

These flags are set and used during the course of calibration, and may likewise be interpreted and used by downstream analysis applications.

Table 20.8: STIS Data Quality Flags

| FLAG Value | Bit Setting ^a | Quality Condition Indicated |
|------------|-----------------------------|--|
| 1 | 0000 0000 0000 000 1 | Reed solomon decoding error. |
| 2 | 0000 0000 0000 00 10 | Lost data replaced by fill values. |
| 4 | 0000 0000 0000 0 100 | Bad detector pixel (e.g., bad column or row, mixed science and bias for overscan, or beyond aperture). |
| 8 | 0000 0000 0000 1000 | Data masked by occulting bar. |
| 16 | 0000 0000 000 1 0000 | Pixel having dark rate > 5 sigma times the median dark level. |
| 32 | 0000 0000 00 10 0000 | Large blemish, depth > 40% of the normalized P-flat. |
| 64 | 0000 0000 0 100 0000 | Reserved. |
| 128 | 0000 0000 1000 0000 | Reserved. |
| 256 | 0000 000 1 0000 0000 | Saturated pixel, count rate at 90% of max possible—local non-linearity turns over and is multivalued; pixels within 10% of turnover and all pixels within 4 pixels of that pixel are flagged |
| 512 | 0000 00 10 0000 0000 | Bad pixel in reference file. |
| 1024 | 0000 0 100 0000 0000 | Small blemish, depth between 0.4 and 0.7 of the normalized flat. Applies only to MAMA p-flats at present. |
| 2048 | 0000 1000 0000 0000 | >30% of background pixels rejected by sigma-clip, or flagged, during 1-D spectral extraction. |
| 4096 | 000 1 0000 0000 0000 | Extracted flux affected by bad input data. |
| 8192 | 00 10 0000 0000 0000 | Data rejected in input pixel during image combination for cosmic ray rejection. |
| 16384 | 0 100 0000 0000 0000 | Reserved. |

a. The most significant bit is on the left in this representation.

20.6 STIS Paper Products

A routine product of the calibration pipeline is the post-calibration *paper products* that summarize the data obtained. Guest Observers (GO) will receive these automatically a few weeks after their data are taken. Archival observers can recreate these paper products by retrieving all of the science and jitter data for a particular observation and using the STSDAS **pp_dads** task (at the IRAF prompt type: `pp_dads *.fits`)