

# AMBER Data at ESO

## Quality assessment and distribution

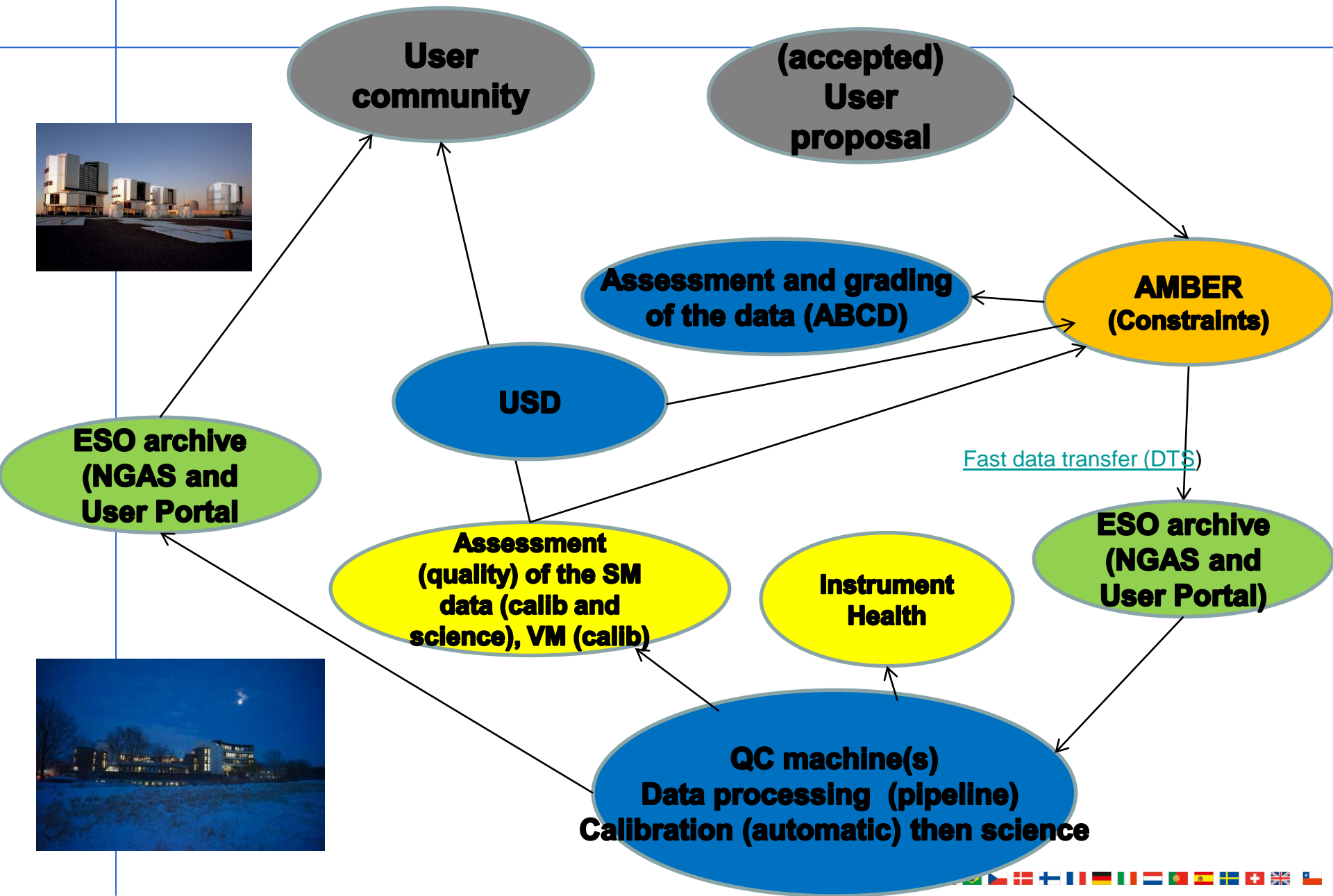
(Isabelle Percheron, QCG)



# Contents

- (AMBER) Data flow: from proposal back to the user,
- data quality assessment,
- Tools,
- Data Reduction workflow
- AMBER data quality control
- Contents of the data packages
- QC pages: calibration availability and info
- Known issues: P2VM, cutoff
- News for P87
- Future

# AMBER data: User to User



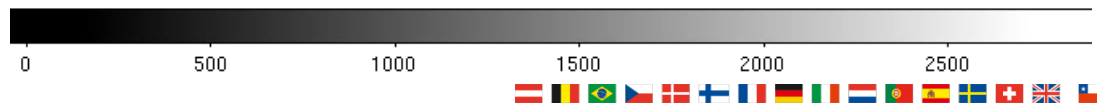
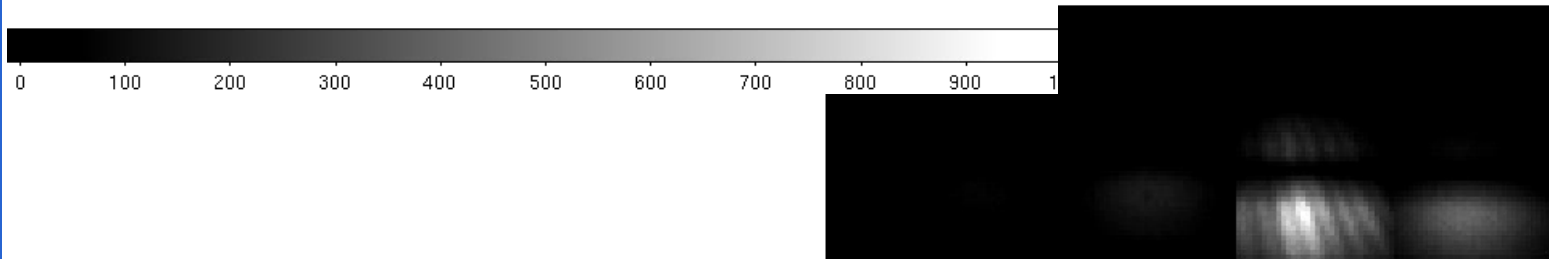
# Quality assessment (QC0) on Paranal

- All the sub-systems are working as requested,
- Constraints within user specifications for the full sequence
- If CAL1-SCI-CAL2 sequence: CAL1 and CAL2 are both of the same quality → TF (Vis) monitoring
- Calibrations followed the calibration plan (P2VM done within 6 hours in the same instrument setting)

➤ **GRADING of the OB sequence: ABCD**

# Quality assessment on Paranal

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# Files observed

Data report for 2011-03-15 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://qcweb.hq.eso.org/AMBER/REPORT/list\_AMBER\_2011-03-15\_data.html

Most Visited ESO IT Web ERP System

080 A-0095(A)	CI 451894	HD73947	3Tstd_acq	2011-03-16T00:06:35	17	9	AMBER.2011-03-16T00:10:48.356.fms	3TSTD_ACQ075_0006.fms	CALIB	3P2V	INTERFEROM	0.0290	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	*
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080 A-0095(A)	CI 451894	HD73947	3Tstd_acq	2011-03-16T00:06:35	17	16	AMBER.2011-03-16T00:12:01.318.fms	3TSTD_ACQ075_0013.fms	CALIB	3P2V	INTERFEROM	0.0290	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	*
080 A-0095(A)	CI 451894	HD73947	3Tstd_acq	2011-03-16T00:06:35	17	17	AMBER.2011-03-16T00:12:11.741.fms	3TSTD_ACQ075_0014.fms	CALIB	3P2V	INTERFEROM	0.0290	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	*
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080 A-0095(A)	CI 451894	HD73947	3Tstd_obs_1row	2011-03-16T00:13:19	7	1	AMBER.2011-03-16T00:13:33.662.fms	3TSTD_DARE075_0001.fms	CALIB	DARK	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451894	HD73947	3Tstd_obs_1row	2011-03-16T00:13:19	7	2	AMBER.2011-03-16T00:24:19.498.fms	3TSTD_OB075_0001.fms	CALIB	OBJECT	INTERFEROM	0.0260	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
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080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:38:29	7	1	AMBER.2011-03-16T00:38:43.129.fms	3TSTD_DARE075_0002.fms	SCIENCE	DARK	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	1	AMBER.2011-03-16T00:50:16.179.fms	CAL_COHERENCIN075_0001.fms	SCIENCE	COHERENC	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	2	AMBER.2011-03-16T00:50:52.993.fms	3TSTD_OB075_0006.fms	SCIENCE	OBJECT	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
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080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	4	AMBER.2011-03-16T00:55:31.300.fms	3TSTD_OB075_0008.fms	SCIENCE	OBJECT	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	5	AMBER.2011-03-16T00:57:42.318.fms	3TSTD_OB075_0009.fms	SCIENCE	OBJECT	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	6	AMBER.2011-03-16T00:59:59.454.fms	3TSTD_OB075_0010.fms	SCIENCE	OBJECT	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	CI 451921	rs2up	3Tstd_obs_1row	2011-03-16T00:49:34	7	7	AMBER.2011-03-16T01:02:14.686.fms	3TSTD_SKY075_0002.fms	SCIENCE	SKY	INTERFEROM	0.1000	3Tstd_Low_JHK	PRISM	527.78	-1.00	NAR_SLT	K
080 A-0095(A)	A 451880	HD78004	3Tstd_acq	2011-03-16T02:46:37	2	1	AMBER.2011-03-16T02:50:48.704.fms	ADJUST_COLPO075_0005.fms	CALIB	COLPOS	INTERFEROM	1.0000	3Tstd_High_K_1.2.172	GHR	527.78	2171.96	NAR_SLT	*
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080 A-0095(A)	A 451880	HD78004	3Tstd_acq	2011-03-16T02:46:37	2	3	AMBER.2011-03-16T02:51:40.613.fms	ADJUST_COLPO075_0007.fms	CALIB	COLPOS	INTERFEROM	1.0000	3Tstd_High_K_1.2.172	GHR	527.78	2171.96	NAR_SLT	*
080 A-0095(A)	A 451880	HD78004	3Tstd_acq	2011-03-16T02:46:37	2	4	AMBER.2011-03-16T02:52:33.855.fms	3TSTD_ACQ075_0016.fms	CALIB	WAVESTEL	INTERFEROM	1.0000	3Tstd_High_K_1.2.172	GHR	527.78	2171.96	NAR_SLT	*

Find: vti

Done

Start Microsoft Excel - timeShe... Data report for 2011... Downloads My Computer Inbox - Mozilla Thunderbird QC\_Grenoble 09:15

# Quality assessment (QC1) in Garching

- All the calibration data are processed with the instrument pipeline and assessed using a scoring system, selected files are examined by the QC scientist to be certified, rejected, re-graded (through USD/Paranal/User feedback)
- The science data are then processed using the best available calibration and pipeline parameters
- If anything is wrong with the data, there is feedback to Paranal/User (P2VM, cutoff)
  - failure of one subsystem
  - data quality through the sequence

# Automatic scoring system

AB product monitor (Instrument: AMBER, date: 2011-03-14) - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://qcweb.hq.eso.org/AMBER/logs/2011-03-14/status\_2011-03-14.html

Most Visited ESO IT Web ERP System

Dictionary allemand... AMBER calibration... Google Mail - Inbox... r.AMBER.2011-03-... http://qc...11-03-15 http://qc...11\_tpl.ab Data report for 20... AB product mon...

CSL report NR | reb

BQS	AB NAME	COMPL.	AB LOG	RECIPE	RAW_TYPE	SETUP	AB STATUS	P_LOG	T_EXEC	QC REPORT	SCORE	CERTIF
	<a href="#">AMBER 2011-03-14T23:18:53.427_tpl.ab</a>	compl.	OK	none	CAL_COLPOS	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-14T23:19:30.356_tpl.ab</a>	compl.	OK	amber_p2vm	3P2V	PRISM_Low_JHK	OK	P_LOG	0.6+0.8	DONE	✓HC (10/4)	AUTO
	<a href="#">AMBER 2011-03-14T23:23:56.368_tpl.ab</a>	compl.	OK	none	CAL_SE	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-14T23:45:54.331_tpl.ab</a>	compl.	OK	none	CAL_COLPOS	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-14T23:55:23.098_tpl.ab</a>	compl.	OK	amber_p2vm	3P2V	PRISM_Low_JHK	OK	P_LOG	0.8+0.6	DONE	○HC (1/4)	OK one file has 99 zeroes frames, data taken using this P2VM are classified C
	<a href="#">AMBER 2011-03-15T00:01:39.038_tpl.ab</a>	compl.	OK	none	CAL_SE	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T00:22:29.165_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	PRISM_Low_JHK_0_1000000	OK	P_LOG	4.9+78.8	QC	✗ (2/11)	OK classified C because of SCIENCE
	<a href="#">AMBER 2011-03-15T01:10:26.100_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	PRISM_Low_JHK_0_1000000	OK	P_LOG	5.6+78.5	QC	○ (1/11)	OK classified C, out of constraints
	<a href="#">AMBER 2011-03-15T01:36:55.543_tpl.ab</a>	compl.	OK	none	CAL_COLPOS	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T01:39:40.687_tpl.ab</a>	compl.	OK	amber_p2vm	3P2V	GHR_High_K_1_2_172	OK	P_LOG	1.3+0.8	DONE	✓HC (10/4)	AUTO
	<a href="#">AMBER 2011-03-15T01:45:13.715_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GHR_High_K_1_2_172_6_0000000	OK	P_LOG	1.6+10.6	QC	✗ (5/11)	OK classified C, out of constraints
	<a href="#">AMBER 2011-03-15T02:30:15.245_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GHR_High_K_1_2_172_6_0000000	OK	P_LOG	0.9+8.2	QC	✗ (5/11)	OK classified C, out of constraints
	<a href="#">AMBER 2011-03-15T02:43:36.018_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GHR_High_K_1_2_172_6_0000000	OK	P_LOG	0.8+6.6	QC	✗ (5/11)	OK classified C, out of constraints
	<a href="#">AMBER 2011-03-15T04:32:44.811_tpl.ab</a>	compl.	OK	none	CAL_COLPOS	DONE	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T04:35:35.988_tpl.ab</a>	compl.	OK	amber_p2vm	3P2V	GMR_Medium_K_1_2_1	OK	P_LOG	0.9+0.6	DONE	✓HC (10/4)	AUTO
	<a href="#">AMBER 2011-03-15T04:49:31.149_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GMR_Medium_K_1_2_1_0.2000000	OK	P_LOG	2.1+2.9	QC	✗ (6/11)	OK very noisy Vis. FNT could not lock, bad conditions, VM
	<a href="#">AMBER 2011-03-15T05:21:14.515_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GMR_Medium_K_1_2_1_0.2000000	OK	P_LOG	2.0+2.6	QC	✗ (5/11)	OK very noisy Vis. FNT could not lock, bad conditions, VM
	<a href="#">AMBER 2011-03-15T05:34:25.654_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GMR_Medium_K_1_2_1_0.2000000	OK	P_LOG	3.1+12.5	QC	✗ (6/11)	OK Low Vis, TF, VM
	<a href="#">AMBER 2011-03-15T05:56:22.431_tpl.ab</a>	compl.	OK	amber_SciCal	CALIB_FRINGE	GMR_Medium_K_1_2_1_0.2000000	OK	P_LOG	2.0+6.7	QC	✗ (4/11)	OK Low Vis, TF, noisy, VM
	<a href="#">AMBER 2011-03-15T08:39:43.466_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.0290000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T08:42:19.903_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.0290000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T08:45:20.030_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1860000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T08:53:40.047_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1860000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:02:37.624_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1870000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:10:58.628_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1870000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:18:59.603_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1000000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:22:46.955_tpl.ab</a>	compl.	OK	none	CALIB_DARK	0.1000000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:27:04.001_tpl.ab</a>	compl.	OK	none	CALIB_DARK	6.0000000	OK	P_LOG	0.0	check rawf		
	<a href="#">AMBER 2011-03-15T09:39:26.029_tpl.ab</a>	compl.	OK	none	CALIB_DARK	6.0000000	OK	P_LOG	0.0	check rawf		

X Find: vlti Next Previous Highlight all Match case

Done

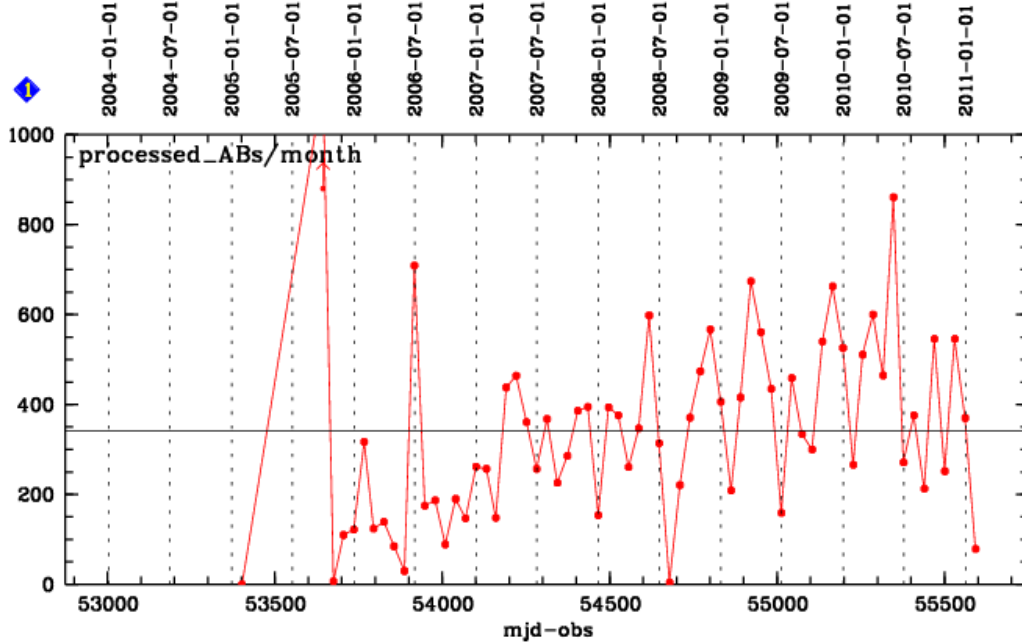
Start Microsoft Excel - timeShe... AB product monitor (L... Downloads My Computer Inbox - Mozilla Thunderbird QC\_Grenoble 09:31



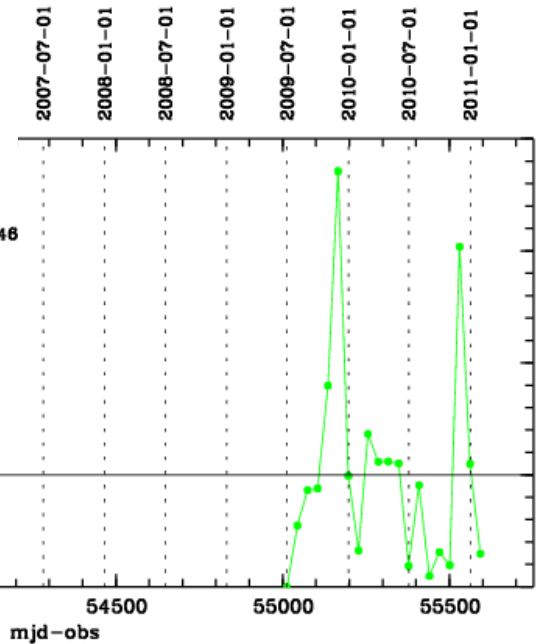
# Some numbers

AMBER: ABs (FULL range, 2615 days)  
 Data range: 2004-01-01 ... 2011-01-31\*

data  
QC

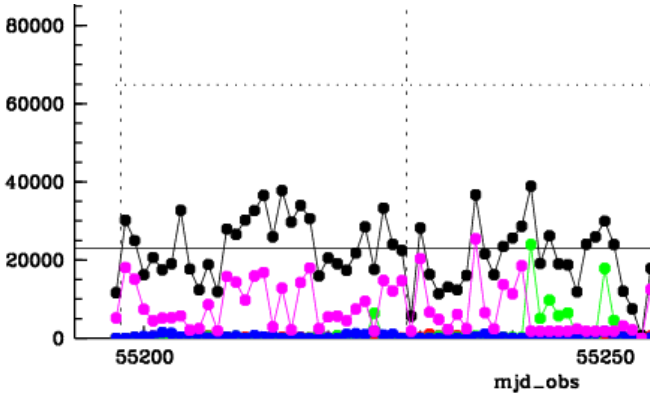


days)

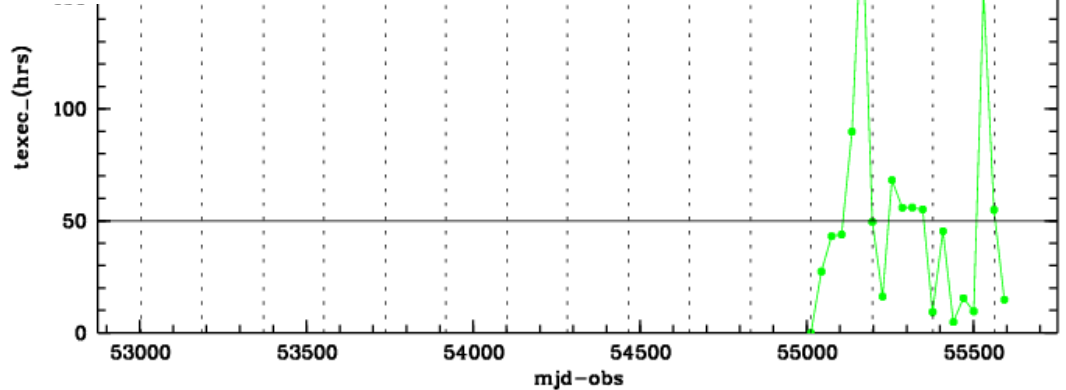


1

powered by QC: [www.eso.org/HC](http://www.eso.org/HC)



created by trendPlotter v2.7.2 on 2011-02-27T15:51:46



# Tools available

- Observatory/QC tools:
  - AB builder to find the best files (calibration) to be associated for data processing:
    - Time , Instrument settings, airmass constraints
- Instrument pipeline (running amdlib 2.2)
  - public (<http://www.eso.org/sci/software/pipelines/>)
- CalVin database (from P87 in collaboration with JMMC)
- QC scripts to assess quality of the data
  - scoring system (based on present Health of the instrument or fixed threshold)
  - Monitoring of the TF
  - Reports on the individual/merged files

# Data reduction workflow

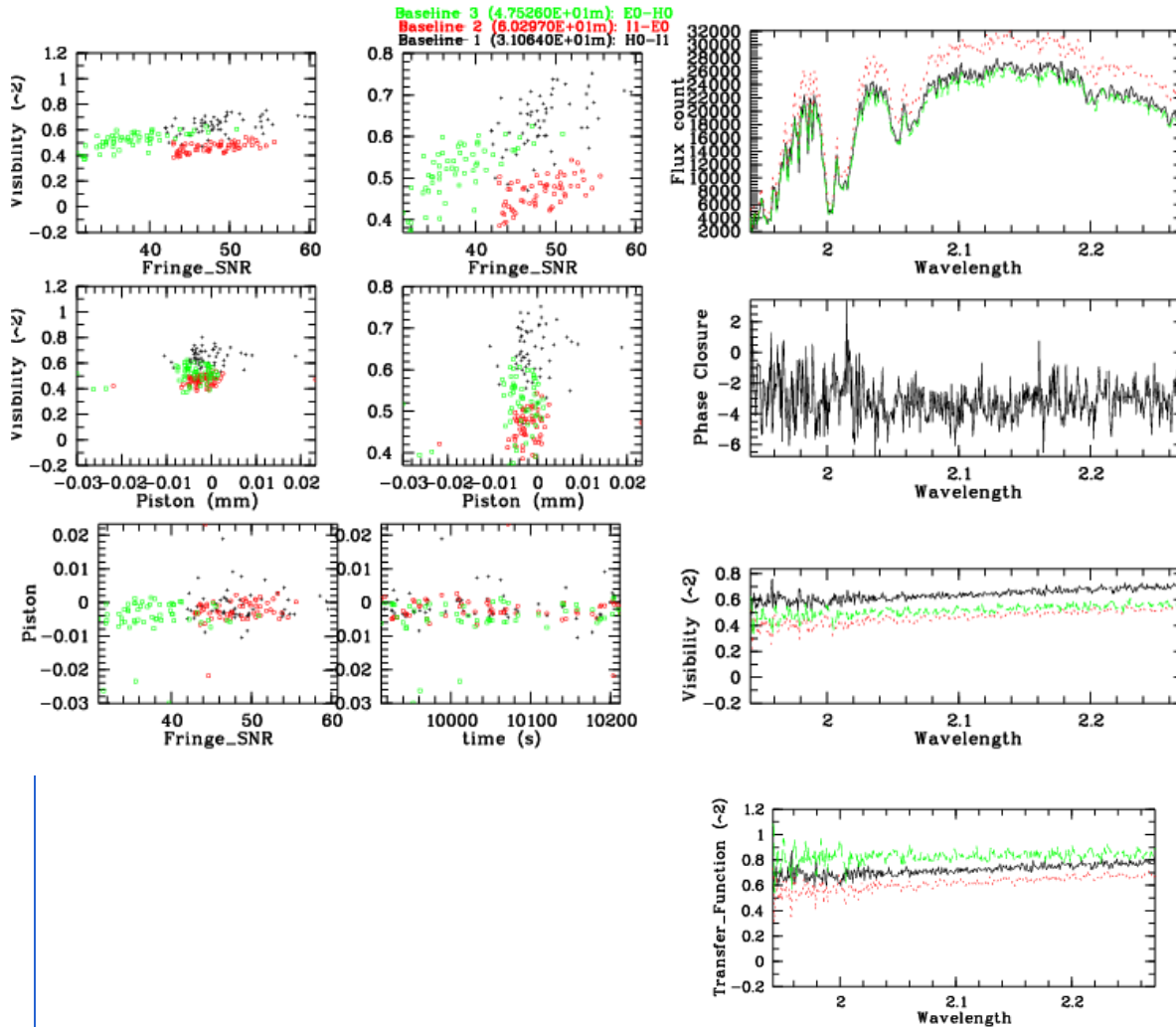
- Data are transferred to Garching via the Fast Data Transfer System
  - Automatic, real time processing for the calibration data
- Processing of individual files
  - Filtering applied (FNT and instrument setting dependant)
  - TF calculated when calibrator (CalVin), Calibrated Visibility when SCIENCE and TF available
- Merging of the individual files
  - Filtering applied
  - TF calculated when calibrator (CalVin), Calibrated Visibility when SCIENCE and TF available

# Data reduction workflow

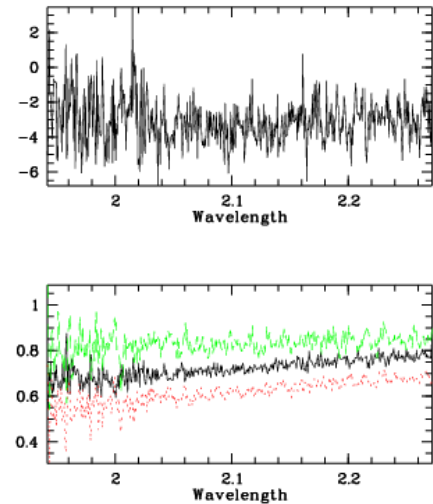
- AMBER pipeline processing based on amdlib 2.2:
  - using raw, most accurate available calibration data and databases (CalVin) to produce merged, filtered products, Instrumental transfer function, calibration files and calibrated Visibilities.
- Additional plots and comments
- All of the above (and more) are available to the PIs (DVD or user portal).

# VLT Interferometry Quality Control: AMBER

AMBER.2011-02-18T02:42:08.116.-CALIB\_FILTERED\_MERGED OB:CAL\_SAO237916-K-MODE:Med  
 Bas:H0-I1-E0 TARG:SAO237916-plotted 0177-snr<5:0000-snr>=5:0177  
 snr b1:4.88658E+01-b2:4.80639E+01-b3:3.79670E+01-snr>5 b1:0059-b2:0059-b3:0059  
 select:0059(0023%)-FringeSNRpistonMerged-X1=1.0000E-04-X2=1.0000E-04-X3=1.0000



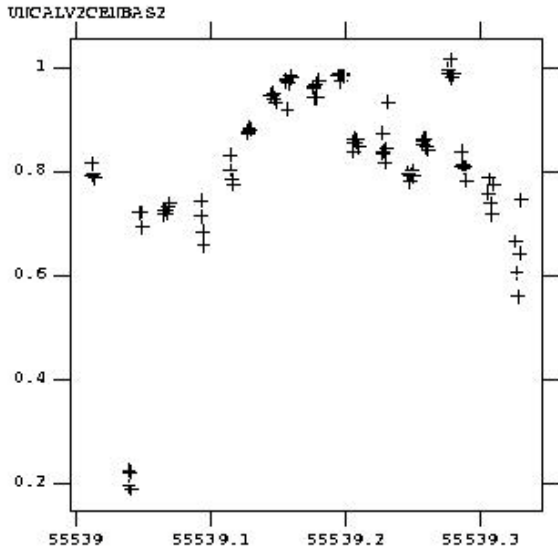
mag:1.11000E+00  
 ED OB:CAL\_SAO237916  
 6  
 I1-bas3:3.79670E+01  
 Bas3 (4.75205E+01m):E0-H0



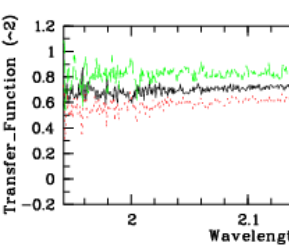
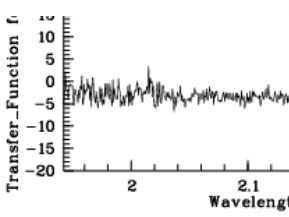
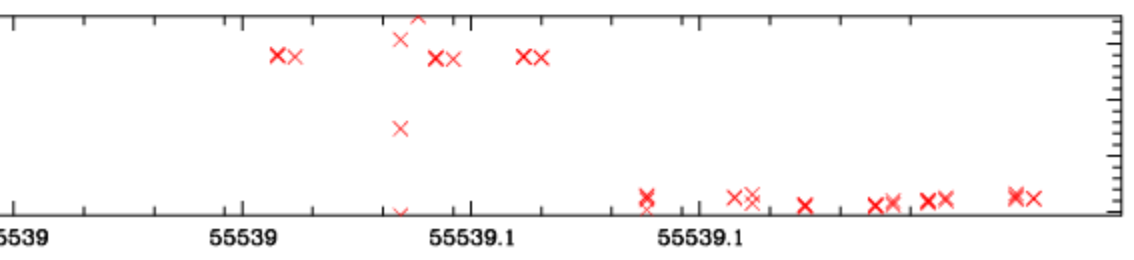
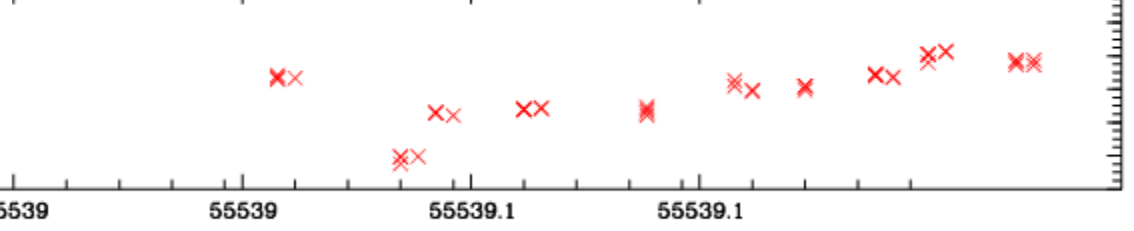
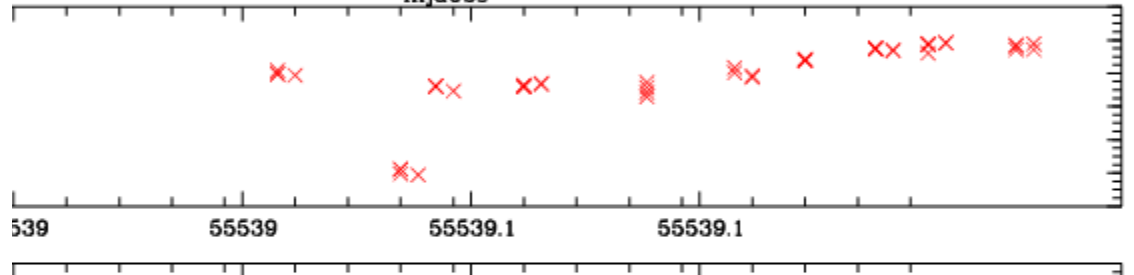
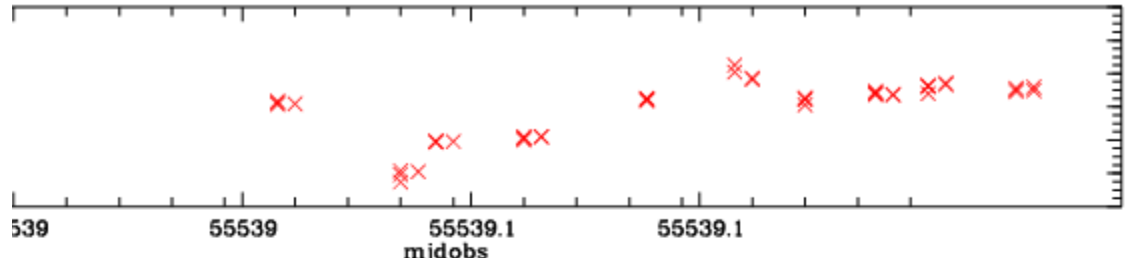
# VLT Quality Control: AMBER

AMBER.2011-02-18T02:42:08.116.-CALIB\_FILTERED\_MERGED OB:CAL\_SAO237916-K-MODE:Med  
 Bas:HO-I1-E0 TARG:SAO237916-plotted 0177-snr<5:0000-snr>=5:0177  
 snr b1:4.88658E+01-b2:4.80639E+01-b3:3.79670E+01-snr>5 b1:0059-b2:0059-b3:0059  
 select:0059(0023%)-FringeSNRpistonMerged-X1=1.00000E-04-X2=1.00000E-04-X3=1.0000

uncalVis\_K\_2010-12-08.fits (UNCALV2CENBAS2\_1-1)



Closure phases (color:wave-HR:star,MR:cross,LR:square)

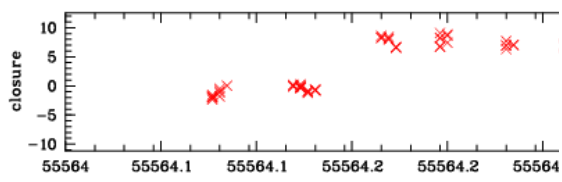
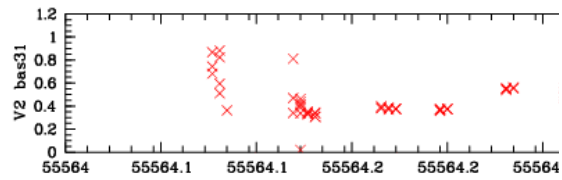
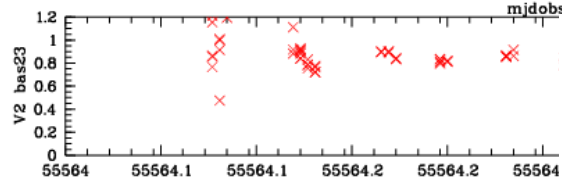
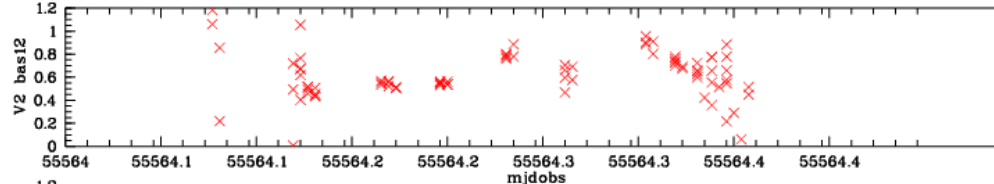


# VLT / AMBER QC (and other) projects

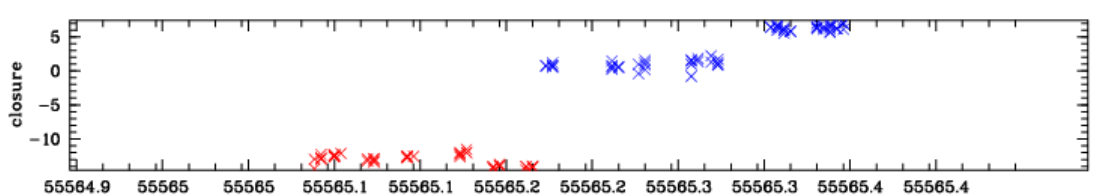
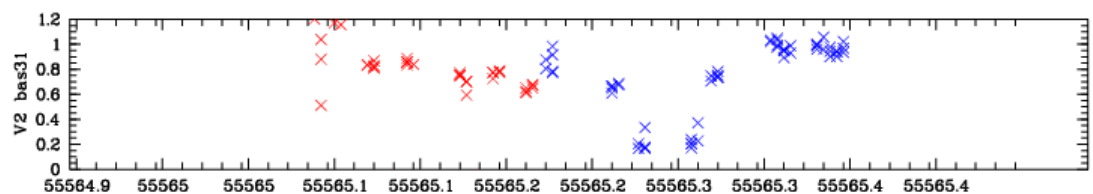
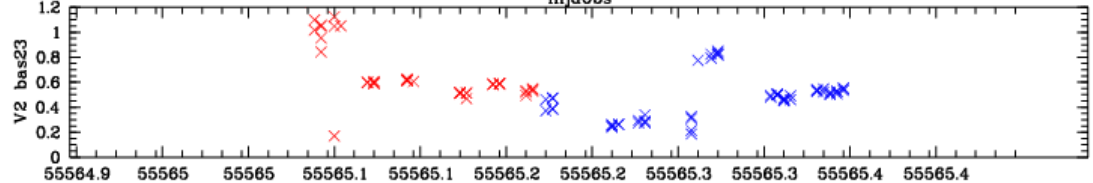
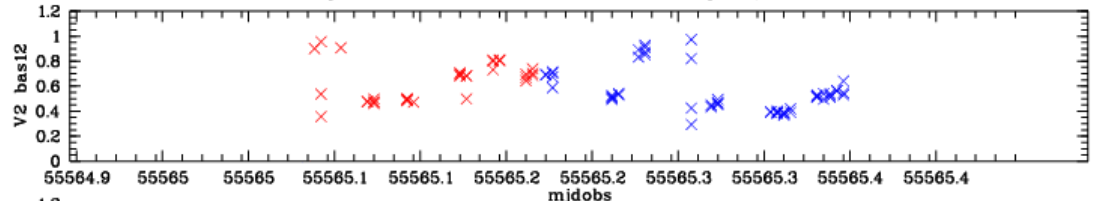
- Calibrations:
  - calibrator project,
  - updated calibrator database for the CalVin tool (JMMC),
  - bad calibrators.
- In collaboration with Sciops and USD:
  - monitoring and stability of the Instrumental Transfer Function
    - quality of the observation, night stability of the TF for the user.
- DRS:
  - pipeline development: merged files, filtering based on instrumental setup, instrumental transfer function, analysis of the FNT data, update with newest libraries,
  - Reflex workflow,
  - AMBER workshops.

# VLTI Quality Control: AMBER

2011-01-02: Vis-2 and Closure phases (color:wave-HR:star,MR:cross,LR:square)



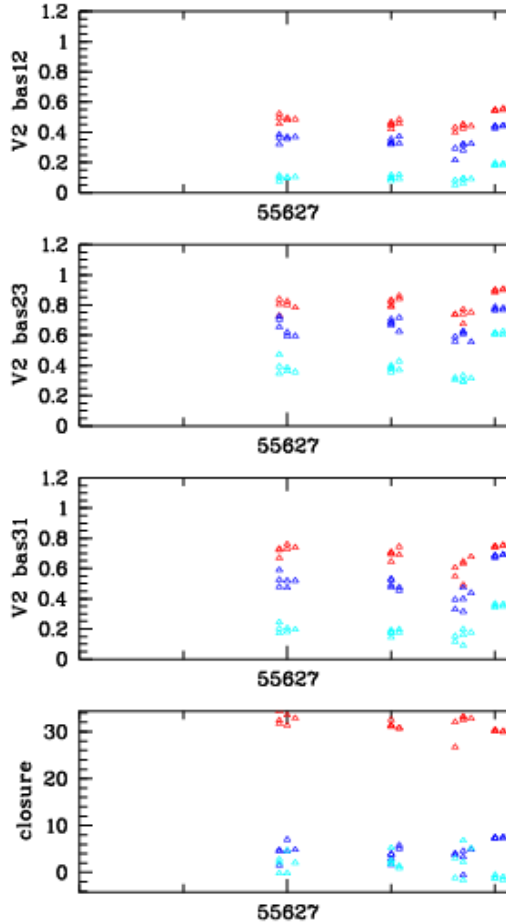
2011-01-03: Vis-2 and Closure phases (color:wave-HR:star,MR:cross,LR:square)



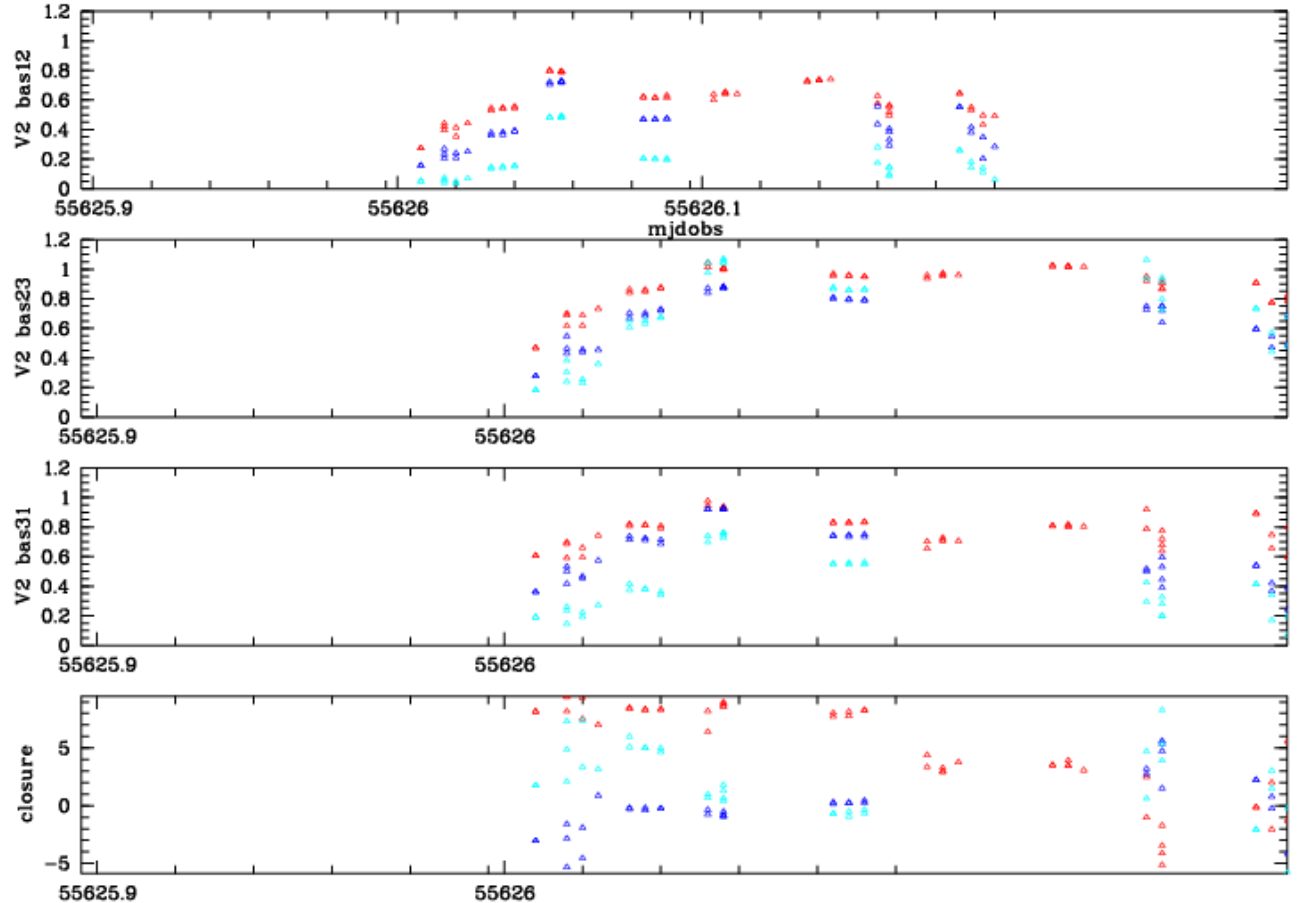


# VLTI Quality Control: AMBER

2011-03-06: Vis~2 and CP (red: K - blue: H turquoise: J)



2011-03-05: Vis~2 and CP (red: K - blue: H turquoise: J)



# Contents of the data packages

- raw data: science and night calibrations (calibrator and P2VM in the same instrument setting), even classified C data
  - data products:
    - Calibration files: BPM, FFM, P2VM (raw and products), Cold dark (raw files)
    - Calibrator(s): individual processed, filtered files, merged files (before and after filtering), calibrator data base, TF (individual and merged) if available
    - Science: individual processed, filtered files, merged files (before and after filtering), associated TF
  - Plots, Night Report on the OBs (classification) and comments (for ex. If NULLs in the P2VM)
- **Since mid 2009, VM and SM packages are available through the ESO user portal**

# Availability of the calibration files and more information on AMBER

- Quality control WebPages:
  - Calibration files: BPM, FFM (all the past ones are also available)
  - Information about the packages
  - Some monitoring plots on Calibrator Visibilities
- Health Check pages:
  - Internal Visibility
  - Cutoff
  - Night Vis
- Calchecker (internal)

# Known issues

## ➤ P2VM: zeroes

fv: Summary of AMBER.2011-03-07T23:39:56.992.fits in /diska/data31/amber/DISPL

Index	Extension	Type	Dimension	View		
<input type="checkbox"/> 0	Primary	Image	0	Header	Image	Table
<input type="checkbox"/> 1	IMAGING_DATA	Binary	7 cols X 100 rows	Header	Hist	Plot All Select
<input type="checkbox"/> 2	IMAGING_DETECTOR	Binary	11 cols X 5 rows	Header	Hist	Plot All Select
<input type="checkbox"/> 3	AMBER_WAVEDATA	Binary	2 cols X 1 rows	Header	Hist	Plot All Select

fv: Binary Table of AMBER.2011-03-07T23:39:56.992.fits[1] in /diska/data31/amber/DISPL

Select	TIME	DATA1	DATA2	DATA3	DATA4	DATA5
<input type="checkbox"/> All	D	1064E	1664E	1664E	1664E	1664E
Invert	Modify	Modify	Modify	Modify	Modify	Modify
1	5.562798614351E+04	Image	Image	Image	Image	Image
2	0.000000000000E+00	Image	Image	Image	Image	Image
3	0.000000000000E+00	Image	Image	Image	Image	Image
4	0.000000000000E+00	Image	Image	Image	Image	Image
5	0.000000000000E+00	Image	Image	Image	Image	Image
6	0.000000000000E+00	Image	Image	Image	Image	Image
7	0.000000000000E+00	Image	Image	Image	Image	Image
8	0.000000000000E+00	Image	Image	Image	Image	Image
9	0.000000000000E+00	Image	Image	Image	Image	Image
10	0.000000000000E+00	Image	Image	Image	Image	Image
11	0.000000000000E+00	Image	Image	Image	Image	Image
12	0.000000000000E+00	Image	Image	Image	Image	Image
13	0.000000000000E+00	Image	Image	Image	Image	Image
14	0.000000000000E+00	Image	Image	Image	Image	Image
15	0.000000000000E+00	Image	Image	Image	Image	Image
16	0.000000000000E+00	Image	Image	Image	Image	Image
17	0.000000000000E+00	Image	Image	Image	Image	Image
18	0.000000000000E+00	Image	Image	Image	Image	Image
19	0.000000000000E+00	Image	Image	Image	Image	Image
20	0.000000000000E+00	Image	Image	Image	Image	Image

fv: Binary Table of AMBER.2011-03-07T23:39:56.992.fits[1] in /diska/data31/amber/DISPL

Select	1	2	3	4	5	6
<input type="checkbox"/> All						
Invert						
1	2.000000E+00	5.000000E+00	4.000000E+00	3.000000E+00	-1.000000E+00	4.000000E+00
2	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
3	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
4	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
5	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
6	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
7	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
8	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
9	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
10	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
11	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
12	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
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19	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
20	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00

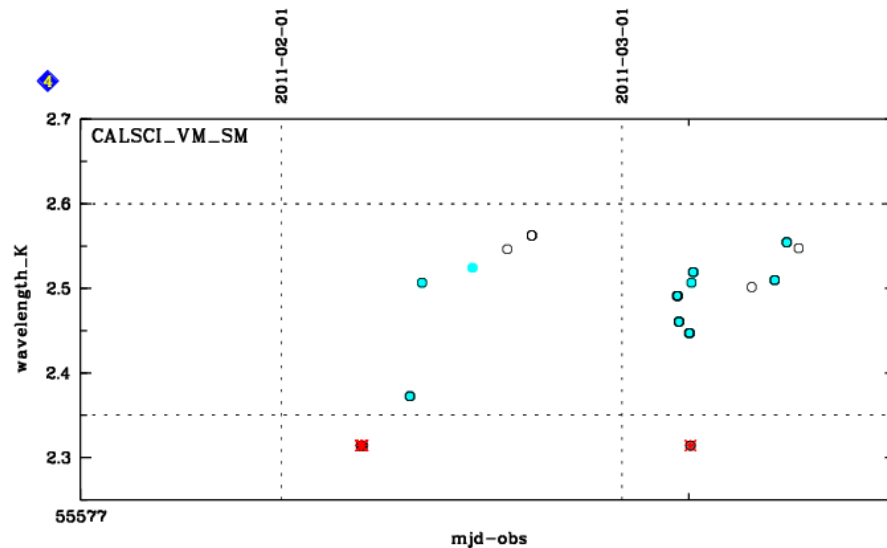
Go to: Edit cell: Lock to Parent

mjd-obs

# Known issues

- P2VM: zeroes
- Cutoff of the K spectrum in LR

AMBER: Cutoff wavelength for K in LR (last 60 days, close-up)  
QC data range: 2011-01-19 ... 2011-03-17\*



# New for P87 and after

- RMNREC data available:
  - FINITO (jitter estimation -> Vis post processing)

The screenshot displays the AMBER software interface with three windows open:

- Summary of AMBER.2011-03-18T05:32:41.549.fits**: A table listing data extensions and their dimensions.
 

Index	Extension	Type	Dimension	View
0	Primary	Image	0	Header, Image, Table
1	IMAGING_DATA	Binary	7 cols X 1000 rows	Header, Hist, Plot, All, Select
2	IMAGING_DETECTOR	Binary	11 cols X 5 rows	Header, Hist, Plot, All, Select
3	ARRAY_DESCRIPTION	Binary	5 cols X 138 rows	Header, Hist, Plot, All, Select
4	ARRAY_GEOMETRY	Binary	6 cols X 3 rows	Header, Hist, Plot, All, Select
5	OPTICAL_TRAIN	Binary	54 cols X 3 rows	Header, Hist, Plot, All, Select
6	AMBER_WAVEDATA	Binary	2 cols X 1 rows	Header, Hist, Plot, All, Select
7	OPDC1	Binary	7 cols X 102501 rows	Header, Hist, Plot, All, Select
8	OPDC2	Binary	7 cols X 102501 rows	Header, Hist, Plot, All, Select
9	FNT1	Binary	11 cols X 51250 rows	Header, Hist, Plot, All, Select
10	FNT2	Binary	11 cols X 51250 rows	Header, Hist, Plot, All, Select
- Binary Table of AMBER.2011-03-18T05:32:41.549.fits[7]**: A table with columns for TIME, rOffset, fringeFlag, offValid, opdcState, uwrapPhase, and fullOffset. It contains numerical data for each row.
- Binary Table of AMBER.2011-03-18T05:32:41.549.fits[9]**: A table with columns for TIME, Coher, CoherFlag, Phase, PhaseFlag, SNR, MOD, FNTFXI, FNTFXI A, and FNTFXI B. It contains numerical data for each row.

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ge

# New for P87 and after

- RMNREC data available:
  - FINITO (jitter estimation -→ Vis post processing)
- Transfer Function monitoring (same for Paranal and Garching)
- Self coherencing (FNT sensitivity, AMBER fringe track) → shared risk (offered for P89)

# on going-future projects

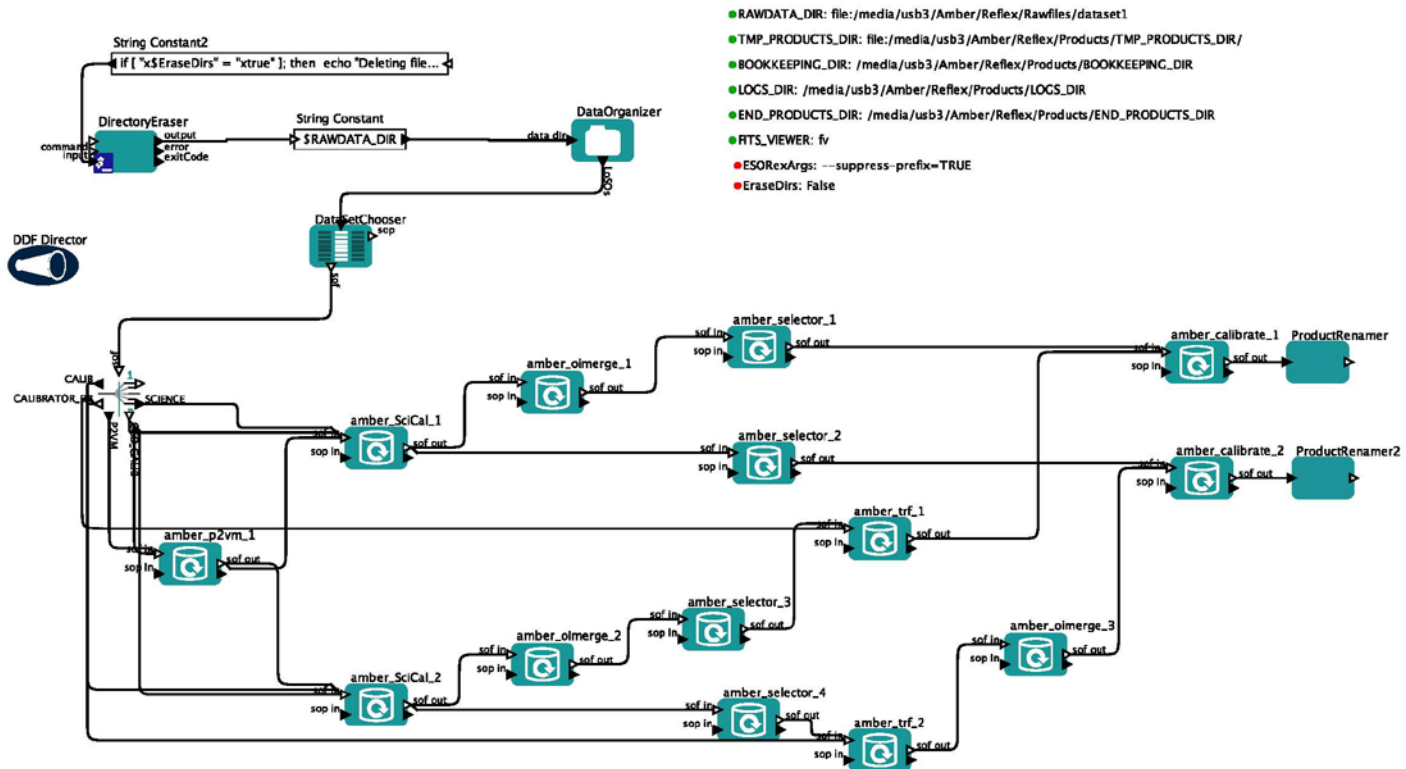
(in collaboration with ESO groups and community)

- Follow the development of DRS in the community: reduction algorithms, AMBER workshops, science and data reduction meetings:
  - Implementation in the instrument pipelines to provide more accurate, “up to date” data products
- External experts to provide better services
  - JMMC (list of calibrators, FNT RMNREC, amdlib3.0).
- Provide the community with specific tools : instrument pipeline implemented with the latest available software, CalVin, VisCal, reflex workflow.





# Reflex workflow (Basic)



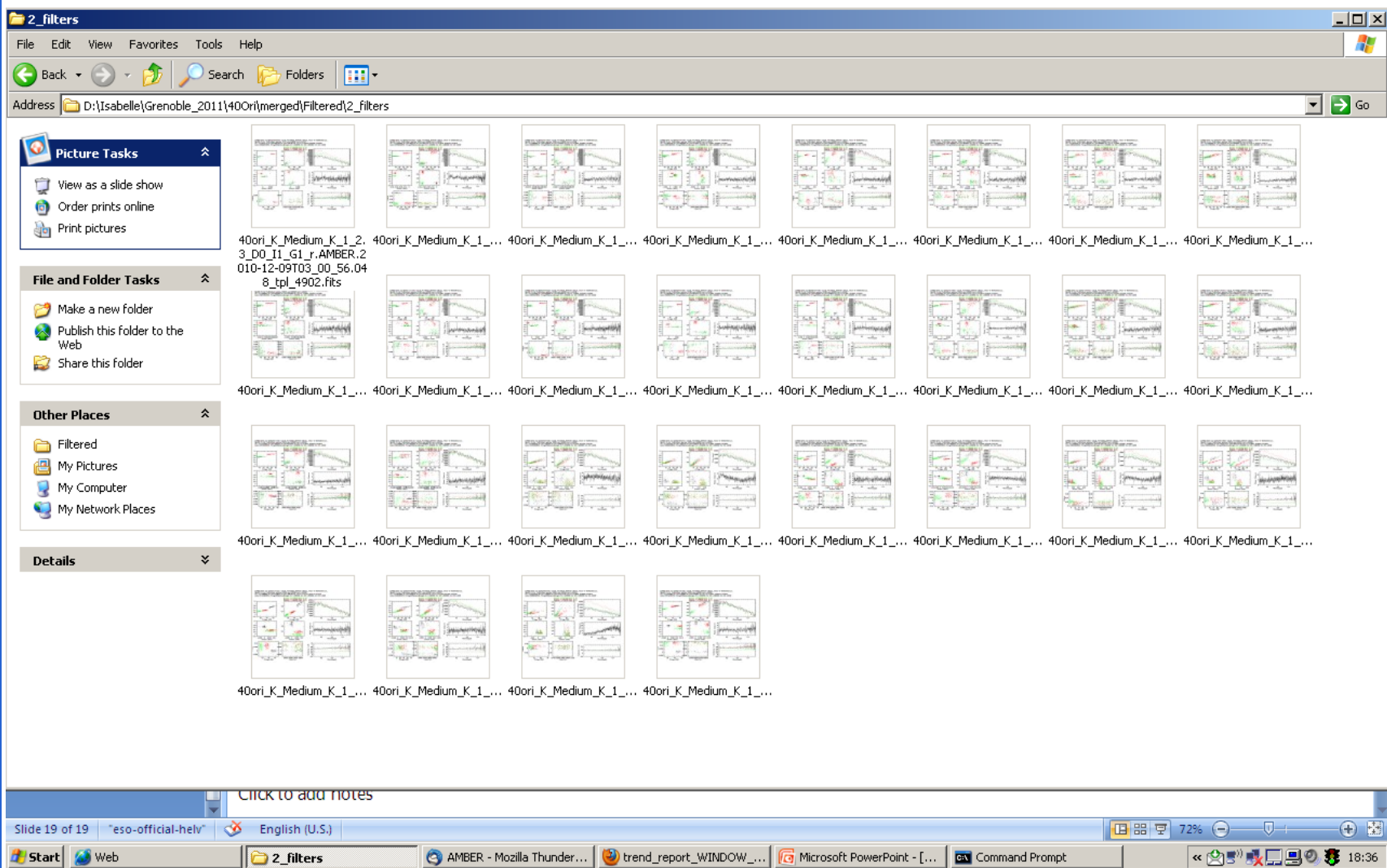
# on going-future projects (Con't)

(in collaboration with ESO groups and community)

- Provide the community with information to help with the observations, calibrator project, observed calibrators, bad calibrators, monitoring of the instrumental Transfer Function: short and long term.



# Archive of data on already observed objects



# on going-future projects

(in collaboration with ESO groups and community)

- Follow the development of DRS in the community:  
reduction algorithms: AMBER workshops, science and data reduction meetings:
  - Implementation in the instrument pipelines to provide more accurate, “up to date” products
- Request external help to provide better services.
- Provide the community with specific tools : instrument pipeline implemented with the latest available software, CalVin, VisCal, reflex workflow.
- Provide the community with information to help with the observations, calibrator project, observed calibrators, bad calibrators, monitoring of the instrumental Transfer Function: short and long term.

**USER COMMUNITY**

