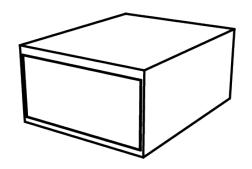
ENERGY MODEL FOR THE BEDROOM

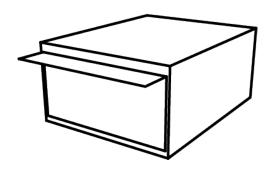
In this assignment, I added the construction and airflow to the energy model for my bedroom. I checked different plans for the bedroom. Originally, my bedroom has a window facing north, and in order to get enough day lighting, I enlarged my window in the previous assigments. This time, I tried to adjust the size of shade and add window on the south wall. According to my analysis, I found it would be most efficient for the comfortable ratio when my bedroom only has window on the northwall. But when I have windows on the south wall and have some proper shading, the energy belance would be more efficient.

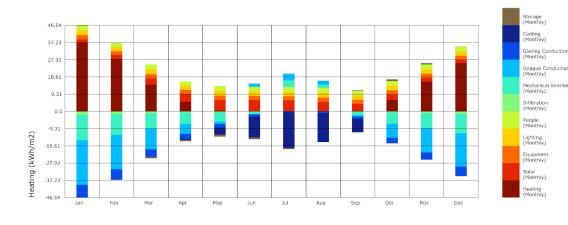
Window: North Shading: No shading Comfortable Ratio: 64.0%

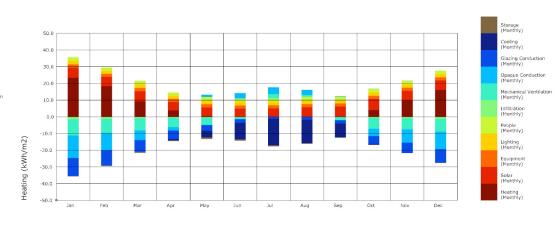


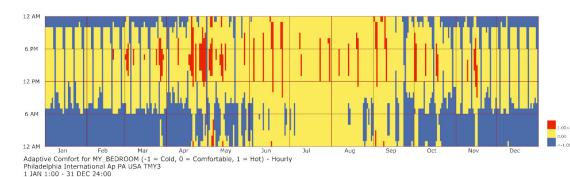
Window: North Shading: 0.6m

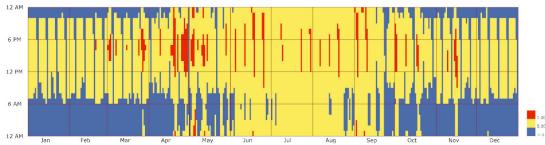
Comfortable Ratio: 64.3%







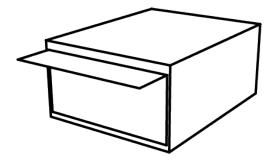


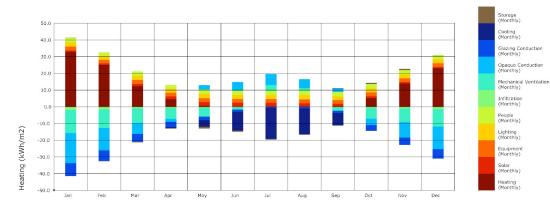


Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly Philadelphia International Ap PA USA TMY3 1 JAN 1:00 - 31 DEC 24:00

Window: North Shading: 1.6m

Comfortable Ratio: 54.5%

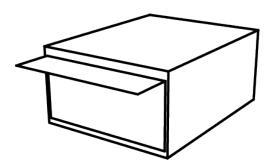


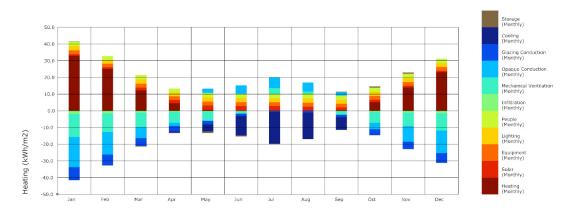


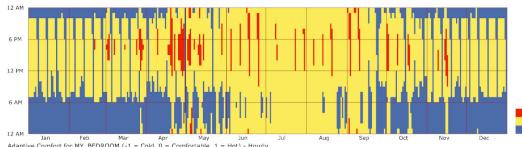
Window: North & South

Shading: North 1.6m & South No shading

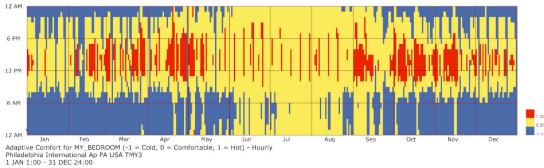
Comfortable Ratio: 57.3%







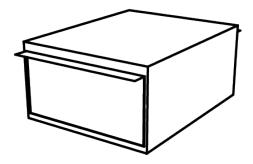
12 AM Jan Feb Mar Apr May Jun Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly Philadelphia International Ap PA USA TMY3 1 JAN 1:00 - 31 DEC 24:00

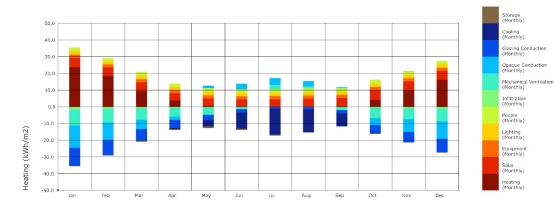


Window: North & South

Shading: North 0.6m & South 0.6m

Comfortable Ratio: 57.5%





Window: North & South

Shading: North North 1.6m & South 1.6m

Comfortable Ratio: 55.5%

