Choice of Software and Operating System

One of the benefits of your AStarBox is that it is an open system. You can install any operating system and software that will run on a Raspberry Pi 5. A selection of the most widespread software is described below.

NOTE: To control the AStarBox power sockets, you must download and install the AStarBox control software, even if you are using the Indi or TheSky plugins.

Software Bisque's The Sky X: The focus of this software is deep sky imaging. The Sky is a quality product but not cheap. You will require a minimum of The Sky plus camera add on, plus the multi-OS option at a cost of ~ $1000. A yearly subscription for updates will cost $200 a year (TSX + multi-OS option). The Sky can control a wide variety of astronomical equipment; it is required if you are fortunate enough to own a Software Bisque mount. The plate solving routines are arguably the best in the industry and this makes finding targets straightforward. There is limited automation within The Sky, but there are well maintained Python scripts which will allow full automation of your night's imaging session. The Sky can also pick up the location from a USB GPS dongle; combined with the RTC battery backup, this is a great combination for remote imaging. The dongle can be removed once the location is determined, so you will not lose a USB socket. The Sky X works well when installed on the Raspberry Pi OS, but can also be installed on many other 64 bit Linux distributions. There is an official support forum which is very helpful.

KStars/Indi suite: This is the other main software for deep sky imaging. The software is open source which, like The Sky X, controls a wide variety of equipment. Unlike The Sky X, there is full featured automation control (Ekos). Kstars can also access the time and location from a GPS dongle. There are built in plate solving routines. There is a well-supported forum which offers advice and help. It is possible to install this system on the Raspberry Pi OS yourself, but there are two packaged operating systems which include the software already installed.

Stellarmate OS does have a small fee ($70, but currently $59 on sale), and for this you get very responsive support and lifetime updates. Stellarmate OS is built on Raspberry Pi OS and there are very regular updates. It also includes phd2 and QHD Polemaster.

AstroArch is free and built on Arch. There are regular updates and an enthusiastic support forum. The software also includes phd2 and AstroDMx Capture, an alternative image capture programme that also enables planetary imaging. It is likely to require more work by the user since this is not a commercial release.

There are two other software programmes worth mentioning:

AstroDMx Capture: As described above, an alternative image capture programme that works with Indi. It can capture both deep sky and planetary images.

FireCapture 2.7: This is a primarily a planetary imaging programme.