

すばる望遠鏡 アーカイブシステム(STARS)の更新

能丸淳一
国立天文台ハワイ観測所

My talk will cover ...

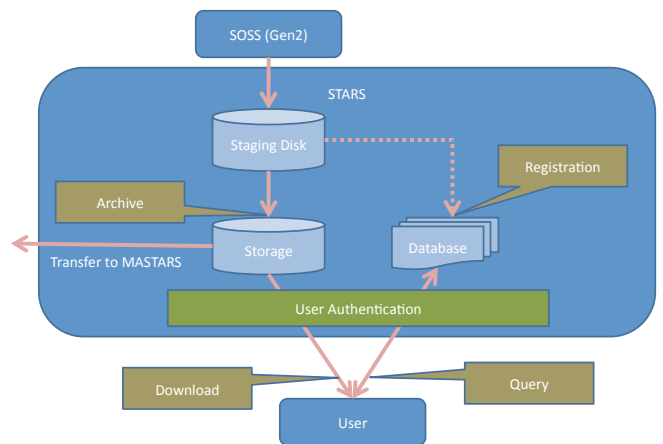
- What is STARS for.
- Why we are making a new version of STARS.
- What STARS 2 looks like.

What is STARS?

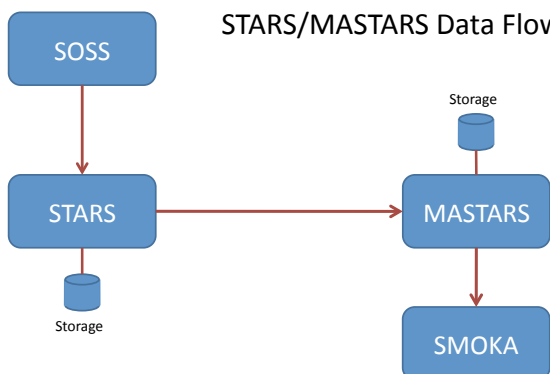
- STARS = Subaru Telescope Data ARchive System
- MASTARS = Mitaka Advanced STARS

Goals

- Archive all the engineering/science data obtained by Subaru Telescope.
- Provide observation data to the observers.



STARS/MASTARS Data Flow



Archive all the engineering/science data obtained by Subaru Telescope

- Archive all the **raw** engineering/science data.
- Archive QDAS data (processed data).
- Archive status data and log from the telescope and the instruments.
- Reduced data is not archived (exception = QDAS).
- All the archived data will be kept during the lifetime of the STARS project.

Provide observation data to the observers

- Query (Search) function is equipped.
- Data taken within a proprietary period (18 months) can be accessed only by the observers.
- Data of which proprietary period (18 months) expired can be accessed by all the STARS users.
- STARS accounts are given only to observers and eligible staff members.
 - STARS is not made as a public data server for “opened” data.
- In a broad sense, giving observation data with a media (tapes or DVD) is a part of STARS function.

STARS account

- A STARS account for each PI must exist. If the account does not exist, a new account is created.
- A STARS account for Col is created upon a request from the PI. Even if the account of Col exists, the access privilege to the data is created only by a request from the PI.
- STARS account made for observers won't expire. STARS account made for a staff member won't expire even after he/she leaves Subaru as long as he/she accesses STARS for science purposes. STARS account made for a staff member will be closed if he/she no longer has to use STARS.

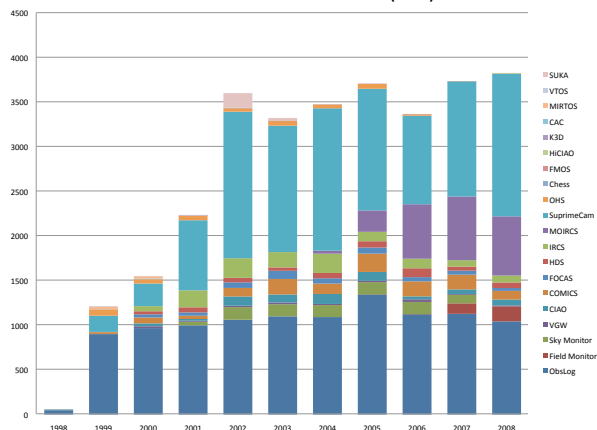
How much STARS/MASTARS has been used



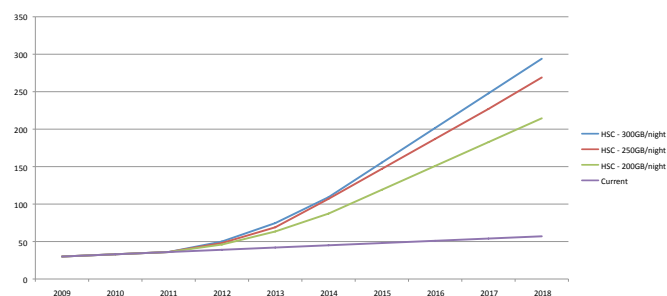
How much STARS/MASTARS has been used

	# Transfer STARS	# Transfer MASTARS
Jun-08	48	28
Jul-08	97	70
Aug-08	125	140
Sep-08	78	59
Oct-08	87	14
Nov-08	86	28
Dec-08	40	24
Jan-09	61	56
Feb-09	46	42
Mar-09	45	8
Apr-09	70	148
May-09	63	88

Annual Amount of Archived Data (in GB)



STARS Archive Projections through 2018 (in TB)



Why We Need MASTARS ?

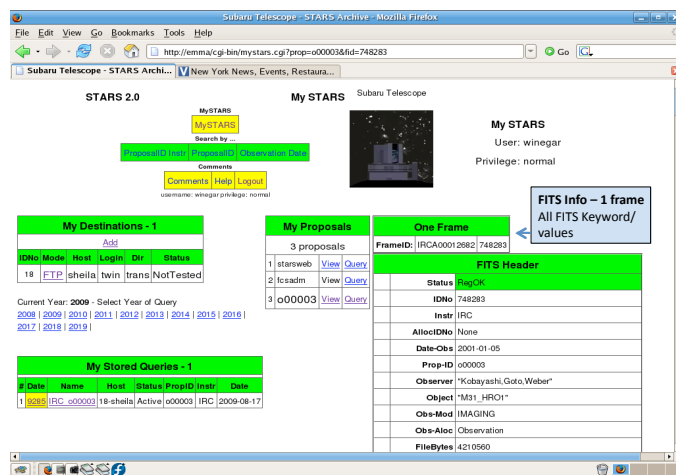
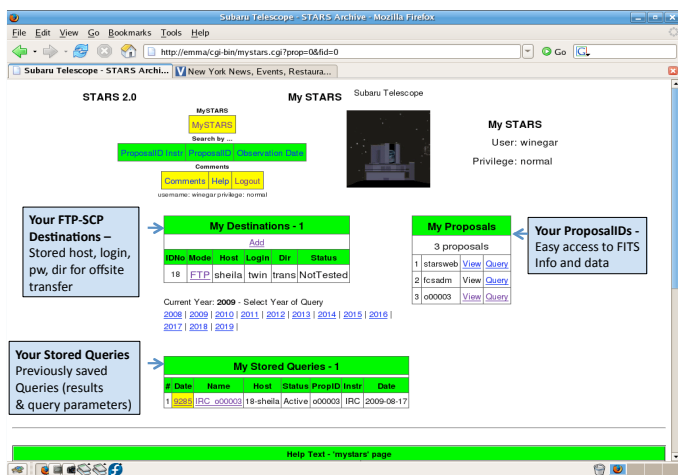
- Data security – Three sets of data in two physically isolated locations are ideal (More copies on more locations are even better).
- We can give faster access of data to Japanese observers, the dominant STARS users.
- MASTARS archive can be maintained by experts in ADC, NAOJ.

Why We Need STARS 2 ?

- Reducing the cost by using open-source software such as Linux OS and MySQL (comparing with Sun OS and Oracle) and by in-house development.
- In-house development benefits modifications and upgrades that would meet observatory/user needs.
- Current hardware for STARS 1.4 will be gone by February 2013.

Screen Shots

Feature Highlights





STARS 2 Development Schedule

Mar 2009	STARS 2 Review – Mitaka
May 2009	STARS 2 Review – Hilo
July 2009	Query Release – Support Scientists
Sept 2009	Query Release – Subaru/MTK
Nov 2009	Query Release – Observers

courtesy of the
Subaru Telescope
National Astronomical Observatory of Japan