Danielle Forrest Research Week 3

This week I studied how to incorporate the pedometer app within the Unity SDK. One thing I learned was that Unity does not have direct native support, and requires access to native features through plugins. It is necessary to create a plugin and add it to the Unity project as an asset1. This means that the pedometer portion of our app, cannot simply be scripted and added to the interface as I previously hoped.

I have had numerous problems learning how to implement this seemingly simple addition to the project. One of the biggest problems I have had is trying to follow the tutorials, because they all start by changing the manifest file. I struggled to find a manifest file within Unity. Though I did eventually find the file, it turns out that Unity auto-generates its own manifest file for each project, and it cannot be manipulated without changing the file for all Unity builds2. It seems that I will have to import the manifest file into a plugins folder that I will create myself within the assets of out project2. Because of the problems I have faced with this feature, our team has decided to postpone further research until our advisor can give us more direction.

In addition to the pedometer, I also began doing tutorials for both Wikitude and Kudan in order to determine which SDK is best for implementing our main augmented reality feature. The Kudan tutorial, by a user called Hynra, is a location based app that uses SLAM technology to track the image for better alignment within the camera3. SLAM stands for simultaneous localization and mapping3. This technology creates a map of the space within the phone camera, and allows for better alignment and less jumping4. The tutorial was older than the current Unity updates, and I was not able to get the tutorial to compile. In addition to the Hynra tutorial, I also tried a Wikitude tutorial by Matthew Hallberg5. This tutorial was successful in compiling. However the location of the objects is relative to the user rather than being fixed in place as needed. In order to change this, the Wikitude forums claim the code for relative location can simply be switched for a geolocation and hard coded to a latitude and longitude coordinate6. I have not been successful in finding where the code is located to make the switch just yet. I am continuing to research this claim.

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