Keck Next Generation Adaptive Optics
Control System Software Mini-Review
Charge and Review Process
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April 6, 2010

The Next Generation Adaptive Optics (NGAO) Project will provide a Preliminary Design Review (PDR) of the project in the second quarter of calendar year 2010. As part of the PDR, the team will present the control system software design for the non-realtime controls portion of the Keck NGAO System. This review focuses on the control aspects of the system and not the infrastructure, which is described in KAON 679: NGAO Control Software Architecture.

This mini-review is being held in preparation for the PDR. The purpose of the review is to evaluate the proposed control software design and to confirm that they will meet the NGAO requirements. This review is not intended to review requirements that have been previously agreed upon by NGAO System Engineering. However, the team may propose changes to the requirements to ensure the success of the NGAO system. A successful review will ensure the planned architecture can move forward towards PDR.

The review panel will be provided documents describing the control software design. Other supplemental material including this document and the requirements will also be available in support of the review. Using this material and those presented at the review, the panel is asked to evaluate the proposed designs and answer the following questions:

- Are the requirements understood?
- Does the proposed design satisfy the requirements?
- Is the design
    - Complete?
    - Technically feasible?
    - Cost effective?
- Is the design sufficiently matured enough that it can be developed to the PDR level by the 2nd Qtr of 2010?

The following items will not be covered in this review; but will be included in the overall PDR:

- Effort Estimates
- Budget
- Schedule

The review will take place on Fri April 16, 2010, at 8:00AM HST. The PolyCom Video System will be used to connect with participants from CalTech and UCSC. The review committee consists of the following experts:

- Al Conrad (WMKO), Chair
- Richard Dekany (COO)
- Don Gavel (UCO)
- John Cromer (CalTech)

The Control Software team consists of the following personnel from WMKO:

- Doug Morrison (dmorrison@keck.hawaii.edu)
- Jimmy Johnson (jjohnsoon@keck.hawaii.edu)
- Kevin Tsubota (ktsubota@keck.hawaii.edu)

The agenda for the review is as follows (all times are HST):

- 8:00 AM: Setup, welcome, and introductions
- 8:15 AM: Presentations
- 9:30 AM: Break
- 9:45 AM: Review committee comments discussion and questions
- 10:45 AM: Review committee closed session
- 11:15 AM: Review committee feedback to team

Based on the review material, reviewers may submit written questions to the Control Software team on areas or issues they would like to see covered during the review. Questions received by COB Tue Apr 13, 2010, will be addressed with a written response during, or prior to, the review presentations. We will make every attempt to provide formal written responses to questions received after the 13th however, we may only be able to provide verbal responses during the review, depending on the circumstances.

At the conclusion of the review, the committee is asked to provide the NGAO Project Manager and the Control Software team with verbal feedback as to their recommendations and concerns. A final report of findings, recommendations and comments is requested within one week of the review from the committee chair. The written report should be addressed to the NGAO Project Manager.

Thank you for your participation in the review process and for helping to ensure the success of the overall NGAO Project.