

Images Table

This table holds the metadata we expect to be used in searching for archived images, covering the basic spatial, spectral, and (soon) temporal information. Images are ingested in sets of one or more FITS files, along with a Tar archive of information about their generation (The image_products table contains information common to all the images of the set).

Definition:

Column	Type	Collation	Nullable	Default
image_id	integer		not null	nextval('images_image_id_seq'::regclass)
file_id	integer		not null	
target_name	character varying		not null	
telescope	character varying		not null	
thumbnail	bytea			
spatial_resolution	double precision		not null	
image_field_of_view	double precision		not null	
max_intensity	double precision		not null	
min_intensity	double precision		not null	
rms_noise	double precision		not null	
polarization_id	integer		not null	
ra	character varying(255)		not null	
dec	character varying(255)		not null	
min_frequency	double precision		not null	
max_frequency	double precision		not null	
ra_element_count	integer		not null	
dec_element_count	integer		not null	
starttime	double precision			
endtime	double precision			
exposure_time	double precision			
rest_frequency	double precision			
image_units	character varying(255)			
spatial_region	text			
beam_axis_ratio	double precision			
band_code	character varying			
ra_pixel_size	double precision		not null	
dec_pixel_size	double precision		not null	
tags	character varying			
image_products_id	integer			

Indexes:

"image_id" PRIMARY KEY, btree (image_id)

Foreign-key constraints:

"files_images_fk" FOREIGN KEY (file_id) REFERENCES files(file_id) ON UPDATE CASCADE ON DELETE CASCADE

"images_image_products_id_fkey" FOREIGN KEY (image_products_id) REFERENCES image_products(image_product_id)

"polarizations_images_fk" FOREIGN KEY (polarization_id) REFERENCES polarizations(polarization_id)

Columns:

image_id: an automatically generated unique identifier for the image

file_id: the identifier for the FITS file this metadata describes

target_name: name of the object in the image, if available

telescope: the telescope(s) used in the image creation

thumbnail: the path to a thumbnail image in our thumbnails cache

spatial_resolution: an approximate size of the synthesized beam (note this is not the pixel size of the image, but the true resolution)

image_field_of_view: the extent of the sky covered by the image

max_intensity: the maximum of the image data

min_intensity: the minimum of the image data

rms_noise: the root-mean-square of a source-less region of the image

polarization_id: table value associated with the polarization of the image

ra: central right ascension of the image. Units: Degrees

dec: central declination of the image. Units: Degrees

min_frequency: minimum frequency used in image creation

max_frequency: maximum frequency used in image creation

ra_element_count: size of the data in the ra axis

dec_element_count: size of the data in the dec axis

starttime: earliest data used in image creation

endtime: latest data used in image creation

exposure_time: (not yet determinable) the total time on source for the image

rest_frequency: center frequency of the image in the local rest frame of reference

image_units: units of intensity used

spatial_region: a VO compatible designation of the region the image covers (Dowler, et al 2010)

beam_axis_ratio: characterizes the shape of the synthesized beam

band_code: the radio band designation code(s) used in the image

ra_pixel_size: the image pixel size in the ra dimension

dec_pixel_size: the image pixel size in the dec dimension

tags: any tags applied to this image

image_products_id: link to the associated image_products metadata for this image.