

WEEK7_KKAZAN

16 Ekim 2019 Çarşamba
00:01

QUESTION 1:

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

SOLAR RADIATION

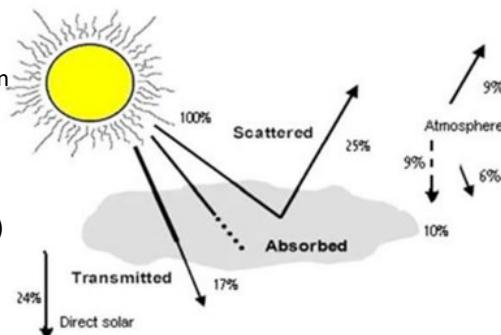
What is the solar radiation ?

Solar radiation is a kind of energy (electromagnetic) that sun have created and emitted. While this energy is coming through the surface of the earth, it becomes (weakening) to the spectral distribution and irradiance. Some of this energy is absorbed and some of it is distributed to the world.

The sum of the direct rays from the sun and the rays through the spread is called full radiation. The sun's rays diffused, reflected and refracted by clouds and particles in the air.

Also the absorption of solar radiation is caused by which are ozone (O_3), water(H_2O) and carbondioxide (CO_2) in the atmosphere.

We know that ozone absorbs nearly all the ultraviolet coming from the sun.



It has different thickness of the radiative energy.

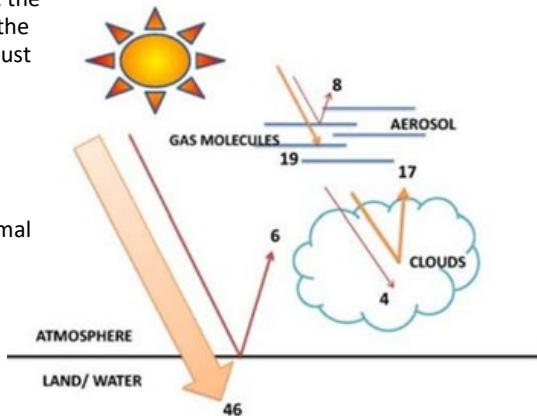
Thickness changes depending on which kind of the angle of sun come from the earth's surface. For example; when the sun was perpendicular to the atmosphere, we see that the moving distance of the energy within the thickness is the short. To increase the length of movement, the angle must grow. In these ways we see that the absorption and dispersion event be formed much more.

What kind of instruments measure solar radiation?

Pyranometer, Pyranometer with shadowband and Normal Pyrheliometer measure solar radiation.

Solar radiation depends on:

- 1) The sun position in the sky which changes daily and seasonally
- 2) The weather condition, both continental and
- 3) The site altitude over the sea level;
- 4) Sunshine hours .

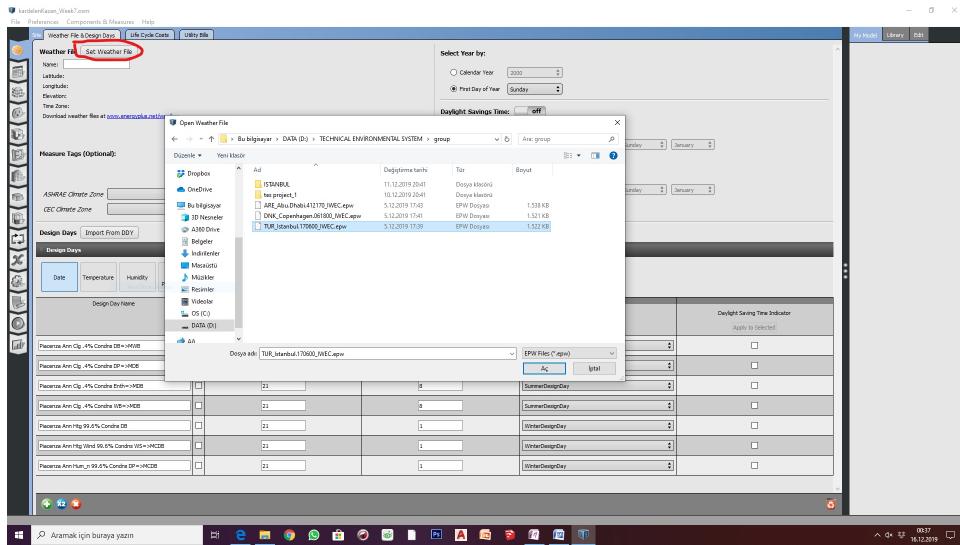


QUESTION 2: What instruments can measure solar radiation?

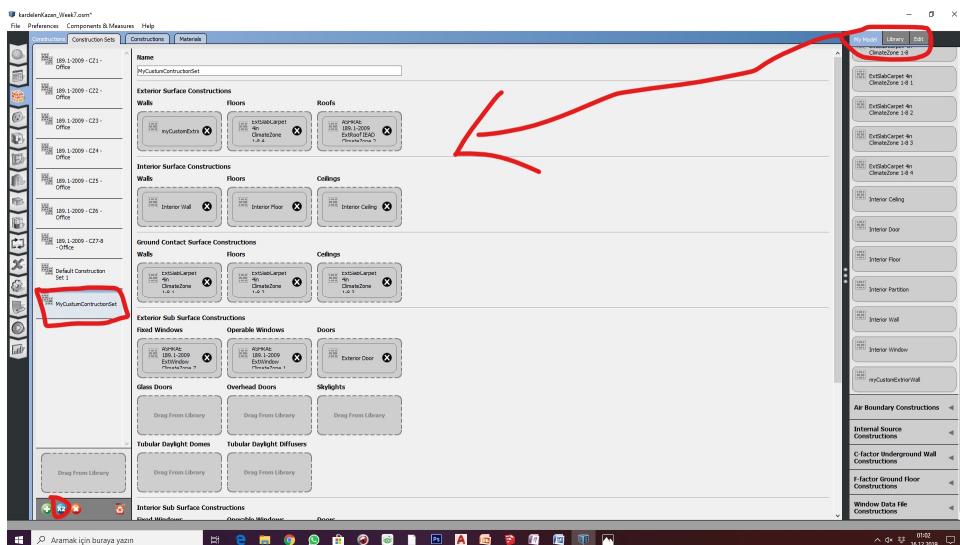
Open Studio Steps

Step 1 : I had already the file that I uploaded my model to the openstudio program. Now follow these steps;

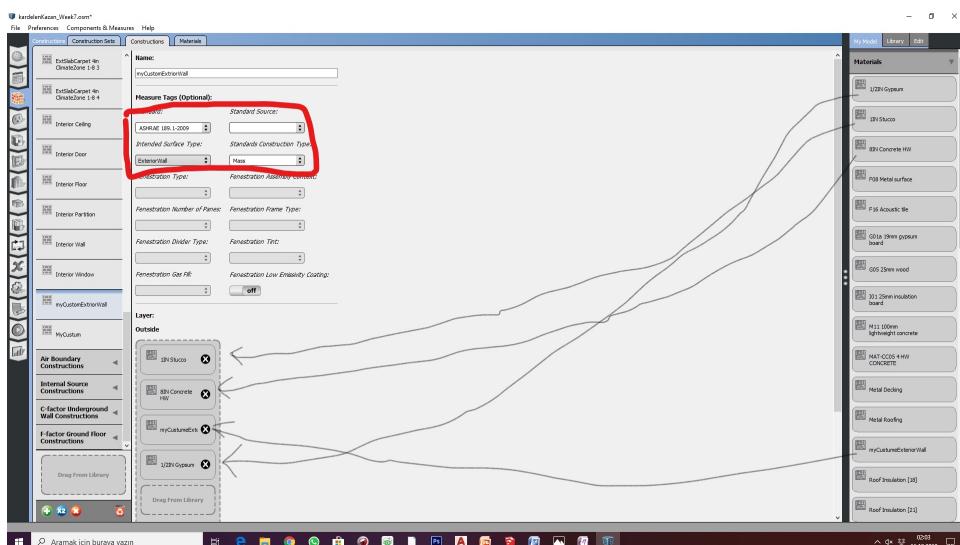
Set up your weather data.(epw file)



Step 2 : Open the construction sets tab so you can see many elements used in the structure and i can change them .Also you can create new construction set for yourself.

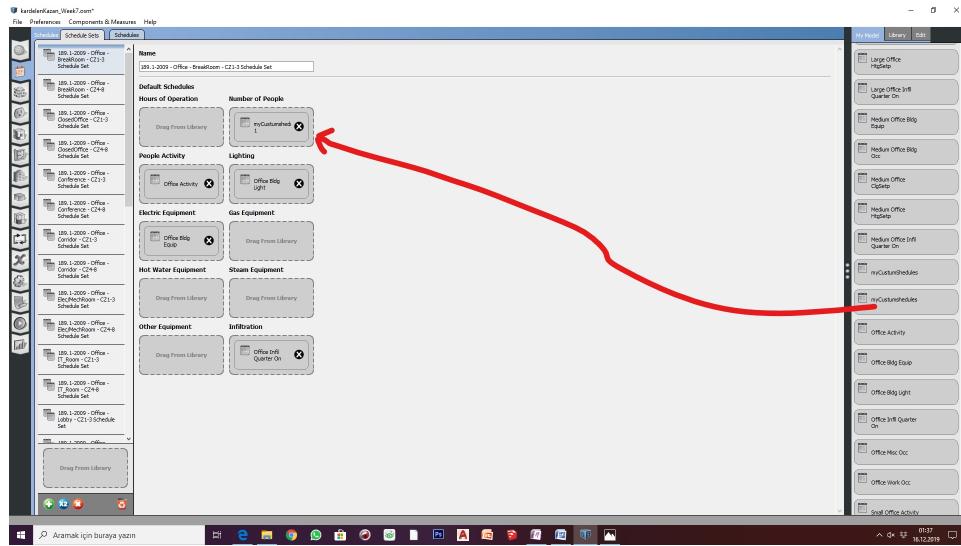


Step 3 : you can create your wall type from construction tab and you can decide what kind of elements you used your project.



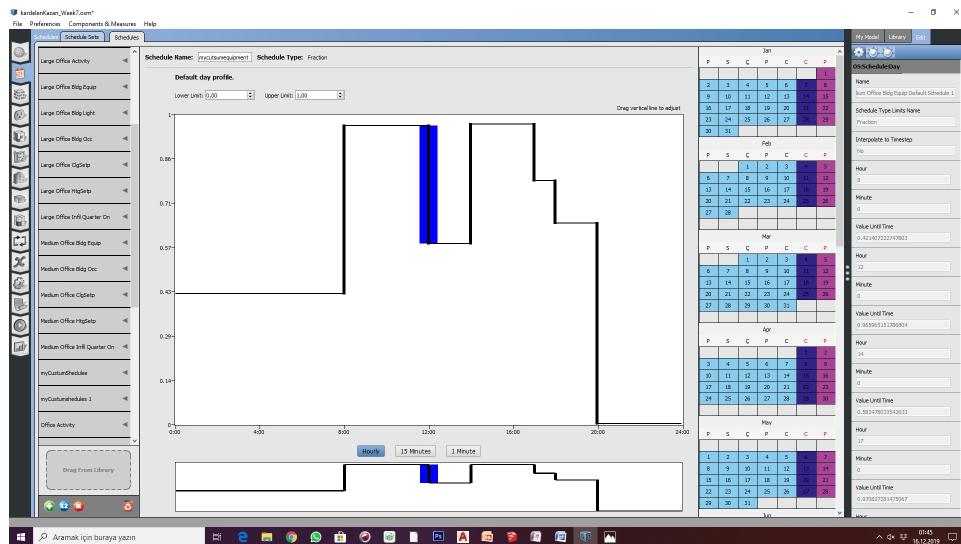
Step 4 : Schedule sets tab is show you the place that the amount of time spent or also created as energy is

characterized in your structure.



Step 5 :

You can create new schedules or use existing schedules for the equipment, working times from schedules tab. And can use data which you have created .



Step 6 :

You can define everythings you have modified to your building from space tab.You can achive any type of results from using the program.

