URL: http://cxc.harvard.edu/ciao3.4/dictionary/pha.html
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PHA: Pulse Height Amplitude

1. Engineering unit describing the integrated charge per pixel from an event recorded in a detector. In early electronic devices, this was the size of the pulse.
2. The PHA value in Chandra event files is the total pulse height of an event; see also PI.

   The PHAS column of an event file records the individual PHA values in the pixel "island" where the X-ray photon hit. For the normal observing modes FAINT (3x3 pixel island) or VFAINT (5x5 pixel island), this data is telemetered down for each event and included in the Level 1 event file. In GRADED mode, the 3x3 island is evaluated on board Chandra and converted to a single PHA value and a GRADE values, then the PHAS data is discarded before the data are telemetered down. For that reason, it isn't included in the event file.

   For a given location, a gain table is used to map the PHA of an event to the energy value.
3. "PHA File": Standard OGIP file types for a histogram of counts vs. spectral channel (PHA, ADU, diffraction angle, wavelength, or other). A Type I PHA file contains a single spectrum with spectral channel as a column; a Type II PHA file contains multiple spectra, one per row.

   Standard PHA file header keywordsare described in the PHA keywords dictionary entry.

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