

---

# Starry Night Enthusiast Tutorial

The following pages are a *brief* introduction to setting up & using *Starry Night Enthusiast*. The instructions provided are *NOT* an exhaustive list of all the features that *Starry Night* offers, so play around with the program after you read this intro and feel free to ask me if you have questions beyond the basics given. The best way to learn *Starry Night* is to use it!

**\*\* Please see the separate Observing Project handout for class project details. \*\***

## Where to obtain Starry Night

*Starry Night Enthusiast* is installed on most computers in the computer lab on the main floor of the physics building, B315-113 (you will need a VIU student computer account). A free version of *Starry Night* is available with *some* versions of the course textbook. This guide is for Enthusiast v. 7. Other versions of *Starry Night* may appear somewhat different but their basic functionality is very essentially identical.

## Starry Night Enthusiast v. 7 Instructions

- Make certain the computer's date & time are set *correctly* (task bar)
- Launch *Starry Night* from the desktop shortcut or from Start menu under Programs
- When program opens, close any pop-up informational or event windows which appear
- At the top of the *main Starry Night window* (from left to right) are menus: **File, Edit View, Options, Labels, Favourites, Window, Help**. You will most often use **View, Options**, and **Labels** (their contents may also be accessed in other ways)
- Below the menus listed above is a row of information and adjustable settings: **Home** (resets the view to your current time/date/location); **Hand** (selects various cursor modes); **date, year, time** (obvious);  $\vee\wedge$  (adjust viewing height); **location** (viewing position; defaults to Nanaimo, Canada); **rate of time flow** (defaults to 1x);  $|\blacktriangleleft \blacktriangleleft \blacksquare \blacktriangleright \blacktriangleright|$  (adjust time/date forward/backward according to the rate of time flow; 'stop' button ( $\blacksquare$ ) 'freezes' time); **2 icons similar to**  $\boxtimes$  (hide/show subwindows; you will use the second one to adjust display options, etc.); **text search box** (useful for locating specific objects)
- The icon  $\equiv$  represents sub-menus which access features specific to parameters they are close to; eg. you can turn on/off daylight savings time using  $\equiv$  to the left of the date
- At bottom left are  $-+$  (zoom out/in) and **some numbers** (horiz x vert field of view)

- *Starry Night* should automatically start up with the location set to *Nanaimo*
- **Make certain** *Starry Night* is set to the whatever desired location, date, & time
- The faint blue letters along the horizon are the compass directions (N, S, E, W, etc) indicating which direction you are looking. You change the direction in which you look by **clicking and dragging the sky** (your mouse pointer, normally a hand icon, becomes a closed fist as you drag)
- When you move your mouse directly over an object, the icon turns into an arrow and some basic information about the object is displayed. Select an object by **left-clicking** (click for Macs) on it (its name should appear next to it). **Double left-clicking** (double clicking for Macs) brings up a detailed **Information window**. If you **right-click** (click and hold for Macs) on an object a pop-up menu appears with options to **select the object, center it on the screen, etc.**
- In the **zoom control/FOV indicator** (bottom left) are numbers (*eg.*  $165^{\circ} \times 120^{\circ}$ ) which represent the current horizontal and vertical **field-of-view (FOV)** (how much of the sky is visible) reported in degrees ( $^{\circ}$ ), arcminutes ( $'$ ), or arcseconds ( $''$ ) depending on how magnified the view is. Clicking the  $\pm$  to the left of the FOV *changes your field-of-view* or (*de*)*magnifies*. For reference, a pair of binoculars has a *field of view* of around  $7^{\circ} \times 7^{\circ}$ , while a small telescope has a *field of view* of a few arcminutes. **Before magnifying an object, select and center it first** (as detailed previously)
- The top, rightmost  $\equiv$  submenu gives access to numerous useful functions. The **Options** submenu item controls the appearance of the sky; select it and a list of subheadings should appear along the right hand side of the screen. Further options are available if you **click on a subheading** or **click on the arrow next to a subheading** (click arrow again to hide). To modify how a particular feature works, **click on the name of the feature** to bring up a window with further options. For example, under the **Constellations** subheading, turn on the **Stick Figures** feature by toggling the switch next to it and then click on **Stick Figures** itself for options to adjust the colour or type of stick figure. Label constellations by toggling the switch next to the **Labels** option
- The **Stars** subheading has controls to adjust the appearance of the **Milky Way**
- The **Deep Space** subheading has controls to label nebulae, Messier objects, etc.
- From the top rightmost  $\equiv$  submenu select the **Planets** submenu item and in the resulting window select the **Our Solar System** subheading. An extensive list of natural and man-made solar system objects should be displayed. Objects in brighter type and/or with a

number listed next to them under Altitude or Alt are currently above the local horizon. Double click on the name of those objects. The main window should center on the object and its name should appear next to it (daylight may be ‘turned off’ if the Sun is currently up; daylight can also be toggled on/off manually using the **View** menu). Click on the *i* for further information about that object or the ✓ to deselect the object.

- The **FOV indicators** submenu displays various FOV indicators on the main window
- You can save your current session/time/date by using “Save...” under the **File** menu
- Experiment and have fun (remember, you can always reset things if need be!)