
CGPDFScanner Reference

Graphics & Animation: 2D Drawing



2008-10-15



Apple Inc.
© 2004, 2008 Apple Inc.
All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without prior written permission of Apple Inc., with the following exceptions: Any person is hereby authorized to store documentation on a single computer for personal use only and to print copies of documentation for personal use provided that the documentation contains Apple's copyright notice.

The Apple logo is a trademark of Apple Inc.

Use of the "keyboard" Apple logo (Option-Shift-K) for commercial purposes without the prior written consent of Apple may constitute trademark infringement and unfair competition in violation of federal and state laws.

No licenses, express or implied, are granted with respect to any of the technology described in this document. Apple retains all intellectual property rights associated with the technology described in this document. This document is intended to assist application developers to develop applications only for Apple-labeled computers.

Every effort has been made to ensure that the information in this document is accurate. Apple is not responsible for typographical errors.

Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

Apple, the Apple logo, Mac, Mac OS, and Quartz are trademarks of Apple Inc., registered in the United States and other countries.

Simultaneously published in the United States and Canada.

Even though Apple has reviewed this document, APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, ITS QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS DOCUMENT IS PROVIDED "AS IS," AND YOU, THE READER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY.

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY

DEFECT OR INACCURACY IN THIS DOCUMENT, even if advised of the possibility of such damages.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Contents

CGPDFScanner Reference 5

Overview	5
Functions by Task	5
Creating a PDF Scanner Object	5
Retaining and Releasing PDF Scanner Objects	5
Parsing Content	5
Getting PDF Objects from the Scanner Stack	6
Functions	6
CGPDFScannerCreate	6
CGPDFScannerGetContentStream	7
CGPDFScannerPopArray	7
CGPDFScannerPopBoolean	8
CGPDFScannerPopDictionary	8
CGPDFScannerPopInteger	8
CGPDFScannerPopName	9
CGPDFScannerPopNumber	9
CGPDFScannerPopObject	10
CGPDFScannerPopStream	10
CGPDFScannerPopString	11
CGPDFScannerRelease	11
CGPDFScannerRetain	12
CGPDFScannerScan	12
Data Types	13
CGPDFScannerRef	13

Document Revision History 15

Index 17

CGPDFScanner Reference

Derived From:	None
Framework:	ApplicationServices/ApplicationServices.h
Companion guide	Quartz 2D Programming Guide
Declared in	CGPDFScanner.h

Overview

The `CGPDFScannerRef` opaque type is used to parse a PDF content stream. You can set up the PDF scanner object to invoke callbacks when it encounters specific PDF operators in the stream.

This opaque type is not derived from `CType` and therefore there are no functions for retaining and releasing it.

Functions by Task

Creating a PDF Scanner Object

[CGPDFScannerCreate](#) (page 6)
Creates a `CGPDFScanner` object.

Retaining and Releasing PDF Scanner Objects

[CGPDFScannerRetain](#) (page 12)
Increments the retain count of a scanner object.

[CGPDFScannerRelease](#) (page 11)
Decrements the retain count of a scanner object.

Parsing Content

[CGPDFScannerScan](#) (page 12)
Parses the content stream of a `CGPDFScanner` object.

[CGPDFScannerGetContentStream](#) (page 7)
Returns the content stream associated with a `CGPDFScanner` object.

Getting PDF Objects from the Scanner Stack

[CGPDFScannerPopObject](#) (page 10)

Retrieves an object from the scanner stack.

[CGPDFScannerPopBoolean](#) (page 8)

Retrieves a Boolean object from the scanner stack.

[CGPDFScannerPopInteger](#) (page 8)

Retrieves an integer object from the scanner stack.

[CGPDFScannerPopNumber](#) (page 9)

Retrieves a real value object from the scanner stack.

[CGPDFScannerPopName](#) (page 9)

Retrieves a character string from the scanner stack.

[CGPDFScannerPopString](#) (page 11)

Retrieves a string object from the scanner stack.

[CGPDFScannerPopArray](#) (page 7)

Retrieves an array object from the scanner stack.

[CGPDFScannerPopDictionary](#) (page 8)

Retrieves a PDF dictionary object from the scanner stack.

[CGPDFScannerPopStream](#) (page 10)

Retrieves a PDF stream object from the scanner stack.

Functions

CGPDFScannerCreate

Creates a CGPDFScanner object.

```
CGPDFScannerRef CGPDFScannerCreate (
    CGPDFContentStreamRef cs,
    CGPDFOperatorTableRef table,
    void *info
);
```

Parameters

cs

A CGPDFContentStream object. (See *CGPDFContentStream Reference*.)

table

A CGPDFOperatorTable object that contains callbacks for the PDF operators you want to handle.

info

A pointer to data you want passed to your CGPDFOperatorTable callback function. (See *CGPDFOperatorTable Reference*.)

Return Value

A CGPDFScanner object. You are responsible for releasing this object by calling the function `CGPDFScannerRelease`.

Discussion

When you want to parse the contents of the PDF stream, call the function [CGPDFScannerScan](#) (page 12).

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerGetContentStream

Returns the content stream associated with a CGPDFScanner object.

```
CGPDFContentStreamRef CGPDFScannerGetContentStream (
    CGPDFScannerRef scanner
);
```

Parameters

scanner

The scanner object whose content stream you want to obtain.

Return Value

Return the content stream associated with *scanner*.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopArray

Retrieves an array object from the scanner stack.

```
bool CGPDFScannerPopArray (
    CGPDFScannerRef scanner,
    CGPDFArrayRef *value
);
```

Parameters

scanner

A valid scanner object.

value

On output, points to the CGPDFArray object popped from the *scanner* stack.

Return Value

Returns true if *value* is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopBoolean

Retrieves a Boolean object from the scanner stack.

```
bool CGPDFScannerPopBoolean (
    CGPDFScannerRef scanner,
    CGPDFBoolean *value
);
```

Parameters

scanner

A valid scanner object.

value

On output, points to the CGPDFBoolean object popped from the scanner stack.

Return Value

Returns true if *value* is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopDictionary

Retrieves a PDF dictionary object from the scanner stack.

```
bool CGPDFScannerPopDictionary (
    CGPDFScannerRef scanner,
    CGPDFDictionaryRef *value
);
```

Parameters

scanner

A valid scanner object.

value

On output, points to the CGPDFDictionary object popped from the scanner stack.

Return Value

Returns true if *value* is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopInteger

Retrieves an integer object from the scanner stack.

```
bool CGPDFScannerPopInteger (
    CGPDFScannerRef scanner,
    CGPDFInteger *value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the CGPDFInteger object popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopName

Retrieves a character string from the scanner stack.

```
bool CGPDFScannerPopName (
    CGPDFScannerRef scanner,
    const char **value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the character string popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopNumber

Retrieves a real value object from the scanner stack.

```
bool CGPDFScannerPopNumber (
    CGPDFScannerRef scanner,
    CGPDFReal *value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the CGPDFReal object popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Discussion

The number retrieved from the scanner can be a real value or an integer value. However, the result is always converted to a CGPDFReal data type.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopObject

Retrieves an object from the scanner stack.

```
bool CGPDFScannerPopObject (
    CGPDFScannerRef scanner,
    CGPDFObjectRef *value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the object popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopStream

Retrieves a PDF stream object from the scanner stack.

```
bool CGPDFScannerPopStream (
    CGPDFScannerRef scanner,
    CGPDFStreamRef *value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the CGPDFStream object popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerPopString

Retrieves a string object from the scanner stack.

```
bool CGPDFScannerPopString (
    CGPDFScannerRef scanner,
    CGPDFStringRef *value
);
```

Parameters*scanner*

A valid scanner object.

value

On output, points to the CGPDFString object popped from the scanner stack.

Return Value

Returns true if value is retrieved successfully; false otherwise.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerRelease

Decrements the retain count of a scanner object.

```
void CGPDFScannerRelease (
    CGPDFScannerRef scanner
);
```

Parameters*scanner*

The scanner object to release.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerRetain

Increments the retain count of a scanner object.

```
CGPDFScannerRef CGPDFScannerRetain (
    CGPDFScannerRef scanner
);
```

Parameters*scanner*

The scanner object to retain.

Return ValueThe same scanner object passed to the function in the *scanner* parameter.**Availability**

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

CGPDFScannerScan

Parses the content stream of a CGPDFScanner object.

```
bool CGPDFScannerScan (
    CGPDFScannerRef scanner
);
```

Parameters*scanner*

The scanner object whose content stream you want to parse.

Return ValueReturns `true` if the entire stream is parsed successfully; `false` if parsing fails (for example, if the stream data is corrupted).**Discussion**The function `CGPDFScannerScan` parses the PDF content stream associated with the scanner. Each time Quartz parses a PDF operator for which you register a callback, Quartz invokes your callback.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFScanner.h

Data Types

CGPDFScannerRef

An opaque type used to parse a PDF content stream.

```
typedef struct CGPDFScanner *CGPDFScannerRef;
```

Availability

Available in Mac OS X v10.4 and later.

Declared In

CGPDFScanner.h

Document Revision History

This table describes the changes to *CGPDFScanner Reference*.

Date	Notes
2008-10-15	Added a note about not retaining and releasing this object.
2006-12-22	Made minor editorial changes.
2006-04-04	Updated the Introduction.
2005-04-29	First version.

REVISION HISTORY

Document Revision History

Index

C

CGPDFScannerCreate **function** 6
CGPDFScannerGetContentStream **function** 7
CGPDFScannerPopArray **function** 7
CGPDFScannerPopBoolean **function** 8
CGPDFScannerPopDictionary **function** 8
CGPDFScannerPopInteger **function** 8
CGPDFScannerPopName **function** 9
CGPDFScannerPopNumber **function** 9
CGPDFScannerPopObject **function** 10
CGPDFScannerPopStream **function** 10
CGPDFScannerPopString **function** 11
CGPDFScannerRef **data type** 13
CGPDFScannerRelease **function** 11
CGPDFScannerRetain **function** 12
CGPDFScannerScan **function** 12