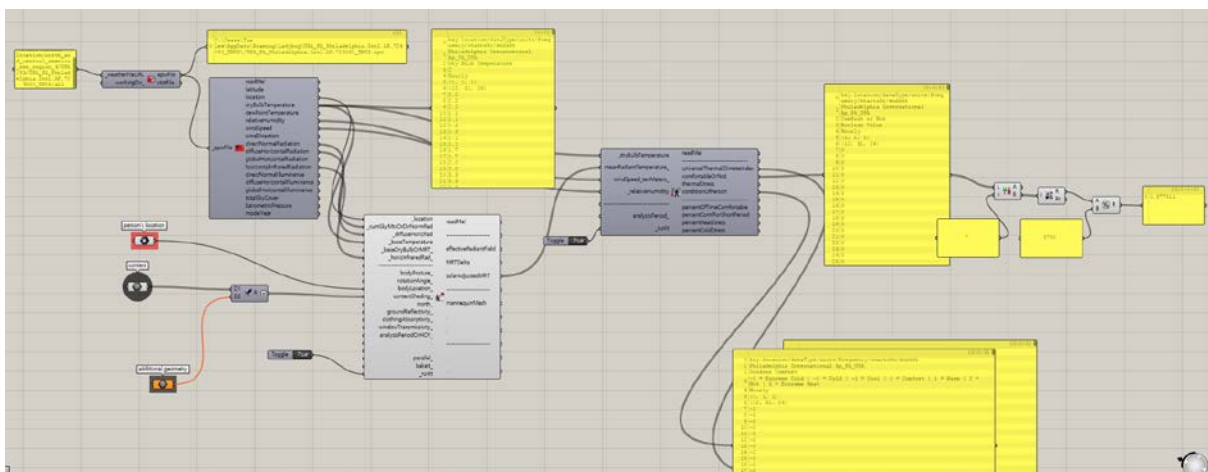
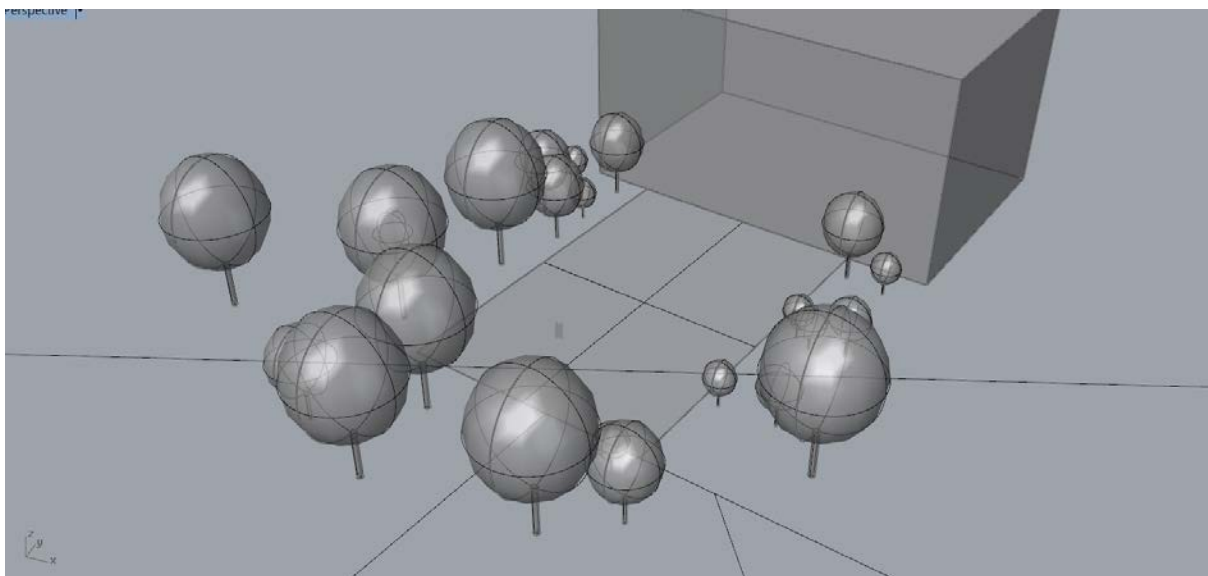


## Assignment 4. Outdoor comfort simulation

### Outdoor comfort simulation of Plaza in front of Van Pelt Library

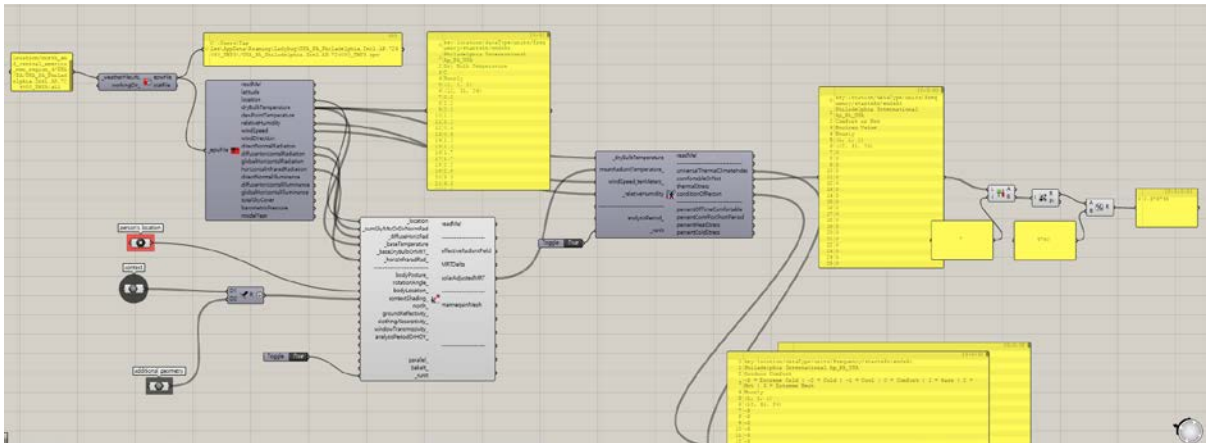
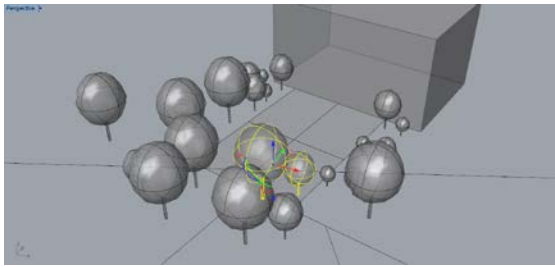
Tae Hyung Lee

#### Original State



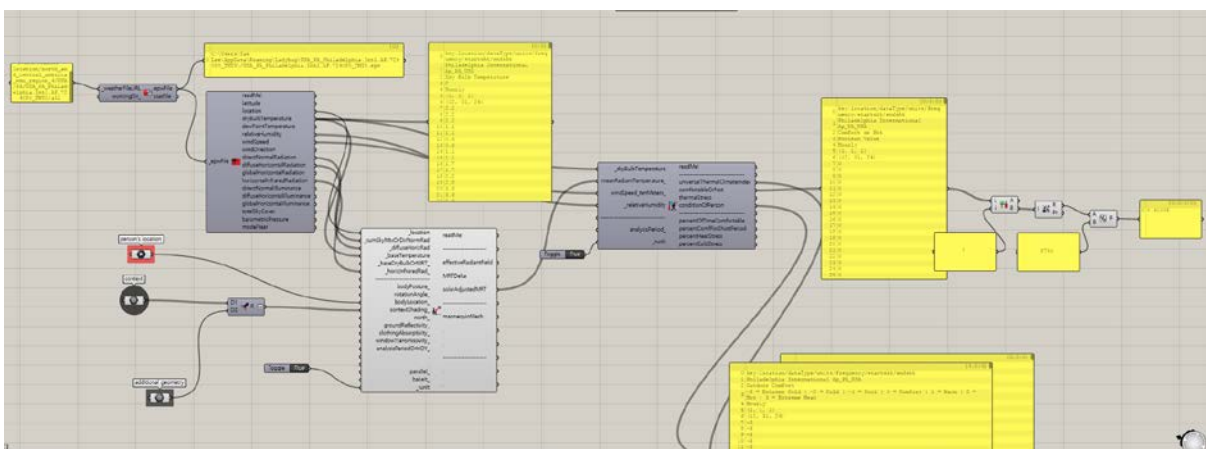
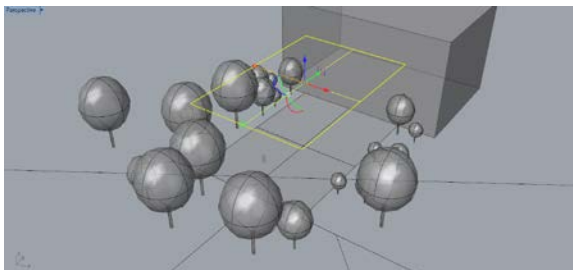
Result: 37.75% of comfortable hours during the year

## Alt 1. Additional Trees



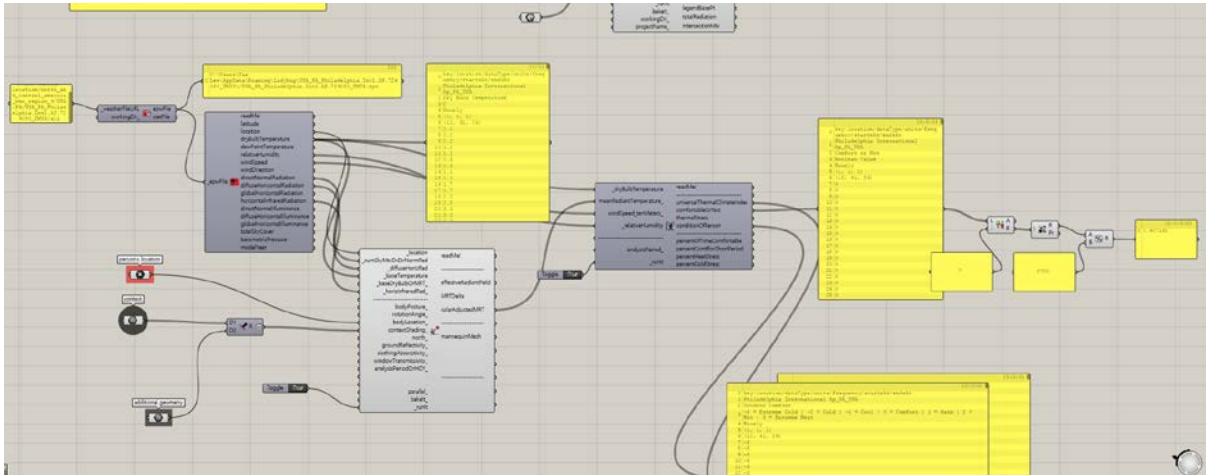
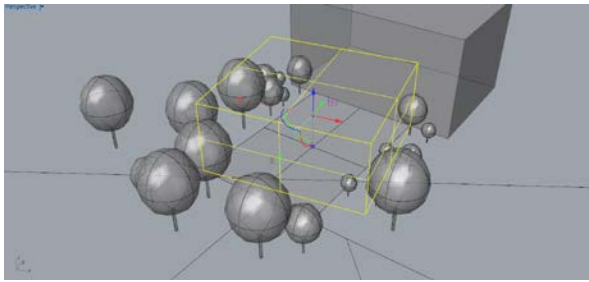
Result: 37.37% of comfortable hours during the year

## Alt 2. Shade on the site



Result: 41.02% of comfortable hours during the year

## Alt 2. Box on the site



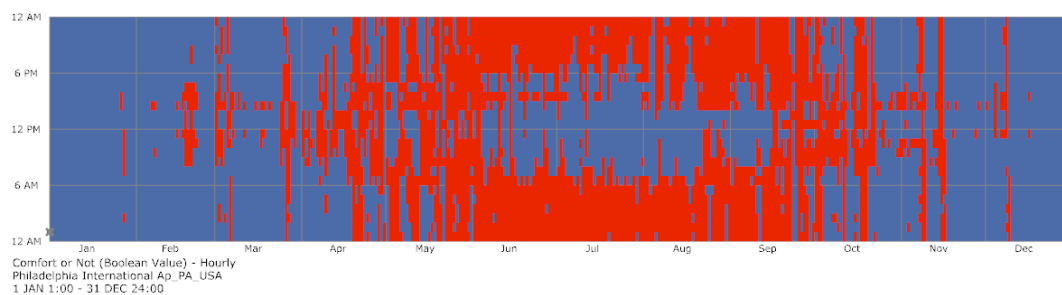
Result: 40.72% of comfortable hours during the year

## Can you achieve comfort for %100 of the time?

No. It is not possible as there are times when it is uncomfortably cold regardless of radiation, and there are times when it is uncomfortably hot regardless of shading.

## What is the highest possible percentage of comfortable hours that you can achieve with passive design strategies?

I guess it is around 45% in Philadelphia area.



Red: Comfortable, Blue: Uncomfortable