Chris Mays

Code Analysis
Total Estimate: 16 hours

Warnings
1 hour
Risks Associated With Current Implementation: High

Warnings are not something to take lightly. Warnings are there for a reason and could indicate that something will not perform as expected. The first things that must be fixed in any project are the warnings that are displayed.

- Architecture Settings – Allow Xcode to automatically select architectures. Manually selecting architectures will potentially make it so that the project might not work on older or worse newer devices.
- fetchAirportData L:348 of NKViewController should not have a parameter of a BOOL pointer.
- fetchAirportData L:522 of NKViewController is using the wrong format specifier for logging the count of the matches array.
- fetchAirportData L:519 of NKViewController is passing an enum that is not of type NSRegularExpressionOptions

Storyboard
5 hours
Risks Associated With Current Implementation: High

This project should support universal storyboards. To do this I would use Main_iPhone.storyboard because that one already has the UI elements in it. The obvious next step would be to use auto layout to set up constraints for all of the UI elements in the storyboard. To do this I would need to move all UI elements added through code directly to the storyboard (the one I have in mind specifically is backgroundView). Moving everything to a universal storyboard will give us the perk of making this app fully adaptive and make it so that it works seamlessly (or nearly seamlessly) on new devices introduced.

Structure & Implementation

5 hours

Risks Associated With Current Implementation: Medium

MKViewController is doing the work of both a controller and multiple modals. I would separate all of the parsing from the controller and move it to a modal class. I would move everything interacting with CLLocationManager to it's own modal as well. Not doing this will make the application very difficult to scale. I would also remove all calls to NSLog because it hurts performance. If NSLog is important for analysis of what is going on then I would replace all calls to NSLog with a custom method that would only log when in debug mode.

Images

5 hours

Risks Associated With Current Implementation: Low

Several images in this project could easily be reused. This will reduce file size, references to image names, and complexity. This will also give a lot more control over what can be displayed (ex: Wind 30 degrees North or Wind 60 degrees South).

- Wind Direction Image Files (wind_east.png, wind_north.png, wind_northeast.png, wind_northwest.png, etc. …) can all be deleted. airport_dir_ring.png can be used for all directions by rotating the image.
- The airport cloud images (airport_cloud_1_quarter.png, airport_cloud_3_quarter.png, airport_cloud_full.png, etc…) can all be removed. All of these images can easily be drawn with Core Graphics.
- Background5@2x.png can be removed because it looks like it is not being used anywhere.

Finally I would add @3x images to support newer devices.