Introduction to Stellarium

Explanation of how to use the Stellarium computer program

Introduction

Stellarium is a great program for beginners who are trying to get familiar with the night sky. It is a free software planetarium with many tools and selections, important for amateur astronomers that have begun with night sky observations even with a telescope. It is easy to learn and has a lot to offer.

Let us first begin with the installation process, and then an introduction to different features of this software

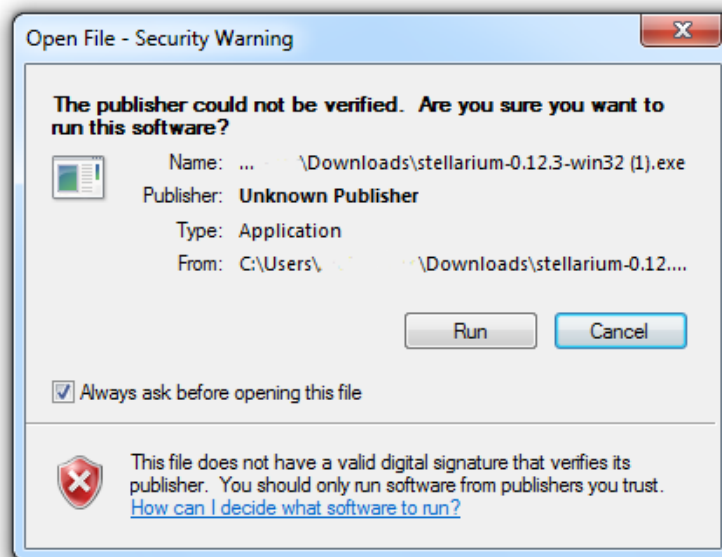### How to install Stellarium (for Windows users).

1. **First, visit www.stellarium.org**
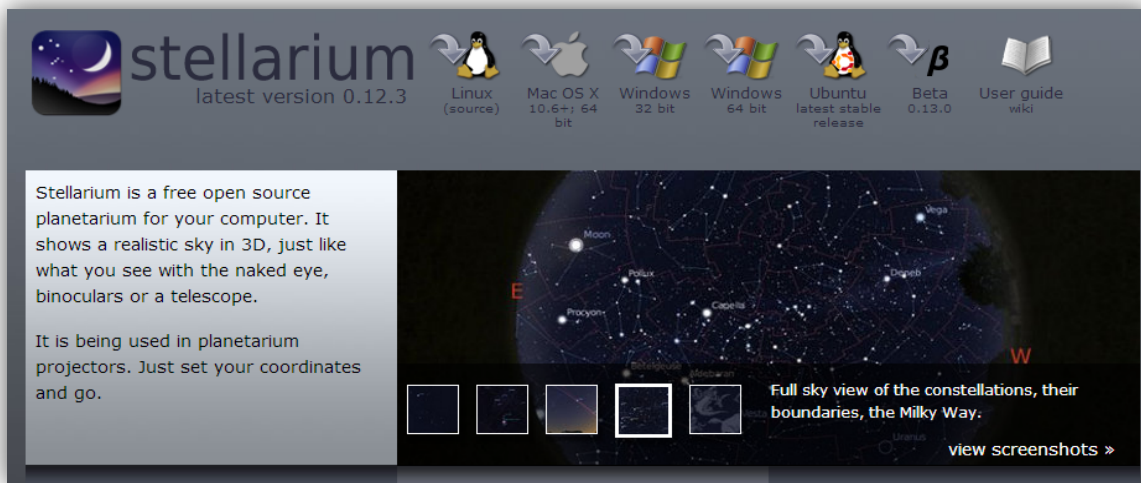
2. **Choose your operative system at the top of the page. When chosen, you will be redirected automatically to the next page and the download of the exe file will begin. Click on it to begin the installation of Stellarium.**
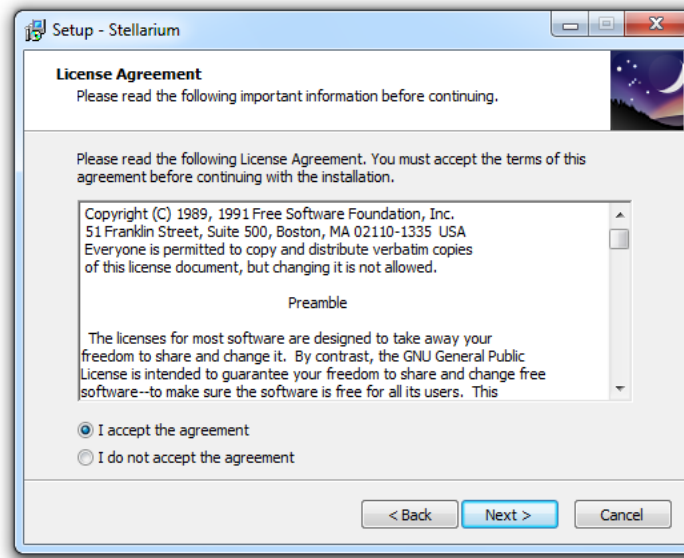
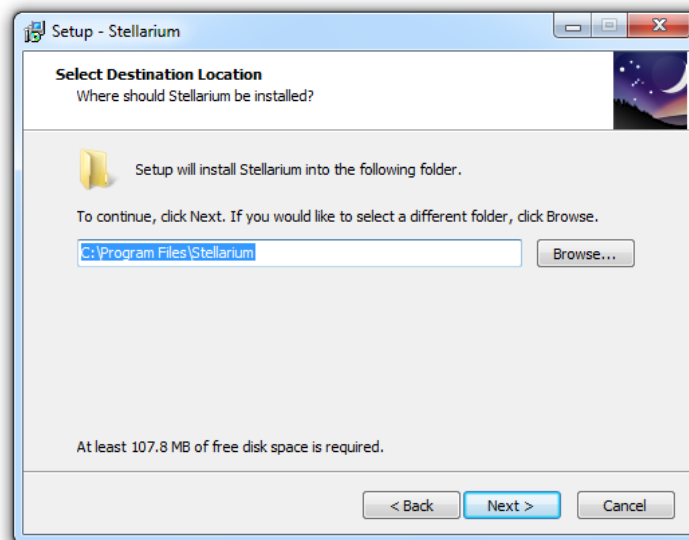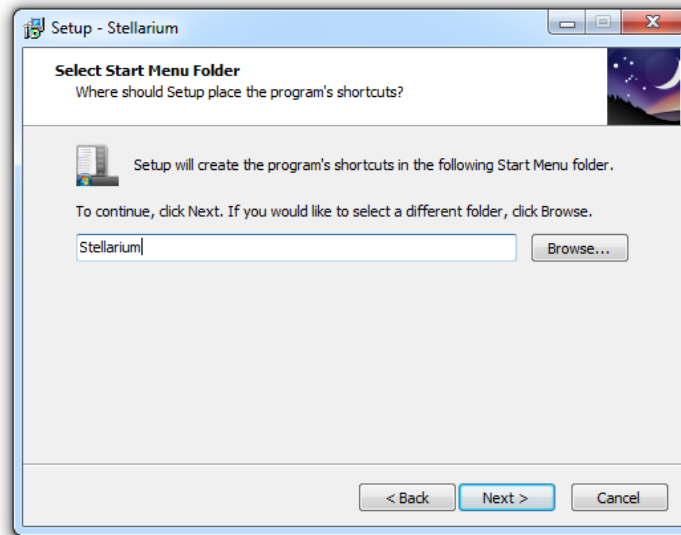**3. Click on run to start the download and choose the desired language.**

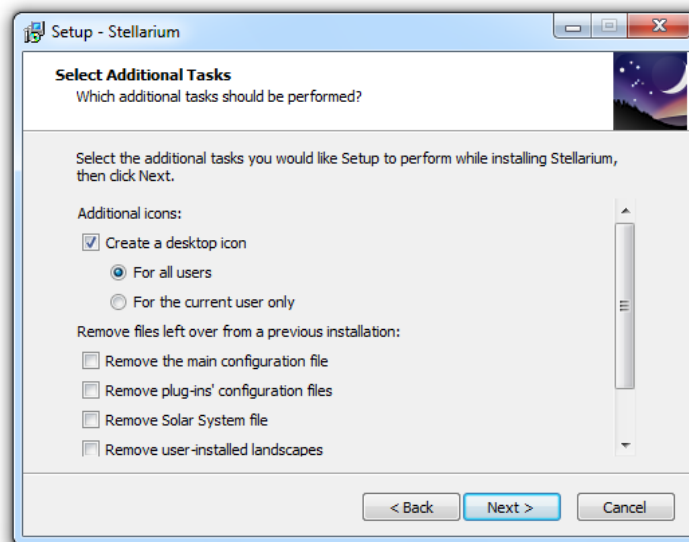**4. Click on next and accept the agreement.**

5. Choose where to browse it

6. Create a desktop icon, for all users or the current one. Afterwards click "install".
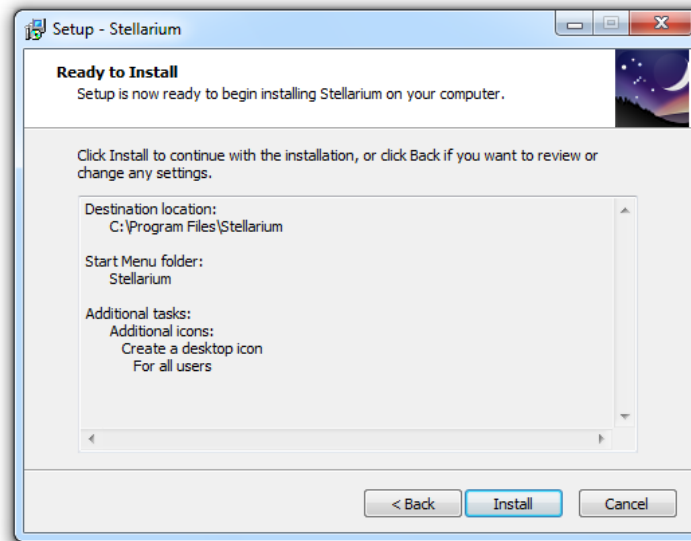
7. Now the installation is done and you are ready to launch Stellarium.
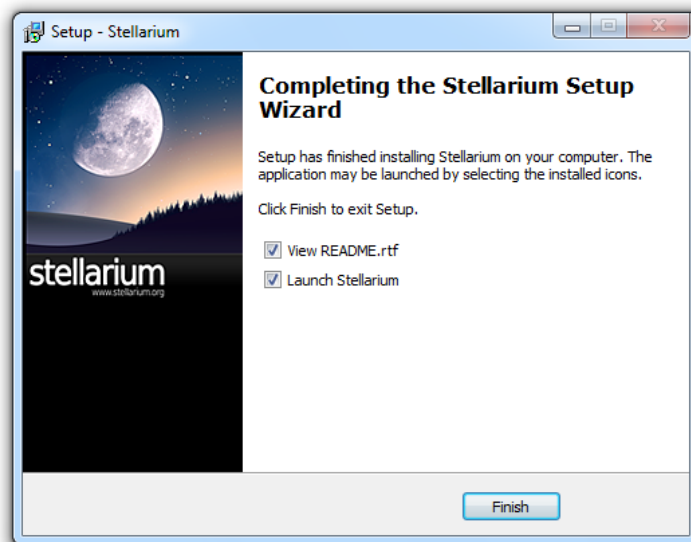
How to use Stellarium

Stellarium is quite an easy program and it does not take a long time to understand how it works. The first step is to start the program. When it has been loaded, you will get a wide view of the landscape. If you want to minimize the window, click on the following (can be found below, just have the cursor on the bottom):

Earth, Stockholm, 30m   FOV 113°   15.6 FPS   2013-09-12 16:02:34

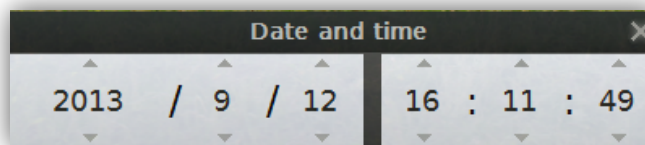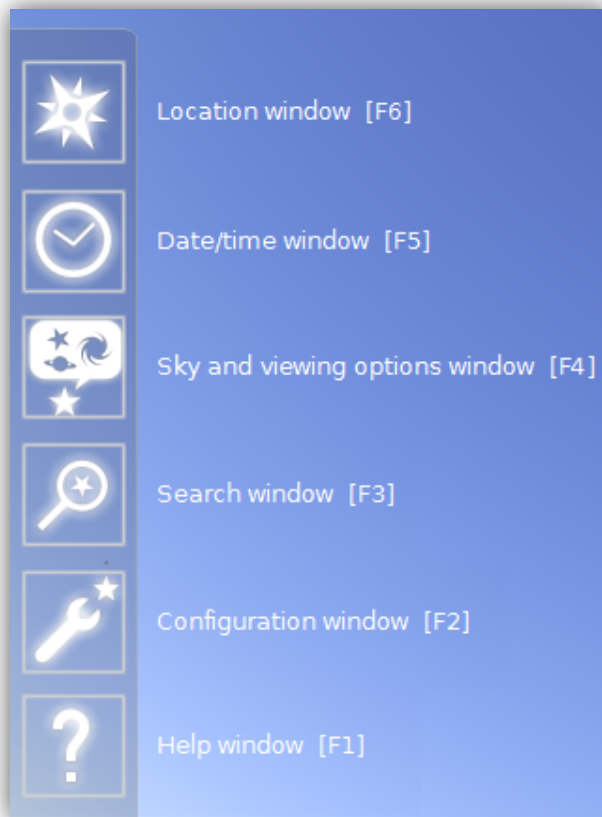   The next step would be to select your location (or the location where you want to be if wanted). Move the cursor to the left of the screen or press F6. Choose your location by either scrolling down the list of cities or by writing your location (N 40° 26' 38.78"; W 3° 57' 9.39" for ESAC). Find your city and click on it, and then press on the close icon. Now you are on the location. Remember, the time and date is already set for the current day. You can change it by clicking on the date/time icon under the icon for the location (see figure below):

Location window [F6]

Date/time window [F5]

Sky and viewing options window [F4]

Search window [F3]

Configuration window [F2]

Help window [F1]

Date and time   ✕

2013 / 9 / 12   16 : 11 : 49

    Now, get familiar with the list above by clicking on them, or press [FX] for the desired window. You can search for objects on the night sky; choose a landscape from where you want to look at the night sky, etc.

Some important features can again be found on the bottom of the window. Get familiar with them as well. There are two good features. One is that it is possible to increase or decrease the time speed. This is good if you want to be well prepared and to know where for example Saturn is on the sky in a specific time (or where it was yesterday). You can directly press K to set normal time and J to increase the speed/ go "backwards" in time. You may notice that the objects move around the sky by clicking on each letter. This is something obvious since the objects are not fix on the sky.

If you press on a specific object, let us say the moon, you will get information about it on the top left corner. Try this with different objects. It is good to know that you can zoom in and out by using your mouse. It is possible to zoom in so that even galaxies or nebulas can be visible. To centre the target, press the spacebar.

Here are a couple of lists of all the Stellarium features (credit: Wikipedia).

Sky feature

- Over 600,000 stars from the **Hipparcos Catalogue** and the **Tycho-2 Catalogue**
- Extra catalogues with more than 210 million stars
- Asterisms and illustrations of the constellations
- Constellations from ten cultures
- Images of nebulae (full **Messier catalogue**)
- Realistic Milky Way
- Realistic atmosphere, sunrise and sunset
- Planets of the solar system and their major moons
- Ability to display stars and other celestial objects as seen from reference points other than the Earth

Interface

- Zoom
- Time control
- Multilingual interface
- Scripting to record and playback shows
- Fisheye projection for planetarium domes
- Spheric mirror projection for personal domes
- Graphical interface and extensive keyboard control
- Telescope control

Visualization

- Equatorial and azimuthal grids
- Star twinkling
- Shooting stars
- Eclipse simulation
- Skinnable landscapes
- Spherical panorama projection
- Customisability
- Deep sky objects, landscapes, constellation images, scripts etc. can be added.

Hope that you will enjoy Stellarium!