

NAME

voatlas – Query the SkyView Image service for an all-sky image

SYNOPSIS

voatlas [<opts>] [<field> | <pos>]

OPTIONS

The *voatlas* application accepts the following options:

-h, --help

Print a help summary to the terminal and exit. No processing is done following this flag.

-b BPASS, --band BPASS

Bandpass of image to retrieve. Allowed values are 'optical', 'infrared' (or bandpass name is used).

-p, --survey SURVEY

Survey program name. The list of available surveys is described at <http://skyview.gsfc.nasa.gov/cgi-bin/survey.pl>.

-g, --graphic

Get a graphic image (i.e. a JPEG), the default is to get a FITS image.

-n, --naxis NPIX

Set returned image size. The default image size returned is 512x512.

-s, --size SIZE

Field size to generate. The SIZE value may be appended with an 's', (default) respectively. The default size is 0.25 degrees.

-F, --field FIELD

Name of the field (e.g. an object name like 'M33') to query. The object name must be resolvable with a task like VOESAME, the position returned will be the center of the query.

-R RA, --ra RA

The RA position of the query.

-D DEC, --dec DEC

The Dec position of the query.

-P RA,DEC, --pos RA,DEC

Specify the query position as a comma-delimited string of RA and DEC.

-S, --samp

Broadcast resulting image as a SAMP message. The image will be broadcast using the 'image.load.fits' mtype.

-v, --verbose

Print verbose output during execution.

-o NAME, --output output

Specify the filename of the downloaded image. If not specified a name created from the field name or position will be used.

DESCRIPTION

The *voatlas* task queries the NASA SkyView all-sky survey data for an image of the requested sky position in the requested bandpass. The position may be given as the name of an object whose coordinate can be resolved, or as an explicit position in RA and Dec (ICRS decimal degrees). The default field of view will be 0.25 degrees but may be changed using the *-s* option (with an optional 's', 'm' or 'd' on the value to specify arcseconds, arcminutes or degrees respectively). The default image will be in FITS format unless the *-g* option is set to request a graphic such as a JPEG, the default size will be 512x512 pixels unless the *-n*

option is used to set a different size (the image will always be square so only one value is required). The resulting image may be broadcast using the SAMP 'image.load.FITS' mtype by setting the *-S* option.

The *-b* flag is used to select the desired bandpass, if not set then an optical image from the DSS2B survey is used by default. Allowed values for the bandpass string and their corresponding survey names are:

<i>Bandpass</i>	<i>ShortName</i>	<i>Title</i>
optical	DSS	Digital Sky Survey
infrared	2MASSK	Two-micron All Sky Survey (K-band)
x-ray	PSPC2INT	ROSAT PSPC (2-deg cutoff)
euv	EUV83	EUV Explorer83A
gamma-ray	EGRET1000	Energetic Gamma-Ray Event Telescope: Hard
radio	4850MHZ	4850 MHz Survey - GB6/PMN

If the *-p* option is used to specify a particular survey program, the bandpass parameter is ignored. The *-p* flag reserves the name 'list' as a means to have the task return a list of available data for the field. This list contains the survey name and the mime-type of the available image. Script tasks can use this information to determine the best available image for the field.

If no input file is specified the VOTable will be read from the stdin, results will be written to stdout unless the *-o* (or *--output*) names an output file. The task will only process a single VOTable and may not be used to convert multiple files in a single call.

RETURN STATUS

On exit the **voatlas** task will return a zero indicating success, or a one indicating an error.

EXAMPLES

- 1) Display an image of M83 on Aladin using SAMP

```
% voatlas -S m83    or    % voatlas --samp m83
```

- 2) Get a 256x256 JPEG image of the Sombrero galaxy

```
% voatlas -o gal.jpg -n 256 --graphic sombrero
```

- 3) Get a 20 arcmin Wise 2.2micron survey image of m101

```
% voatlas -s 20m --survey=wise22 m101
```

- 4) Get a radio image of 3c273, image will be '3c273.fits'

```
% voatlas --band=radio 3c273
```

- 5) List (verbose) the survey images available for ngc1234

```
% voatlas --survey=list -v ngc1234
```

BUGS

- 1) There is currently no convenient way to get a list of surveys without specifying a position, this is due to the way Skyview is implemented.
- 2) There is currently no convenient way to select other than the first available image.

Revision History

Feb 2013 - First public release

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SEE ALSO

vodata, vocatalog, voimage, vospectra