NSPrintInfo

Inherits From:	NSObject
Conforms To:	NSCoding
	NSCopying
	NSObject (NSObject)
Declared In:	AppKit/NSPrintInfo.h

Class Description

An NSPrintInfo object stores information that's used to generate PostScript output. A shared NSPrintInfo object is automatically created for an application and is used by default for all printing jobs for that application. You can create any number of additional NSPrintInfo objects; however, only one can be "active" at a time, set using the **setSharedPrintInfo**: class method. You get the shared NSPrintInfo object using the **sharedPrintInfo** class method.

An NSPrintInfo object is used by NSPrintOperation objects to control printing (it is passed to a NSPrintOperation object which makes a copy of it to use during an operation). If you create special instances of NSPrintInfo objects for a specific printing task, you must ensure that your NSPrintInfo object is the shared one, or instantiate an NSPrintOperation object specifying your NSPrintInfo object.

Normally you don't set NSPrintInfo attributes directly—this is done by instances of NSPageLayout and NSPrintPanel. The NSView that's being printed may also supercede some NSPrintInfo settings. In particular, an NSView can supply the range of pages in the document and can provide its own pagination mechanism through the **knowsPagesFirst:last:** and **rect:forPage:** methods (see the documentation of these methods in the NSView class for details).

If the NSView doesn't supply pagination information, the NSPrintInfo's vertical and horizontal pagination constants are used to trigger these built-in pagination mechanisms:

Pagination Constant	Meaning
NSAutoPagination	The image is diced into equal-sized rectangles and placed in one column of pages.
NSFitPagination	The image is scaled to produce one column or one row of pages.
NSClipPagination	The image is clipped to produce one column or row of pages.

Vertical and horizontal pagination needn't be the same. However, if either dimension is scaled (NSFitPagination), the other dimension is scaled by the same amount to avoid stretching the image. If both dimensions are scaled, the scaling factor that produces the smallest image is used. Note that NSPrintInfo's

scaling factor is independent of the scaling that's imposed by pagination and is applied after the document has been paginated.

NSPrintInfo uses points as the unit of measurement for paper size and margin width in the methods described below. See the NSFont specification for a discussion of points.

Adopted Protocols

NSCoding	– encodeWithCoder:
	– initWithCoder:
NSCopying	– copyWithZone:

Method Types

Initializing an NSPrintInfo	– initWithDictionary:
Managing the shared NSPrintInfo	+ setSharedPrintInfo:
	+ sharedPrintInfo
Managing the printing rectangle	+ sizeForPaperName:
	– bottomMargin
	– leftMargin
	– orientation
	– paperName
	– paperSize
	– rightMargin
	– setBottomMargin:
	– setLeftMargin:
	– setOrientation:
	– setPaperName:
	– setPaperSize:
	– setRightMargin:
	– setTopMargin:
	– topMargin
Pagination	– horizontalPagination
	– setHorizontalPagination:
	– setVerticalPagination:
	– verticalPagination

Positioning the image on the page	– isHorizontallyCentered
	– isVerticallyCentered
	– setHorizontallyCentered:
	– setVerticallyCentered:
Specifying the printer	+ defaultPrinter
	+ setDefaultPrinter:
	– printer
	– setPrinter:
Controlling printing	– jobDisposition
	– setJobDisposition:
	– setUpPrintOperationDefaultValues
Accessing the dictionary	– dictionary

Class Methods

defaultPrinter

+ (NSPrinter *)**defaultPrinter**

Returns the user's default printer. Returns **nil** if the printer can not be found.

See also: + **setDefaultPrinter:**

setDefaultPrinter:

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

Sets the user's default printer to *aPrinter*. Unless the receiver's printer was specified using **setPrinter:**, this default printer is used.

See also: + **defaultPrinter**, – **printer**

setSharedPrintInfo:

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

Sets the shared NSPrintInfo object to *printInfo*. 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 operataions. *printInfo* should never be **nil**.

See also: + **sharedPrintInfo**

sharedPrintInfo

+ (NSPrintInfo *)**sharedPrintInfo**

Returns the shared NSPrintInfo object.

See also: + **setSharedPrintInfo:**

sizeForPaperName:

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

Returns the size for the specified type of paper in points. *name* identifies the type of paper, such as Letter or Legal. Paper names are implementation specific.

Instance Methods

bottomMargin

– (float)**bottomMargin**

Returns the height of the bottom margin in points.

See also: – **setBottomMargin:**

dictionary

– (NSMutableDictionary *)**dictionary**

Returns the receiver's dictionary that stores its attribute settings. The key/value pairs contained in the dictionary are described in **initWithDictionary:**. Note, modifying the returned dictionary will change the receiver's attributes.

horizontalPagination

– (NSPrintingPaginationMode)**horizontalPagination**

Returns the horizontal pagination mode, see **setHorizontalPagination:** for description of return values.

See also: – setVerticalPagination:, – verticalPagination

initWithDictionary:

    – (id)**initWithDictionary:**(NSDictionary *)*aDictionary*

Initializes a newly allocated NSPrintInfo object by assigning it the parameters specified in *aDictionary*. This is the designated initializer for this class. The possible key/value pairs contained in *aDictionary* are listed below. Non-object values should be stored as NSValues in the dictionary.

Key	Type	Description
NSPrintPaperName	NSString	The paper name.
NSPrintPaperSize	NSSize	Height and width of paper in points.
NSPrintMustCollate	BOOL	If YES, collates output.
NSPrintFormName	NSString	Form name such as "Letter" or "Letter Small".
NSPrintOrientation	NSPrintingOrientation	NSPortraitOrientation or NSLandscapeOrientation
NSPrintLeftMargin	float	The left margin in points.
NSPrintRightmargin	float	The right margin in points.
NSPrintTopMargin	float	The top margin in points.
NSPrintBottomMargin	float	The bottom margin in points.
NSPrintHorizontallyCentered	BOOL	If YES, pages are centered horizontally.
NSPrintVerticallyCentered	BOOL	If YES, pages are centered vertically.
NSPrintHorizontalPagination	NSPrintingPaginationMode	NSAutoPagination, NSFitPagination, or NSClipPagination. See **setHorizontalPagination:** for details.
NSPrintVerticalPagination	NSPrintingPaginationMode	NSAutoPagination, NSFitPagination, or NSClipPagination. See **setVerticalPagination**: for details.
NSPrintScalingFactor	float	Scale factor before pagination.
NSPrintAllPages	BOOL	If YES, includes all pages in output.
NSPrintReversePageOrder	BOOL	If YES, prints last page first.
NSPrintFirstPage	int	The first page in the print job.
NSPrintLastPage	int	The last page in the print job.
NSPrintCopies	int	Number of copies to spool.
NSPrintPagesPerSheet	int	The number of pages of the document that are printed on a single sheet of paper. This number is rounded up to the power of two when used by the system.
NSPrintJobFeatures	NSMutableDictionary	Features from the NSPrinter object where keys are the feature name and

		values are the settings. For example, the key NSPrintPaperFeed might have the value *InputSlot/Upper. See the NSPrinter class description.
NSPrintPaperFeed	NSString	The printer slot. For example, InputSlot/Upper or NSPrintManualFeed.
NSPrintPrinter	NSPrinter	The printer to use.
NSPrintJobDisposition	NSString	NSPrintSpoolJob, NSPrintFaxJob, NSPrintPreviewJob, NSPrintSaveJob, or NSPrintCancelJob. See **setJobDisposition:** for details.
NSPrintSavePath	NSString	Pathname to save as a file if job disposition is NSPrintSaveJob.
NSPrintFaxReceiverNames	NSArray	Array of NSStrings containing receiver names for a fax job.
NSPrintFaxReceiverNumbers	NSArray	Array of NSStrings containing the receiver phone numbers for a fax job.
NSPrintFaxSendTime	NSDate	When to send the fax.
NSPrintFaxUseCoverSheet	BOOL	If YES, send cover sheet.
NSPrintFaxCoverSheetName	NSString	The filename containing the cover sheet.
NSPrintFaxReturnReceipt	BOOL	If YES, sends confirmation email when fax is sent.
NSPrintFaxHighResolution	BOOL	If YES, sends fax at high resolution.
NSPrintFaxTrimPageEnds	BOOL	If YES, trims page ends, otherwise sends complete pages.
NSPrintFaxModem	NSPrinter	The fax modem to use.

See also: – **dictionary**

isHorizontallyCentered

– (BOOL)**isHorizontallyCentered**

Returns YES if the image is centered horizontally, otherwise returns NO.

See also: – **isVerticallyCentered**, – **setHorizontallyCentered:**

isVerticallyCentered

– (BOOL)**isVerticallyCentered**

Returns YES if the image is centered vertically, otherwise returns NO.

See also: – **isHorizontallyCentered**, – **setVerticallyCentered:**

jobDisposition

– (NSString *)**jobDisposition**

Returns the action specified for the job. See **setJobDisposition:** for description of return values.

leftMargin

– (float)**leftMargin**

Returns the width of the left margin in points.

See also: – **setLeftMargin:**

orientation

– (NSPrintingOrientation)**orientation**

Returns the orientation attribute. See **setOrientation:** for description of return values.

paperName

– (NSString *)**paperName**

Returns the paper name such as "Letter" or "Legal". Paper names are implementation specific.

See also: – **setPaperName:**

paperSize

– (NSSize)**paperSize**

Returns the size of the paper in points.

See also: – **setPaperSize:**

printer

   – (NSPrinter *)**printer**

Returns the NSPrinter to be used for printing.

See also: – **setPrinter:**

rightMargin

   – (float)**rightMargin**

Returns the width of the right margin in points.

See also: – **setRightMargin:**

setBottomMargin:

   – (void)**setBottomMargin:**(float)*margin*

Sets the bottom margin to *margin* specified in points.

See also: – **bottomMargin**

setHorizontalPagination:

   – (void)**setHorizontalPagination:**(NSPrintingPaginationMode)*mode*

Sets the horizontal pagination to *mode* where *mode* is one of:

NSAutoPagination	The image is diced into equal-sized rectangles and placed in one column of pages.
NSFitPagination	The image is scaled to produce one column or one row of pages.
NSClipPagination	The image is clipped to produce one column or row of pages.

See also: – **horizontalPagination**, – **setVerticalPagination:, – verticalPagination**

setHorizontallyCentered:

   – (void)**setHorizontallyCentered:**(BOOL)*flag*

If *flag* is YES the image will be centered horizontally.

See also: – **isHorizontallyCentered, – isVerticallyCentered, – setVerticallyCentered:**

setJobDisposition:

– (void)**setJobDisposition:**(NSString *)*disposition*

Sets the action specified for the job to *disposition*, where *disposition* is one of:

NSPrintSpoolJob	Normal print job.
NSPrintFaxJob	Fax job.
NSPrintPreviewJob	Send to Preview application.
NSPrintSaveJob	Save to a file.
NSPrintCancelJob	Cancel print job.

See also: – **jobDisposition**

setLeftMargin:

– (void)**setLeftMargin:**(float)*margin*

Sets the left margin to *margin* specified in points.

See also: – **leftMargin**

setOrientation:

– (void)**setOrientation:**(NSPrintingOrientation)*orientation*

Sets the page orientation to *orientation* where *orientation* is one of:

NSPortraitOrientation

NSLandscapeOrientation

This method may change either the paper name or size for consistency. To avoid this side effect set the values in the dictionary directly.

See also: – **dictionary**, – **initWithDictionary:**, – **orientation**

setPaperName:

– (void)**setPaperName:**(NSString *)*name*

Sets the paper name to *name* (i.e., Letter or Legal). Paper names are implementation specific.This method may change either the size or orientation for consistency. To avoid this side effect set the values in the dictionary directly.

See also: – **dictionary**, – **initWithDictionary:**, – **paperName**

setPaperSize:

– (void)**setPaperSize:**(NSSize)*aSize*

Sets the width and height of the paper to *aSize* specified in points. This method may change either the paper name or orientation for consistency. To avoid this side effect set the values in the dictionary directly.

See also: – **dictionary**, – **initWithDictionary:**, – **paperSize**

setPrinter:

– (void)**setPrinter:**(NSPrinter *)*aPrinter*

Sets the printer used in subsequent printing jobs to *aPrinter*. This method iterates through the dictionary. If a feature in the dictionary is not supported by this new printer (this is determined by a query to the PPD file), then that feature is removed from the dictionary

See also: – **printer**

setRightMargin:

– (void)**setRightMargin:**(float)*margin*

Sets the right margin to *margin* specified in points.

See also: – **rightMargin**

setTopMargin:

– (void)**setTopMargin:**(float)*margin*

Sets the top margin to *margin* specified in points.

See also: – **topMargin**

setUpPrintOperationDefaultValues

– (void)**setUpPrintOperationDefaultValues**

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.

setVerticalPagination:

– (void)**setVerticalPagination:**(NSPrintingPaginationMode)*mode*

Sets the vertical pagination to *mode* where *mode* is one of:

NSAutoPagination	The image is diced into equal-sized rectangles and placed in one column of pages.
NSFitPagination	The image is scaled to produce one column or one row of pages.
NSClipPagination	The image is clipped to produce one column or row of pages.

See also: – **horizontalPagination**, – **setHorizontalPagination:**, – **verticalPagination**

setVerticallyCentered:

– (void)**setVerticallyCentered:**(BOOL)*flag*

If *flag* is YES, the image will be vertically centered.

See also: – **isHorizontallyCentered**, – **isVerticallyCentered**, – **setHorizontallyCentered:**

topMargin

– (float)**topMargin**

Returns the top margin in points.

See also: – **setTopMargin:**

verticalPagination

– (NSPrintingPaginationMode)**verticalPagination**

Returns the vertical pagination mode, see **setVerticalPagination:** for description of return values.

See also: – **horizontalPagination, – setHorizontalPagination:**