

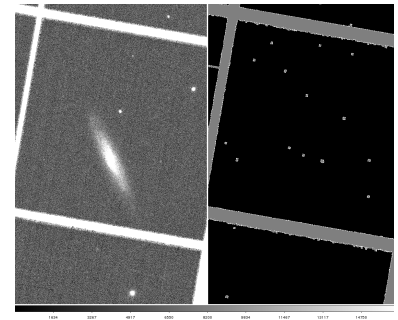
PS1 Pixel flags in Image Table Data

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>)

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

The starting point for the PS1 data archive is at [Pan-STARRS1 data archive home page](#).

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

| Enter page topic | |
|----------------------|-----------------------|
| Enter parameter name | Enter parameter value |

| 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 |