

In this tutorial we are going to create images that scroll in an application.

Step 1: Open Xcode and create a new project using the Single View Application template. Name the application **ScrollView**. Use the Automatic Reference Counting option. Don't use the storyboard option.

Step 2: Double click on **ViewController.xib** to open. Drag a **ScrollView** from the library and place it to the View window.

Step 3: Click on the **tuxedo** icon to open ViewController.h. Control + Drag the **ScrollView** to the ViewController.h interface to wire the connection. Call the connection **myScroll**. The following will be added to ViewController.h.

```
@property (weak, nonatomic) IBOutlet UIScrollView *myScroll;
```

Step 4: Change the view to ViewController.m and add the @synthesize for myScroll between the @implementation and @end. The finished source code looks like this:

```
@synthesize myScroll;
```

Step 5: In ViewController.m make the following changes:

REMOVE the original **ViewDidLoad** method.

Copy the following code in its place between the @implementation and the @end.

```
const CGFloat kScrollObjHeight = 600.0;
const CGFloat kScrollObjWidth = 600.0;
const NSUInteger kNumImages = 5;

- (void)layoutScrollImages
{
    UIImageView *view = nil;
    NSArray *subviews = [myScroll subviews];
    // reposition all image subviews in a horizontal serial fashion
    CGFloat curXLoc = 0;
    for (view in subviews)
```

```

{
    if ([view isKindOfClass:[UIImageView class]] && view.tag > 0)
    {
        CGRect frame = view.frame;
        frame.origin = CGPointMake(curXLoc, 0);
        view.frame = frame;
        curXLoc += (kScrollObjWidth);
    }
}

// set the content size so it can be scrollable
[myScroll setContentSize:CGSizeMake((kNumImages *
kScrollObjWidth), [myScroll bounds].size.height)];
}

- (void)viewDidLoad
{
    self.view.backgroundColor = [UIColor
viewFlipsideBackgroundColor];
    [myScroll setBackgroundColor:[UIColor blackColor]];
    [myScroll setCanCancelContentTouches:NO];
    myScroll.indicatorStyle = UIScrollViewIndicatorStyleWhite;
    myScroll.clipsToBounds = YES;
    myScroll.scrollEnabled = YES;
    myScroll.pagingEnabled = YES;
    NSUInteger i;
    for (i = 1; i <= kNumImages; i++)
    {
        NSString *imageName = [NSString
stringWithFormat:@"img%d.jpg", i];
        UIImage *image = [UIImage imageNamed:imageName];
        UIImageView *imageView = [[UIImageView alloc]
initWithImage:image];
        CGRect rect = imageView.frame;
        rect.size.height = kScrollObjHeight;
        rect.size.width = kScrollObjWidth;
        imageView.frame = rect;
        imageView.tag = i;
        [myScroll addSubview:imageView];
    }
    [self layoutScrollImages];
}

```

Step 7: Copy 5 "img1.jpg, img2.jpg", etc. images to the project folder in Xcode. If you want to change the number of images then change `const NSUInteger kNumImages = 5;` to another value.

Step 8: Run your finished application!

Note: If you run the app without images the screen will appear black with a scroll bar but no images. You need to copy images into the project in order for them to show. Images should be labeled, img1.jpg, etc. If you don't have .jpg files then change the file extension in the source code to match what you have. The following image formats are supported:

- Tagged Image File Format (TIFF)
- Joint Photographic Experts Group (JPEG)
- Graphic Interchange Format (GIF)
- Portable Network Graphic (PNG)
- Windows Bitmap Format (DIB)
- Windows Icon Format (.ico)
- Windows Cursor (.cur)
- XWindow bitmap (.xbm)