



VISTA Science Archive and the VHS (VSA / VHS)

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Introduction

- VISTA data flow system (VDFS), CASU + WFAU
- The VSA holds a science ready database based on CASU VISTA pipeline products and further products generated by WFAU (similar to its precursor the WFCAM Science Archive (WSA))
- VSA provides web based access to objects and images (eg SQL queries, cross-IDs, cut-outs)





Curation overview

- transfer pipeline image/catalogue products from CASU (usually in monthly batches)
- create library jpeg images
- extract FITS file metadata and ingest into database (*multiframe, multiframeDetector, currentAstrometry, programmeFrame*)
- load catalogues (converting fluxes to calibrated mags) into detection tables (*vhsDetection*)
- curation carried out against load server database, user queries can be run against load DB (QC)





Release overview

- basic QC applied (eg purge duplicate observations, deprecate frames with inconsistent metadata)
- Quality error bit flagging, ppErrBits (flag individual object detections, eg close to saturated, bad pixel(s) in default aperture)
- source merging, combine detections across wavebands on a frameset basis (*vhsMergeLog*, *vhsSource*)
- re-seaming, flag objects in overlaps (*priOrSec*)
- create neighbour tables with external datasets
- outgest release database to public database servers
- prepare products for ESO archive





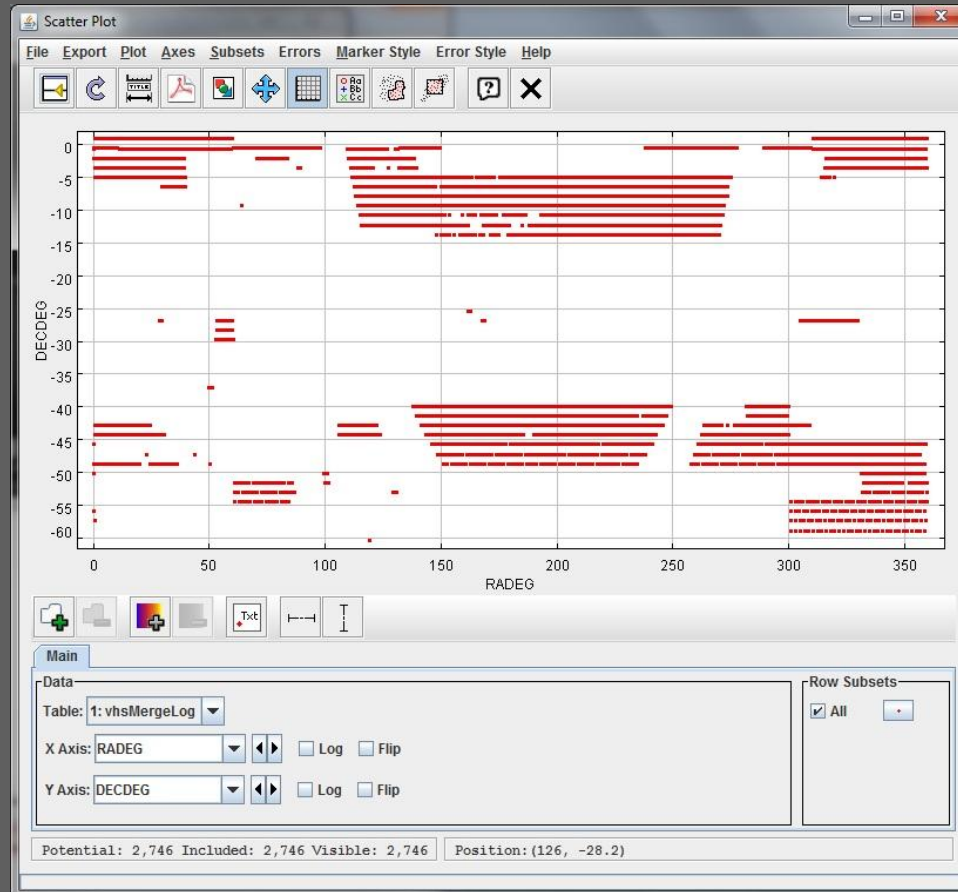
Current status

- P89 files up to end of May 2012 transferred and metadata ingested
- June 2012 being transferred & metadata ingested
- current database release VHSv20120417 (P87)
(vhsMergeLog: 2746, vhsSource: 273 million, vhsDetection 1.9 billion)
- P88 release being prepared, currently re-seaming, ETA next week)
(vhsMergeLog: 3175, vhsSource: 299 million)



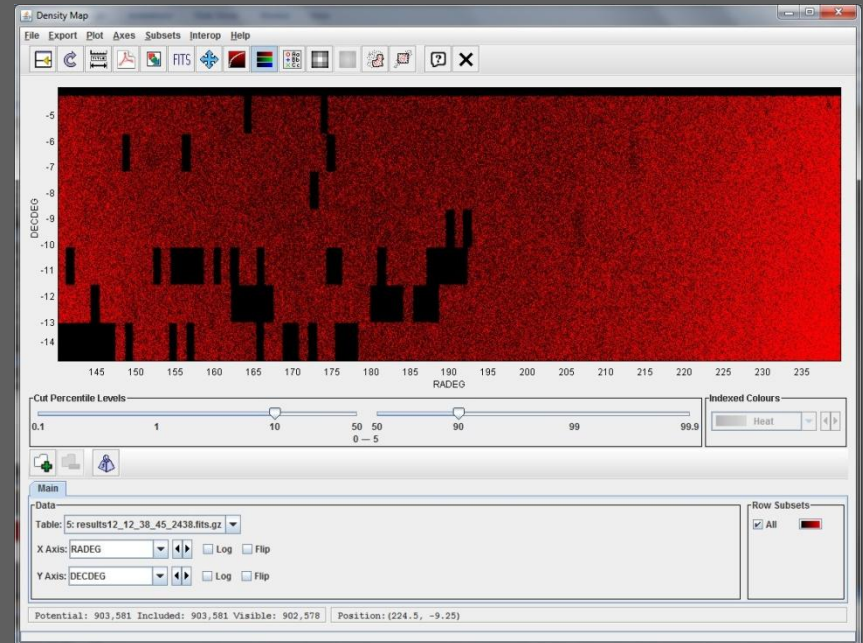
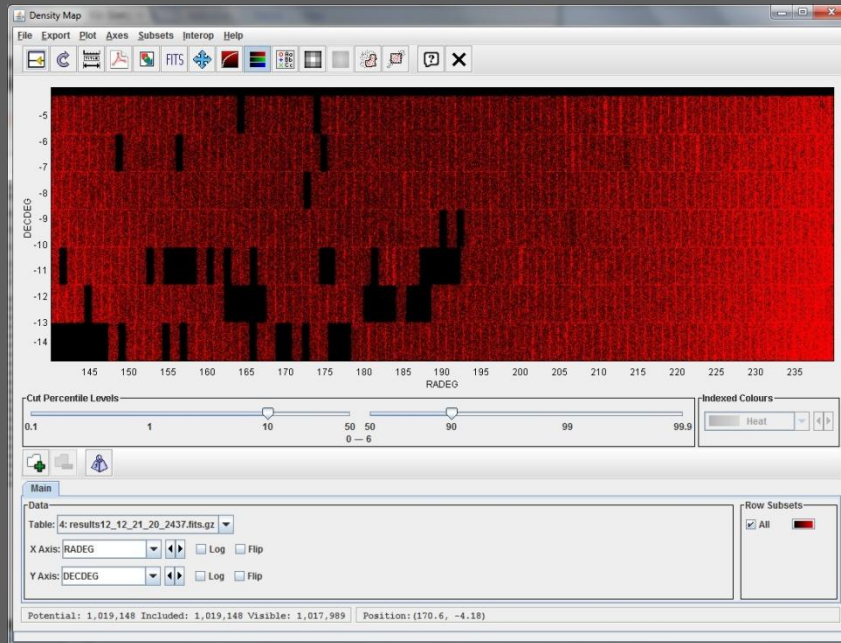


VHS coverage from last release







vhsSource, priOrSec=0 or framesetID



VHS neighbour tables

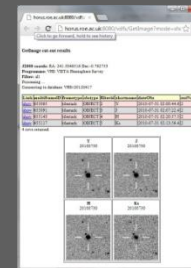
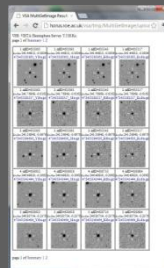
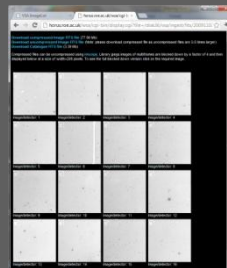
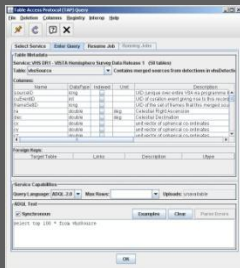
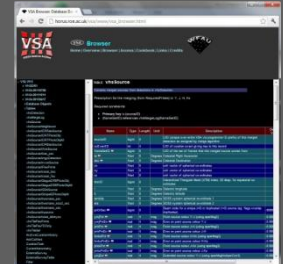
-  SDSS
-  2MASS
-  WISE
-  FIRST
-  IRAS
-  ROSAT
-  2XMM
-  UKIDSS LAS
-  MGC





User access

- access to proprietary & public releases via web-site (<http://vsa.roe.ac.uk>)
- SQL queries (schema browser)
- crossIDs
- image cut-outs
- flat-file downloads (FITS images/catalogues)
- public releases also accessible via VO





future

- ▄▄▄ implement additional QC
- ▄▄▄ user-interface being re-worked
- ▄▄▄ list driven photometry
- ▄▄▄ links with VST ATLAS?
- ▄▄▄ prioritise further requirements
- ▄▄▄ ...

further info/help vsa-support@roe.ac.uk

VSA paper just submitted linked on web-site



 A logo consisting of a 3x3 grid of red squares, each with a white diagonal line running from the top-left to the bottom-right.

End

