Task 1 Provide a summary of the main concepts that went through about solar radiation (formulas are not needed).

Solar radiation density:

Solar radiation refers to the outward transmission of energy by the sun in the form of electromagnetic wave, and refers to the electromagnetic wave and particle flow emitted by the sun to the space.

The energy transmitted by solar radiation is called solar radiant energy. Although the solar radiation energy received by the earth is only one part of the total radiation energy emitted by the sun into space, it is the main energy source of the earth's atmospheric movement and the main source of the earth's light and heat energy.

Solar radiation spectrum:

Solar radiation spectrum is a spectrum that describes the radiation capacity of light of various wavelengths of solar radiation. It is of great significance for the study of solar radiation. The sun is an electromagnetic radiation source with a temperature of about 5800K.

As its temperature is much higher than the general industrial temperature (below 2000K), the wavelength range and energy distribution of its radiation are also different from the general thermal radiation.

Solar radiation characteristics:

1.The annual equator to receive the most radiation, the least polar. This uneven distribution of heat is bound to lead to differences in temperature at various latitudes on the surface of the earth, resulting in tropical, temperate and cold climate on the surface of the earth.

2. Astronomical radiation summer big winter small, it leads to high summer temperature and low winter temperature. The weakening effect of atmosphere on solar radiation includes its absorption, scattering and reflection.

Direct radiation:

Direct solar radiation is the radiation that the sun projects directly onto the ground in the form of parallel rays

Diffuse radiation:

Diffuse radiation refers to the amount of solar radiation emitted in all directions except the direction of the sun, also known as sky radiation, scattering radiation. It is caused by the scattering of solar radiation from aerosols and clouds in the atmosphere and the reflection of solar radiation from oceans, land and buildings on the earth's surface.

Atmospheric absorption:

Atmospheric absorption refers to the absorption of various components in the atmosphere when the electromagnetic wave radiation spreads among them.

Atmospheric absorption is selective absorption, solar radiation through the long atmospheric path, suffered a series of absorption to the surface, the absorbed energy

into thermal energy, ionization energy or other forms of energy, to determine the physical and chemical state of the atmosphere plays an important role.

Solar energy: availability

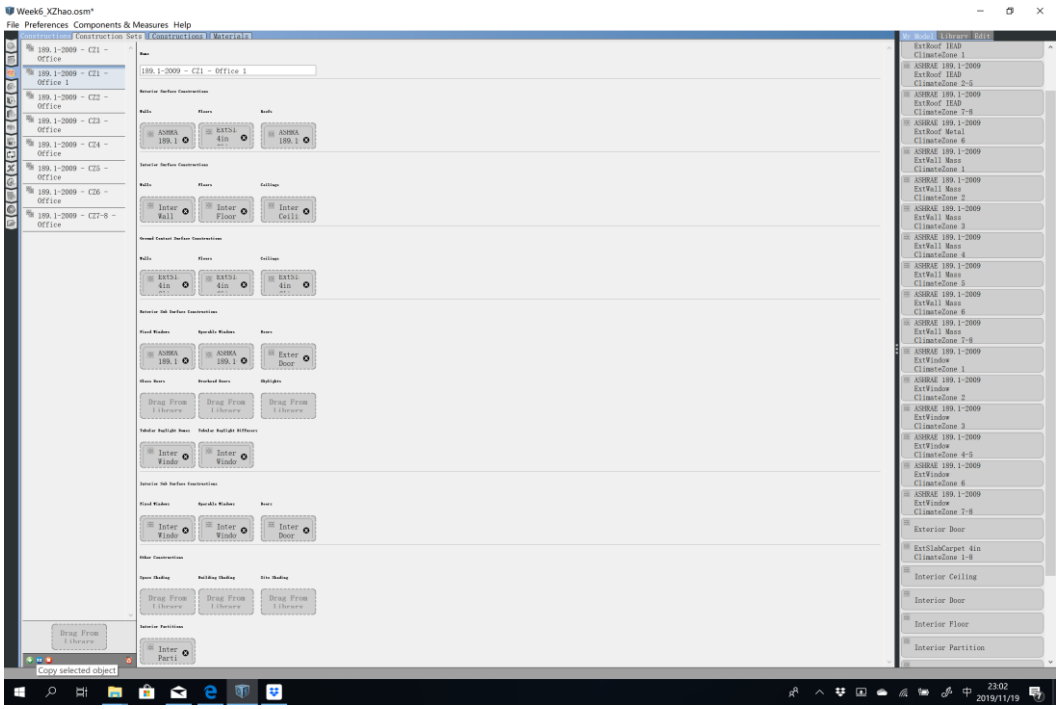
Solar radiation intensity refers to the intensity of solar radiation reaching the ground. The absorption, reflection and scattering of solar radiation by the atmosphere greatly weaken the solar radiation reaching the ground. However, there are still many factors affecting the intensity of solar radiation, so that the amount of solar radiation reaching different regions is different.

There are four main factors influencing the intensity of solar radiation.

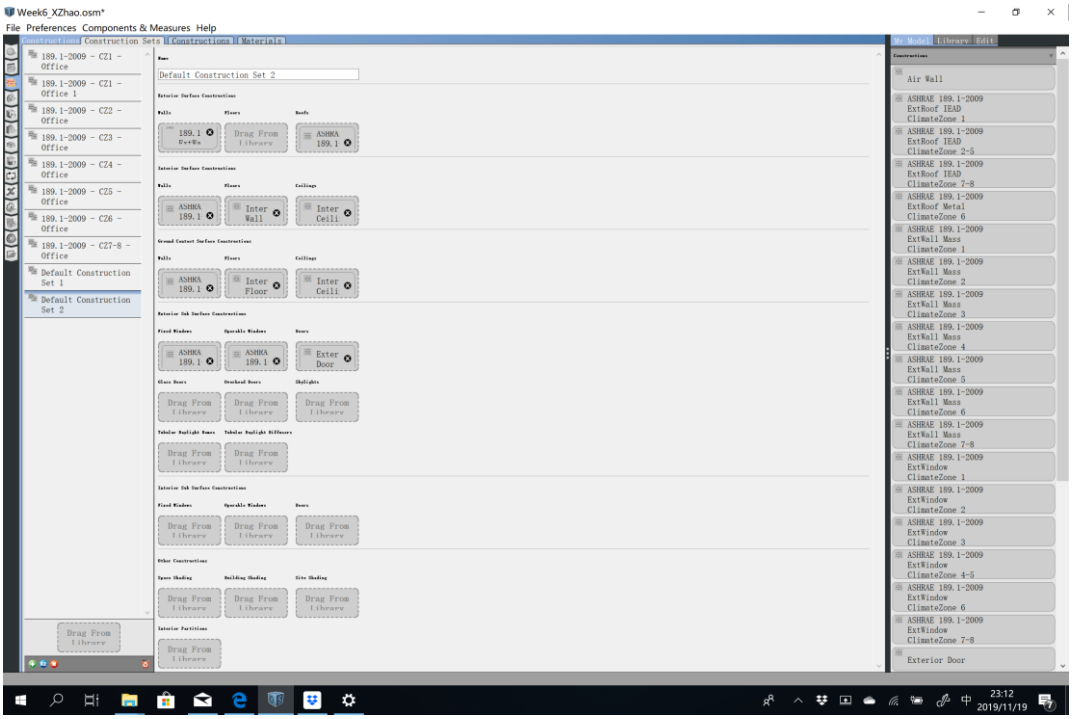
1. Latitude location. If the latitude is low, the altitude of the sun at noon is large. The solar radiation passes through the atmosphere in a short distance, and is weakened less by the atmosphere.
2. The weather conditions. In fine weather, because the clouds are few and thin, the atmosphere is weak in weakening solar radiation, and the solar radiation reaching the ground is strong. Rainy weather, due to the thick and more clouds, the atmosphere of the solar radiation weakened, reached the ground of the solar radiation is weak
3. Elevation of high and low. High altitude, thin air, the atmosphere of the solar radiation weakened, reached the surface of the solar radiation is strong; Otherwise, it is weak.
4. Rizhao length Long sunshine time and strong solar radiation. The sunshine time is short and the solar radiation is weak.

Task 2 You create a pdf file with screenshots of all of the steps we went through in the second lesson on open Studio and explain briefly the reason behind the use of each step (in your own words!)

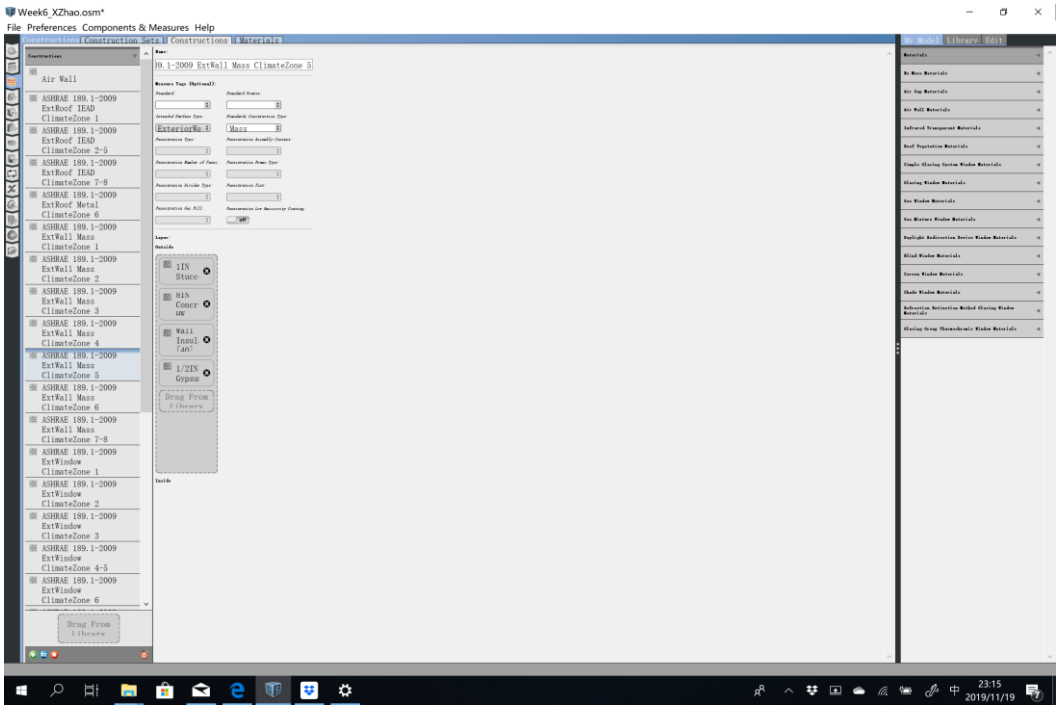
Start to change some of the construction



using existing construction



To check existing constructions' properties



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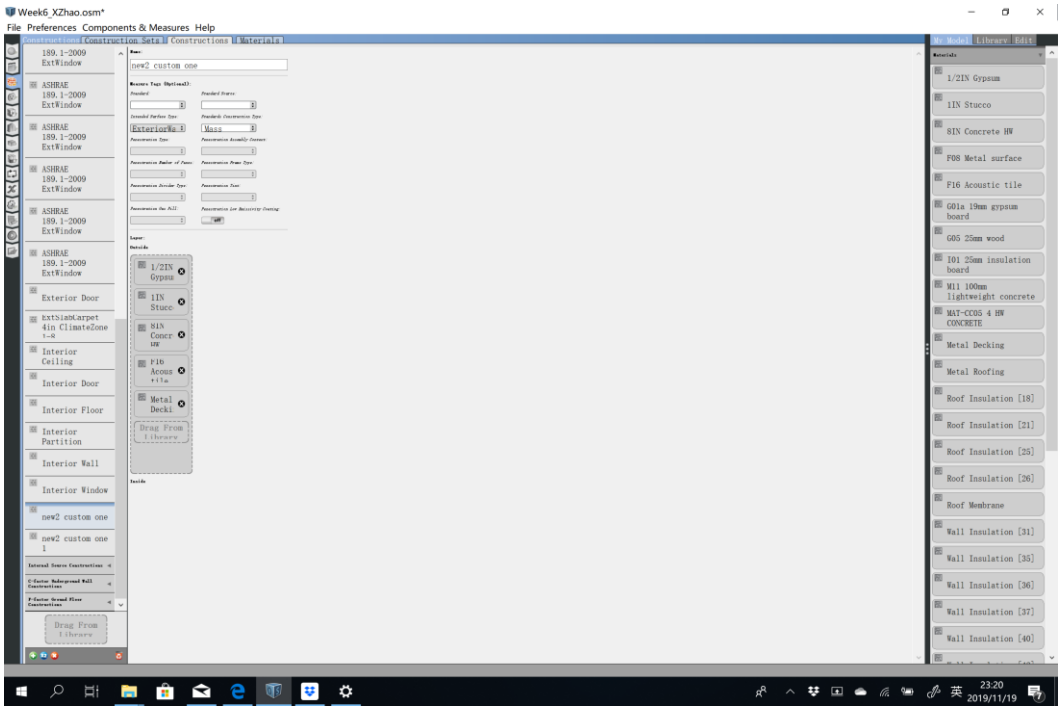
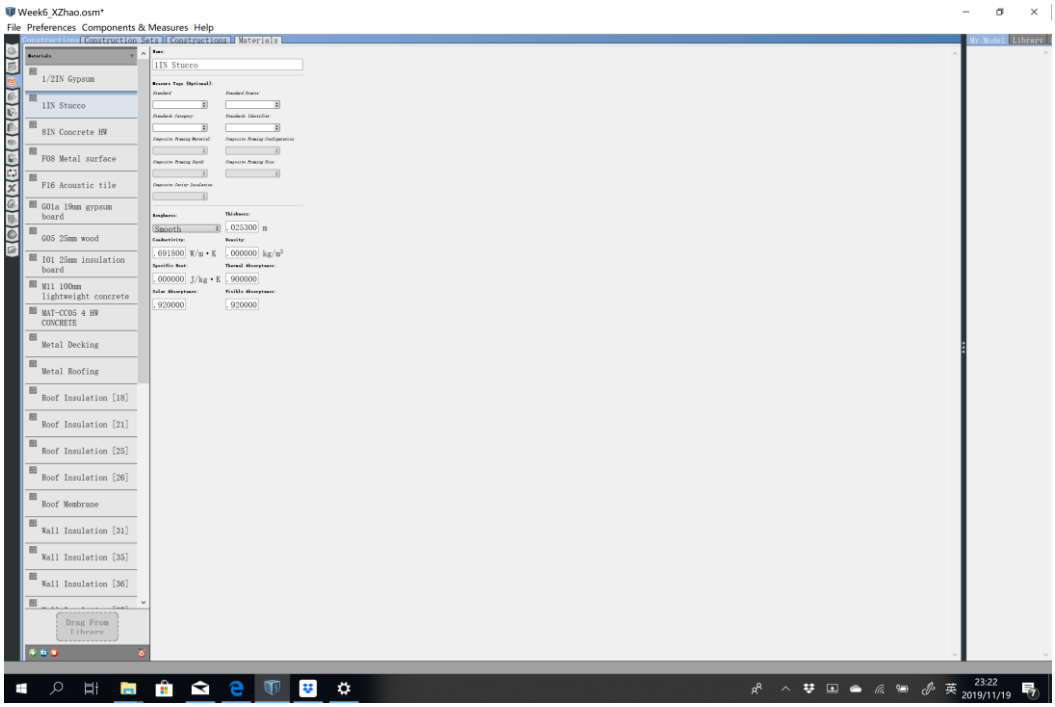
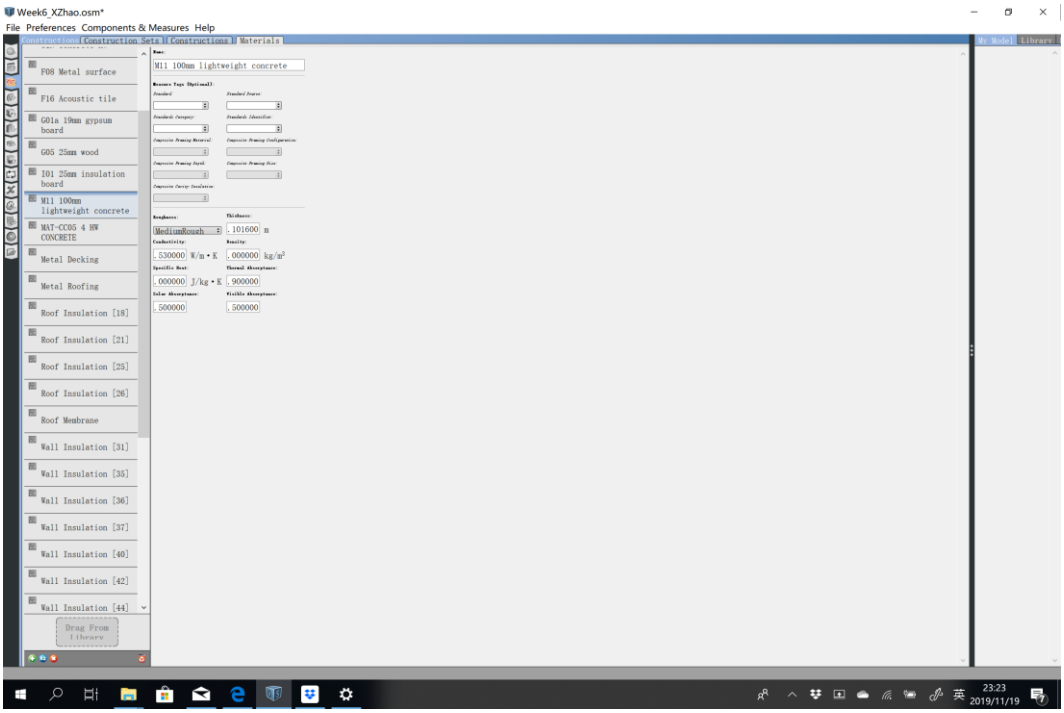


To define a new one





use constructions to modify my construction set