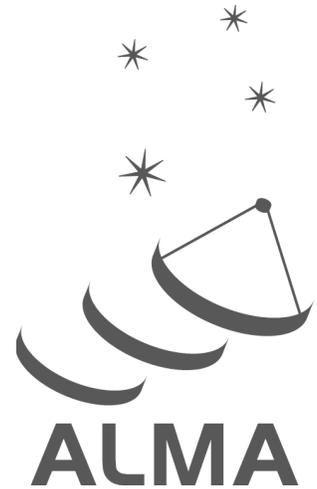


# ALMA Snooping Project Interface (SnooPI) User Manual

Evanthia Hatziminaoglou



[www.almascience.org](http://www.almascience.org)

## User Support:

For further information or to comment on this document, please contact your regional Helpdesk through the ALMA User Portal at [www.almascience.org](http://www.almascience.org). Helpdesk tickets will be directed to the appropriate ALMA Regional Centre at ESO,

NAOJ or NRAO.

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# 1. The ALMA Snooping Project Interface (SnooPI)

The ALMA Snooping Project Interface (SnooPI) is a read-only web application that allows Principal Investigators (PIs) and Co-Is to follow their ALMA projects from the moment of proposal submission all the way to data delivery. It also allows Contact Scientists to track all the ALMA projects supported by their node, by accessing exactly the same information that is made available to the PIs. SnooPI runs on Mozilla Firefox, Google Chrome and Safari.

## 2. The interface

A user needs to log in to the ALMA Science Portal (SP) to access SnooPI, from the SP left-hand menu, under 'Observing'. The landing page of the application is a Dashboard-like page with direct access to the user's projects and Scheduling Blocks (SBs) as PI (including Co-PI), Co-I and Delegee when available (showing the currently active and total number of projects). At the very top of the Dashboard, the name of the user is shown along with their Executive and ALMA Regional Centre (ARC), as shown in Figure 1. Behind the icon, there is a direct link to the User Profile in the SP, as well as the Logout option. The details of the various views and functionalities will be described in the following sections. Below the project buttons, an expandable newsfeed informs the users about the latest news for their projects. At the very bottom of the home page, a Search feature permits to look for a specific project or SB, by selecting from the pull-down menu.

The left-hand side menu is retractable and provides direct links to the Home page (dashboard view), Projects and SBs, the User Manual, the SP, the Archive Query Interface and the Helpdesk. At the very bottom, direct links to the pages of the three ALMA Executives (ESO, NRAO and NAOJ) are also available.

## 3. "My Projects" view

The Projects view for PIs (including Co-PIs), Co-Is and Delegees when applicable (in a different tab each) lists in a table the code, name, status and priority grade of all active projects and is sortable by any of these columns. Active projects are all approved projects of the current cycle with a priority grade A, B (i.e. high priority projects) or C (i.e. filler projects), A-ranked carry-over projects from the previous cycle, as well as projects from the previous cycle that have not yet been fully delivered. Before the decision of the ALMA Proposal Review Committee (APRC) is made public, projects submitted to the next cycle are also listed by default among the active projects. By ticking "All projects", all projects are listed including inactive ones (e.g. fully delivered projects from previous cycles, rejected projects etc), in reverse Project Code order. The status of a project is indicated by one of the following icons:

-  a white "thumbs up" symbols marks a project that has been submitted (Phase 1)
-  a red cross marks a project rejected at the proposal review stage (after the results of the APRC become public);

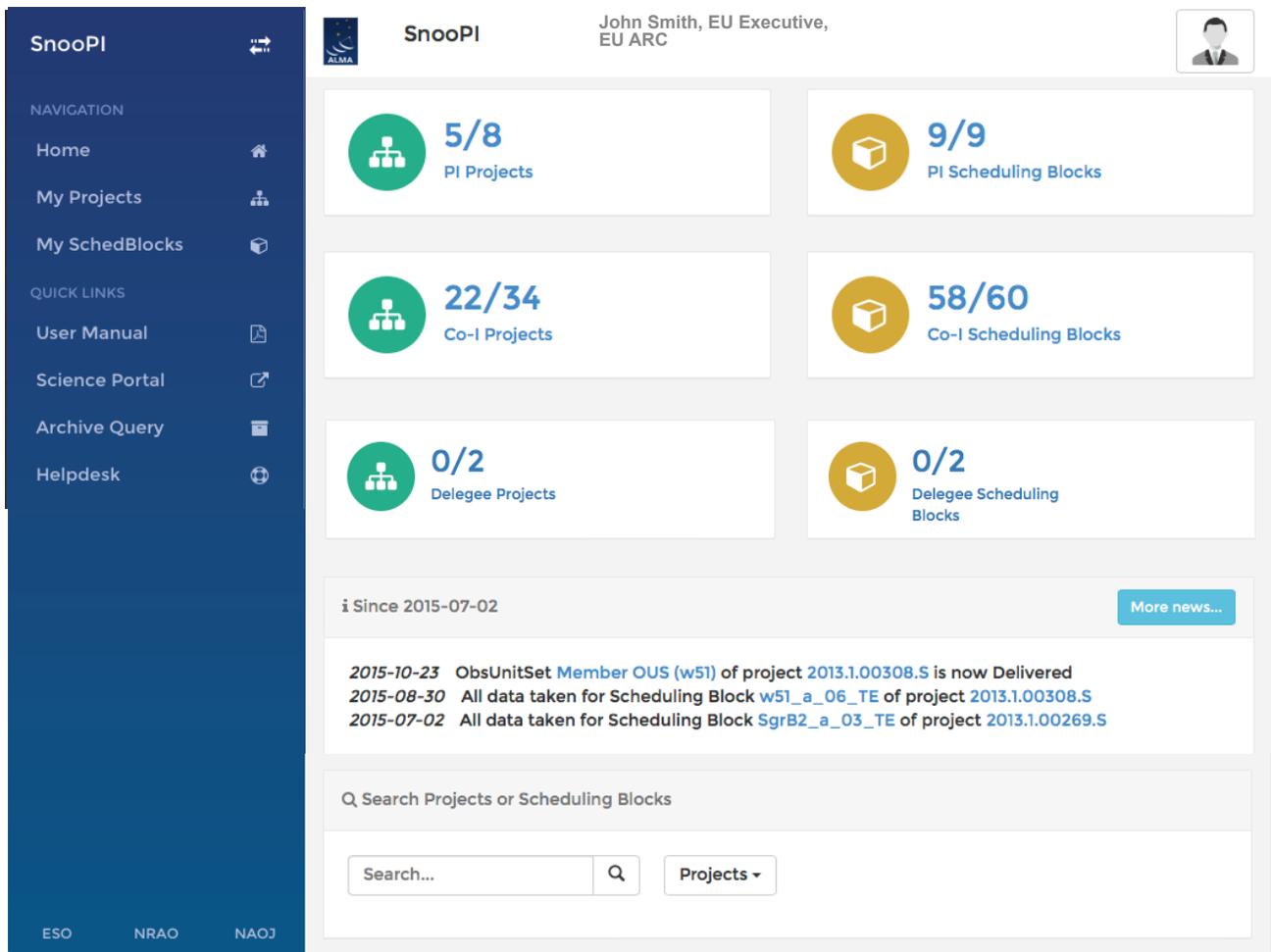


Figure 1. The SnooPI home page, with a dashboard appearance.

- \* an asterisk indicates an approved project (priority grades A, B or C) for which the Phase 2 material has not yet been submitted
- 👍 a blue “thumbs up” symbol indicates that the Phase 2 material has been submitted, but the project is not yet set to “Ready”, in other words it has not yet been placed in the observing queue;
- a red circle indicates that the project has been set to “Ready” but no data have been taken yet;
- ▲ an orange triangle indicates that some data have been taken;
- ✓ a green check-mark indicates that all the data have been taken;
- ☑ a check-mark inside a square indicates that the project has been completed and all data have been delivered; such projects only show if “All projects” is selected;
- ☑ similarly, a check-mark inside a blue square indicates a project that has been partially completed and all data taken have been delivered;

- ⊖ a stop sign indicates that the project has timed out; this can happen for time-critical projects or projects that require configurations that are no longer coming back in the current cycle;
- ✕ projects that have not been observed are marked by a blue cross;
- ↶ project that are not to be observed are indicated by an “undo” symbol;
- ❓ finally, a question mark indicates an unknown project status, i.e. not properly set in the data base

The screenshot shows the SnooPI interface for John Smith, EU Executive, EU ARC. The 'My Projects' list is displayed with the following data:

Project code ▲	Project Title ▲	Status ▲	Grade ▲
2015.1.09876.S	A most inspired project title	*	A
2013.1.04567.S	Observing stars, planets, nebulae, open clusters, globular galaxies and galaxy clusters with ALMA	⊖	C
2013.1.06789.S	Observing the centre of the galaxy with ALMA	✓	B
	SgrB2_a_03_TE	✓	
	SgrB2_a_03_TC	✓	
	SgrB2_a_03_7M	✓	
	SgrB2_a_03_TP	⊖ All data taken	
	3c454.3_SgrB2_a_03_TP	✓	

Figure 2. “My Projects” list with the SB list of the last project deployed, after clicking on the cube next to the project code.

By hovering over a symbol, a text box explaining the meaning of the symbol will appear. To the left of the project name, a cube indicates that SBs have been submitted for this project. Clicking on the cube will open a list with all the available SBs for a given project listed by their names, with an associated status next to them. A blue “thumbs up” indicates that the SBs have been submitted but not yet set to “Ready”. The red circle, orange triangle and green check-mark have the same meaning as for a project, namely no/some/all data taken (and successfully passed a level 0 quality assurance - QA0), checked against the required number of executions. A small blue cross marks SBs that have been cancelled, while a question mark indicates an unknown state. Hovering over a symbol will again trigger some explanatory text (see Figure 2).

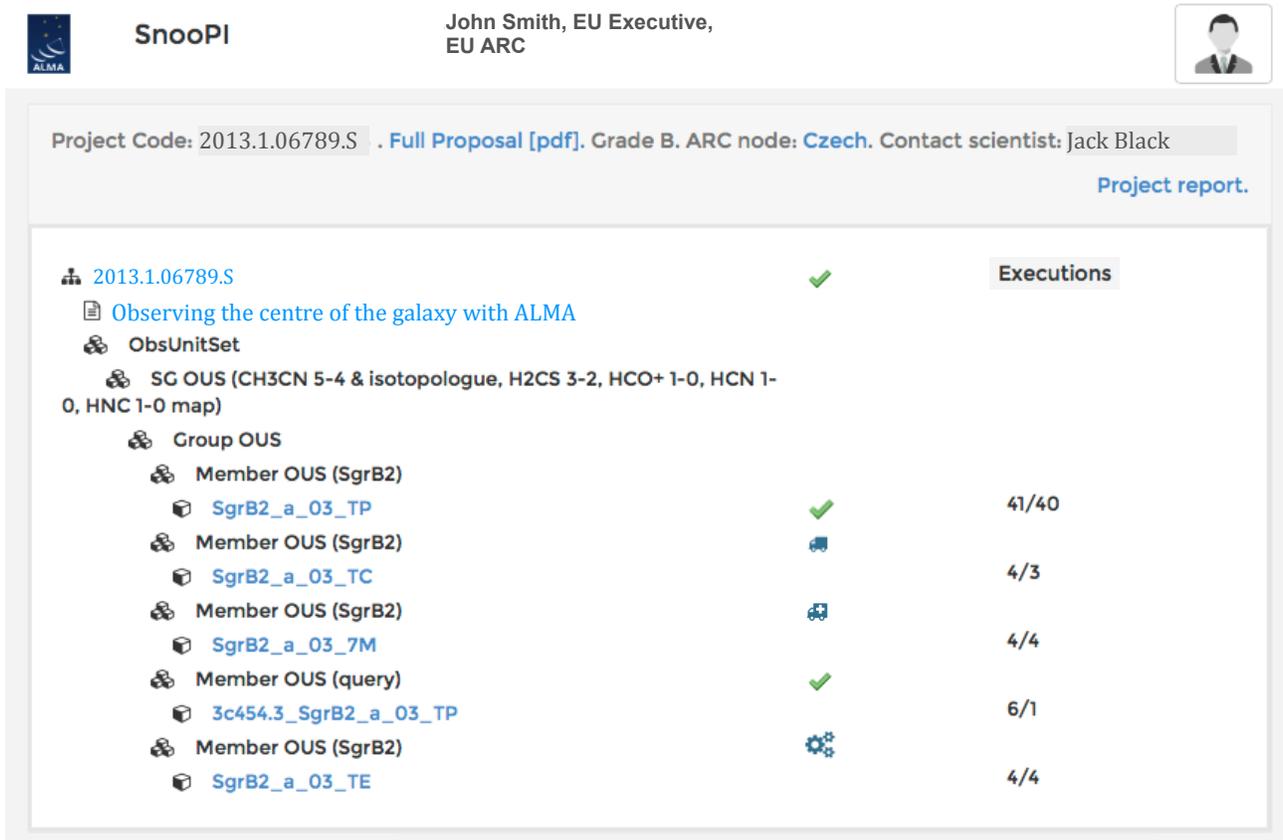
The Search function at the top of the list allows the user to look for specific projects by project code.

### 3.1. The project tree view

Clicking on the project title will reveal the list of Co-Is, the abstract of the proposal and the APRC consensus report. Each SB links to its individual detailed view panel, described in Section 5. At the top of the project panel there are links to the web page of the corresponding ARC node, the project report and the pdf file of the proposal. The name of the Contact Scientist is also shown, when available.

Clicking on the project code will open the project tree on a new panel of the application. The project tree structure is identical to that in the ALMA Observing Tool. The number of successful executions is shown next to each SB. After the successful completion of executions, the status is no longer shown next to the SB but next to the corresponding Member Observing Unit Set (OUS), with one of the following symbols:

-  a set of gears indicate that the OUS is being processed;
-  a truck indicates that the OUS has been delivered (see Figure 3);
-  an ambulance indicates an OUS for which QA3 is in progress.



The screenshot shows the SnooPI interface. At the top, it displays the project code 2013.1.06789.S, the title 'Observing the centre of the galaxy with ALMA', and the contact scientist Jack Black. Below this, a tree view shows the following structure:

- 2013.1.06789.S (Status: Green checkmark)
- Observing the centre of the galaxy with ALMA
- ObsUnitSet
  - SG OUS (CH3CN 5-4 & isotopologue, H2CS 3-2, HCO+ 1-0, HCN 1-0, HNC 1-0 map)
  - Group OUS
    - Member OUS (SgrB2)
      - SgrB2\_a\_03\_TP (Status: Green checkmark, Executions: 41/40)
      - Member OUS (SgrB2) (Status: Truck icon, Executions: 4/3)
      - SgrB2\_a\_03\_TC (Status: Truck icon, Executions: 4/4)
      - Member OUS (SgrB2) (Status: Ambulance icon, Executions: 4/4)
      - SgrB2\_a\_03\_7M (Status: Green checkmark, Executions: 6/1)
      - Member OUS (query)
        - 3c454.3\_SgrB2\_a\_03\_TP (Status: Green checkmark, Executions: 6/1)
      - Member OUS (SgrB2) (Status: Gears icon, Executions: 4/4)
      - SgrB2\_a\_03\_TE (Status: Green checkmark, Executions: 4/4)

Figure 3. The project tree view.

## 4. “My SchedBlocks” view

The SchedBlock (Scheduling Block or SB) view lists in a table the project code, the SB name, the SB unique identifier (UID) mentioned in the data delivery e-mail to the PI, the status of the SB and the number of successful (i.e. that have passed QA0) executions. To facilitate users searching, the SB table can be sorted by project code, SB name, UID and status, and is also supported by the Search functionality. By selecting “All SBs”, SBs from non-active projects will also be listed, when available.

### 4.1. The Scheduling Blocks detailed view

Clicking on an SB name, a new panel will open with the project tree on the left-hand side and the details of the SB on the right side (see Figure 4), namely:

- the name of the original Science Goal
- an SB status history button (“History”)
- the uid of the MOUS, a status history button and the possibility to launch an ALMA archive query (“Archive query” button) for this uid as soon as there is a QA0\_PASS EB (see Figure 4 for an example). The results of the query will be displayed in a new tab;
- the Array (12-m, 7-m or TP), band, representative frequency, nominal configuration, minimum and maximum angular resolution, and the number of successful executions;
- the time constrains and visit constrains for time-critical projects; hovering over the underlined text, the list of requested time-slots appears, and/or links to other SBs that need to be executed in sequence, when applicable;
- the QA2 status (when set in the database) and a link to the QA2 report;
- a list of all the corresponding Execution Block (EB) IDs, with their execution end times, execution duration, QA0 status and links to the corresponding QA0 reports. The QA0 status is indicated by:
  - ✓ green check-mark to signify QA0\_PASS;
  - ✓⚠ green check-mark with adjacent danger symbol to signify QA0\_SEMIPASS;
  - red circle to signify QA0\_FAIL.

### 4.2. The Execution Blocks detailed view

Clicking on an EB will expand the bottom of the SB panel to list EB details on the  $T_{\text{sys}}$  and the Array (number of antennas, minimum and maximum baselines, angular resolution and maximum recoverable scale), as well as the science target and calibrators used in this particular EB with their respective coordinates and on-source times (see Figure 4).

2013.1.06789.S ✓

Observing the centre of the galaxy with ALMA

ObsUnitSet

- SG OUS (CH3CN 5-4 & isotopolog...
- Group OUS
  - Member OUS (SgrB2)
    - SgrB2\_a\_03\_TP
    - Member OUS (SgrB2)
      - SgrB2\_a\_03\_TC
      - Member OUS (SgrB2)
        - SgrB2\_a\_03\_7M**
        - Member OUS (query)
          - 3c454.3\_SgrB2\_a\_03\_TP
          - Member OUS (SgrB2)
            - SgrB2\_a\_03\_TE

Scheduling Block Name **SgrB2\_a\_03\_7M** ✓ [History](#)

Scientific Goal Name **7m observations of my most favourite objects in the whole Universe**

Member ObsUnitSet **uid://A001/X121/X4bc** [History](#) [Archive query](#)

Array **7m Array**

Band **3**

RA **17<sup>h</sup> 47<sup>m</sup> 19.438<sup>s</sup>**

Dec **-28° 23' 29.780"**

Representative Frequency, GHz **91.28**

Successful Executions **4 / 4**

End time	Duration [min]	Execution Block UID	QA0
2014-07-03 05:59:44	64.07	uid://A002/X85dcf7/Xefe	✓ Report
2014-07-03 04:39:10	64.49	uid://A002/X85dcf7/Xc7c	✓ Report
2014-07-02 06:49:28	70.38	uid://A002/X85c183/X1434	✓ Report
2014-07-01 07:02:06	70.18	uid://A002/X85b7b2/Xb3	✓ Report

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Execution block uid://A002/X85dcf7/Xefe

Temperatures [°K]		Array	
Average T <sub>sys</sub>	<b>41.79</b>	Number of antennas	<b>8</b>
σ	<b>21.35</b>	Shortest baseline	<b>8.903 m</b>
T <sub>sys,min</sub>	<b>N/A</b>	Longest baseline	<b>47.986 m</b>
T <sub>sys,max</sub>	<b>64.55</b>	Angular resolution	<b>13.65 arcsec</b>
		Maximum Recoverable Scale	<b>73.291 arcsec</b>

Sources

Intent	Object	RA	Dec	Time [min]
Science Target	SgrB2	17 <sup>h</sup> 47 <sup>m</sup> 19.4 <sup>s</sup>	-28° 23' 29.8"	<b>26.21</b>
Amplitude Calibrator	J1733-130	17 <sup>h</sup> 33 <sup>m</sup> 2.7 <sup>s</sup>	-13° 4' 49.5"	<b>5.04</b>
Atmospheric Calibrator	J1733-130	17 <sup>h</sup> 33 <sup>m</sup> 2.7 <sup>s</sup>	-13° 4' 49.5"	<b>0.29</b>
Atmospheric Calibrator	J1700-2610	17 <sup>h</sup> 0 <sup>m</sup> 53.2 <sup>s</sup>	-26° 10' 51.7"	<b>0.29</b>
Atmospheric Calibrator	SgrB2	17 <sup>h</sup> 47 <sup>m</sup> 19.4 <sup>s</sup>	-28° 23' 29.8"	<b>0.58</b>
Bandpass Calibrator	J1700-2610	17 <sup>h</sup> 0 <sup>m</sup> 53.2 <sup>s</sup>	-26° 10' 51.7"	<b>10.08</b>
Flux Calibrator	J1733-130	17 <sup>h</sup> 33 <sup>m</sup> 2.7 <sup>s</sup>	-13° 4' 49.5"	<b>5.04</b>
Phase Calibrator	J1744-3116	17 <sup>h</sup> 44 <sup>m</sup> 23.6 <sup>s</sup>	-31° 16' 36.3"	<b>5.04</b>
Pointing Calibrator	J1700-2610	17 <sup>h</sup> 0 <sup>m</sup> 53.2 <sup>s</sup>	-26° 10' 51.7"	<b>2.02</b>

Figure 4. Detailed SB/EB view next to the project tree view.



The Atacama Large Millimeter/submillimeter Array (ALMA), an international astronomy facility, is a partnership of the European Organization for Astronomical Research in the Southern Hemisphere (ESO), the U.S. National Science Foundation (NSF) and the National Institutes of Natural Sciences (NINS) of Japan in cooperation with the Republic of Chile. ALMA is funded by ESO on behalf of its Member States, by NSF in cooperation with the National Research Council of Canada (NRC) and the National Science Council of Taiwan (NSC) and by NINS in cooperation with the Academia Sinica (AS) in Taiwan and the Korea Astronomy and Space Science Institute (KASI).

ALMA construction and operations are led by ESO on behalf of its Member States; by the National Radio Astronomy Observatory (NRAO), managed by Associated Universities, Inc. (AUI), on behalf of North America; and by the National Astronomical Observatory of Japan (NAOJ) on behalf of East Asia. The Joint ALMA Observatory (JAO) provides the unified leadership and management of the construction, commissioning and operation of ALMA.

