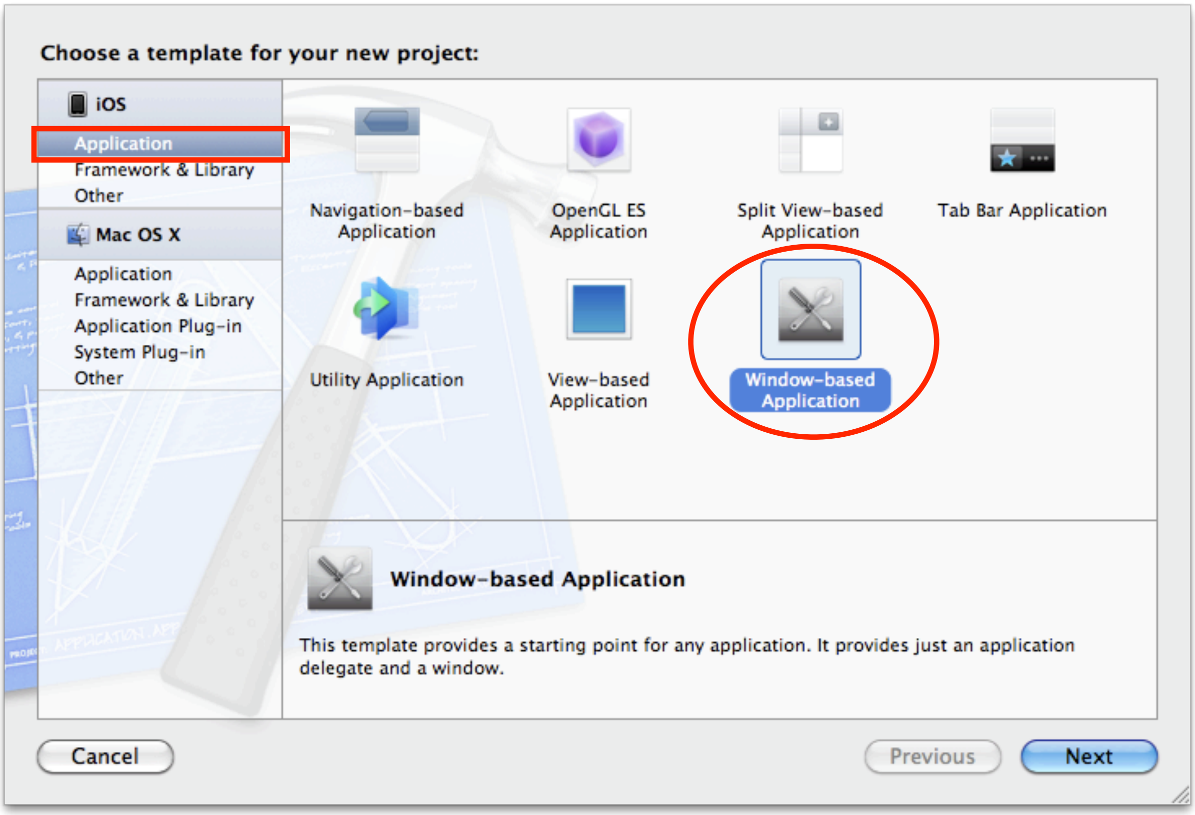
Lab PicScrollView

Step 1. 在File>New>New Project開啓一個新的專案, 在iOS的Application目錄裡面選擇Window-based application

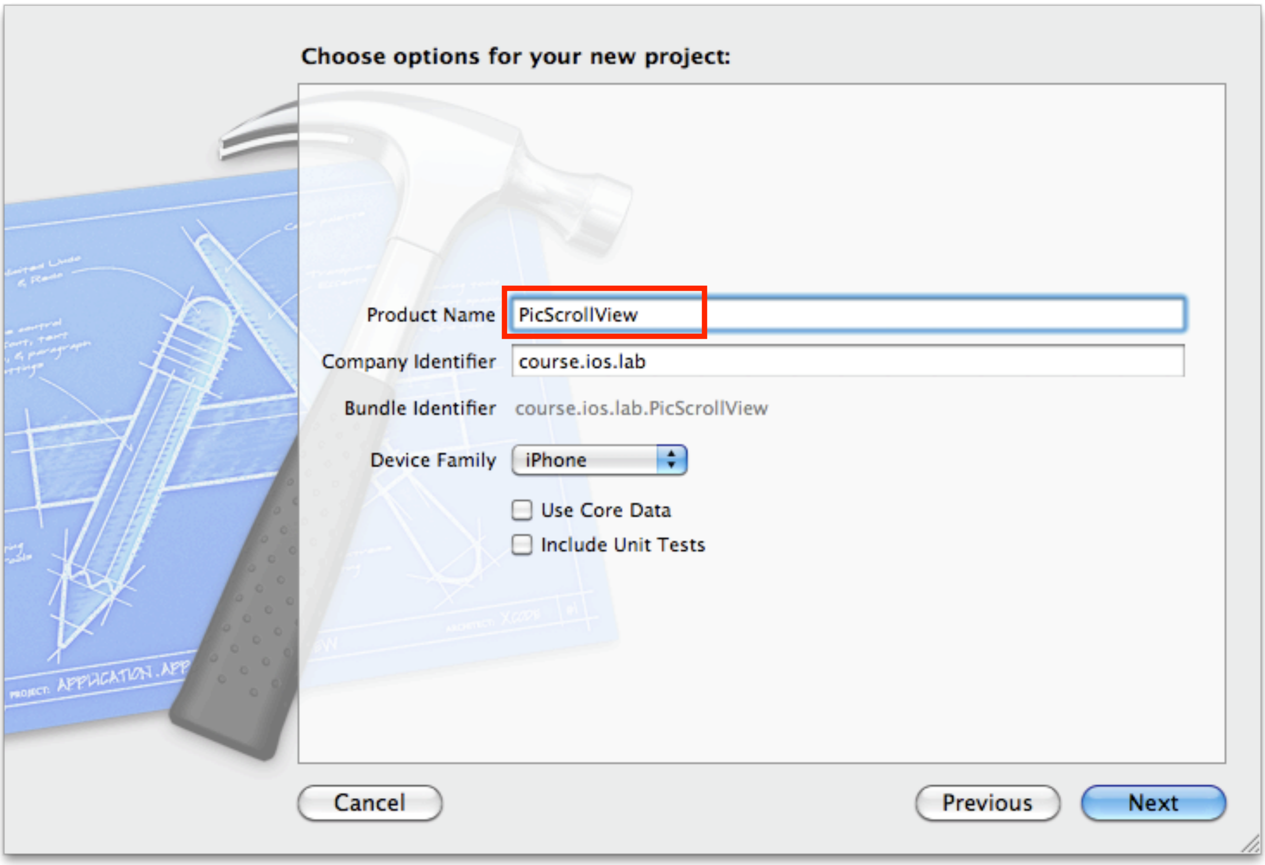


Choose a template for your new project:

Window-based Application

This template provides a starting point for any application. It provides just an application delegate and a window.

將project取名為 **PicScrollView**



Choose options for your new project:

Product Name: PicScrollView

Company Identifier: course.ios.lab

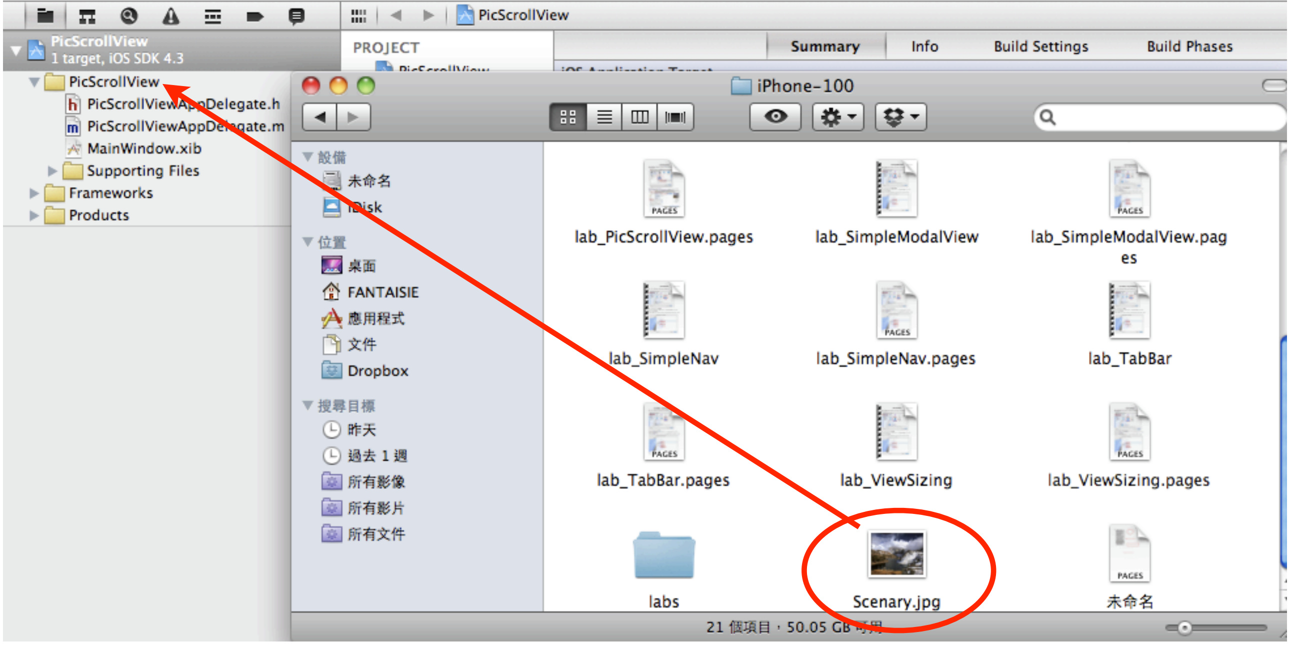
Bundle Identifier: course.ios.lab.PicScrollView

Device Family: iPhone

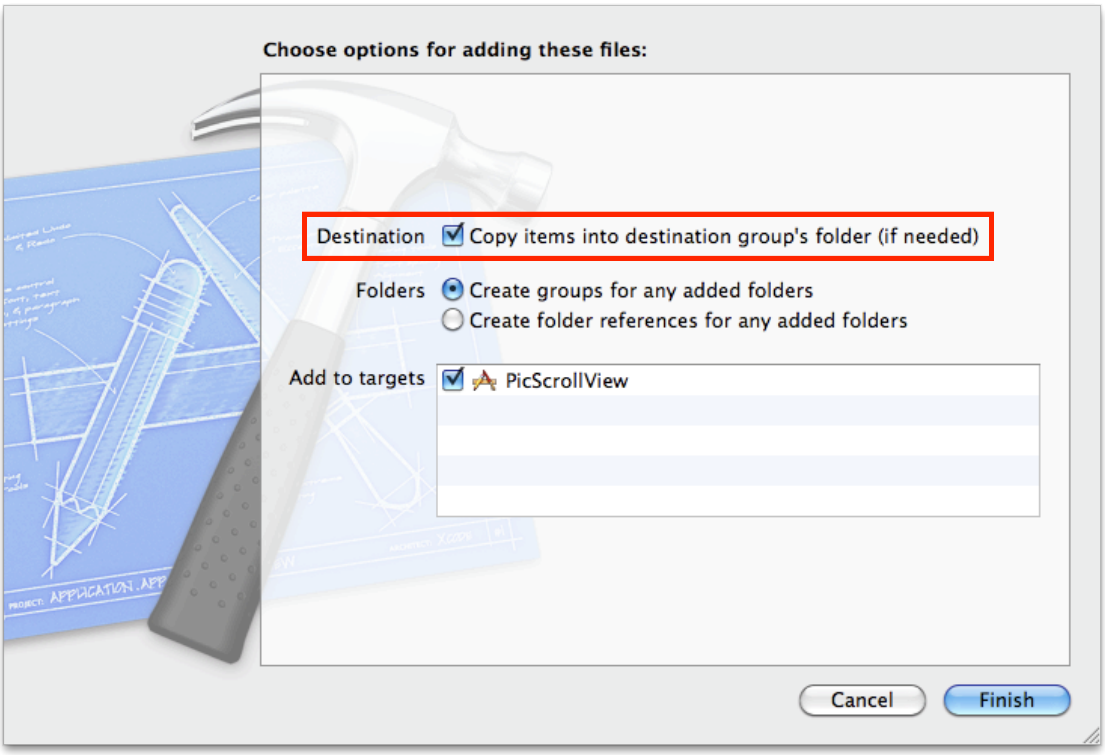
□ Use Core Data

□ Include Unit Tests

Step 2. 隨意找尋一張size大於iPhone `[UIScreen mainScreen].applicationFrame.size = ` 320x480 的圖片並加入我們的Project, 在這我將我們的圖片為 **Scenary.jpg**



記得勾選 Copy items into destination group’s folder, Scenary.jpg 就出現在我們專案裡了

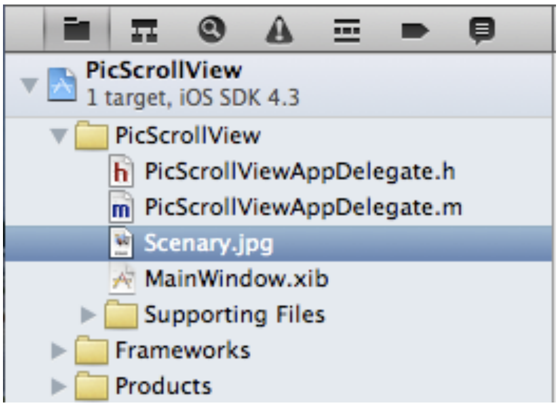


Choose options for adding these files:

Destination ☑ Copy items into destination group's folder (if needed)

Folders ● Create groups for any added folders
○ Create folder references for any added folders

Add to targets ☑ PicScrollView



Step 3. 在 PicScrollViewAppDelegate.h 裡加入 **<UIScrollViewDelegate>** 來遵循 UIScrollViewDelegate 這個 protocol , 並宣告一些我們會使用到的物件

```
#import <UIKit/UIKit.h>

@interface PicScrollViewAppDelegate : NSObject <UIApplicationDelegate,
UIScrollViewDelegate> {

    UIScrollView *myScrollView;
    UIView *myContentView;
    UIImageView *myImageView;
    UIImage *myImage;

}

@property (nonatomic, retain) IBOutlet UIWindow *window;

@end
```

Step 4. 在 PicScrollViewAppDelegate.m 裡的

```
- (BOOL)application:(UIApplication *)application
didFinishLaunchingWithOptions:(NSDictionary *)launchOptions{}
```

實作我們的myScrollView, 判斷Scale的 myContentView, 以及作為圖像顯示的 myImageView

注意: 程式碼裡面myImage = [UIImage imageNamed:@"Scenary.jpg"];裡的 Scenary.jpg 要寫入你自己剛加入專案的圖片檔名稱

```
- (BOOL)application:(UIApplication *)application
didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
{
    // Override point for customization after application launch.

    myScrollView = [[UIScrollView alloc] initWithFrame:[UIScreen
mainScreen].applicationFrame];
    myScrollView.backgroundColor = [UIColor blackColor];
    myScrollView.delegate = self;
    myScrollView.bouncesZoom = YES;

    myImage = [UIImage imageNamed:@"Scenary.jpg"];
    CGRect myFrame = CGRectMake(0, 0, myImage.size.width,
myImage.size.height);
    myImageView = [[UIImageView alloc] initWithFrame:myFrame];
    myImageView.image = myImage;

    myContentView = [[UIView alloc] initWithFrame:CGRectMake(0, 0,
myImage.size.width, myImage.size.height)];
    myScrollView.contentSize = myContentView.frame.size;
    myScrollView.minimumZoomScale = myScrollView.frame.size.width /
myImage.size.width;
    myScrollView.maximumZoomScale = 1.0;
    [myContentView addSubview:myImageView];
    [myScrollView addSubview:myContentView];
    [self.window addSubview:myScrollView];
    [myImageView release];
    [myContentView release];
    [myScrollView release];
```

```
    [self.window makeKeyAndVisible];
    return YES;
}
```

```
myScrollView = [[UIScrollView alloc] initWithFrame:[UIScreen
mainScreen].applicationFrame];
myScrollView.backgroundColor = [UIColor blackColor];
myScrollView.delegate = self;
myScrollView.bouncesZoom = YES;
```

我們開啓與mainScreen Frame同大小的ScrollView，將背景設為黑色，並委任<UIScrollViewDelegate> 這個protocol, 把Zooming時bounce設為YES

```
myImage = [UIImage imageNamed:@"Scenary.jpg"];
    CGRect myFrame = CGRectMake(0, 0, myImage.size.width,
myImage.size.height);
myImageView = [[UIImageView alloc] initWithFrame:myFrame];
myImageView.image = myImage;
```

這邊是加入我們的圖檔成為一個ImageView

```
myContentView = [[UIView alloc] initWithFrame:
    CGRectMake(0, 0, myImage.size.width, myImage.size.height)];
myScrollView.contentSize = myContentView.frame.size;
myScrollView.minimumZoomScale = myScrollView.frame.size.width /
myImage.size.width;
myScrollView.maximumZoomScale = 1.0;
```

這邊是把每次Zooming後更新的Scale的View作初始化

然後把更新的myContentView給ScrollView，並設定Zooming最小Fit ScrollView的大小，最大顯示原圖的大小

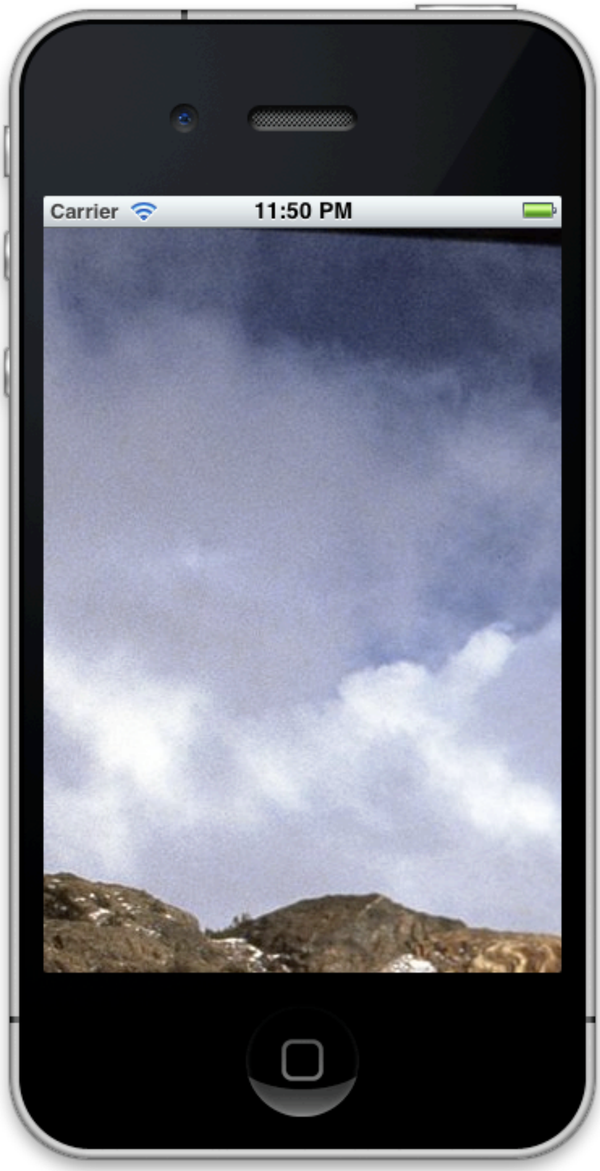
```
[myContentView addSubview:myImageView];
[myScrollView addSubview:myContentView];
[self.window addSubview:myScrollView];
[myImageView release];
[myContentView release];
[myScrollView release];
```

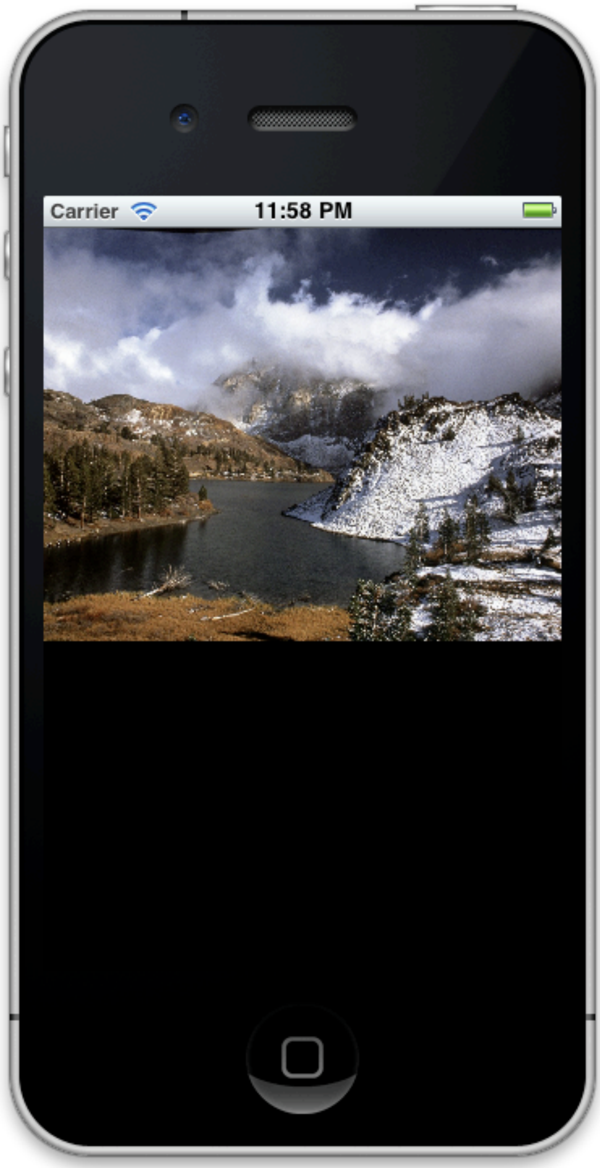
最後作addSubView和release的動作,避免Memory Leak

Step 5. 同樣在 PicScrollViewAppDelegate.m 裡加入viewForZoomingInScrollview去知道View的Scaling

```
-(UIView *)viewForZoomingInScrollView:(UIScrollView *)myScrollView
{
    return myContentView;
}
```

Step 6. Run (⌘+R)
原來預設是顯示原圖大小
可拖拉到圖片各個位置
使用 option(alt) + 滑鼠左鍵 可相當於兩點觸碰
最後可 Fit the main screen


Carrier
11:50 PM


Carrier
11:58 PM