



JMMC-MIN-9100-0001

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JMMC

JMMC/ESO COMITEE MEETING 26 OCT 2007

ESO Garching, 26 Oct 2007

Participants:

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1 Agenda

Plans for a first ESO/JMMC collaboration on User Support Software: a calibrator tool.

2 Highlights

Presentations and following discussion permit to have a complete overview of the current status of calibrator use and handling in the VLTI context, desired evolutions, science needs and current state of the art. Discussion permits to separate requirements that can be solved internally by ESO and requirements that involve the expertise(s) of JMMC. Of the latter, it is decided to:

- Set up a closer collaboration between the JMMC calibrator group and the ESO science staff on the problem of calibrators for the VLTI and its future evolutions. It is proposed to institute a yearly joint JMMC-ESO workshop, whose first venue will be dedicated to Calibrators (to be held between March and June 2008). M. Wittkowski and D. Bonneau are proposed to chair this workshop. The workshop should permit the sharing of experience among attendees and provide recommendations on the best way to find, certify, use, and handle data calibrated with, calibrators.
- Work on a preparation tool for calibrator search, fulfilling a list of requirements issued by 3 different "users":

ESO Data Management Requirements:

- Tool insures sufficient (TBD) spatial density of calibrators for MIDI and AMBER use

- Calibrators measurements by ESO instruments serve to augment/update a list of “Bad Calibrators”, and a list of ‘known’ calibrators associated with and ESO ‘quality tag’¹
- Tool will use the “bad” and “known” calibrator list in its calibrator finding algorithm.
- Tool can use local databases, like a local fixed list of calibrators.
- Calibrators submitted by astronomers are completely described (e.g., star diameter) to be checked for OB validity before observation and used effectively for absolute calibration of Science data at Quality Control level.²
- Tool works (at least in some mode) without need of an internet connexion to web databases.
- Tool is Java-based (Java application, not applet).
- Tool output is useable as P2PP input
- Tool can be used in expert mode (e.g., Paranal use on the spot by AOD – “expert mode” to be defined further)
- Tool presents all additional information (calibrator observability, dependence on baselines, effect of shadowing by telescope enclosures, localisation in time and space (Paranal, specific baselines), limiting magnitudes for selected focal instrument) needed to help user select the calibrator in accordance with observational constraints.

Science User Requirements

- Use of IAU WG’s bad calibrator list
- Useable outside ESO
- Input can be triggered by P2PP
- Output Fills P2PP (creates Obs ?)

JMMC Requirements:

- tool suitable for all interferometers and focal instruments.
- no downgrading of the existing SearchCal tool.
- Tool architecture permits easy upgrades triggered by science group continuous R&D.
- quality control results on calibrators (especially calibrators found “bad”) are communicated to the JMMC science group for study.

3 Actions

The JMMC will propose software design(s) for the tool, with a corresponding estimate of manpower, and suggestions for sharing workload, before Dec 1, 2007.

M. Wittkowski shall contact D. Bonneau to organise the joint workshop.

¹ Functionnally, this is mainly an internal ESO issue, that will benefit from conclusions of the JMMC/ESO workshop on calibrators.

² This requirement applies only if the tool is the only origin of calibrators submitted by astronomers at P2PP stage 2.

