



Gemini Observatory

Andrew Stephens
Carlos Quiroz
2018 June 4

Gemini Observatory

Two 8.1m telescopes: Chile (lat \sim -30°) and Hawai'i (lat \sim +20°)

Each has 4 instruments + AO + changing suite of visitor instruments

Partnership of 5 countries (US, CA, BR, AR, CL)

Additional participants include UH and KR

Time sharing agreements with Subaru and CFHT communities

Each group has separate proposal deadlines and TACs

Receive \sim 500 proposals per semester

Accept \sim 140 programs per site per semester

Current Proposal Submission System

Stand-alone Java & Scala application updated every semester for instrument availability, new observing modes, and new partners

Available for Mac, Linux, and Windows

The screenshot shows the Gemini PIT 2018B.2.1 proposal submission system interface. The window title is "proposal[*] - Gemini PIT 2018B.2.1". The menu bar includes File, Edit, View, Catalog, and Help. The interface is divided into several panels:

- Overview:** Contains fields for Title ("Abundances in M31 Globular Clusters"), Abstract ("We will measure abundances of individual stars in a sample of M31 globular clusters..."), TAC Category (Extragalactic), Keywords (2 Selected: Chemical abundances; Stellar populations), and Attachment (PDF attachment goes here.). Below these is a table with columns Name, Institution, Phone, and Email, listing Andrew Stephens and Carlos Quiroz.
- Observations:** Features a table with columns Item, Time, Guiding, Vis, and GOA. It lists two observations for M31: one with a 6.25 HR duration and 25% guiding, and another with a 2.20 HR duration and 25% guiding. A summary bar indicates "Sum observation times: 8.45 hr".
- Problems:** A table with columns Description and Section, containing a message: "Please provide a PDF attachment." with the section "Overview".

At the bottom left, the status is "Ready". The "Overview" tab is highlighted with a red box.

Current Proposal Submission System

PIs attach PDF with the Scientific Justification, Experimental Design, Technical Description, etc. using LaTeX or Word templates

The screenshot shows the Gemini PIT 2018B.2.1 proposal submission system interface. The window title is "proposal[*] - Gemini PIT 2018B.2.1". The interface is divided into several sections:

- Overview:** Contains fields for Title ("Abundances in M31 Globular Clusters"), Abstract ("We will measure abundances of individual stars in a sample of M31 globular clusters..."), TAC Category ("Extragalactic"), Keywords ("2 Selected: Chemical abundances; Stellar populations"), and Attachment ("PDF attachment goes here."). Below these is a table with columns: Name, Institution, Phone, Email. The table lists Andrew Stephens and Carlos Quiroz.
- Observations:** A table with columns: Item, Time, Guiding, Vis, GOA. It shows two observations for M31: one with a 6.25 HR duration and 25% guiding, and another with a 2.20 HR duration and 25% guiding. A summary bar indicates "Sum observation times: 8.45 hr".
- Problems:** A table with columns: Description, Section. It contains one problem: "Please provide a PDF attachment." with the section "Overview".

The "Overview" tab is selected and highlighted with a red box. The "Attachment" field and the "Please provide a PDF attachment." problem are also highlighted with red boxes.

Current Proposal Submission System

PIs create pseudo-observations including the required conditions, instrument configuration, target information, and observation duration.

Checks the availability of guide stars, target visibility during the semester, and whether there are duplicate datasets in the Gemini Archive.

The screenshot shows the Gemini PIT 2018B.2.1 proposal submission system interface. The window title is "proposal[*] - Gemini PIT 2018B.2.1". The interface is divided into several sections:

- Overview:** Contains fields for Title ("Abundances in M31 Globular Clusters"), Abstract ("We will measure abundances of individual stars in a sample of M31 globular clusters..."), TAC Category ("Extragalactic"), Keywords ("2 Selected: Chemical abundances; Stellar populations"), and Attachment ("PDF attachment goes here."). Below these is a table with columns: Name, Institution, Phone, Email.
- Observations:** A table with columns: Item, Time, Guiding, Vis, GOA. It shows two observation entries for M31. The first entry has a time of 6.25 HR, 25% guiding, and green status for Vis and GOA. The second entry has a time of 2.20 HR, 25% guiding, and green status for Vis and yellow status for GOA. Below the table, it says "Sum observation times: 8.45 hr".
- Problems:** A table with columns: Description, Section. It contains one entry: "Please provide a PDF attachment." with the section "Overview".

The "Overview" tab is selected in the bottom navigation bar. The "Observations" tab is also visible in the bottom navigation bar.

Name	Institution	Phone	Email
Andrew Stephens	Gemini Observatory ...	8089742611	astephens@ge...
Carlos Quiroz	Gemini Observatory ...		cquiroz@gemini...

Item	Time	Guiding	Vis	GOA
CC 50%/Clear, IQ 70%/Good, SB Any/Brigh...				
GNIRS Spectroscopy LGS 0.05"/pix 32 l...				
M31				
Observation	6.25 HR	25%	●	●
NIRI Altair Laser Guidestar f/32 (0.02"/...				
M31				
Observation	2.20 HR	25%	●	●

Description	Section
<input type="checkbox"/> Please provide a PDF attachment.	Overview

Current Proposal Submission System

Problems section lists issues that must be resolved before submission

Clicking on a problem takes the user to the relevant section

Abstract is publicly available for successful programs

proposal[*] - Gemini PIT 2018B.2.1

File Edit View Catalog Help

Overview

Title: Abundances in M31 Globular Clusters

Abstract: We will measure abundances of individual stars in a sample of M31 globular clusters...

TAC Category: Extragalactic

Keywords: 2 Selected: Chemical abundances; Stellar populations

Attachment: PDF attachment goes here.

Name	Institution	Phone	Email
Andrew Stephens	Gemini Observatory ...	8089742611	astephens@ge...
Carlos Quiroz	Gemini Observatory ...		cquiroz@gemini...

Observations

Group by: Conditions Resources Targets

Item	Time	Guiding	Vis	GOA
CC 50%/Clear, IQ 70%/Good, SB Any/Brigh...				
GNIRS Spectroscopy LGS 0.05"/pix 32 l...				
M31				
Observation	6.25 HR	25%		
NIRI Altair Laser Guidestar f/32 (0.02"/...				
M31				
Observation	2.20 HR	25%		

Sum observation times: 8.45 hr

Lookup «enter a target here»

Observations Band 3 Targets

Overview Time Requests Scheduling Submit TAC

Problems

Description	Section
<input type="checkbox"/> Please provide a PDF attachment.	Overview

Ready

Proposal Types

Time Requests

Proposal Class: Queue Observing at Gemini

Consider for Band 3: No

ToO Activation: None

Request Type: Gemini Partner Request

Partner	Time	Min Time	Lead
Argentina			
Australia			
Brazil			
Canada			
Chile			
Republic of Korea			
University of Hawaii			
United States			

Total request: 8.45 hr (4.00 hr min)

Overview Time Requests

Time Requests

Proposal Class: Exchange Observing at Keck/Subaru

Observatory: Subaru Telescope

Partner	Time	Min Time	Lead
Argentina			
Australia			
Brazil			
Canada			
Chile	4.22 hr		
Republic of Korea			
University of Hawaii			
United States	4.23 hr		

Total request: 8.45 hr (4.00 hr min)

Overview Time Requests Scheduling

Time Requests

Proposal Class: Classical Observing at Gemini

Visitors: Andrew Stephens, Carlos Quiroz

Request Type: Gemini Partner Request

Partner	Time	Min Time	Lead
Argentina			
Australia			
Brazil			
Canada			
Chile	4.22 hr		
Republic of Korea			
University of Hawaii			
United States	4.23 hr		

Total request: 8.45 hr (4.00 hr min)

Overview Time Requests Scheduling

Time Requests

Proposal Class: Fast Turnaround Observing at Gemini

ToO Activation: None

Time: 8.45 hr (4.50 hr minimum) requested

Reviewer: Carlos Quiroz

PI's Affiliation: United States

Total request: 8.45 hr (4.50 hr min)

Overview Time Requests Scheduling

Time Requests

Proposal Class: Large Program Observing at Gemini

ToO Activation: Standard

Time: 60.00 hr (30.00 hr minimum) requested

Edit Request

Time First Semester: 60.00 hr

Min Time First Semester: 30.00 hr

Total Large Program Time: 300.00 hr

Min Large Program Time: 200.00 hr

Ok Cancel

Total request: 60.00 hr (30.00 hr min) | Total LP time 300.00

Overview Time Requests Scheduling Submit TAC

Queue

Exchange

Classical

Fast Turnaround

Large

Director's Discretionary

Poor Weather

Proposal Submission

“Joint” proposals are submitted to each partner’s server (hosted at Gemini)

Display reference ID for each partner

Submitted proposals become uneditable

The screenshot shows the Gemini PIT 2018A.1.1 software interface. The 'Submit' window is highlighted with a red border and shows a 'Successfully Submitted' status. Below the status is a table of partners and their reference IDs. The 'Observations' window shows a table of observation items with columns for Item, Time, Guiding, Vis, and GOA. The 'Submit' button in the bottom navigation bar is highlighted with a red box.

Submit Window:

Status: **Successfully Submitted**

This proposal has been submitted and is locked (but you can open an editable copy).

Submit this Proposal

Open an Editable Copy

Partner	Status	Reference	Contact
UH University of ...	Received	UH-2016B-004	phase1help-uh@gemini...
Brazil	Received	BR-2016B-005	phase1help-br@gemini.e...
Argentina	Received	AR-2016B-004	phase1help-ar@gemini.e...
Canada	Received	CA-2016B-004	phase1help-ca@gemini.e...
Chile	Received	CL-2016B-004	phase1help-cl@gemini.edu
United States	Received	US-2016B-003	phase1help-us@gemini.e...

Observations Window:

Item	Time	Guiding	Vis	GOA
GMOS-N LongSlit None B600 None 1....				
NGC 7006				
Observation	1.10 HR	100%		
GMOS-N MOS N+S None 0.5 arcsec ...				
NGC 7078				
Observation	1.10 HR	100%		
GMOS-S IFU R831 None IFU 1 slit				
M 72				
Observation	1.10 HR	100%		
GMOS-S Imaging g (475 nm)+r (630 ...				
M 2				
Observation	1.00 HR	100%		
GMOS-S LongSlit N+S B1200 None 0...				
M 30				
Observation	1.10 HR	100%		
GMOS-S MOS 1.0 arcsec slit B600 RG...				

Sum observation times: 42.60 hr

Lookup «enter a target here»

Navigation: Overview | Time Requests | Scheduling | **Submit** | TAC

Bottom Panel: Problems (Description | Section)

Phase-1 Backends

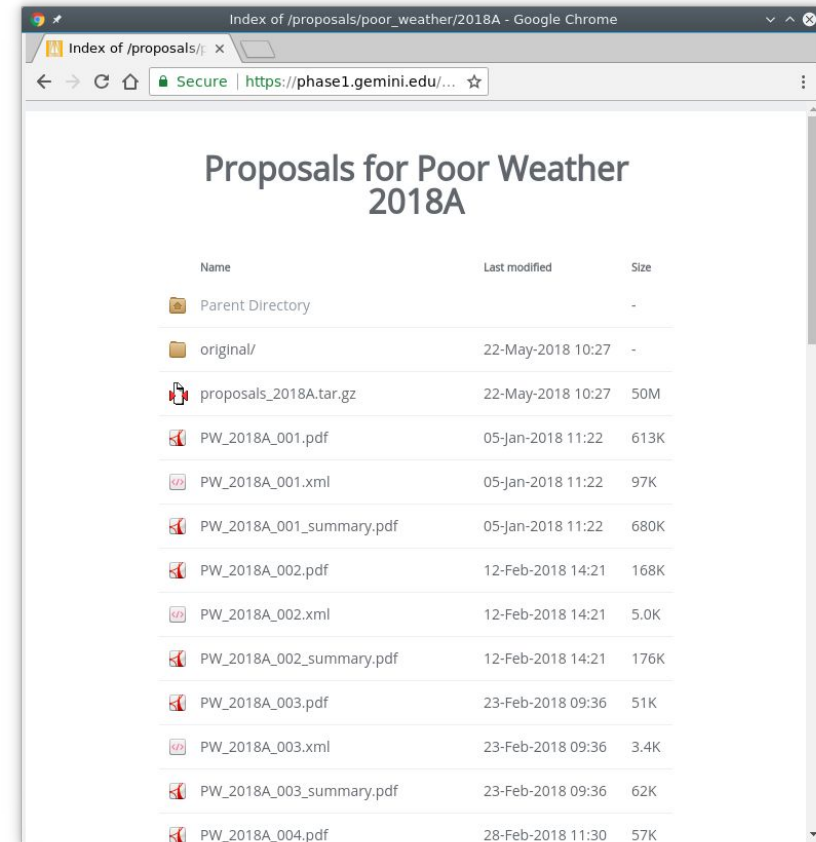
Separate backend for each partner

Backend does basic validation, assigns each proposal a unique id, and optionally sends an email to the Partner

Creates a tarball of all proposals to facilitate download

Simple UI allows partners to monitor backend

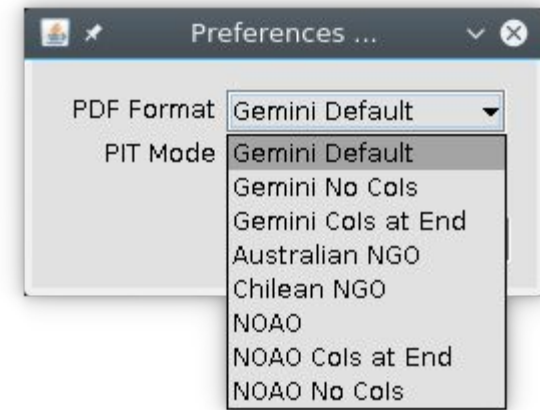
Use Apache's Basic Authentication to allow each partner to access their backend



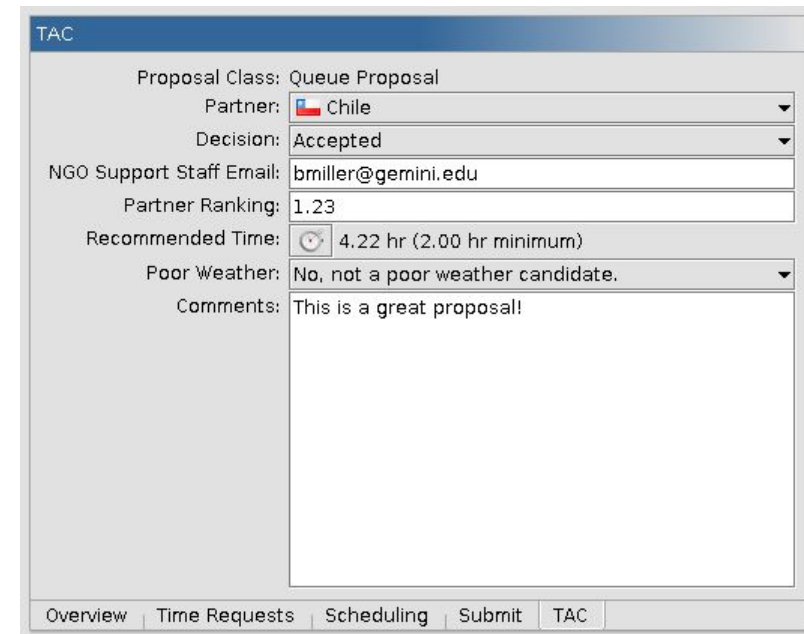
PDF Generation & TAC Feedback

Generate PDF summaries for TACs

Partners choose PDF format



TACs enter raking, time award, and feedback for PIs

A screenshot of a 'TAC' (Task Action Card) form. The form contains the following fields:

- Proposal Class: Queue Proposal
- Partner: Chile (with a flag icon)
- Decision: Accepted
- NGO Support Staff Email: bnmiller@gemini.edu
- Partner Ranking: 1.23
- Recommended Time: 4.22 hr (2.00 hr minimum) (with a clock icon)
- Poor Weather: No, not a poor weather candidate.
- Comments: This is a great proposal!

At the bottom, there are tabs for 'Overview', 'Time Requests', 'Scheduling', 'Submit', and 'TAC'.

Fast Turnaround

FT allows rapid conversion of ideas into data

Monthly deadline

Data in 1-4 months after proposal deadline

Reviewed online by other proposers

Failure to review results in proposal removal

~15% of Gemini proposals are FT

#11 Gregor Samsa dreams a terrible dream

One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin. He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections. The bedding was hardly able to cover it and seemed ready to slide off any moment. His many legs, pitifully thin compared with the size of the rest of him, waved about helplessly as he looked. "What's happened to me?" he thought. It wasn't a dream. His room, a proper human

[Show PDF](#)

Jane Doe, Grad Thesis, Universidade Federal do Rio Grande do Sul (UFRGS)

John Smith, PhD, Universidade Federal do Rio Grande do Sul (UFRGS)

0 (Poor) 1 (Fair) 2 (Good) 3 (Very good) 4 (Excellent)

Provide a brief written assessment below.

I know little about this field

I am somewhat knowledgeable about this field

I consider myself knowledgeable about this field

LAST SAVE:

GEMINI OBSERVATORY Exploring the Universe, Sharing its Wonders

Home Science Public/Images Search Gemini Observatory

Gemini Fast Turnaround Proposal Reviews

HOME / FAST TURNAROUND /

Please login

Username:

Password:

[reset password](#)

Gemini Observatory Partners

Sitemap | Website Chilean Mirror

Proposals History Winners Investigators

	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	#
572	1		4					3	4			3			4				2	4	8	
573	4							3	4		1		4		3	0	4				8	
574					3	4	4				3				2	3	2		3		8	
575	1							4	3			1	3				3		2	3	8	
576	2		3				2				4	2			3	4	2				8	
577	1		3		2		3	2							2		2		3		8	
578		2			4			3	3	3	4	2							4		8	
579	2	3	4			3	2					1	1	3							8	
580	3	2	4		4		4					3	4				2				8	
581				3		2	3								2	2		3		4	1	8
582	2	3	1		3		4								2		3		3		8	
583	4				1			3	4	4					3		3		4		8	
584				4	1							4	3			3		2		3	4	8
585		3		4					2	3			0					1		0	4	8
586			4		4			1			3	3				1	4		3		8	
587	3		2		3	3					3	2			2				4		8	
588	1	3	2		1	4					2				2			3			8	
589		3		2						3			2	3		3				2	2	8
590		1	3			4	2				3				1	3	0				8	
591	2	2		3						4		3		4					4		3	8
592	2			4				3	3	3			2	3				2				8
#	11	10	10	7	9	6	8	8	8	8	7	8	8	8	8	7	8	7	8	7	7	

Rows = reviewers. Columns = proposals
Bottom row of numbers = number of reviewers per proposal
Right side column of numbers = number of proposals assigned to reviewer

Proposals are reviewed by partner TACs and then merged by the ITAC

ITAC SW stores all proposals on a postgres db

ITAC engine builds the optimal queue based on partner ranking of each proposal, total time available to each partner, time available in each observing constraint bin, and the time available in each RA bin

TAC :. Configuration

The screenshot displays the 'TAC :. Configuration' web interface. At the top, there are navigation tabs for '2018B', 'Committees', 'People', and 'Configuration'. Below these are sub-tabs for 'Condition Bins', 'RA/DEC', 'Email templates', 'Email addresses', 'Committee Management', and 'Partner %s'. The 'Email templates' tab is active, showing a grid of template categories: 'PI successful', 'unsuccessful', 'NGO classical', 'NGO joint classical', 'NGO exchange', 'NGO joint exchange', 'NGO poor weather', 'NGO joint poor weather', 'NGO Queue', and 'NGO Queue joint'. The 'PI successful' template is selected, and its content is displayed in a text area. The content of the template is as follows:

2018B Gemini PI Notification

Dear 2018B Gemini Principal Investigator,

Congratulations! You are receiving this email because your proposal for time on Gemini was successful. This email contains important information concerning the Phase II definition of your program.

!!!THE GENERAL DEADLINE FOR COMPLETING YOUR PHASE II IS JULY 17 2018!!!

Step by step instructions for completing the Phase II Science Programs for all Gemini North and Gemini South Instruments as well as detailed information about Eavesdropping, and Classical and Priority Visitor Observer programs are given at the following link:

<http://www.gemini.edu/node/12737>

PROGRAM SUMMARY

Programs get template observations based on Phase I details

PIs may customize the templates and apply them to their approved target list to generate executable observations

The screenshot displays the Gemini OT software interface for the observation 'Abundances in M31 Globular Clusters'. The interface is divided into several sections:

- Left Panel:** A tree view showing the observation structure. The 'Templates' folder is expanded, showing a list of templates. The template '[2] GNIRS LGS Spectroscopy' is selected and highlighted in blue.
- Top Panel:** A menu bar (File, Edit, View, Go, Tools) and a toolbar with icons for Open, Prev, Back, Forward, Next, Cut, Copy, Paste, Plot, Image, Libraries, Apply, Reapply, and Queue.
- Right Panel:** The 'Template Group' configuration window. It contains the following information:
 - Description:** 'This is a template group for observations based on a single Phase I resource. The list below specifies targets and conditions to which this template may be applied.'
 - Resource:** GNIRS Spectroscopy LGS 0.05"/pix 32 l/mm grating LXD 0.10 arcsec wavelength <2.5
 - Title:** GNIRS LGS Spectroscopy
 - Target/condition pairs:** A table with columns 'Target', 'Conditions', and 'Phase 1 Time'. One entry is visible: Target 'M31', Conditions 'CC50, IQ70, SBAny, WVAny', and Phase 1 Time '5.00 hours'.
 - Form Fields:** Below the table, there are input fields for 'Name', 'Type', and 'Time', along with dropdown menus for 'CC', 'IQ', 'SB', and 'WV'.
 - Buttons:** 'Apply...' and 'Split...' buttons are located at the bottom of the configuration window.

Problems & Issues

PIs must download a new PIT every semester

PI confusion about which PIT version to use for out-of-cycle proposals

No observation visualization (some PIs use the Phase II tool)

No way to modify a submitted proposal (leads to duplicate submissions)

No confirmation emails (which PIs have grown to expect)

Future Plans: General

Gemini has started a project to rewrite / reimagine our proposal and observation preparation tools.

Rethink the purpose and UI from first principles

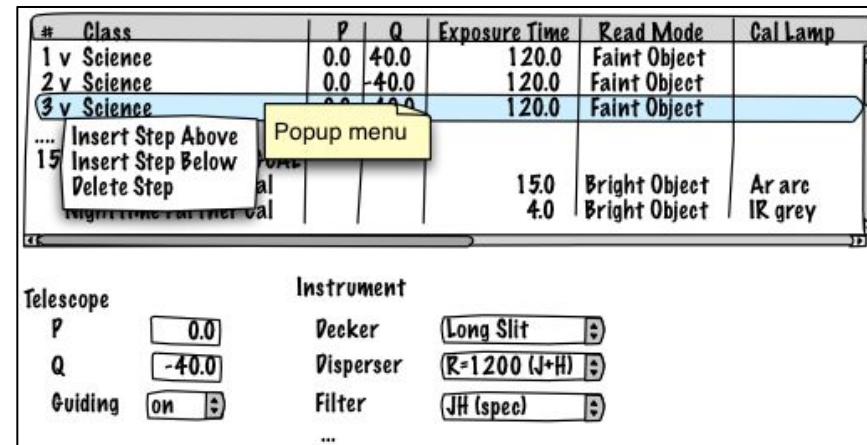
Make code more scalable and maintainable

Common software models and UI elements

Postgres database

APIs to access database and services

Web-based applications



UI mockup of new sequence model editor

Future Plans: Proposal Tool

Improve Phase I \rightarrow II transition,
propagating all Phase I information to
the Phase II observations

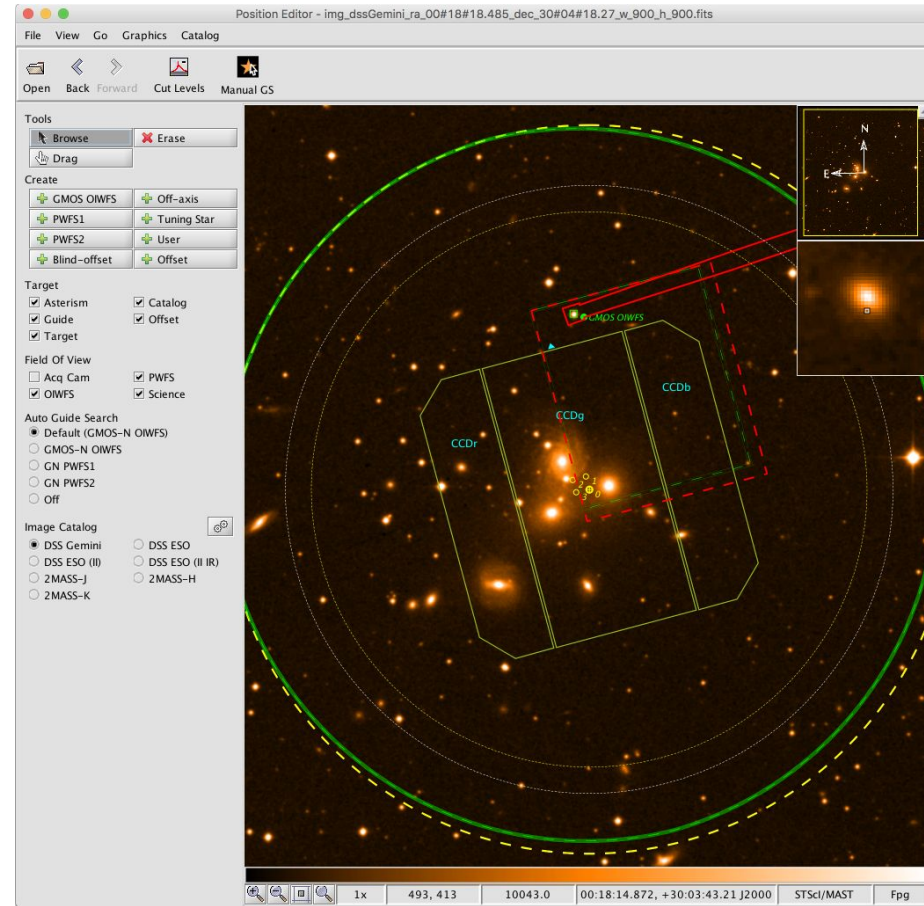
Visualize observations using survey
images

Incorporate Integration Time
Calculators

Allow Partners to control when
proposals are accepted

Allow PIs to modify and re-submit
proposals

PI email confirmations



Gemini Observatory will be joining with the National Optical Astronomy Observatory (NOAO) and the Large Synoptic Survey Telescope (LSST) to form a single administrative organization called the National Center for Optical-Infrared Astronomy (NCOA). We are in the process of evaluating our common software needs.