# NSPrintInfo Class Reference

Cocoa > Printing



Ć

Apple Inc. © 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, Cocoa, ColorSync, Mac, Mac OS, Pages, and Quartz are trademarks of Apple Inc., registered in the United States and other countries.

Numbers is a trademark of Apple Inc.

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 1S," 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**

## NSPrintInfo Class Reference 5

```
Overview 5
Adopted Protocols 5
Tasks 6
  Initializing an NSPrintInfo 6
  Managing the Shared NSPrintInfo 6
  Managing the Printing Rectangle 6
  Pagination 7
  Positioning the Image on the Page 7
  Specifying the Printer 7
  Controlling Printing 8
  Accessing the Dictionary 8
  Accessing Core Printing Information 8
  Deprecated Methods 8
Class Methods 9
  defaultPrinter 9
  setSharedPrintInfo: 9
  sharedPrintInfo 9
Instance Methods 10
  bottomMargin 10
  dictionary 10
  horizontalPagination 11
  imageablePageBounds 11
  initWithDictionary: 11
  isHorizontallyCentered 12
  isVerticallyCentered 12
  jobDisposition 13
  leftMargin 13
  localizedPaperName 13
  orientation 14
  paperName 14
  paperSize 15
  PMPageFormat 15
  PMPrintSession 16
  PMPrintSettings 16
  printer 17
  printSettings 17
  rightMargin 18
  setBottomMargin: 18
  setHorizontallyCentered: 18
  setHorizontalPagination: 19
```

setJobDisposition: 19	
setLeftMargin: 20	
setOrientation: 20	
setPaperName: 20	
setPaperSize: 21	
setPrinter: 21	
setRightMargin: 22	
setTopMargin: 22	
setUpPrintOperationDefaultValues 2	23
setVerticallyCentered: 23	
setVerticalPagination: 23	
topMargin 24	
updateFromPMPageFormat 24	
updateFromPMPrintSettings 24	
•	
verticalPagination 25	
Constants 25	
Print job attributes 25	
NSPrintingPaginationMode 28	
NSPrintingOrientation 28	
Print job dispositions 29	
Page setup attributes 29	
Pagination attributes 30	
Deprecated Printing Keys 31	
1	

## Appendix A Deprecated NSPrintInfo Methods 35

Deprecated in Mac OS X v10.2 35

setDefaultPrinter: 35 sizeForPaperName: 35

## **Document Revision History 37**

## Index 39

## NSPrintInfo Class Reference

Inherits fromNSObjectConforms toNSCoding

**NSCopying** 

NSObject (NSObject)

Framework /System/Library/Frameworks/AppKit.framework

**Availability** Available in Mac OS X v10.0 and later.

**Companion guide** Printing Programming Topics for Cocoa

Declared in NSPrintInfo.h

Related sample code PDFKitLinker2

Quartz Composer WWDC 2005 TextEdit

Quartz2DBasics Sketch-112 TextEditPlus

## Overview

An NSPrintInfo object stores information that's used to generate printed output. A shared NSPrintInfo object is automatically created for an application and is used by default for all printing jobs for that application.

The printing information in an NSPrintInfo object is stored in a dictionary. To access the standard attributes in the dictionary directly, this class defines a set of keys and provides the dictionary (page 10) method. You can also initialize an instance of this class using the initWithDictionary: (page 11) method.

You can use this dictionary to store custom information associated with a print job. Any non-object values should be stored as NSNumber or NSValue objects in the dictionary. See NSNumber Class Reference for a list of types which should be stored as numbers. For other non-object values, use the NSValue class.

Beginning in Mac OS X v10.5, to store custom information that belongs in printing presets you should use the dictionary returned by the printSettings (page 17) method.

## **Adopted Protocols**

**NSCoding** 

encodeWithCoder:

```
initWithCoder:
```

### NSCopying

copyWithZone:

## **Tasks**

## Initializing an NSPrintInfo

```
- initWithDictionary: (page 11)
```

Returns an NSPrintInfo object initialized with the parameters in the specified dictionary.

## Managing the Shared NSPrintInfo

```
+ setSharedPrintInfo: (page 9)
```

Sets the shared NSPrintInfo object to the specified object.

+ sharedPrintInfo (page 9)

Returns the shared NSPrintInfo object.

## **Managing the Printing Rectangle**

bottomMargin (page 10)

Returns the height of the bottom margin.

- imageablePageBounds (page 11)

Returns the imageable area of a sheet of paper specified by the receiver.

- leftMargin (page 13)

Returns the width of the left margin.

- orientation (page 14)

Returns the orientation attribute.

paperName (page 14)

Returns the name of the currently selected paper size.

- localizedPaperName (page 13)

Returns the human-readable name of the currently selected paper size, suitable for presentation in user interfaces.

- paperSize (page 15)

Returns the size of the paper.

- rightMargin (page 18)

Returns the width of the right margin.

- setBottomMargin: (page 18)

Sets the bottom margin to the specified size.

- setLeftMargin: (page 20)

Sets the left margin to the specified size.

```
    setOrientation: (page 20)
        Sets the page orientation to the specified value.
    setPaperName: (page 20)
        Sets the paper name to the specified value.
    setPaperSize: (page 21)
        Sets the width and height of the paper to the specified size.
    setRightMargin: (page 22)
        Sets the right margin to the specified size.
    setTopMargin: (page 22)
        Sets the top margin to the specified size.
    topMargin (page 24)
        Returns the top margin.
```

## **Pagination**

```
    horizontal Pagination (page 11)
        Returns the horizontal pagination mode.
    setHorizontal Pagination: (page 19)
        Sets the horizontal pagination to the specified mode.
    setVertical Pagination: (page 23)
        Sets the vertical pagination to the specified mode.
    vertical Pagination (page 25)
        Returns the vertical pagination mode.
```

## Positioning the Image on the Page

```
    isHorizontallyCentered (page 12)
        Returns a Boolean value indicating whether the image is centered horizontally.
    isVerticallyCentered (page 12)
        Returns a Boolean value indicating whether the image is centered vertically.
    setHorizontallyCentered: (page 18)
        Sets whether the image is centered horizontally.
    setVerticallyCentered: (page 23)
        Sets whether the image is centered vertically.
```

## **Specifying the Printer**

```
    printer (page 17)
        Returns the NSPrinter object to be used for printing.

    setPrinter: (page 21)
        Sets the printer object used for subsequent printing jobs.
```

isks

7

## **Controlling Printing**

- jobDisposition (page 13)
  - Returns the action specified for the job.
- setJobDisposition: (page 19)
  - Sets the action specified for the job
- setUpPrintOperationDefaultValues (page 23)

Validates the attributes encapsulated by the receiver.

## **Accessing the Dictionary**

- dictionary (page 10)

Returns the receiver's dictionary.

## **Accessing Core Printing Information**

- printSettings (page 17)
  - Returns a mutable dictionary containing the print settings from Core Printing.
- PMPrintSession (page 16)
  - Returns a Core Printing object configured with the receiver's session information.
- PMPageFormat (page 15)
  - Returns a Core Printing object configured with the receiver's page format information.
- PMPrintSettings (page 16)
  - Returns a Core Printing object configured with the receiver's print settings information
- updateFromPMPageFormat (page 24)
  - Synchronizes the receiver's page format information with information from its associated PMPageFormat object.
- updateFromPMPrintSettings (page 24)
  - Synchronizes the receiver's print settings information with information from its associated PMPrintSettings object.

## **Deprecated Methods**

- + defaultPrinter (page 9)
  - Deprecated.
- + setDefaultPrinter: (page 35) Deprecated in Mac OS X v10.2
  - Deprecated.
- + sizeForPaperName: (page 35) Deprecated in Mac OS X v10.2 Deprecated.

## Class Methods

## defaultPrinter

Deprecated.

+ (NSPrinter \*)defaultPrinter

### **Availability**

Available in Mac OS X v10.0 and later.

### **Declared In**

NSPrintInfo.h

## setSharedPrintInfo:

Sets the shared NSPrintInfo object to the specified object.

+ (void)setSharedPrintInfo:(NSPrintInfo \*)printInfo

#### **Parameters**

printInfo

The new shared printer information. This value must not be nil.

#### Discussion

The shared NSPrintInfo object defines the settings for the NSPageLayout panel and print operations that will be used if no NSPrintInfo object is specified for those operations.

## **Availability**

Available in Mac OS X v10.0 and later.

## See Also

+ sharedPrintInfo (page 9)

## **Declared In**

NSPrintInfo.h

## sharedPrintInfo

Returns the shared NSPrintInfo object.

+ (NSPrintInfo \*)sharedPrintInfo

## **Return Value**

The shared printer information.

#### **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

+ setSharedPrintInfo: (page 9)

Class Methods 9

## **Related Sample Code**

PDFKitLinker2

Quartz Composer WWDC 2005 TextEdit

TextEditPlus

#### **Declared In**

NSPrintInfo.h

## **Instance Methods**

## bottomMargin

Returns the height of the bottom margin.

- (CGFloat)bottomMargin

### **Return Value**

The bottom margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- setBottomMargin: (page 18)

## **Declared In**

NSPrintInfo.h

## dictionary

Returns the receiver's dictionary.

- (NSMutableDictionary \*)dictionary

## Discussion

The key-value pairs contained in the dictionary are described in "Constants" (page 25). Modifying the returned dictionary changes the receiver's attributes.

## **Availability**

Available in Mac OS X v10.0 and later.

## **Related Sample Code**

Quartz Composer WWDC 2005 TextEdit Sketch-112

**TextEditPlus** 

## **Declared In**

NSPrintInfo.h

## horizontalPagination

Returns the horizontal pagination mode.

- (NSPrintingPaginationMode)horizontalPagination

#### **Return Value**

One of the pagination modes described in "Constants" (page 25).

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- setVerticalPagination: (page 23)
- vertical Pagination (page 25)

### **Declared In**

NSPrintInfo.h

## imageable Page Bounds

Returns the imageable area of a sheet of paper specified by the receiver.

- (NSRect)imageablePageBounds

#### **Return Value**

The imageable area, measured in points in the user coordinate space.

#### Discussion

This method takes into account the current printer, paper size, and orientation settings, but not scaling factors. "Imageable area" is the maximum area that can possibly be marked on by the printer hardware, not the area defined by the current margin settings.

The origin (0, 0) of the returned rectangle is in the lower-left corner of the oriented sheet. The imageable bounds may extend past the edges of the sheet when, for example, a printer driver specifies it so that borderless printing can be done reliably.

#### Availability

Available in Mac OS X v10.2 and later.

#### **Declared In**

NSPrintInfo.h

## initWithDictionary:

Returns an NSPrintInfo object initialized with the parameters in the specified dictionary.

- (id)initWithDictionary: (NSDictionary \*)aDictionary

### **Parameters**

aDictionary

The possible key-value pairs contained in a Dictionary are described in "Constants" (page 25).

Instance Methods 11

#### **Return Value**

An initialized NSPrintInfo object, or nil if the object could not be created.

#### Discussion

This method is the designated initializer for this class. Non-object values should be stored in NSValue objects (or an appropriate subclass like NSNumber) in the dictionary. See NSNumber for a list of types which should be stored using the NSNumber class; otherwise use NSValue.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- dictionary (page 10)

#### Declared In

NSPrintInfo.h

## **isHorizontallyCentered**

Returns a Boolean value indicating whether the image is centered horizontally.

- (BOOL)isHorizontallyCentered

#### **Return Value**

YES if the image is centered horizontally; otherwise, NO.

## **Availability**

Available in Mac OS X v10.0 and later.

### See Also

- isVerticallyCentered (page 12)
- setHorizontallyCentered: (page 18)

## **Declared In**

NSPrintInfo.h

## is Vertically Centered

Returns a Boolean value indicating whether the image is centered vertically.

- (BOOL)isVerticallyCentered

#### **Return Value**

YES if the image is centered vertically; otherwise, NO.

#### **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- isHorizontallyCentered (page 12)
- setVerticallyCentered: (page 23)

### **Declared In**

NSPrintInfo.h

## jobDisposition

Returns the action specified for the job.

- (NSString \*)jobDisposition

### **Return Value**

One of the following value:

- NSPrintSpoolJob is a normal print job.
- NSPrintPreviewJob sends the print job to the Preview application.
- NSPrintSaveJob saves the print job to a file.
- NSPrintCancelJob aborts the print job.
- NSPrintFaxJob is deprecated.

### **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

NSPrintInfo.h

## **leftMargin**

Returns the width of the left margin.

- (CGFloat)leftMargin

## **Return Value**

The left margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

## See Also

```
- setLeftMargin: (page 20)
```

#### **Declared In**

NSPrintInfo.h

## **localizedPaperName**

Returns the human-readable name of the currently selected paper size, suitable for presentation in user interfaces.

- (NSString \*)localizedPaperName

Instance Methods 2009-01-06 | © 2009 Apple Inc. All Rights Reserved.

### **Return Value**

The name of the paper size.

### Discussion

This is typically different from the name returned by paperName (page 14), which is almost never suitable for presentation to the user.

### **Availability**

Available in Mac OS X v10.3 and later.

#### **Declared In**

NSPrintInfo.h

## orientation

Returns the orientation attribute.

- (NSPrintingOrientation)orientation

#### **Return Value**

One of the following values: NSPortraitOrientation or NSLandscapeOrientation.

### **Availability**

Available in Mac OS X v10.0 and later.

### See Also

```
- setOrientation: (page 20)
```

## **Declared In**

NSPrintInfo.h

## paperName

Returns the name of the currently selected paper size.

```
- (NSString *)paperName
```

#### **Return Value**

The string contains a value such as Letter or Legal. Paper names are implementation specific.

### **Availability**

Available in Mac OS X v10.0 and later.

### See Also

```
- setPaperName: (page 20)
```

- localizedPaperName (page 13)

### **Declared In**

NSPrintInfo.h

## paperSize

Returns the size of the paper.

- (NSSize)paperSize

#### **Return Value**

The size of the paper, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- setPaperSize: (page 21)

## **Related Sample Code**

Quartz2DBasics Sketch-112

#### **Declared In**

NSPrintInfo.h

## **PMPageFormat**

Returns a Core Printing object configured with the receiver's page format information.

- (void \*)PMPageFormat

## **Return Value**

A pointer to a PMPageFormat object, an opaque data type that stores information such as the paper size, orientation, and scale of pages in a printing session. You should not call PMRelease to release the returned object, except to balance calls to PMRetain that your code also issued.

### Discussion

The information in the returned PMPageFormat object is consistent with the receiver's page format information at the time this method is called. Subsequent changes to the receiving NSPrintInfo object do not result in changes to the information in the PMPageFormat object.

If you make changes to the data in the PMPageFormat object, you should invoke the updateFromPMPageFormat method to synchronize those changes with the NSPrintInfo object that created the object.

## **Availability**

Available in Mac OS X v10.5 and later.

## See Also

updateFromPMPageFormat (page 24)

#### **Declared In**

NSPrintInfo.h

Instance Methods 2009-01-06 | © 2009 Apple Inc. All Rights Reserved.

## **PMPrintSession**

Returns a Core Printing object configured with the receiver's session information.

- (void \*)PMPrintSession

#### Return Value

A pointer to a PMPrintSession object, an opaque type that stores information about a print job. You should not call PMRelease to release the returned object, except to balance calls to PMRetain that your code also issued.

#### Discussion

The information in the returned PMPrintSession object is consistent with the receiver's session information at the time this method is called. Subsequent changes to the receiving NSPrintInfo object do not result in changes to the information in the PMPrintSession object.

## **Availability**

Available in Mac OS X v10.5 and later.

#### **Declared In**

NSPrintInfo.h

## **PMPrintSettings**

Returns a Core Printing object configured with the receiver's print settings information

- (void \*)PMPrintSettings

### **Return Value**

A pointer to a PMPrintSettings object, an opaque data type used to store information such as the number of copies and the range of pages in a printing session. You should not call PMRelease to release the returned object, except to balance calls to PMRetain that your code also issued.

### Discussion

The information in the returned PMPrintSettings object is consistent with the receiver's print settings at the time this method is called. Subsequent changes to the receiving NSPrintInfo object do not result in changes to the information in the PMPrintSettings data type.

If you make changes to the data in the PMPrintSettings object, you should invoke the updateFromPMPrintSettings method to synchronize those changes with the NSPrintInfo object that created the object.

### **Availability**

Available in Mac OS X v10.5 and later.

#### See Also

- updateFromPMPrintSettings (page 24)

#### **Declared In**

NSPrintInfo.h

## printer

Returns the NSPrinter object to be used for printing.

```
- (NSPrinter *)printer
```

#### **Return Value**

The printer object.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

```
- setPrinter: (page 21)
```

#### Declared In

NSPrintInfo.h

## printSettings

Returns a mutable dictionary containing the print settings from Core Printing.

```
- (NSMutableDictionary *)printSettings
```

#### **Return Value**

A mutable dictionary containing the printing system's current settings.

#### Discussion

You can use this method to get and set values from the system print settings. The keys in the returned dictionary represent the values returned by the Core Printing function PMPrintSettingsGetValue. They correspond to the settings currently in the print panel and include everything from custom values set by your accessory panels to values provided by the printer driver's print dialog extension.

Adding keys to the dictionary is equivalent to calling the Core Printing function PMPrintSettingsSetValue. Your new keys are added to the current print settings and are saved with any user preset files generated by the Mac OS X printing system. Because the print settings are stored in a property list, any values you add to the dictionary must correspond to scalar types such as strings, numbers, dates, booleans, and data objects or collection types such as dictionaries and arrays.

## Other parts of the printing system use key strings like

com.apple.print.PrintSettings.PMColorSyncProfileID to identify print settings. Cocoa replaces the periods in such strings with underscores. Thus, the preceding key string would be com\_apple\_print\_PrintSettings\_PMColorSyncProfileID instead. If you use reverse-DNS style key strings for your custom attributes, you should follow the same convention of using underscore characters instead of periods.

### **Availability**

Available in Mac OS X v10.5 and later.

#### **Declared In**

NSPrintInfo.h

Instance Methods

17

## rightMargin

Returns the width of the right margin.

```
- (CGFloat)rightMargin
```

#### **Return Value**

The right margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

### See Also

```
- setRightMargin: (page 22)
```

#### Declared In

NSPrintInfo.h

## setBottomMargin:

Sets the bottom margin to the specified size.

```
- (void)setBottomMargin:(CGFloat)margin
```

#### **Parameters**

margin

The new size for the right margin, measured in points in the user coordinate space.

### **Availability**

Available in Mac OS X v10.0 and later.

## See Also

- bottomMargin (page 10)

#### **Declared In**

NSPrintInfo.h

## setHorizontallyCentered:

Sets whether the image is centered horizontally.

```
- (void)setHorizontallyCentered:(BOOL)flag
```

## **Parameters**

flag

YES if you want the image to be centered horizontally; otherwise, NO.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- isHorizontallyCentered (page 12)
- isVerticallyCentered (page 12)
- setVerticallyCentered: (page 23)

### **Declared In**

NSPrintInfo.h

## setHorizontalPagination:

Sets the horizontal pagination to the specified mode.

- (void) **setHorizontal Pagination:** (NSPrinting Pagination Mode) *mode* 

#### **Parameters**

mode

One of the pagination modes described in "Constants" (page 25).

## **Availability**

Available in Mac OS X v10.0 and later.

### See Also

- horizontal Pagination (page 11)
- setVerticalPagination: (page 23)
- vertical Pagination (page 25)

## **Declared In**

NSPrintInfo.h

## setJobDisposition:

Sets the action specified for the job

- (void)setJobDisposition:(NSString \*)disposition

### **Parameters**

disposition

One of the following value:

- NSPrintSpoolJob is a normal print job.
- NSPrintPreviewJob sends the print job to the Preview application.
- NSPrintSaveJob saves the print job to a file.
- NSPrintCancelJob aborts the print job.
- NSPrintFaxJob is deprecated.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

jobDisposition (page 13)

### **Declared In**

NSPrintInfo.h

Instance Methods 2009-01-06 | © 2009 Apple Inc. All Rights Reserved.

## setLeftMargin:

Sets the left margin to the specified size.

- (void)setLeftMargin:(CGFloat)margin

#### **Parameters**

margin

The new size for the left margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- leftMargin (page 13)

#### **Declared In**

NSPrintInfo.h

## setOrientation:

Sets the page orientation to the specified value.

- (void)setOrientation:(NSPrintingOrientation)orientation

#### **Parameters**

orientation

This parameter can be one of the following values: NSPortraitOrientation or NSLandscapeOrientation.

## Discussion

For consistency, this method may change either the paper name or the paper size.

### **Availability**

Available in Mac OS X v10.0 and later.

### See Also

- dictionary (page 10)
- initWithDictionary: (page 11)
- orientation (page 14)

#### **Declared In**

NSPrintInfo.h

## setPaperName:

Sets the paper name to the specified value.

```
- (void)setPaperName:(NSString *)name
```

### **Parameters**

name

The name for the paper size. The string contains a value such as Letter or Legal. Paper names are implementation specific.

### Discussion

For consistency, this method may change either the paper size or the page orientation.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

```
dictionary (page 10)initWithDictionary: (page 11)paperName (page 14)
```

#### **Declared In**

NSPrintInfo.h

## setPaperSize:

Sets the width and height of the paper to the specified size.

```
- (void)setPaperSize:(NSSize)aSize
```

### **Parameters**

aSize

The new size of the paper, measured in points in the user coordinate space.

#### Discussion

For consistency, this method may change either the paper name or the page orientation.

## **Availability**

Available in Mac OS X v10.0 and later.

### See Also

```
dictionary (page 10)initWithDictionary: (page 11)paperSize (page 15)
```

### **Declared In**

NSPrintInfo.h

## setPrinter:

Sets the printer object used for subsequent printing jobs.

```
- (void)setPrinter:(NSPrinter *)printer
```

#### **Parameters**

printer

The printer object.

Instance Methods 2009-01-06 | © 2009 Apple Inc. All Rights Reserved.

#### Discussion

This method iterates through the receiver's dictionary. If a feature in the dictionary is not supported by the new printer (as determined by a query to the PPD file), that feature is removed from the dictionary.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- printer (page 17)

### **Declared In**

NSPrintInfo.h

## setRightMargin:

Sets the right margin to the specified size.

- (void)setRightMargin:(CGFloat)margin

## **Parameters**

margin

The new size for the right margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

### See Also

- rightMargin (page 18)

## **Declared In**

NSPrintInfo.h

## setTopMargin:

Sets the top margin to the specified size.

- (void)setTopMargin:(CGFloat)margin

## Parameters

margin

The new size for the top margin, measured in points in the user coordinate space.

### **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- topMargin (page 24)

## **Declared In**

NSPrintInfo.h

## setUpPrintOperationDefaultValues

Validates the attributes encapsulated by the receiver.

- (void)setUpPrintOperationDefaultValues

#### Discussion

Invoked when the print operation is about to start. Subclasses may override this method to set default values for any attributes that are not set.

#### **Availability**

Available in Mac OS X v10.0 and later.

#### **Declared In**

NSPrintInfo.h

## setVerticallyCentered:

Sets whether the image is centered vertically.

- (void)setVerticallyCentered:(BOOL)flag

### **Parameters**

flag

YES if you want the image to be centered vertically; otherwise, NO.

### **Availability**

Available in Mac OS X v10.0 and later.

## See Also

- isHorizontallyCentered (page 12)
- is Vertically Centered (page 12)
- setHorizontallyCentered: (page 18)

## **Declared In**

NSPrintInfo.h

## setVerticalPagination:

Sets the vertical pagination to the specified mode.

- (void)setVerticalPagination:(NSPrintingPaginationMode) mode

#### **Parameters**

mode

One of the pagination modes described in "Constants" (page 25).

### **Availability**

Available in Mac OS X v10.0 and later.

## See Also

- horizontalPagination (page 11)
- setHorizontalPagination: (page 19)

Instance Methods 2009-01-06 | © 2009 Apple Inc. All Rights Reserved. verticalPagination (page 25)

#### **Declared In**

NSPrintInfo.h

## topMargin

Returns the top margin.

- (CGFloat)topMargin

#### **Return Value**

The top margin, measured in points in the user coordinate space.

## **Availability**

Available in Mac OS X v10.0 and later.

#### See Also

- setTopMargin: (page 22)

### **Declared In**

NSPrintInfo.h

## updateFromPMPageFormat

Synchronizes the receiver's page format information with information from its associated PMPageFormat object.

- (void)updateFromPMPageFormat

#### Discussion

You should use this method after making changes to the PMPageFormat object obtained from the receiver. Each NSPrintInfo object keeps track of the object returned from its PMPageFormat method and obtains any updated information from the object directly. You only need to synchronize the objects once when you have made all of the desired changes.

## **Availability**

Available in Mac OS X v10.5 and later.

#### See Also

- PMPageFormat (page 15)

## **Declared In**

NSPrintInfo.h

## updateFromPMPrintSettings

Synchronizes the receiver's print settings information with information from its associated PMPrintSettings object.

- (void)updateFromPMPrintSettings

#### Discussion

You should use this method after making changes to the PMPrintSettings object obtained from the receiver. Each NSPrintInfo object keeps track of the object returned from its PMPrintSettings method and obtains any updated information from the object directly. You only need to synchronize the objects once when you have made all of the desired changes.

## **Availability**

Available in Mac OS X v10.5 and later.

#### See Also

- PMPrintSettings (page 16)

#### **Declared In**

NSPrintInfo.h

## verticalPagination

Returns the vertical pagination mode.

- (NSPrintingPaginationMode)verticalPagination

#### **Return Value**

One of the pagination modes described in "Constants" (page 25).

## **Availability**

Available in Mac OS X v10.0 and later.

## See Also

- horizontal Pagination (page 11)
- setHorizontalPagination: (page 19)

## **Declared In**

NSPrintInfo.h

## **Constants**

## **Print job attributes**

These constants specify dictionary keys to access print job attributes.

Constants 25

```
NSString *NSPrintPrinter;
NSString *NSPrintCopies;
NSString *NSPrintAllPages;
NSString *NSPrintFirstPage;
NSString *NSPrintLastPage;
NSString *NSPrintMustCollate;
NSString *NSPrintReversePageOrder;
NSString *NSPrintJobDisposition;
NSString *NSPrintSavePath;
NSString *NSPrintPagesAcross;
NSString *NSPrintPagesDown;
NSString *NSPrintTime:
NSString *NSPrintDetailedErrorReporting;
NSString *NSPrintFaxNumber;
NSString *NSPrintPrinterName;
NSString *NSPrintHeaderAndFooter;
```

#### Constants

NSPrintPrinter

An NSPrinter object—the printer to use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintCopies

An NSNumber object containing an integer—the number of copies to spool.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintAllPages

An NSNumber object containing a Boolean value—if YES, includes all pages in output.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintFirstPage

An NSNumber object containing an integer value that specifies the first page in the print job.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintLastPage

An NSNumber object containing an integer value that specifies the last page in the print job.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintMustCollate

An NSNumber object containing a Boolean value—if YES, collates output.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintReversePageOrder

An NSNumber object containing a Boolean value—if YES, prints first page last.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintJobDisposition

An NSString object that specifies the job disposition.

NSPrintSpoolJob, NSPrintPreviewJob, NSPrintSaveJob, or NSPrintCancelJob. See setJobDisposition: (page 19) for details.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### NSPrintSavePath

An NSString object that specifies the pathname to save as a file if job disposition is NSPrintSaveJob.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintPagesAcross

An NSNumber object that specifies the number of logical pages to be tiled horizontally on a physical sheet of paper.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

## NSPrintPagesDown

An NSNumber object that specifies the number of logical pages to be tiled vertically on a physical sheet of paper.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

## NSPrintTime

An NSDate object that specifies the time at which printing should begin.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo h

## NSPrintDetailedErrorReporting

An NSNumber object containing a Boolean value—if YES, produce detailed reports when an error occurs.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

#### NSPrintFaxNumber

An NSString object that specifies a fax number.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

### NSPrintPrinterName

An NSString object that specifies the name of a printer.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

#### NSPrintHeaderAndFooter

An NSNumber object containing a Boolean value—if YES, a standard header and footer are added outside the margins of each page.

Available in Mac OS X v10.4 and later.

Declared in NSPrintInfo.h.

### **Declared In**

NSPrintInfo.h

## NSPrintingPaginationMode

These constants specify the different ways in which an image is divided into pages. They're used by horizontalPagination (page 11), setHorizontalPagination: (page 19), verticalPagination (page 25), and setVerticalPagination: (page 23).

```
typedef enum {
   NSAutoPagination = 0,
   NSFitPagination = 1,
   NSClipPagination = 2
} NSPrintingPaginationMode;
```

#### **Constants**

NSAutoPagination

The image is divided into equal-sized rectangles and placed in one column of pages.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSFitPagination

The image is scaled to produce one column or one row of pages.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

**NSClipPagination** 

The image is clipped to produce one column or row of pages.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

### **Declared In**

NSPrintInfo.h

## **NSPrintingOrientation**

These constants specify page orientations.

```
typedef enum {
    NSPortraitOrientation = 0,
    NSLandscapeOrientation = 1
} NSPrintingOrientation;
```

## Constants

NSPortraitOrientation

Orientation is portrait (page is taller than it is wide).

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSLandscapeOrientation

Orientation is landscape (page is wider than it is tall).

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### Discussion

These constants are used by the methods orientation (page 14) and setOrientation: (page 20).

### **Declared In**

NSPrintInfo.h

## **Print job dispositions**

These constants specify valid values for the print job attribute NSPrintJobDisposition (page 27).

```
NSString *NSPrintSpoolJob;
NSString *NSPrintPreviewJob;
NSString *NSPrintSaveJob;
NSString *NSPrintCancelJob;
```

### Constants

NSPrintSpoolJob

Normal print job.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintPreviewJob

Send to Preview application.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintSaveJob

Save to a file.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintCancelJob

Cancel print job.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## Discussion

These constants are used by the jobDisposition (page 13) and setJobDisposition: (page 19) methods.

## **Declared In**

NSPrintInfo.h

## Page setup attributes

These constants specify dictionary keys to access page format attributes.

Constants 29

```
NSString *NSPrintPaperName;
NSString *NSPrintPaperSize;
NSString *NSPrintOrientation;
NSString *NSPrintScalingFactor;
```

#### Constants

NSPrintPaperName

An NSString object containing the paper name.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintPaperSize

An NSSize value specifying the height and width of paper in points.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintOrientation

An NSNumber object containing an NSPrintingOrientation.

NSPortraitOrientation or NSLandscapeOrientation

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintScalingFactor

Scale factor percentage before pagination.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### Declared In

NSPrintInfo.h

## Pagination attributes

These constants specify dictionary keys to access pagination attributes.

```
NSString *NSPrintBottomMargin;
NSString *NSPrintHorizontalPagination;
NSString *NSPrintHorizontallyCentered;
NSString *NSPrintLeftMargin;
NSString *NSPrintRightMargin;
NSString *NSPrintTopMargin;
NSString *NSPrintVerticalPagination;
NSString *NSPrintVerticallyCentered;
```

#### Constants

NSPrintLeftMargin

NSNumber, containing a floating-point value that specifies the left margin, in points.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintRightMargin

NSNumber, containing a floating-point value that specifies the right margin, in points.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintTopMargin

NSNumber, containing a floating-point value that specifies the top margin, in points.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintBottomMargin

NSNumber, containing a floating-point value that specifies the bottom margin, in points.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintHorizontallyCentered

NSNumber, containing a Boolean value that is YES if pages are centered horizontally.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintVerticallyCentered

NSNumber, containing a Boolean value that is YES if pages are centered vertically.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintHorizontalPagination

NSNumber, containing a NSPrintingPaginationMode value.

NSAutoPagination, NSFitPagination, or NSClipPagination. See setHorizontalPagination: (page 19) for details.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

NSPrintVertical Pagination

NSNumber, containing a NSPrintingPaginationMode value.

NSAutoPagination, NSFitPagination, or NSClipPagination. See setVerticalPagination: (page 23) for details.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## **Declared In**

NSPrintInfo.h

## **Deprecated Printing Keys**

These keys refer to older printing properties that are no longer used. (**Deprecated.** Use the keys described in "Print job attributes" (page 25) instead.)

Constants 31

```
NSString *NSPrintFormName;
NSString *NSPrintJobFeatures;
NSString *NSPrintManualFeed;
NSString *NSPrintPagesPerSheet;
NSString *NSPrintFaxReceiverNames;
NSString *NSPrintFaxReceiverNumbers;
NSString *NSPrintFaxSendTime;
NSString *NSPrintFaxUseCoverSheet;
NSString *NSPrintFaxCoverSheetName;
NSString *NSPrintFaxReturnReceipt;
NSString *NSPrintFaxHighResolution;
NSString *NSPrintFaxTrimPageEnds;
NSString *NSPrintFaxModem;
NSString *NSPrintFaxJob;
```

#### Constants

NSPrintFormName

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintJobFeatures

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### NSPrintManualFeed

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### NSPrintPagesPerSheet

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintPaperFeed

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

### NSPrintFaxReceiverNames

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxReceiverNumbers

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

### NSPrintFaxSendTime

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxUseCoverSheet

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxCoverSheetName

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxReturnReceipt

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxHighResolution

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

## NSPrintFaxTrimPageEnds

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

#### NSPrintFaxModem

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

### NSPrintFaxJob

Deprecated. Do not use.

Available in Mac OS X v10.0 and later.

Declared in NSPrintInfo.h.

Constants 2009-01-06 | © 2009 Apple Inc. All Rights Reserved.

# Deprecated NSPrintInfo Methods

A method identified as deprecated has been superseded and may become unsupported in the future.

# Deprecated in Mac OS X v10.2

## setDefaultPrinter:

Deprecated. (Deprecated in Mac OS X v10.2.)

+ (void)setDefaultPrinter:(NSPrinter \*)aPrinter

#### **Availability**

Available in Mac OS X v10.0 and later. Deprecated in Mac OS X v10.2.

#### **Declared In**

NSPrintInfo.h

## sizeForPaperName:

Deprecated. (Deprecated in Mac OS X v10.2.)

+ (NSSize)sizeForPaperName:(NSString \*)name

### Discussion

Use the pageSizeForPaper: method of NSPrinter instead.

## **Availability**

Available in Mac OS X v10.0 and later.

Deprecated in Mac OS X v10.2.

### **Declared In**

NSPrintInfo.h

## **APPENDIX A**

Deprecated NSPrintInfo Methods

# **Document Revision History**

This table describes the changes to NSPrintInfo Class Reference.

Date	Notes
2009-01-06	Cleaned up the deprecated print info keys.
2008-03-11	Made minor technical corrections.
2007-07-17	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

## **REVISION HISTORY**

**Document Revision History** 

# Index

	N	
pottomMargin instance method 10	<ul> <li>NSAutoPagination constant 28</li> <li>NSClipPagination constant 28</li> <li>NSFitPagination constant 28</li> <li>NSLandscapeOrientation constant 28</li> </ul>	
D	NSPortraitOrientation constant 28 NSPrintAllPages constant 26	
defaultPrinter class method 9 Deprecated Printing Keys 31 dictionary instance method 10	NSPrintBottomMargin constant 31 NSPrintCancelJob constant 29 NSPrintCopies constant 26 NSPrintDetailedErrorReporting constant 27 NSPrintFaxCoverSheetName constant 33 NSPrintFaxHighResolution constant 33	
H	NSPrintFaxJob constant 33	
norizontalPagination instance method 11	NSPrintFaxModem constant 33 NSPrintFaxNumber constant 27 NSPrintFaxReceiverNames constant 32 NSPrintFaxReceiverNumbers constant 32	
	NSPrintFaxReturnReceipt constant 33 NSPrintFaxSendTime constant 33	
imageablePageBounds instance method 11 initWithDictionary: instance method 11 isHorizontallyCentered instance method 12 isVerticallyCentered instance method 12	NSPrintFaxTrimPageEnds constant 33 NSPrintFaxUseCoverSheet constant 33 NSPrintFirstPage constant 26 NSPrintFormName constant 32 NSPrintHeaderAndFooter constant 27 NSPrintHorizontallyCentered constant 31 NSPrintHorizontalPagination constant 31 NSPrintingOrientation 28	
	NSPrintingPaginationMode 28	
jobDisposition <b>instance method 13</b>	NSPrintJobDisposition constant 27 NSPrintJobFeatures constant 32 NSPrintLastPage constant 26 NSPrintLeftMargin constant 30 NSPrintManualFeed constant 32	
leftMargin instance method 13 localizedPaperName instance method 13	NSPrintMustCollate constant 26 NSPrintOrientation constant 30 NSPrintPagesAcross constant 27 NSPrintPagesDown constant 27 NSPrintPagesPerSheet constant 32 NSPrintPaperFeed constant 32 NSPrintPaperName constant 30	

NSPrintPaperSize constant 30 NSPrintPreviewJob constant 29 NSPrintPrinter constant 26 NSPrintPrinterName constant 27 NSPrintReversePageOrder constant 26 NSPrintRightMargin constant 30 NSPrintSaveJob constant 29 NSPrintSavePath constant 27 NSPrintScalingFactor constant 30 NSPrintSpoolJob constant 29 NSPrintTime constant 27 NSPrintTopMargin constant 31 NSPrintVerticallyCentered constant 31 NSPrintVerticalPagination constant 31	setPaperSize: instance method 21 setPrinter: instance method 21 setRightMargin: instance method 22 setSharedPrintInfo: class method 9 setTopMargin: instance method 22 setUpPrintOperationDefaultValues instance method 23 setVerticallyCentered: instance method 23 setVerticalPagination: instance method 23 sharedPrintInfo class method 9 sizeForPaperName: class method 35
	topMargin instance method 24
0	
orientation instance method 14	U
Р	<pre>updateFromPMPageFormat instance method 24 updateFromPMPrintSettings instance method 24</pre>
Page setup attributes 29 Pagination attributes 30 paperName instance method 14	V
paperSize instance method 15 PMPageFormat instance method 15 PMPrintSession instance method 16 PMPrintSettings instance method 16 Print job attributes 25 Print job dispositions 29 printer instance method 17 printSettings instance method 17	verticalPagination instance method 25
R	
rightMargin instance method 18	
S	
setBottomMargin: instance method 18 setDefaultPrinter: class method 35 setHorizontallyCentered: instance method 18 setHorizontalPagination: instance method 19 setJobDisposition: instance method 19	

setLeftMargin: instance method 20
setOrientation: instance method 20
setPaperName: instance method 20