



JMMC Tools: Observation preparation & data visualization

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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 User Support

The JMMC is committed to provide support to the users of the VLTI and other interferometers. For this purpose, a single contact e-mail address has been created. We will be as soon as we can. Let you note that we all are working at JMMC part time. Thank you for your patience. You can also fill the dedicated feedback form. Access by click on "Read more".

[Read more >](#)

JMMC's applications and services releases

Please find below public and beta application links to run our Web, Python or Java applications (JAR or JavaWebStart), get release notes, credits, details...

Application	Release page	Version	Release date
Java applications			
AppLauncher	public beta	1.1.9	JNLP JAR 2023-01-03T15:08
		1.1.10 beta 1	JNLP JAR 2023-01-02T15:39
Aspro2	public beta	23.03 23.03 beta 2	JNLP JAR 2023-03-06T20:37 JNLP JAR 2023-03-06T20:22
LITpro	public beta	1.1.1	JNLP JAR 2023-01-03T13:17
		1.2.0 beta 2	JNLP JAR 2023-03-10T13:31
@IFits explorer	public beta	0.5.3	JNLP JAR 2023-03-06T16:00
		0.5.3 beta 1	JNLP JAR 2023-03-03T15:43
OImaging	public beta	1.0.2	JNLP JAR 2023-01-03T14:10
		1.0.2 beta 1	JNLP JAR 2023-01-02T15:47
SearchCal	public beta	5.1.4	JNLP JAR 2023-01-03T14:50
		5.1.6 beta 1	JNLP JAR 2023-03-03T09:51
oitools	public	OITools release 2023.03	2023-03-03T15:27
Python applications			
a2p2	public	0.6.3	2023-02-24T10:27
Web applications			
A2P2W	public beta	0.7 alpha	2023-03-08T18:27
		0.7 alpha	2023-03-08T16:52



JMMC Services

The CHARA Science Meeting 2023



VLTI



CHARA

- + Expertise Center
- + User Support
- + Training
- + OLBIN publications

AMHRA

SearchCal

Aspro2

SearchFTT

OIFits Explorer

CDS Catalogs

Search Data

JSDC JMDC

OI DB

LITpro

Olmaging

VO SAMP

Reduce data

- amdlib
- pndrs

View Data

Fit Models

Reconstruct Images



LESIA



THE UNIVERSITY OF SYDNEY



Australian National University



KYOTO SANGYO UNIVERSITY



UNIVERSITY OF EXETER

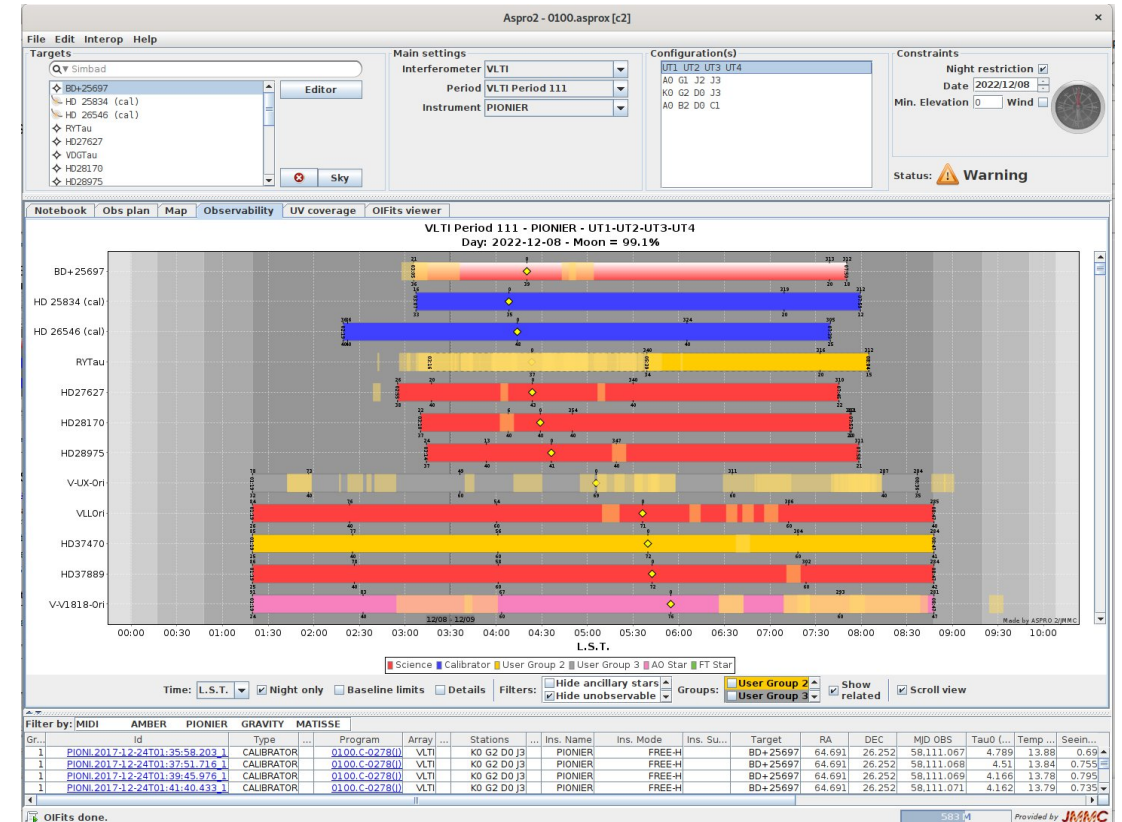


Observation preparation tools: ASPRO2 & SearchCal

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 Olmaging ...



Preparing observation: ASPRO2

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

See slides:

- 'JMMC Tools' (VLT I 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 !)

SearchCal [c2]

File Edit Query Calibrators Interop Help

Query Parameters

1) Instrumental Configuration
 Magnitude Band: H
 Wavelength [μm]: 1.65
 Max. Baseline [m]: 130.0

2) Science Object
 Name: QV BD+25 697
 RA 2000 [hh:mm:ss]: 04 18 45.7812725184
 DEC 2000 [+/-dd:mm:ss]: +26 15 06.644022732
 Magnitude (H): 7.428

3) SearchCal Parameters
 Min. Magnitude (H): 2.0
 Max. Magnitude (H): 4.0
 Scenario: Bright Faint
 RA Range [mm]: 240.0
 DEC Range [deg]: 20.0

Progress:

Get Calibrators

Found Calibrators (960 sources, 913 filtered)

Index	dist	HD	RAJ2000	DEJ2000	vis2	vis2Err	diam_chi2	LOD	e_LOD_rel	UD_V	UD_J	UD_H	UD_K
1	1.853	27159	04 18 27.2856647798	+28 06 11.501389519	0.685	0.055	0.056	1.063	9.819	0.956	1.008	1.008	1.017
2	4.798	25834	04 06 52.1772631440	+30 16 24.026948696	0.713	0.038	0.419	0.999	7.346	0.909	0.956	0.956	0.963
3	9.09	26546	04 12 31.3543813820	+17 16 38.857237679	0.762	0.039	0.158	0.896	8.86	0.82	0.859	0.859	0.865
4	9.412	28124	04 26 51.1394942596	+17 01 43.077354459	0.657	0.054	0.367	1.118	8.991	1.006	1.061	1.061	1.067
5	10.859	32406	05 04 14.5685053661	+30 29 40.497270325	0.71	0.05	0.005	1.002	9.56	0.917	0.961	0.961	0.968
6	12.764	31539	04 57 22.3456621376	+17 09 13.181645232	0.503	0.065	0.118	1.398	8.479	1.276	1.341	1.341	1.35
7	12.878	21110	03 25 23.9193709303	+31 43 51.948641201	0.708	0.038	0.045	1.012	7.223	0.916	0.965	0.965	0.973
8	15.254	35238	05 24 38.4235000674	+31 13 26.084732022	0.684	0.055	0.058	1.054	9.879	0.962	1.01	1.01	1.017
9	15.276	19637	03 10 27.0469496641	+26 53 46.448565865	0.57	0.069	0.01	1.276	9.752	1.158	1.22	1.22	1.229
10	15.559	27278	04 20 14.4263628461	+41 48 29.228955910	0.793	0.036	0.08	0.829	9.305	0.758	0.795	0.795	0.8
11	18.084	23841	03 48 30.7653171941	+09 38 45.413893696	0.768	0.038	0.024	0.883	8.86	0.805	0.846	0.846	0.852
12	20.854	19066	03 05 21.03002527	+40 34 55.847136130	0.769	0.031	0.015	0.881	7.283	0.806	0.845	0.845	0.85
13	22.918	19066	05 59 28.3518737067	+23 45 16.340914383	0.639	0.065	0.45	1.344	8.861	1.078	1.094	1.094	1.108
14	23.43	17017	02 44 19.1129082717	+17 45 50.134396221	0.778	0.034	0.068	0.862	8.164	0.785	0.826	0.826	0.832
15	23.966	39699	05 54 58.4766319349	+17 24 06.969273319	0.67	0.042	0.118	1.093	7.162	0.983	1.037	1.037	1.045
16	23.97	251334	06 05 40.2436134260	+25 52 07.415789532	0.512	0.084	0.457	1.557	9.82	1.379	1.325	1.325	1.341
17	24.881	15176	02 27 27.7712309640	+31 48 04.608577224	0.573	0.064	0.018	1.266	9.178	1.155	1.214	1.214	1.222
18	25.498	42398	06 11 32.3052508017	+24 25 12.917732596	0.685	0.055	0.022	1.052	9.815	0.962	1.009	1.009	1.016
19	26.14	40570	06 00 15.004776298	+15 07 51.867100080	0.721	0.04	0.076	0.983	7.975	0.892	0.94	0.94	0.947
20	27.198	41467	06 07 26.7566640957	+41 51 15.416911647	0.678	0.056	0.047	1.066	9.815	0.975	1.023	1.023	1.029
21	27.388	40020	05 56 49.4500029007	+11 31 15.811535487	0.71	0.051	0.036	1.004	9.688	0.914	0.961	0.961	0.968
22	28.79	43152	06 15 22.0198719632	+16 25 51.368368099	0.587	0.063	0.066	1.253	9.118	1.127	1.188	1.188	1.198
23	30.534	16247	02 36 35.0699755272	+07 43 48.100486710	0.642	0.046	0.06	1.135	7.534	1.039	1.089	1.089	1.097
24	32.05	12594	06 31 09.9926591312	+16 56 19.076564882	0.717	0.05	0.157	0.988	9.688	0.904	0.948	0.948	0.954
25	32.154	12594	02 03 42.610754682	+18 15 11.726016984	0.534	0.073	0.188	1.348	9.817	1.22	1.286	1.286	1.296
26	32.192	12139	01 59 35.683996200	+21 03 30.847166942	0.737	0.047	0.003	0.947	9.751	0.866	0.908	0.908	0.914
27	33.025	48640	06 45 23.506291830	+24 40 20.885893932	0.641	0.043	1.52	1.139	6.908	1.037	1.091	1.091	1.099
28	33.515	47270	06 39 57.8860976975	+44 00 50.811921716	0.753	0.04	0.034	0.916	8.796	0.836	0.878	0.878	0.884
29	34.488	45512	06 28 18.8131373173	+10 18 14.020624110	0.725	0.049	0.021	0.975	9.688	0.887	0.933	0.933	0.94
30	34.672	10348	01 41 39.2364547189	+30 02 49.628362631	0.764	0.044	0.092	0.891	9.943	0.815	0.854	0.854	0.86
31	35.608	51834	07 00 07.0201235916	+29 46 19.64541355	0.693	0.055	0.075	1.043	9.945	0.943	0.994	0.994	1.002
32	36.15	45822	06 30 02.2895043605	+07 55 16.012631618	0.663	0.053	0.086	1.096	8.924	0.998	1.05	1.05	1.057
33	36.416	10597	01 44 26.5267454773	+46 08 22.893749766	0.593	0.066	0.162	1.243	9.563	1.118	1.179	1.179	1.189
34	37.416	53925	07 08 36.2416637776	+37 26 42.35350642	0.716	0.048	0.009	0.991	9.369	0.905	0.95	0.95	0.957
35	37.623	53472	07 06 11.5973463559	+24 51 36.527358260	0.725	0.047	0.059	0.977	9.307	0.884	0.932	0.932	0.939

Filters

Reject stars farther than: Maximum RA Separation (mm): 10.0 Maximum DEC Separation (degree): 10.0

Reject stars with magnitude: below: 0.0 and above: 10.0

Reject Spectral Types (and unknowns): O B A F G K M

Reject Luminosity Classes (and unknowns): I II III IV V VI

Reject Visibility below: vis2: 0.5

Reject Visibility Accuracy above (or unknown): vis2Err/vis2 (%): 2.0

Reject Variability

Reject Multiplicity

Reject Invalid Object Types

Diameter quality: Maximum chi square: 2.0 Maximum relative error (%): 10.0

searching calibrators... done. 177 M Provided by JMMC



Demo & Practice session

Your Talk Title Here



Observatoire de la CÔTE d'AZUR



THE UNIVERSITY OF SYDNEY



Australian National University



KYOTO SANGYO UNIVERSITY

UNIVERSITY OF EXETER



Data visualization: OlFits 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



Granule tree panel

OI data selector

Filter panel

OITools Command line arguments

Plotting window (with tabs)

Tab view

Plot/data switch

Plotting parameters



Demo & Practice session

Your Talk Title Here



LESIA



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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 !