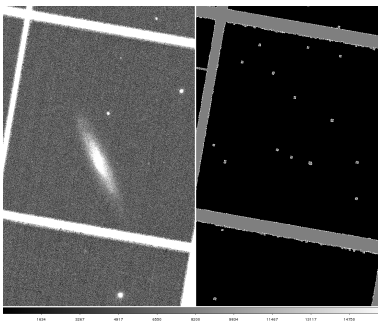
PS1 Pixel flags in Image Table Data

All images, warps and stacks, have mask images which indicate image flags for individual pixels. Below is a table that indicates the meaning for each flag. These flags are applicable for both the warp and stack images.

(Source: http://svn.pan-starrs.ifa.hawaii.edu/trac/ipp/browser/trunk/ippconfig/recipes/masks.16bit.config)



Warped image (left) and its mask image (right)

Contents

- Pixel Flags
  - Mask values which represent features of the detector
  - Mask values which represent invalid signal ranges
  - Mask values which represent non-astronomical structures
  - Mask values which identify pixels badly affected by convolutions and interpolations

The starting point for the PS1 data archive is at Pan-STARRS1 data archive home page.

Enter page topic	
Enter parameter name	Enter parameter value

Pixel Flags

Mask values which represent features of the detector

Flag name	hexadecimal value	Description
FLAT	0x0002	Pixel doesn't flat-field properly
DARK	0x0004	Pixel doesn't dark-subtract properly
BLANK	0x0008	Pixel doesn't contain valid data
CTE	0x0010	Pixel has poor Charge Transfer Efficiency
SAT	0x0020	Pixel is saturated or non-linear

Mask values which represent invalid signal ranges

Flag name	hexadecimal value	Description
SAT	0x0020	Pixel is saturated or non-linear
LOW	0x0040	Pixel is low
SUSPECT	0x0080	Pixel is suspected of being bad

Mask values which represent non-astronomical structures

Flag name	hexadecimal value	Description
BURNTOOL	0x0080	Pixel may contain uncorrected streak.
CR	0x0100	Pixel contains a cosmic ray
SPIKE	0x0200	Pixel contains a diffraction spike
GHOST	0x0400	Pixel contains an optical ghost
STREAK	0x0800	Pixel contains a streak
STARCORE	0x1000	Pixel contains a bright star core

Mask values which identify pixels badly affected by convolutions and interpolations

Flag name	hexadecimal value	Description
CONV.BAD	0x2000	Pixel is bad after convolution with a bad pixel
CONV.POOR	0x4000	Pixel is poor after convolution with a bad pixel