Understanding the Document Interaction Controller

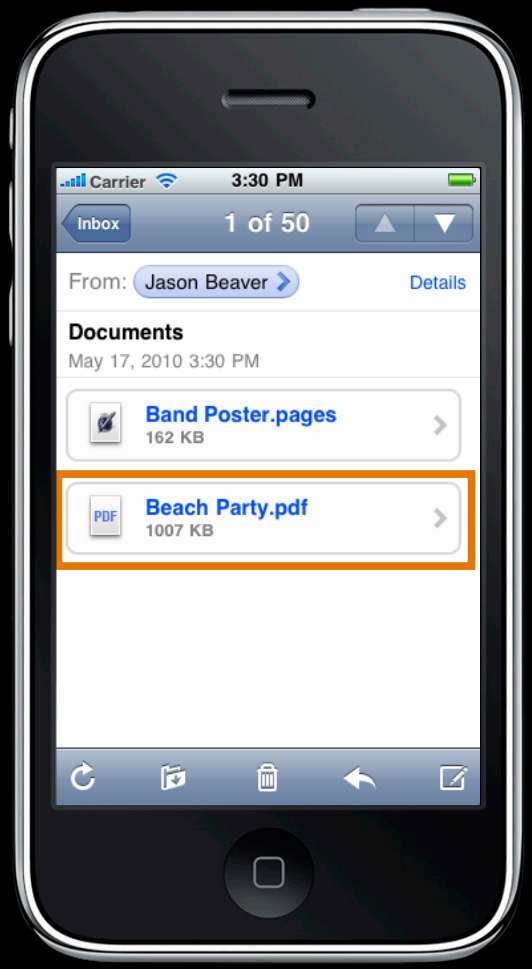
Jason Beaver
iPhone Frameworks Engineer

What You'll Learn

- Document basics
- Registering for documents
- Opening documents
- Interacting with documents
- Quick Look Framework

Document Basics

Document Basics

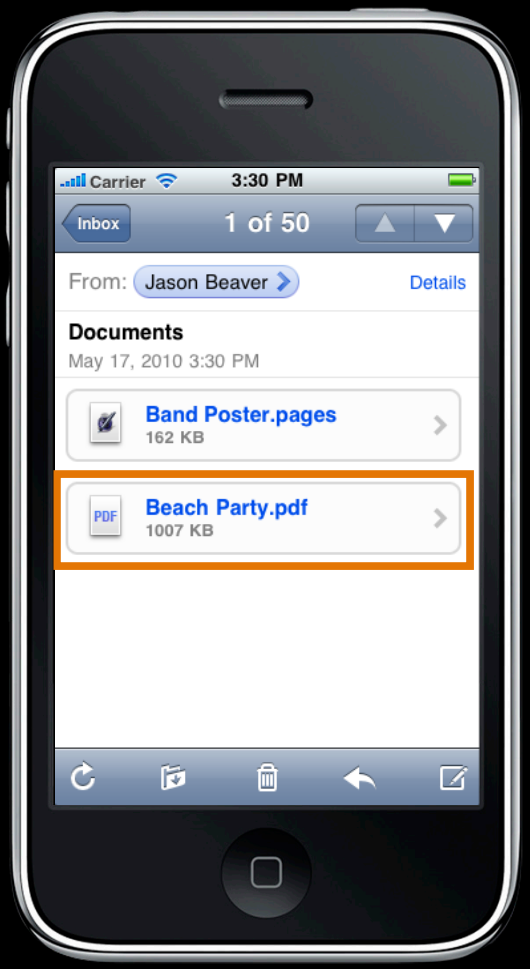


Document Basics

- Documents are specified by URL

```
file://.../Beach Party.pdf
```

UTI (com.adobe.pdf)



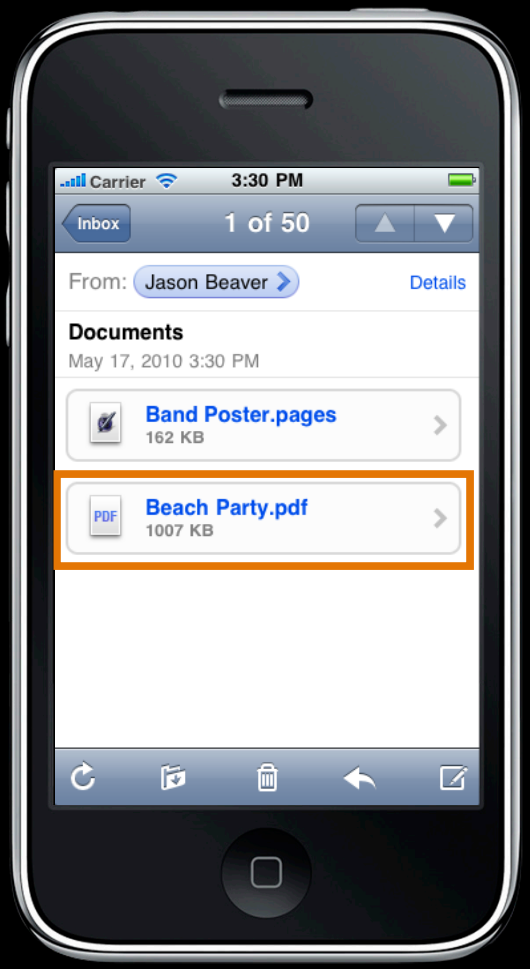
Document Basics

- Documents are specified by URL
- Name and UTI can be specified separately

```
file://.../UUID
```

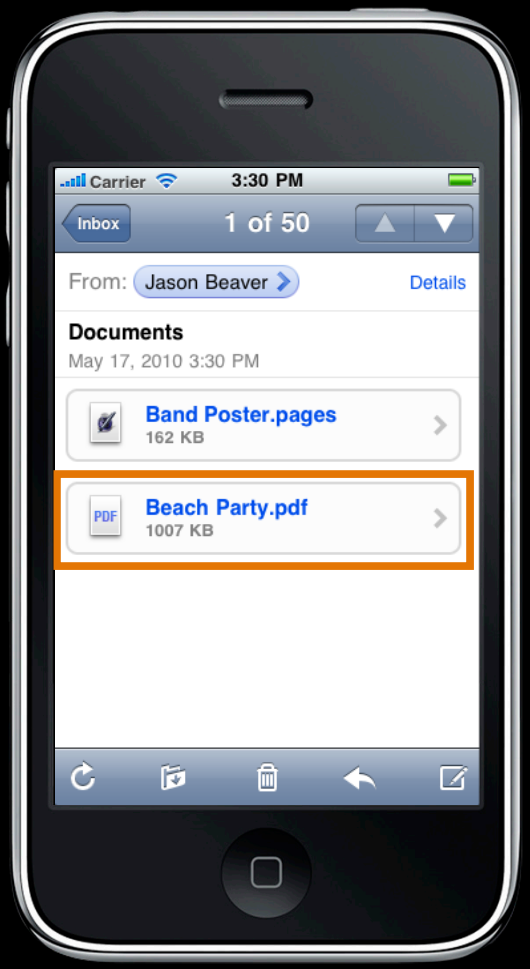
```
Beach Party.pdf
```

UTI (com.adobe.pdf)



Document Basics

- Documents are specified by URL
- Name and UTI can be specified separately
- Documents also include icons



Registering for Documents

Registering for Documents

Info.plist

- CFBundleDocumentTypes

`CFBundleTypeExtensions`	Array of filename extensions	pdf
`LSItemContentTypes`	Array of UTIs	com.adobe.pdf
`CFBundleTypeName`	User Visible Name	PDF Document
`LSHandlerRank`	Fine Tune Document Binding	Owner / Default / Alternate / None

Registering for Documents

Info.plist

```
<key>CFBundleDocumentTypes</key>
<array>
    <dict>
        <key>CFBundleTypeExtensions</key>
        <array>
            <string>pdf</string>
        </array>
        <key>LSItemContentTypes</key>
        <array>
            <string>com.adobe.pdf</string>
        </array>
        <key>CFBundleTypeName</key>
        <string>PDF Document</string>
    </dict>
</array>
```

Opening a Document

Opening a Document

- UIApplicationDelegate Protocol

```
application: didFinishLaunchingWithOptions:
```

`UIApplicationLaunchOptionsURLKey`	URL
`UIApplicationLaunchOptionsSourceApplicationKey`	Bundle Identifier
`UIApplicationLaunchOptionsAnnotationKey`	Additional Data

```
application: handleOpenURL:
```

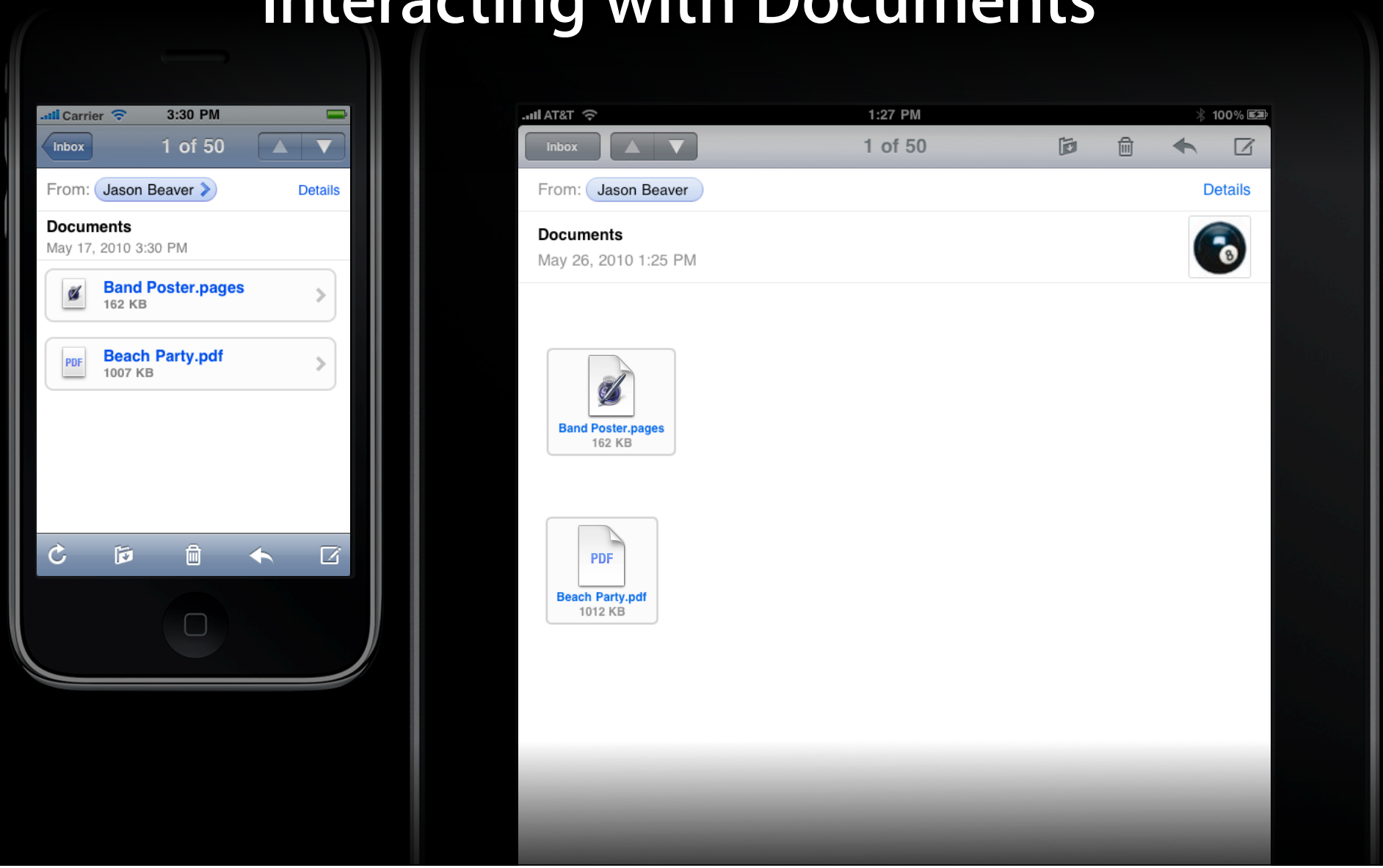
Demo

Luke the Hiesterman
iPhone Frameworks Engineer

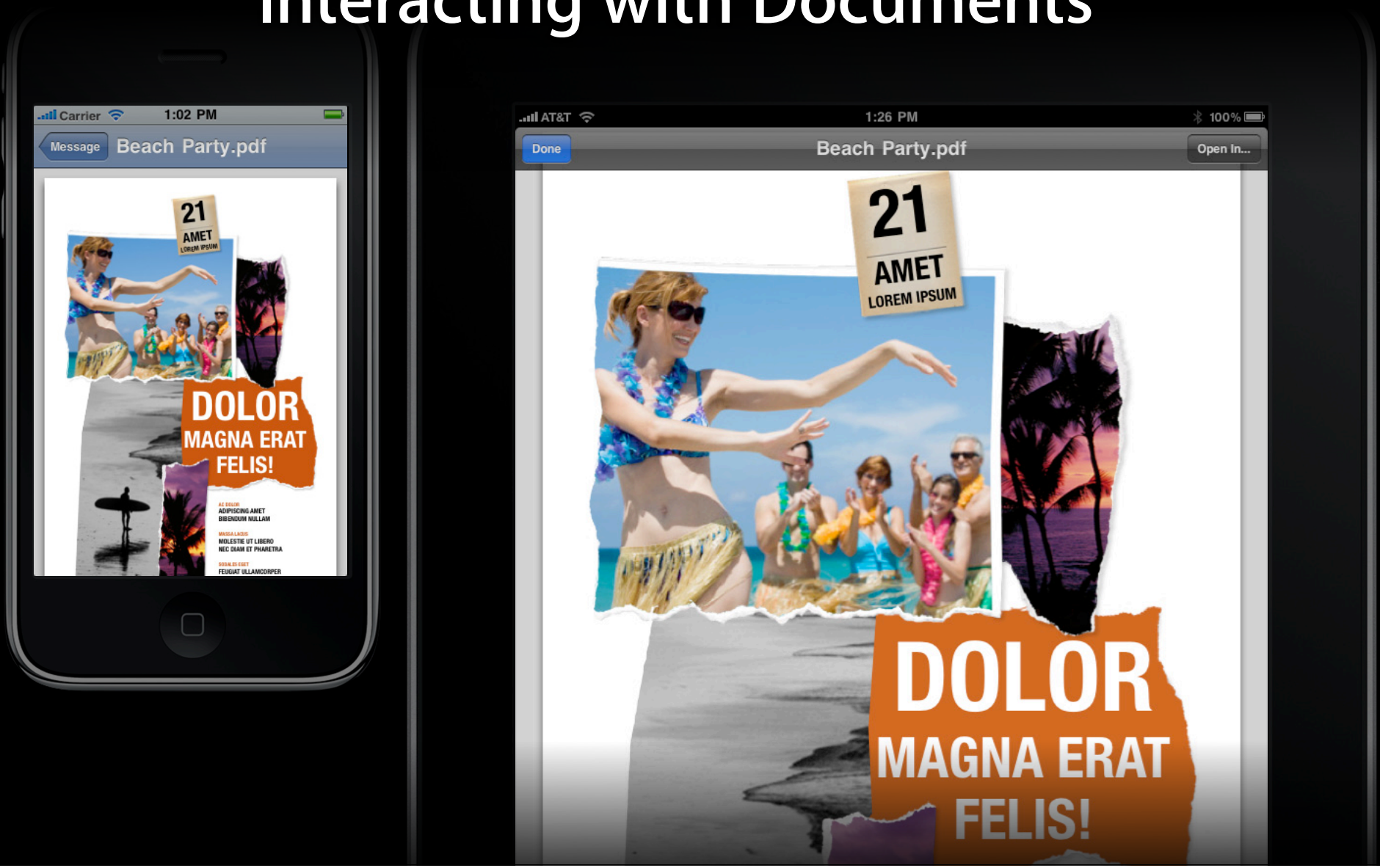
Interacting with Documents

Using the UIDocumentInteractionController

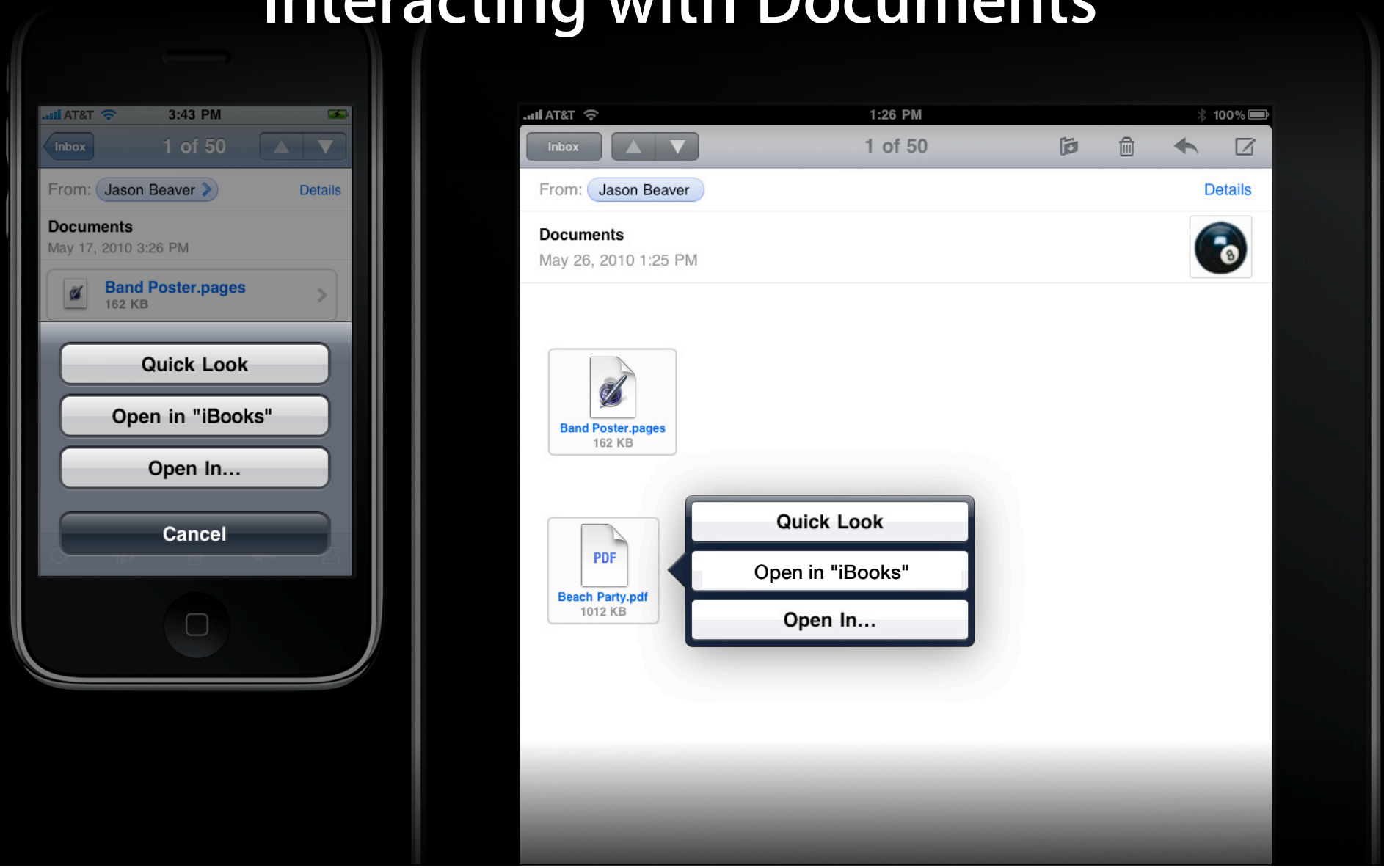
Interacting with Documents



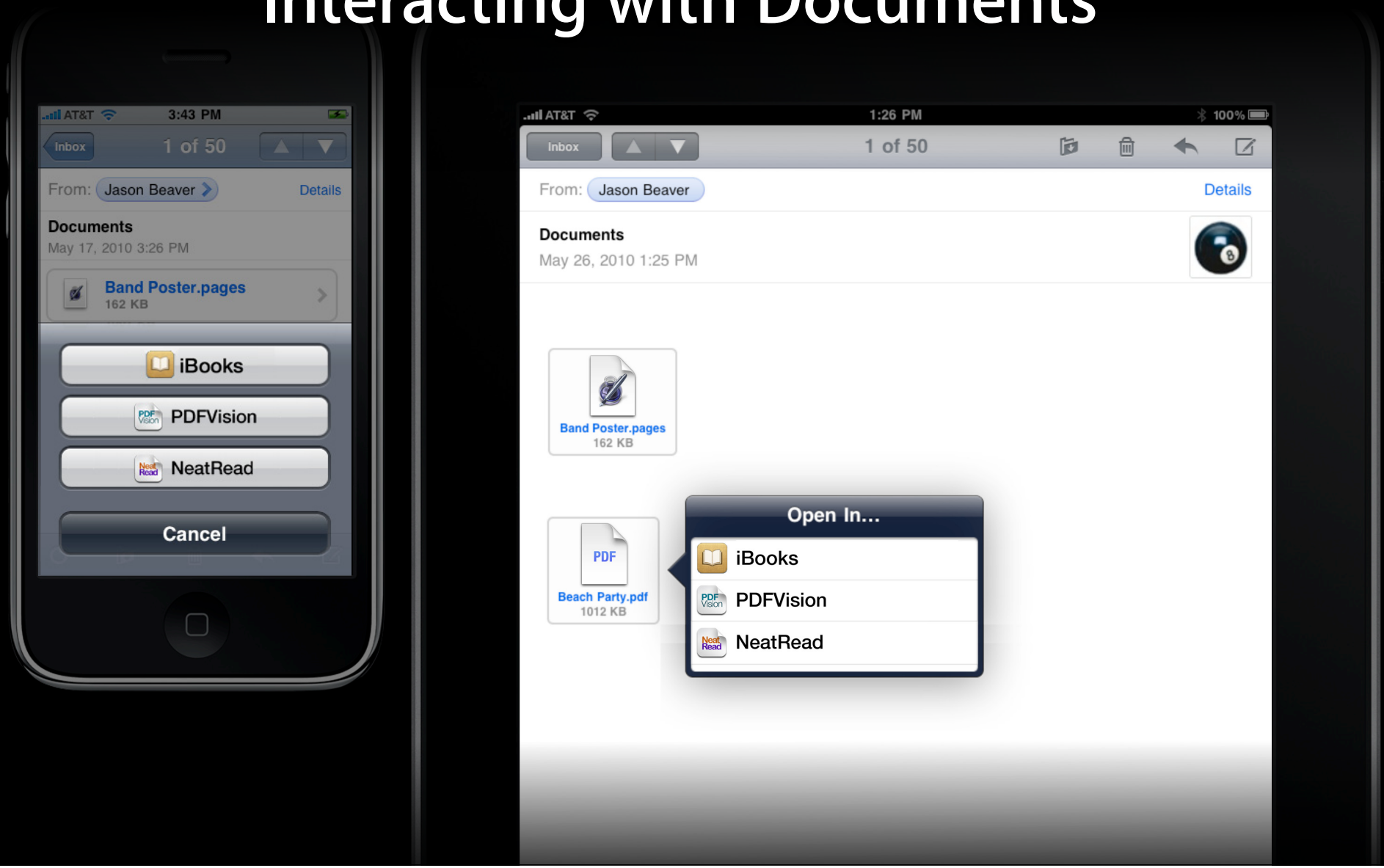
Interacting with Documents



Interacting with Documents



Interacting with Documents



Creating a UIDocumentInteractionController

- Creation

```
+ interactionControllerWithURL:
```

- Configuration

`NSURL *URL`	
`NSString *name`	Derived from URL if not set
`NSString *UTI`	Derived from name if not set

Drawing Your View

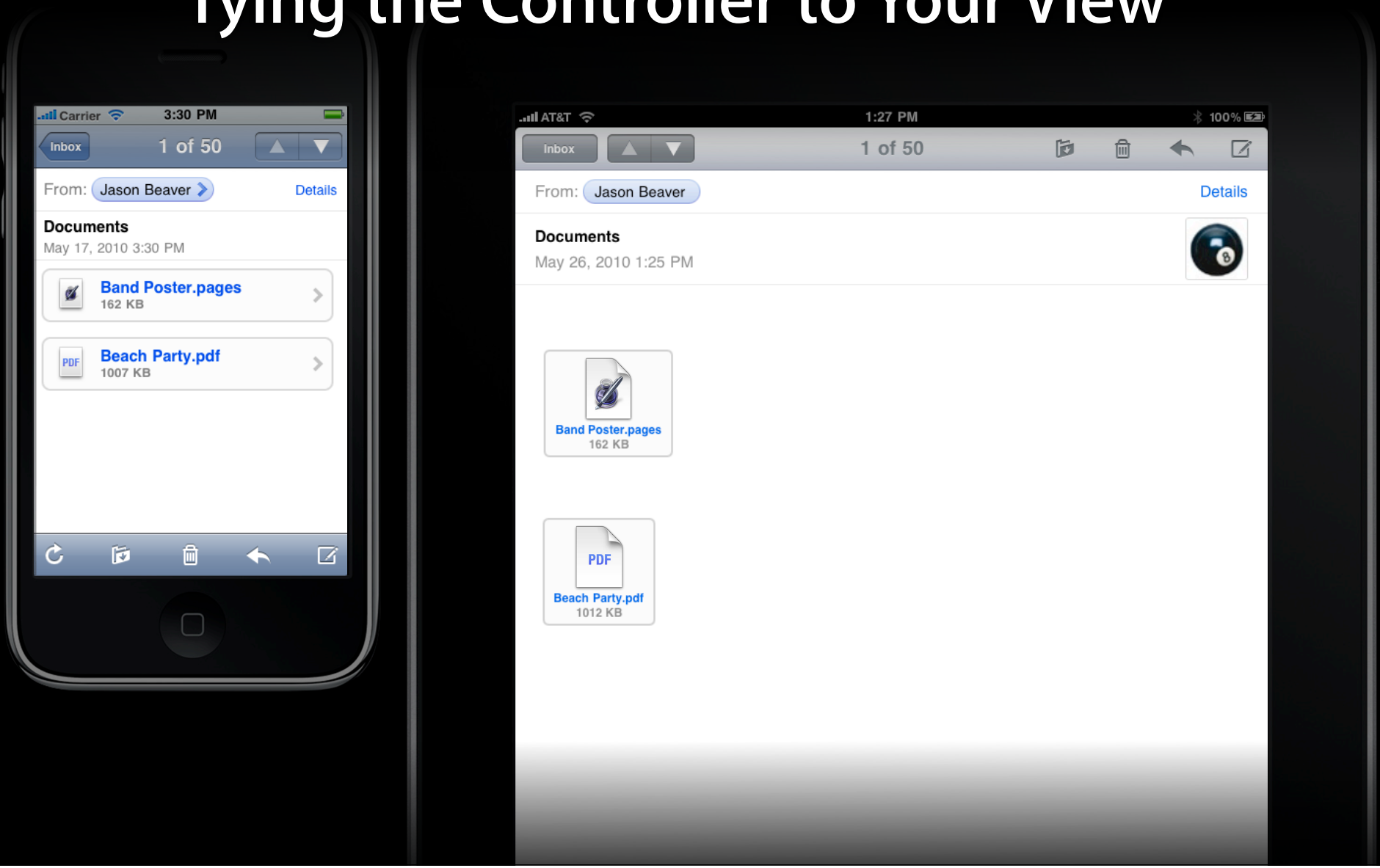
```
NSArray *icons
```

Tying the Controller to Your View

```
NSArray *gestureRecognizers
```

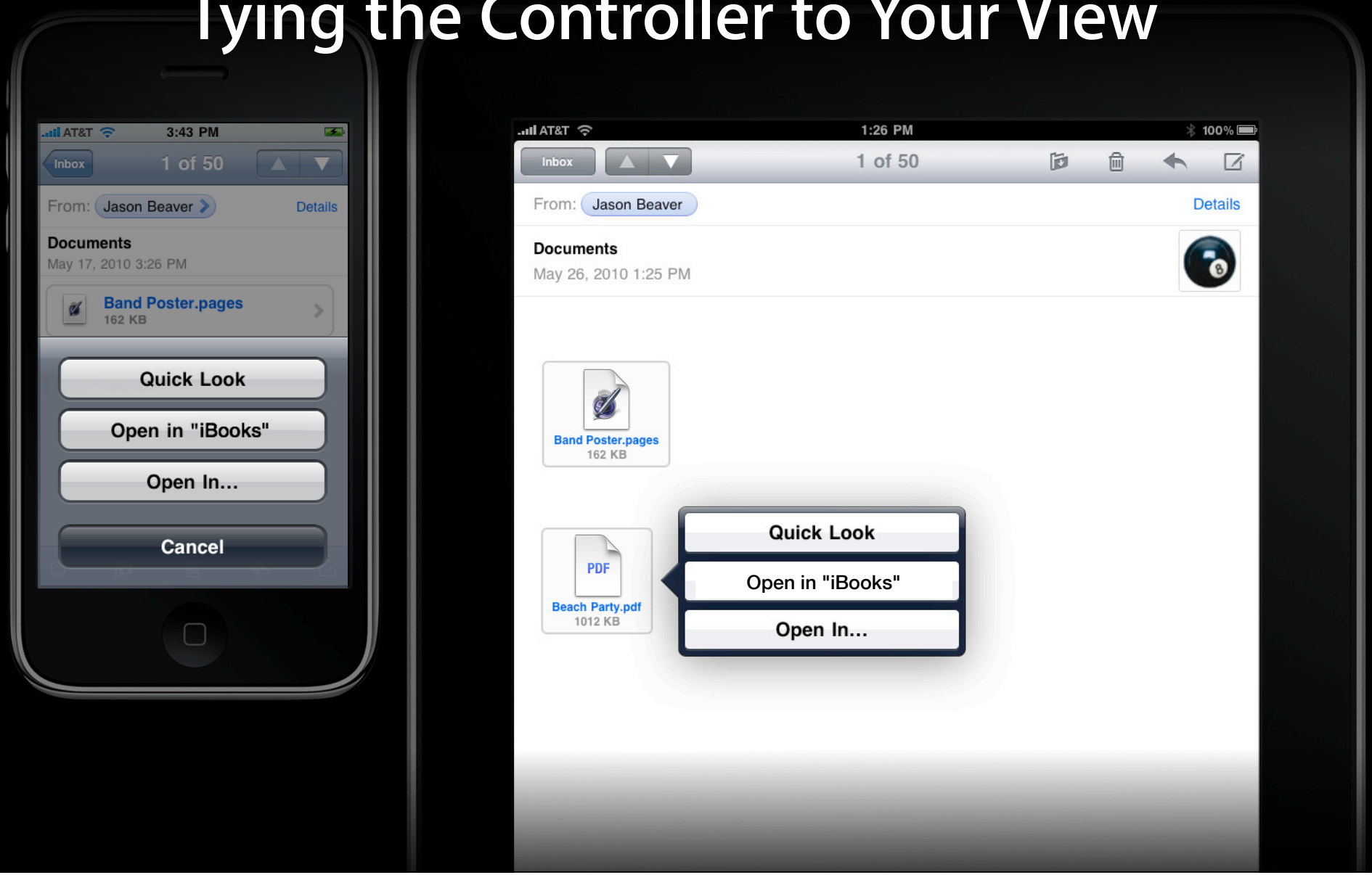
```
view.gestureRecognizers = documentInteractionController.gestureRecognizers;
```

Tying the Controller to Your View

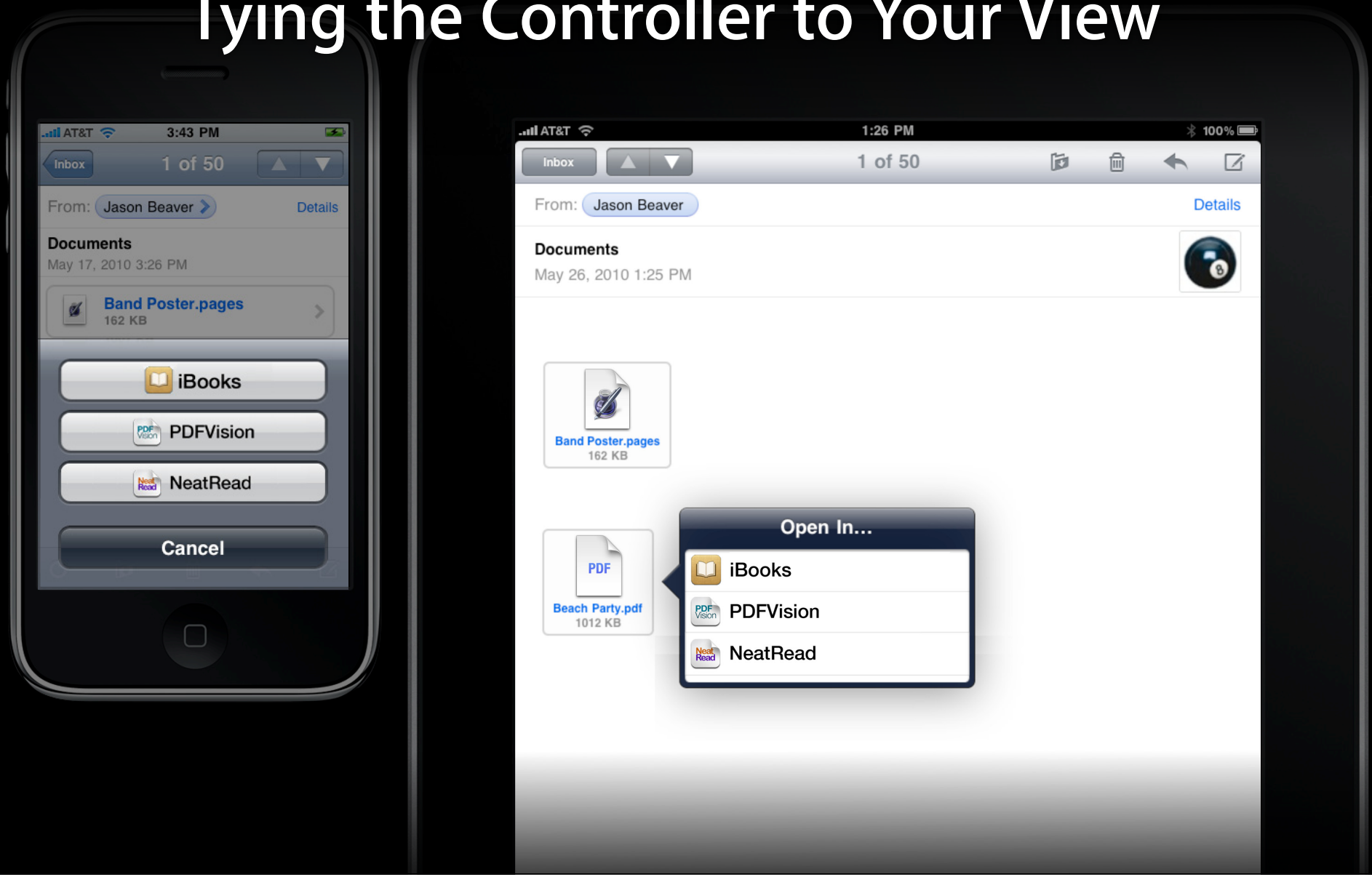


Tying the Controller to Your View

Tying the Controller to Your View



Tying the Controller to Your View



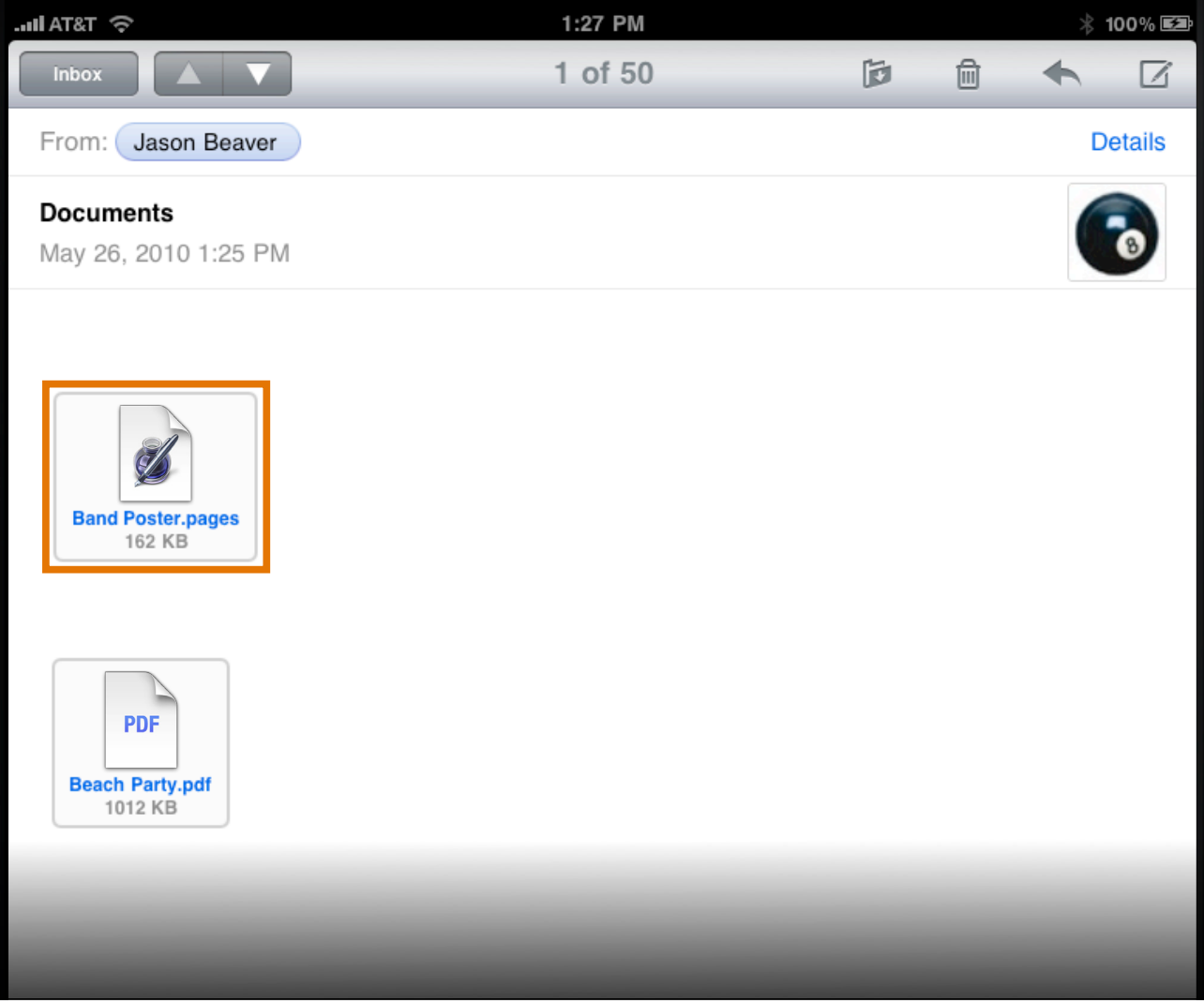
Adding Support for QuickLook

```
id<UIDocumentInteractionControllerDelegate> delegate
```

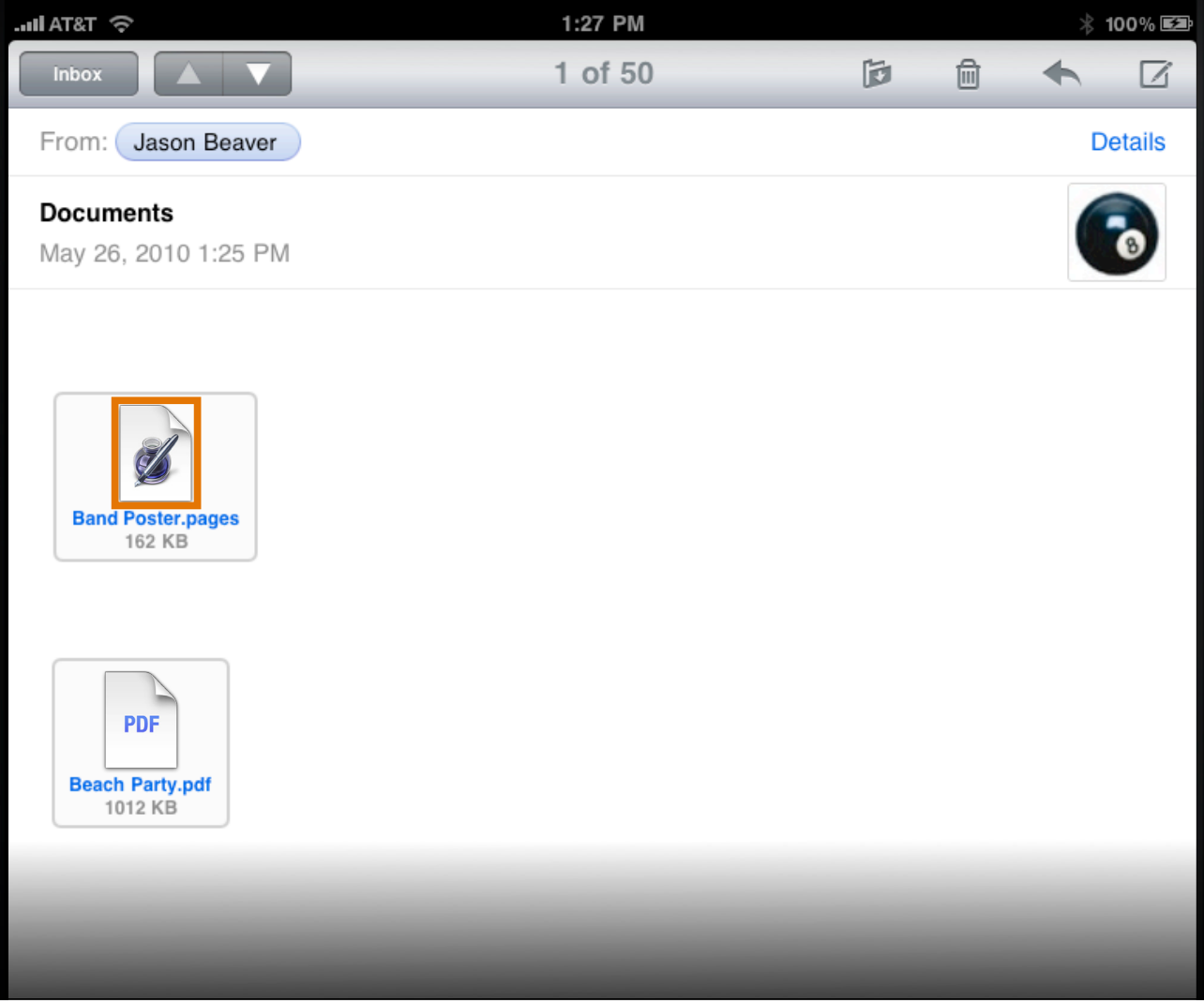
UIDocumentInteractionControllerDelegate Protocol

```
documentInteractionControllerViewControllerForPreview:
documentInteractionControllerViewForPreview:
documentInteractionControllerRectForPreview:
```

Adding Support for QuickLook



Adding Support for QuickLook



Delegate Notifications

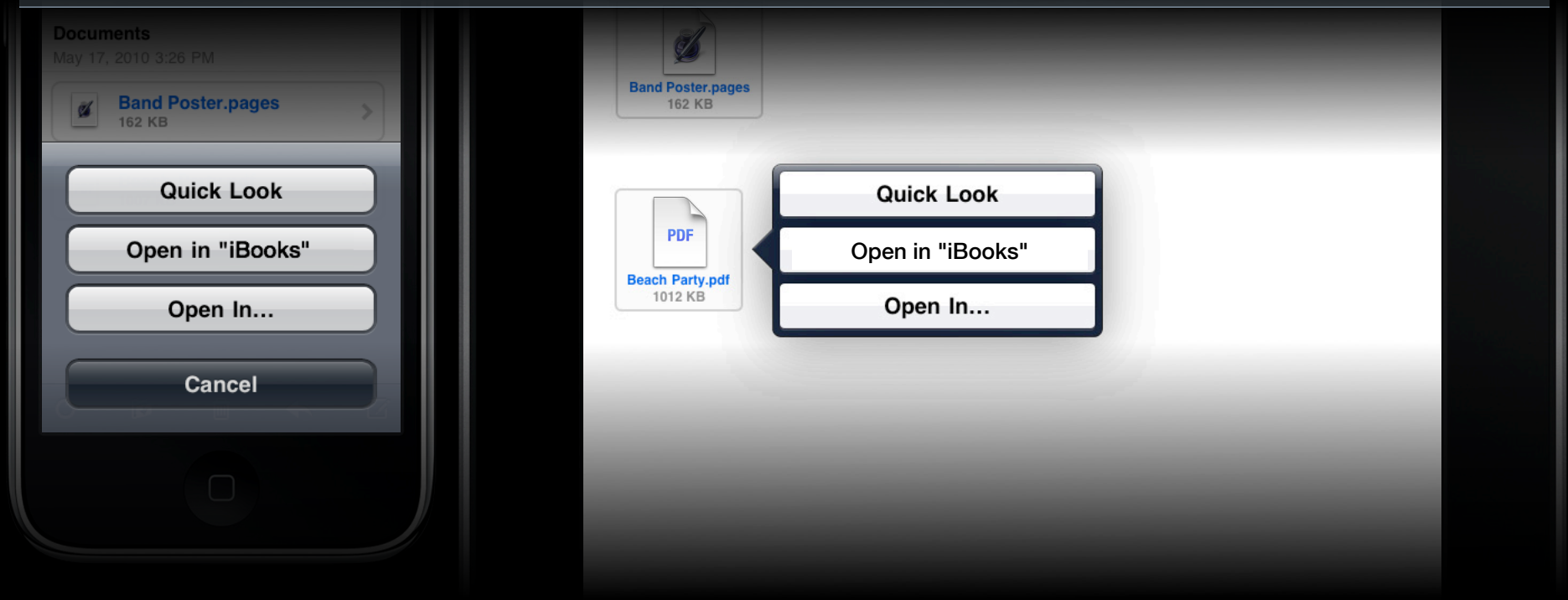
UIDocumentInteractionControllerDelegate Protocol

```
documentInteractionControllerWillBeginPreview:
documentInteractionControllerDidEndPreview:
```

Delegate Notifications

UIDocumentInteractionControllerDelegate Protocol

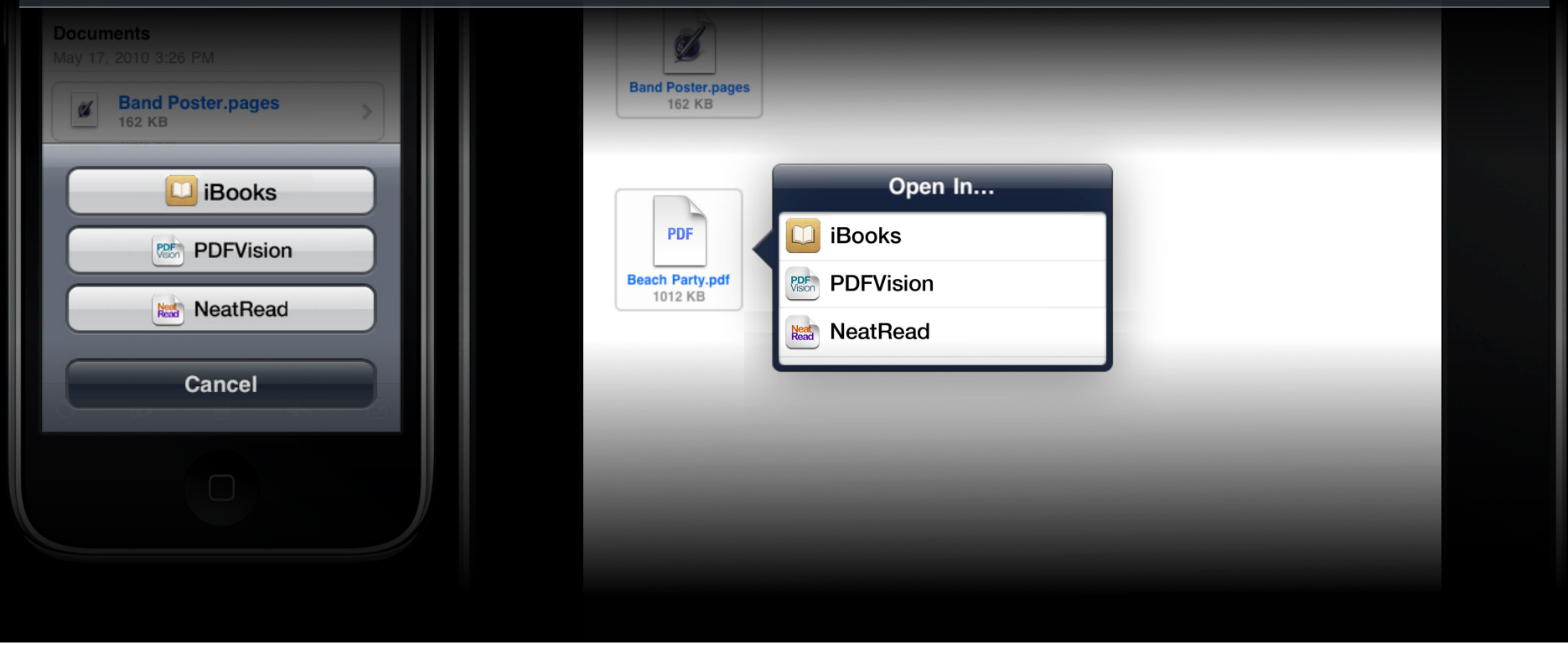
```
documentInteractionControllerWillPresentOptionsMenu:
documentInteractionControllerDidDismissOptionsMenu:
```



Delegate Notifications

UIDocumentInteractionControllerDelegate Protocol

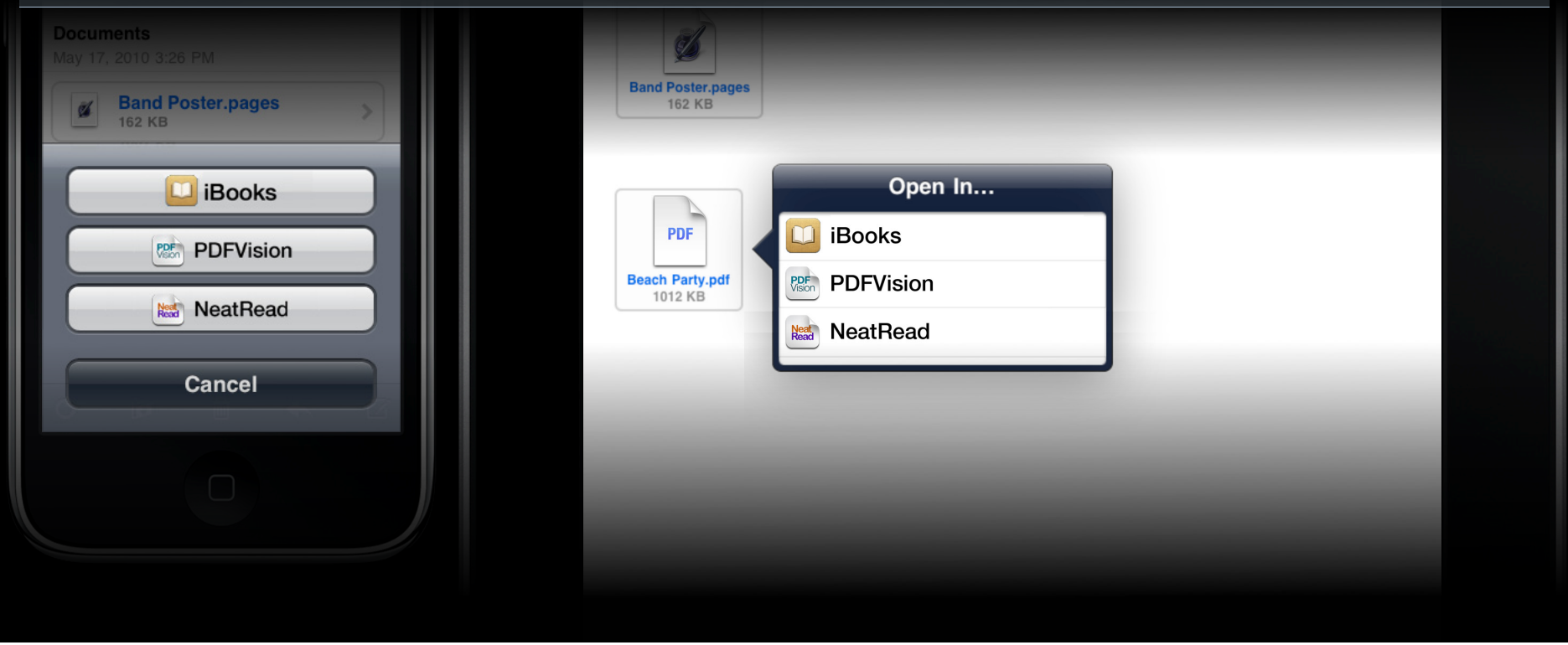
```
documentInteractionControllerWillPresentOpenInMenu:
documentInteractionControllerDidDismissOpenInMenu:
```



Delegate Notifications

UIDocumentInteractionControllerDelegate Protocol

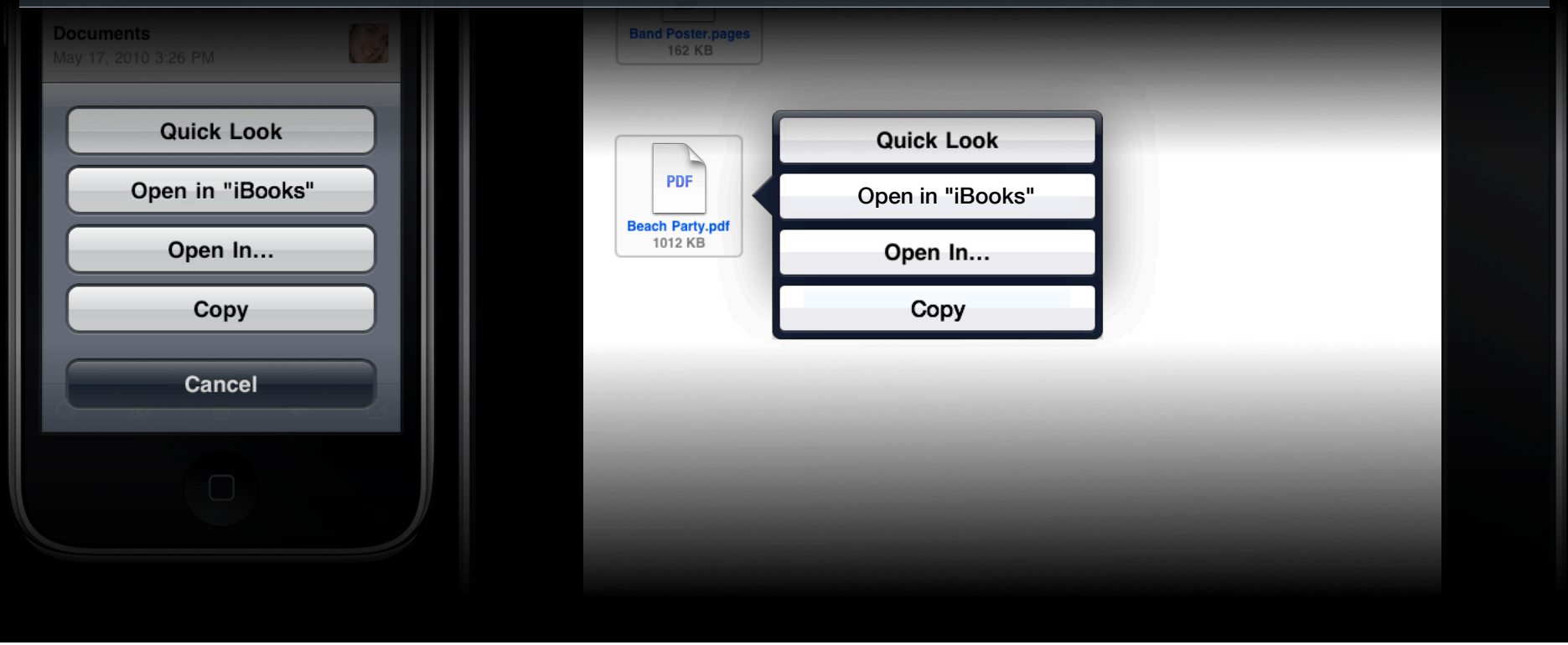
```
documentInteractionController: willBeginSendingToApplication:
documentInteractionController: didEndSendingToApplication:
```



Delegate Actions

UIDocumentInteractionControllerDelegate Protocol

```
documentInteractionController: canPerformAction:
documentInteractionController: performAction:
```



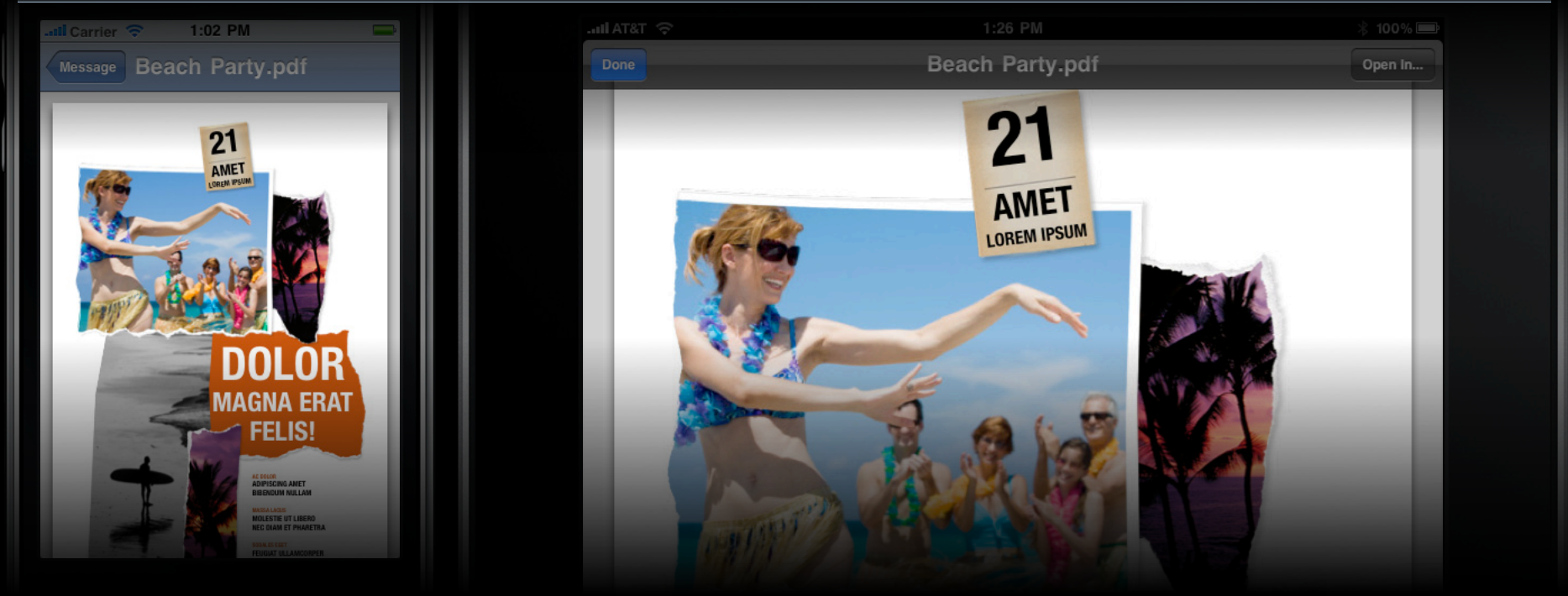
Demo

Luke the Hiesterman
iPhone Frameworks Engineer

Directly Controlling UIDocumentInteractionController

Presenting Preview

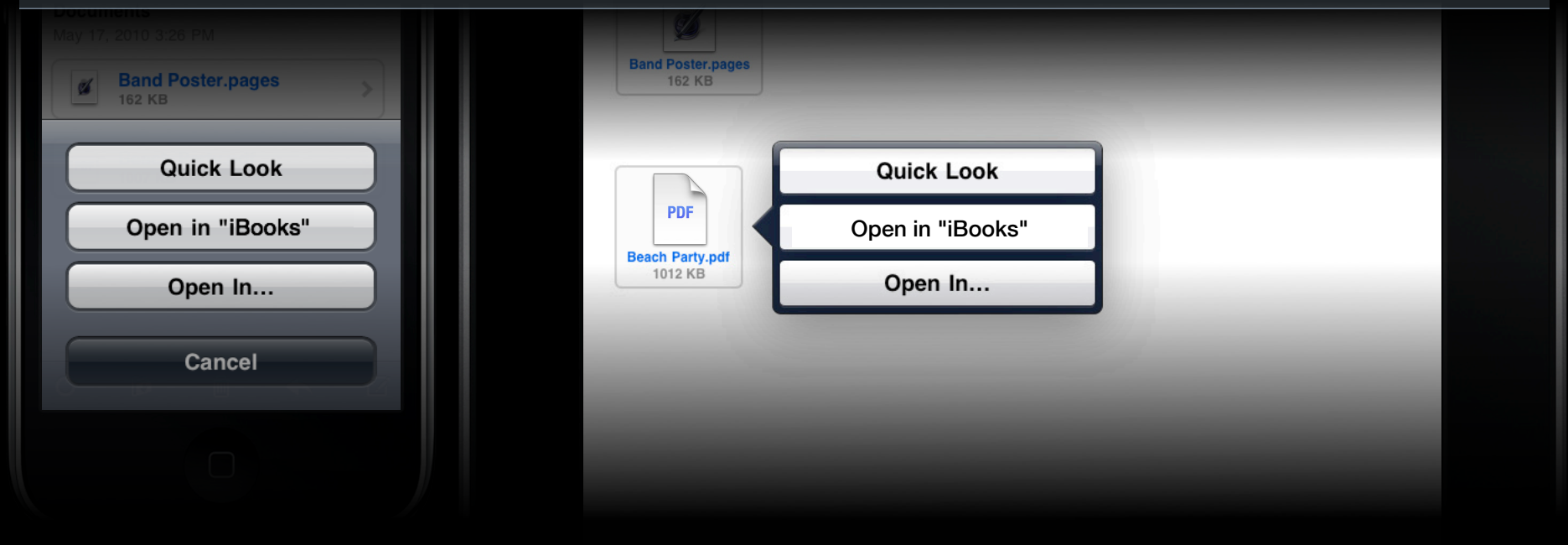
```
presentPreviewAnimated:

dismissPreviewAnimated:
```



Directly Controlling UIDocumentInteractionController

Presenting Options Menu

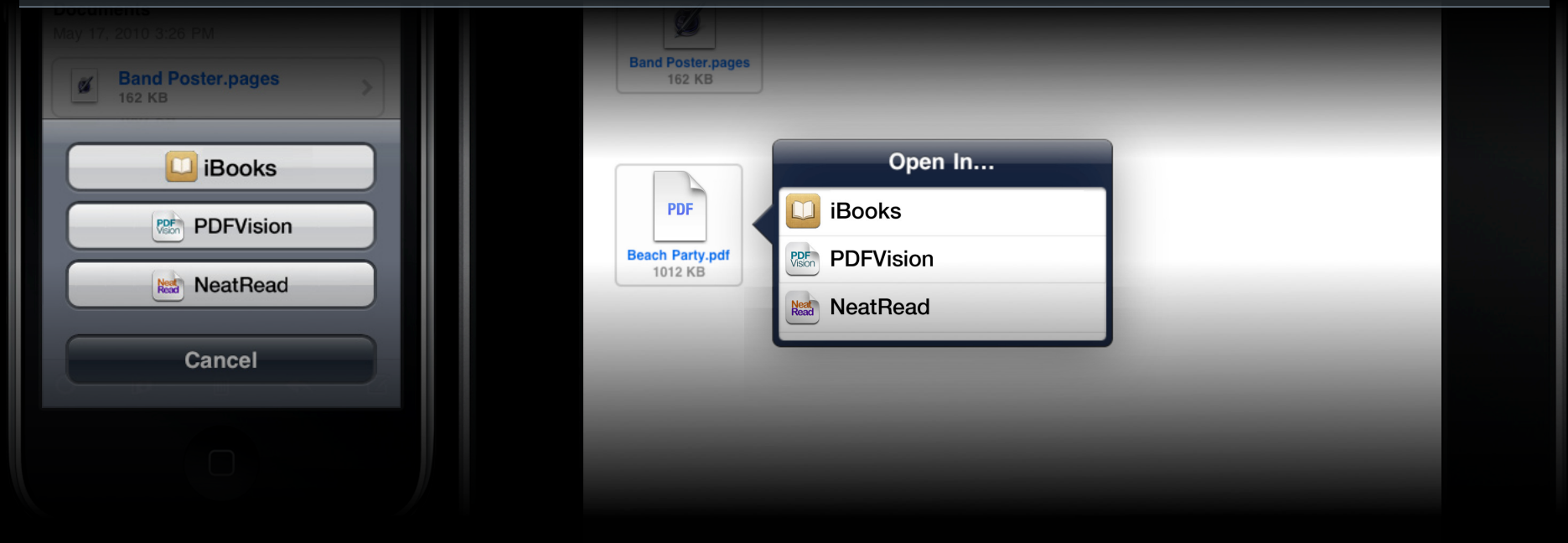
```
presentOptionsMenuFromRect: inView: animated:
presentOptionsMenuFromBarButtonItem: animated:
dismissMenuAnimated:
```



Directly Controlling UIDocumentInteractionController

Presenting Open In Menu

```
presentOpenInMenuFromRect: inView: animated:
presentOpenInMenuFromBarButtonItem: animated:
dismissMenuAnimated:
```



Demo

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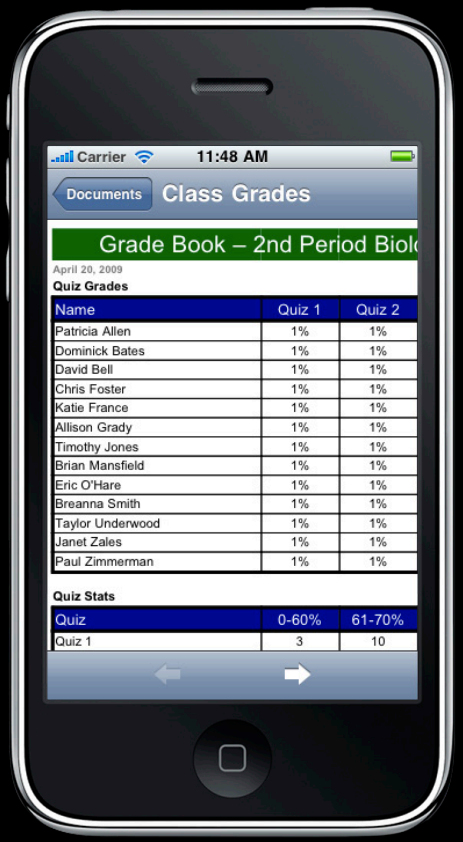
iPhone Frameworks Engineer

Quick Look Framework

Quick Look Framework

A dedicated view controller to preview documents

- Displays common document types
  - PDF, HTML, RTF
  - Text (plain, csv, xml, diff, ...)
  - Images
  - Contacts, Events
  - Apple iWork (Pages, Numbers, Keynote)
  - Microsoft Office (Word, Excel, Powerpoint)
- API similar to Quick Look on the desktop



Quick Look Framework

Getting started with the preview controller

- Creation

```
#import <QuickLook/QuickLook.h>
QLPreviewController *controller = [[QLPreviewController alloc] init];
```

- Presentation

```
presentModalViewController: animated:
```

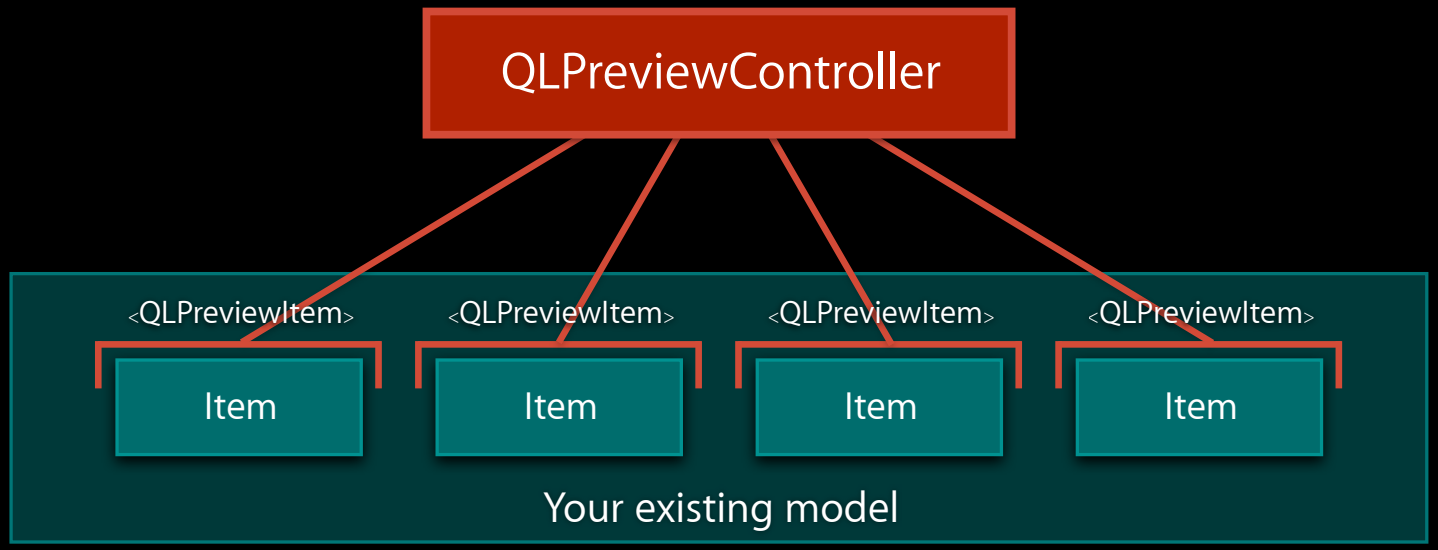
```
pushViewController: animated:
```

Quick Look Framework

Providing contents

- Datasource methods

```
numberOfPreviewItemsInPreviewController:
previewController: previewItemAtIndex:
```



Quick Look Framework

QLPreviewItem Protocol

- Supply NSURLs or your own objects

```
@protocol QLPreviewItem <NSObject>
@property(readonly) NSURL *previewItemURL;
@property(readonly) NSString *previewItemTitle;
@end
```

Quick Look Framework

Delegate methods

```
previewControllerWillDismiss:
previewControllerDidDismiss:
previewController: shouldOpenURL: forPreviewItem:
```

Demo

Luke the Hiesterman
iPhone Frameworks Engineer

More Information

Bill Dudney
Application Frameworks Evangelist
dudney@apple.com

Documentation
UIDocumentInteractionController Class Reference
http://developer.apple.com/iphone/library/documentation/uikit/reference/UIDocumentInteractionController_class/Reference/Reference.html

Apple Developer Forums
http://devforums.apple.com

Related Sessions

Simplifying Touch Event Handling with Gesture Recognizers	Pacific Heights Wednesday 3:15PM
Advanced Gesture Recognition	Pacific Heights Wednesday 4:30PM

Labs

Document Interaction Controller Lab	Application Frameworks Lab D Wednesday 9:00AM

Summary

- Adding document support to your application is straightforward
- If you need to interact with documents, use the UIDocumentInteractionController

Q&A

WWDC10