Quick Guide to Using *Stellarium*

Installing *Stellarium* on Your Own Computer
• Visit: `http://www.stellarium.org`
• Click on the large button that corresponds to your platform (Mac OS X, Windows, or Linux) — the *Stellarium* installation package will download to your computer. It's free!
• There is also a button to download a User's Manual (in PDF form) — however, it is somewhat technical and not very useful for the casual *Stellarium* user

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Setting **Location** on Earth
       1. click "wrench" symbol in control bar (lower left of screen), or use quick-key "**1**" (the number "one") to open configuration panel
       2. click "Location" tab (along top of configuration panel)
       3. *zoom in/zoom out* on the Earth map using mouse scroll knob OR page up/down keys (it always scrolls toward your mouse pointer), then click on desired location on Earth map
or: 3. set location manually using Longitude & Latitude settings

Changing **Date & Time**
Manually: 1. click on "wrench" symbol in control bar (lower left of screen)
                2. click on "Date/Time" tab (along top of settings window)
                3. set desired date/time manually

Quick-Keys: • "**=**" steps forward by 24 hours
                • "**–**" steps backward by 24 hours

                • "**]**" steps forward by one week
                • "**[**" steps backward by one week

   important: • "**8**" returns to *now*

Speeding up Time
Quick-Keys: • "**L**" runs time 10× faster forward (or to slow down reverse time)
                • "**J**" runs time 10× faster in reverse (or to slow down fast-forward time)
                    …*repeating* these keys makes time run 10× faster (or slower) each time! Try it!
                • "**K**" returns time to normal speed
                • "**6**" *pauses* time, then "**6**" again returns to previous rate (i.e., toggles pause on/off)
                • "**7**" *stops* time completely (i.e., sets rate to zero)

Buttons in the ***lower-right corner*** of your screen have the exact same effects as the "J", "K", "L", and "8" quick-keys described above.

Sky Settings
Try turning on/off the following buttons to see what they do (all of these control bar buttons also have quick-keys):

"**C**"   ***constellation stick-figures***
"**V**"   ***constellation names***
"**R**"   ***constellation artwork***
"**Z**"   ***alt-az grid*** (altitude & azimuth lines)
"**E**"   ***equatorial grid*** (right ascension & declination lines)
"**G**"   ***ground***
"**Q**"   ***cardinal (compass) points*** along your horizon
"**A**"   ***atmosphere*** (including blue sky when Sun is "up")
              Note: the "***fog***" along your horizon must be turned on/off with the "**F**" key on the keyboard (OR by using the "wrench" button settings), but it does *not* have a control bar button.
"**N**"   ***names of faint objects*** (nebulae, star clusters, galaxies, etc.)

Centering, Tracking, & Zooming on an Object

• Try *finding* an object: click the "magnifying glass" button, or use the quick-key "**CTRL+F**". Practice doing this with the Moon, or Jupiter, or Sirius, or any other astronomical name you can think of.

• *Center* on an object: after you have already "found" or "selected" it (by clicking on it), click on the "four arrows" button, or use the quick-key "**SPACE**".

• To *track* your view on the object as time proceeds, use the quick-key "**T**". (Or else, turn on *equatorial mount* — see below.)

• Try *zooming in/out* using the scroll knob on your mouse, or the quick-keys "**PAGE-UP**"/"**PAGE-DOWN**". Zooming in extremely close on an object summons up a nice image of that object. For major planets, their moons and surfaces are shown in their current positions!
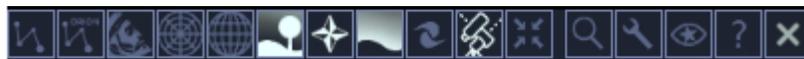
• Toggle from *alt-az mount* (this button "off") to *equatorial mount* (this button "on"), or use the quick-key "**ENTER**". Zoom out a bit, then speed up time a few "clicks" to see the difference between the two mountings. Both of these modes are useful for different things:
    • use *alt-az mount* to keep the *ground stationary* — use when watching apparent path of stars as they rise, set, & move through your local sky
    • use *equatorial mount* to keep the *sky and stars stationary* — use when *tracking* a particular star or planet, then speed up time to watch motion of planets, moons, or other solar-system objects

Miscellaneous Quick-Keys

Many commands do NOT have buttons on the control bar, so they are accessible only via quick-keys. For a complete list, click on the *help* (question mark) button, or use the quick-key "**H**". Try them one at a time to explore what they do.
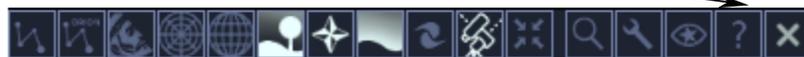
Here are some of the most useful quick-keys (most do NOT have control bar buttons):

    "**1**" (one)   *configuration panel* open/close (same as "wrench" button)
        "**F**"   *horizon fog*
        "**B**"   *constellation borders*
"**,**" (comma)   3-way toggle: turns on *ecliptic plane* (red); turns on *planet trace lines* (yellow); turns both off
        "**P**"   3-way toggle: turns on *planet names*; turns on *planet orbits* (red); turns both off

…and just for fun:
        "**9**"   changes *meteor shower* rate

Happy stargazing!