JMMC Tools: Observation preparation & data visualization

Laurent Bourgès and Isabelle Tallon-Bosc

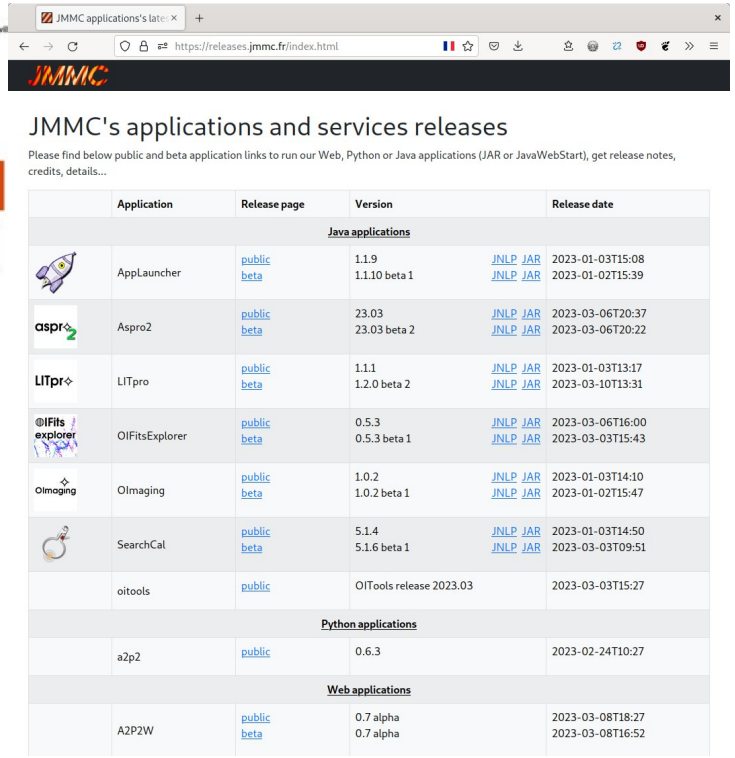
On behalf of the JMMC team:

Guillaume Mella, Jean-Philippe Berger & Alexis Matter

JMMC software & service releases

- JMMC web site:
  - http://www.jmmc.fr/

- Software Release page:
  - https://releases.jmmc.fr/index.html
  - get all tools in 1 click (Java)
  - links to web services
  - check new versions & release notes



JMMC Services

+ Expertise Center
  User Support
+ Training
+ OLBIN publications

AMHRA

SearchCal

a2p2

Reduce data

- amdlib
- pndrs

Aspro2

SearchFTT

Prepare Observations

View Data

OIFits Explorer

Fit Models

VO SAMP

CDS Catalogs

LITpro

Search Data

Reconstruct Images

JSDC
JMDC

OiDB

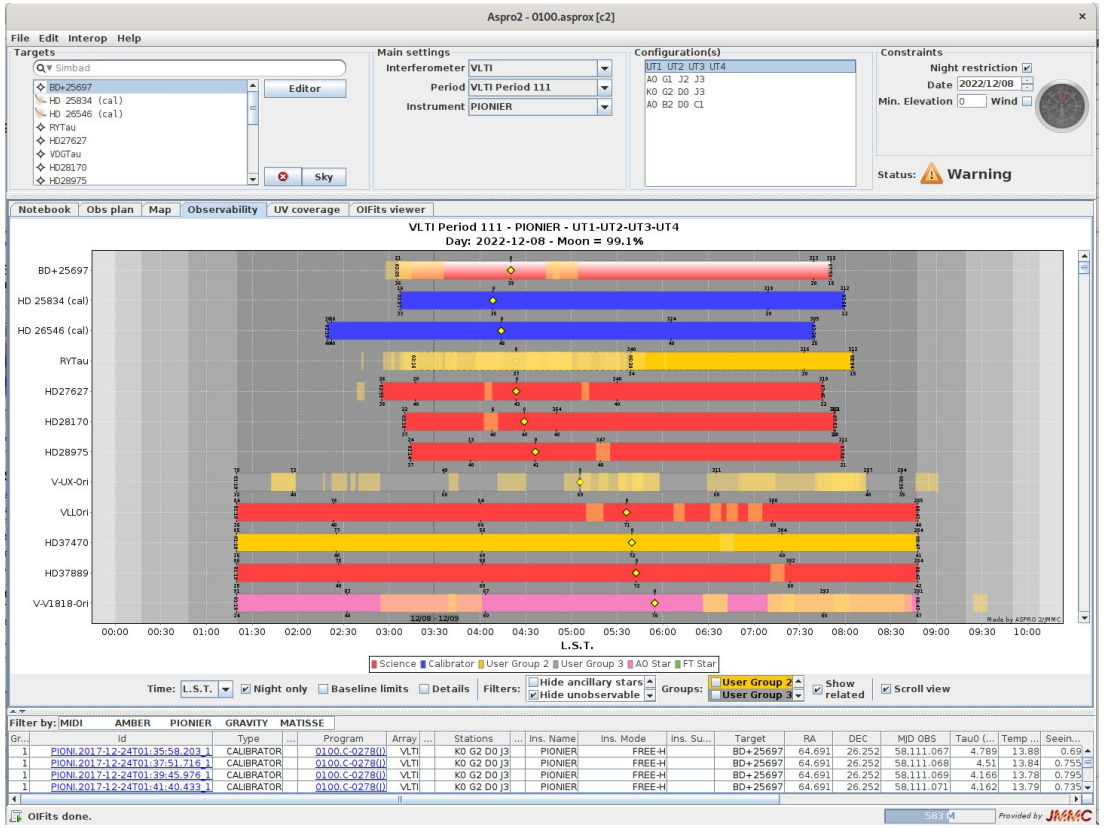
OImaging

Observation preparation tools: ASPRO2 & SearchCal

Preparing observation: ASPRO2

Main features:

- Observation preparation = VLTI / CHARA
- Target & calibrator list with models & groups
- Target observability, UV coverage
- Instrument modes + noise modeling => **OIFITS** data simulation (noise modeling)
- Interoperability: SearchCal, OIFits Explorer, a2p2, LITpro or OImaging …



Preparing observation: ASPRO2

- Documentation: http://www.jmmc.fr/twiki/bin/view/Jmmc/Software/JmmcAspro2

See slides:

- 'JMMC Tools' (VLTI How, Santiago, 2022): http://www.jmmc.fr/doc/approved/JMMC-PRE-0000-0049.pdf
- ' Novelties in user support with JMMC tools throughout the proposal preparation cycle'

(CHARA meeting, Exeter, 2022): http://www.jmmc.fr/doc/approved/JMMC-PRE-0000-0046.pdf

See videos:

- 'Aspro2 - Overview': http://www.jmmc.fr/pub/tutos/Aspro2_Overview.mov
- 'Aspro2 - The Target Editor': http://www.jmmc.fr/pub/tutos/Aspro2_TargetEditor.mov

Preparing observation: SearchCal

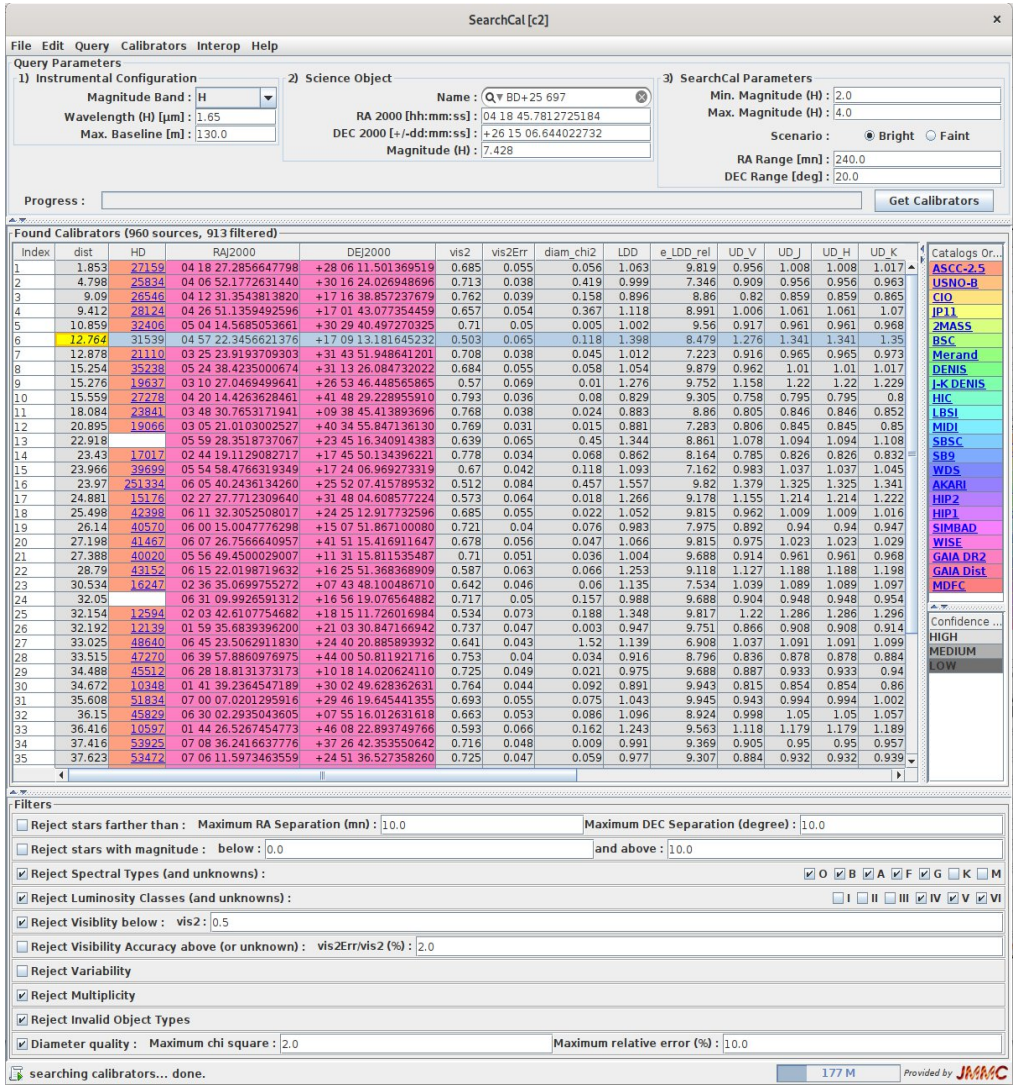
Main features:

- Search Calibrators close to your science objects and photometries.
- Filter results (SP type, lum class, min V2 …)
- Interoperability with ASPRO2, Aladin

- Query JSDC directly ?: see Vizier II/346

  ~450 000 stellar diameters

  - **Estimations** based on photometry (V JHK) (JMDC -> JSDC) : 2016A&A...589A.112C
  - May contain binaries (OBA !)



Demo & Practice session

Data visualization: OIFits Explorer

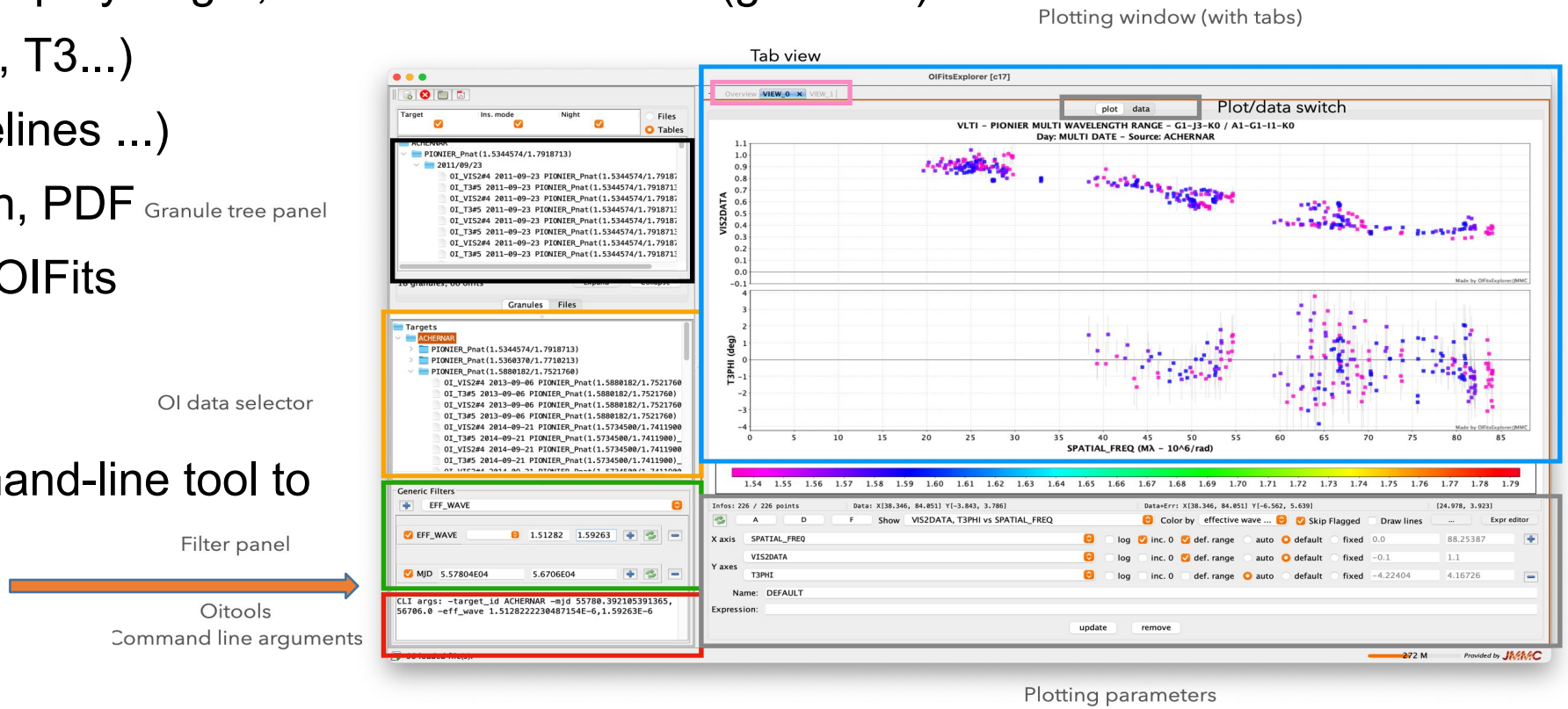
OIFITS data handling: OIFits Explorer

OIFits Explorer provides OIFITS data handling:

See OIFITS standard:

- Load OIFits files => group by target, instrument modes ... (granules)
- visualization (UV, VIS2, T3...)
- (new) Filters (WL, baselines ...)
- Save your work session, PDF
- Save merged / filtered OIFits

JMMC OITools is a command-line tool to make batch processing



Demo & Practice session

Thanks for your attention!

- Please report any problem or question to the JMMC User Support at www.jmmc.fr/support

Feedback always appreciated and useful !