

DMS Panel of the Users Committee (DPUC)

Terms of Reference

17 April 2024

The NRAO Data Management and Software Department (DMS) has a responsibility to manage the development of user-facing software products, including the Common Astronomy Software Applications (CASA) software, CASA pipelines, new algorithms R&D, and data archives. As part of this responsibility, DMS will establish an external committee charged with advising it and its subdivisions on general user experience and matters important to general users regarding DMS-related software and data products from ALMA, VLA, VLBA, and other telescopes. This “DMS Panel of the Users Committee (DPUC)” will consist of a DMS subcommittee of the NRAO Users Committee, complemented by representatives from the ALMA executives. The DPUC replaces the CASA Users Committee (CUC).

CHARGE

The DPUC will provide an advisory role to all user-facing areas within DMS. This is driven by the continued need for input from the external user community regarding the use and development of the CASA data-processing software, as well as the growing role of pipelines and archives in data processing and the increased needs and perception among users in these areas. The primary responsibilities of the DPUC are to:

1. Advise DMS on the capabilities, usability, reliability, and performance of the CASA software, pipelines, archives, and R&D efforts from the perspective of the user community. The DPUC will advise on:
 - a. Perceptions amongst DPUC members and the community at large of DMS-related user products
 - b. Development priorities for the coming year
 - c. Any specific charge provided to the committee in advance of the meeting (solicited from NRAO SSR, the ALMA ARCs, and the JAO in advance of the annual meeting)
 - d. Advice on strategies for supporting non-NRAO telescopes

ALMA and VLA/VLBA institutional decisions regarding the infrastructure to produce DMS-related software and data products are the responsibility of the subsystem scientists mechanism and fall outside the scope of the DPUC.

2. Meet once a year with representatives from DMS (CASA, pipeline, ARDG, and archive teams) to discuss the current status, progress, and plans regarding data processing and products.
3. Represent the DPUC as a software subcommittee of the NRAO Users Committee (UC) at the annual UC meeting. The charge of the NRAO UC is provided in Appendix B.
4. Deliver a written report after the annual DPUC meeting to the NRAO Assistant Director for DMS within one month of the DPUC meeting. A response will be added to this report by DMS prior to the annual meeting of the NRAO Users Committee. This initial DPUC report will be made available to the NRAO Users Committee, and the final DPUC report following the UC meeting, together with a final DMS response report, will be made publicly available.

5. Appoint a deputy-Chair, who will become the Chair the following year. The Chair and deputy-Chair can optionally choose to continue in their respective roles for one year to preserve continuity.

DMS management may extend the charge if advice on specific areas is being sought.

MEMBERSHIP

1. The DPUC will consist of 8-10 members
2. The DPUC members are appointed for a period of three years, with the option to voluntarily serve a 4th year to preserve continuity where needed.
3. Between 2 and 4 members will be appointed through the NRAO Users Committee on behalf of NRAO, and will also form the software subcommittee of the UC. The DPUC Chair and deputy-Chair will be chosen from this software subcommittee of the UC.
4. The UC subcommittee will be complemented by: (1) four external members who represent the ALMA community and who will be appointed by the ALMA executives: two will be appointed by the East Asian ARC manager at NAOJ, and two by the European ARC manager at ESO. These ALMA members may or may not be ALMA staff, but should not be employed by NRAO or the NAASC; (2) two optional external members will be appointed by NRAO. At the discretion of the Assistant Director for DMS, these two members may represent external telescopes or the at-large community.
5. NRAO will cover travel costs for the members of the sub-committee of the UC. ALMA will be responsible for the costs related to the membership of their appointees, while optional at-large members representing telescope facilities will be covered by their sponsors.
6. The Assistant Director for DMS may modify membership conditions to reflect the users of the system or optimize advisory results.

2023-2024: The first year(s) of the DPUC will be a transition period from the CASA Users Committee (CUC) to the DPUC (see Appendix A). DMS and the NRAO UC will be flexible and amenable to updates and changes going forward.

ANNUAL CALENDAR

1. Meetings of the full DPUC committee will be once a year, around March/April, which is prior to the UC meeting.
2. DPUC meetings will be organized and hosted by DMS, who will seek input from the DPUC. (NRAO UC meetings will follow the charge of the NRAO UC; see Appendix B).

3. DPUC meetings will in principle be virtual, but a hybrid option can be considered. (NRAO UC meetings will follow the charge of the NRAO UC; see Appendix B).
4. The DPUC Report will be due one month after the DPUC meeting, after which the DMS response will be returned within one month. The report and DMS response will be made available to the UC no later than 2 weeks prior to the annual UC meeting. *(The first transition year may deviate from this.)*
5. Membership rotation will happen after the annual meeting of the NRAO UC and prior to the annual DPUC meeting with DMS.

APPENDIX A: Transition CUC to DPUC

Up until 2022, the general user community advised DMS on the management and development of the Common Astronomy Software Applications (CASA) software package through the CASA Users Committee (CUC). The general scope of the CUC was the capabilities, usability, reliability, and performance of CASA for use with ALMA, VLA, and other data from the perspective of the general community of CASA users. The CUC mentioned in their CUC report that, from a user perspective, the experience of using CASA is intricately linked to other user-facing areas of DMS, for example the use of pipelines that are supported by CASA, archives for which CASA needs to be backwards compatible, and documentation for products that rely on CASA.

Based on this, and following substantial changes in both DMS and CASA management, the CUC was asked (as per special charge of the NRAO Assistant Director for DMS) to recommend DMS on the future of the CASA Users Committee. The CUC recommendation in Dec 2022 was as follows:

- In the long term, the scope of the CUC seems mismatched to the current user experience, and the CUC does advise DMS/CASA to reconsider its basic charge. The user experience is now inextricably linked to a number of items not “directly CASA” - pipelines, compute, SRDP, etc., and this seems sure to become even more true over the next decade heading into ALMA WSU and ngVLA. These are already part of the presentations, but outside the formal charge. The most constructive use of our input and time seems to be to represent the real user experience.
- An expanded charge would likely overlap other committees representing users, especially the NRAO User’s Committee and there seems to be little point in duplicating review and input efforts. Connecting (or reconnecting) the CUC to the NRAO User’s Committee, e.g., as a subcommittee, would seem sensible if this would make it easier for DMS and CASA to get the feedback they need from a single, consistent source and there is a way to retain good international representation on the committee.

This recommendation was taken into consideration for the recommended transitioning of the CASA Users Committee (CUC) to the DMS Panel of the Users Committee (DPUC).

APPENDIX B: Charge NRAO Users Committee (v. 1 Feb 2022)

The NRAO Users Committee is a scientific advisory group that provides input to the National Radio Astronomy Observatory (NRAO) and the Green Bank Observatory (GBO) on issues that affect the Observatories' scientific productivity and user relations. The key roles and responsibilities of the NRAO/GBO Users Committee are described in the following sections, including the Committee's charge, membership, meetings, and annual calendar.

CHARGE NRAO UC

The NRAO/GBO Users Committee plays an important role in the functioning of the Observatories, advising on matters of concern to those whose research is dependent on the NRAO and GBO research facilities. The specific charge to the Users Committee from the Observatories follows:

- Provide advice to NRAO/GBO on scientific, technical, and development issues relating to the astronomical community's current and future use of NRAO/GBO research facilities, including the Atacama Large Millimeter/submillimeter Array, the Very Large Array, the Very Long Baseline Array, and the Green Bank Telescope;
- Make recommendations to NRAO/GBO that will maximize the scientific community's productivity and effectiveness using data and tools from the Observatories;
- Consult widely with current and potential NRAO/GBO users and communicate their requirements, recommendations, issues, and concerns to the Observatories;
- Comment on the research and development plans of the Observatories;
- Deliver an annual report to the NRAO/GBO Directors that summarizes the Committee's findings, recommendations and concerns.

The Committee may also become involved in advocacy and outreach on behalf of NRAO/GBO. In recent years, the Committee has become increasingly active in advising the Observatories between formal meetings. This is a valuable role that NRAO/GBO welcomes and encourages. For more information download the original [NRAO UC Charge](#) document.