

Task 1

Provide a summary of the main concepts that went through about solar radiation (formulas are not needed)

Solar radiation, a type of electromagnetic waves which emitted by sun, is absorbed and scattered by atmospheric gases, clouds, and the Earth's surface when and after entering the Earth's atmosphere. The absorbed radiation is added directly to the heat budget; whereas the scattered radiation is partly returned to space and partly continues its path through the Earth-atmosphere system where it is subject to further scattering and absorption.

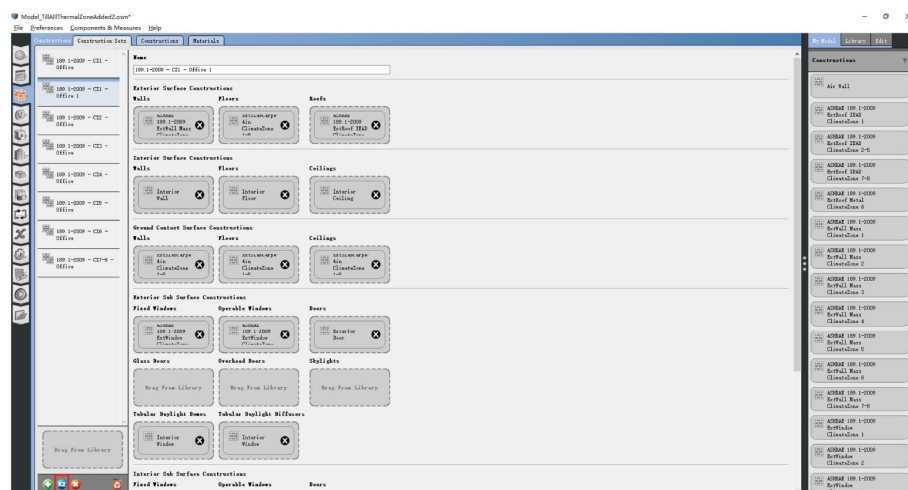
Different angle of the sun to the zenith will lead to different effect on the earth. When the sun directly overhead, the sun to the zenith crosses the minimum thickness of the atmosphere. When the sun at sunset or sunrise the sun with an elevated zenith angle crosses a large thickness of the atmosphere.

The solar radiation depends on:

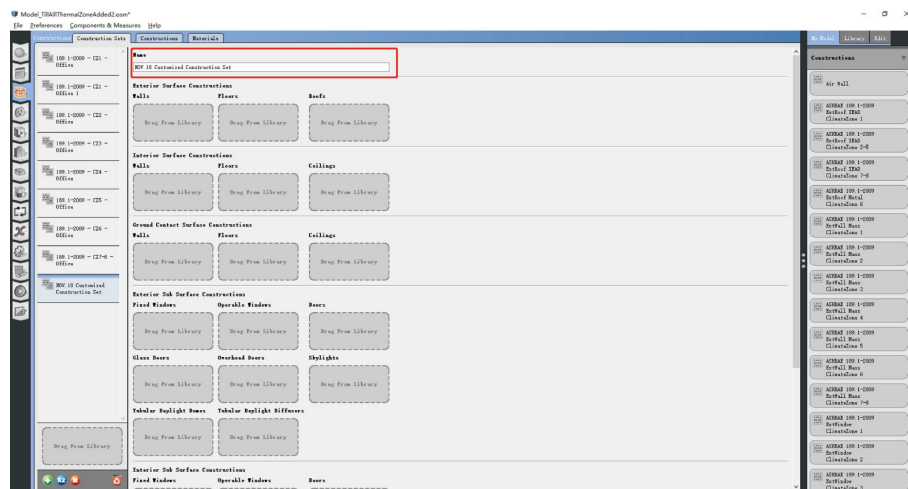
1. The sun position in the sky (altitude and azimuth angles), which changes daily and seasonally
2. The weather condition
3. The site altitude over the sea level
4. Sunshine hours

Task 2

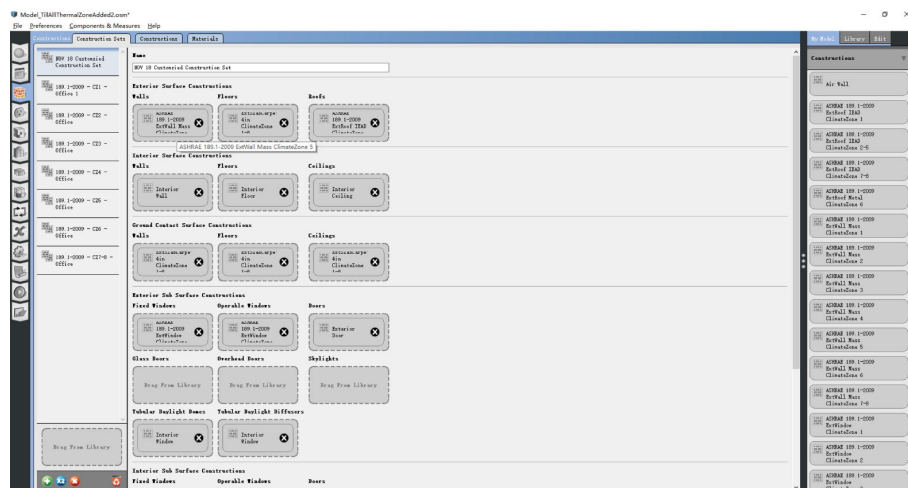
1. When we want to create a customized construction, we need to duplicate a construction and then do some changes on it.



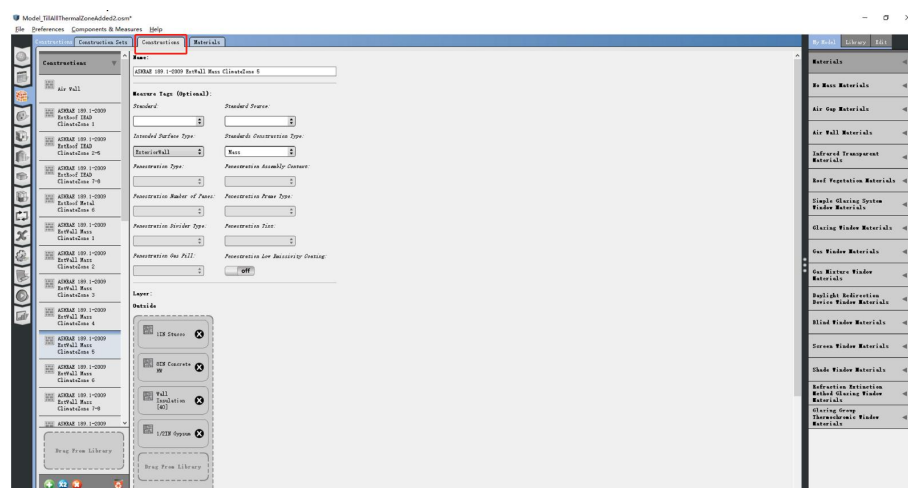
2. Rename the new layer

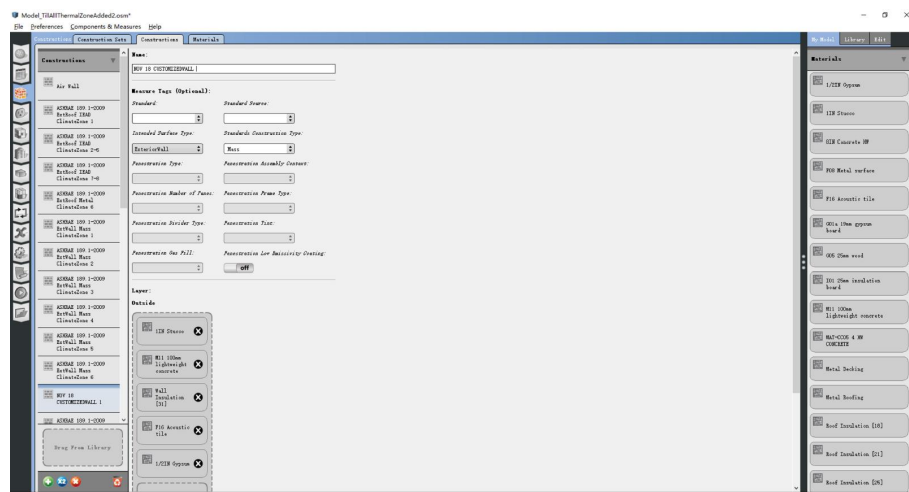


3. Change the material of ExtWall. Use new material from My Model.

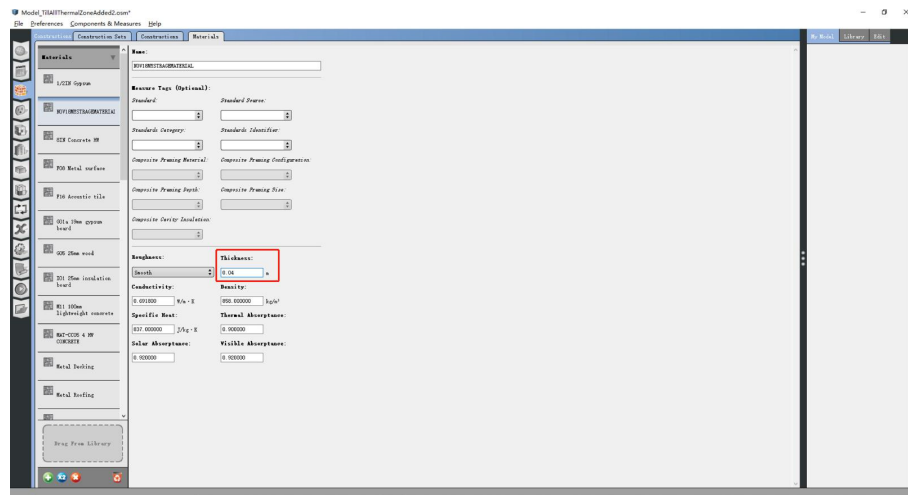


4. Go to the construction tab and duplicate the existing one, remove the existing material then modify it.



[illegible]

6. Change the thickness and other properties.



7. Use the new material in customized construction set.

