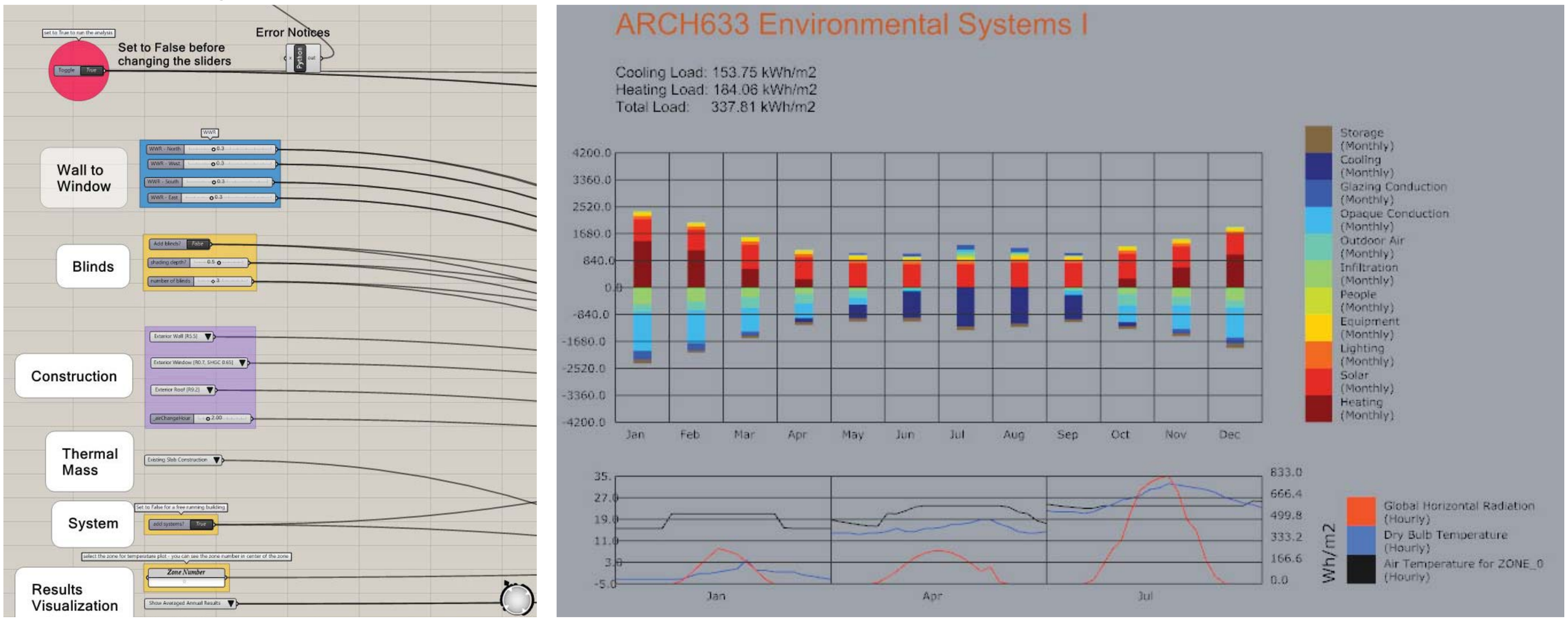
Katherine Lanski

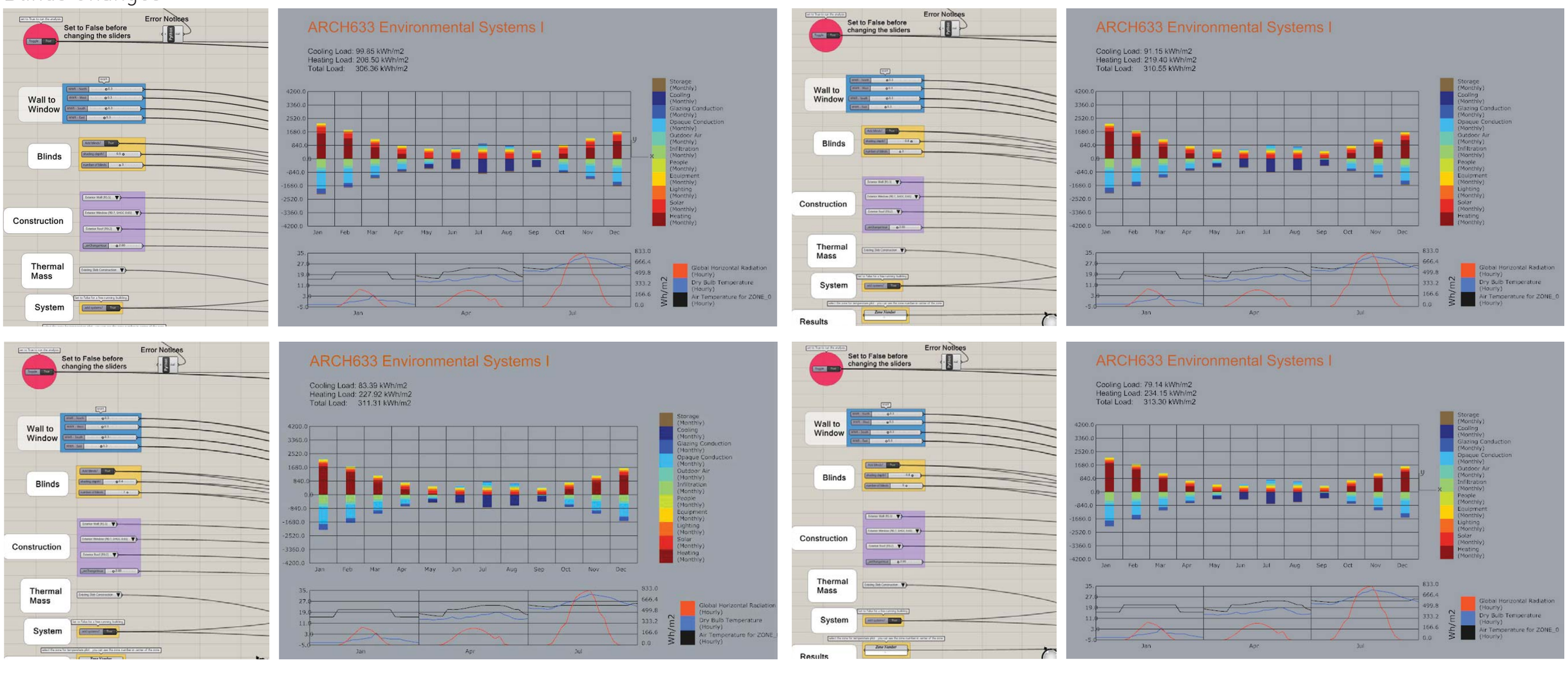
Energy Balance

Constants _ No Change

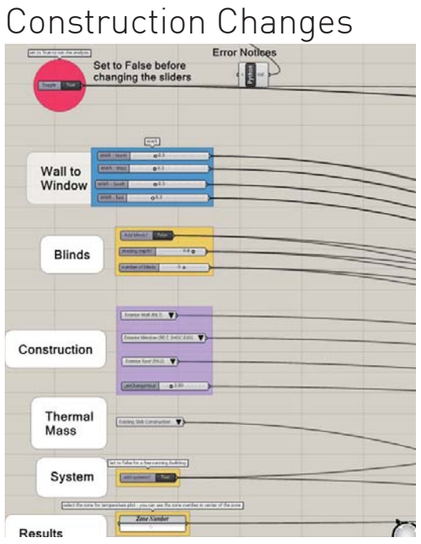


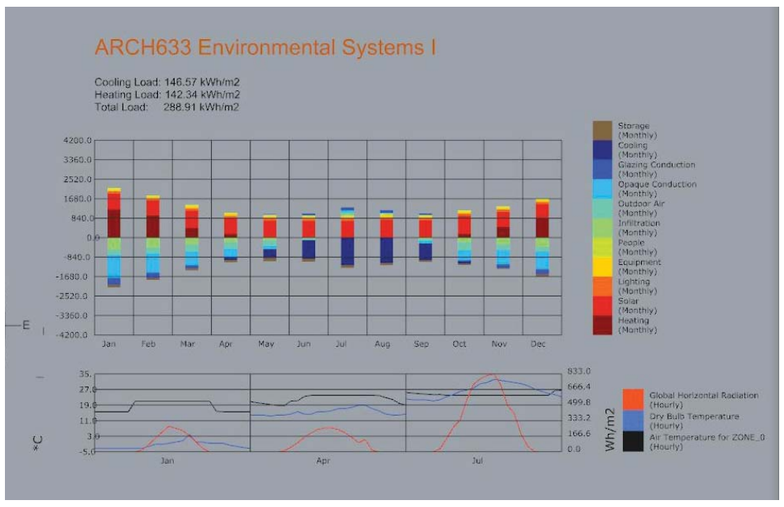
Window to Wall Ratio Changes

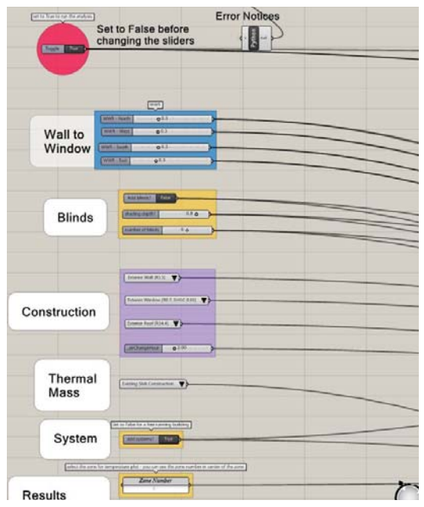
Blinds Changes

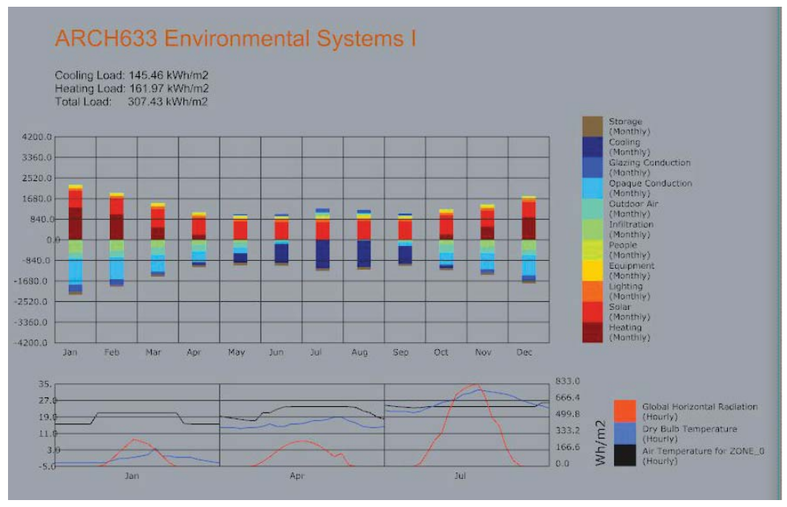


Construction Changes

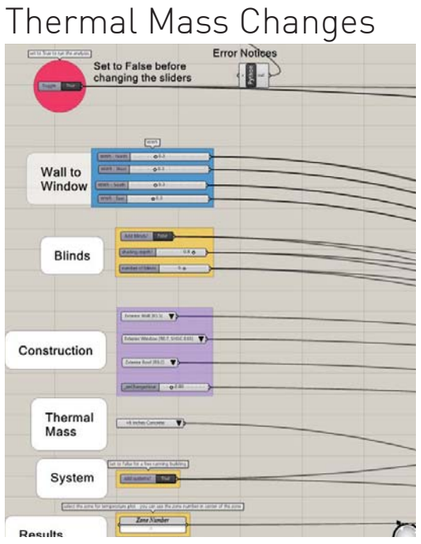


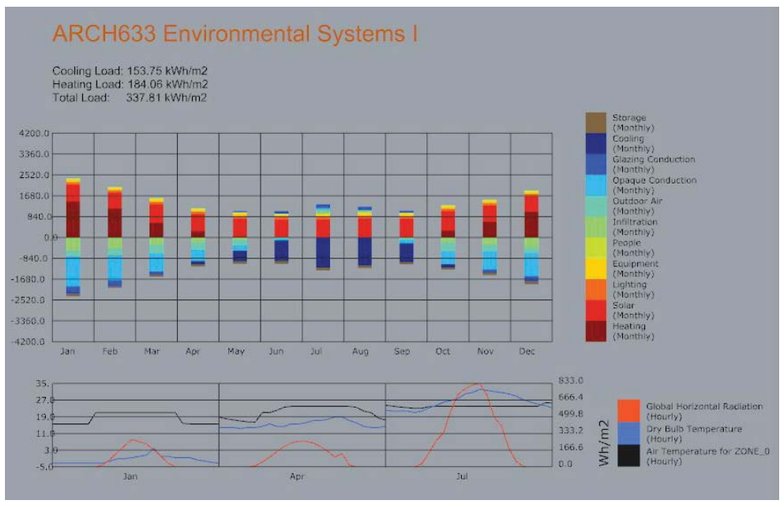




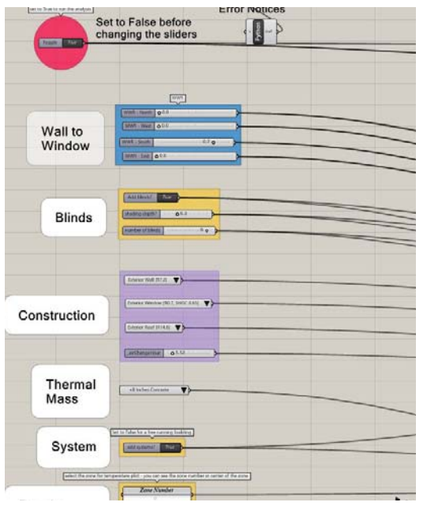


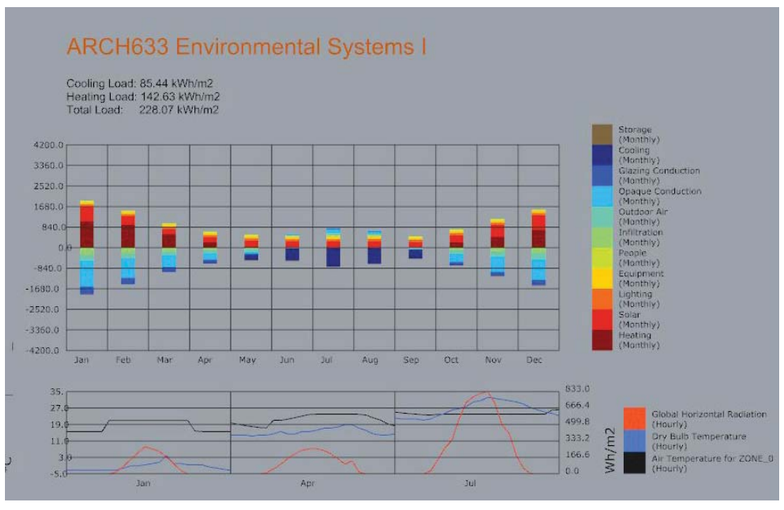
Thermal Mass Changes

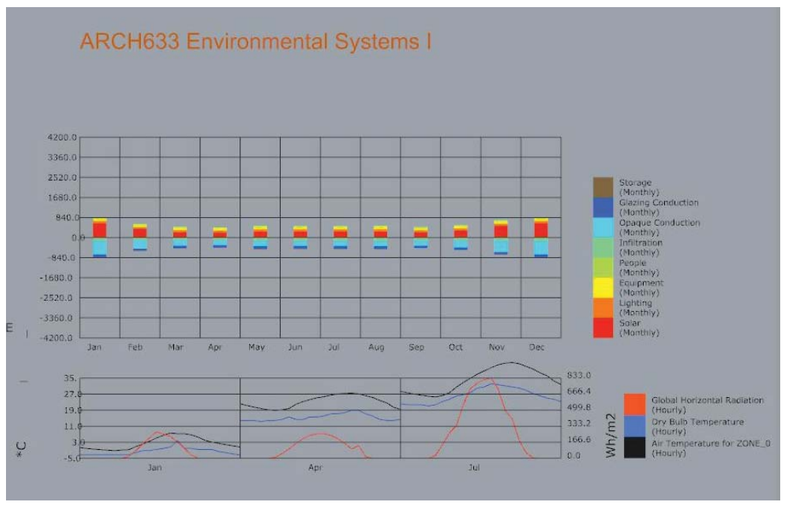




Conclusions







The largest changes to the total load could be found through:

- Decreasing amount of windows.
- Increasing either the thickness of the blinds or the number of blinds, not necessarily both.
- Increasing the R-Values of the exterior surfaces.
- Decreasing the air change per hour.

After using this database to transform the energy balance of the space, a total load of 228 kWh/m2 was found. When turning off the systems, it resulted in a more erratic air temperature. In the winter, the temperature would be between 0 C and 9 C, while in the summer it could reach between 25 C and 42 C.