Data Management and Access Overview

2025-05-28

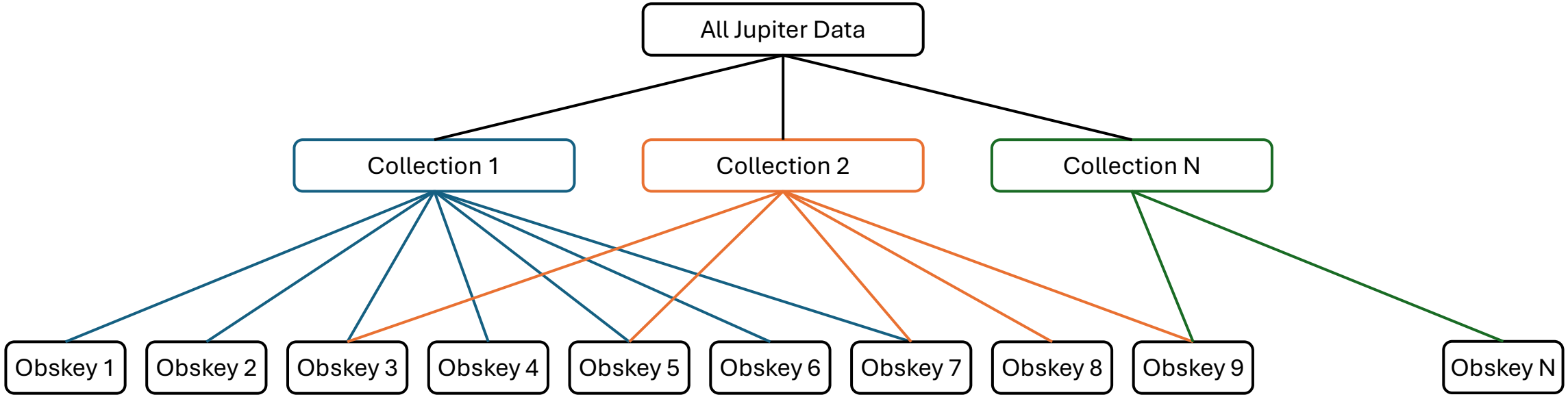
What comprises an ‘Observation?’

- A set of 11 videos in two categories:
  - The science video set includes four pairs of two-minute videos in the science wavelength bands
  - The context video provides an RGB optical image for context and interpretation of the science data
- Each observation is identified by an observation key (obskey):
  - YYYYMMDDUT<a-z>
  - Where a-z is a sequential index of the observations on that date
- ‘(Observing) Session’ is comprised of all observations on a given date

Purpose			Center Wavelength (nm)	Video Duration (s)	Center Time (s)	Sys. 2 CM (deg)
Continuum			656	120	-420	-4.2
			632	120	-300	-3.0
	CH4		620	120	-180	-1.8
		NH3	647	120	-60	-0.6
			647	120	60	0.6
			620	120	180	1.8
			632	120	300	3.0
			656	120	420	4.2
(IR)GB Context			>685	60	510	5.1
			550	60	570	5.7
			450	60	630	6.3

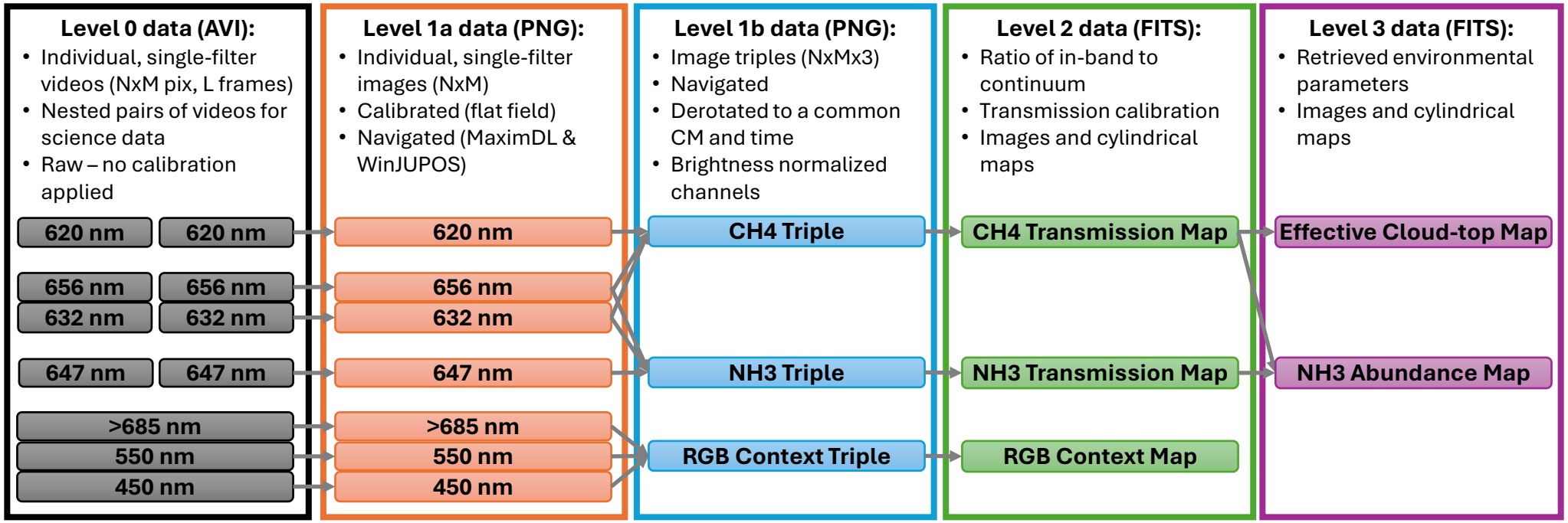
A single observation with a “nested” sequence of science observations to maximize signal to noise and minimize rotational offsets in Jupiter’s central .

Organization Concept



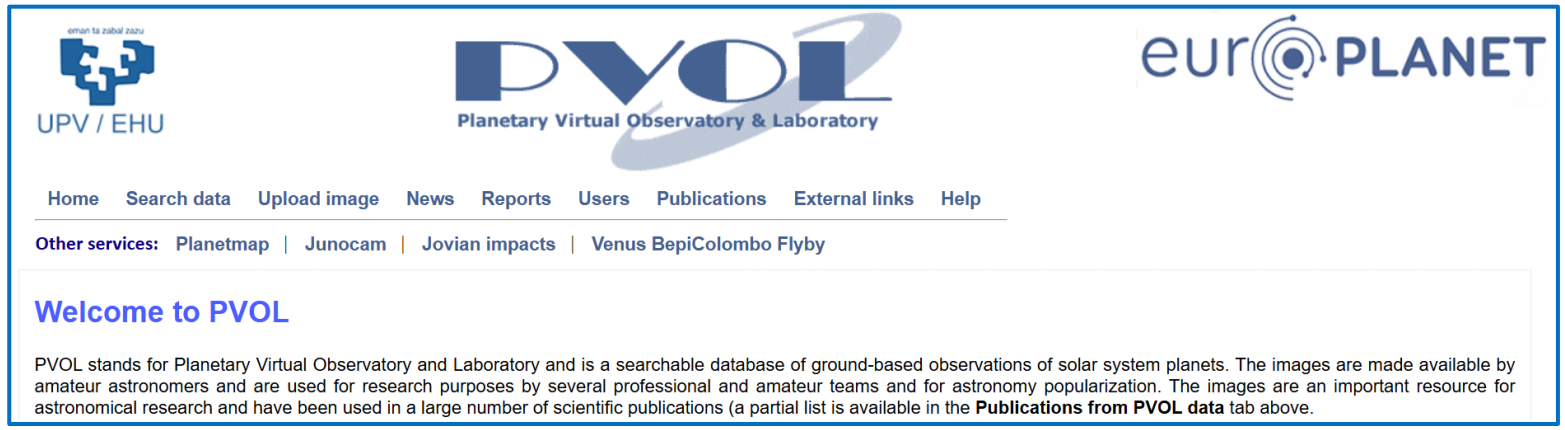
- Collections are sets of observations (obskeys) specified by a start and end date and a descriptive string, e.g., ‘20250116-20250116 NEDF Study’
- Tons of purposes with overlap in collections

Data Levels

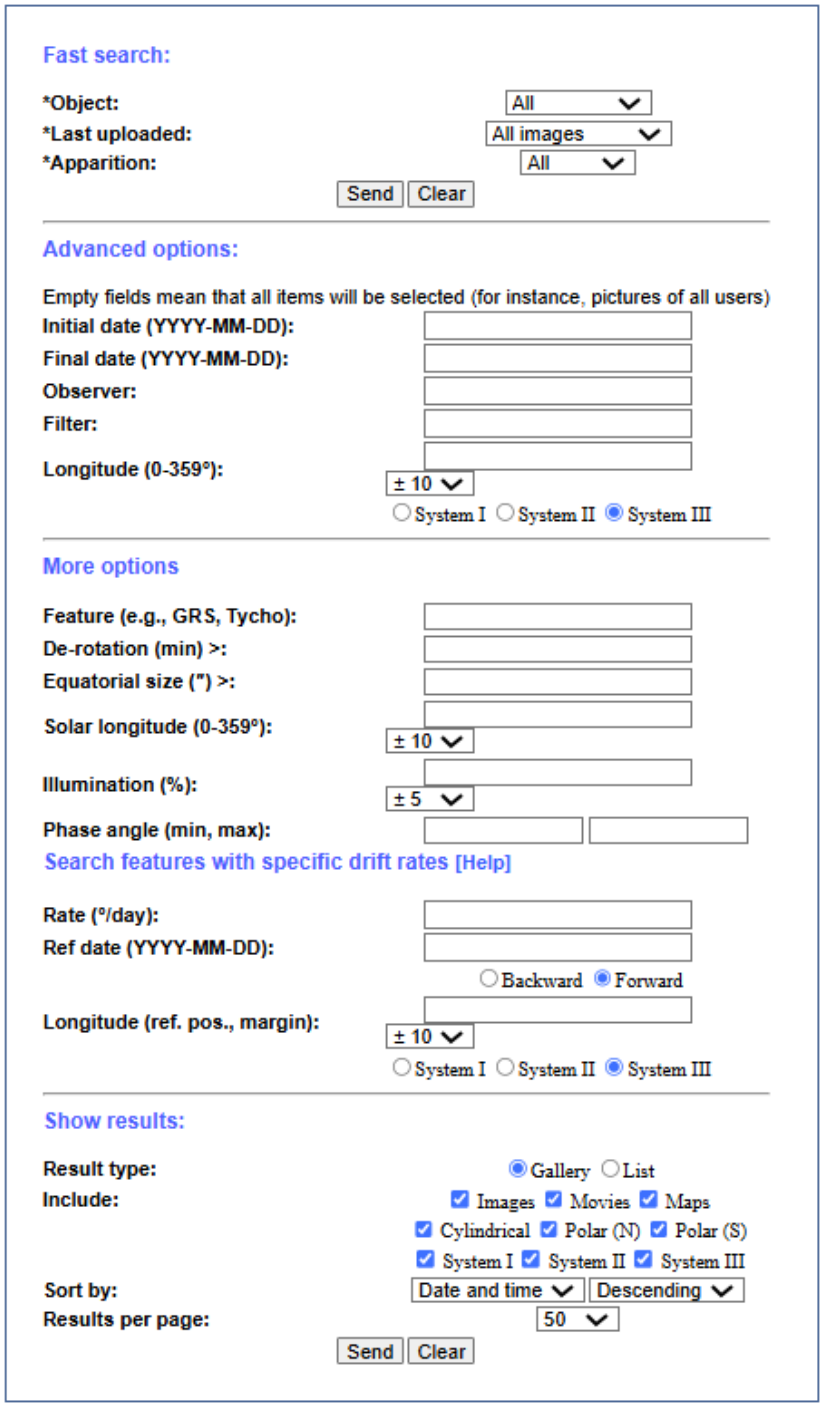


- Level 0 goes to deep storage after initial procession
- Level 1a rarely retrieved except for assessing data problems
- Level 1b accessed rarely, mainly for initial processing
- Level 2 data are used to understand basic physics of atmosphere
- Level 3 data are primary product used for research

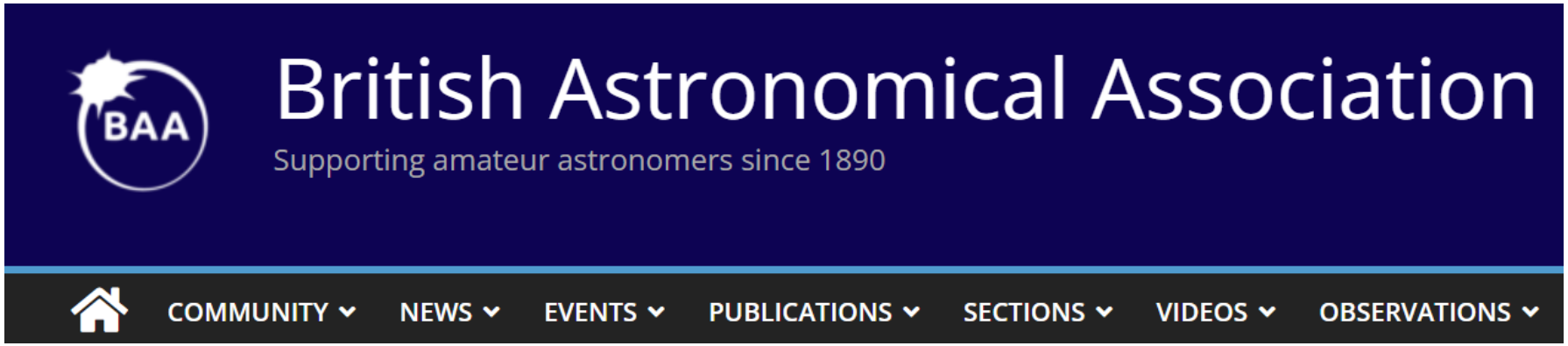
Data Access Example 1

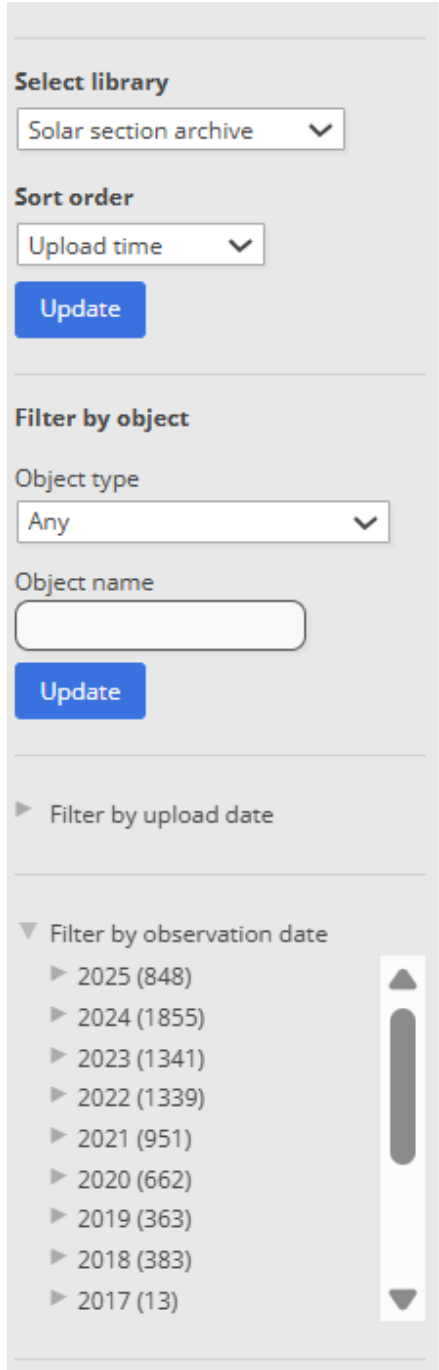


- Example 1 public data site http://pvol2.ehu.eus/pvol2/
- Data file lists, image displays, search capability
- Built on webservice



Data Access Example 2





- Example 2 public data site https://britastro.org/observations/?library=42
- Data file lists, image displays, search capability
- Built on webservice

Data Access Example 3

- Example 3 public data site https://alpo-j.sakura.ne.jp/Latest/Jupiter.htm
- Simple index by date
- Each date links to a page with Jupiter images posted
- No search capability
- Some additional sections for reports and details