

# Debian Astro: The first years

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- Free Linux based operating system
- One of the oldest distributions (founded 1993)
- **Free** as in “Free Speech”
- > 52,000 software packages
- > 1,200 official developers
- Social Contract; Debian Free Software Guidelines
- Base for many derivatives: **Ubuntu**, Mint, ...
- Current stable version: Debian 11 “Bullseye”, since August 2021
- Next version: Debian 12 “Bookworm”



- Debian: General-purpose distribution
- Problem: soo many packages
- Structure by topic
- propagate usage of Debian in a specific field
- promote software that builds a complete working environment
- *Blended tea*: a combination of different kinds of teas to guarantee consistent quality (Wikipedia)

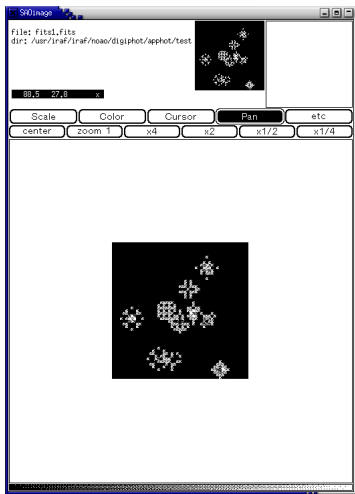


- Tie a solid network of Debian developers, upstream, and users
- Rationale: Experts in the field need help in packaging
- Upstream gets feedback from software integration
- Upstream developers even may become Debian maintainers



- **Debian Astro** - Astronomy and astrophysics
- **Debian GIS** - Geographical Information Systems
- **DebiChem** - Chemistry
- **Debian Med** - Strong focus on Microbiology
- **NeuroDebian** - Neuroscience
- **Debian Science** - “Umbrella” blend for sciences
- **Debian Edu** - Education of all kind
- Debian Games, Debian Junior, Debian Multimedia, Hamradio, ...

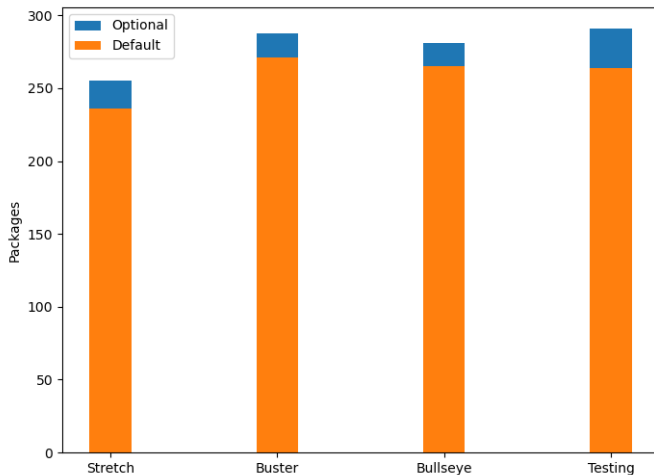




- First packages: saomage (1999), cfitsio (2000), iraf (2000), sextractor (2002), pyfits (2006)
- After 2006, many packages got unmaintained; bitrot, partial removal
- 2014 start with mailing list and alioth project
- 2016 official announcement of the Debian Astro Pure Blend
- 2017 First release (Debian Stretch)
- Logo created by Maria Hammerstrom



# Debian Astro Package Statistics



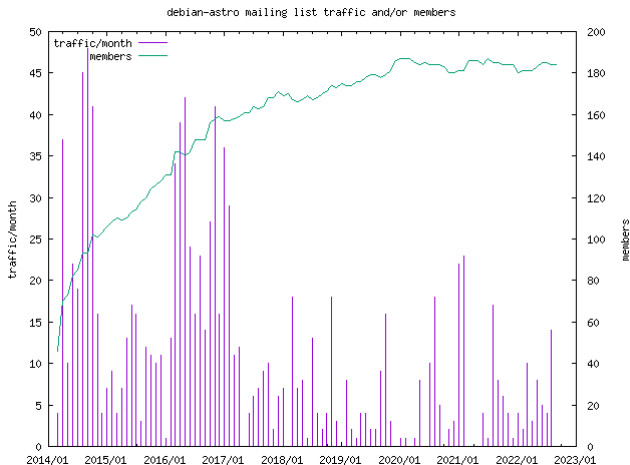
# The Debian Astro Team

- Mailing list: 180 subscribers
- Team members
  - total: 45
  - uploaders: 32
- Team maintained source packages: 248
- Git repositories in a central space (salsa.debian.org)
- Some package not maintained by the Debian Astro team
  - educational
  - publishing
  - general physics, data analysis etc.



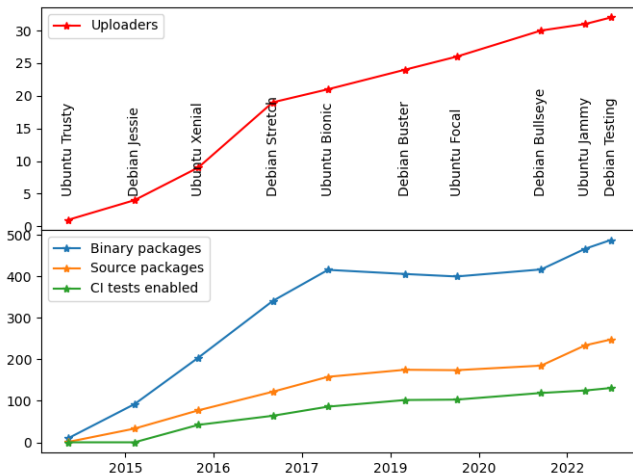


# Debian Astro Mailing list

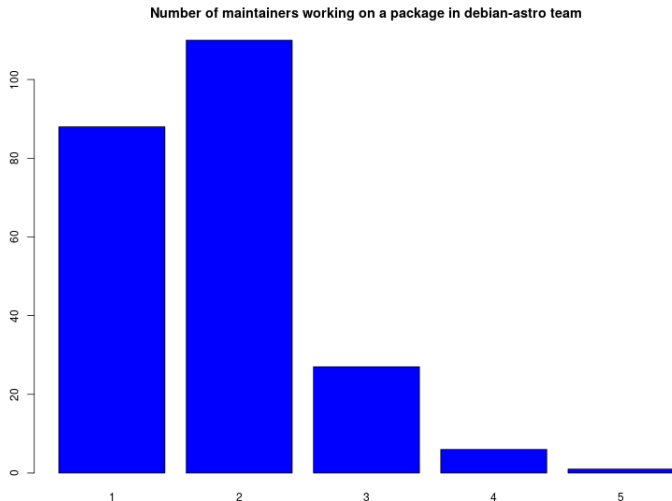


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# Debian Astro Package Statistics



# Debian Astro Package Maintainers



# Debian Astro Pure Blend Contents

- "Legacy"
  - IRAF, PyRAF
  - ESO-MIDAS
  - GDL (IDL replacement)
  - Tcl/Tk (DS9, fv, skycat)
- Java/Virtual Observatory
  - Aladin
  - Topcat
  - VO datasever software (GAVO DaCHs)
- Python
  - Astropy
  - affiliated packages
  - many "general" libs
- Radio Astronomy
  - casacore, cassbeam, wsclean, ...
- much more (education, publication, amateurs, ...)



- Licensing
  - unclear or unspecified license from upstream
  - files or code copied from somewhere else
  - “stolen” code: Numerical Recipes
- Dependencies and convenience copies
  - non-free
    - free replacement: IDL → GDL, PGPLOT → giza
    - package for “contrib” area
  - not packaged yet → packaging of dependency needed
  - outdated: try to migrate to latest version
  - local changes: discuss with upstream
- Unmaintained upstream packages
  - convince upstream to do (some) maintainance
  - take it as it is (as long as reasonable ...)
  - become upstream (IRAF, PyRAF)
  - abandon it

# Debian Astro Main Achievements

- (almost) all important software packaged
  - do you miss something?
- integration, testing of most (about 60 %) packages
  - package integration w/o programming language borders
- porting to other Debian architectures (32/64 bit, endianness)
- feedback to upstream
  - licensing issues
  - bugs, from users and from internal reviewers
  - porting issues: helping upstream on other places; f.e. IRAF/M1 mac



# Thank you



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- Policy: <https://www.debian.org/doc/debian-policy>
- Developers Reference:  
<https://www.debian.org/doc/manuals/developers-reference>
- Web page: <https://blends.debian.org/astro>
- Mailing lists:
  - Astro: <https://lists.debian.org/debian-astro>
  - Python: <https://lists.debian.org/debian-mentors>
  - Mentors: <https://lists.debian.org/debian-python>
  - Common development: <https://lists.debian.org/debian-devel>
- Salsa project; Git repositories:  
<https://salsa.debian.org/debian-astro-team>
- IRC: <irc://irc.debian.org/debian-astro>

