The VISTA Deep Extragalactic Observations (VIDEO) Survey PI: Dr Matt Jarvis (University of Oxford)

VIDEO data access

April 2014: Survey status

The following table shows the fraction of the target depth (in terms of exposure time) observed for the VIDEO survey, as of April 2014 (click the field name to go straight to the data):

complete fields and number in bold	z	Y	J	н	Ks
Total for Completion	68*	70	36	39	42
ХММ1	68	70	0	20	42
ХММ2		70	36	39	42
хммз	68	70	36	39	42
CDFS-1	51	70	36	39	42
CDFS-2		0	0	6	42
CDFS-3		0	13	0	9
ES1-north	68	70	7	39	42
ES1-south	32	70	7	39	42

VIDEO consortium members have access (by arrangement with the PI - email Matt.Jarvis_at_astro.ox.ac.uk and/or BorisHaeussler.astro_at_gmail.com to get a password) to the stacks at the depths achieved so far. Some value-added data is also available - this includes aperture-matched catalogues and (where possible) photometric redshifts, PSFs, colour jpegs, and (from external sources) spectroscopic redshifts.

General notes on data products

Image stacks have been made using SWarp and are a weighted mean combine of pawprint stacks produced from the raw data by CASU, rejecting pawprint stacks with seeing > 0.9" FWHM. For each tile we make a "standard" VIDEO image stack covering the whole tile, resampled to a pixel scale of 0.2"/pixel (leading to a file size of ~2.3 GB per image). One image in each survey field (instead of split up in 2-3 images for each field) are also available now (file size up to 9.5GB). Some data may have additional image products resampled to match the coordinate systems of external data products.

If, for some reason, you **require older versions** of the images, e.g. for comparison, please send a request to Boris Haeussler (see above). We removed them from the web server for space reasons, but obviously still have them.

<u>Catalogues</u> have been extracted from each set of images using SExtractor. For the standard set of images, the catalogue contains objects detected in any of the Ks, H, J, Y, or Z bands (where available), with measurements made in all the other bands based on the position in the detection image. Duplicate detections of objects have been removed, by retaining only the longest wavelength detection (after matching catalogues in all available filters with a 1 arcsecond tolerance). Objects detected in the longest-wavelength image available (Ks, where it exists) have IDs starting with "1", those detected in the second-longest-wavelength image (but not the first) have IDs starting with "2", and so on. Please note that object IDs are subject to change from release to release and should not be used to identify objects between releases.

Some notes about the catalogues:

- · All magnitudes are in the AB system.
- The aperture sizes in the catalogues are 1, 2, 3, 4, and 5 arcseconds in diameter. Note that while the apertures are the same size in all bands, the seeing varies between the images.
- To correct for correlated noise in the images (which is caused by resampling, and ignored by SExtractor), the errors for fixed
 aperture photometry are estimated by measuring the RMS flux in randomly placed apertures of the same size, then adding
 Poisson errors. Errors for AUTO and PETRO magnitudes are corrected by scaling the random (non-Poisson) component of the
 error (as estimated by SExtractor); the scaling factor is estimated by comparing the median SExtractor error for randomly placed
 5" apertures with the actual standard deviation of fluxes in those apertures. These may underestimate the errors in particularly
 noisy parts of the image.
- These catalogues are intended to be complementary to those which will be hosted by the VISTA Science Archive (VSA). The VSA's videoSource table will consist of single-image-mode SExtractor catalogues, band-merged using their standard algorithm.

On top of all the individual catalogues (see below for each survey field, respectively), there is a complete combined VIDEO ZYJHK catalogue for all fields available here.

CDFS1

- images, confidence maps and SWarp xml log for Z, Y(only 2 pointings), J, H & Ks-bands can be found here. There is also a swarped version of the entire CDFS field at the same resolution here, including a catalogue here.
- A band merged catalogue as well as a ds9 region file can be found here. We recommend using the *errfix.fits catalogue that has been extracted from the newest set of images (FITS binary table format) and corrected using the method described above.
- multiple PSFs (as a fct of position on the field) have been created using PSFEx, and can be found here.
 both a colour jpeg and a web-applet (zoomify) to browse this image can be found here for download. The image has been created using STIFF. Similar for the the full CDFS field here.

CDFS2

- images, confidence maps and SWarp xml log for J & Ks-bands can be found here. There is also a swarped version of the entire CDFS field at the same resolution here, including a catalogue here.
- A band merged catalogue as well as a ds9 region file can be found here. We recommend using the *errfix.fits catalogue that has

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