: 3,    cTitle: "Power PDF is the best!" });   |

# beep

| Description | Use this method to play a sound. |  |
|-------------|----------------------------------|--|
|-------------|----------------------------------|--|

| Parameters | nType — Specify the type of the sound with one of the sound codes: |
|------------|--|
|            | • 0 — Error  |
|            | • 1 — Warning  |
|            | • 2 — Question   |
|            | • 3 — Status   |
|            | • 4 — Default  |
|            |  |
| Example    | Check the example provided with the Bookmark.setAction method.     |

Bookmark.setAction

#### clearInterval

| Description | Clears an interval, which earlier was created using the setInterval method. |
|-------------|---|
| Parameters  | oInterval — The interval object to cancel.                                  |
| Example     | Check the example provided with the Field.buttonAlignY method.              |

#### Related concepts

clearTimeOut

setTimeOut

setInterval

Field.buttonAlignY

## clearTimeOut

| Description | Clears a time-out interval, which earlier was created using the setTimeOut method. |
|-------------|--|
| Parameters  | oTime — The time-out interval object to cancel.                                    |
| Example     | Check the example provided with the Field.buttonAlignY method.                     |

#### **Related concepts**

clearTimeOut

clearInterval

setInterval

setTimeOut

Field.buttonAlignY

execMenuItem

| Description | Executes the specified menu item.  |
|-------------|--|
|             | Note Not all menu items are allowed to execute, only the ones considered safe.   |
|             |  |
| Parameters  | cMenuItem — The menu item to launch. For menu names, refer to the Names of actions/menus chapter in the Appendix of <i>Kofax Power PDF Automation Interface Guide</i> .  oDoc — (optional) The Doc object to associate the message with. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which acts the same way as you click on the File > Print menu. app.execMenuItem("Print");                    |

# getNthPlugInName

| Description  | Returns with the name of the nth plug-in loaded.                                |
|--------------|---|
|              | Note This method is deprecated, use the app.plugins property instead.           |
|              |   |
| Parameters   | nIndex — Specify the index number of the plug-in to point.                      |
| Return value | cName holds the plug-in name  |
| Example      | This script prints the name of the plug-in loaded first.                        |
|              | <pre>console.println("The first plug-in is: " + app.getNthPlugInName(0));</pre> |

## Related concepts

plugIns

getPath

| Description | This method returns with the installation path for the selected component of Power PDF. Application folders and user folders are distinguished.   |
|-------------|---|
| Parameters  | <ul> <li>cCategory — (optional) Choose from app (global folder) or user (user-specific folder).</li> <li>cFolder — (optional) Identify the component with one of the valid string values:</li> <li>root</li> <li>eBooks</li> <li>preferences</li> <li>sequences</li> <li>documents</li> <li>javascript</li> <li>stamps</li> <li>dictionaries</li> <li>plugIns</li> <li>spPlugIns</li> <li>help</li> <li>temp</li> <li>messages</li> <li>resource</li> <li>update</li> </ul> |
| Example     | Add this code to the Document Save Requested item in the Document Actions dialog box, this way the getPath method runs in a privileged context, as required. The script runs when next time you save the document and displays user-level and application-level JavaScript folders on the console.  console.println("JavaScript user folder: " + app.getPath("user", "javascript")); console.println("JavaScript global folder: " + app.getPath("app", "javascript"));      |

# goBack

| Description | Switches back to the previous view. An error message box pops up if the view history is empty. |
|-------------|--|
| Example     | This code steps back in the view history.  |
|             | app.goBack();  |

#### **Related concepts**

## goForward

# goForward

| Description | Steps forward to the next view.              |
|-------------|--|
| Example     | This code steps forward in the view history. |
|             | app.goForward();                             |

goBack

## launchURL

| Description  | Launches the default browser and loads the specified URL. Asks for confirmation before launch.   |
|--------------|--|
| Parameters   | curl — Specify the URL in this string.  bNewFrame — (optional) Set this to true if you want to open a new browser window or tab for the content. Set this false to replace the window or tab currently opened. |
|              | · · · · · · · · · · · · · · · · · · ·  |
| Return value | Returns with undefined, or throws an exception on error.   |
| Example      | This script launches www.example.com replacing the content of the current browser window or tab.   |
|              | <pre>app.launchURL("http://www.example.com/", false);</pre>  |

# mailMsg

| Description  | Sends a custom mail message.  |
|--------------|---|
| Parameters   | bul — (optional) If true, then the compose new mail window shows up, the message fields are populated using the rest of the parameters and the user may edit all the fields. If false, then Power PDF fills the message fields based on the parameters below. In this case only the $\mathtt{cTo}$ parameter is required. |
|              | cTo — (optional) List of the recipients, separated by semicolon.  |
|              | cCc — (optional) List of the CC recipients, separated by semicolon.   |
|              | cBcc — (optional) List of the BCC recipients, separated by semicolon.   |
|              | cSubject — (optional) The subject line, limited to 64 KB.   |
|              | cMsg — (optional) The message body, limited to 64 KB.   |
| Return value | None  |
| Object types | None  |
| Example      | This code sends a short email message. Even if bull is false, the message window may still show up if the script is not running in a privileged context.  |
|              | <pre>app.mailMsg(false, "name1@example.com; name2@example.com", "", "", "The subject", "The body of the mail could be also composed using form field data.");</pre>   |

#### **Related concepts**

mailDoc

mailForm

## newDoc

| Description | This method creates a new document. Needs to run in a privileged context.                 |
|-------------|---|
| Parameters  | nWidth — (optional) The page width of the new document in points. (The default is 612.)   |
|             | nHeight — (optional) The page height of the new document in points. (The default is 792.) |

| Return value | The Doc object representing the new document.  |
|--------------|--|
| Example      | Add this code to the Document Close Requested item in the Document Actions dialog box, this way the newDoc method runs in a privileged context, as required. |
|              | app.newDoc();  |

#### **Event**

# popUpMenu

| Description  | Shows a custom pop-up menu at the current mouse position.  |
|--------------|--|
|              | Note This method is deprecated, please use popUpMenuEx instead.  |
|              |  |
| Parameters   | cItem — (optional) You may specify multiple arguments, either strings or arrays.   |
|              | • If the argument is a string, then it is added to the menu as a new item. Specify a <i>dash</i> (-) to insert a separator line.   |
|              | If the argument is an array, then shows up as a submenu, using the first item as a parent menu entry.  |
| Return value | Returns with a string containing the name of the selected menu item. Returns null if there was no item selected.   |
| Example      | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to pop up a structured menu. Select any item to fill the Text1 field. |
|              | <pre>var cCH = app.popUpMenu("Select your text", "-", "Free", [ "Pay per week", "Pay per month", "Pay per year"]); var oTB = this.getField("Text1"); oTB.value = cCH;</pre>    |

## Related concepts

## popUpMenuEx

# popUpMenuEx

| Decemention | Chause a system and up many of the augment may be assisted. |
|-------------|---|
| Description | Shows a custom pop-up menu at the current mouse position.   |

| Parameters   | This method requires one or more MenuItem objects as argument. The MenuItem object has the following properties:  |
|--------------|---|
|              | • cName — The name of the menu item. This string appears in the menu. Specify a dash (-) to insert a separator line.  |
|              | • bMarked — (optional) Set this property to true to mark this item with a check. The default value is false (not marked).   |
|              | • bEnabled — (optional) Set this property to false to disable (gray out) the item. The default value is true (enabled).   |
|              | cReturn — (optional) popUpMenuEx returns with this string if the menu item was selected.  Equals to cName by default.   |
|              | oSubMenu — (optional) Either a single MenuItem object or an array of MenuItem objects to insert here as a submenu item or submenu structure.  |
| Return value | See the cReturn property of the MenuItem object above.  |
| Example      | This script shows a mixed menu structure using most of the features of the popUpMenuEx method.  |
|              | <pre>var cCH = app.popUpMenuEx (     {cName: "Top menu checked and disabled", bMarked:true,     bEnabled:false},     {cName: "-"},     {cName: "First parent menu", oSubMenu:         [ {cName: "Second level menu (submenu), the first item"},         {             cName: "Second level menu (submenu), the second item",             oSubMenu: {cName:"Third level menu (sub-submenu), a single item",             cReturn: "0"}         }         ]         },         {cName: "Second item in the main menu"},         {cName: "Third item", bMarked:true, cReturn: "1"} ) app.alert("You selected the \"" + cCH + "\" menu item");</pre> |

## popUpMenu

# response

| Description  | Launches a dialog box with a question and a free text field for the answer.  |
|--------------|--|
| Parameters   | cQuestion — The question to display in the dialog box.  cTitle — (optional) The dialog box title line. Power PDF adds a warning text to that, to make sure, that the user is aware of the JavaScript activity.  cDefault — (optional) The default answer as a string.  bPassword — (optional) Set this to true to show asterisks or bullets to mask the response.  The default is false.  cLabel — (optional) A short text for the label placed front of the text input field. |
| Return value | The content of the response as a string.   |

```
Example
Run this code to input a nickname, then pop up a greeting with that nickname.

var s = app.response({
    cQuestion: "What is your nickname?",
    cTitle: "Welcome",
    cDefault: "John",
    cLabel: "Nickname:"
});
app.alert("Welcome on board, "+ s +"!", 3);
```

### setInterval

| Description  | This method sets a timer with the given time period, executes the script when this period is over and restarts the timer, so the script runs multiple times. Store the returned interval object in a variable in order to keep it working. Use clearInterval on that variable to cancel the timer. |
|--------------|--|
| Parameters   | cExpr — The script to execute. nMilliseconds — The time period in milliseconds.  |
| Return value | interval object  |
| Example      | Check the example provided with the Field.buttonAlignY method.   |

#### **Related concepts**

clearTimeOut

clearInterval

setTimeOut

Field.buttonAlignY

### setTimeOut

| Description  | This method sets a timer with the given time period and executes the script (one time only) when this period is over. Store the returned timeout object in a variable in order to keep it working. Use clearTimeOut on that variable to cancel the timer. |
|--------------|---|
| Parameters   | cExpr — The script to execute.  |
|              | nMilliseconds — The time period in milliseconds.  |
| Return value | timeout object  |
| Example      | Check the example provided with the Field.buttonAlignY method.  |

#### **Related concepts**

clearTimeOut

clearInterval

setInterval

setTimeOut

Field.buttonAlignY

# Bookmark

This object represents a junction in the bookmark tree that is displayed in the Bookmarks panel. Bookmarks help the user to move through the topics as required and serves as the source for the table of contents.

# **Bookmark properties**

### children

| Description | An array of Bookmark objects that are children of the given bookmark under the bookmark tree.  |
|-------------|--|
| Туре        | Array  |
| Access      | Read   |
| Example     | List all bookmarks in the document to the console.   |
|             | <pre>function ListBookmarks(oBK, nDepth) { var s = ""; for (var i = 0; i &lt; nDepth; i++) s += " "; console.println(s + "+-" + oBK.name); if (oBK.children != null)   for (var i = 0; i &lt; oBK.children.length; i++)     ListBookmarks(oBK.children[i], nDepth + 1); } console.show(); console.clear(); console.println("Listing all bookmarks in the document."); ListBookmarks(this.bookmarkRoot, 0);</pre> |

### Related concepts

parent

Doc.bookmarkRoot

### color

| Description | Determines the color of the bookmark.                             |
|-------------|---|
| Values      | Property values are specified using the RGB, gray, or CMYK color. |
| Туре        | Array   |
| Access      | Read/Write  |

```
Example
This script colors the top level bookmarks to blue, green and magenta.

var oBK = this.bookmarkRoot;
var n = 0;
var mycolors = new Array(color.blue, color.green, color.magenta);
for (var i = 0; i < oBK.children.length; i++) {
   oBK.children[i].color = mycolors[n];
   n++;
   if (n > 2) n = 0;
}
```

#### style

### doc

| Description | Specifies the document object containing the bookmark. |
|-------------|--|
| Туре        | Object   |
| Access      | Read   |

#### name

| Description | The bookmark text string that is displayed in the navigational panel.  |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | The following script displays the top bookmark in the console.   |
|             | <pre>var oBK = this.bookmarkRoot.children[0]; console.println( "Name of the very first bookmark: " + oBK.name );</pre> |

### open

| Description | Determines whether the child subtree of the bookmark opens (true) or collapses (false) in the navigational panel. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |

## parent

| Description | Specifies the parent bookmark of the Bookmark object. It has a null value if given bookmark is the root bookmark. |
|-------------|---|
| Туре        | Object  |
| Access      | Read  |

children

Doc.bookmarkRoot

# style

| Description | Represents the style of the bookmark font.                         |
|-------------|--|
| Values      | • 0: normal  |
|             | • 1: italic  |
|             | • 2: bold  |
|             | • 3: bold-italic   |
| Туре        | Integer  |
| Access      | Read/Write   |
| Example     | This script turns the first top-level bookmark bold-italic.        |
|             | <pre>var oBK = this.bookmarkRoot.children[0]; oBK.style = 3;</pre> |

### **Related concepts**

color

## **Bookmark methods**

## createChild

| Description | Forms a new child bookmark at the given location.  |
|-------------|--|
| Parameters  | cName — The bookmark label that is displayed in the navigational panel.  |
|             | cExpr — An expression that is assessed when the bookmark is clicked. It is an optional parameter and its default value is no expression.               |
|             | cIndex — The zero-based array index in the children array, where to place the new child. This is an optional parameter, and its default value is zero. |
| Example     | Insert a child bookmark at the top of the bookmark hierarchy that moves to the next page in the document.  |
|             | <pre>this.bookmarkRoot.createChild("&gt;&gt; Move to the next page &gt;&gt;",    "this.pageNum++");</pre>  |
|             |  |

### **Related concepts**

children

insertChild

remove

execute

### execute

| Description | Performs the action assigned to the bookmark.   |
|-------------|---|
| Example     | Run the code detailed at the setAction method to bind a sound alert action to the bookmark on the very top. Then, if you bind the following script to a button click, then clicking on the button will also play the alarm. |
|             | <pre>var oBM = bookmarkRoot.children[0]; oBM.execute();</pre>   |

### **Related concepts**

createChild

## insertChild

| Description | Adds the specified bookmark as a child bookmark to the given position in the tree of bookmarks. If the bookmark is already present in the bookmark tree, then it is unreferenced before adding it again. This prevents situations where a bookmark gets duplicated as its own descendant. |
|-------------|---|
| Parameters  | oBookmark — The bookmark object to add as a child.  nIndex — The zero-based array index in the children array, where to place the new child. This is an optional parameter, and its default value is zero.  |
| Example     | Bind this script to a button click in a document with a well developed multilevel bookmark tree. Then click to pull the second chapter under the first one, one level inside. As you click multiple times the bookmark tree gets scrambled.   |
|             | <pre>var oBM = bookmarkRoot.children[1]; bookmarkRoot.children[0].insertChild(oBM);</pre>   |

### **Related concepts**

children

createChild

remove

### remove

| Description | Deletes the bookmark as well as its children from the bookmark tree. |
|-------------|--|
| Example     | Removes the first second-level bookmark from the document.           |
|             | <pre>bookmarkRoot.children[0].children[0].remove();</pre>            |

# Related concepts

children

createChild

insertChild

### setAction

| Description | Binds a JavaScript action to a bookmark.  |
|-------------|---|
|             | Note This method overwrites the existing action for this bookmark.  |
|             |   |
| Parameters  | cScript — Specifies the JavaScript code to execute when the bookmark is clicked.  |
| Example     | Bind a sound alert action to the bookmark on the very top. After this script finished, the top bookmark will play the default sound on click. |
|             | <pre>var oBM = bookmarkRoot.children[0]; oBM.setAction("app.beep(0);");</pre>   |
|             |   |

#### **Related concepts**

set Page Action

setAction

app.beep

# Certificate

The object facilitates the read-only access for the properties of an X.509 public key certificate.

Note This object has no security constraints.

### Related concepts

**RDN** 

Field.signatureInfo

Field.signatureValidate

# Certificate properties

# binary

| Description | Specifies the raw bytes of the certificate as a hex-encoded string. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

### issuerDN

| tificate issuer, that is returned as an RDN object. |  |
|---|--|
|---|--|

| Туре   | RDN object |
|--------|------------|
| Access | Read       |

### RDN object

## MD5Hash

| Description | Represents the MD5 hash of the certificate as a hex-encoded string. The property can serve as the source of a unique fingerprint of this certificate. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

## SHA1Hash

| Description | Represents the SHA1 hash of the certificate as a hex-encoded string. The property can serve as the source of a unique fingerprint of this certificate. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |

## serialNumber

| Description | A distinctive identifier for the certificate object, used along with issuerDN. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |

# subjectCN

| Description | The signer's common name. |
|-------------|---------------------------|
| Туре        | String                    |
| Access      | Read                      |

# Related concepts

## RDN object

# subjectDN

| Description | The unique name of the signer returned as an RDN object. |
|-------------|--|
| Туре        | RDN object   |
| Access      | Read   |

RDN object

# console

This is a static object that facilitates access to the JavaScript console for executing JavaScript and displaying error messages.

## console methods

### show

| Description | Displays the console window.        |
|-------------|-------------------------------------|
| Example     | This code shows the console window. |
|             | <pre>console.show();</pre>          |

## hide

| Description | Shuts down the console window, but keeps its content for future use. |
|-------------|--|
| Example     | This code closes the console window.                                 |
|             | <pre>console.hide();</pre>   |

# println

| Description | Prints the string value to the console window, together with the closing carriage return and line feed tokens (CR/LF). The next output will start in a new line. |
|-------------|--|
| Parameters  | cMessage: The message to print (string).   |
| Example     | This code prints a status message to the console.  |
|             | <pre>console.println("Processing started at " + util.printd("yyyy/mm/dd",new<br/>Date());</pre>  |

### clear

| Method      | clear  |
|-------------|--|
| Description | Cleans the console window buffer of any output. The next line of output will show up at the top. |
| Example     | This code clears the console window.   |
|             | <pre>console.clear();</pre>  |

## Data

The Data object is the depiction of an embedded file or data stream that is kept embedded in the document. Data objects can be added from a file, queried, and extracted.

#### Related concepts

Doc.createDataObject

Doc.dataObjects

Doc.exportDataObjects

Doc.getDataObject

Doc.importDataObject

Doc.removeDataObject

Doc.openDataObject

Doc.getDataObjectContents

detDataObjectContents

## Data properties

### creationDate

| Description | Specifies the creation date of the embedded file. |
|-------------|---|
| Туре        | Date  |
| Access      | Read  |

# description

| Description | The description meant for the data object. |
|-------------|--|
| Туре        | String                                     |
| Access      | Read/Write                                 |

# MIMEType

| Description | Specifies the MIME type related to the data object. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

### modDate

| Description | Specifies the modification date of the embedded file. |
|-------------|---|
| Туре        | Date  |
| Access      | Read  |

#### name

| Description | The name related to the data object.   |
|-------------|--|
| Туре        | String   |
| Access      | Read   |
| Example     | This script lists all data objects to the console.   |
|             | <pre>var oDA = this.dataObjects; for (var i = 0; i &lt; oDA.length; i++)   console.println("Data Object[" + i + "]=" + oDA[i].name);</pre> |

#### **Related concepts**

### Data object

### path

| Description | Specifies the file name and the extension of the embedded file. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

#### size

| Description | Specifies the size (in bytes) of the uncompressed data object. |
|-------------|--|
| Туре        | Number   |
| Access      | Read   |

# Doc

The Doc object represents a PDF document open in Power PDF, providing methods and properties to access content. You can grab a Doc object in various ways:

- If you refer to the this keyword in an event action script belonging to a field or document, usually points to the Doc object of the current document. Check the example provided with the app.popUpMenu method (see popUpMenu).
- The app.activeDocs property is an array, which has a Doc object for each of the open documents. Check the example provided with the app.activeDocs property (see activeDocs).

• The target property of some events refers to the corresponding Field object, which has a doc property referring to the current document as a Doc object. The target property of some other events directly refers to the current Doc object.

## **Doc Properties**

### author

| Description | This property holds the author metadata of the document.   |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | This script sets the author of the document to "John Doe". |
|             | this.author = "John Doe";                                  |

### **Related concepts**

info

### bookmarkRoot

| Description | This is the root bookmark of the bookmark tree, designed for a programmatic purpose. Refer to bookmarkRoot and reach the elements of the bookmark tree using the children and parent properties. |
|-------------|--|
| Туре        | Object   |
| Access      | Read   |

#### **Related concepts**

Bookmark

Bookmark.children

Bookmark.parent

### calculate

| Description | Set this property true to enable calculations for this document.                              |
|-------------|---|
|             | Note The Doc.calculate property replaces the app.calculate property, which is now deprecated. |
| Туре        | Boolean   |
| Access      | Read/Write  |

### creationDate

| Description | This property holds the creation date of the document.         |
|-------------|--|
|             | Note This property is obsolete, use the info property instead. |
|             |  |
| Туре        | Date   |
| Access      | Read   |

info

### creator

| Description | This property holds the name of the tool which was used to create this document. |
|-------------|--|
|             | Note This property is obsolete, use the info property instead.                   |
|             |  |
| Туре        | String   |
| Access      | Read   |

#### **Related concepts**

info

# dataObjects

| Description | This array contains all the named Data objects of the document.  |
|-------------|--|
| Туре        | Array  |
| Access      | Read   |
| Example     | <pre>var oDA = this.dataObjects; for (var i = 0; i &lt; oDA.length; i++)   console.println("Data Object[" + i + "]=" + oDA[i].name);</pre> |

### **Related concepts**

create Data Object

openDataObject

getDataObject

getDataObjectContents

importDataObject

removeDataObject

setDataObjectContents

delay

| Description | Redrawing of field objects is automatic and comes with property changes as necessary. In case of a massive amount of JavaScript property change requests, Power PDF performs better if you delay the redraw. Set this property to true to disable automatic redraw until delay property is set back to false. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |

## Field.delay

# dirty

| Description | This property indicates if the document was changed and saving is necessary. Set this property to false if you made only insignificant changes (such as a status field update) to the document, and you would like to suppress the Do you want to save changes to? alert when closing. |
|-------------|--|
|             | <b>Note</b> If the document was never saved, then setting the dirty property to false cannot block the alert on close.   |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Example     | The following script fills a text field (StatusTextBox1) with a status message while keeping the previous save state of the document.  |
|             | <pre>var oTB = this.getField("StatusTextBox1"); var d = this.dirty; oTB.value = "Please fill in the fields."; this.dirty = d;</pre>  |

# docID

| Description | This property is an array of two strings. Both strings uses hex-encoded binary format.                              |
|-------------|---|
|             | The first string contains a hash derived from the original content, when the document was first created and saved.  |
|             | The second string is updated with each incremental save operation, derived from the actual content of the document. |
| Туре        | Array   |
| Access      | Read  |
| Example     | The following script displays both docID strings on the console, separated by a colon.                              |
|             | <pre>console.println(this.docID[0] + " : "+ this.docID[1]);</pre>   |

# documentFileName

| Description | The file name of the document, with the extension, not including the device-independent path.                    |
|-------------|--|
|             | Note If the document was not saved yet, then this property returns the name of the . ${\tt tmp}$ temporary file. |
|             |  |
| Туре        | String   |
| Access      | Read   |
| Example     | Run the following script to a display the file name on the console.  |
|             | <pre>console.println("The document file name with extension is:"); console.println(this.documentFileName);</pre> |

filesize

path

URL

## external

| Description | This property is true, if the document is open in an external application, such as a browser. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read  |
| Example     | This script displays false on the console, if you run the PDF in the Power PDF.               |
|             | <pre>console.println(this.external);</pre>  |

# filesize

| Description | The size of the document file in bytes.   |
|-------------|---|
|             | <b>Note</b> If the document was not saved yet, then this property returns with an unreasonable value. |
|             |   |
| Туре        | Integer   |
| Access      | Read  |
| Example     | Run the following script to a display the size of the document on the console.                        |
|             | <pre>console.println("The document file size in bytes: " + this.filesize);</pre>                      |

## Related concepts

documentFileName

path

URL

# hidden

| Description | The hidden property is true if the document window is hidden. This may occur because it was opened hidden, or because it is operating in batch mode. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read   |

## icons

| Description | This property is an array, containing all named icons in the document icon-tree. Has a <code>null</code> value, if there are no named icons.  |
|-------------|---|
| Туре        | Array   |
| Access      | Read  |
| Example     | Create a button named Button1 prior running this script, which places a combo box on the right of the button and lists every named icon from the document.  |
|             | <pre>var oBT = this.getField("Button1") var listRect = oBT.rect; listRect[0] = oBT.rect[2]; listRect[2] = oBT.rect[2] + 144; // offset to the button var myIcons = new Array(); var list = addField("IconList", "combobox", 0, listRect); list.textSize = 14; list.strokeColor = color.black; for (var i = 0; i &lt; this.icons.length; i++)   myIcons[i] = this.icons[i].name; list.setItems(myIcons);</pre> |

### **Related concepts**

addlcon

getlcon

importIcon

removelcon

Field.buttonGetIcon

Field.buttonImportIcon

Field.buttonSetIcon

## info

| Description | Reach or create an object in the document information dictionary of the PDF document.  |
|-------------|--|
|             | <b>Note</b> You can use the author, keywords, modDate, title, and subject Doc properties to change corresponding document tree elements. The rest of the elements are read only. |
|             |  |

| Values  | The following elements are provided by default.:   |
|---------|--|
|         | • Author   |
|         | • CreationDate   |
|         | • Creator  |
|         | • ModDate  |
|         | • Producer   |
|         | <b>Note</b> You can add keywords, subject, modDate, or title elements by using the corresponding Doc properties. |
| Туре    | Object   |
| Access  | Read   |
| Example | This script displays all the available document information dictionary elements.                                 |
|         | <pre>for (var i in this.info)   console.println(i + ": "+ this.info[i])</pre>                                    |

author

creator

creationDate

keywords

modDate

producer

subject

title

# keywords

| Description | This array of strings helps to categorize the document.   |
|-------------|---|
| Туре        | Array   |
| Access      | Read/Write  |
| Example     | This script sets the keywords on the console:   |
|             | this.keywords = ["PDF", "Guide", "How-to"];   |
|             | This script lists the keywords on the console:  |
|             | <pre>for (var i in this.info)   if (i == "Keywords")     console.println(i + ": "+ this.info[i]);</pre> |

### **Related concepts**

author

creator

info

producer

subject

title

# layout

| Description | Changes the page view for the document  |
|-------------|---|
| Values      | SinglePage — The view is restricted to a single page, you can move between pages, but no free (smooth) scrolling. |
|             | OneColumn — Shows pages in a single column and you can scroll freely.   |
|             | TwoColumnLeft — Shows two pages side by side, starting with the first page on the left. You can scroll freely.    |
|             | TwoColumnRight — Shows two pages side by side, starting with the first page on the right. You can scroll freely.  |
| Туре        | String  |
| Access      | Read/Write  |
| Example     | This script switches to single page.view:   |
|             | this.layout = "SinglePage";   |

# modDate

| Description | This property stores the date and time of the last document save operation.           |
|-------------|---|
|             | Note This property is obsolete, use the info property instead.                        |
|             |   |
| Туре        | Date  |
| Access      | Read  |
| Example     | This script prints the last modification date and time in default wild string format: |
|             | <pre>console.println(this.modDate);</pre>   |

### **Related concepts**

info

# mouseX

| Description | Gets the x coordinate of the mouse pointer position in the default user space, related to the page. |
|-------------|---|
| Туре        | Number  |
| Access      | Read  |

| Example | These scripts let you check mouse coordinates. First create a document JavaScript function, which prints current mouse coordinates to the console:   |
|---------|--|
|         | <pre>function getMouseCoor() { console.println( "("+this.mouseX+","+ this.mouseY+")" ); }</pre>  |
|         | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.  After you click this button, the getMouseCoor function gets called automatically in every 100 ms. |
|         | <pre>var oMI = app.setInterval("getMouseCoor()", 100);</pre>   |
|         | Add another button and bind this code to its Mouse Up trigger. Click this button to clear the interval, so coordinates will not display anymore.   |
|         | <pre>app.clearInterval(oMI);</pre>   |

mouseY

app.clearInterval app.setInterval

## mouseY

| Description | Gets the y coordinate of the mouse pointer position in the default user space, related to the page. |
|-------------|---|
| Туре        | Number  |
| Access      | Read  |

### **Related concepts**

mouseX

## nocache

| Description | Set this property to true to turn off data caching in the internet browser. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |

### numFields

| Description | This property holds the number of fields used all over the document. |
|-------------|--|
| Туре        | Integer  |
| Access      | Read   |

### Related concepts

getNthFieldName

Field.strokeColor

# numPages

| Description | This property holds the number of pages in the document.         |
|-------------|--|
| Туре        | Integer  |
| Access      | Read   |
| Example     | Run this script to print the number of pages to the console.     |
|             | <pre>console.println("Number of pages: " + this.numPages);</pre> |

# path

| Description | The device-independent path of the document, including the file name and extension.                     |  |
|-------------|---|--|
|             | <b>Note</b> Use the documentFileName property to get only the file name of the document with extension. |  |
| Туре        | String  |  |
| Access      | Read  |  |

## Related concepts

documentFileName

**URL** 

# pageNum

| Description | Read this property to obtain the number of the current page of the document. Set this property to move to the specified page. Page numbering is zero-based, so the very first page has 0 as page number. |  |
|-------------|--|--|
| Туре        | Integer  |  |
| Access      | Read/Write   |  |
| Example     | Run this script to move to the first page of the document.  this.pageNum = 0;  |  |

# producer

| Description | This property holds the name of the tool which was used to create this document. |
|-------------|--|
|             | Note This property is obsolete, use the info property instead.                   |
|             |  |
| Туре        | String   |
| Access      | Read   |

info

# securityHandler

| Description | Reveals the name of the security handler used to encrypt the document. Has a <code>null</code> value if no encryption applied to the document.                           |  |
|-------------|--|--|
| Type        | String   |  |
| Access      | Read   |  |
| Example     | This script displays the name of the security handler currently used, on the console.  |  |
|             | <pre>console.println(this.securityHandler != null ? "The current document security handler is:" + this.securityHandler + "." : "This document is not encrypted.");</pre> |  |
|             |  |  |

# subject

| Description | This property holds the subject metadata of the document.        |  |
|-------------|--|--|
| Туре        | String   |  |
| Access      | Read/Write   |  |
| Example     | This script sets the subject of the document to Support article. |  |
|             | this.subject = "Support article";                                |  |

### **Related concepts**

info

## title

| Description   | This property holds the title metadata of the document. |  |
|---|---|--|
| Туре  | String  |  |
| Access  | Read/Write  |  |
| Example This script sets the title of the document to JavaScript Guide. |   |  |
|   | this.title = "JavaScript Guide";                        |  |

## Related concepts

info

# **URL**

| Description | Returns with the document URL. If the document is saved locally, then returns with a device independent path, starting with the $file///$ scheme. |  |
|-------------|---|--|
| Туре        | String  |  |

| Access  | Read  |
|---------|---|
| Example | Save your PDF document into the temp folder on drive C, under the name tryURL.pdf. Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click to run it. |
|         | <pre>console.println(this.URL);</pre>   |
|         | Check the output on the console:  |
|         | file:\\\C \temp\tryURL.pdf  |

# zoom

| Description | Holds the current zoom ration of the document window/tab in percents. |  |
|-------------|---|--|
| Туре        | Number  |  |
| Values      | Between 8.33 and 6400   |  |
| Access      | Read/Write  |  |
| Example     | This script triples the current zoom ratio:                           |  |
|             | this.zoom *= 3;   |  |
|             | Run this script to print the current zoom ratio to the console.       |  |
|             | <pre>console.println(this.zoom);</pre>                                |  |

# zoomType

| Description | Holds the current zoom type of the document. See the table below for <code>zoomtype</code> object constants. |  |
|-------------|--|--|
| Туре        | String   |  |
| Access      | Read/Write   |  |
| Example     | Set the zoom type of the document to fit the page.   |  |
|             | <pre>this.zoomType = zoomtype.fitP;</pre>  |  |

## zoomtype object constants

| Constant      | Description                            |
|---------------|--|
| zoomtype.none | Leaves the zoom ratio intact.          |
| zoomtype.fitP | Fits to the page.                      |
| zoomtype.fitW | Fits to the page width.                |
| zoomtype.fitH | Fits to the page height.               |
| zoomtype.fitV | Fits to the page width leaving no gap. |

# **Doc Methods**

## addlcon

| Description | Adds and names a new icon to the icon tree of the document.   |  |
|-------------|---|--|
| Parameters  | cName — The name to assign to the icon. icon — The icon object to add to the icon tree.   |  |
| Example     | Create a button (Button1) with icon, then go to the Actions tab in its Button properties dialog box. Add the following event handler scripts to the Mouse Up trigger to run. The script adds the icon to the document icon tree when you click on the button. |  |
|             | <pre>var oBT = this.getField("Button1"); this.addIcon("Icon1", oBT.buttonGetIcon());</pre>  |  |
|             | After the first srcipt finished, add another button (Button2) and add the following event handler scripts to its Mouse Up trigger to run. The script lists the named icons on the console.  |  |
|             | <pre>for (var i = 0; i &lt; this.icons.length; i++)   console.println(this.icons[i].name);</pre>  |  |

# addField

| Description | Adds a new field to the document.   |
|-------------|---|
| Parameters  | cName — The name to assign to the field. You may use the dot as a separator between a parent node and its child. For example, specifying name.first creates a parent node (name), and its child node (first).   |
|             | cFieldType — The type of the field. Valid types follow:   |
|             | • text  |
|             | • button  |
|             | • combobox  |
|             | • listbox   |
|             | • checkbox  |
|             | • radiobutton   |
|             | • signature   |
|             | nPageNum — The 0-based index of the target page where the field will be placed. cCoords — An array, defining the boundaries of the field on the page by specifying the coordinates of the edges. See the rect property of the Field object for details.   |
| Returns     | The Field object just created.  |
| Example     | Run the following script to create a blank signature named Signature1.  |
|             | <pre>var ip = 72; // point/inch rate var sRect = this.getPageBox( {nPage: 0} ); sRect[0] += 0.5*ip; // half inch from the from upper left corner of page sRect[1] -= 0.5*ip; sRect[2] = sRect[0]+0.5*ip; // 0.5 inch width sRect[3] = sRect[1] - 24; // 24 points in height // Now to construct a blank signature field var oSI = this.addField("Signature1", "signature", 0, sRect);</pre> |

Field.rect

## addLink

| Description | Places a link on the specified page, sized according to the coordinates. The user should have permission to add links to the document.   |
|-------------|--|
| Parameters  | nPage — The 0-based index of the target page where the link will be placed.  cCoords — An array, defining the boundaries of the link on the page by specifying the coordinates of the edges of the link area. See the rect property of the Field object for details. |
| Returns     | The Field object just created.   |

### **Related concepts**

Field.rect

# addScript

| Description | Defines a document-level script.   |
|-------------|--|
| Parameters  | cName — The unique name for the script. If there is a script already defined with this name, then addScript replaces it. cScript — The JavaScript code to add. |
| Example     | Adds a script, that plays a default beep. Check the Document JavaScript window for the newly added script.  this.addScript("Beeper", "app.beep(4);");          |

### **Related concepts**

removeScripts

setAction

setPageAction

Bookmark.setAction

Field.setAction

## calculateNow

| Description | Call this method to compute all calculations in the document. |  |
|-------------|---|--|
|-------------|---|--|

| Example | User edits in calculated fields (and related ones) may cause significant lag. To avoid that, turn off calculation and wait until all the data input provided, then turn calculation on again and refresh the fields. |
|---------|--|
|         | <pre>// Turn calculations off for smoother user experience this.calculate = false;</pre>   |
|         | <pre>// Bind this code to the Mouse Up trigger of a Calculate button // Turn calculations on this.calculate = true; // Refresh all calculated field content this.calculateNow();</pre>                               |

calculate

## closeDoc

| Description | Closes the document.  |
|-------------|---|
| Parameters  | <ul> <li>bNoSave — (optional) This Boolean value determines whether to save the document or not.</li> <li>false — The Save as dialog box displays if the document was not saved or had unsaved changes. This is the default value.</li> <li>true — The document closes, discarding all the unsaved changes. Use with caution, because the user is not prompted before close.</li> </ul> |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. All open documents will be closed as you click the button.  var aDocs = app.activeDocs; for( var i in aDocs ) aDocs[i].closeDoc();  |

### **Related concepts**

App.activeDocs

# createDataObject

| Description | Creates a data object with a string content.   |
|-------------|--|
| Parameters  | cName — The name associated with the data object.  |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the <code>dataObjects</code> property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript. |
|             | cValue — A string, containing the data itself.  cMIMEType — (optional) The MIME type (the encoding/decoding standard) of the data, which is responsible for the conversion between the string format and the original data format.               |
| Example     | this.createDataObject("Data.txt", "This is the placeholder for some data.");   |

## Related concepts

dataObjects

getDataObject
getDataObjectContents
importDataObject
openDataObject
removeDataObject
setDataObjectContents
exportDataObject

# deletePages

| Description | Deletes the specified pages. Deletes the first page only, if there are no parameters. There must be at least one page in the document to succeed. |
|-------------|---|
| Parameters  | nStart — (optional) The 0-based index of the first page to delete. The default value is 0, which means the first page.                            |
|             | nEnd — (optional) The 0-based index of the last page to delete. If not specified, then equals to nStart, which means only one page to delete.     |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to delete page 2 and page 3.             |
|             | this.deletePages(1,2);  |

# exportAsFDF

| Description | Export the form field values to an FDF file.   |
|-------------|--|
| Parameters  | bAllFields — (optional) Set to true to export all fields, even the ones with no values. Set to false to include only the fields with value.  |
|             | bNoPassword — (optional) Set this to true to not include password fields.  |
|             | aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export. |
|             | • If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.  |
|             | If this parameter is an empty array, then no fields are exported.  |
|             | • If this parameter is not specified or has <code>null</code> as value, then this has the same effect, just as all fields were listed in an array.   |
|             | cPath — (optional) Specify the device independent path and file namefdf should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name.  |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields, a dialog box prompts for the file name.   |
|             | <pre>this.exportAsFDF();</pre>   |

### **Related concepts**

Field.getArray exportAsFDFStr exportAsTextStr exportAsXFDF exportAsXFDFStr

# exportAsFDFStr

| Description | Export the form field values to a string, in FDF format.   |
|-------------|--|
| Parameters  | bAllFields — (optional) Set to true to export all fields, even the ones with no values. Set to false to include only the fields with value.  |
|             | bNoPassword — (optional) Set this to true to not include password fields.  |
|             | aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export. |
|             | • If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.  |
|             | If this parameter is an empty array, then no fields are exported.  |
|             | • If this parameter is not specified or has null as value, then this has the same effect, just as all fields were listed in an array.  |
|             | cHRef — (optional) You may specify a source or target file, which is enclosed in the FDF output as an F key.   |
| Returns     | The form field values exported in FDF format. Has the same content as it was provided by the exportAsFDF method, adding cHRef as extra.  |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields to the sFDF string, including an URL. Check the generated string on the console output.                                    |
|             | <pre>var sFDF = this.exportAsFDFStr({     cHRef: "http://www.niance.com/" }); console.println(sFDF);</pre>   |

### **Related concepts**

Field.getArray

exportAsFDF

exportAsTextStr

exportAsText

exportAsXFDF

exportAsXFDFStr

# exportAsText

| Description | Export the form field values in tab-delimited format to a plain text file. Correctly handles multi-line text contents and quotes. The first line of the output contains the field names, the second line |  |
|-------------|--|--|
|             | includes the corresponding field values.   |  |

| Parameters | bNoPassword — (optional) Set this to true to not include password fields.  |
|------------|--|
|            | aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export. |
|            | • If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.  |
|            | If this parameter is an empty array, then no fields are exported.  |
|            | • If this parameter is not specified or has $null$ as value, then this has the same effect, just as all fields were listed in an array.  |
|            | cPath — (optional) Specify the device independent path and file nametxt should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name.  |
| Example    | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields to the export.txt, within the Temp folder on drive C, overwriting the existing file (if there is any).                     |
|            | <pre>this.exportAsText({cPath: "/C/Temp/export.txt"});</pre>   |

exportAsFDF exportAsFDFStr exportAsTextStr exportAsXFDF exportAsXFDFStr

# exportAsTextStr

| Description | Export the form field values in tab-delimited format to a string. Correctly handles multi-line text contents and quotes. The first line of the output contains the field names, the second line includes the corresponding field values.   |
|-------------|--|
| Parameters  | <ul> <li>bNoPassword — (optional) Set this to true to not include password fields.</li> <li>aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export.</li> <li>If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.</li> <li>If this parameter is an empty array, then no fields are exported.</li> <li>If this parameter is not specified or has null as value, then this has the same effect, just as all fields were listed in an array.</li> </ul> |
| Returns     | The form field values exported in tab-delimited format. Has the same content as it was provided by the <code>exportAsText</code> method.   |

| Example | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields (except password fields) to the sText string. Check the generated string on the console output. |
|---------|---|
|         | <pre>var sText = this.exportAsTextStr({    bNoPassword: true, }); console.println(sText);</pre>   |

exportAsFDF

exportAsFDFStr

 ${\it exportAsText}$ 

 ${\it exportAsXFDF}$ 

exportAsXFDFStr

# exportAsXFDF

| Description | Export the form field values to an XFDF file.  |
|-------------|--|
| Parameters  | bNoPassword — (optional) Set this to true to not include password fields.  |
|             | aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export. |
|             | • If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.  |
|             | If this parameter is an empty array, then no fields are exported.  |
|             | • If this parameter is not specified or has null as value, then this has the same effect, just as all fields were listed in an array.  |
|             | cPath — (optional) Specify the device independent path and file namexfdf should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name.   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields, a dialog box prompts for the file name.   |
|             | <pre>this.exportAsXFDF();</pre>  |

### Related concepts

exportAsFDF

exportAsFDFStr

exportAsText

exportAsTextStr

export As XFDFS tr

# exportAsXFDFStr

| Description | Export the form field values to a string, in XFDF format. |
|-------------|---|
| Description | Export the form held values to a string, in Xi Di format. |

| Parameters  | bNoPassword — (optional) Set this to true to not include password fields.  |
|---|--|
|   | aFields — (optional) This is either a string containing a single field name, or an array of strings, containing all field names to include in the export. You may list parent (non-terminal) fields to include all their child fields in the export. |
|   | • If bNoPassword is true, then this affects the set of fields: password fields are excluded from the export, even if they are specified in aFields.  |
| If this parameter is an empty array, then no fields are exported. |  |
|   | • If this parameter is not specified or has <code>null</code> as value, then this has the same effect, just as all fields were listed in an array.   |
|   | cHRef — (optional) You may specify a source or target file, which is enclosed in the XFDF output as an F key.  |
| Returns   | The form field values exported in FDF format. Has the same content as it was provided by the exportAsFDF method, adding chref as extra.  |
| Example   | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export the fields listed in the aFields parameter to the sXFDF string. Check the generated string on the console output.                 |
|   | <pre>var sXFDF = this.exportAsXFDFStr({    bNoPassword: true,    aFields: ["Text16", "Text17", "Text18", "Text27", "Text29",    "Text30"], }); console.println(sXFDF);</pre>   |

exportAsFDF

exportAsFDFStr

exportAsText

 ${\it exportAsTextStr}$ 

exportAsXFDF

# exportDataObject

|--|

| Parameters | cName — The name associated with the data object.   |
|------------|---|
|            | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript.   |
|            | nLaunch — (optional) Controls whether to ask for a file name and open the file after save. Valid values are:  • 0 — No launch after save.   |
|            | <ul> <li>1 — Power PDF prompts the user for a file name, then launches the file with the associated<br/>application. Prior to launch a security confirmation box appears, if the file format is other than<br/>PDF.</li> </ul>  |
|            | <ul> <li>2 — Power PDF saves the file to a temporary path with a random name, so does not prompt the user. Prior to launch a security confirmation box appears, if the file format is other than PDF.</li> </ul>  |
| Example    | Use importDataObject to embed an external file into the PDF document and name it as DataObject1. Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which prompts the user for a path and file name and saves the data object, then launches it. |
|            | <pre>this.exportDataObject({    cName: "DataObject1",    nLaunch: 1 });</pre>   |

dataObjects
createDataObject
getDataObject
getDataObjectContents
importDataObject
openDataObject
removeDataObject
setDataObjectContents

# flattenPages

| Description | This method converts annotations (including non-printable ones) to passive page content within the specified page range. If no range specified, then all pages are involved.   |
|-------------|--|
| Parameters  | <code>nStart</code> — (optional) The 0-based index of the first page to operate on. Omitting <code>nStart</code> results in an empty page range, so the method does not process any page. <code>nEnd</code> — (optional) The 0-based index of the last page of the range. If not specified, then extends the range to the end of the document, so the method flattens the page specified by the first parameter together with all the following pages. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which flattens annotations on the first page only. this.flattenPages();  |

# getAnnot

| Description | This method provides access to the annotations by page number and name.  |  |
|-------------|--|--|
| Parameters  | nPage — The 0-based index of the page which contains the annotation.  cName — The name associated with the Annotation object.                    |  |
|             | <b>Note</b> Annotations created by the user get a random name. Use the <code>getAnnots</code> method to reach those objects and get their names. |  |
| Returns     | Annotation <b>object</b>   |  |
|             | ·  |  |
| Example     | See the Annotation.name property.  |  |

## Related concepts

Annotation.name

getAnnots

# getAnnots

| Description | This method scans the document for annotations, using the criteria specified by the parameters.  |  |
|-------------|--|--|
| Parameters  | nPage — The 0-based index of the target page where to look for annotations. If not specified, then the search runs throughout the whole document.  nSortBy — Determines the sorting order of the array returned. See the table below for valid constants.  |  |
| Returns     | Array of Annotation objects  |  |
| Example     | This script lists all annotations in the document with details.  |  |
|             | <pre>var aAnnots = this.getAnnots({     nPage:0,     nSortBy: ANSB_Author,     bReverse: false }); console.show(); console.println("Total number of annotations: " + aAnnots.length); var s = "%s in a %s annotation named as \"%s\" said: \"%s\""; for (var i = 0; i &lt; aAnnots.length; i++) {     console.println(util.printf(s, aAnnots[i].author, aAnnots[i].type,     aAnnots[i].name,     aAnnots[i].contents)); var oAN = this.getAnnot(0, aAnnots[i].name); if (oAN == null)     console.println("Not Found " + aAnnots[i].name) else     console.println("Found " + aAnnots[i].name + "! type: " +     oAN.type); }</pre> |  |

### nSortBy constants

| Constant     | Description                                |
|--------------|--|
| ANSB_None    | Do not sort.                               |
| ANSB_Page    | Sort by page number                        |
| ANSB_Author  | Sort by author.                            |
| ANSB_ModDate | Sort by the date of the last modification. |
| ANSB_Type    | Sort by annotation type.                   |

### Related concepts

getAnnot

# getDataObject

| Obtains a data object with the specified name.   |  |
|--|--|
| cName — The name associated with the data object.  |  |
| <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript.  |  |
| Returns with the object if found, returns with null otherwise.   |  |
| Use importDataObject to embed an external file into the PDF document and name it as DataObject1. Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which lists all details about DataObject1 on the console. |  |
| <pre>var oDA = this.getDataObject("DataObject1"); console.println(oDA.name); console.println(oDA.path); console.println(oDA.size); console.println(oDA.MIMEType); console.println(oDA.modDate); console.println(oDA.creationDate);</pre>   |  |
|  |  |

### **Related concepts**

dataObjects
createDataObject
getDataObjectContents
importDataObject
openDataObject
removeDataObject
setDataObjectContents

getDataObjectContents

| Description | Obtains a data object with the specified name.  |
|-------------|---|
| Parameters  | cName — The name associated with the data object.   |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript.   |
| Returns     | Returns with a ReadStream object.   |
| Example     | This script uses importDataObject to embed a text file (for example, Test1.txt) into the PDF document and names it as Test1.txt. Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which prompts for the file, then imports the file as a data object, and displays its content on the console. |
|             | <pre>this.importDataObject("Test1.txt"); var oFile = this.getDataObjectContents("Test1.txt"); var sContent = util.stringFromStream(oFile, "utf-8"); console.println(sContent);</pre>  |

dataObjects
createDataObject
getDataObject
importDataObject
openDataObject
removeDataObject
setDataObjectContents
util.stringFromStream

# getField

| Description | This method assigns a JavaScript variable to a field.                                |
|-------------|--|
| Parameters  | cName — The name associated with the form field.                                     |
| Returns     | The Field object representing the form field.  |
| Example     | This script will set a greeting text to Button1.                                     |
|             | <pre>var oBT = this.getField("Button1"); oBT.buttonSetCaption("Hello World!");</pre> |

### **Related concepts**

Field object numFields

# getIcon

| Description | This method assigns a JavaScript variable to an icon. |
|-------------|---|
|-------------|---|

| Parameters | cName — The name associated with the icon. |
|------------|--|
| Returns    | The icon object.                           |

addlcon

icons

importIcon

removelcon

Field.buttonGetIcon

Field.buttonImportIcon

Field.buttonSetIcon

# getNthFieldName

| This method returns with the name of the <i>n</i> th field in the document.  |
|--|
| nIndex — The 0-based index of the form field within the document.  |
| String   |
| Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which lists all fields to the console. |
| <pre>for ( var i=0; i &lt; this.numFields; i++) {   var fieldname = this.getNthFieldName(i);   console.println(i + ". " + fieldname); }</pre>                      |
|  |

### **Related concepts**

Field object getField numFields

# getPageBox

| Description | This method retrieves the coordinates for the named box of the specified page in the rotated user space. Returns these coordinates in the form of a rectangle array (see rect for details).  |
|-------------|--|
| Parameters  | cBox — The type of the box according to PDF Reference version 1.7. Valid values follow:  • Art  • Bleed  • BBox  • Crop (default)  • Trim  nPage — (optional) The 0-based index of the page. |
| Returns     | rect array (array of coordinates)  |

| Example | See the addField method. |
|---------|--------------------------|
|---------|--------------------------|

addField

setPageBoxes

# getPageNthWord

| Description | This method gets the <i>n</i> th word on the specified page. The scope embraces texts in field objects, button captions, and annotations.  |
|-------------|--|
| Parameters  | nPage — (optional) The 0-based index of the page. The default is 0.  nWord — (optional) The 0-based index of the word. The default is 0.  bStrip — (optional) Set this parameter to false to return the word with white space characters and punctuation. Set it to true (default) to remove these characters before return. |
| Returns     | String   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which lists all words on the first page to the console.  |
|             | <pre>var nW, sWord; nW = this.getPageNumWords(0); console.println("The first page has " + nW + " words:"); for (var j = 0; j &lt; nW; j++)    {    sWord = this.getPageNthWord(0, j);    console.println("Word #" + j + ": " + sWord);    }</pre>  |

### **Related concepts**

getPageNumWords

selectPageNthWord

# getPageNumWords

| Description | Queries the number of words on the specified page.  |
|-------------|---|
| Parameters  | nPage — (optional) The 0-based index of the page. The default is 0.   |
| Returns     | Integer   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which reports the number of words to the console. |
|             | <pre>var nWords=0; for (var i = 0; i &lt; this.numPages; i++)   nWords += getPageNumWords(i); console.println("This document contains " + nWords + " words.");</pre>          |

### Related concepts

selectPageNthWord

# getPageRotation

| Description | Queries the rotation angle of the specified page.  |
|-------------|--|
| Parameters  | nPage — (optional) The 0-based index of the page. The default is 0.  |
| Returns     | Integer  |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which reports the rotation angle of the first page to the console. |
|             | <pre>console.println("The rotation angle of the first page is " +   this.getPageRotation(0) + " degrees.");</pre>  |

### **Related concepts**

setPageRotations

## getPrintParams

| Description | This method returns with a PrintParams object, representing the default print settings. You may alter some of the properties of the PrintParams object, then pass it to the print method to control print settings.               |
|-------------|---|
| Returns     | PrintParams object  |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which loads current print settings, changes the destination to a .prn file, then prints the document. |
|             | <pre>var oPP = this.getPrintParams(); // Set some properties, then print oPP.fileName = "/c/temp/myDoc.prn"; pp.printerName = ""; this.print(oPP);</pre>  |

#### **Related concepts**

print

# import Data Object

| Description | Imports a file into the document as a data object.  |
|-------------|---|
| Parameters  | cName — The name associated with the data object.   |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript. |
|             | cDIPath — (optional) The device-independent path to the file to embed. Power PDF prompts the user if this parameter is missing.   |
| Returns     | Returns true if the import was successful, an exception raises otherwise.   |

```
Add the following JavaScript function to the document:.

function ListDataObjects()
{
    var oDA = this.dataObjects;
    for (var i = 0; i < oDA.length; i++)
        console.println("Data Object[" + i + "]=" + oDA[i].name);
}

Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.
Click the button to run the script, which prompts the user for a data file and embeds it, then calls ListDataObjects to display the name of the new object on the console.

this.importDataObject("DataObject1");
ListDataObjects();
```

dataObjects
createDataObject
exportDataObject
getDataObject
getDataObjectContents
openDataObject
removeDataObject
setDataObjectContents

### importAnFDF

| Description | Imports form data from the specified file to load field values saved earlier.   |
|-------------|---|
| Parameters  | cPath — (optional) Specify the device independent path and file namefdf should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.  Click the button to import sample.fdf.   |
|             | <pre>this.importAnFDF("/c/temp/sample.fdf");</pre>  |

#### **Related concepts**

importAnXFDF

importTextData

### importAnXFDF

| Description | Imports form data from the specified XML file to load field values saved earlier.  |
|-------------|--|
| Parameters  | cPath — (optional) Specify the device independent path and file namexfdf should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name. |

| Example | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to import sample.xfdf. |
|---------|---|
|         | <pre>this.importAnXFDF("/c/temp/sample.xfdf");</pre>  |

importAnFDF

importTextData

# importTextData

| Description | Imports form field values from the specified row in a tab-delimited text file. Searches for field names in the very first row (header) of the document, then loads data from the row specified. Updates all form field values, where a corresponding name found in the header.   |
|-------------|--|
| Parameters  | cPath — (optional) Specify the device independent path and file nametxt should be used as a file extension. If this parameter is missing, then a dialog box prompts for a path and file name. $nRow$ — (optional) Determines which row of the file to import. This index value is 0-based and starts with the line following the header row. If there are more than one data rows in the file, and $nRow$ is missing, then Power PDF displays a dialog box and the user should pick a row. |
| Returns     | Integer return code:  - 3 — Warning: Data is missing.  - 2 — Warning: The row select operation was cancelled by the user.  - 1 — Warning: The file select operation was cancelled by the user.  0 — Success.  1 — Error: Cannot open the file.  2 — Error: Cannot load the data.  3 — Error: Invalid row number was specified.   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to export fields to the export.txt, within the Temp folder on drive C, overwriting the existing file (if there is any).  this.importAsText({cPath: "/C/Temp/export.txt"});  |

#### **Related concepts**

import An FDF

import An XFDF

## importIcon

| Description | Imports a page as an icon from the specified page of the assigned PDF file. If there is no appropriate PDF file specified in the cPath parameter, then the Select icon dialog box shows up, and the user should browse to the file. In this case the user may switch to a supported file format other than PDF, the image files will be converted automatically. |
|-------------|--|
| Parameters  | cPath — (optional) Device-independent path to the source image file.  nPage — (optional) The 0-based index of the page in the source file to turn into an icon.  |

| Returns | The method returns an integer error code:                       |
|---------|---|
|         | • 1 — The user cancelled the process by closing the dialog box. |
|         | 0 — The icon was imported successfully.                         |
|         | • -1 — The file could not be opened.                            |
|         | • -2 — The given page number was invalid.                       |
|         |   |

## mailDoc

| Description | Saves the document, then sends it via e-mail in an attachment.  |
|-------------|---|
| Parameters  | bull — (optional) If true, then the compose new mail window shows up, the message fields are populated using the rest of the parameters and the user may edit all the fields. If false, then Power PDF fills the message fields based on the parameters below. In this case only the cTo parameter is required.  cTo — (optional) List of the recipients, separated by semicolon. |
|             | ccc — (optional) List of the CC recipients, separated by semicolon.   |
|             | cBcc — (optional) List of the BCC recipients, separated by semicolon.   |
|             | cSubject — (optional) The subject line, limited to 64 KB.   |
|             | cMsg — (optional) The message body, limited to 64 KB.   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to start a new mail window with the current document attached.   |
|             | <pre>this.mailDoc({   bUI: false,   cTo: "johndoe@nowhere.com",   cCc: "johndoejr@nowhere.com",   cSubject: "The Latest Document",   cMsg: "Hi, please find the latest document attached in PDF." });</pre>   |

### Related concepts

### mailForm

## mailForm

| Description | Exports form data in the document to an.FDF file then sends it via e-mail in an attachment.   |
|-------------|---|
| Parameters  | bull — (optional) If true, then the compose new mail window shows up, the message fields are populated using the rest of the parameters and the user may edit all the fields. If false, then Power PDF fills the message fields based on the parameters below. In this case only the cTo parameter is required. |
|             | сто — (optional) List of the recipients, separated by semicolon.  |
|             | ccc — (optional) List of the CC recipients, separated by semicolon.   |
|             | cBcc — (optional) List of the BCC recipients, separated by semicolon.   |
|             | cSubject — (optional) The subject line, limited to 64 KB.   |
|             | cMsg — (optional) The message body, limited to 64 KB.   |

```
Example

Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.

Click the button to start a new mail window with the form filled data attached in a file.

this.mailForm({
   bUI: false,
   cTo: "johndoe@nowhere.com",
   cCc: "johndoejr@nowhere.com",
   cSubject: "The Latest Document",
   cMsg: "Hi, please find the latest document attached in PDF."
});
```

mailDoc

## movePage

| Description | Moves a page to a new position within the document.  |
|-------------|--|
| Parameters  | nPage — (optional) The 0-based index of the page to move. The default value is 0.  nAfter — (optional) Determines where to move the page. Specify the 0-based index of the page after to insert the displaced page. Specify -1 to move before the first page. The default value always appoints the last page of the document. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to move the first page to the last position.  this.movePage(0);   |

## openDataObject

| Description | This method returns with the addressed embedded PDF document (data object) as a Doc object. This method does not open the specified embedded file, still provides access to its content, such as field values.                      |
|-------------|---|
|             | <b>Note</b> An exception raises if the addressed embed is missing, or it is not a PDF document, or JavaScript access is not permitted.  |
| Parameters  | cName — The name associated with the data object.   |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript. |
|             |   |
| Returns     | Doc object  |

#### Example

Prepare test.pdf, this file should contain a text field called Text1, containing a sample text.

Bind this code to the <code>Mouse Up</code> trigger of a button in the <code>Button Properties</code> dialog box. Click this button to run the code below which use <code>importDataObject</code> and prompts for a file to embed into the PDF document as a data object, and names it as <code>test.pdf</code>. (Provide <code>test.pdf</code> when required.)

```
this.importDataObject("test.pdf");
```

Bind this code to the  $Mouse\ Up$  trigger of a button in the  $Button\ Properties\ dialog\ box$ . Click the button to run the script, which reaches into the embedded PDF file and retrieves the value of the field Text1 to display it on the console.

```
var oDO = this.openDataObject("test.pdf");
try {
  var oFE = oDO.getField("Text1");
  console.println(oFE.value);
  oDO.closeDoc();
} catch(e) { app.alert("Failed to retrieve data from the embedded test.pdf.");}
```

#### **Related concepts**

dataObjects
createDataObject
getDataObjectContents
importDataObject
removeDataObject
setDataObjectContents
util.stringFromStream

#### print

Description

Prints the document or a selected page range in the document.

| bUI — (optional) Set this parameter to true to show up the print dialog and let the user set all parameters.  |
|---|
| nStart — (optional) The 0-based index of the first page to operate on. Omitting both nStart and nEnd results in the range of the whole document. Specifying only nStart (and omitting nEnd) results in a range consisted of a single page marked by nStart. |
| nEnd — (optional) The 0-based index of the last page of the range. If only nEnd specified (and nStart is omitted), then the range is from the first page to nEnd.   |
| bSilent — (optional) Set this to true to hide the cancel printing dialog during print processing. The default value is false.   |
| bShrinkToFit — (optional) Set this to true to shrink oversized pages within the printable page area. The default value is false.  |
| bPrintAsImage — (optional) Set this to true to convert the content of the pages to images in the printing job. The default value is false.  |
| bReverse — (optional) Set this to true to print pages in reverse order. The default value is false.   |
| bAnnotations — (optional) Set this to false to exclude the annotations from the printing. The default value is true.  |
| bPrintParams — (optional) Pass a PrintParams object, which encompasses the printing settings, overriding other parameters.  |
| Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.  Click the button to run the script, which prints the current page.   |
| this.print(false, this.pageNum, this.pageNum);  |
|   |

getPrintParams

## removeDataObject

| Description | This method removes the specified data object from the document.  |
|-------------|---|
| Parameters  | cName — The name associated with the data object.   |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which removes the embedded PDF file named as DataObject1.  this.removeDataObject("DataObject1");        |

### **Related concepts**

dataObjects createDataObject getDataObject getDataObjectContents importDataObject openDataObject setDataObjectContents util.stringFromStream

### removeField

| Description | This method removes the specified field from the document. Removal impacts all representations of the field.  |
|-------------|---|
| Parameters  | cName — The field name to remove.   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which removes the button (buttons are also field controls). |
|             | <pre>this.removeField("ButtonDummy");</pre>   |

### removelcon

| Description | This method removes the specified named icon from the document.   |
|-------------|---|
| Parameters  | cName — The icon name to remove.  |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box.  Click the button to run the script, which removes Icon1. |
|             | this.removeIcon("Icon1");   |

## removeScripts

| Description | Deletes a document-level script.  |
|-------------|---|
| Parameters  | cName — The name of the script.   |
| Example     | Removes the script called Beeper, which was added by the addScript method. Check the Document JavaScript window for the change. |
|             | this.removeScript("Beeper");  |

### **Related concepts**

addScript

setAction

setPageAction

Bookmark.setAction

Field.setAction

### resetForm

| Description | Sets the default value for the specified fields. |
|-------------|--|
|             |  |

| Parameters | aFields — This array contains the names of the fields to reset. You may also add non-terminal fields to the array. If this parameter is omitted or has a null value, then the method resets all field in the document. |
|------------|--|
| Example    | This script resets the fields specified in the inline array constant.  |
|            | <pre>this.resetForm(["TextBox1", "Name.First", "Name.Last"]);</pre>  |

submitForm

#### scroll

| Description | Scrolls the current view in a way, that the specified point on the page gets centered. Specify the coordinates of the location in points in the rotated user space. For details see the <i>PDF Reference version 1.7</i> . |
|-------------|--|
| Parameters  | nx — The $x$ coordinate in points, referring to the location to scroll. $ny$ — The $y$ coordinate in points, referring to the location to scroll.  |
| Example     | This script scrolls to the point that has a hundred points to the left and top of the page.  this.scroll(100,100);   |

# selectPageNthWord

| Description | This method selects the <i>n</i> th word on the specified page. The scope embraces texts in field objects, button captions, and annotations.  |
|-------------|---|
| Parameters  | nPage — (optional) The 0-based index of the page. The default is 0.  nWord — (optional) The 0-based index of the word. The default is 0.  bScroll — (optional) Set this parameter to true (default) to scroll to the selected word automatically. |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which selects the 19th word on the second page. this.selectPageNthWord(1, 20);  |

#### **Related concepts**

getPageNthWord getPageNumWords

### setAction

| Description | This method sets a document specific script to run when the trigger activates. |
|-------------|--|
|-------------|--|

| Parameters | cTrigger — Specify here to what trigger to attach the action:  |
|------------|--|
|            | WillClose — Runs the action prior closing the document.  |
|            | Willsave — Runs the action prior to saving the document.   |
|            | DidSave — Runs the action after saving the document.   |
|            | WillPrint — Runs the action prior to printing the document.  |
|            | DidPrint — Runs the action after printing the document.  |
|            | cScript — The string, containing the JavaScript code to run when the trigger activates.  |
| Example    | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to add the script. After you print the document, you will receive a warning message on the console. |
|            | this.setAction("DidPrint", "console.println('Do not forget to pick up your printout!')");  |

addScript setPageAction Field.setAction

## setDataObjectContents

| Description | Replaces the content of the data object specified by the cName parameter, using oStream as the source of the new content.   |
|-------------|---|
| Parameters  | cName — The name associated with the data object.   |
|             | <b>Note</b> Data objects created via JavaScript always have a name, which makes possible to reach them in the dataObjects property. Embedded objects inserted via the UI do not have a name and cannot be accessed from JavaScript. |
|             | oStream — A ReadStream object to provide the new content.   |

#### **Related concepts**

dataObjects
createDataObject
getDataObject
getDataObjectContents
importDataObject
openDataObject
removeDataObject
util.stringFromStream

## setPageAction

| Description | This method sets a page-specific script to run when the trigger activates. |
|-------------|--|
|-------------|--|

| Parameters | nPage — (optional) The 0-based index of the page. The default is 0.                      |
|------------|--|
|            | cTrigger — Specify here to what trigger to attach the action:                            |
|            | Open — Runs the action when opening the document at the specified page or turning to it. |
|            | Close — Runs the action when closing the document or turning to another page.            |
|            | cScript — The string, containing the JavaScript code to run when the trigger activates.  |
| Example    | Run this script to play a default sound each time the user turns to the second page.     |
|            | <pre>this.setPageAction(1, "Open", "app.beep(0);");</pre>                                |

# setPageBoxes

| Description | This method defines a named box for the specified pages in the rotated user space.   |
|-------------|--|
| Parameters  | <ul> <li>CBOX — The type of the box according to PDF Reference version 1.7. Valid values follow:</li> <li>Art</li> <li>Bleed</li> <li>Media</li> <li>Crop (default)</li> <li>Trim</li> </ul>   |
|             | Note Type BBox is available only in the getPageBox method.  nStart — (optional) The 0-based index of the first page to operate on. Omitting both nStart and nEnd results in the range of the whole document. Specifying only nStart (and omitting nEnd) results in a range consisted of a single page marked by nStart.  nEnd — (optional) The 0-based index of the last page of the range. If only nEnd specified (and nStart is omitted), then the range is from the first page to nEnd.  rBox — (optional) An array, containing the coordinates of the box in the rotated user space. |

### **Related concepts**

addField getPageBox setPageBoxes

Field.rect

# setPageRotations

| Description | Sets the rotation angle of the specified page range.  |
|-------------|---|
| Parameters  | nStart — (optional) The 0-based index of the first page to operate on. Omitting both nStart and nEnd results in the range of the whole document. Specifying only nStart (and omitting nEnd) results in a range consisted of a single page marked by nStart. |
|             | nEnd — (optional) The 0-based index of the last page of the range. If only nEnd specified (and nStart is omitted), then the range is from the first page to nEnd.   |
|             | nRotate — (optional) The rotation angle in degrees to apply on the specified page range. Valid values are 0, 90, 180, or 270, the default is 0.   |

|  | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which rotates pages 2 and 3 to 90 degrees. |
|--|--|
|  | this.setPageRotations(1, 2, 90);   |

getPageRotation

### submitForm

| Description Submits the form to the specified URL. Supports HTTPS for secure connect | ion. |
|--|------|
|--|------|

#### **Parameters**

CURL — A full or relative URL, which may has a query string at the end.

bFDF — (optional) If this parameter is true (default), then Power PDF sends the form data in FDF format. Otherwise, the submit works with URL-encoded HTML.

Note This parameter is deprecated, please use cSubmitAs instead.

bXML — (optional) If this parameter is true (default), then Power PDF sends the form data in XML format.

Note This parameter is deprecated, please use cSubmitAs instead.

bEmpty — Set this parameter to true to submit all fields, including the ones with no value. If the cSubmitAs parameter specifies XDP, XML, or XFD format, than fields with no value are also transferred, regardless of the bEmpty parameter. In case of other formats empty fields are omitted if bEmpty is set to false (default).

aFields — (optional) This array contains the names of the fields to submit. You may also add non-terminal fields to the array. If this parameter is omitted or has a null value, then the method submits all field in the document. If the cSubmitAs parameter specifies XDP, XML, or XFD format, then all fields are transferred, regardless of the fields specified in the aFields parameter.

bGet — Set this parameter to true to use the HTTP GET method. Set it to false (default) to use the HTTP POST method.

bAnnotations — (optional) Set this to false to prevent annotations to be submitted. The default value is false. This parameter is applicable only if FDF or SFDF is specified in the cSubmitAs parameter.

bIncrChanges — (optional) Set this parameter to true to include the incremental changes of the PDF document with the submitted FDF file. Only applicable if FDF format specified (see cSubmitAs for details).

bPDF — (optional) Set this parameter to true to submit the whole PDF document.

Note This parameter is deprecated, please use cSubmitAs instead.

bCanonical — (optional) Set this to true to convert all dates to standard format (D:YYYYMMDDHHmmSSOHH'mm'). The default is false. For details refer to the *PDF Reference* version 1.7.

bExclNonUserAnnots — (optional) Set this to true to exclude annotations added by others than the current user. The default is false.

cPassword — (optional) Specify a string with the password here, required for the encryption key generation. You may pass over the boolean value true to use the password provided earlier within the session. (In this case, make sure not to use quotation marks.) Power PDF prompts the user for the password if needed.

**Note** This parameter is applicable only if the FDF format is specified in the cSubmitAs parameter

bEmbedForm — (optional) Set this true to embed the whole form.

Note This parameter is applicable only if the FDF format is specified in the cSubmitAs parameter

cJavaScript — (optional) Specify Before, After and Doc scripts here, passing over an oJavaScript object.

**Note** This parameter is applicable only if the FDF format is specified in the cSubmitAs parameter

cSubmitAs — (optional) Specify the format to use in the submission, valid values are:

- FDF This is the default format.
- XFDF XML Forms Data Format allows submitting form data from a PDF document to

| Example | This script sends the form data in the default format.                 |
|---------|--|
|         | this.submitForm("http://www.yourserver.com/cgi-bin/myscript.cgi#FDF"); |

docID

resetForm

#### **Event**

JavaScripts are always executed by a certain event. The currently running script can access the event object at any time, which is representing the context of the script regarding the situation.

Events have a unique type and name property combination. You may check these two properties with your script to recognize the situation. Some event properties are available only for certain type of events.

The rc property has a special role, it serves as a return code. Check the description of the event to see, if it is listening to the return code or not.

#### **Event type/name combinations**

#### App/Init

The Application Initialization event occurs when Power PDF started.

This event does not process the rc code.

#### Batch/Exec

This event occurs every time a document gets processed in a batch sequence.

The target property of this event links to the Doc object.

This event processes the rc return code: if the rc property is false, then interrupts the batch sequence.

#### Bookmark/Mouse Up

This event occurs if a mouse click on a bookmark starts a script.

The target property of this event links to the Bookmark object clicked.

This event does not process the rc code.

#### Console/Exec

This event occurs if the user runs a script in the JavaScript Console window.

This event does not process the  ${\tt rc}$  code.

#### Doc/DidPrint

This event occurs after a document was printed.

The  ${\tt target}$  property of this event links to the  ${\tt Doc}$  object.

This event does not process the rc code.

#### Doc/DidSave

This event occurs after a document was saved.

The target property of this event links to the Doc object.

This event does not process the rc code.

#### Doc/Open

This event occurs when a document is opened.

The target property of this event links to the Doc object.

This event also defines a targetName property.

This event does not process the rc code.

#### Doc/WillClose

This event occurs prior a document is closed.

The target property of this event links to the Doc object.

This event does not process the rc code.

#### **Doc/WillPrint**

This event occurs prior document printing.

The target property of this event links to the Doc object.

This event does not process the rc code.

#### Doc/WillSave

This event occurs prior a document is saved.

The target property of this event links to the Doc object.

This event does not process the  ${\tt rc}$  code.

#### External/Exec

This event occurs when Power PDF works by external access, such as OLE.

This event does not process the rc code.

#### Field/Blur

This event occurs when a field loses focus, either by the user clicked away the field or pressed the Tab key.

The target property of this event links to the field under validation.

This event also defines the modifier, shift, targetName and value properties.

This event does not process the  ${\tt rc}$  code.

#### Field/Calculate

This event occurs when a field recalculates its value. When a field value changes, then each field calculating with that value should refresh, while respecting the calculation order.

The target property of this event links to the field object under calculation.

This event also defines the source and targetName properties.

This event processes the rc return code: if the rc property is false, then the new field value will not be stored.

#### Field/Focus

This event occurs between the Mouse Down and Mouse Up events. Useful for processing and validation that should happen prior the user interacts with the field.

The target property of this event links to the field under validation.

This event also defines the modifier, shift and targetName properties.

This event does not process the  ${\tt rc}$  code.

#### Field/Format

This event occurs after all calculations finished. Allows using a formatting script to change the appearance of the field. For example, a script may represent the value as a currency, with a dollar sign and two decimals only.

For text fields you may edit the Format Script in the Format tab of the Text Field Properties dialog box.

The target property of this event is linked to the field with the formatting script currently running.

This event also defines the commitKey, targetName and willCommit properties.

This event does not process the rc code. The value of the field is used as the formatted appearance.

#### Field/Keystroke

This event occurs if:

- The user types while the text field or combo box field is in focus.
- · The user cuts and pastes text while the text field or combo box is in focus.
- The user uses the keyboard and selects an item in a list box or combo box.
- Prior to the validate event this event is called to allow a final check on the value or format. During the prevalidation run the willcommit property is always set to true, indicating that the script is now running the last time before commit, and the user finished the input.
- When validating default field values, or values provided by the autofill feature. The target property will be undefined in these cases.

In case of list boxes and combo boxes you may edit the Selection Change script in the selection in the field properties dialog box. The Selection Change script added to a list box receives the export value of the selected item in the <code>changeEx</code> property. The Selection Change script added to a combo box receives the export value only if a listed item was selected.

The target property of this event is linked to the field with the keystroke script currently running. This event also defines the commitKey, change, changeEX, keyDonw, modifier, selEnd, selStart, shift, targetName, value and willCommit properties.

This event processes the rc return code: if the rc property is false, then the keystroke is ignored. The script may alter the change property and this way replace the keystroke. The script may alter also the selStart and selEnd properties to define a new selection.

#### Field/Mouse Down

This event occurs as the user pushes the mouse button, which is still down and not released yet. The event is always preceded by a Mouse Enter event. There is only a short time available between Mouse Down and Mouse Up, what is limiting the script in terms of runtime.

The target property of this event links to the field under validation.

This event also defines the modifier, shift and targetName properties.

This event does not process the rc code.

#### Field/Mouse Enter

This event occurs as the user moves the mouse pointer inside the field rectangle. You may use this event to display help texts for the field.

The target property of this event links to the field under validation.

This event also defines the modifier, shift and targetName properties.

This event does not process the rc code.

#### Field/Mouse Exit

This event occurs as the user moves the mouse pointer outside the field rectangle. The event is always preceded by a mouse-enter event.

The target property of this event links to the field under validation.

This event also defines the modifier, shift and targetName properties.

This event does not process the rc code.

#### Field/Mouse Up

This event occurs after the user clicks on the field, and then releases the mouse button. The event is always preceded by a Mouse Down event. Use this event to launch typical processing actions, such as submitting a form.

The target property of this event links to the field under validation.

This event also defines the modifier, shift and targetName properties.

This event does not process the rc code.

#### Field/Validate

Validation takes place right after committing the field value, which means the user clicked outside of the field rectangle, tabbed away or pressed the Enter key. This is the first event raised after commit to allow the JavaScript to verify it. If successful, then the calculate event is triggered next.

The target property of this event links to the field under validation.

This event also defines the change, changeEX, keyDown, modifier, shift and targetName properties.

This event processes the rc return code: if the rc property is false, then the field value is considered invalid, and remains unchanged.

#### Link/Mouse Up

When a link containing a JavaScript action is activated by the user, then this event occurs.

The target property of this event links to the Doc object.

This event does not process the rc code.

#### Page/Open

When a new page displays to the user and the page drawing is completed, then this event occurs.

The target property of this event links to the Doc object.

This event does not process the  ${\tt rc}$  code.

#### Page/Close

When the user switched away from the current page or closed it, then this event occurs.

The target property of this event links to the Doc object.

This event does not process the rc code.

### Form processing order

Form processing connects with mouse and keyboard handling closely and works according to the following:

The field receives focus either by mouse or keyboard actions.

 The Mouse Up event may lead the focus away: the user may hold down the mouse button over the field

rectangle (Field/Focus occurs), but still may move away the mouse pointer before releasing the mouse

button.

• The field processes (a series of) mouse and keyboard actions by Keystroke and Selection Change

events. All changes are passed in the change and change EX properties to the events.

- The Validate event occurs right after committing the field value.
- The Calculate event follows on a successful validation (if the field is dependant on other fields).
- The Field/Format event raises.
- Finally the Field/Blur event occurs when the field loses focus either by mouse or keyboard actions.

### **Event properties**

### change

| Description | This property holds the last keystroke or the last text pasted. You may hook a JavaScript code to the Keystroke event of a field to intercept and change the text before it displays in the field.   |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Create a text field, then put this script into the Keystroke Script box on the Format page in the Text Field Properties dialog box. (Select the Custom option to enable the Keystroke Script text field, then click Edit.) This code runs each time a key is pressed when the text field is in focus and translates all letters to uppercase. Also converts pasted contents.  event.change = event.change.toUpperCase(); |

### changeEx

| Description | This property works with list box and combo box fields only. Contains the export value of the list item selected last time (during the Field/Keystroke event). Does not work when typing in custom values into a combo box. |
|-------------|---|
| Туре        | Various   |
| Access      | Read  |

```
Example
                Add the browseHelp() function to the document, using the Document JavaScript menu.
                function browseHelp()
                  if (!event.willCommit && (event.changeEx != "") )
                  app.launchURL(event.changeEx);
                Create a list box (ListBox1), then run the following code to populate it:
                var oLB = getField("ListBox1");
                oLB.setItems([
                  ["Kofax Intelligent Automation Platform",
                   "https://www.kofax.com/Products/intelligent-automation-platform"
                 format="html" scope="external"],
                   ["Kofax Robotic Process Automation",
                   "https://www.kofax.com/Products/rpa/overview"],
                   ["Kofax Cognitive Capture",
                    "https://www.kofax.com/Products/cognitive-capture"],
                ]);
                Finally, run this code to hook the browseHelp() function to the Keystroke action:
                oLB.setAction("Keystroke", "browseHelp()");
                Now as the user selects any items in the list, the corresponding online help loads into the default
                browser application (after confirmation).
```

### commitKey

| Description | Indicates how the field editing closed when the field lost focus.   |
|-------------|---|
| Values      | 0 — The user aborted the field edit, so no value was committed. Perhaps the user left the field by pressing the Esc key.  |
|             | 1 — The user altered the field value, then clicked outside of the field, so the value was committed.  |
|             | 2 — The user altered the field value, then pressed the Enter key, so the value was committed.   |
|             | 3 — The user altered the field value, then pressed the Tab key, so the value was committed.   |
| Туре        | Number  |
| Access      | Read  |
| Example     | Create a text field, then put this script into the Keystroke Script box on the Format page in the Text Field Properties dialog box. (Select the Custom option to enable the Keystroke Script text field, then click Edit.) This code runs each time the text field loses focus and displays an alert if the field value was edited. |
|             | <pre>if (event.commitKey != 0)   app.alert("The field was edited.");</pre>  |

## keyDown

| Description | This property works with list box and combo box fields only. Contains true if the user used the arrow keys to select an item (during the Field/Keystroke event). Does not work when typing in custom values into a combo box. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read  |

### modifier

| Description | It is set to true if the Ctrl modifier key was held down during the event. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read   |

### name

| Description | The name of the current event. Use in combination with the type property to identify an event. |
|-------------|--|
| Values      | Blur   |
|             | Calculate Init   |
|             | DidPrint   |
|             | Focus  |
|             | Format DidSave   |
|             | Keystroke  |
|             | Mouse Down Open  |
|             | Mouse Enter Close  |
|             | Mouse Exit   |
|             | Mouse Up Exec  |
|             | Validate   |
|             | WillPrint  |
|             | WillSave   |
| Туре        | String   |
| Access      | Read   |

### Related concepts

### type

#### rc

| Description | This property determines if the event should succeed or not. Set to false to block the event chain and prevent a commit. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Events      | Keystroke, Validate, Menu  |

### selEnd

| Description | This property holds the ending position of the current selection during a Keystroke event. |
|-------------|--|
| Туре        | Integer  |

| Access | Read/Write |
|--------|------------|
| Events | Keystroke  |

selStart

### selStart

| Description | This property holds the starting position of the current selection during a Keystroke event. |
|-------------|--|
| Туре        | Integer  |
| Access      | Read/Write   |
| Events      | Keystroke  |

### **Related concepts**

selEnd

#### source

| Description | This property represents the Field object which triggered the calculation event. Most of the time this is not the target object, which is the field under calculation. |
|-------------|--|
| Туре        | Object   |
| Access      | Read   |

### **Related concepts**

target

### shift

| Description | It is set to true if the Shift modifier key was held down during the event.  |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read   |
| Example     | Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button. If you held the Shift key while clicking, then the script displays a message on the console. |
|             | <pre>if (event.shift)   console.println("Shifted!");</pre>   |

# target

| Description | This property represents the Field object which triggered the event. |
|-------------|--|
| Туре        | Object   |
| Access      | Read   |

#### Field

# targetName

| Description | Returns the name of the JavaScript currently running. This can be useful when searching for the origins of errors and exceptions. (Exceptions report targetName if applicable.) The return value may represent various entities, depending on the context:  • App/Init events — The folder-level script file name.  • Doc/Open events — The document-level script name.  • Batch/Exec events — The name of the PDF file processed.  • Field events — The field name.  • Menu/Exec events — The menu item name.  • Screen events — The screen annotation name. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |
| Example     | Run this code in various contexts (such as Mouse Up or Document Javascript actions) to see the context reported on the console.  console.println("Running in: " + event.targetName);  |

### **Related concepts**

#### **Event**

## type

| Description | The type of the current event. Use in combination with the name property to identify an event. |
|-------------|--|
| Values      | Batch  |
|             | Console  |
|             | App  |
|             | Doc  |
|             | Page   |
|             | External   |
|             | Bookmark   |
|             | Link   |
|             | Field  |
|             | Menu   |
| Туре        | String   |
| Access      | Read   |

### Related concepts

name

### value

| Description | This property may return various entities, depending on the event context::   |
|-------------|---|
|             | • Field/Validate events — The value of the field as it is committed. For combo boxes and list boxes represents the face value, not the export value.  |
|             | Field/Calculate events — The calculated value of the field.   |
|             | • Field/Format events — The field value as to display. For combo box fields this means the face value. For details on using the export value see the <code>changeEx</code> method.  |
|             | • Field/Keystroke events — The current value of the field, before the actual keystroke gets applied.  |
|             | Field/Blur and Field/Focus events — The current value of the field, as read-only.   |
|             | Note If multiple items are selected, then event.value returns an empty string and does not accept settings. See Field.multipleSelection for details.  |
| Туре        | Various   |
| Access      | Read/Write  |
| Example     | Create a text field, then put this script to the Keystroke Script box in its Text Field Properties dialog box. This code runs each time a key pressed or the text field loses focus and displays an alert if the field value is not in the specified range. |
|             | <pre>if (event.value &lt; 0    event.value &gt; 20) {   app.alert("Keep the value of the " + event.target.name + "field   between 0 and 20" );   event.rc = false; }</pre>  |
|             |   |

### Related concepts

### changeEx

Field.multipleSelection

## willCommit

| Description | If this property is true then the value is right before commit and the event was called to handle the last value checking prior commit. If this value is false then the event was called to handle a keystroke-level checking. |  |
|-------------|--|--|
| Туре        | Boolean  |  |
| Access      | Read   |  |
| Example     | This code example is without impact, demonstrating only the typical structure of Keystroke events.   |  |
|             | <pre>var value = event.value if (event.willCommit)   // Place here the code checking the final value (committing). else   // Place here the code checking keystrokes (editing).</pre>  |  |

#### Field

This object represents a form field in the PDF document. Fields can be created either by the UI, using the tools in the Form Elements group of the Forms ribbon, or by JavaScript, using the <code>Doc.addField</code> method. To use a field by JavaScript, first you need to assign it to a variable with the <code>Doc.getField</code> method:

```
var oTB = this.getField("Text1");
```

The graphical presentation of the field is called widget. The same field may have multiple widgets, holding the same value, but displaying it on different pages, positions, in various style (color, font, etc.). If the user creates a field, then Power PDF names it automatically (such as, Text2). If there is a Text1 field already existing, and the user renames Text2 to Text1, then the second field will share on the same value. You may set visual properties (such as text or fill color, border) of the widgets uniquely using the properties dialog box, but not by JavaScript. The getField method cannot address widgets, only the terminal fields, therefore changing properties reflects on all widgets belonging to the field.

You may build a field hierarchy by using the period (".") separator between parent and child field names. For example, create a field named Name.First, then create another one named Name.Last. Both Name.First and Name.Last are the children of Name, which is an internal field (not visible), created automatically. Name.First and Name.Last are terminal fields, which are visible on the screen and have separate values. Setting properties of the field Name may change both children or may not work. (Setting fillColor for Name turns the fill color of both children, but setting Name.value does nothing.)

### Field properties

Some properties are stored as names, others are represented by strings in the PDF document. A name property can have 127 characters at most. For further details refer to *PDF Reference version 1.7*.

### alignment

| Description | Determines where to snap the text in a field.  |  |
|-------------|--|--|
| Values      | left   |  |
|             | center   |  |
|             | right  |  |
| Туре        | String   |  |
| Access      | Read/Write   |  |
| Fields      | text   |  |
| Example     | Create a text field (Text1) with its Alignment option set to Left. Run this code to change the text alignment to center. |  |
|             | <pre>var oTB = this.getField("Text1"); oTB.alignment = "center";</pre>   |  |

### borderStyle

| Description | Determines what line style to use for drawing the border rectangle around the Field object. Use the following values, or see the table below for border object constants. |
|-------------|---|
| Values      | solid   |
|             | dashed  |
|             | beveled   |
|             | inset   |
|             | underline   |
| Туре        | String  |
| Access      | Read/Write  |
| Fields      | All   |
| Example     | Create a button (Button1) with solid, black and thick border, then run this code to set the border style dashed:  |
|             | <pre>var oBT = this.getField("Button1"); oBT.borderStyle = border.d;</pre>  |

### border object constants

| Value     | Constant | Description  |
|-----------|----------|--|
| solid     | border.s | Uses a solid line.   |
| beveled   | border.b | An additional beveled border runs inside the solid border, resulting in a pushed-out look. |
| dashed    | border.d | Uses a dashed line.  |
| inset     | border.i | An additional inset border runs inside the solid border, resulting in a pushed-in look.    |
| underline | border.u | Draws a line under the field.  |

# button A lign X

| Description | Determines (in percents) how far the icon positioned to the left of the button. |
|-------------|---|
| Values      | 0-100 (the default is 50)   |
| Туре        | Integer   |
| Access      | Read/Write  |
| Fields      | button  |

# buttonAlignY

| Description | Determines (in percents) how far the icon positioned to the bottom of the button. |  |
|-------------|---|--|
| Values      | 0-100 (the default is 50)   |  |
| Туре        | Integer   |  |

| Access  | Read/Write   |  |
|---------|--|--|
| Fields  | button   |  |
| Example | Prepare a very tall button (Button2) with an icon. Add the following MoveIcon method as a document JavaScript:   |  |
|         | <pre>function MoveIcon() {   if ( oBT.buttonAlignY == 0 ) {     oBT.buttonAlignY++;     oTI.dir = true;     return; } if (oBT.buttonAlignY == 100 ) {     oBT.buttonAlignY;     oTI.dir = false;     return; } if (oTI.dir)     oBT.buttonAlignY++; else     oBT.buttonAlignY; }</pre> |  |
|         | Run the following script to make the icon moving like an elevator. The script uses the above MoveIcon script and the timer of the app object.  |  |
|         | <pre>var oBT = this.getField("Button2"); oBT.buttonAlignY = 0; oTI = app.setInterval("MoveIcon()", 100); oTI.dir = true; oTIover = app.setTimeOut("app.clearInterval(oTI);    app.clearTimeOut(oTIover)", 2*20000+100);</pre>  |  |

app.clearInterval

app.clearTimeOut

app.setInterval

app.setTimeOut

### buttonFitBounds

| Description | Set this property to true to scale the icon to the bounds of the button face. Other icon-setting properties also have their effect on the display. |
|-------------|--|
| Values      | true OF false  |
| Туре        | Boolean  |
| Access      | Read/Write   |
| Fields      | button   |

#### **Related concepts**

buttonAlignX

buttonAlignY

buttonFitBounds buttonPosition buttonScaleHow buttonScaleWhen

## buttonPosition

| Description | Determines how the icon and the text share layout on the button face. The position object provides the constant properties for valid values, see the table below for layout descriptions. |
|-------------|---|
| Values      | position.textOnly   |
|             | position.iconOnly   |
|             | position.iconTextV  |
|             | position.textIconV  |
|             | position.iconTextH  |
|             | position.textIconH  |
|             | position.overlay  |
| Туре        | Integer   |
| Access      | Read/Write  |
| Fields      | button  |

### position object constants

| Constant property  | Description             |
|--------------------|-------------------------|
| position.textOnly  | Text Only               |
| position.iconOnly  | Icon Only               |
| position.iconTextV | Icon top, Text bottom   |
| position.textIconV | Text top, Icon bottom   |
| position.iconTextH | Icon left, Text right   |
| position.textIconH | Text left, Icon right   |
| position.overlay   | Text in Icon (overlaid) |

### buttonScaleHow

| Description | Determines how the icon is scaled to fit on the button face. The scaleHow object provides the constant properties for valid values, see the table below for layout descriptions. |
|-------------|--|
| Values      | scaleHow.proportional scaleHow.anamorphic  |
| Туре        | Integer  |
| Access      | Read/Write   |
| Fields      | button   |

### scaleHow object constants

| Constant property     | Description  |
|-----------------------|--|
| scaleHow.proportional | Proportionally, keeping the ratio of sides.                                    |
| scaleHow.anamorphic   | Non-proportionally, scaling vertically and horizontally is not bound together. |

## buttonScaleWhen

| Description | Determines in what cases the icon is scaled to fit on the button face. The scaleWhen object provides the constant properties for valid values, see the table below for descriptions. |
|-------------|--|
| Values      | scaleWhen.always scaleWhen.never scaleWhen.tooBig scaleWhen.tooSmall   |
| Туре        | Integer  |
| Access      | Read/Write   |
| Fields      | button   |

### scaleWhen object constants

| Constant property  | Description                     |
|--------------------|---------------------------------|
| scaleWhen.always   | Always scale to fit.            |
| scaleWhen.never    | Never scale to fit.             |
| scaleWhen.tooBig   | Scale if the icon is oversized. |
| scaleWhen.tooSmall | Scale if the icon is too small. |

### calcOrderIndex

| Description | Controls the computing order of the calculated numeric fields in the document. Computing starts with the field with the lowest calcOrderIndex and progresses in order. |
|-------------|--|
| Туре        | Integer  |
| Access      | Read/Write   |
| Fields      | combobox, text   |

```
Add two text fields to the document, first Text1, then Text2. Set both fields as numeric, calculated fields. This script changes the original calculation order of the fields by altering the calcorderIndex property.

var oTBnew = this.getField("Text2");
var oTBold = this.getField("Text1");
console.println("Originally, Text1: " + oTBold.calcOrderIndex);
console.println("Originally, Text2: " + oTBnew.calcOrderIndex);
oTBnew.calcOrderIndex = oTBold.calcOrderIndex + 1;
console.println("After, Text1: " + oTBold.calcOrderIndex);
console.println("After, Text2: " + oTBnew.calcOrderIndex);
```

### charLimit

| Description | Set this property to limit the maximum number of characters to type into the field.                         |
|-------------|---|
| Туре        | Integer   |
| Access      | Read/Write  |
| Fields      | text  |
| Example     | Create a text field (Text1), then limit the maximum number of characters by setting the charLimit property. |
|             | <pre>var oTB = this.getField("Text1"); oTB.charLimit = 10;</pre>  |

#### comb

| Set this property true to draw each character in a separate box. Prior this, set the charLimit property to specify the number of characters/boxes. Be aware, that setting this property also sets the doNotScroll property.  |
|--|
| true <b>or</b> false   |
| Boolean  |
| Read/Write   |
| text   |
| This script adds a text field with input length limited to 8 characters, then turns it to a comb box.  var ip = 72; // point/inch rate  var sRect = this.getPageBox( {nPage: 0} );  //use sRect to calculate the size and position of the text field  sRect[0] += 0.5*ip; // half inch from the from upper left corner of page sRect[1] -= 0.5*ip;  sRect[2] = sRect[0]+3*ip; // 3 inch width sRect[3] = sRect[1] - 24; // 24 points in height  var oTB = this.addField("Comb text", "text", 0, sRect); oTB.strokeColor = color.gray; oTB.textColor = color.blue; oTB.fillColor = ["RGB",1,0.66,0.75]; oTB.charLimit = 8; oTB.comb = true; |
|  |

charLimit

doNotScroll

# commit On Sel Change

| Description | Set this property to true to commit the field value immediately as the selection changes. Set this property false to delay the commit until the field loses focus, so the user may apply multiple selections without committing the field value multiple times. |
|-------------|---|
| Values      | true OF false   |
| Туре        | Boolean   |
| Access      | Read/Write  |
| Fields      | combobox, listbox   |

### currentValueIndices

| Description | When reading, this property returns with the selection. If there is only a single item selected, then returns with an integer value, which holds the 0-based index of the selected item in the options array. If there are multiple items selected, then returns an array of indexes sorted in ascending order. If the current value became invalid due to random user editing, then it returns -1. When writing, this property may receive an integer on an array of integers. Pass an integer to set a single item selected, or pass an array of integers to set multiple items selected.  Note In an editable combobox, you may set the value property to an arbitrary string, which is not among the list items.  Note Set the fields multipleSelection property to control the ability of multiple selections. |
|-------------|---|
| Туре        | Integer or Array  |
| Access      | Read/Write  |
| Fields      | combobox, listbox   |
| Example     | Create a list box (ListBox1) and populate it. Run the script below to turn the top item selected.   |
|             | <pre>var oLB = this.getField("ListBox1"); oLB.currentValueIndices = 0;</pre>  |
|             | Create a list (ListBox1), populate it, then select one or multiple elements. The following script sends the selected item(s) to the console.  |
|             | <pre>var oLB = this.getField("ListBox1"); var myselection = oLB.currentValueIndices; if (typeof myselection == "number") // A single item is selected   console.println("Selection: " + oLB.getItemAt(myselection, false)); else // Multiple items are selected {  console.println("Selection:");   for (var i = 0; i &lt; myselection.length; i ++)    console.println(" " + oLB.getItemAt(myselection[i], false)); }</pre>  |

deleteItemAt

getItemAt

insertItem At

multipleSelection

numItems

setItems

### defaultValue

| Description | The default value of the field, which loads at form reset. You may use either the user value or the export value as a default. If there are identical export and user values for different list items, then the first export value is used. |
|-------------|---|
| Туре        | String  |
| Access      | Read/Write  |
| Fields      | all except button and signature   |
| Example     | Create a text field (Text1), then run the following code to set its default value.  |
|             | <pre>var oTB = this.getField("Text1"); oTB.defaultValue = "Enter first name here."; resetForm(["Text1"]);</pre>   |

### doNotScroll

| Description | Set this property to true to disable scrolling during text editing. This constrains the text editing to the area of the field and limits the number of characters. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Fields      | text   |

# delay

| Description | Redrawing of field objects is automatic and comes with property changes as necessary. In case of a massive amount of JavaScript property change requests, Power PDF performs better if you delay the redraw. Set this property to true to disable automatic redraw until delay property is set back to false. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Fields      | All   |

| Example | Change the look of CheckBox1. Set the delay to true and make all changes, then set the delay property back to false to let the display update.  |
|---------|---|
|         | <pre>var oCB = this.getField("CheckBox1"); // Blocks display update oCB.delay = true; oCB.borderStyle = border.d; // You may insert a number of other property changes here oCB.strokeWidth = 5; // Allows updating the field display with the changes now oCB.delay = false;</pre> |

# display

| Description | Controls if the field is displayed or printable.  |
|-------------|---|
|             | Note This property is recommended over the hidden and print properties.   |
|             |   |
| Values      | See the table below for display object constants.   |
| Туре        | Integer   |
| Access      | Read/Write  |
| Fields      | All   |
| Example     | Set the display property of Text1, then check, if it is visible but not printable.  |
|             | <pre>// Set the display property var oTB = getField("Text1"); oTB.display = display.noPrint; // Test whether the field gets printed if (oTB.display == display.noPrint)   console.println("This field is visible but does not get printed.");</pre> |

### display object constants

| Constant        | Description                                       |
|-----------------|---|
| display.visible | The field is visible on screen and printable.     |
| display.hidden  | The field is hidden on screen and not printable.  |
| display.noPrint | The field is visible on screen but not printable. |
| display.noView  | The field is hidden on screen but printable       |

### Related concepts

hidden

print

### doc

| Description | Specifies the Doc object of the document where the field is placed. |
|-------------|---|
| Туре        | Doc object  |

| Access | Read |
|--------|------|
| Fields | All  |

### editable

| Description | If this property is set to true, then user may type in a selection. If this property is false, then the user must select from the provided items. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Fields      | combobox  |
| Example     | Turns ComboBox1 to editable.  |
|             | <pre>var oCB = this.getField("ComboBox1"); oCB.editable = true;</pre>   |

# exportValues

| Description | Export values can bound to radiobutton and checkbox items.   |
|-------------|--|
|             | The exportValues property is an array of strings, containing the export values mapped to the annotations in the order of creation (tab-order is insignificant in this case).   |
|             | This property is required for radiobutton fields. A group of buttons returns the export value of the currently selected radiobutton field or returns with "Off" if there is no button selected.  |
|             | Yes is the default export value for checkbox fields when the field is checked. Off is the default when the field is cleared.   |
| Туре        | Array  |
| Access      | Read/Write   |
| Fields      | checkbox, radiobutton  |
| Example     | This script creates a group of four radio buttons, then assigns the export values.   |
|             | <pre>var offs = 24; var x1=100; y1=600; x2=110; y2=590; var oRB = this.addField("Radio1","radiobutton",0, [x1, y1, x2, y2]); var oRB = this.addField("Radio1","radiobutton",0, [x1, y1+offs, x2, y2+offs]); var oRB = this.addField("Radio1","radiobutton",0, [x1, y1+2*offs, x2, y2+2*offs]); var oRB = this.addField("Radio1","radiobutton",0, [x1, y1+3*offs, x2, y2+3*offs]); oRB.exportValues = ["1", "2", "3", "4"];</pre> |
|             | Run this script to send the value of the selected button to the console:   |
|             | <pre>var oRB = this.getField("Radio1"); if ( typeof oRB.page == "object" )   console.println("Selected value:" + oRB.value);</pre>   |

## fillColor

| Description | Defines the background color for the field.   |
|-------------|---|
| Values      | Values are defined by using transparent, gray, RGB or CMYK color objects.   |
| Туре        | Array   |
| Access      | Read/Write  |
| Fields      | All   |
| Example     | Alternates the background color of a text field, switching from the default white to red and back. If the current color is white, then it changes to red, otherwise changes back to white.  |
|             | <pre>var oTB = this.getField("Text1"); if (color.equal(oTB.fillColor, color.red))   oTB.fillColor = color.white; else   oTB.fillColor = color.red; // Get the field in focus to display the color change this.getField("Text1").setFocus();</pre> |

## hidden

| Description | When this property is true, the annotation is not displayed, not printable, and the user cannot interact with it. |
|-------------|---|
|             | Note This property is obsolete, use display instead.  |
|             |   |
| Туре        | Boolean   |
| Access      | Read/Write  |
| Annotations | All   |

# highlight

| Description | Controls how should the button behave when on mouse click. Use the following supported values , or see the table below for highlight object constants. |
|-------------|--|
| Values      | none — No visual feedback on button click.   |
|             | invert — The button face inverts on click.   |
|             | push — The down state of the button shows up for a short time if button down face was defined.   |
|             | outline — The border of the button area gets inverted momentarily.   |
| Туре        | String   |
| Access      | Read/Write   |
| Fields      | button   |
| Example     | This script sets the highlight fashion of Button1 to outline.  |
|             | <pre>var oBT = this.getField("Button1"); oBT.highlight = highlight.o;</pre>  |
|             |  |

### highlight object constants

| Value   | Constant    |
|---------|-------------|
| none    | highlight.n |
| invert  | highlight.i |
| push    | highlight.p |
| outline | highlight.o |

### lineWidth

| Description | Specifies the border width of the field rectangle. Zero results in no border. Has no affect in case of transparent stroke color, unless with a beveled border. |
|-------------|--|
| Values      | 0 — none 1 — thin 2 — medium 3 — thick   |
| Туре        | Integer  |
| Access      | Read/Write   |
| Fields      | All  |
| Example     | This script changes the border thickness on the button to thick.  var oBT = this.getField("Button1");  oBT.lineWidth=3;  |

# multipleSelection

| Description | If this property holds true, then the user may select multiple items in the list. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Fields      | listbox   |

#### **Related concepts**

currentValueIndices

type

value

#### name

| Description | Returns the full name of the field as a string. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

| Fields  | All   |
|---------|---|
| Example | This script reads the full name of Text1 and sends it to the console output.                                      |
|         | <pre>var oTB = this.getField("Text1"); // Displays "Text1" in the console window console.println(oTB.name);</pre> |

### numltems

| Description | This property returns the number of items in the list.   |
|-------------|--|
| Туре        | Integer  |
| Access      | Read   |
| Fields      | combobox, listbox  |
| Example     | Displays the item number of Listbox1 on the console.   |
|             | <pre>var oLB = this.getField("ListBox1"); console.println("Number of items in the list: " + oLB.numItems + ".");</pre> |

## page

| Description | If the field has only a single appearance in the document, then the page property returns the 0-based page number, on which the field is located.  |
|-------------|--|
|             | If the field appears on more than one pages, then page property returns an array of integers. Each integer represents a 0-based page number on which this field has a widget. The order of numbers is based on the creation order of the individual widgets. The page property returns $-1$ for widgets placed on a hidden page.   |
| Туре        | Integer or Array   |
| Access      | Read   |
| Fields      | All  |
| Example     | This script takes the number of widgets associated with the Radio1 field name and sends it to the console. In other words, this example gets the number of radio buttons in the Radio1 radio button field.   |
|             | <pre>var oRB = this.getField("Radio1"); if ( typeof oRB.page == "object" )   console.println("There are " + oRB.page.length + " radio buttons in   this field.");</pre>  |
|             | This script counts the numbers of widgets connected to Text99.   |
|             | <pre>var oTB = this.getField("Text99"); if (typeof oTB.page == "number")   // There is only one field placed in the document   // with that name (page holds the page number).   console.println("Text99 field occurs only once on page " + oTB.page) else   // The document contains more than one fields   // with that name (page is an array of page numbers).   console.println("Text99 field occurs " + oTB.page.length + " times");</pre> |

## password

| Description | If this property holds true, then the field data is not saved with the document, and only asterisks show up when text entered. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Fields      | text   |

## print

| Description | If this property holds true, then the field is printed with the document.      |  |
|-------------|--|--|
|             | Note The display property is recommended over the hidden and print properties. |  |
|             |  |  |
| Туре        | Boolean  |  |
| Access      | Read/Write   |  |
| Fields      | All  |  |

## Related concepts

### display

## required

| Description | Determines if the field is required to fill. If true, then the field's value property should not be null when submitting. Clicking on the submit button when there is a required field with a null value, results in a warning message and the process fails. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Object Type | All except button   |
| Example     | This script sets the Text1 field as required.   |
|             | <pre>var oBT = this.getField("Text1"); oBT.required = true;</pre>   |

## radioInUnison

| Description | If this property holds true, then radio buttons with the same name and export value turn on and off in unison. This property is available on the user interface, named Buttons with the same name and value are selected in unison on the Options page of the Radio Button Properties dialog box. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |

| Fields | All |  |
|--------|-----|--|
|--------|-----|--|

# readOnly

| Description | Set this property to true to block any user edits and changes on the field.                                   |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Fields      | All   |
| Example     | This script sets the Text1 field read-only and loads a warning text into the text field.                      |
|             | <pre>var oTB = this.getField("Text1"); oTB.value = "You cannot change this text."; oTB.readonly = true;</pre> |
| I .         |   |

### rect

| Description | The rect array contains four numbers [xll, yll, xur, yur] to define the lower-left x, lower-left y, upper-left x, and upper-right y coordinates in the default user space. This way rect represents the rectangle that specifies the area of the field on the page.   |  |
|-------------|---|--|
| Туре        | Array   |  |
| Access      | Read/Write  |  |
| Fields      | All   |  |
| Example     | This script adds a new button to the first page of the document, placed half an inch from the upper left corner. The button takes one inch in width and 24 points in height.  |  |
|             | <pre>var ip = 72; // point/inch rate var sRect = this.getPageBox( {nPage: 0} ); sRect[0] += 0.5*ip;// half inch from the from upper left corner of page sRect[1] -= 0.5*ip; sRect[2] = sRect[0]+1*ip;// one inch width sRect[3] = sRect[1] - 24;// 24 points in height var oBT = this.addField("Button1", "button", 0 , sRect);</pre> |  |

## rotation

| Description | Defines the number of degrees the widget is rotated counter-clockwise with respect to the page.   |  |
|-------------|---|--|
| Values      | 0, 90, 180, 270 <b>degrees</b>  |  |
| Туре        | Integer   |  |
| Access      | Read/Write  |  |
| Fields      | All   |  |
| Example     | Create a rotated text field on the first page and fill it with text.  |  |
|             | <pre>var oTB = this.addField("Text1", "text", 0, [16, 16+72, 28, 16]); oTB.rotation = 270; oTB.value = "Take care of your neck.";</pre> |  |
|             |   |  |

### strokeColor

| Description | Specifies the border color of the rectangle of the field.   |  |
|-------------|---|--|
| Values      | Values are defined by using transparent, gray, RGB or CMYK color objects.   |  |
| Туре        | Array   |  |
| Access      | Read/Write  |  |
| Fields      | All   |  |
| Example     | <pre>Change the stroke color of each text field in the document to green. for ( var i=0; i &lt; this.numFields; i++) {   var fieldname = this.getNthFieldName(i);   var oField = this.getField(fieldname);   if (oField.type == "text") oField.strokeColor = color.green; }</pre> |  |

# style

| Description | Specifies the glyph style of the markable area of the field. The glyph is the graphical object working as the sensitive area of the widget. Use the following supported values, or see the table below for style object constants. |  |
|-------------|--|--|
| Values      | check  |  |
|             | cross  |  |
|             | diamond  |  |
|             | circle   |  |
|             | star   |  |
|             | square   |  |
| Туре        | String   |  |
| Access      | Read/Write   |  |
| Fields      | checkbox, radiobutton  |  |
| Example     | This script sets the glyph style of CheckBox1 to circle.   |  |
|             | <pre>var oCB = this.getField("CheckBox1"); oCB.style = style.ci;</pre>   |  |
|             |  |  |

### style object constants

| Value   | Constant |
|---------|----------|
| check   | style.ch |
| cross   | style.cr |
| diamond | style.di |
| circle  | style.ci |
| star    | style.st |
| square  | style.sq |

## textColor

| Description | Specifies the color of text and other foreground objects in the field. For example, this includes texts, list items, a caption on a button, or the color of the radio button and check-glyphs.  Note Using transparent color space in textColor raises an exception. |
|-------------|--|
| Values      | Values are defined by using gray, RGB or CMYK color objects.   |
| Туре        | Array  |
| Access      | Read/Write   |
| Fields      | All  |
| Example     | This script sets the foreground color to green for each text field with a value greater than zero.   |
|             | <pre>for ( var i=0; i &lt; this.numFields; i++) {   var fieldname = this.getNthFieldName(i);   var oField = this.getField(fieldname);   if (oField.type == "text" &amp;&amp; oField.value &gt; 0)     oField.textColor = color.green; }</pre>                        |

## submitName

| Description | Specifies an alternative field name for form submission. Only applicable with HTML format. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Annotations | All  |

## type

| Description | Specifies the field type, which cannot be modified by setting this property. |
|-------------|--|
| Values      | button   |
|             | checkbox   |
|             | combobox   |
|             | listbox  |
|             | radiobutton  |
|             | signature  |
|             | text   |
| Туре        | String   |
| Access      | Read   |
| Fields      | All  |

| Example | This script displays the number of buttons in the document.   |
|---------|---|
|         | <pre>var num = 0; for ( var i=0; i<this.numfields; "button")="" (this.getfield(fieldname).type="=" fieldname="this.getNthFieldName(i);" i++)="" if="" num++;="" pre="" var="" {="" }<=""></this.numfields;></pre> |
|         | <pre>app.alert("I have counted " + num + " buttons.");</pre>  |

## userName

| Description | This property serves as a short description string for the field, displaying as a tooltip when entering the field. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Fields      | All  |
| Example     | Add a tooltip to a text field.   |
|             | <pre>var oTB = this.getField("Text1"); oTB.userName = "Type your name here.";</pre>                                |

## value

| Description | The value of the field, as it is entered by the user. Use the <code>value</code> property for field calculations. <code>listbox</code> objects with multiple selections provide <code>value</code> as an array of the selected items.                                 |
|-------------|---|
|             | Note For listbox fields it is more preferred to use <code>currentValueIndices</code> to get or set selected items.  |
|             | Note For a group of radiobutton objects (with unique export values for all the items) you may check the value property, which holds the export value of the selected radiobutton widget. The value property holds an empty string if no widget selected in the group. |
| Туре        | various   |
| Access      | Read/Write  |
| Fields      | All except button   |
| Example     | Run this code to display the current date in the Text1 field.  var oTB = this.getField("Text1");  |
|             | oTB.value = util.printd("yyyy/mm/dd",new Date());   |

### **Related concepts**

currentValueIndices

# valueAsString

| Description | The value of the field, converted to String. |
|-------------|--|
|-------------|--|

| Туре    | String   |
|---------|--|
| Access  | Read   |
| Fields  | All except button  |
| Example | Run this code to display the current date in the Text1 field.                                  |
|         | <pre>var oTB = this.getField("Text1"); oTB.value = util.printd("yyyy/mm/dd",new Date());</pre> |

## Field methods

## buttonGetIcon

| Description | Returns the Icon object of an icon associated with the button.  |
|-------------|---|
| Parameters  | nFace — (optional) Specifies the caption type to get:  • 0 — normal icon (default)  • 1 — button down icon  • 2 — mouse over icon |
| Returns     | The Icon object   |

#### **Related concepts**

but ton Import I con

buttonSetIcon

# buttonImportIcon

| Description | Imports a page as an icon from the specified page of the assigned PDF file. If there is no appropriate PDF file specified in the cPath parameter, then the Select icon dialog box shows up, and the user should browse to the file. In this case the user may switch to a supported file format other than PDF, the image files will be converted automatically. |
|-------------|--|
| Parameters  | cPath — (optional) Device-independent path to the source image file.  nPage — (optional) The 0-based number of the page in the source file to turn into an icon.   |
| Returns     | <ul> <li>The method returns an integer error code:</li> <li>1 — The user cancelled the process by closing the dialog box.</li> <li>0 — The icon was imported successfully.</li> <li>-1 — The specified or selected file could not be opened.</li> <li>-2 — The given page number was invalid.</li> </ul>   |
| Example     | Add the following script to import an avatar picture as an icon and print the error code to the console:  var oBT = this.getField("Button1"); var result = oBT.buttonImportIcon("/C/IDs/avatar.pdf"); console.println(result);   |

# buttonSetCaption

| Description | Sets the caption for the button.   |
|-------------|--|
| Parameters  | cCaption — The caption to set for the button.  nFace — (optional) Specifies the caption type to get:  output  nFace — (optional) Specifies the caption type to get:  nFace — (optional) Specifies the caption type type type type type type type type |
| Returns     | The button caption as a string.  |
| Example     | Create a button (Button1), then run this script to change the caption of it.  var oBT = this.getField("Button1"); oBT.buttonSetCaption("Hello World!")   |

#### Related concepts

buttonGetCaption

## buttonGetCaption

| Description | Returns with the caption text associated with the button.  |
|-------------|--|
| Parameters  | nFace — (optional) Specifies the caption type to get:  • 0 — normal icon (default)  • 1 — button down icon  • 2 — mouse over icon  |
| Returns     | The button caption as a string.  |
| Example     | Create a button with both caption and icon, then go to the Actions tab in its Button properties dialog box. Add the following event handler scripts to turn the button more mouse-sensitive: the scripts will surround the caption with pointing arrows when mouse is over. Add the following script to MouseEnter trigger to run: |
|             | <pre>event.target.buttonSetCaption("=&gt; "+ event.target.buttonGetCaption() +"     &lt;=");</pre>   |
|             | Add the following script to the MouseExit trigger:   |
|             | <pre>var s = event.target.buttonGetCaption(); s = s.replace(/=&gt;   &lt;=/g, ""); event.target.buttonSetCaption(s);</pre>   |

#### **Related concepts**

buttonSetCaption

buttonSetIcon

| Description | Adds an icon to the button.   |
|-------------|---|
|             | <b>Note</b> Running buttonSetIcon in the JavaScript console raises an exception. This method should run in a script embedded within the document.                                   |
| Parameters  | oIcon — The Icon object to associate with the button.   |
|             | nFace — (optional) Specifies the caption type to get:   |
|             | 0 — normal icon (default)   |
|             | • 1 — button down icon  |
|             | • 2 — mouse over icon   |
| Example     | This script interchanges the icons on Button1 and Button2.  |
|             | <pre>var oBT1 = this.getField("Button1"); var oBT2 = this.getField("Button2"); var t = oBT1.buttonGetIcon(); oBT1.buttonSetIcon(oBT2.buttonGetIcon()); oBT2.buttonSetIcon(t);</pre> |

buttonGetIcon buttonImportIcon getIcon

## checkThisBox

| Description | Selects or clears a check box widget. Applicable only on checkbox objects.  Note This method does not work with radiobutton objects. To reset a radiobutton use the resetForm method. (Prior that defaultIsChecked should be set to false.)  |
|-------------|--|
| Parameters  | nWidget — The 0-based index of the widget for the field. A field may have multiple widgets, and you may address an individual object by its index. The index goes along the creation order of the widgets, and it is not affected by tab order.  bCheckIt — (optional) Set this property to true (default) to turn the checkbox widget selected, or set it to false to clear it. |
| Example     | Create a check box (CheckBox1), then run the following script to turn the check box selected:  var oCB = this.getField("CheckBox1"); oCB.checkThisBox(0, true);  |

### **Related concepts**

defaultIsChecked getField resetForm

### clearItems

| Description | Removes all items from a listbox or a combobox.   |
|-------------|---|
| Example     | Create a combo box (ComboBox1) with several items. Run the following script to remove all items from the combo box: |
|             | <pre>this.getField("ComboBox1").clearItems();</pre>   |

currentValueIndices

deleteItemAt

getField

getItemAt

insertItemAt

numltems

setItems

## defaultIsChecked

| Description | Set the default state for a checkbox or radiobutton object with this property.  |
|-------------|---|
| Parameters  | nWidget — The 0-based index of the widget for the field. A field may have multiple widgets, and you may address an individual object by its index. The index goes along the creation order of the widgets, and it is not affected by tab order. |
|             | <b>Note</b> Each entry in the Fields panel has a suffix with this index (such as MyField #0).   |
|             | bIsDefaultChecked — (optional) Set this property to true (default) to turn the checkbox widget selected by default on a field reset, or set it to false to clear it.  |
| Returns     | true on success.  |
| Example     | Create a check box (CheckBox1), then run the following script to set the default state for this check box selected. To display the result, the script resets the form, so all fields get restored to default.                                   |
|             | <pre>var c = this.getField("CheckBox1"); c.defaultIsChecked(0,true); this.resetForm(["CheckBox1"]);</pre>   |

### **Related concepts**

defaultIsChecked

getField

resetForm

deleteItemAt

| Removes the specified item from a combo box or list box.   |
|--|
| <b>Note</b> As you delete the selected item, no item will have selected status in the list box. If the script calls the method again, this may cause malfunctioning. Preventing this, good to select an item using the <code>currentValueIndices</code> property.  |
| The second secon |
| nIdx — (optional) The 0-based index of the item to remove. The method removes the currently selected item if no parameter specified.   |
| Create a list box (ListBox1) and populate it. Select one of the items, then run the script below. This script removes the selected item from the list and then turns the top item selected.  |
| <pre>var oLB = this.getField("ListBox1"); oLB.deleteItemAt(); oLB.currentValueIndices = 0;</pre>   |
|  |

#### currentValueIndices

## getArray

| Description | Returns with the array of terminal child field objects connected with the current field. (A terminal field is a field, which can have a value.)  |
|-------------|--|
| Returns     | Array  |
| Example     | Create three fields: Value.First, Value.Second, and Value.Third. Due to the way they are named, these three fields now are children of the Value parent field. The script below sums the children field values in nSum and displays the result on the console. |
|             | <pre>var oValue = this.getField("Value"); var children = oValue.getArray(); var nSum = 0.0; for (i =0; i &lt; children.length; i++)    nSum += children[i].value; console.println("Total sum of children fields: " + nSum);</pre>                              |

# getItemAt

| Description | Returns with the export value or name of the specified list item.   |
|-------------|---|
| Parameters  | nIdx — The 0-based index of the item. Set this parameter to $-1$ to point to the last item in the list.   |
|             | bExportValue — (optional) Determines which value to return with:  |
|             | <ul> <li>true — Returns the export value, if the item has any, otherwise returns the item name.</li> <li>false — Returns the name of the item.</li> </ul> |
| Returns     | Either the export value or the name of the item.  |

```
Example
                In this example n holds the export value of the first item in the list.
                // Filling up the list
                var oLB = this.getField("ListBox1");
                oLB.setItems([["First", 1],["Second", 2], "Third"]);
                // Due to zero-based indexing, returns the value of the first list
                item, which is 1
                var n = oLB.getItemAt(0);
                console.println(n);
                In this example the second, optional parameter is also used. By setting it to false, the item
                name is retrieved instead of the export value.
                var oLB = this.getField("ListBox1");
                oLB.setItems([["First", 1],["Second", 2], "Third"]);
                for (var i=0; i < oLB.numItems; i++)</pre>
                 console.println(oLB.getItemAt(i,true) + ": " +
                oLB.getItemAt(i,false));
                Console output reads as:
                1:First
                2:Second
                Third: Third
```

clearItems

currentValueIndices

deleteItemAt

insertItemAt

numltems

setItems

#### insertItemAt

| Description | Inserts a new item into the selected position in a list box or combo box.  |
|-------------|--|
| Parameters  | nIdx — The 0-based index of the desired position in the list. You may use special values as follows:                                   |
|             | O — Inserts the new item at the top of the list  |
|             | • -1 — Inserts the new item at the end of the list   |
|             | cName — The item name as appears on the list.  |
|             | $\verb cExport (optional)  \label{eq:cexport} The export value of the item. If not specified, then \verb cName   is reported instead.$ |
| Example     | The following script adds an item (Top line) to the ListBox1 listbox:  |
|             | <pre>var oLB = this.getField("ListBox1"); oLB.insertItemAt("Top line");</pre>  |
|             | The following script adds an item (Bottom line) to the ListBox1 list box, at the bottom of the list:                                   |
|             | <pre>var oLB = this.getField("ListBox1"); oLB.insertItemAt("Bottom line", "Bottom line", -1);</pre>                                    |

clearItems

currentValueIndices

deleteItemAt

getItemAt

numltems

setItems

### isBoxChecked

| Description | Use this method to see if a checkbox widget is selected or not.  |
|-------------|--|
| Parameters  | <code>nWidget</code> — The 0-based index of the widget for the field. A field may have multiple widgets, and you may address an individual object by its index. The index goes along the creation order of the widgets, and it is not affected by tab order. |
|             | Note Each entry in the Fields panel has a suffix with this index (such as MyField #0).   |
| Returns     | Returns true if the widget is selected, otherwise returns false.   |
| returns     | Tectums er de in the waget is selected, otherwise returns rarse.   |
| Example     | This script inspects the state of the CheckBox1 check box and displays the report in an alert box.   |
|             | <pre>var oCB = this.getField("CheckBox1"); var status = (oCB.isBoxChecked(0)) ? " " : " not "; app.alert("The box is" + status + "checked");</pre>   |

## isDefaultChecked

| Description | Test this property to see if the widget turns to selected by a resetForm operation, or not.  |
|-------------|--|
|             | Note For a group of radiobutton objects (with unique export values for all the items) you may check the value property, which holds the export value of the selected radiobutton widget. The value property holds an empty string if no widget selected in the group.  |
| D           | The Object to the College Coll |
| Parameters  | nWidget — The 0-based index of the widget for the field. A field may have multiple widgets, and you may address an individual object by its index. The index goes along the creation order of the widgets, and it is not affected by tab order.  |
|             | <b>Note</b> Each entry in the Fields panel has a suffix with this index (such as MyField #0).  |
|             |  |
| Returns     | Returns true if the widget is selected by default, otherwise returns false.  |
| Example     | This script inspects the default state of CheckBox1 and displays the report in an alert box.   |
|             | <pre>var oCB = this.getField("CheckBox1"); var dstatus = (oCB.isDefaultChecked(0)) ? "Checked" : "Cleared"; app.alert("The Default: " + dstatus);</pre>  |

#### **Related concepts**

defaultIsChecked

## getField resetForm

### setAction

| Description | Bind a JavaScript action to a field event trigger.   |
|-------------|--|
|             | Note This method overwrite the action previously was bind to the trigger.  |
|             |  |
| Parameters  | cTrigger — This string parameter specifies the trigger to bind. Valid parameters are:  |
|             | • MouseUp  |
|             | • MouseDown  |
|             | • MouseEnter   |
|             | • MouseExit  |
|             | • OnFocus  |
|             | • OnBlur   |
|             | Keystroke  |
|             | • Validate   |
|             | • Calculate  |
|             | • Format   |
|             | Note For listbox fields bind the Keystroke trigger to the Selection Change event.  |
|             | Note 1 of 115 250 x notes bind the Reyseloke tingger to the odlestion ondings event.   |
|             | cScript — This string contains the JavaScript to execute when the trigger gets activated.  |
| Example     | This script adds a button field with addField, sets the look of the button, and adds a sound to the MouseUp trigger using setAction.   |
|             | <pre>var ip = 72; // point/inch rate var sRect = this.getPageBox( {nPage: 0} ); sRect[0] += 0.5*ip; // half inch from the from upper left corner of page sRect[1] -= 0.5*ip; sRect[2] = sRect[0]+1*ip; // one inch width sRect[3] = sRect[1] - 24; // 24 points in height var oBT = this.addField("Button1", "button", 0 , sRect); oBT.setAction("MouseUp", "app.beep(0);"); oBT.delay = true; oBT.fillColor = color.ltGray; oBT.buttonSetCaption("Click Alarm!"); oBT.borderStyle = border.b; oBT.lineWidth = 3; oBT.strokeColor = color.red; oBT.highlight = highlight.p; oBT.delay = false;</pre> |

### Related concepts

Bookmark.setAction

Doc.setAction

Doc.addScript

Doc.setPageAction

## setFocus

| Description | Pulls the keyboard focus onto the field, which may include changing page or scroll.                                     |
|-------------|---|
| Example     | This script brings the Value.First field in focus.  |
|             | <pre>this.getField("Value.First").value = "Enter the first value here: " this.getField("Value.First").setFocus();</pre> |

### setItems

| Description | Use this method to fill up a list in a combobox or listbox object with items.  |
|-------------|--|
| Values      | <ul> <li>oArray — An array describing the list items.</li> <li>If an array element is a string (or convertible), then serves both as item name and export value.</li> <li>If an array element is an array of strings (or convertible), then the first subelement serves as item name, the second subelement provides the export value.</li> </ul>  |
| Example     | This script fills the list box with strings, these serve as export values also.  var oLB = this.getField("ListBox1"); oLB.setItems(["First", "Second", "Third"]);  This script fills the combo box with country names, adding their country codes as export values.  var oCB = this.getField("ComboBox1"); oCB.setItems([["United States", "US"],["United Kingdom", "UK"],         ["Hungary", "HU"]]);  The third item in the following list displayes as LN2, and has the natural logarithm of 2 as export value.  var oLB = this.getField("ListBox1"); oLB.setItems(["1", 2, 3, ["LN2", Math.LN2]]); console.println(oLB.getItemAt(3)); |

#### **Related concepts**

clearItems

currentValueIndices

deleteItemAt

getItemAt

numItems

setItems

# signatureInfo

| Description | Returns with a SignatureInfo object, which is a snapshot of the signature used on the |
|-------------|---|
|             | specified security handler.   |
| Parameters  | oSig — (optional) The SecurityHandler object with the signature.                      |

| Returns | A SignatureInfo object with the properties and values copied from the signature. |
|---------|--|
| Example | Check the example provided for the method signatureValidate.                     |

SignatureInfo

SecurityHandler

# signatureSign

| Description | This method signs the field with the specified security handler. You cannot sign fields already signed, prior that you need to clear the field with the formReset method.   |
|-------------|---|
|             | Note The security-restricted signatureSign method may run only in a privileged context, that means console, batch and application initialization events. Triggers available in the Button Properties dialog box, such as Mouse Up or On Focus are considered non-privileged. If the certificate of the document is trusted for running embedded high privilege JavaScript, then security-restricted methods may run without restrictions. |
| Parameters  | oSig — The SecurityHandler object to use. If not specified, then selects a handler based on user preferences, or prompts the user, if the bUT parameter is true. An exception raises if the handler does not support signing.   |
|             | oInfo — (optional) A signatureInfo object with properties filled correctly.   |
|             | cDIPath — (optional) The device-independent path for saving the file after the operation. If not specified, then the file is written back to its original location.   |
|             | but — (optional) Set this true to show the user interface for user login. In this case the oinfo and cDIPath parameters are used as default values for login.   |
| Returns     | Returns true if signing was successful, otherwise returns false.  |
| Example     | Sign the Signature1 field with the PPKLite signature handler:   |
|             | <pre>var oSH = security.getHandler( "Adobe.PPKLite" ); oSH.login( yourpassword, "/c/YourFolder/YourFileName.pfx"); var sf = this.getField("Signature1"); // Sign the field var result = sf.signatureSign( oSH,</pre>  |
|             | Note You should not necessarily provide the password if Password Timeout not expired yet.   |

#### **Related concepts**

SecurityHandler securityHandler.setPasswordTimeout security.getHandler

## signatureValidate

| Description | Returns the validity status for a signature. The validation process may take a significant amount of time.   |
|-------------|--|
| Parameters  | oSig — (optional) A SecurityHandler or a SignatureParameters object to use (see Table 12: SignatureParameters object). If not specified, then uses the handlerName property of the signature object.  but — (optional) Set this true to show the user interface for validation, if needed to select a  |
|             | validation handler (none specified). The default is false.   |
| Returns     | Returns with a validity status value:  -1 — The specified field is not a signature.  0 — The signature is blank.  1 — The status is unknown.  2 — The signature is invalid.  3 — The document signature is valid, but signer identity cannot be verified.  4 — The document signature is valid, signer identity is valid.                                  |
| Example     | You can check the validity of Signature1 with the following script:  |
|             | <pre>var f = this.getField("Signature1") //Validate returns with validity status code var status = f.signatureValidate(); //Retrieving signature details var si = f.signatureInfo(); if ( status &lt; 3 )   var msg = "This signature is not valid! " + si.statusText; else   var msg = "This signature is valid! " + si.statusText; app.alert(msg);</pre> |

### SignatureParameters object

| Description | The properties of the SignatureParameters generic object specify which security handlers are to be used for validation by signatureValidate:  |
|-------------|---|
| Parameters  | oSecHdlr — The SecurityHandler object to use. bAltSecHdlr — Set this true to select an alternative security handler based on user preferences. The default is false, which means that the handlerName property of the signature is referred for a handler. This parameter is ignored if oSecHdlr is provided. |

### **Related concepts**

security.getHandler SecurityHandler SigInfo.handlerName

## FullScreen

This object grants access to the properties of the application when running in presentation mode.

## FullScreen properties

### isFullScreen

| Description | Determines if the application runs in full screen (presentation) mode. Set this property to true to switch to full-screen view (this requires to have at least one document opened). |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Example     | This script turns the application to presentation mode.  |
|             | <pre>app.fs.isFullScreen = true;</pre>   |

#### **Related concepts**

FullScreen object app.fs

# global

This constant object offers persistent properties to store and share variables across opened documents.

To create a new property just assign a value to it. The following script creates a counter for the filled forms:

global.countFormsFilled = 0;

See the method setPersistent for details how to make the global variable persistent across Power PDF sessions.

## global methods

### setPersistent

| Description | Sets a global variable persistent. That means, the value of that variable is stored in the glob.js file located the JavaScript user folder. Therefore the value of the variable will not be volatile any more and can be reached by other PDF files. |
|-------------|--|
|             | <b>Note</b> To avoid collision use a naming convention with well-setup prefixes. (for example, companyname_variablename)   |
| Doromotoro  | The veriable name (without the value) profiv) to turn persistent   |
| Parameters  | cVariable — The variable name (without the global. prefix) to turn persistent.   |

| Example | This code creates a global variable to store the number of filled forms across PDF documents. |
|---------|---|
|         | <pre>global.countFormsFilled = 0;<br/>global.setPersistent("countFormsFilled");</pre>         |

# RDN

## **RDN** properties

This generic object represents a Relative Distinguished Name in the securityHangler.newUser and the certificate.subjectDN properties.

#### **Related concepts**

SecurityHandler.newUser certificate.subjectDN

С

| Description | The country or region, according to the <i>ISO 3166</i> standard. For example, HU for Hungary of Europe. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |

#### cn

| Description | The common name of the person. For example, John Doe. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

е

| Description | The email address. For example, john.doe@example.com. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

0

| Description | The name of the organization. For example, Kofax. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

#### OU

| Description | The name of the organizational unit. For example, Document Imaging. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

## search

This static object offers search capabilities. You may start a search query using JavaScipt, the results will display in the Search window.

## search properties

#### attachments

| Description | Set this property to true to extend the scope of the search operations to PDF attachments.  |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Example     | The following script list all the search object properties to the console.  |
|             | <pre>console.println("attachments: " + search.attachments); console.println("available: " + search.available); console.println("name: " + search.name); console.println("path: " + search.path); console.println("bookmarks: " + search.bookmarks); console.println("markup: " + search.markup); console.println("matchCase: " + search.matchCase); console.println("matchWholeWord: " + search.matchWholeWord); console.println("maxDocs: " + search.maxDocs); console.println("stem: " + search.stem); console.println("wordMatching: " + search.wordMatching);</pre> |

### available

| Description | Check this property before initiating any search operation. This property returns true if the search plug-in is loaded and ready for a query. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read  |
| Example     | Check the example provided with the query method.   |

### **Related concepts**

query

### bookmarks

| Description | Set this property to true to extend the scope of the search operations to bookmarks. The default is false. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Example     | Check the example provided with the attachments method.  |

### **Related concepts**

#### attachments

### indexes

| Description | An array of Index objects, each item represents a search index.                   |
|-------------|---|
| Туре        | Array of Index objects  |
| Example     | This script displays the number of available indexes on the console.              |
|             | <pre>console.println("Number of search indexes: " + search.indexes.length);</pre> |

## markup

| Description | Set this property to true to extend the scope of the search operations to annotations. The default is false. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read/Write   |
| Example     | Check the example provided with the attachments method.  |

#### **Related concepts**

#### attachments

### matchCase

| Description | Set this property to true to turn the search operation to case-sensitive. The default is false. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Example     | Check the example provided with the attachments method.   |

#### **Related concepts**

#### attachments

### matchWholeWord

| Description | Set this property to true to turn the search operation sensitive for full word matches only. That means, if you are searching for part, then particular nor participate will not be marked. The default is false. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Example     | Check the example provided with the attachments method.   |

### attachments

### maxDocs

| Description | The maximum number of documents to include in the result set of a search query. The default is 100. |
|-------------|---|
| Туре        | Integer   |
| Access      | Read/Write  |
| Example     | Check the example provided with the attachments method.   |

### stem

| Description | Set this property to true to include words with the same stemming in the search operation. That means, if you are searching for particle, then part will be found also. The default is false. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read/Write  |
| Example     | Check the example provided with the attachments method.   |

# wordMatching

| Description | This property determines how to deal with the individual words used in the search expression. This property relevant only in search queries with more than one word. |
|-------------|--|
| Values      | <ul> <li>MatchPhrase</li> <li>MatchAnlWords</li> <li>MatchAnyWord</li> <li>BooleanQuery (default)</li> </ul>   |
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Check the example provided with the attachments method.  |

## search methods

## addIndex

| Description | Adds the specified index to the list of active indexes.  |
|-------------|--|
| Parameters  | cDIPath — The device-independent path to the index to add. bSelect — (optional) Set this to true to turn the index active. |
| Returns     | Index object   |
| Example     | This script registers the GeneralDocsIndex.zpi as an active index.   |
|             | <pre>search.addIndex("/C/MyIndexes/GeneralDocsIndex.zpi", true);</pre>   |

# getIndexForPath

| Description | This method searches for the corresponding path in the list of active indexes and returns the matching index object.  |
|-------------|---|
| Parameters  | cDIPath — The device-independent path to the index file sought.   |
| Returns     | Index object  |
| Example     | This script looks for an index with the path and filename, then displays some of the index properties on the console.   |
|             | <pre>var oID = search.getIndexForPath("/C/MyIndexes/GeneralDocsIndex.zpi"); console.println(oID.available); console.println(oID.name); console.println(oID.path);</pre> |

## query

| Description | Searches an index, the active document or a folder with PDF files for the specified text and displays the results in a search window. The properties of the search object have an impact on the search results.   |
|-------------|---|
| Parameters  | cQuery — The text to search.  cWhere — (optional) Sets the scope of the operation:  ActiveDoc  ActiveIndexes (default)  Folder  Index  cDDIPath — (optional) This path to a folder or a catalog index should be specified only if the cWhere argument is Folder or Index. |
| Example     | This script searches for the word Continued in files or catalogs within the specified folder.  if (typeof search != "undefined" && search.available) {    search.query("Continued", "Folder", "/C/Temp"); }   |

#### removeIndex

| Description | Removes the specified index from the list of active indexes.         |
|-------------|--|
| Parameters  | index — The index object to remove.                                  |
| Example     | This script removes the first index from the list of active indexes. |
|             | <pre>search.removeIndex(search.indexes[0]);</pre>                    |

# security

This static object provides tools related to PDF-security.

# security constants

## StandardHandler

| Description | This property is out of use. |
|-------------|------------------------------|
| Туре        | String                       |
| Access      | Read                         |

## **PPKLiteHandler**

| Description | Use this HandlerName constant in the handler property of the SecurityPolicy object if it applies a PPKLite (certificate-based) security handler. Pass this value to security.getHandler to create a new security context. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

# security properties

### handlers

| Description | This array contains the names of all available security handlers. You may use these handlers for signatures or encryption. |
|-------------|--|
| Туре        | Array  |
| Access      | Read   |

| Example | This script lists the handlers array to the console.   |
|---------|--|
|         | <pre>for ( var i=0; i &lt; security.handlers.length; i++ )   console.println("#" + i + ": " + security.handlers[i]);</pre> |

Field.signatureSign getHandler

## security methods

### getHandler

| Description | Returns with a SecurityHandler object. You can reuse an existing handler or create a new instance.  |
|-------------|---|
| Parameters  | cName — The name of the handler. (For details, see the handlers property.) bUIEngine — (optional) Set this to true to reuse an existing handler instance. The default is false. |
| Returns     | SecurityHandler object  |
| Example     | Check the example provided with the Field.signatureSign method.   |

#### **Related concepts**

Field.signatureSign

# SecurityHandler

This object provides access to signatures, encryption, and identifiers. SecurityHandler objects are different, not necessarily implementing each property and method detailed in the following chapters.

You may obtain a SecurityHandler object using the security.getHandler method.

#### **Related concepts**

security.getHandler

## SecurityHandler properties

#### appearences

| Description | An array containing the names for each available user-configured appearances regarding the specified security handler. |
|-------------|--|
| Туре        | Array  |
| Access      | Read   |

# digitalIDs

| Description | The certificates associated with the active digital ID for this security handler.  |
|-------------|--|
| Туре        | Object   |
| Returns     | Returns with a generic object with the following properties:   |
|             | certs — (Array of Certificate objects) This array of certificate objects corresponds to all digital IDs for this SecurityHandler object. |
| Access      | Read   |

# isLoggedIn

| Description | Returns true if the login was successful and the timeout period is not expired yet for the current security handler.  |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read  |
| Example     | This script logs in the user then displays the login status on the console.   |
|             | <pre>var oSH = security.getHandler( "Adobe.PPKLite" ); var success = oSH.login({ cDIPath: "/C/IDs/JohnDoe.pfx",</pre> |

## Related concepts

login

setPasswordTimeout

# loginName

| Description | This property holds the login name for the current digital ID on this security handler.                               |
|-------------|---|
| Туре        | String  |
| Access      | Read  |
| Example     | This script logs in the user then displays some properties on the console.  |
|             | <pre>var oSH = security.getHandler( "Adobe.PPKLite" ); var success = oSH.login({ cDIPath: "/C/IDs/JohnDoe.pfx",</pre> |

## loginPath

| Description | This property holds the device-independent path to the user's profile file, including the file name. Returns a null value if the user is not logged in, or if this property is not supported by the security handler, or it is irrelevant for the active user. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |
| Example     | Check the example provided with the loginName property.  |

### **Related concepts**

loginName

#### name

| Description | This property holds the device-independent name of the security handler. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |
| Example     | Check the example provided with the loginName property.                  |

#### **Related concepts**

loginName

## signAuthor

| Description | This property indicates if the security handler is able to prepare certified documents. For modification prevention details see the SignatureInfo object and its mdp property. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read   |
| Example     | Check the example provided with the loginName property.  |

#### Related concepts

loginName

SignatureInfo.mdp

#### Related information...

SignatureInfo object

## signInvisible

| Description | This property indicates if the security handler is able to prepare invisible signatures. |
|-------------|--|
| Туре        | Boolean  |

| Access  | Read  |
|---------|---|
| Example | Check the example provided with the loginName property. |

#### loginName

## signValidate

| Description | This property indicates if the security handler is able to validate signatures. |
|-------------|---|
| Туре        | Boolean   |
| Access      | Read  |
| Example     | Check the example provided with the loginName property.                         |

#### **Related concepts**

#### loginName

## signVisible

| Description | This property indicates if the security handler is able to prepare visible signatures. |
|-------------|--|
| Туре        | Boolean  |
| Access      | Read   |
| Example     | Check the example provided with the loginName property.                                |

#### **Related concepts**

loginName

## SecurityHandler methods

## login

| Description | Launches the login UI which provides access to the digital IDs. Parameters are varying by handler type.  |
|-------------|--|
| Parameters  | cPassword — (optional) The password for the digital ID. cDIPath — (optional) The device-independent path to the digital ID file. bUI — (optional) Set this to true to launch the login interface to ask for credentials. |
| Returns     | true if the login was successful, otherwise false  |
| Example     | Check the example provided with the Field.signatureSign method.  |

### **Related concepts**

Field.signatureSign

getHandler

# logout

| Description | Performs a logout on the SecurityHandler object.   |
|-------------|--|
| Returns     | true if the logout was successful, otherwise false |

### Related concepts

Field.signatureSign

getHandler

login

## newUser

| Description | Creates a new self-sign credential, enrolling with the Adobe. PPKLite security handler.  |
|-------------|--|
| Parameters  | cPassword — (optional) The password for the digital ID.  |
|             | cDIPath — (optional) The device-independent path to the digital ID file.   |
|             | ordin — (optional) An rdn object, containing the issuer or subject name for the certificate. Only the common name (Rdn.cn) is required. If there is a country code (Rdn.c) provided, then it should match with ISO 3166. |
|             | ocps — (optional) Provide a generic object here, containing the certificate policy information to embed. ocps has the following properties:  |
|             | oid — Certificate Policy object identifier.  |
|             | • url — (optional) An URL pointing to the policy description information.  |
|             | notice — (optional) A digested version of the certificate information.   |
|             | bul — (optional) Set this to true to launch the login interface to ask for credentials.  |
|             | cStore — Specifies the credential store to use. If not provided, than cDIPath will be used instead.  |
| Returns     | true if successful   |

### Related concepts

### RDN object

### setPasswordTimeout

| Description | Set the length of the timeout period in seconds.  |
|-------------|---|
| Parameters  | cPassword — The password for the digital ID.  iTimeout — The length of the timeout session in seconds. Set to 0 to expire immediately (default). Specify 0x7FFFFFFF for unlimited session length (no expiration). |
| Returns     | Raises an exception in case of failure (for example, the user is not logged in).  |

## SignatureInfo

This generic object contains the properties of a digital signature. The Field.signatureValidate method returns a SignatureInfo object. Field.signatureSign and Field.signatureValidate methods receive a SignatureInfo object as an argument.

Note Different handlers may support different properties.

## SignatureInfo properties

#### date

| Description | This property holds the name or the e-mail address of the user, who created this signature. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |
| Example     | Check the example provided with the name property.  |

#### Related concepts

name

#### handlerName

| Description | This property holds the name of the security handler used for this signature. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |
| Example     | Check the example provided with the name property.                            |

#### Related concepts

name

## location

| Description | This property holds the location, where this signature was signed. It is optional and specified by the signer. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Check the example provided with the name property.   |

### Related concepts

name

## mdp

| Description | This property holds the Modification Detection and Prevention (MDP) setting for signing. Valid values are:   |
|-------------|--|
|             | <ul> <li>allowNone — No changes allowed to the document without invalidating the signature.</li> <li>allowAll — Allows all changes to the document without invalidating the signature.</li> <li>default — Allows form field fill-in only, any other changes invalidate the document.</li> <li>defaultAndComments — Allows form field fill-in and adding, deleting, or editing annotations. Any other change invalidates the document.</li> </ul> |
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Check the example provided with the name property.   |

#### **Related concepts**

name

### name

| Description | This property holds the name of the user, who created this signature. |
|-------------|---|
| Туре        | String  |
| Access      | Read  |

| Example | Create a blank signature named Signature1 as described at the addField method. Click Signature1, then provide Digital ID information in the first page of the Sign Document dialog. Click Next to move to the second page. Select the desired Appearance, then click Save to close the dialog. Now the signature is signed.  Bind this code to the Mouse Up trigger of a button in the Button Properties dialog box. Click the button to run the script, which displays all SignatureInfo properties on the console.   |
|---------|--|
|         | <pre>// Get the signature info var sf = this.getField("Signature1"); sf.signatureValidate(); var si = sf.signatureInfo(); console.println( "Signature Attributes:" ); // Basic information console.println("date = " + si.date); console.println("handlerName = " + si.handlerName); console.println("location = " + si.location); console.println("mdp = " + si.mdp); console.println("name = " + si.name); console.println("numRevisions = " + si.numRevisions); console.println("revision = " + si.reason); console.println("revision = " + si.revision); console.println("sigValue = " + si.sigValue); console.println("status = " + si.status); console.println("status = " + si.status =</pre> |

#### Doc.addField

## numRevisions

| Description | This property holds the number of revisions. Used for signature fields only. |
|-------------|--|
| Туре        | Number   |
| Access      | Read   |
| Example     | Check the example provided with the name property.                           |

### **Related concepts**

#### name

#### reason

| Description | The user may specify the reason of signing in this property. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Check the example provided with the name property.           |

name

### revision

| Description | This property holds the signature revisions corresponding to this signature field. Used for signature fields only. |
|-------------|--|
| Туре        | Number   |
| Access      | Read   |
| Example     | Check the example provided with the name property.   |

### Related concepts

name

# sigValue

| Description | This string contains the raw bytes of the signature in hex-encoded format. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |
| Example     | Check the example provided with the name property.                         |

#### **Related concepts**

name

### status

| Description | This property holds the status code of the last validation performed on this signature.  |
|-------------|--|
| Values      | Valid values are:  |
|             | -1 — The referred field is not a signature field, so it cannot have a validation status code.  |
|             | 0 — The signature is not signed or blank.  |
|             | 1 — The status is not yet known, because the signature is not yet validated. This may happen if the download of the document is still in progress. |
|             | 2 — The signature is invalid. Either the signature got corrupted, or the document was changed since signing.                                       |
|             | 3 — The signature is valid but the identity of the signer could not be verified.   |
|             | 4 — The signature is valid and the identity of the signer is verified.   |
| Туре        | Number   |
| Access      | Read   |
| Example     | Check the example provided with the name property.   |

### **Related concepts**

name

### Field.signatureValidate

### statusText

| Description | Language-dependent status text, which interprets or complements the status code of the last validation performed on this signature. See the status property for details. |
|-------------|--|
| Туре        | String   |
| Access      | Read   |
| Example     | Check the example provided with the name property.   |

### **Related concepts**

status

name

Field.signatureValidate

### subFilter

| Description | This string specifies the (sub)format to use for signing. For the complete list of values refer to the <i>PDF Reference version 1.7</i> document. |
|-------------|---|
|             | Note Make sure the addressed signature handler supports this format.  |
| Туре        | String  |
| Access      | Read/Write  |
| Example     | Check the example provided with the name property.  |

### **Related concepts**

name

### contactInfo

| Description | The author may specify any contact information (such as phone number or e-mail address) in this property. This way recipients may contact the author personally. |
|-------------|--|
| Туре        | String   |
| Access      | Read/Write   |
| Example     | Check the example provided with the name property.   |

### **Related concepts**

name

# byteRange

| Description | This property is an array of numbers defining the bytes covered by this signature. |
|-------------|--|
|-------------|--|

| Туре    | Array  |
|---------|--|
| Access  | Read   |
| Example | Check the example provided with the name property. |

name

## idValidity

| Description | The validity of signer identity as a status code. The same kind of code is used to reflect the validity status of the signature field in the status property. |
|-------------|---|
| Туре        | Number  |
| Access      | Read  |
| Example     | Check the example provided with the name property.  |

### **Related concepts**

name

status

## util

This static object offers utility methods for date and string formatting and parsing.

### util methods

## printd

| Description | This method converts and formats a date (and time) object according to the cFormat |
|-------------|--|
|             | parameter.   |

| Parameters | cFormat — (optional) The format string specifying the date output may work one of the following ways:   |
|------------|---|
|            | A composite formatting pattern, constructed from the following date and time place-holders:     mmmm — The name of the month in words (for example: August)                               |
|            | mmm — The name of the month in abbreviated form (for example: Aug)  |
|            | mm — The number of the month with leading zero (for example: 08)  |
|            | m — The number of the month with leading zero (for example: 8)  |
|            | dddd — The day of the week in words (for example: Saturday)   |
|            | ddd — The day of the week in words, abbreviated (for example: Sat)  |
|            | dd — The numeric date with leading zero (for example: 05)   |
|            | d — The numeric date without leading zero (for example: 5)  |
|            | yyyy — The year in four digits (for example: 2018)  |
|            | yy — The year in two digits (for example: 2010)   |
|            | уу — The year in two digits (for example: 18)  нн — 24-hour time with leading zero (for example: 08)  |
|            |   |
|            | H — 24-hour time with leading zero (for example: 8)   |
|            | hh — 12 hour time with leading zero (for example: 08)   |
|            | h — 12 hour time with leading zero (for example: 8)   |
|            | MM — Minutes with leading zero (for example: 02)  |
|            | M — Minutes without leading zero (for example: 2)   |
|            | ss — Seconds with leading zero (for example: 03)  |
|            | s — Seconds without leading zero (for example: 3)   |
|            | tt — Indication of am/pm (for example: pm)  |
|            | t — Single digit indication of am/pm (for example: pm)  |
|            | jj — Japanese Emperor Year  |
|            | j — Japanese Emperor Year, abbreviated  |
|            | ∖ — Escape character  |
|            | If cFormat is an integer value (0, 1, or 2), then it may specify the following:   |
|            | • 0 — PDF date, such as D:20180719162912  |
|            | • 1 — Universal date, such as 2018.07.19 16:28:51   |
|            | <ul> <li>2 — Localized string, such as 2018/07/19 16:27:47</li> </ul>   |
|            | If the bxfAPicture argument is true, then this parameter is interpreted according to the XFA Picture Clause format.   |
|            | oDate — The Date object to format.  |
|            | bXFAPicture — This boolean value determines, if the cFormat argument should be interpreted along the XFA Picture Clause format. For details, refer to the XFA Specification, Version 2.2. |
| Returns    | The formatted date as String  |
| Example    | This script displays a date, converts it to a Date object, then displays it on the console again in reverse order.  |
|            | <pre>var s = "2018/07/20"; console.println("Original date: " + s); var d = util.scand("yyyy/mm/dd", s); console.println("Reverse date: " + util.printd("mm/dd/yyyy", d));</pre>           |

## printf

| Description | This method formats and concatenates the arguments according to the format string (cFormat) provided as the first argument.  |
|-------------|--|
| Parameters  | cFormat — (optional) The format string, defining the structure of the output, consists of two kinds of objects:  |
|             | Standard text, to be copied into the output.   |
|             | Conversion specification codes, always with a leading % tag. The standard text may contain multiple % tags according to the following formula (brackets indicate optional sections):   |
|             | %[,nDecSep][cFlags][nWidth][.nPrecision]cConvChar  |
|             | nDecSep — A comma character followed by one of the following codes to determine decimal and thousand separator format:   |
|             | <ul> <li>0 — Uses comma as thousand separator, period as decimal separator.</li> </ul>   |
|             | <ul> <li>1 — Does not use thousand separator, uses period as decimal separator.</li> </ul>   |
|             | <ul> <li>2 — Uses period as thousand separator, comma as decimal separator.</li> </ul>   |
|             | <ul> <li>3 — Does not use thousand separator, uses comma as decimal separator.</li> </ul>  |
|             | cFlags — This code affects only numeric arguments, consisting of one or more of these tokens:  |
|             | <ul> <li>+ — Adds the leading sign (unary operator) always, either + or −.</li> </ul>  |
|             | <ul> <li>space — Uses a leading space for the number, if it does not have a sign.</li> </ul>   |
|             | <ul> <li>0 — Padding the field with leading zeros instead of spaces.</li> </ul>  |
|             | • # — Specifies an alternate output form according to the <code>cConvChar</code> code below. If this is <code>f</code> , then the output always has a decimal point.   |
|             | nWidths — Specifies the minimal width of the field in characters, this includes separators and other non-numerical characters also. Values having fewer characters will be padded with leading spaces or zeros, as it determined in the cFlags section above. Values extending over the field width are truncated. |
|             | nPrecision — A period character followed by a number, which determines the number of digits after the decimal separator in a floating point conversion.  |
|             | cConvChar — This single character code specifies how to display the argument::   |
|             | • d — Integer  |
|             | f — Floating point number  |
|             | • s — String   |
|             | x — Integer in hexadecimal format  |
|             | arguments — (optional) Optional arguments (separated by commas), each containing a piece of data to be inserted in place of the next % tag specified in the cFormat parameter. The number of arguments should be equal to the number of % tags in the cFormat parameter.   |
| Returns     | The formatted String   |
| Example     | This script displays a floating point number in various ways.  |
|             | <pre>var f = Math.sqrt(2) * 100; console.println(util.printf("Decimal: %d", f)); console.println(util.printf("Hexadecimal: %x", f)); console.println(util.printf("Floating point: %.2f", f)); console.println(util.printf("String: %s", f));</pre>   |

## printx

|             | T   |
|-------------|---|
| Description | This method formats a string using a formatting pattern of commands.  |
| Parameters  | cFormat — The format string specifying the output pattern may contain one or more of the following command characters:  |
|             | ? — Copy next character.  |
|             | X — Copy next alphanumeric character (letters and numbers), skipping others.  |
|             | A — Copy next letter, skipping others like numbers and signs.   |
|             | 9 — Copy next numeric character, skipping others.   |
|             | * — Copy the rest of the source string from the current position.   |
|             | • \ — Escape character.   |
|             | Switches to uppercase mode.   |
|             | < — Switches to lowercase mode  |
|             | Preserve original casing from now on.   |
|             | cSource — The source string to process.   |
| Returns     | The formatted String  |
| Example     | This script displays both the source string, the formatting and the output formatted as a Hungarian phone number on the console.  |
|             | <pre>var s = "blablabla123456789zzz"; console.println("source:" + s); var f="+36 (99) 999\-9999"; console.println("Mask :" + f); o = util.printx(f, v); console.println("Output:" + o);</pre> |

### scand

| Description | This method converts string to a Date (and time) object according to the cFormat parameter.  |
|-------------|--|
| Parameters  | cFormat — (optional) The format string specifying the pattern how to interpret the string as a date. Use the cFormat argument as it is described in the printd method.  cDate — The string with the date to convert. |
| Returns     | The Date object or null in case of failure.  |
| Example     | This script displays the current date and time on the console in a year/month/day order and 24-hour time format.   |
|             | <pre>var d = "2018/07/20 14:09"; console.println(util.printd("yyyy/mm/dd HH:MM", d));</pre>  |

# string From Stream

| Description | Converts a ReadStream object to a string. Useful for processing of embedded data objects or |  |
|-------------|---|--|
|             | files.  |  |

| Parameters | oStream — The ReadStream object as the source of the conversion.                |
|------------|---|
|            | cCharSet — (optional) The encoding scheme for the stream, one of the following: |
|            | • utf-8 (default)   |
|            | • utf-16  |
|            | • Shift-JIS   |
|            | • BigFive   |
|            | • GBK   |
|            | • UHC   |
| Returns    | String  |
| Example    | See the Doc.getDataObjectContents method.                                       |

getDataObjectContents