

Astro-Wise Image Services

Astro-Wise Meeting April 2006

AWE-Image client and server

Overview:

- AWE-image-server services and operation
- Interaction with client from AWE or python prompt
- Output from image-server
- Screenshots

Image-data web-services

Planned mode of operation:

- AWE-Image-server is connected to multiple local data-servers
- All Images are generated on-demand
- Data for user- requests are kept in separate workspaces on the image-server
- Experimental issues:
 - Testing for response-time and storage-space requirements
 - Testing efficient output formats

Image-processing operations

External programs are used for image-processing:

- Producing sub-images [cut-outs] (fitscopy)
- Conversion of fits-format to tif-format (stiff)
- Conversion of tif to png and jpg for web-viewing (convert)
- Compression and combination of sub-images (zip)

current AWE-prompt client, input- data structure

- Data in python-dictionaries:
 - Single base-image-name and list of cut-out-positions
 - Multiple base-images-names and lists of cut-out-positions
- Client-application:
 - is a python-class to send a data-dictionary as POST-url-request to image-server
 - retrieves an HTML-form with text- and picture-links to user-workspace on image-server

HTML-Output from image-server to AWE-prompt-client

HTML form with immediate and deferred responses

– Imagelinks:

- HTML -table containing image-links to fits-sub-images, magnifications, downloads

– Textlinks:

- to menu accessing reduced rendition of base-images
- to download a single, combined compressed sub-image-file
- to delete the user-space (sub-directory) from the image-server

View, compare image-server output via HTML-windows and tables

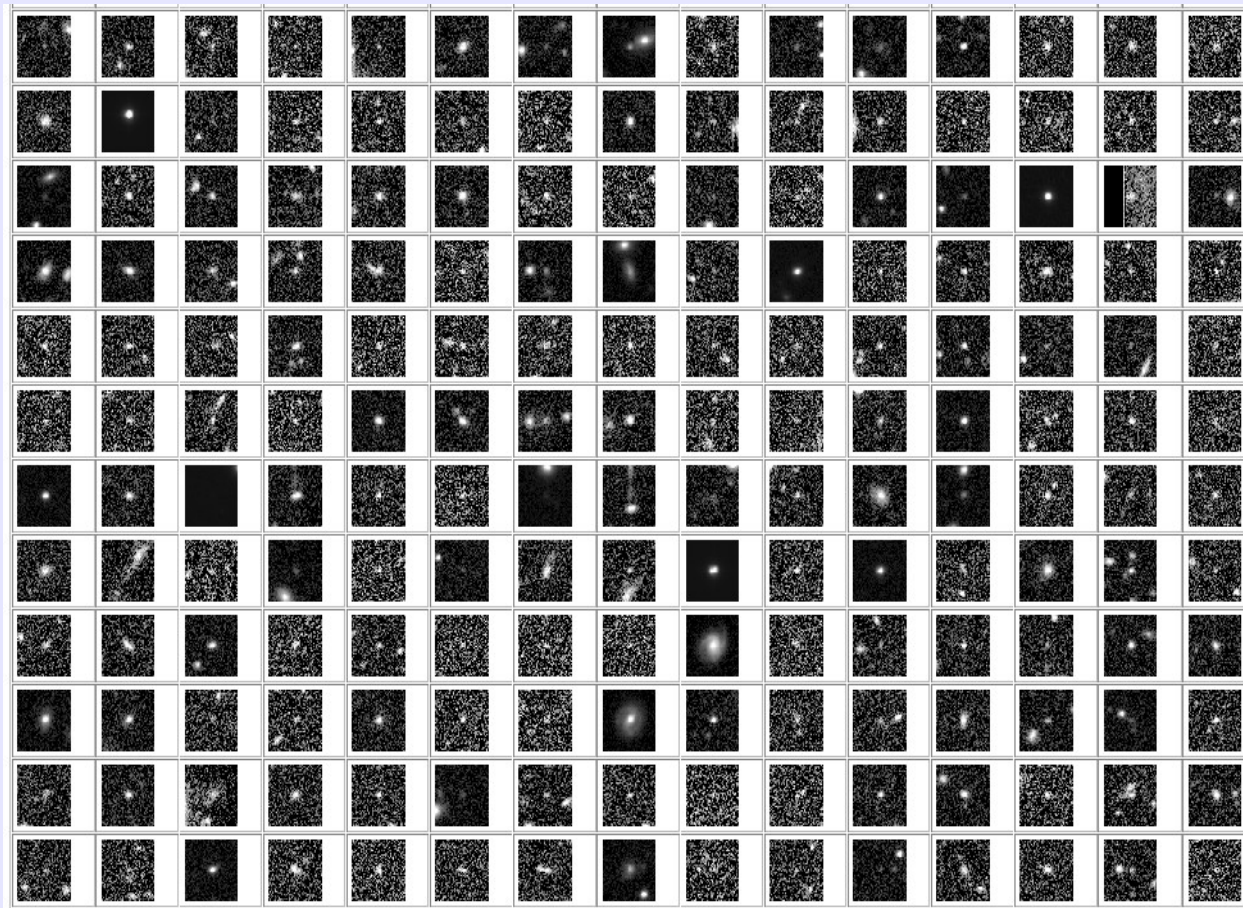
- In fixed (table) arrangements:
 - Sub-images from a single base-image placed in 16 x 30 tables
 - Sub-images from multiple base-images arranged in separate columns of a table.
- In flexible arrangements:
 - Individual sub-images enlarged into a private window: move anywhere on the screen for comparisons
 - Compare images between windows from multiple requests

Downloading image-server output

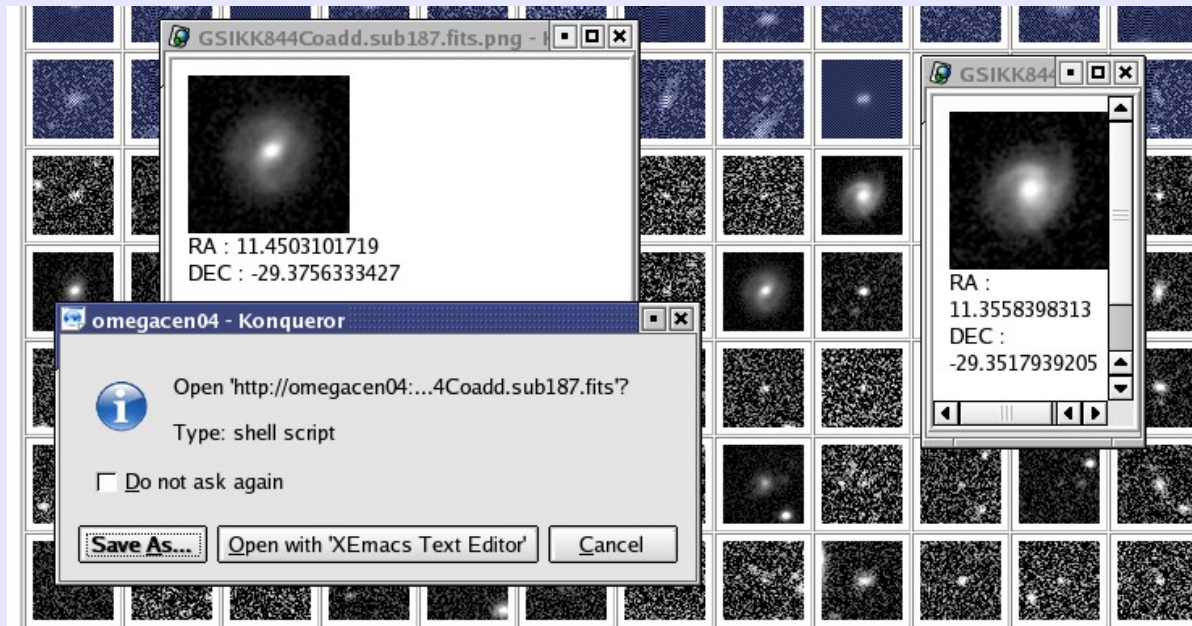
Sub-images can be downloaded in fits-format

- Individually, from HTML-picture-links in enlarged-
rendition windows
- In a single, combined, compressed zip-file from an
HTML-text-link.

Screenshots-1: single-image HTML- picture-link table



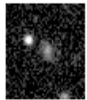





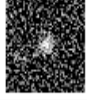

Screenshots-2: single-image magnification and download



Screenshots-3:-multiple-image series

[download GSIKK844Coadd_etc.subALL0.fits.zip] [REDUCED LARGE IMAGE LIST]
====[DELETE SUBDIR MsMI8YMfits]=====

linktableGSIKK844Coadd.sub0.fits--etc

GSIKK844Coadd	GSIKK842Coadd
	
	
	
	

Screenshots-4: multiple-image and HTML-text-link to base-images

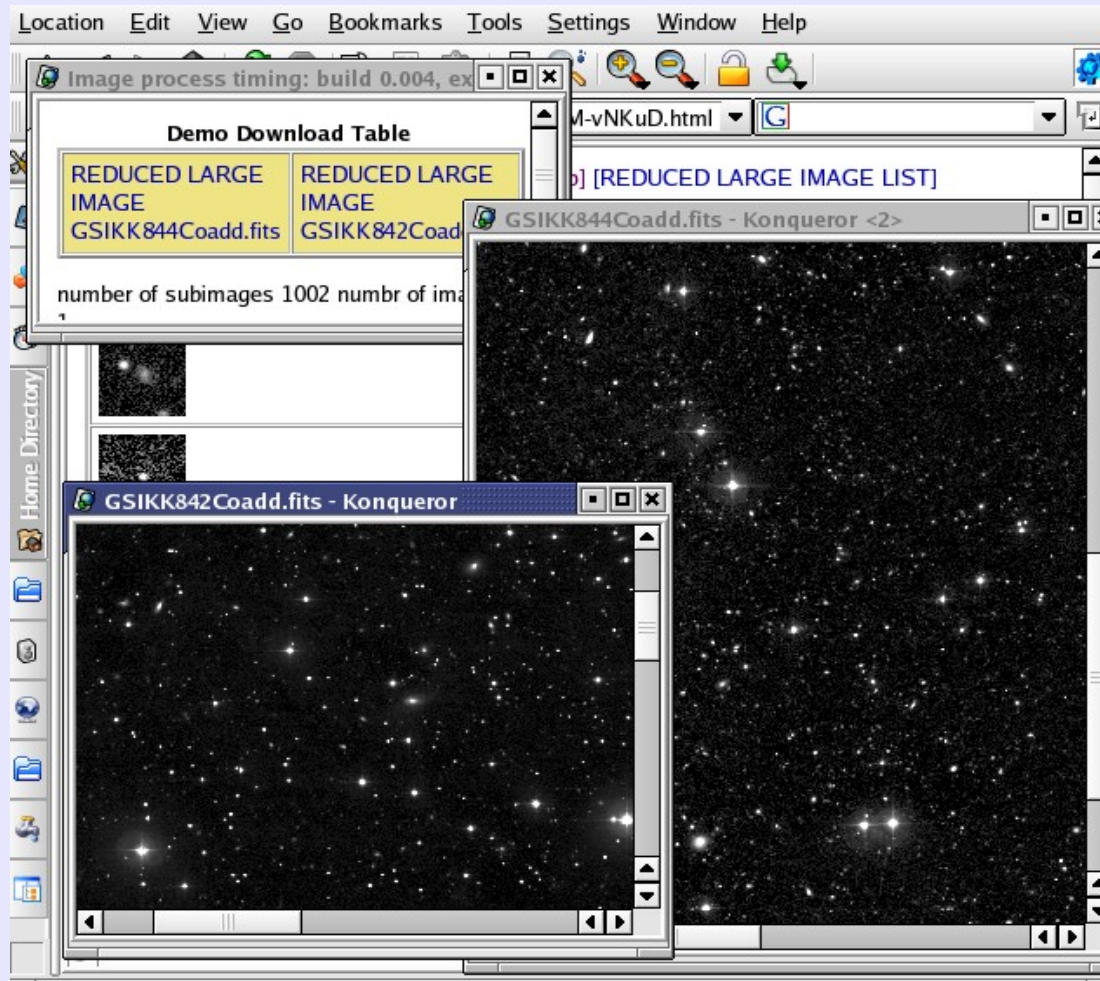


Image-server and client development

- Test performance of the all-images-on-demand server concept
- AWE prompt-client-software:
 - Test client-forms for practical use
 - Add clients as methods to AWE Science- and SourceList classes
- DBviewer as client:
 - Connect to existing DBview-forms
 - Provide search-by-position query-forms