The Gemini Observatory Proposal Process

We introduce an overview to the Gemini Observatory proposal process. Each phase from proposal production and submission, preparation of the observing routines to post observing support are described. Additionally the types of observing modes available at Gemini are discussed.

0. Process Overview

Proposal Preparation
- Phase 1 preparation; Latex form submitted to Subaru
- *Gemini partner countries make Phase 1 preparation using Java-based proposal interface tool (PIT) and submitted to partner country office*

Observation Preparation
- Observations prepared using the Java-based observing tool (OT) unique to that semester
- Libraries of example routines provided by Gemini
- OT checked by Gemini staff

Observation Execution
- Subaru exchange time on Gemini is offered in classical mode - the OT is operated by Gemini staff with minimal changes needed during the night (based on quick-look of the incoming data)
- Data quality checked during the night to ensure optimal science and consistent with the proposal goals

Post-Observing
- Data reduced using IRAF scripts supported by Gemini
- Resources to help in the data reduction (such as NIR and MIR resources WWW pages)
- Interaction with Gemini staff should questions arise

1. Proposal Preparation

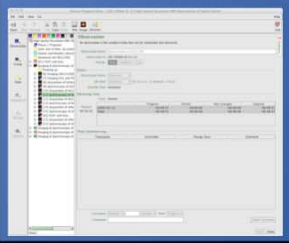
Announcement of Opportunity
- Announcement of opportunity for observations made typically 1 month before proposal submission. The announcement includes essential information regarding instrument availability, RA range restrictions etc.

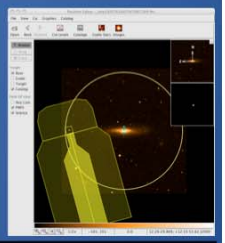
Submission & Awards
- Proposals are submitted to the relevant national offices (i.e. the Subaru office) and ranked by the separate time allocation committees (TAC). In the case of Subaru, the number of exchange nights is agreed by the Subaru and Gemini Observatories and the time is then distributed using the rankings set by the TACs.
- Successful PIs are informed by their national offices

2. Observation Preparation

Observing Tool
- Successful PIs are sent a 'skeleton' of their planned observations in the observing tool (OT). The PI should make changes and complete the OT.
- OT libraries may be consulted to make use of Gemini recommended approaches for each instrument.

Interaction with Gemini
- The completed OT is returned to Gemini for checking and advice, perhaps with several iterations, until an optimal observing program is agreed.
- OT files must be completed ~4 weeks after the TAC award notification.
- The OT is then held in the Gemini OT database until the observation date.

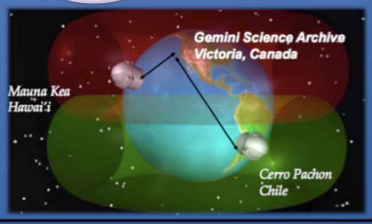




3. Observation Execution

Observing
- Observations are run by the OT. Changes can be made in real time, but unless conditions change, alterations are typically minor.
- Subaru observations are completed in 'classical' mode by the visiting PI. Service observing for G.S. programs can be made.
- Partner countries typically use queue observations, where observations are matched to the TAC ranking, observing conditions and observatory constraints.

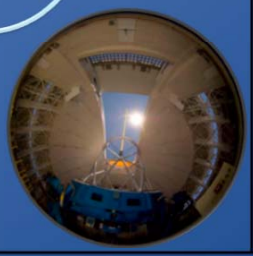
Data & Delivery
- Observations are monitored for data quality by the visiting PI (if present) and Gemini staff.
- Data are automatically archived to the Science Archive in minutes. After data has been quality checked (usually the next day) the data is ready for collection from the archive.
- A visiting PI can take the data home with them or retrieve it from the archive.



4. Post-Observing

IRAF Scripts
- IRAF data reduction scripts are available for all instruments and most modes of operation.
- Final output of scripts is sufficient to remove instrument signatures and perform flux and wavelength calibration ready for publication.
- Scripts are migrating to pyraf.

Gemini Support
- Supporting information and documentation is available at www.gemini.edu, where in many cases step-by-step examples are presented.
- Gemini operates a help desk for detailed questions should individual questions arise.



Gemini's Observing Modes

Gemini offers the following types of observing modes:
1. Queue mode
2. Classical mode
3. Target of Opportunity
4. Director's discretionary time
5. Poor weather proposals

Currently only classical observing is offered to the Subaru community, trading five-ten nights of Subaru time for five-ten nights of Gemini time.

Queue mode enables the matching of conditions to the optimal science program, as well as an essential component of enabling monitoring type programs (i.e. short observations for a supernova over a period of months). Further, time can be awarded but not initiated until a specific trigger is given, in this above example the observation of a supernova would be the trigger. Poor weather proposals are used to ensure smooth running of the queue, and finally director's discretionary time is available to Gemini partners only.

References & Acknowledgements

For much more information please see www.gemini.edu. *The Gemini Observatory, is operated by AURA, under a cooperative agreement with the NSF on behalf of the Gemini partnership: The NSF (US), STFC (UK), NRC (Canada), CONICYT (Chile), ARC (Australia), MCT (Brazil) and MCTIP (Argentina).*