

PS1 Database system metadata tables

This page describes the contents of the PanSTARRS-1 system metadata database tables. These tables include information on the flag values, filters, surveys, and other similar metadata. The information is not specific to individual objects but is useful in interpreting values from the [object data tables](#). These descriptions are extracted from the PSPS Schema Browser interface created by the University of Hawaii.

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Filter

Description: Contains a description of the optical filters used in the survey (Tonry et al 2012, ApJ 750, 99).

Name	Unit	Data Type	Size	Default Value	Description
filterID	dimensionless	TINYINT	1	NA	Filter identifier.
filterType	dimensionless	VARCHAR(100)	100		Filter name.

FitModel

Description: Contains descriptions of the models used in fitting detections in images, both PSF-like and extended galaxies. References: de Vaucouleurs, G. 1948, Annales d'Astrophysique, 11, 247; Sersic, J. L. 1963, Boletin de la Asociacion Argentina de Astronomia La Plata Argentina, 6, 41.

Name	Unit	Data Type	Size	Default Value	Description
fitModelID	dimensionless	SMALLINT	2	NA	Model fit identifier.
name	dimensionless	VARCHAR(100)	100		Model name.
description	dimensionless	VARCHAR(100)	100		Description of the model.
param1	dimensionless	VARCHAR(100)	100		Description of model parameter 1.
param2	dimensionless	VARCHAR(100)	100		Description of model parameter 2.
param3	dimensionless	VARCHAR(100)	100		Description of model parameter 3.
param4	dimensionless	VARCHAR(100)	100		Description of model parameter 4.
param5	dimensionless	VARCHAR(100)	100		Description of model parameter 5.
param6	dimensionless	VARCHAR(100)	100		Description of model parameter 6.
param7	dimensionless	VARCHAR(100)	100		Description of model parameter 7.
param8	dimensionless	VARCHAR(100)	100		Description of model parameter 8.

param9	dimensionless	VARCHAR(100)	100		Description of model parameter 9.
param10	dimensionless	VARCHAR(100)	100		Description of model parameter 10.

Survey

Description: Contains descriptions of the various PS1 Science Consortium Surveys.

Name	Unit	Data Type	Size	Default Value	Description
surveyID	dimensionless	TINYINT	1	NA	Survey identifier.
name	dimensionless	VARCHAR(100)	100		Survey name.
description	dimensionless	VARCHAR(100)	100		Survey description.

PhotoCal

Description: Contains photometric calibration information for each filter and detector image combinations.

Name	Unit	Data Type	Size	Default Value	Description
photoCalID	dimensionless	INT	4	NA	Photometric calibration identifier.
filterID	dimensionless	TINYINT	1	NA	Filter identifier. Details in the Filter table.
photoCodeDesc	dimensionless	VARCHAR(100)	100		Photometry reduction code name.
AB	magnitudes	REAL	4	NA	AB magnitude.
zeropoint	magnitudes	REAL	4	NA	Photometric zeropoint (excluding long term variation).
extinction	magnitudes / airmass	REAL	4	NA	Photometric extinction term (excluding long term variation).
colorterm	dimensionless	REAL	4	NA	Photometric color term (excluding long term variation).
colorExtn	dimensionless	REAL	4	NA	Photometric color dependent extinction (excluding long term variation).
orphanCalColor	dimensionless	REAL	4	NA	Color adopted for magnitude calculation.
orphanCalColorErr	dimensionless	REAL	4	NA	Error in calibrating color.
startDate	days	REAL	4	NA	Modified Julian Date of the start of this configuration.

StackType

Description: Contains descriptions of the types of stacked images constructed.

Name	Unit	Data Type	Size	Default Value	Description
stackTypeID	dimensionless	TINYINT	1	NA	Stack type identifier.
name	dimensionless	VARCHAR(100)	100		Stack type name.
description	dimensionless	VARCHAR(100)	100		Stack type description.

DiffType

Description: Contains descriptions of the types of difference images constructed.

Name	Unit	Data Type	Size	Default Value	Description
diffTypeID	dimensionless	TINYINT	1	NA	Diff type identifier.
name	dimensionless	VARCHAR(100)	100		Diff type name.
description	dimensionless	VARCHAR(100)	100		Diff type description.

TessellationType

Description: Contains descriptions of the types of image tessellations for the sky.

Name	Unit	Data Type	Size	Default Value	Description
tessID		TINYINT	1	NA	Tessellation identifier.
name		VARCHAR(100)	100		Tessellation name.
description		VARCHAR(100)	100		Tessellation description.

ImageFlags

Description: Contains information flag values for images.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		BIGINT	8	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

DetectionFlags

Description: Contains information flag values for detections.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		BIGINT	8	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

DetectionFlags2

Description: Contains information flag values for detections. References: Petrosian, V. 1976, ApJL, 209, L1.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

DetectionFlags3

Description: Contains information flag values for detections. **References:** Kron, R. G. 1980, ApJS, 43, 305.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

ObjectInfoFlags

Description: Contains information flag values for objects.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag

ObjectQualityFlags

Description: Contains information flag values that denote if an object is real or a possible false positive.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

ObjectFilterFlags

Description: Contains information flags for the photometric calibration of an object.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

AstrometryCorrectionFlags

Description: Contains information flags that denote if an object has had its astrometry corrected and other information related to the astrometry correction process using Gaia EDR3. See [PS1 Astrometry Correction Using Gaia EDR3](#) for details.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.

ForcedGalaxyShapeFlags

Description: Contains information flag values that define ForcedGalaxyShape chisq surface failures.

Name	Unit	Data Type	Size	Default Value	Description
name		VARCHAR(100)	100		Name of flag.
hexadecimal		VARCHAR(16)	16		Flag value in hexadecimal form.
value		INT	4	NA	Flag value in decimal form.
description		VARCHAR(100)	100		Description of the flag.