CASA website: download

Website: casa.nrao.edu

Releases:

Every ~2 months

But… only some releases

Contain VLA pipeline (~yearly)!

Installation:

- Monolithic (all-inclusive 'plug-and-play')

- Pip-wheel (Pythonic, Jupyter
                    Notebooks, Google Colab)

Latest version: CASA 6.4

The Release Notes and Known Issues of the 6.4 release are available in 🔳CASA Docs

CASA 6.4 is based on Python 3, and available either as a downloadable tar-file distribution with Python environment included, or as a modular version that can be installed with pip-wheels.

Manual processing can be done with any CASA version, but ALMA and VLA pipelines may differ and are not always included, so download the correct CASA version for pipeline use.

	Linux (RedHat 6, 7, 8)	Mac (OS 11, OSX 10.14, 10.15)
General Use (Notes)	CASA 6.4.0 (RH7/8 - Py 3.8) CASA 6.4.0 (RH7/8 - Py 3.6)	CASA 6.4.0 (OS11 - Py 3.8) CASA 6.4.0 (OS11 - Py 3.6) CASA 6.4.0 (10.15 - Py 3.8) CASA 6.4.0 (10.15 - Py 3.6)
ALMA Pipeline (Notes)	CASA 6.2.1 (RH6/7)	CASA 6.2.1 (10.15) CASA 6.2.1 (10.14)
VLA Pipeline (Notes)	CASA 6.2.1 (RH6/7)	CASA 6.2.1 (10.15) CASA 6.2.1 (10.14)

🔴 The above CASA versions can also be downloaded from our NAOJ CASA mirror site and NAOJ CASA-pipeline mirror site, or via Google Drive.

CASA 6: pip-wheel installation

CASA 6 can optionally be installed through modular pip-wheels, with the flexibility to build CASA tools and tasks into a customized Python environment. Instructions on how to install the pip-wheel version of CASA 6 can be found in CASA Docs: CASA 6 Installation and Usage

The modular pip-wheel version is not yet used in production by ALMA and VLA, and does not include any pipelines.
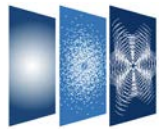
CASA Docs: official documentation

casadocs.readthedocs.io

🏠 » Common Astronomy Software Applications

🔗 Edit on GitHub

Common Astronomy Software Applications

CASA, the *Common Astronomy Software Applications*, is the primary data processing software for the Atacama Large Millimeter/submillimeter Array (ALMA) and Karl G. Jansky Very Large Array (VLA), and is often used also for other radio telescopes.

6.4.0 Release

CASA 6.4.0 can now be (downloaded) for general use. CASA 6.4.0 is available either as a downloadable tar-file, or through pip-wheel installation, which gives flexibility to integrate CASA into a customized Python environment.

Highlights:

- OS Support: CASA now supports RedHat 8, and Mac OS with Python 3.8, for both monolithic and modular versions. Note the Linux tarballs with different Python versions will extract to the same directory name.
- plotcal/plotms: Funtionality for plotcal has been migrated to plotms, and plotcal was deprecated.
- plotms: calibration table averaging with channel selection is now supported.
- fringefit: memory usage of fringefit has been reduced, allowing larger datasets to be processed.
- imhead: updated to display microsecond precision.
- caltables: the storage of frequency meta information in caltables improved, making certain frequency-dependent calibration solutions more accurate.
- sdintimaging: now adds information to the history of produced images
- T+dT timerange selection improved in accuracy.

Search docs

📖 Read the Docs   v: stable ▾

CASA Doc
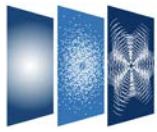
Search docs

Release Information
- Highlights
- Release Notes
- Known Issues
- Compatibility *New!*
- **Installation**
  - Monolithic Distribution
  - Modular Packages
- Index
- API
- Task List
- Using CASA
- CASA Fundamentals
- External Data
- Calibration & Visibilities
- Imaging & Analysis
- CARTA
- Pipeline
- Simulations
- Parallel Processing
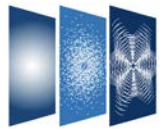- Memo Series & Knowledgebase
- Community Examples
- Change Log

Read the Docs   v: stable ▾

Full Monolithic Distribution

	Python 2.7	Python 3.6	Python 3.7	Python 3.8
RHEL 6	5.8	6.1, 6.2		
RHEL 7	5.8	>=6.1		>=6.4
RHEL 8				>=6.4
Ubuntu 18.04		>=6.2		>=6.4
Ubuntu 20.04		>=6.2		>=6.4
Mac OS 10.14	5.8	>=6.1		>=6.3
Mac OS 10.15	5.8	>=6.1		>=6.3
Mac OS 11 x86		>=6.3		>=6.3
Mac OS 11 ARM		TBD		TBD

Modular CASA

	Python 2.7	Python 3.6	Python 3.7	Python 3.8
RHEL 6		6.0, 6.1, 6.2	6.2	6.2
RHEL 7		>=6.0	>=6.2	>=6.2
RHEL 8		>=6.0	>=6.4	>=6.4
Ubuntu 18.04		>=6.0	>=6.2	>=6.2
Ubuntu 20.04		>=6.0	>=6.2	>=6.2
Mac OS 10.14		>=6.1		>=6.3
Mac OS 10.15		>=6.1		>=6.3
Mac OS 11 x86		>=6.3		>=6.3
Mac OS 11 ARM		TBD		TBD

of the

nnot r

l apps

-->

6. Optional: Create symbolic links to the CASA version and its executables (Administrator privileges are

CASA highlights (VLA/VLBA)

CASA releases 6.3/6.4

- Flagging: flagdata with time / channel averaging

- Calibration: phaseshift, new task for changing phase center

- Imaging: tclean handles mixed polarization setups; interactive tclean works in parallel mode; improvements savemodel step

- Plotting: plotcal functionality → plotms; caltable averaging with channel selection

- VLBA: Fringefit to handle large data sets; smoothing caltables produced by accor

- Large number of Bug fixes

   *New CASA release 6.4.4 release → next week (March 2022)*

VLBA Data Calibration in CASA

    VLBA CASA guide under development / [VLBA Scientific Memo #38](#)

CASA Next Generation Infrastructure (CNGI)

Infrastructure next-generation CASA to meet growing demands of radio telescopes (ngVLA)

- Prototyping completed and made available as a demonstration package to the community
  https://cngi-prototype.readthedocs.io/en/stable/
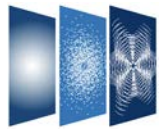
CASA resources

Primary resources (CASA team)

CASA Docs → official CASA documentation (https://casadocs.readthedocs.io)

CASA Website → official CASA website (https://casa.nrao.edu)

Primary resources (VLA/VLBA instrument teams)

CASA Guides → data reduction strategies (https://casaguides.nrao.edu)

NRAO Helpdesk → VLA/VLBA data reduction questions (https://help.nrao.edu)

Subscriptions and CASA Contact

casa-announce → announcements, releases (casa.nrao.edu)

CASA Newsletter → 2x per year (casa.nrao.edu)

casa-feedback@nrao.edu → general feedback