

Glossary of Terms

ADU Analog to Digital Unit, a measure of pixel value.

<http://www.qsimaging.com/blog/understanding-gain-on-a-ccd-camera/>

Autoguider CCD sensor used for image tracking on a particular star.

<http://en.wikipedia.org/wiki/Autoguider>

Blooms Vertical streaks in a CCD image resulting from over saturated pixels.

[http://en.wikipedia.org/wiki/Blooming_\(CCD\)#Blooming](http://en.wikipedia.org/wiki/Blooming_(CCD)#Blooming)

Bias Frame Zero-exposure image, to record image sensor noise only.

http://en.wikipedia.org/wiki/Bias_frame

Binning Combining of adjacent pixels on the CCD, affecting speed and image scale.

<http://www.andor.com/learning-academy/ccd-binning-what-does-binning-mean>

CCD Charge-coupled device. Image sensor for digital imaging.

http://en.wikipedia.org/wiki/Charge-coupled_device

Dark-Frame Image taken with the shutter closed, to record electronic noise.

http://en.wikipedia.org/wiki/Dark-frame_subtraction

Data Reduction The last step required in image processing, reducing image data to its essential elements. http://en.wikipedia.org/wiki/Data_reduction

Diffraction Grating A special filter, which separates light into its component wavelengths.

http://en.wikipedia.org/wiki/Diffraction_grating

Dispersion The separation of light into different wavelengths.

[http://en.wikipedia.org/wiki/Dispersion_\(optics\)](http://en.wikipedia.org/wiki/Dispersion_(optics))

Eclipsing Binary A binary system with both components eclipsing in our line of sight.

http://en.wikipedia.org/wiki/Binary_star#Eclipsing_binaries

Extrasolar Planet A planet located outside our solar system.

<http://en.wikipedia.org/wiki/Exoplanet>

FITS (Flexible Image Transport System) A standard image file format designed for scientific data, which includes time and specific equipment information.

<http://en.wikipedia.org/wiki/FITS>

Flat Field Image of evenly illuminated field to record pixel to pixel variations in the sensor.

http://en.wikipedia.org/wiki/Flat-field_correction

Focal Length The distance from the initial light convergence of an optical system to correct focus. http://en.wikipedia.org/wiki/Focal_length

Guide Star A selected star centered on a specific X, Y pixel, to maintain accurate tracking during an exposure. http://en.wikipedia.org/wiki/Guide_star

Image Scale A measure of arc seconds of sky, per pixel.

<http://www.wilmslowastro.com/software/formulae.htm#ARCSEC/PIXEL>

Photometry Process for measuring and graphing light intensity over time.

[http://en.wikipedia.org/wiki/Photometry_\(astronomy\)](http://en.wikipedia.org/wiki/Photometry_(astronomy))

Pixel Picture element, or individual photo site on a CCD chip.

<http://en.wikipedia.org/wiki/Pixel>

Radial Velocity Component of a star's velocity either toward or away from the observer.

http://en.wikipedia.org/wiki/Radial_velocity

Raw Image Unprocessed image, downloaded from the camera.

http://en.wikipedia.org/wiki/Raw_image_format

Spectroscopy Observation and analysis of light passing thru a prism or grating.

<http://en.wikipedia.org/wiki/Spectroscopy>

Polar Alignment Precise alignment of a telescope's rotational axis, to Earth's axis.

http://en.wikipedia.org/wiki/Polar_alignment