



MAST Multimission Archive at Space Telescope

MAST Users Group – July 9, 2009

other planned and ongoing projects
within MAST



enhancing MAST outreach and visibility

- rss designated ‘MAST outreach scientist’
- MAST presence at meetings (AAS, IAU, ADASS, etc)
- MAST articles in general newsletters (STScI, AAS, etc)
- MAST talks for young scientists
- MAST meetings with visiting scientists
- develop MAST-based teaching materials with help from community
- other suggestions?



JWST related development

- MAST staff will gain 0.5 FTE
- proof-of-concept prototype database & interface being developed to work with Science Instrument & Test data (demo next week)
- starting work on users guide
- DADS adapted to ingest JWST data
- GS2 being updated & extended (integration of 2MASS, color transformations; improved photometry)
- NIRMOS (multi-object spectrograph) will require new standards
- re-engineering of OPUS (may feedback to HST as well)



target searches for solar system objects

- problem: usual target resolvers do not work for moving objects
- we plan to use footprint service in combination with an electronic ephemeris to solve this problem, at least for well-documented objects
- more challenging: allow users to contribute information on new objects/data



cross-mission footprint services

- subset of HST & MAST data in SQL server database (May '09)
- entire HST archive database to be migrated to SQL server (over the next year)
- HST data already in footprint database and available via a webservice
- over the next year, we will explore adding other MAST missions to footprint database
- discussions/work ongoing with Chandra and Spitzer archives to build shared FP services



custom user accounts

- users log in using their archive account, and would be able to save preferences
- in progress for HLA
- looking at requirements for MAST



StarView on the web

- web-based version of the StarView tool (ready soon -- end of Sept?)
- implemented in FLEX
- users will be able to develop their own forms (“screens”)



keyword search tool

- problem: want to search for data by type of object (e.g. “clusters of galaxies”, “GRB”, “AGN”, etc) -- we are adopting a *literature-based approach*
- developing astronomical “vocabulary” based on compilation of several existing vocabularies (from NVO, IAU, etc)
- cross-matched and culled against keyword search from abstracts of MAST and Spitzer papers
- starting work on interface



APT upgrades

- APT used to rely on StarView as its interface to the archive
- will now use Aladdin + footprint database
- ready before next proposal season (Dec '09?)



Google Sky & WWT

- discussions with Google and MS are ongoing
- OPO project to attach tags to images in the OPO collection with object information and coordinates -- GS/WWT can then “zoom in” to detailed images of individual objects (C. Christian)
- GS and WWT can be scripted and incorporated in any interface (e.g. MAST) -- we may make use of this capability (under study/discussion)



miscellaneous cool tools

- FLEX-based plotting tool for spectra & time-series data (will start work soon)
- spectral classes project will produce tool that allows users to search for MAST data on stars with a specified range of spectral type (by Summer '10?)