
CGPDFObject Reference

Graphics & Animation: 2D Drawing



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CGPDFObject Reference

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

Overview

The `CGPDFObjectRef` opaque type represents PDF objects in a PDF document. PDF supports several basic types of object: Boolean values, integer and real numbers, strings, names, arrays, dictionaries, and streams. Most of these are represented in Quartz by corresponding specific types. A `CGPDFObject` can represent any of these types. You use `CGPDFObject` functions to determine the type of the object, and retrieve the object value if it is of an expected type.

This opaque type is not derived from `CType` and therefore there are no functions for retaining and releasing it. `CGPDFObject` objects exist as constituent parts of a `CGPDFDocument` object, and are managed by their container.

Functions

CGPDFObjectGetType

Returns the PDF type identifier of an object.

```
CGPDFObjectType CGPDFObjectGetType (  
    CGPDFObjectRef object  
);
```

Parameters

object

A PDF object. If the value is not a PDF object, the behavior is unspecified.

Return Value

Returns the type of the `object` parameter. See “Data Types” (page 6).

Availability

Available in Mac OS X version 10.3 and later.

Declared In

`CGPDFObject.h`

CGPDFObjectGetValue

Returns whether an object is of a given type and if it is, retrieves its value.

```

bool CGPDFObjectGetValue (
    CGPDFObjectRef object,
    CGPDFObjectType type,
    void *value
);

```

Parameters

object

A PDF object.

type

A PDF object type.

value

If the *object* parameter is a PDF object of the specified type, then on return contains that object, otherwise the value is unspecified.

Return Value

Returns `true` if the specified object is a PDF object of the specified type, otherwise `false`.

Discussion

The function gets the value of the *object* parameter. If the type of *object* is equal to the type specified, then:

- If the *value* parameter is not a null pointer, then the value of *object* is copied to *value*, and the function returns `true`.
- If the *value* parameter is a null pointer, then the function simply returns `true`. This allows you to test whether *object* is of the type specified.

If the type of *object* is `kCGPDFObjectTypeInteger` and *type* is equal to `kCGPDFObjectTypeReal`, then the value of *object* is converted to floating point, the result copied to *value*, and the function returns `true`. If none of the preceding conditions is met, returns `false`.

Availability

Available in Mac OS X version 10.3 and later.

Declared In

`CGPDFObject.h`

Data Types

CGPDFObjectRef

An opaque type that contains information about a PDF object.

```
typedef union CGPDFObject *CGPDFObjectRef;
```

Availability

Available in Mac OS X v10.3 and later.

Declared In

CGPDFObject.h

CGPDFBoolean

A PDF Boolean value.

```
typedef unsigned char CGPDFBoolean;
```

Availability

Available in Mac OS X v10.3 and later.

Declared In

CGPDFObject.h

CGPDFInteger

A PDF integer value.

```
typedef long int CGPDFInteger;
```

Availability

Available in Mac OS X v10.3 and later.

Declared In

CGPDFObject.h

CGPDFReal

A PDF real value.

```
typedef CGFloat CGPDFReal;
```

Availability

Available in Mac OS X v10.3 and later.

Declared In

CGPDFObject.h

Constants

PDF Object Types

Types of PDF object.

```
enum CGPDFObjectType {
    kCGPDFObjectTypeNull = 1,
    kCGPDFObjectTypeBoolean,
    kCGPDFObjectTypeInteger,
    kCGPDFObjectTypeReal,
    kCGPDFObjectTypeName,
    kCGPDFObjectTypeString,
    kCGPDFObjectTypeArray,
    kCGPDFObjectTypeDictionary,
    kCGPDFObjectTypeStream
};typedef enum CGPDFObjectType CGPDFObjectType;
```

Constants

`kCGPDFObjectTypeNull`

The type for a PDF null.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeBoolean`

The type for a PDF Boolean.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeInteger`

The type for a PDF integer.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeReal`

The type for a PDF real.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeName`

Type for a PDF name.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeString`

The type for a PDF string.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeArray`

Type for a PDF array.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeDictionary`

The type for a PDF dictionary.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

`kCGPDFObjectTypeStream`

The type for a PDF stream.

Available in Mac OS X v10.3 and later.

Declared in `CGPDFObject.h`.

Declared In

`CGPDFObject.h`

Document Revision History

This table describes the changes to *CGPDFObject Reference*.

Date	Notes
2008-10-15	Updated the note about not retaining and releasing this object.
2006-12-22	Updated for Mac OS X v10.5.
	CGPDFReal (page 7) is now defined as a <code>CGFloat</code> data type.
2006-04-04	Updated the Introduction.
	Added header file information.
2005-04-29	Revised introduction.
2004-02-26	First version of this document. An earlier version of this information appeared in <i>Quartz 2D Reference</i> .

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