**The Specification of Planck Image Query Result Data Format**

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An Planck images query accepts an IPAC table with the following parameters:

1. Required IPAC TABLE Headers

|  |  |  |
| --- | --- | --- |
| Header name | Purpose | Example |
| fixlen | Indicates if the IPAC TABLE contains fixed-length columns (Values: T or F) | \datatype=fitshdr |
| datatype | Data type of the file. (Value: A string) | \datatype=fitshdr |
| THUMBNAIL\_URL\_COLUMN | Indicates which column contains the result image entry's thumbnail URL (Value: A column name) | \THUMBNAIL\_URL\_COLUMN  =thumb\_nail |
| FULL\_SIZE\_URL\_COLUMN | Indicates which column contains the full-size result image URL for full-size view and/or download. (Value: A column name) | \FULL\_SIZE\_URL\_COLUMN  =full\_size |
| DESCRIPTION\_COLUMN | Indicates which column contains the description of the result image entry. (Value: A column name) | \DESCRIPTION\_COLUMN  =desc |
| DATA\_TYPE\_COLUMN | Indicates which column contains the data type of the result image entry's thumbnail. (Value: A column name) | \DATA\_TYPE\_COLUMN  =type |
| SOURCE\_ID\_COLUMN | Indicates which column contains the source ID (AOR ID) of the result image entry. (Value: A column name) | \SOURCE\_ID\_COLUMN  =srcid |
| WEBPLOT\_REQUEST\_COLUMN | Indicates which column contains WebPlotRequest metadata for the specific thumbnail (Value: A column name) | \WEBPLOT\_REQUEST\_COLUMN  =req |

2. The IPAC TABLE presents the Planck Image Query results in rows.  Each row represents data of a specific Planck image.  The following are required Columns:

2.1. Source ID Column: AOR ID

2.2. Data Type Column: The file type of the thumbnail of a Planck query result Image.

2.3. Thumbnail image URL Column: The HTTP URL of the thumbnail of a Planck query result Image thumbnail.

2.4. Full-size Image URL Column: The HTTP URL of the full-size file of a Planck query result image.

2.5. Planck query result image description: Usually it is a title, or a caption, or a short description of a Planck query image result.

3. And the IPAC TABLE can have an optional Column to instruct the image grid how to plot a FITS image:

3.1 WebPlot Request Column: a column contains metadata to define the following WebPlot Request parameters:

3.1.1. Initial RangeValues

3.1.2. Enable SmartZoom

3.1.3. Enable RotateNorth

3.1.4. FITS file's URL

3.1.5. Title

3.1.6. Initial Zoom Level

(Example entry: RangeValues=88,1.0,88,99.0,44,25,600,120SmartZoom=true&RotateNorth=false&URL=http://shadev1/planck/irs1.fits&Title=irs band 1&InitZoomLevel=1.0)

An example is available at CVS:

heritage/java/src/edu/caltech/ipac/hydra/server/query/resources/samplePlanckImageData.tbl