

Basic PDF Reader/Viewer for iOS

INTRODUCTION

I've written this basic PDF reader/viewer app for fellow iOS developers struggling with wrangling PDF files onto iOS device screens. This project consists of two separate parts:

The core PDF view class and its support code:

```
PDFViewTiled.h, PDFViewTiled.m  
PDFTiledLayer.h, PDFTiledLayer.m  
CGPDFDocument.h, CGPDFDocument.m
```

The app classes and support files to show the use of the above code:

```
Reader-Info.plist, Reader_Prefix.pch  
ReaderAppDelegate.h, ReaderAppDelegate.m  
ReaderViewController.h, ReaderViewController.m  
UIViewFader.h, UIViewFader.m, main.m  
Localizable.strings, Icon-*.png
```

The app is universal: It runs on iPad, iPhone and iPod touch, iOS 3.2 and up. It also supports the Retina display on iPhone 4 and iPod touch 4th generation and is ready to be fully internationalized. The intention was to provide a complete project template to start building from. Though not tested, the PDFViewTiled class should work on iOS 3.1. The app handles file sharing and PDF "Open In..." from other apps (Mail, Dropbox, etc.) and all device orientations. It also remembers the last page number that the bundled PDF was on.

After launching the app, tap on the left hand side of the screen to go back a page. Tap on the right hand side to go to the next page. You can also swipe left and right when fully zoomed out to change pages. Tap on the bottom of the screen to fade in the page slider to quickly move around a document. Tap on the top of the screen to fade in the toolbar. Double-tap with one finger (or pinch out) to zoom in. Double tap with two fingers (or pinch in) to zoom out.

This implementation has been tested with large PDF files (over 250 MB and over 2800 pages) and with PDF files of all flavors (from text only to graphics heavy magazines). It also works rather well on older devices (such as iPod touch 2nd generation and iPhone 3G). To get an idea of its responsiveness, build and run the app with "The Odyssey" from Planet PDF. Then quickly tap on the right hand side of the screen of your iDevice.

N.B. Version 1.0 does not support iOS 4 multitasking nor fancy eye-candy (page curls or animations). This is "left as an exercise for the student".

DOCUMENTATION

PDFViewTiled Class Reference

Inherits from `UIView : UIResponder : NSObject`

Declared in `PDFViewTiled.h`

Overview

The `PDFViewTiled` class implements a custom `CATiledLayer`-backed `UIView` for showing PDF files. It supports password protected PDF files, changing page numbers and the changing the PDF file being shown.

Instance Methods

`-initWithURL:`

Initializes and returns a newly allocated PDF view object with the specified file URL to a PDF, page number in the PDF, optional PDF password and `UIView` frame rectangle.

`-(id)initWithURL:(NSURL *)fileURL onPage:(NSInteger)onPage password:(NSString *)password frame:(CGRect)frame`

<code>fileURL</code>	- The file URL to the PDF file that should be shown in the view.
<code>onPage</code>	- The initial page number to open the PDF at. The value is bounds checked.
<code>password</code>	- An optional password to open the PDF with. Pass nil when no password.
<code>frame</code>	- The frame rectangle for the view (see <code>UIView Class Reference</code>).

Returns an initialized PDF view object or nil if the object's `UIView` could not be created. If an error occurs during PDF file open (missing file, wrong password) a valid object will still be returned but the page and pages properties will be 0. In this case, `-changeFileURL:` could be used to update the PDF view object with valid parameters.

`-changeFileURL:`

Updates an existing PDF view object with a new PDF file URL, page

number and password.

- (BOOL)changeFileURL:(NSURL *)fileURL onPage:(NSInteger)onPage password:(NSString *)password

fileURL - The file URL to the PDF file that should be shown in the view.

onPage - The initial page number to open the PDF at. The value is bounds checked.

password - An optional password to open the PDF with. Pass nil when no password.

Use this method to change the PDF file being shown in an existing PDF view object. Returns YES on success, NO on failure. Failure is non-destructive; the previous PDF file will continue to be shown in the PDF view object on failure. This method updates the page and pages properties on success.

-gotoPage:

Changes the page being shown in the PDF view object.

- (void)gotoPage:(NSInteger)newPage

newPage - The new page number to be shown.

Call this method to change the PDF page being shown in the PDF view object. If a number greater than the total number of pages is passed, then the last page of the PDF will be shown. If a number smaller than 1 is passed, then the first page will be shown. This method updates the page property with the new bounds checked page number.

-decrementPage

Shows the previous PDF page in the PDF view object.

- (void)decrementPage

Call this method to show the previous PDF page in relation to the current page in the PDF view object. This method updates the page property with the new (bounds checked) page number.

-incrementPage

Shows the next PDF page in the PDF view object.

- (void)incrementPage

Call this method to show the next PDF page in relation to the current page in the PDF view object. This method updates the page property with the new (bounds checked) page number.

-willRotate

View pre-rotation support method.

- (void)willRotate

Call this method on the PDF view object from the -willRotateToInterfaceOrientation: method in the UIViewController hosting the PDF view object. See sample app code for usage.

-didRotate

View post-rotation support method.

- (void)didRotate

Call this method on the PDF view object from the -didRotateFromInterfaceOrientation: method in the UIViewController hosting the PDF view object. See sample app code for usage.

Properties

page

The PDF view object's current page number value (read-only).

@property (nonatomic, readonly) NSInteger page

Contains the current page number and is updated in response to page change method calls. Contains 0 if -initWithURL: failed.

pages

The PDF view object's number of pages in PDF value (read-only).

@property (nonatomic, readonly) NSInteger pages

Contains the total number of pages in the current PDF file. Contains 0 if -initWithURL: failed.

HISTORY

2010-09-01: Version 0.0.1 - Initial start of project and coding.

2010-09-09: Version 1.0.0 - Code complete (yeah, right, he says :)

CONTACT INFO

Questions, feedback and iOS development work welcome:

Email: [joklamcak\(at\)yahoo\(dot\)com](mailto:joklamcak(at)yahoo(dot)com)

Website: <http://www.vfr.org/>

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