

Using Stellarium

Stellarium is free *planetarium* software, which shows a realistic view of the sky in real time on your computer screen. We will use Stellarium to plan our stargazing and to learn about the sky.

Installation

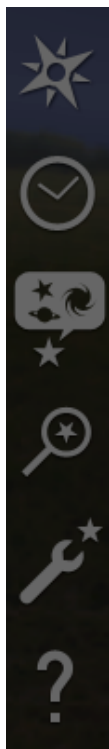
You can download Stellarium from <http://www.stellarium.org> (versions for Windows, Mac and Linux are available). Download the Users Guide as well. To install:

- Windows: double-click on the file you downloaded (*stellarium-0.10.5.exe*) and follow the on-screen instructions;
- Mac: double click on the file you downloaded (*stellarium-0.10.5.dmg*), and drag the Stellarium icon to your Applications folder.

If you run into issues with the installation, please send Jenn Burt (our TA) an email (jaburt@ucsc.edu) or come to her office hours *Monday 11-12 pm* (ISB 255).

Usage

Move the mouse to the left and bottom corner of the screen to reveal two strips of icons (see image) used to control the program. The red cross on the bottom is used to quit.



Set your location on Earth

This will pop up a window to set your position on Earth (Santa Cruz, Paris, Rome, etc.) Choose Santa Cruz USA from the list.

Set date and time of observation

This will pop up a window to set the time of observation (you can move it into the past and the future)

Sky and viewing options

Search

Here you can search for a particular object (planet, star, etc.), verify whether it's up in the sky or under the horizon, etc.

Options

Help





Activity 1

Due Tuesday Sept 28th in class

Your Name: _____

In this activity we will explore what will be visible tonight (September 28th).

1. First, we will set up the location on Earth. Click on the  icon (first on the left strip); find Santa Cruz, United States in the list of cities. Close the window.
2. Next, set the date and time; click on the  icon and enter the date (September 28th, 2010) and time (19:00 pm = 7:00 pm, just after sunset).
3. Open the “sky and viewing options” window on the left, then click on the “sky” option at the top. Slide the sliders for “planets” all the way to the right, so that the planet labels will all be visible.

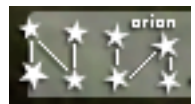
What you see after these steps is an accurate representation of the sky at the time you selected. You can see the movement of the stars during the night by opening the Date and Time window again and moving the hours box up and down.

You should see that a few celestial objects (planets and bright stars) are labeled. More will become visible if you go back to the “date and time” icon and move the time later in the evening.

Questions

1. Scroll around the sky using the arrow keys, or by dragging with the mouse. What two planets are just setting at 7 pm? What two planets are just rising? If you can't see them right away, try typing the names of some planets into the “search” box - the box on the left that looks like a magnifying glass - and see which planets are above the grassy field (and hence visible in the sky).

2. Activate the constellation drawings by clicking on each of the three icons depicted on the right. They are located in the bottom strip of icons. As you click on the icons, they will illuminate and the program will show constellation labels, lines, and drawings. Which constellations do you recognize?



Your Name: _____

3. Find the Moon by scrolling to later times in the night: you can watch it rise. Click on the Moon; a red bulls-eye will appear around it. Press SPACE (this will center on the object), and then press the “/” (forward slash) key. This will zoom in on the Moon. Sketch the Moon as it appears on the screen. Can you tell what phase the Moon is in? You can zoom out again by using the backslash key (\).



4. Advance the time to sometime after 3 am, and note a few large constellations that have risen in the East since sunset. So you recognize any of them? (Don't worry if they are not familiar to you - we will see them in the sky during our stargazing.)