



Atacama Large Millimeter/ submillimeter Array

User Portal and ALMA Science Archive (ASA)

User Manual

Doc. No. ALMA-MAN-ESO-cccc-nnnn

Release 0.1
28. September, 2010

First Draft: Limited Distribution

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Name Date Signature

Approved
Name Date Signature

Released
Name Date Signature

Change Record

Release	Date	Section/Par. affected	Reason/Initiation/Documents/Remarks
0.1	28.09.2010	all	first version

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Chapter 1

Introduction

1.1 Disclaimer

The User Portal is at the moment in its early stages of development. Content but also layout, services and ways of interaction are expected to change on short timescales. This is especially true as at the time of writing the first Integrated Test of the portal was not completed and a fair number of comments are expected. This document describes the User Portal functionality in its current state. In some sections functionality that will be implemented but is Not Yet Available is marked NYA.

1.2 Purpose

This manual describes the ALMA User Portal (UP) which is the main access point for external scientific users of ALMA as well as for ALMA staff.

The User Portal is intended to firstly provide a one-stop access gateway to all ALMA web tools relevant to users for proposal preparation, project tracking, project data access and – depending on the user roles – the proposal evaluation. (Chapter 2).

Secondly, it also provides access to the ALMA database most notably the access to the ALMA science archive (ASA) allowing scientists to query for and retrieve scientific raw and reduced data. For internal users, the UP also provides access to the lower-level database content like the logging and monitoring data. (Chapter 3).

Thirdly, it offers offers a link to the helpdesk for user support. (Chapter 4).

And finally, it provides links to the complete documentation of ALMA and its subsystems (NYA). (Chapter 5).

1.3 User Portal deployment

The ALMA User Portal runs identically at the ALMA centre in Chile as well as at the three ALMA Regional Centres (ARC) in East Asia, Europe and North America:

- Chile: webpage <http://www.almaobservatory.org>, User Portal <http://asa.alma.cl/asa>

- East Asia: ARC webpage <http://alma.mtk.nao.ac.jp/e/>, User Portal (NYA)
- Europe: ARC webpage <http://www.eso.org/sci/facilities/alma/arc/>, User Portal (NYA)
- North America: <http://www.cv.nrao.edu/naasc/>, User Portal (NYA)

Each ARC provides scientific user support in the core areas of proposal preparation (Phase I), observation program preparation (Phase II), basic data reduction, and data analysis to users in their respective communities. A Helpdesk system (see chapter 4) is available to facilitate this support.

New versions of the UP are developed centrally and deployed simultaneously at the four different sites. User support and data delivery to PIs as well as to archive general users will be handled by the three ARCs.

1.4 User registration

The current ALMA policy states that all users must be registered and be logged into the UP in order to access the software tools, the helpdesk or query the archive. Querying or downloading data through the Virtual Observatory (VO) will be available anonymously.

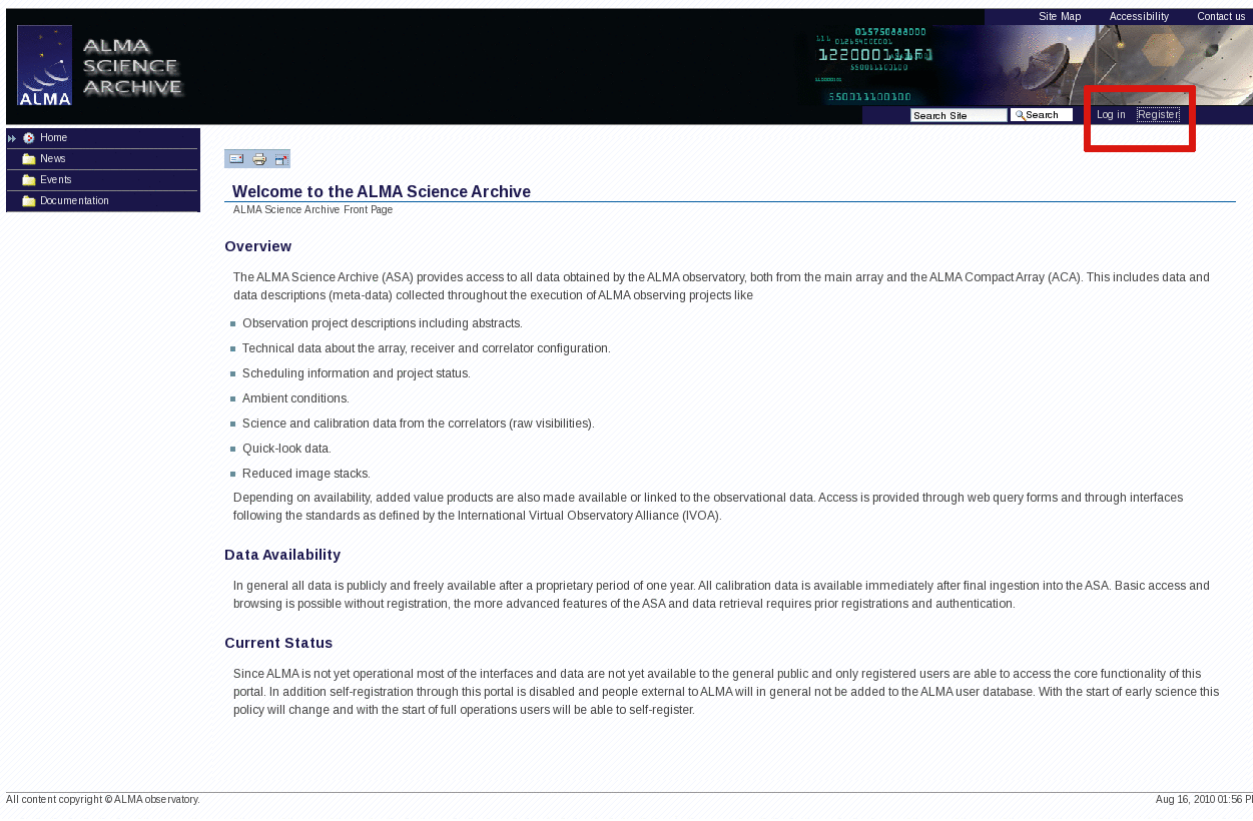


Figure 1.1: The User Portal front page. The links for user registration and/or Log in can be found in the upper right corner of the portal.

The information that must be entered upon registration encompasses

- User Name (e.g. "jsmith").
- E-mail address.

- Password. The password should be at least 5 characters long. Please choose a strong password as it potentially also protects your PI data.
- First name (e.g. "John").
- Middle initial (e.g. "G"). (NYA)
- Surname (e.g. "Smith").
- Postal address. This address will be used to send data to you if you are a PI of a successfully completed observation or if you have requested delivery of data from the science archive on media. (NYA)
- The preferred ALMA Regional Centre. This centre will provide help with the whole process from proposal preparation to data retrieval. This centre should be the one located closest to you geographically.
- The EXEC. This is the Executive to which you belong. This determines into which time budget proposals you submit will be counted. This entry will be the same as for the entry ARC except for Chilean users who should select "CL" and users which are not part of an ALMA partner country who should select "Other".

Unregistered users can send an email via the "Contact us" button in the upper right-most corner of the User Portal page. This email will be sent to the maintainer of the UP installation who then takes the appropriate actions. It is however expected that this mechanism only is used very rarely e.g. in the case of problems with the registration itself. Once you are registered, a powerful and comprehensive Helpdesk system is available (see section 4).

Once you are registered and logged in, a large number of additional menu items are available.

ALMA SCIENCE ARCHIVE

Site Map Accessibility Contact us

015750888000
12200011111
35001333300
550011100100

Search Site Search Felix Stoehr Log out

- Home
- Science Archive
- XML Store
- Bulk Store
- Monitor/Logging Store
- News
- Events
- Users
- Services
- Archive admin
- Documentation
- Proposal handling
- Project Tracker
- Assessor tool
- ARP meeting tool
- APRC meeting tool
- Meeting tool
- Helpdesk

Welcome to the ALMA Science Archive
ALMA Science Archive Front Page

Overview

The ALMA Science Archive (ASA) provides access to all data obtained by the ALMA observatory, both from the main array and the ALMA CompactArray (ACA). This includes data and data descriptions (meta-data) collected throughout the execution of ALMA observing projects like

- Observation project descriptions including abstracts.
- Technical data about the array, receiver and correlator configuration.
- Scheduling information and project status.
- Ambient conditions.
- Science and calibration data from the correlators (raw visibilities).
- Quick-look data.
- Reduced image stacks.

Depending on availability, added value products are also made available or linked to the observational data. Access is provided through web query forms and through interfaces following the standards as defined by the International Virtual Observatory Alliance (IVOA).

Data Availability

In general all data is publicly and freely available after a proprietary period of one year. All calibration data is available immediately after final ingestion into the ASA. Basic access and browsing is possible without registration, the more advanced features of the ASA and data retrieval requires prior registrations and authentication.

Current Status

Since ALMA is not yet operational most of the interfaces and data are not yet available to the general public and only registered users are able to access the core functionality of this portal. In addition self-registration through this portal is disabled and people external to ALMA will in general not be added to the ALMA user database. With the start of early science this policy will change and with the start of full operations users will be able to self-register.

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Figure 1.2: The User Portal front page when you are logged in.

Chapter 2

Software tools

2.1 Observing tool (OT)

The ALMA Observing Tool (OT) is the software tool that supports astronomers in constructing a full Observing Project for the ALMA Observatory.

Basically, such Observing Programs will be submitted to the Observatory in two parts. The first is a Phase I Observing Proposal that will have its emphasis on the scientific justification of the proposed observations. The second part of the project is the Phase II Observing Program that can be submitted to the ALMA Observatory if observing time has been granted by the Time Allocation Committee (TAC) on the basis of the accepted proposal.

The ALMA OT is a client program based on Java that is downloaded by all ALMA users which can be done directly from the User Portal (NYA in the meantime please use this link

<http://www.roe.ac.uk/ukatc/projects/alma/almaot/IT2/>).

A user guide for the OT is available at:

<http://wikis.alma.cl/twiki/pub/DSO/ObsPrepAuguste2e/ALMA-OT-UserManual.pdf>

and the OT reference manual can be obtained from here:

<http://wikis.alma.cl/twiki/pub/DSO/ObsPrepAuguste2e/ALMA-OT-RefManual.pdf>

If you have registered at the User Portal, your login will be available in the Observing Tool. Click on the "Set PI" button in the "Principal Investigator" tab to search the database for registered PIs and select yourself. Upon proposal submission, you will then be asked for your ALMA password which you entered when registering with the User Portal.

2.2 Phase 1 Manager (Ph1M)

If you are part of ALMA staff and carry out the duty of a technical assessor or are an external scientific assessor, you have access to the Phase 1 Manager tool.

The Phase 1 Manager (Ph1M) is a web-based tool designed to facilitate the various tasks associated with the processing of ALMA proposals from their submission through to the conclusion of the proposal review process. The Ph1M features a range of "sub-tool" interfaces, the presentations of which are specifically tailored to the roles assigned to each user. (Assessor tool, ALMA Review Panels (ARPs) tool, ALMA Proposal Review Committee (APRC) tool, Meeting tool)

The Ph1M can be accessed directly from the User Portal. The credentials given upon login into the UP will be forwarded to the Ph1M.

A user guide for the Ph1M is accessible from here: [NYA](#)

2.3 Project Tracker (PT)

If you a PI or part of ALMA staff, then you might have access to the Project Tracker (PT).

The aim of the Project Tracker is to track the status of an ALMA observing project and its constituent parts (eg. scheduling blocks) after the project is accepted and scheduled for observing. This tracking can be done by various users, including the PI and ALMA Staff, who play different roles during the lifetime of the project (from acceptance to completion).

The Project Tracker allows control and monitoring of the life-cycle of an observing project. As projects and schedule blocks (SBs) flow through the ALMA system, they change state and gather additional information. All this information can be seen and managed using the Project Tracker, but not all parts can be seen by all users.

The PT can be accessed directly from the User Portal. Just as for the Ph1M, the credentials given upon login into the UP will be forwarded to the PT.

A user guide for the Project Tracker is accessible from here: [NYA](#)

Chapter 3

ALMA Science Archive (ASA)

The ALMA science archive holds all scientific and project metadata relevant for archival research. It supports scientific queries either through a web interface or through Virtual Observatory (VO) tools. The data selected by you can then be obtained through the ALMA request handler and either be downloaded over the internet (the preferred solution) or be shipped to you on media. (NYA)

The data itself will be made public in general after a proprietary period of 12 months. Access to metadata, i.e. the description of the proposal as well as the description of the data will be made available immediately.

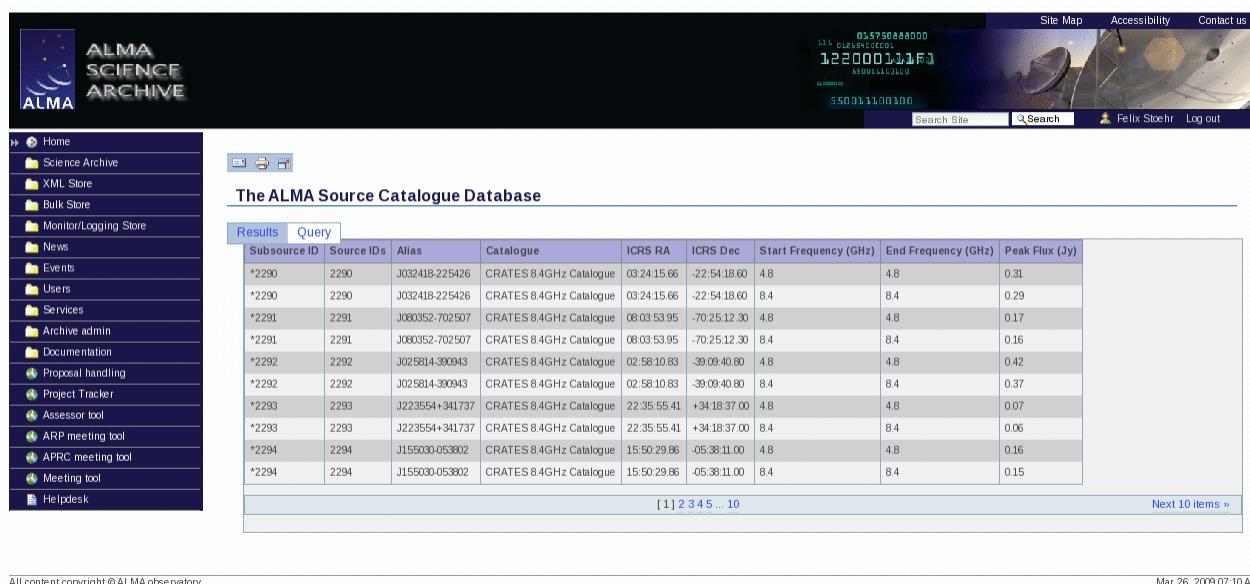


Figure 3.1: Example of a catalogue search result using the CRATES 8.4GHz Catalogue

3.1 Science data queries

These query interfaces allow to search for scientific quantities like the observed object in the sky, the frequencies and the exposure time. The results of the searches are sortable and paged for easier browsing.

3.2 Project data queries

These query interfaces allow to search for entities that are related to the project like the name of the PI, or the name of the project.

3.3 Catalogue queries

These query interfaces allow to search for already known sources or spectral lines. Catalog searches are most relevant during the process of the writing of a proposal as for example positions and brightnesses of selected sources can be obtained.

3.4 Low-level access

ALMA staff has the possibility to access the XML Store database directly from the user portal for example searching for a specific ALMA Science Data Model (ASDM) given the Unique Identifier (UID). They have also the possibility to check the status of the Bulk Store using the Next Generation Archive System (NGAS) and for example check the NGAS disk status or the last 100 inserted files. Staff at the Operations Support Facility (OSF) in Chile will also have access to the monitor and logging data.

Chapter 4

Helpdesk

The ARC nodes provide extensive help to users for all issues related to scientific use of ALMA resources. Again, once you are logged into the portal, your user credentials will be forwarded to the Helpdesk system.

Your Helpdesk tickets will be treated by the ARC you are registered with, i.e. your closest ARC. This might include forwarding the ticket to an ARC node or to another ARC. It is ALMA policy that all tickets will be replied to within 2 working days. Once the ticket is resolved and you are happy with the answer the ticket should be closed by you.

In addition to the normal ticket submission process, the Helpdesk system also contains a powerful knowledge base that contains answers to frequently asked questions.

A user guide for the Helpdesk System is accessible from here: [NYA](#)

Chapter 5

User information

The User Portal is meant to be the scientific access point combining all resources necessary for science users. This does include documentation of all relevant aspects including descriptions facility itself and its specifications, of the proposing process and the proposal evaluation, of the tracking of accepted proposals, of the access to the science archive as well as of the Helpdesk system.

5.1 News

NYA

5.2 Events

NYA

5.3 Documentation

NYA

Chapter 6

Acronym List

ACA: Atacama Compact Array
ALMA: Atacama Large Millimeter/submillimeter Array
APRC: ALMA Proposal Review Committee
ARC: ALMA Regional Centre
ARP: ALMA Review Panels
ASA: ALMA Science Archive
ASDM: ALMA Science Data Model
NGAS: Next Generation Archive System
OT: Observing Tool
Ph1M: Phase 1 Manager
PI: Principal Investigator
PT: Project Tracker
SB: Scheduling Block
UID: Unique Identifier
UP: User Portal