



# Debian Astro: An open computing platform for astronomy

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## Introduction

Debian Astro is a „Pure Blend“ of Debian providing about 250 astronomy related packages. All packages are installable from a regular Debian distribution without external requirements or non-official package repositories. All packages are Open Source as defined by the Debian Free Software Guidelines, or have free compatible replacements.

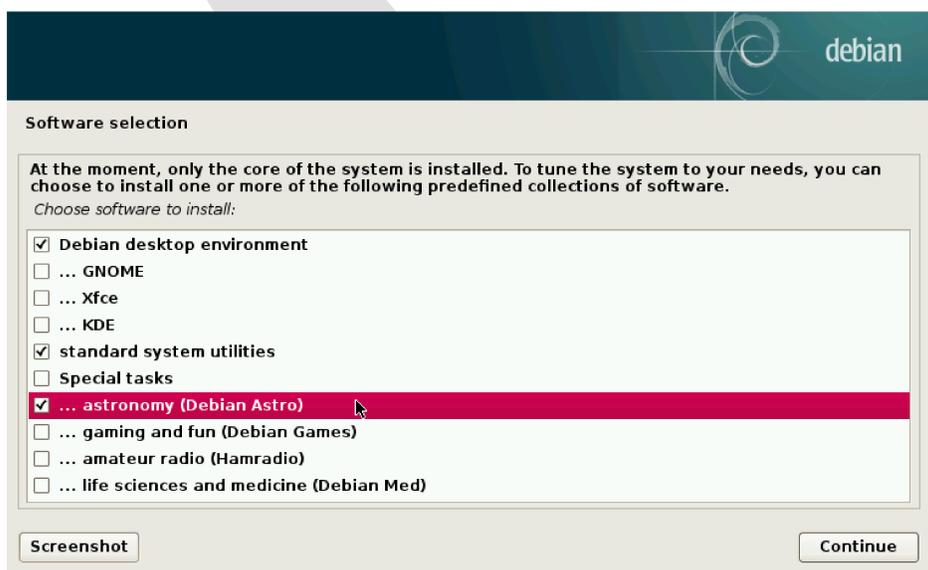
Most packages are maintained within the Debian Astro Team, which exists since 2014. We aim to deliver the first version of Debian Astro with the release of Debian Stretch in 2017.

## Content

- ▶ 240 binary packages, organized in 17 meta packages
- ▶ **Base libraries:** cfitsio, ccfits, qfits, wcslib, wcstools, ESO cpl, Starlink AST, PAL, healpix, erfa (SOFA), giza (PGPLOT), ...
- ▶ **Common science:** fft, cminpack, lapack, numpy, scipy, ...
- ▶ **Data reduction:** ESO pipelines, Astromatic, astrometry.net, ...
- ▶ **Python:** Astropy + affiliated packages, Sunpy, ...
- ▶ **Java + Virtual Observatory:** JSAMP, Aladin (prep.), ...
- ▶ **Radio Astronomy:** Casacore, spectral-cube, AOFlagger, ...
- ▶ **Viewers:** DS9, Skycat, QfitsView, Fv, Ginga, yt, Glueviz, ...
- ▶ **Legacy:** MIDAS, Tcl/Tk, GDL (IDL) Astrolib, ... (sorry, no IRAF)

## Installation

Installation is possible from an installed Debian system by selecting the appropriate packages or meta packages. On new installations, an option will be available during the setup. We also plan to provide CD images and virtual appliances.

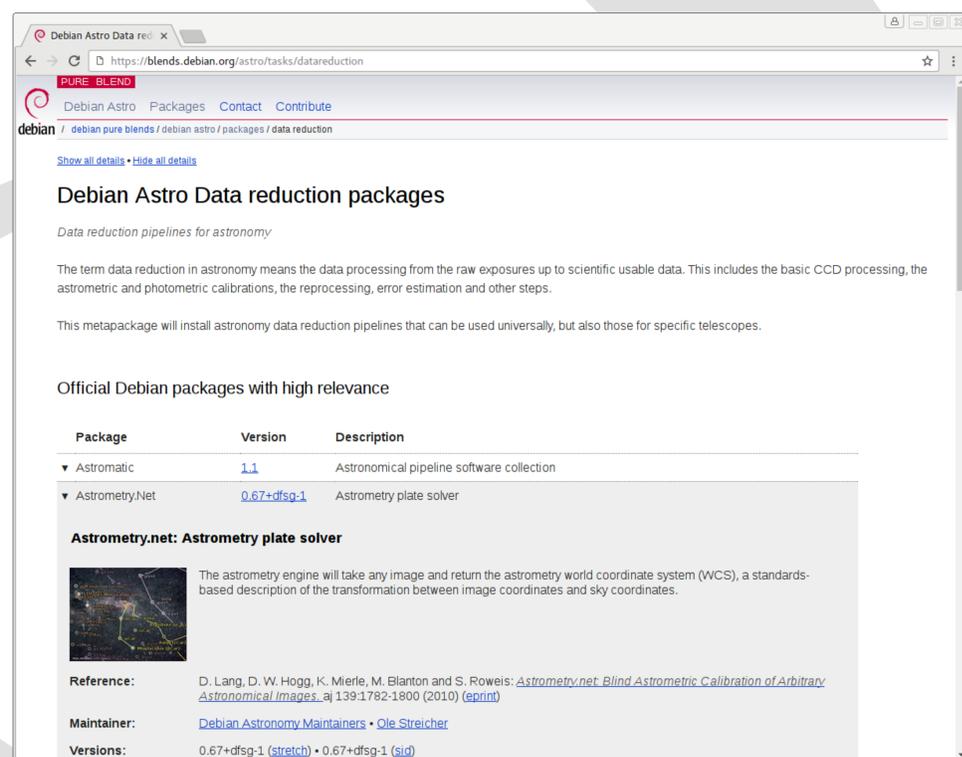


## Resources

- ▶ **Debian:** <https://www.debian.org>
- ▶ **Social Contract:** [https://www.debian.org/social\\_contract](https://www.debian.org/social_contract)

## Web page

Detailed information for each package is available: detailed description, screen-shots, version numbers, bibliographic reference, links to further information in Debian and upstream. The packages are grouped into 19 pages according to the meta packages



## Package Integration and Quality Assurance

- ▶ Repeated **automated build on 22 platforms**
- ▶ **Automatic dependency tracking**
- ▶ **Build time tests** for almost all packages
- ▶ **Continuous Integration tests** for majority of packages

## Contributions

Debian Astro is developed in an open, transparent fashion. We appreciate contributions of any type:

- ▶ **Feedback** and discussion on our mailing list,
- ▶ **Bug fixes**, patches and bug reports,
- ▶ **Packaging** of missing software

## The Debian Astro Team

The team was founded in 2014. So far, 35 people signed up for working on Debian Astro, with 13 active uploaders. The primary forum is our mailing list.

- ▶ **Web page:** <https://blends.debian.org>
- ▶ **Mailing list:** <https://lists.debian.org/debian-astro>

