Community-Centered User Support

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NGOs

- Proposal preparation support (Phase I)
- Proposal technical assessment
- Non-US queue program observation preparation support (Phase II)
- First point of contact for user helpdesk requests, which can be distributed to a wider

THE LIFE CYCLE OF GEMINI PROGRAMS

Phase I

Program preparation

(Peer review)
Time allocation

Observations

Phase II

Quality control
Archiving

Data reduction

Data analysis

Phase III

Proposal

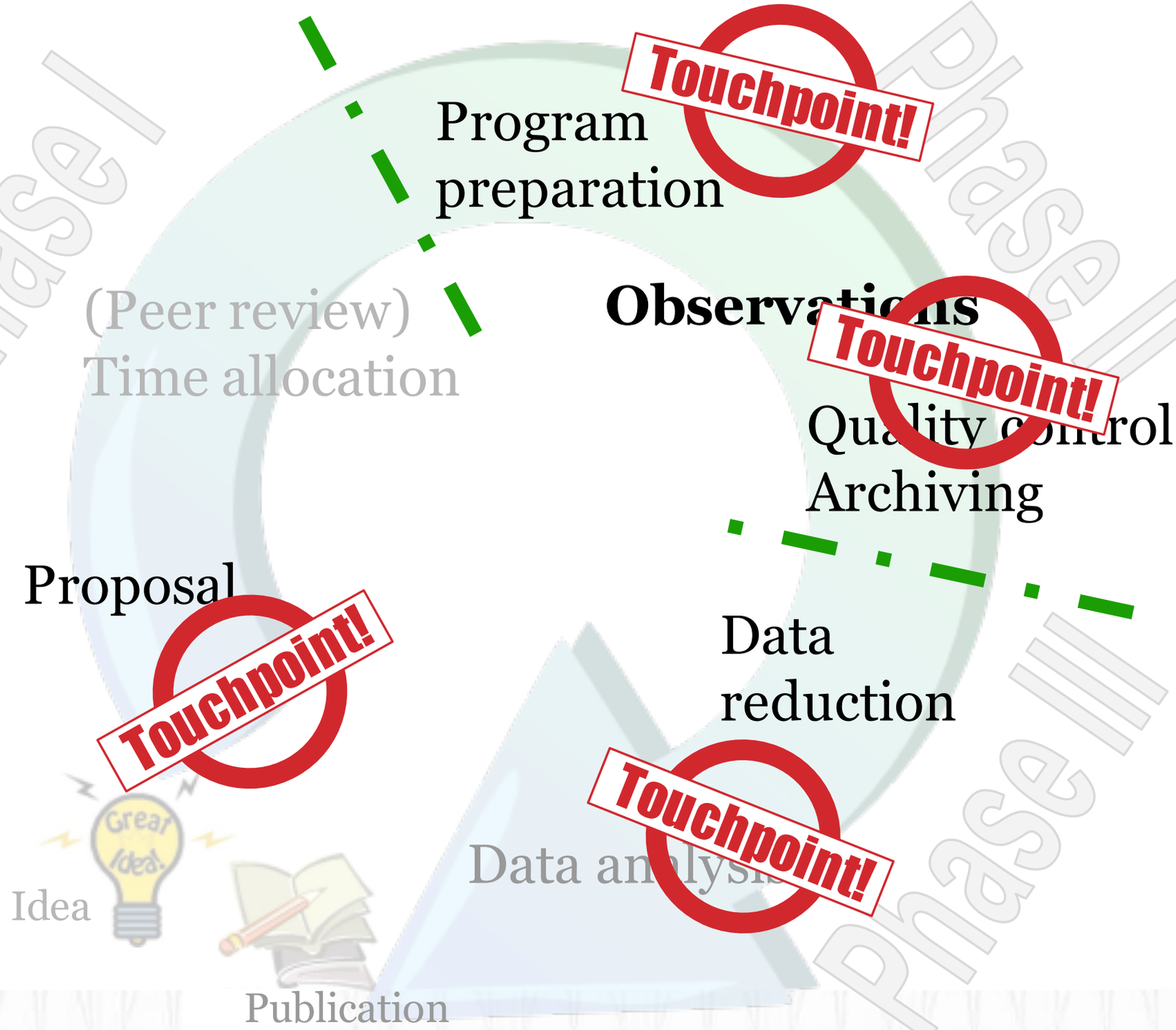
Idea

Publication

User Support Basic Tenets

- Number 1: Unnecessary communication should be avoided.
- Number 2: Our relationships with our users are an important key in successful science return.

THE LIFE CYCLE OF GEMINI PROGRAMS



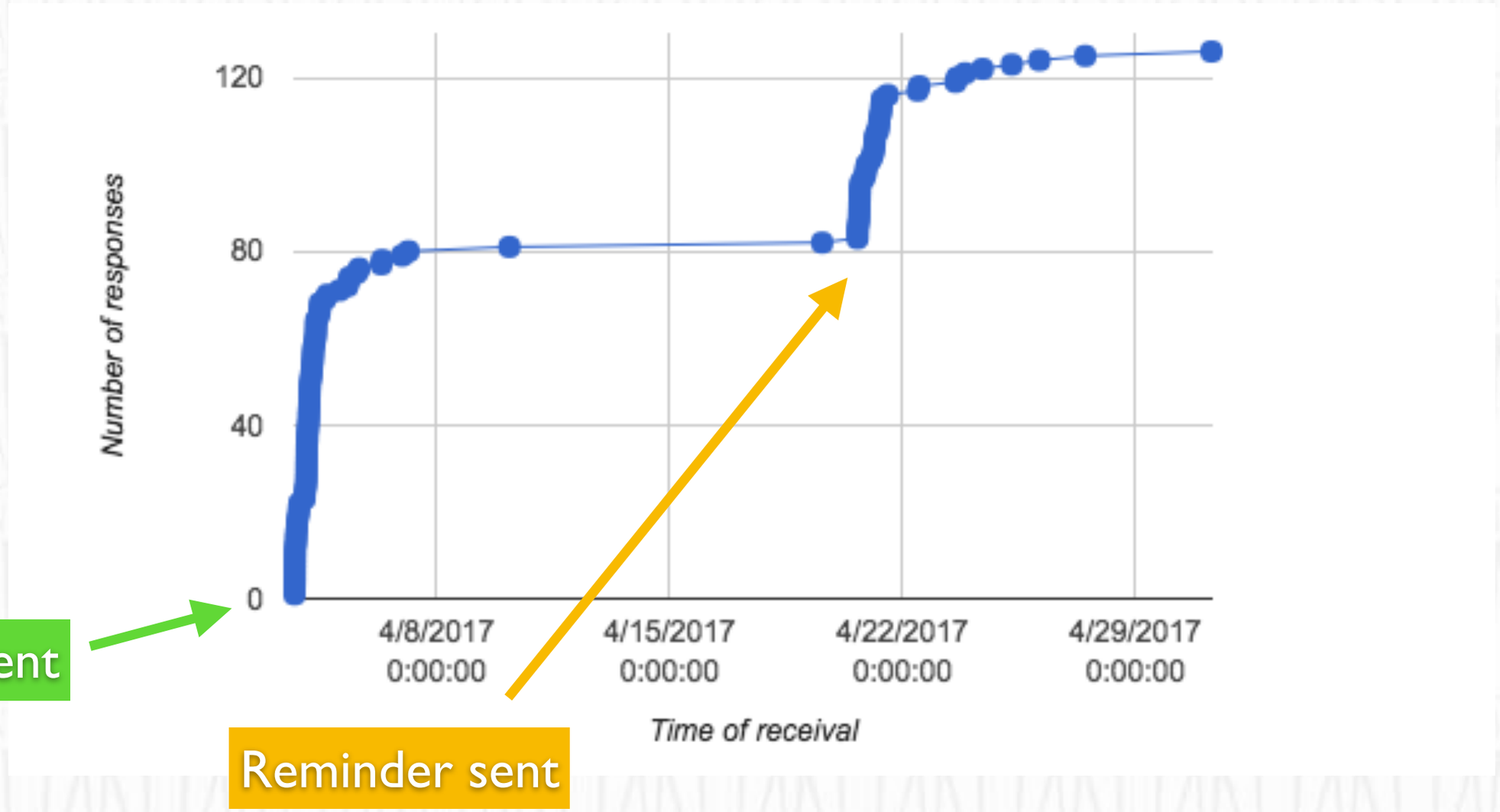
Users feedback from 4 short surveys

At the end of each Phase (I, II, end of semester, III)

For each survey:

- No more than 2-3 questions
- Questions are trackable and actionable
- Comments are solicited

Thanks for the high response rate!



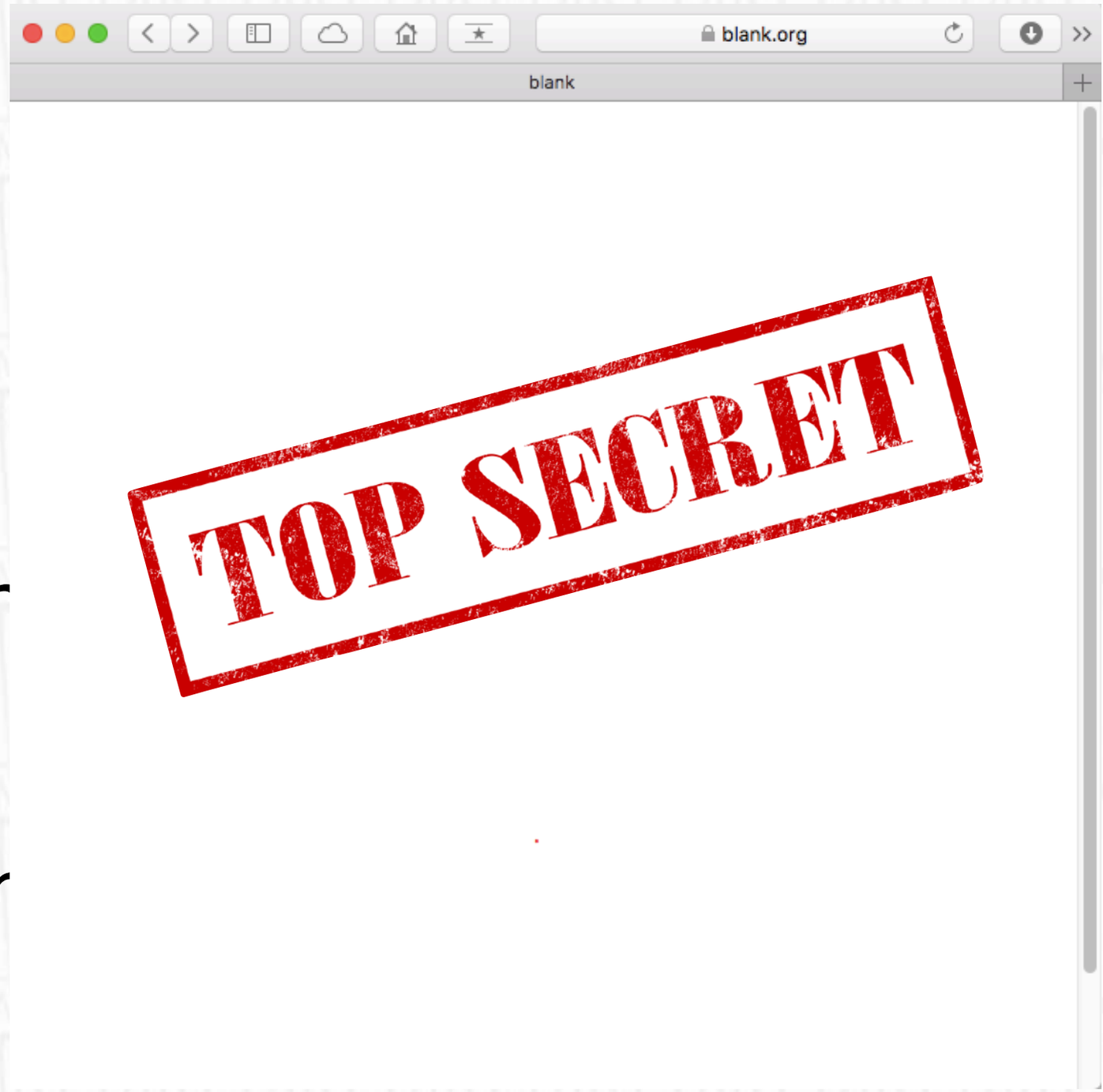
Actionable Questions; 1st Changes

- New targeted tutorial material
  - (www.gemini.edu/PIT-tutorial, OT-tutorial)
- Requirements for the OCS (PIT, OT, etc) upgrade
- Got in contact with PIs that had issues with their programs
- Updated user support model
  - To make sure nothing is dropped
  - In collaboration with NGOs
- New requirements for the **new website**.

New Gemini Website in the Making

What to expect:

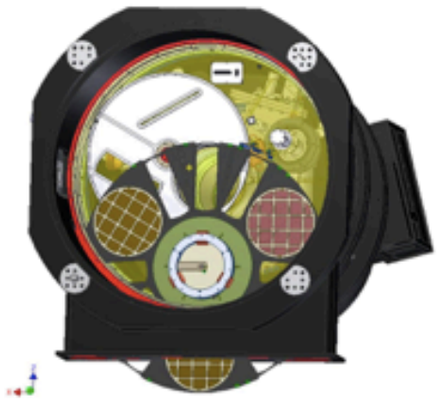
- Same graphics
- Content unchanged
- Based on user testir
  - More natural flow
  - Better organizatior



Data Reduction Documentation

gemini-iraf-flamingos-2-cookbook.readthedocs.io/en/latest/

FLAMINGOS-2 Data Reduction Cookbook — Flamingos-2 Data Reduction Cookbook v1.1.1



FLAMINGOS-2 Cookbook

A guide to the reduction and calibration of data from FLAMINGOS-2.

Quick Links

FLAMINGOS-2 Instrument Home
Gemini Observatory Archive
Gemini Help Desk

Table Of Contents

1. Introduction
2. Instrument Overview
3. Data Processing Basics
4. F2 Imaging Tutorial

FLAMINGOS-2 Data Reduction Cookbook

The Gemini Observatory provides a variety of facility-class instruments for use by the professional astronomy community, including the FLAMINGOS-2 wide-field imager and multi-object spectrograph (sometimes abbreviated F2), which is deployed on Gemini-South. This imaging spectrograph offers useful sensitivity in the near-infrared (NIR) from 0.95 – 2.4μm, at high spatial resolution and low to moderate spectral resolution. FLAMINGOS-2 was constructed by the University of Florida Astronomy Department and delivered in 2009 July; it was refurbished and commissioned in 2011-December. The F2 Status and Availability page summarizes significant operations issues over the life of the instrument that may have affected the quality of the science data in the Archive.

Data from the commissioning periods to the present are offered in the Gemini Observatory Archive. Raw data for this instrument is archived and made available for public use, but no calibrated, science-ready products are provided. This Cookbook is intended as a guide to data reduction and calibration for PIs and Archive users of data from FLAMINGOS-2. The descriptions, recipes, and scripts offered in this Cookbook will provide the necessary information for deriving scientifically viable (but not necessarily optimal) spectra and images from

Legacy Software

- The current DR software is Gemini IRAF.
- F2 MOS is the last “new” feature to be added to Gemini IRAF.
- We will fix serious bugs when reported.
- And we fix IRAF itself when required.
- But mostly, our small team is focused on our future platform.

Distribution System

Ureka is dead!

Long live Anaconda & Astroconda!

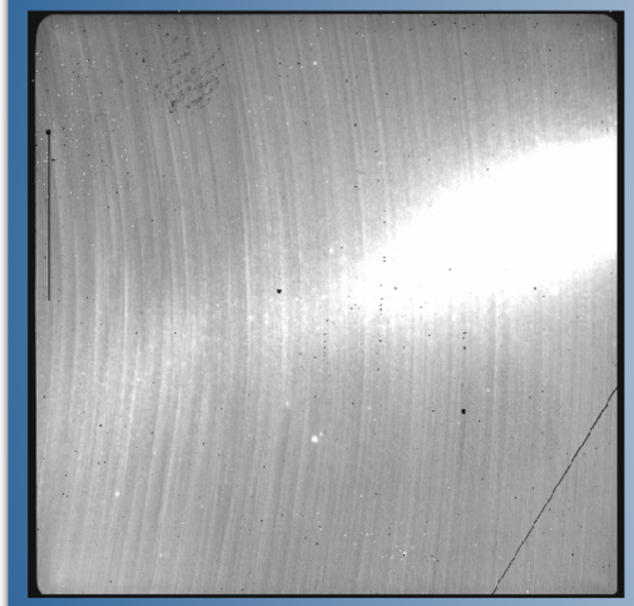
- Ureka required a lot of resources at both STScI and Gemini.
- Anaconda is now standard in the Python world and well supported by the software industry.
- Yes, you can install IRAF with that. (We support it.)

DRAGONS

- Data Reduction for Astronomy from Gemini Observatory North and South
- Python. No dependency on IRAF.
- Lots of development effort to make code re-usable and maintainable by a small team.
- An actual Pipeline this time.
- Yet, configurable to allow the user to optimize the reduction.
- Aims to provide hands-off reduction for:
  1. Night time QA assessment. (online now)

DRAGONS

Easy reduction of NIRI Imaging data



Make a master dark and add to calibration manager.

```
> reduce @darks20s.lis
> caldb add N20160102S0423_dark.fits
```

Make a master flat and add to calibration manager.

```
> reduce @allflats.lis
> caldb add N20160102S0373_flat.fits
```

Reduce the standard star and the target. The user can control input parameters.

```
> reduce @stdstar.lis -p darkCorrect:do_dark=False
> reduce @target.lis -p skyCorrect:scale=False
```

DRAGONS

- First Public Release: All imaging, science quality, towards the end of this year.
  - Infrastructure work, documentation, test framework, science verification, etc.
- Long-slit spectroscopy next.
- GHOST is already using DRAGONS
- Scorpio will also use DRAGONS

DRAGONS

We are on GitHub and readthedocs:

https://github.com/GeminiDRSoftware/DRAGONS

http://dragons.readthedocs.io/

Processed Data in the Archive

www.gemini.edu/sciops/ObsProcess/LLP/GOA-USER-101_LPPProcDataReqs

www.gemini.edu/sciops/ObsProcess/LLP/GOA-USER-101_LPPProcDataReqs.pdf

www.gemini.edu/sciops/ObsProcess/LLP/GOA-USER-101_LPPProcDataReqs.pdf

Large and Long Program Processed Data Requirements for Archive Ingestion

Kathleen Labrie, Kenneth Anderson

Science User Support Department

V1.0 – 28 February 2018

Revision History

V1.0 – 28 February 2018 Kathleen Labrie

Document ID: GOA-USER-101_LPPProcDataReqs

Document Purpose

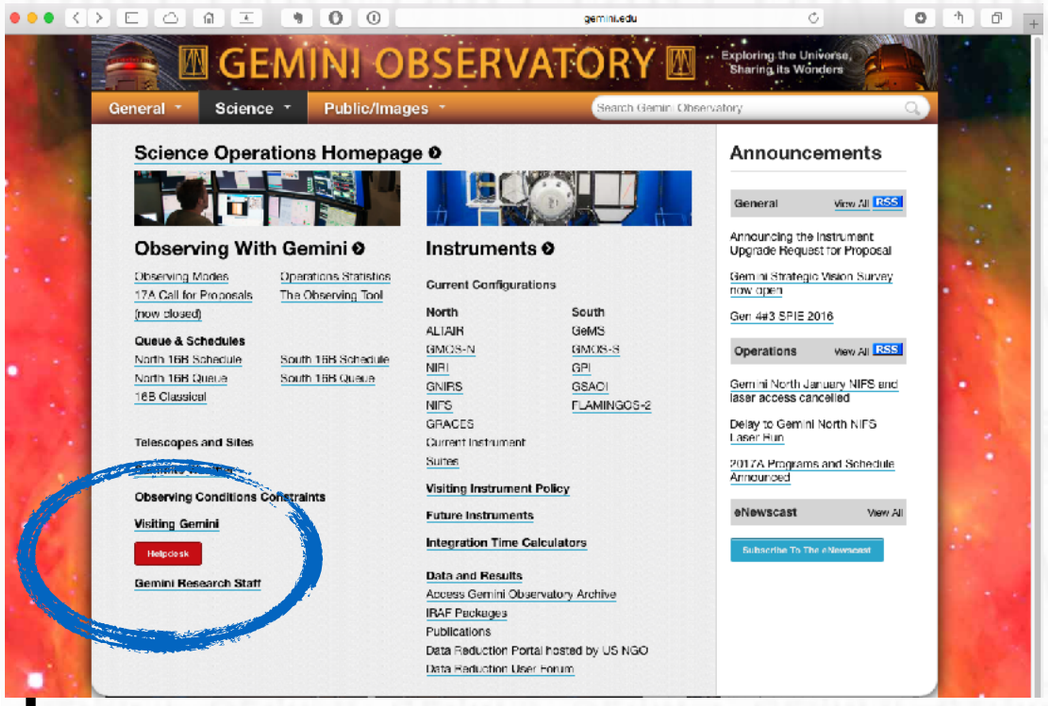
This document defines the minimum requirement for the ingestion of Large and Long program processed data into the archive. Here we focus on the technical and provenance requirements.

Intended Audience

This document is intended for the investigators of Gemini Large and Long Programs who are required to provide processed products to be ingested in the archive and made publicly available.

Support Avenues

- NGOs
- Contact Scientists
- Helpdesk
- DR Forum
- sus_inquiries@gemini.edu

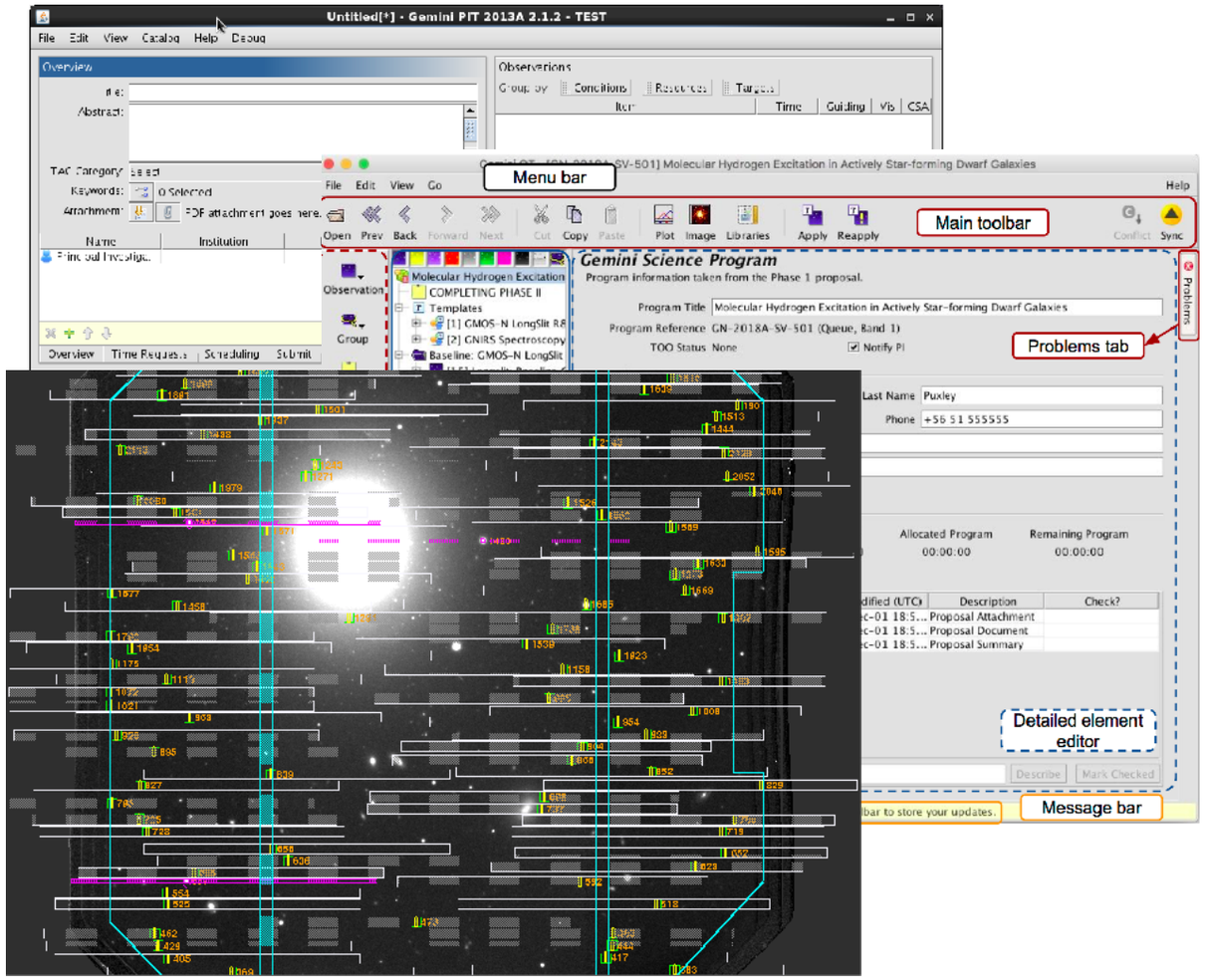


GeminiObservatory

@GeminiObs

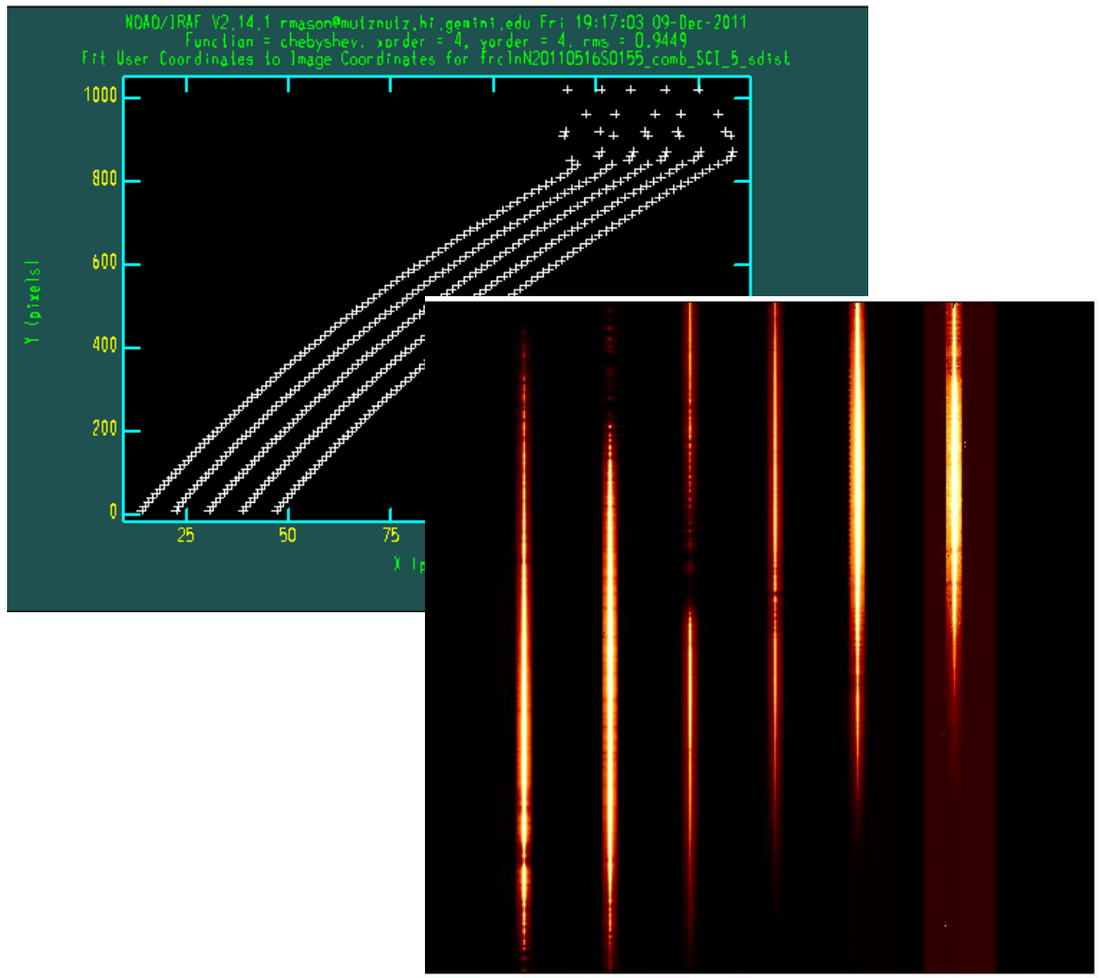
Need help with anything?

PIT, OT, GMMPS, ITC ?



See André-Nicolas

Data reduction, IRAF, Python ?



See Kathleen

Register at the Check-in desk

Gemini Card Game

Get your exclusive expansion deck!

Limited Edition, Limited Supply!!!

See André-Nicolas at check-in desk

For news and rules:
www.gemini.edu/GCG