

FITS keyword vs UCD

SOLARNET FITS keyword	definition	UCD
PROJECT	Name(s) of the project(s) affiliated with the data	
MISSION:	Typically used only in space-based settings	<i>instr.obsty</i>
OBSRVTRY:	Name of the observatory	<i>instr.obsty</i>
TELESCOP	Name de telescop	<i>instr.tel</i>
TELCONFG:	Telescope configuration.	
INSTRUME:.	Name of the instrument	<i>instr</i>
CAMERA:	Name of the camera.	
FILTER:	Name(s) of the filter(s) used during the observation	<i>instr.filter</i>
DETECTOR	: Name of the detector.	<i>instr.det</i>
OBS_MODE:	A string identifying operation mode	Meta.id
SETTINGS:	Other settings – “parameter1=n, ...	
OBSERVER:	Who acquired the data.	Meta.curation
PLANNER:	Observation planner(s).	
REQUESTR.	Who requested this particular observation	

CRVALi, CDELTi, CRPIXj, CUNITi, CTYPEi

WCS keywords	Definition	UCD
CRVALi	Offset from reference pixel	Pos.wcs.crval
CDELTi,	delta	
CRPIXj,	Reference pixel	Pos.wcs.crpix
CUNITi,	Unit for CTYPE	
CTYPEi	Nature of the coordinates and their projections	Pos.wcs.ctype
NAXES		Pos.wcs.naxes
NAXIS		Pos.wcs.naxis
Mandatory for Deep Space mission:		
HGLN_OBS	Observer's Stonyhurst heliographic longitude	Pos.bodyrc.long, pos.heliographic.Stonyhurst
HGLT_OBS	Observer's Stonyhurst heliographic latitude	Pos.bodyrc.lat, pos.heliographic.Stonyhurst
DSUN_OBS	[m] Distance from instrument to Sun	Pos.distance

Data description keywords		
BTYPE	Description of what the array represents. Could be given an UCD1	Ex: For FSI and HR IEUV: UCD = 'phot.count;em.UV.10-50nm' / Unified Content Descriptor For HRI LYA: UCD = 'phot.count;em.UV.100-200nm' / Unified Content Descriptor
XPOSURE	[s] Accumulated exposure time	Obs.exposure
WAVEUNIT	Wavelength related kwds have unit: 10^(WAVEUNIT) m	
WAVEMIN	Min vacuum wavelength covered by filter in WAVEUNIT	Em.wl, stat.min
WAVEMAX	Max vacuum wavelength covered by filter	Em.wl, stat.max
AWAVMIN	Min wavelength in air (not in vacuum)	
AWAVMAX	Max wavelength in air (not in vacuum)	

Optional keywords

CADENCE	[sec] Planned cadence	Time.resolution
CADAVG	[sec] Average actual cadence	Time.resolution, stat.mean
CADMIN	[sec] Minimum actual frame-to-frame spacing	Time.resolution, stat.min
CADMAX	[sec] Maximum actual frame-to-frame spacing	Time.resolution, stat.max
WAVEBAND	Strongest emission line in data	Instr.bandpass
WAVELNTH	[Angstrom] Characteristic wavelength in vacuum	Em.wl.central
ATMOS_R0	[cm] Atmospheric coherence length	
RSUN_REF	[m] Solar rad. used for calc. px scale	

SOLARNET fits keyword	definition	UCD-I+
Data statistics		

DATAMIN :	the minimum data value	<i>stat.min</i>
DATAMAX :	the maximum data value	<i>stat.max</i>
DATAMEAN :	the average data value	<i>stat.mean</i>
DATAMEDN :.	the median data value	<i>stat.median</i>
DATARMS :	the RMS deviation from the mean	<i>stat.rms</i>
DATAKURT :	the kurtosis	<i>stat.kurt</i>
DATASKEW :	the skewness	<i>stat.skew</i>
DATAMAD	Mean absolute deviation from the median	<i>stat.mad</i>