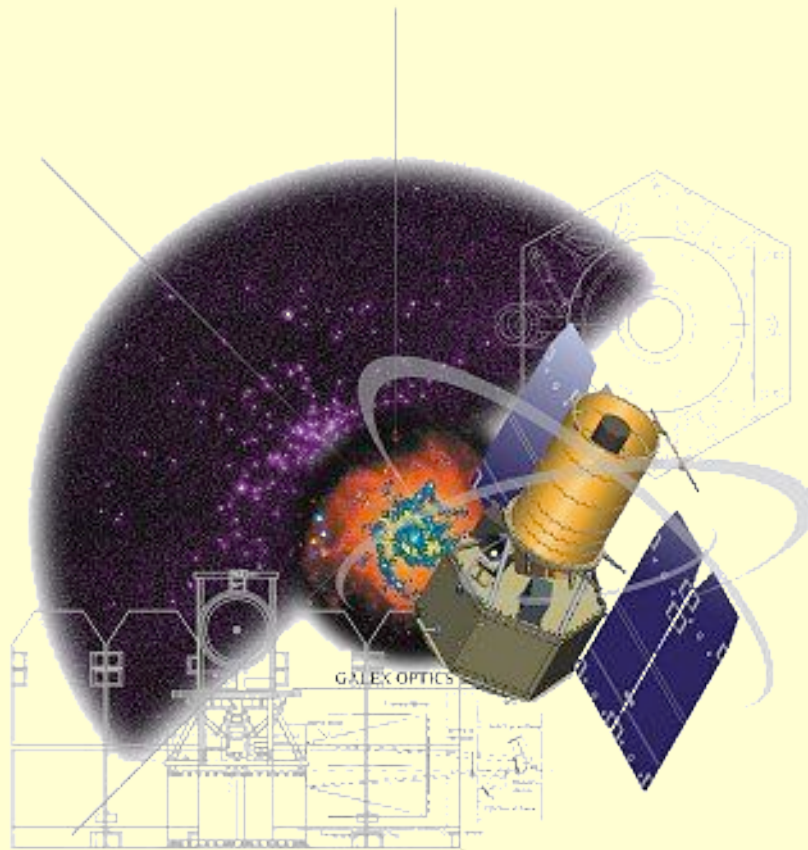




Galaxy Evolution Explorer - MAST Team -



- *Alberto Conti
- Tony Rogers
- Bernie Shiao
- *Myron Smith
- Shui-Ay Tseng
- *A. Volpicelli





GALEX Mission

(On background)

❑ OBJECTIVE

To map the evolution of star formation in galaxies to $z \sim 2$

❑ OBSERVATION MODES

o IMAGING, NEAR AND FAR UV (1400-1775Å, 1825-2800Å)

- ALL SKY
- MEDIUM & DEEP Fields
- Nearby Galaxies

o Grism Spectra: NUV + FUV

- Resolution ~ 100-200

✓ Program driven by:

o Science Team research, all sky surveys

o Guest Investigator program (now ~1/3)

Note: HV current anomalies now seem under control



Senior Review '06, '08 marching orders:

- Highly ranked in both reviews.
- ➔ • '06: increase data deliveries!
- Funding favored through 2012.
- SenRevo8 doesn't want GI program threatened, so:
 - o didn't endorse new deep sky survey.
 - o also skeptical of completing time-domain survey.
- GALEX will get only minimum level funding for '07-'09



As consequence of Senior Review '06, the Project has increased its deliveries to MAST:

- 05/06: GR2 (1.8 TB, 4 subsets) + 4 GI deliveries
- 06/07: GR3 (2.0 TB, 4 subsets) + 11 GI deliveries
- 07/08: GR4 (~11.3 TB, 17 subsets!) + 12 GI (Automation mitigates a lengthy delivery schedule.)

A small GR5 will follow in 12/08.
A GR6 is planned next year.



Users are requesting:

- Cross matching with SDSS
 - Extracted spectra for individual objects
(SSAP V1.1; completed this month)
 - New data download manager
- (We're responding to all these.)



Two new tools: the Map and galexView

“The Map”: (Mapserver toolkit)

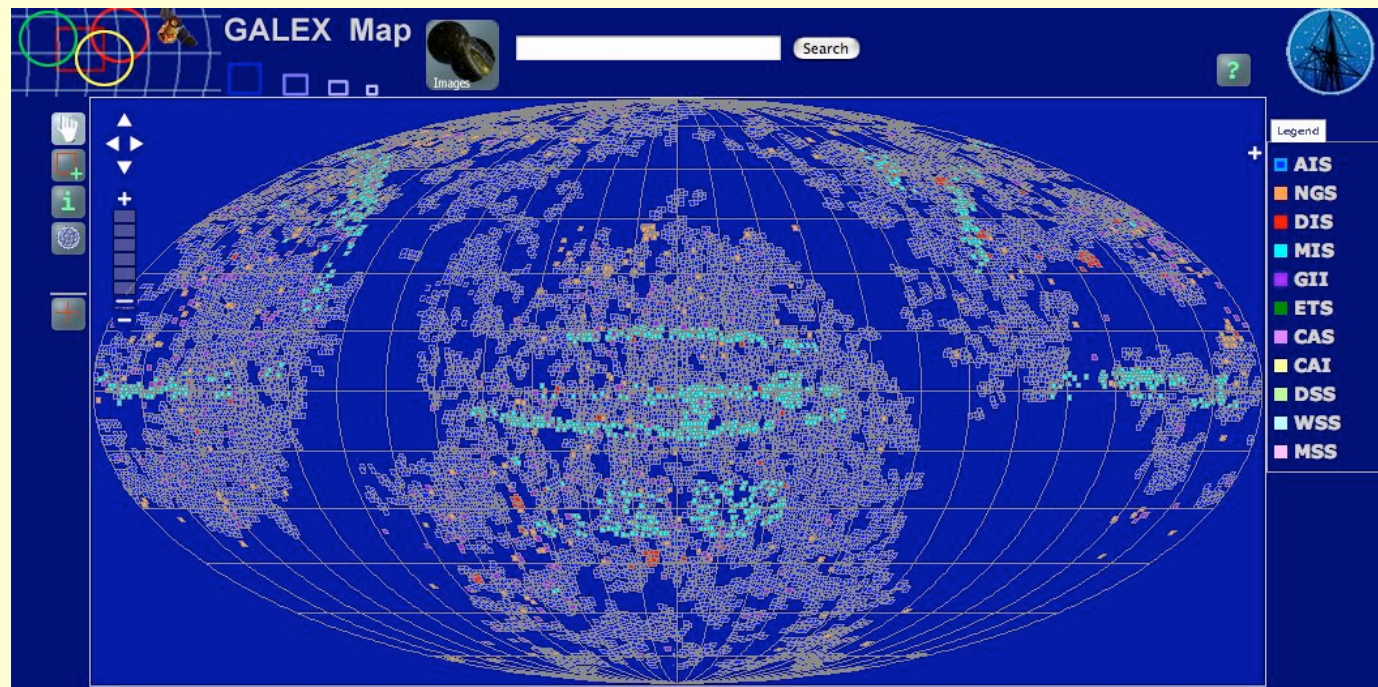
- Sky browser: coverage, lay of the land
- Entry to data downloads

galexView: (Adobe “Flex” technology)

- New “query form” on both objects or sky tiles
- Entry to data downloads



The Map: a (full) sky browser





The Map: a (full) sky browser

The screenshot displays the GALEX Map interface. At the top, it says "GALEX Map" and includes a search bar. The main area is a globe showing a full-sky browser with various survey overlays. A legend on the right lists the surveys: AIS, NGS, DIS, MIS, GII, ETS, CAS, CAI, DSS, WSS, and MSS. A red arrow points to the legend with the text "Open color legend to click surveys on/off".

Base Layer
 Grid Off

Overlays
 AIS
 NGS
 DIS
 MIS
 GII
 ETS
 CAS
 CAI
 DSS
 WSS
 MSS
 Grid On

Legend
 AIS
 NGS
 DIS
 MIS
 GII
 ETS
 CAS
 CAI
 DSS
 WSS
 MSS

Open color legend to click surveys on/off

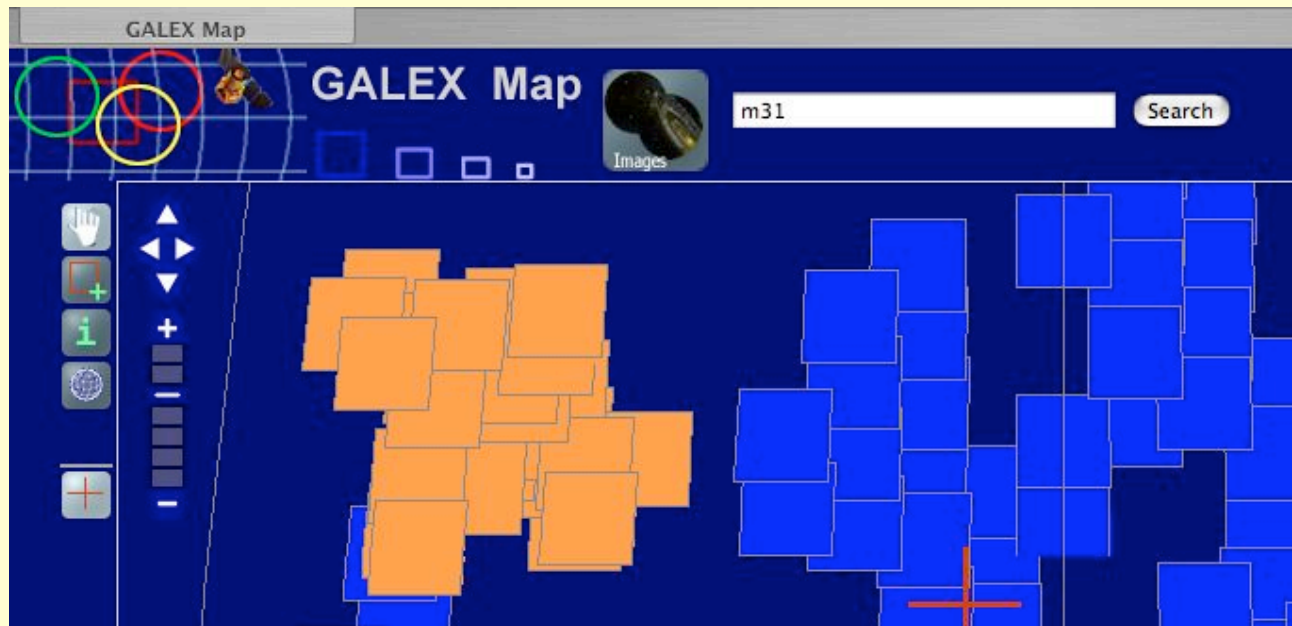


The Map: a (full) sky browser: controls

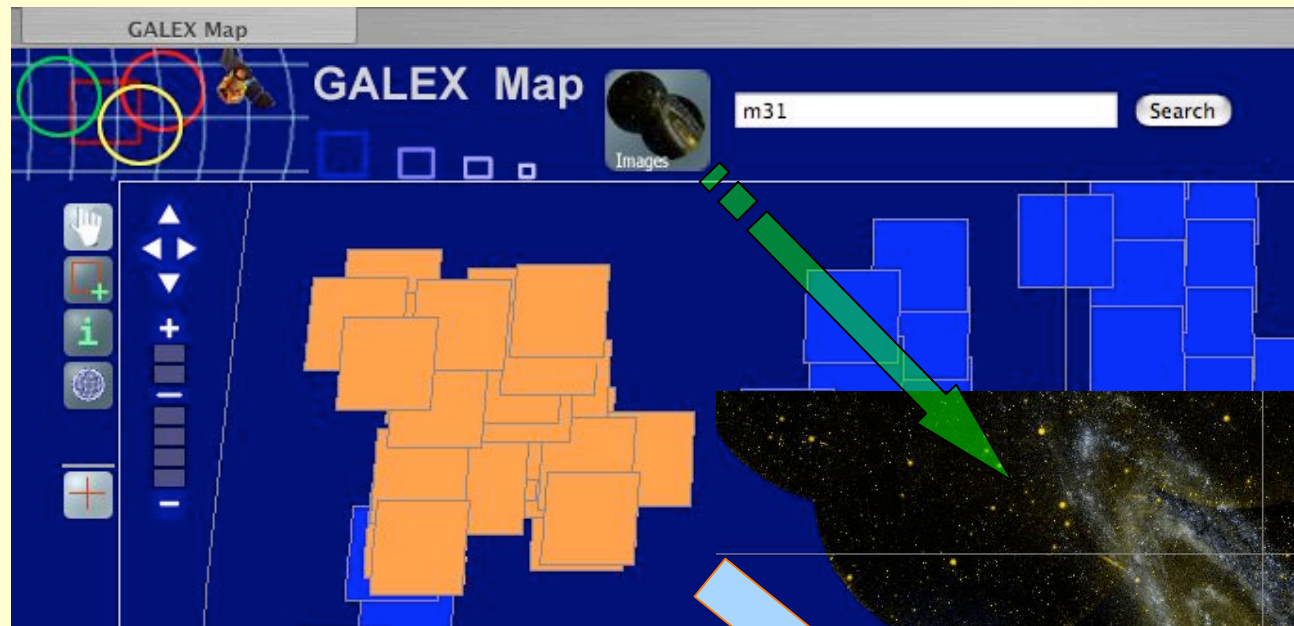


Navigation:

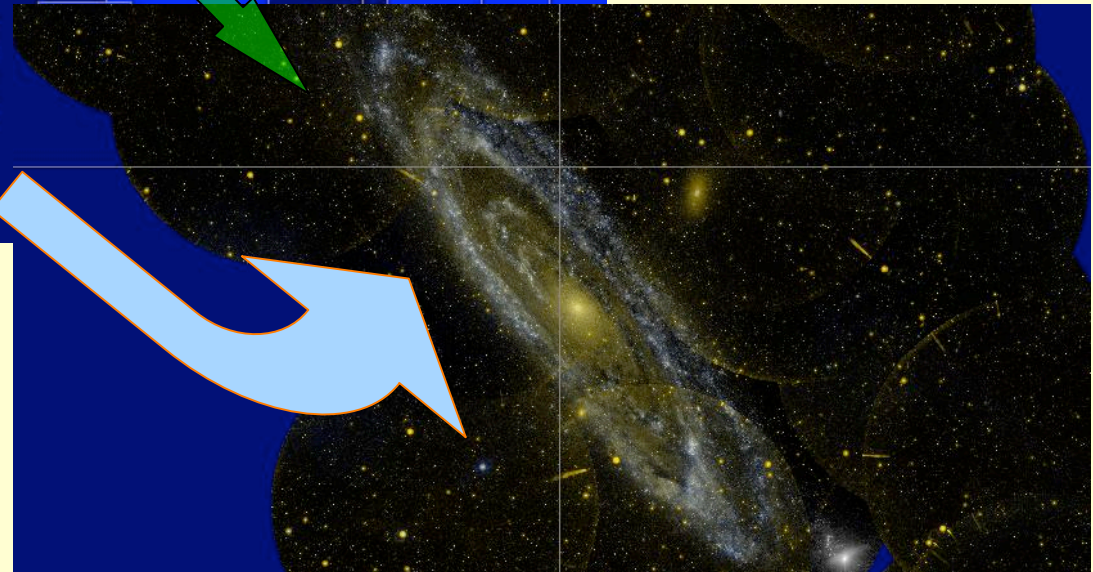
- o Centering
- o Panning
- o Zooming (and rubber band box)
- o repositioning
- o data download



Zoomed view
of tile plane



Click on image logo
to get to image plane





MAST Multimission Archive at Space Telescope

MAST Users Group – July 18, 2008

galexView demonstration...

<http://galex.stsci.edu/galexview>



Goal: make “killer” applications that combine technologies

- **Image server (e.g. Map):** server makes mosaics, cut-outs. Facilitates viewing of tile shapes on full sky.
- **Adobe Flex (gV):** client does image manipulation, draws symbols (pan/zoom, colors, contrasts). “Desktop feel” (quick).
- **Dataset Display (HLA):** client handles many datasets; filtering, sorting of returned tables efficiently.

Objective is to use the best suited technology for all web components and integrate them into a seamless application. We will use them ...maybe others too. User is unaware of its underlying technology.