
CGPDFOperatorTable Reference

Graphics & Animation: 2D Drawing



2009-03-04



Apple Inc.
© 2004, 2009 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.

Adobe, Acrobat, and PostScript are trademarks or registered trademarks of Adobe Systems Incorporated in the U.S. and/or 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

CGPDFOperatorTable Reference 5

| | |
|--|---|
| Overview | 5 |
| Functions by Task | 5 |
| Creating a PDF Operator Table | 5 |
| Setting Callback Functions | 5 |
| Retaining and Releasing a PDF Operator Table | 5 |
| Functions | 6 |
| CGPDFOperatorTableCreate | 6 |
| CGPDFOperatorTableRelease | 6 |
| CGPDFOperatorTableRetain | 6 |
| CGPDFOperatorTableSetCallback | 7 |
| Callbacks | 7 |
| CGPDFOperatorCallback | 7 |
| Data Types | 8 |
| CGPDFOperatorTableRef | 8 |

Document Revision History 9

Index 11

CGPDFOperatorTable Reference

| | |
|----------------------|---|
| Derived From: | None |
| Framework: | ApplicationServices/ApplicationServices.h |
| Declared in | CGPDFOperatorTable.h |

Overview

A CGPDFOperatorTable object stores callback functions for PDF operators. You pass an operator table and a PDF content stream to a CGPDFScanner object. When the scanner parses a PDF operator, Quartz invokes your callback for that operator. See also *CGPDFScanner Reference* and *CGPDFContentStream Reference*.

Note: This opaque type is not derived from CType and therefore you can't use the Core Foundation base functions on it, such as `CFRetain` and `CFRelease`. Memory management is handled by the specific functions [CGPDFOperatorTableRetain](#) (page 6) and [CGPDFOperatorTableRelease](#) (page 6).

For more about PDF operators, see the latest version of *PDF Reference*, Adobe Systems Incorporated.

Functions by Task

Creating a PDF Operator Table

[CGPDFOperatorTableCreate](#) (page 6)
Creates an empty PDF operator table.

Setting Callback Functions

[CGPDFOperatorTableSetCallback](#) (page 7)
Sets a callback function for a PDF operator.

Retaining and Releasing a PDF Operator Table

[CGPDFOperatorTableRetain](#) (page 6)
Increments the retain count of a CGPDFOperatorTable object.

[CGPDFOperatorTableRelease](#) (page 6)

Decrements the retain count of a CGPDFOperatorTable object.

Functions

CGPDFOperatorTableCreate

Creates an empty PDF operator table.

```
CGPDFOperatorTableRef CGPDFOperatorTableCreate (
    void
);
```

Return Value

An empty PDF operator table. You are responsible for releasing this object by calling [CGPDFOperatorTableRelease](#) (page 6).

Discussion

Call the function [CGPDFOperatorTableSetCallback](#) (page 7) to fill the operator table with callbacks.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFOperatorTable.h

CGPDFOperatorTableRelease

Decrements the retain count of a CGPDFOperatorTable object.

```
void CGPDFOperatorTableRelease (
    CGPDFOperatorTableRef table
);
```

Parameters

table
A PDF operator table.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFOperatorTable.h

CGPDFOperatorTableRetain

Increments the retain count of a CGPDFOperatorTable object.

```
CGPDFOperatorTableRef CGPDFOperatorTableRetain (
    CGPDFOperatorTableRef table
);
```

Parameters*table*

A PDF operator table.

Return ValueThe same PDF operator table you passed in as the *table* parameter.**Availability**

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFOperatorTable.h

CGPDFOperatorTableSetCallback

Sets a callback function for a PDF operator.

```
void CGPDFOperatorTableSetCallback (
    CGPDFOperatorTableRef table,
    const char *name,
    CGPDFOperatorCallback callback
);
```

Parameters*table*

A PDF operator table.

name

The name of the PDF operator you want to set a callback for.

*callback*The callback to invoke for the PDF operator specified by the *name* parameter.**Discussion**

You call the function `CGPDFOperatorTableSetCallback` for each PDF operator for which you want to provide a callback. See Appendix A in the *PDF Reference, Second Edition*, version 1.3, Adobe Systems Incorporated for a summary of PDF operators.

Availability

Available in Mac OS X version 10.4 and later.

Declared In

CGPDFOperatorTable.h

Callbacks

CGPDFOperatorCallback

Performs custom processing for PDF operators.

```
typedef void (*CGPDFOperatorCallback)(
    CGPDFScannerRef scanner,
    void *info
);
```

If you name your function `MyCGPDFOperatorCallback`, you would declare it like this:

```
void MyCGPDFOperatorCallback (
    CGPDFScannerRef scanner,
    void *info
);
```

Parameters

scanner

A `CGPDFScanner` object. Quartz passes the scanner to your callback function. The scanner contains the PDF content stream that has the PDF operator that corresponds to this callback.

info

A pointer to data passed to the callback.

Discussion

Your callback function takes any action that's appropriate for your application. For example, if you want to count the number of inline images in a PDF but ignore the image data, you would set a callback for the `EI` operator. In your callback you would increment a counter for each call.

Availability

Available in Mac OS X v10.4 and later.

Declared In

`CGPDFOperatorTable.h`

Data Types

CGPDFOperatorTableRef

An opaque type that stores callback functions for PDF operators.

```
typedef struct CGPDFOperatorTable *CGPDFOperatorTableRef;
```

Availability

Available in Mac OS X v10.4 and later.

Declared In

`CGPDFOperatorTable.h`

Document Revision History

This table describes the changes to *CGPDFOperatorTable Reference*.

| Date | Notes |
|------------|--|
| 2009-03-04 | Clarified memory management function use in Introduction. |
| 2008-10-15 | Added a note about not retaining and releasing this object. |
| 2006-12-22 | Made a minor technical correction. |
| | Changed <code>CFRelease</code> to <code>CGPDFOperatorTableRelease</code> (page 6). |
| 2006-04-04 | Updated the Introduction. |
| 2005-04-29 | First version. |

REVISION HISTORY

Document Revision History

Index

C

CGPDFOperatorCallback **callback** [7](#)
CGPDFOperatorTableCreate **function** [6](#)
CGPDFOperatorTableRef **data type** [8](#)
CGPDFOperatorTableRelease **function** [6](#)
CGPDFOperatorTableRetain **function** [6](#)
CGPDFOperatorTableSetCallback **function** [7](#)