

QUICK START GUIDE FOR STELLARIUM



DESIGN YOUR OWN MULTIMEDIA LEARNING ENVIRONMENT (D.O.M.E.)
Project number: 2022-1-PT01-KA220-SCH-000089939

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Introduction

This guide describes the use of Stellarium for DOME shows and details the available supports.

Stellarium Installation

<https://stellarium.org/> hosts the Stellarium software for Linux, macOS and Windows. Use <https://stellarium-web.org/> for a browser-based experience.

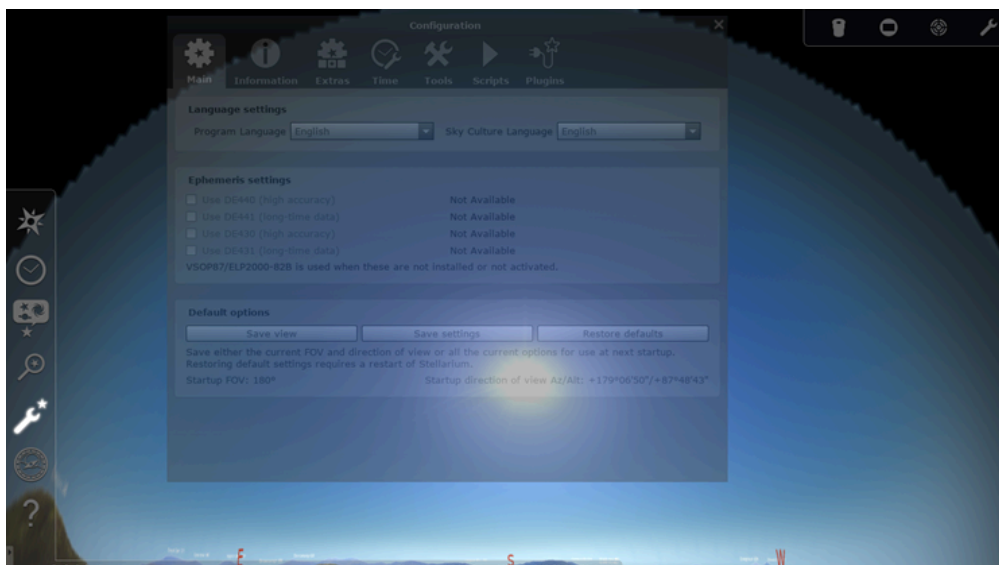
New versions are available regularly and since 2023 have been named YY.N where YY is the year of release, N is the release within that year. As of June 2024, the current release is 24.1. Most online instructions will refer to older versions of Stellarium, so you are advised to refer to the [Stellarium User Guide](#) for details of installation of the current version on your own operating system.

- See [this guide](#) for Raspberry Pi Installation.
- See this free OpenLearn Course “[Astronomy with an Online Telescope](#)” which refers to installation and use of Version 0.18.0.

If you require an older version of Stellarium (to match your operating system), these are found at “[All Releases.](#)”

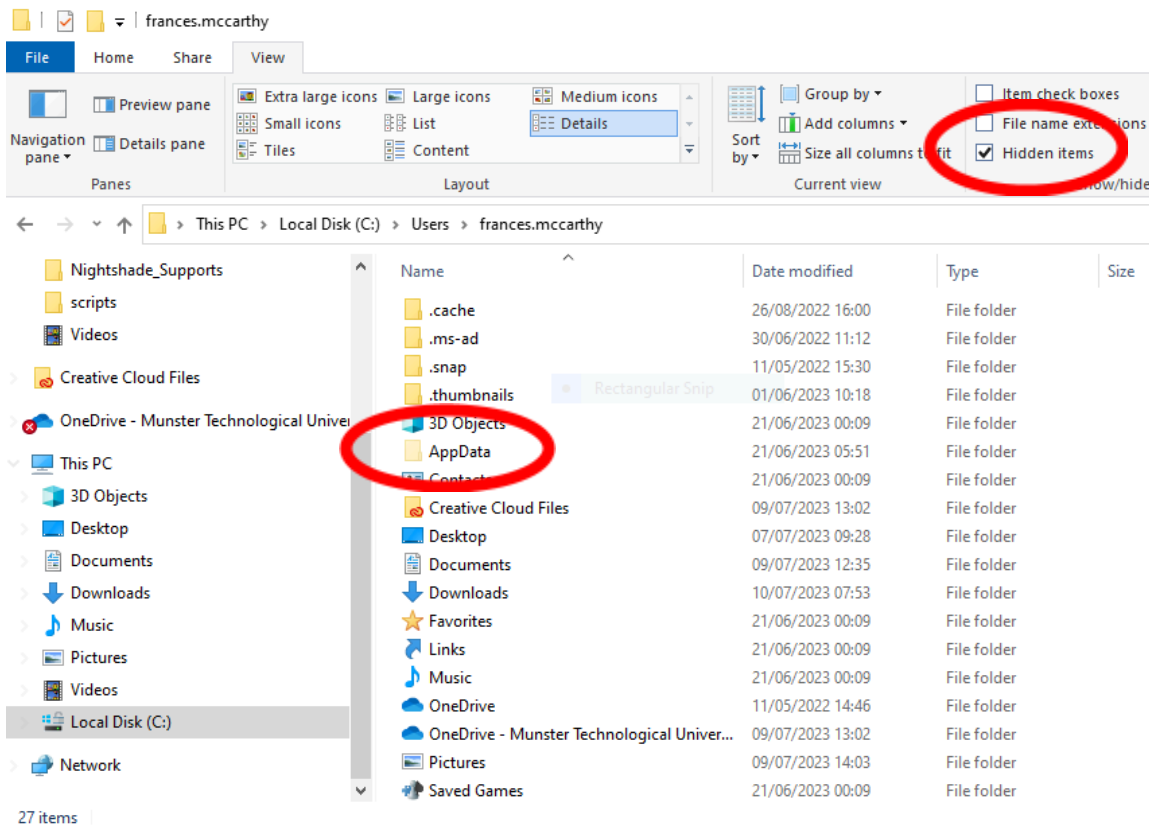
Modifying Stellarium Configuration

To use Stellarium in your own DOME you may choose to modify the default configuration file to suit your own teaching. You can save your Stellarium set up and this will overwrite config.ini. Use tools, save settings:



You can directly modify the config.ini text file with a text editor such as notepad or notepad++. The config.ini file is found:

- Mac: HD:Users:username:Library:Application Support:Stellarium:config.ini
- Windows machines the config file is found in the hidden folder AppData.
- C:\Users\username\AppData\Roaming\Stellarium (To find this you will need to tick hidden items under the View menu)



A guide to editing your config.ini file is available from Prof Patricia Reiff of Rice University.

<https://youtu.be/K1hi7zva1cl?si=HWUmZ63lpJBh0WYy>

Stellarium keyboard commands

Stellarium has a range of edge of screen buttons that control what is displayed. These have “hot keys” or keyboard commands. Once learnt, these hot keys make star shows easy to present.

The Basic controls are [here](#). The Help tab lists all Stellarium’s keystrokes, including some features that are only available as keystrokes. Keyboard shortcuts can be edited, see section 4.8 of the [User Guide](#).

Constellation Images

The default images of Western constellations are black and white. Colour versions of these have been created and can be copied into the “skycultures\modern” folder to replace the default. These image files can also be modified and then copied into the modern folder, which allows students to create their own constellation art. The colour images are [here](#) as a zipped file.

Stellarium for mirror systems vs fisheye systems

In 2020 Pat Reiff shared two trainings for users of [mirror systems](#) or [fisheye systems](#) on YouTube.

With the mirror system, the projection system is placed at the side of the DOME and the audience is often facing in one direction. Stellarium can be distorted to project onto a hemispherical mirror so that it reflects across the full DOME. The config.ini file should be edited for the specifics of your own DOME, including size of dome, size of mirror. Look for the section [spheric_mirror] (User Guide D1.21) but note:

“Stellarium can be used in planetarium domes. You can use a projector with a hemispheric mirror with geometric properties given in this section. Note: These functions are only rarely used or tested, some may not work as expected.”

With a fisheye system, the projection system is placed in the centre of the DOME and the audience will be seated concentrically around it.

Stellarium Scripts

Stellarium scripts are detailed [here](#). Sample scripts are included in each Stellarium download and are accessed at Configuration/Scripts.

To produce your own scripts, see the Scripting Engine documentation for 24.1 [here](#). It is strongly recommended to modify an existing script in the first instance. [Sample scripts](#) are available online, for example, the [Messier Tour script](#).

Summer school participant Paul Prouse produced [this script](#) at the 2023 Summer School, it is shared with his permission.