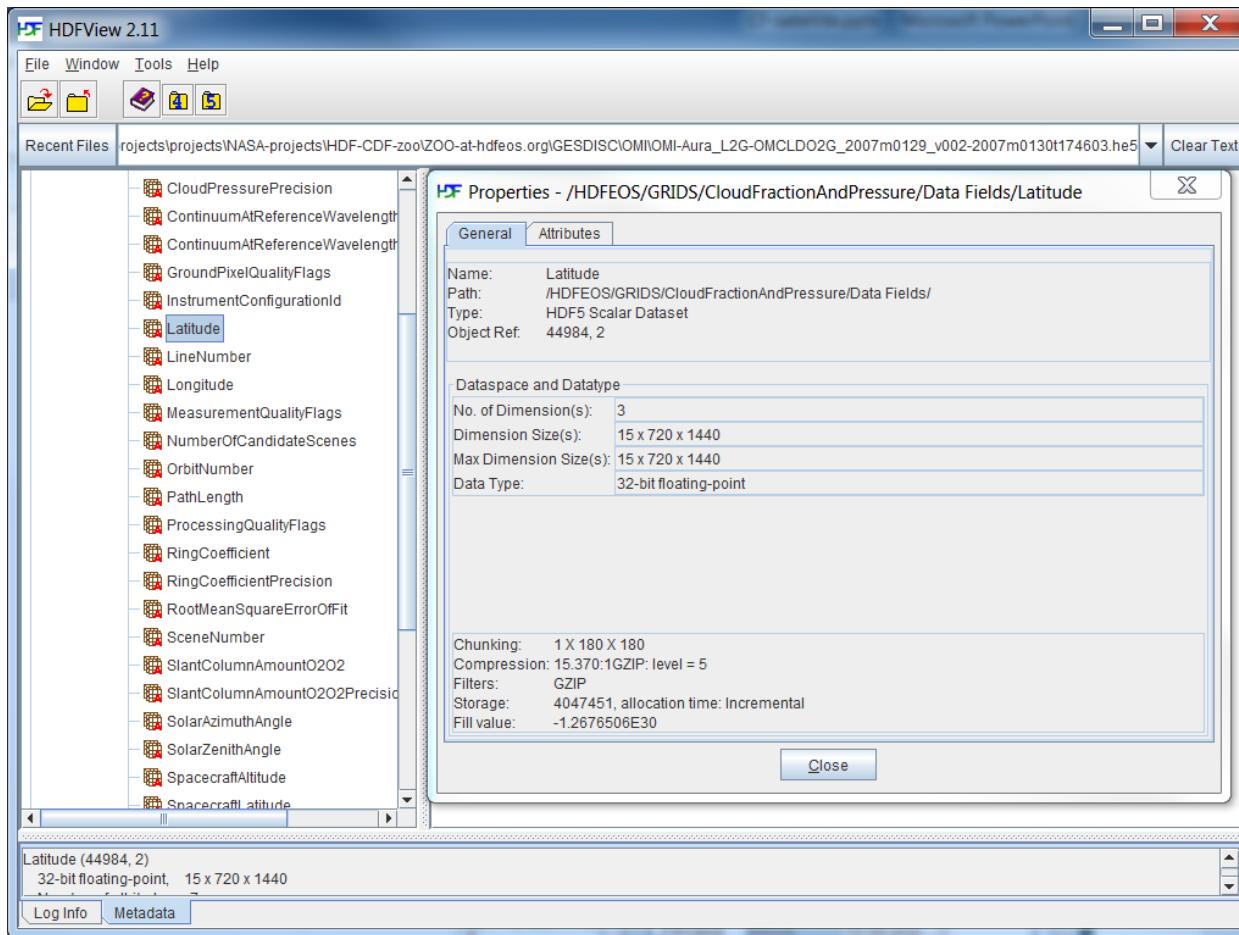


# 3-D latitude and longitude in a Satellite Grid

Each “vertical” layer has a unique 2-D  
latitude/longitude pair

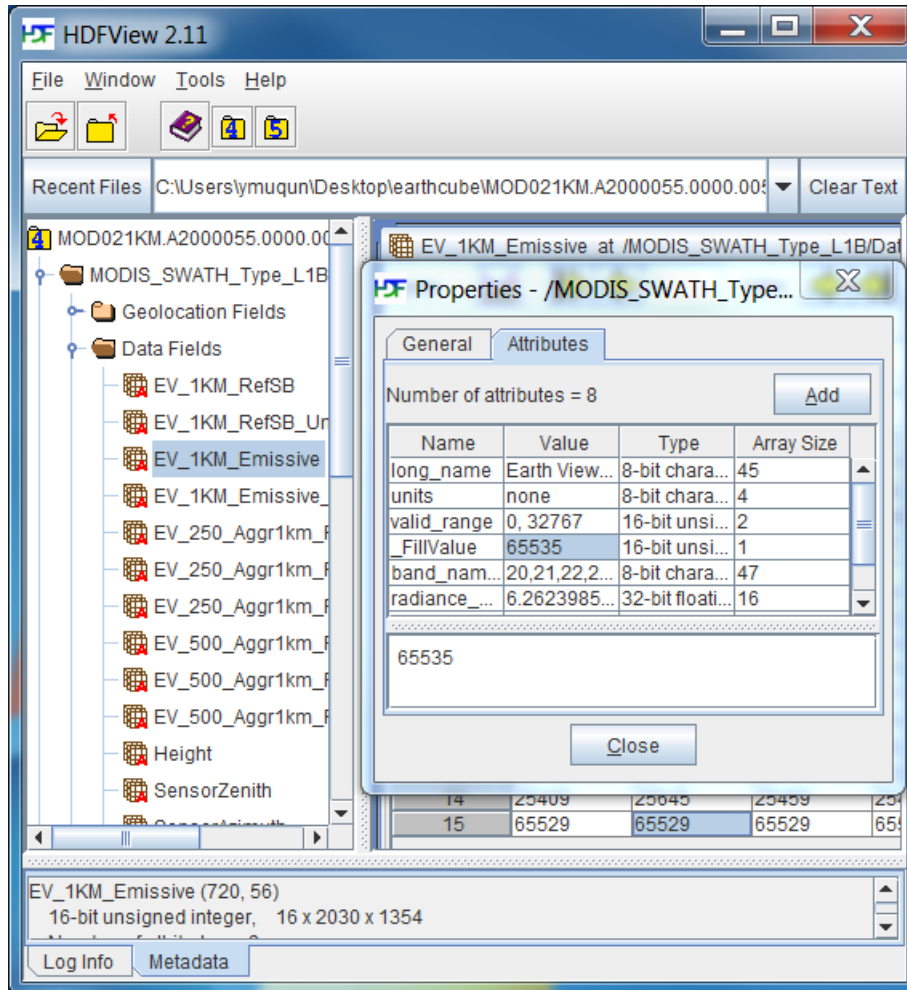
Notice: the Latitude is a 3-D array. CF currently doesn't handle this case.



# Limitation of singular \_FillValue

Multiple Special Values in Swath

# Special values not limited to \_Fillvalue

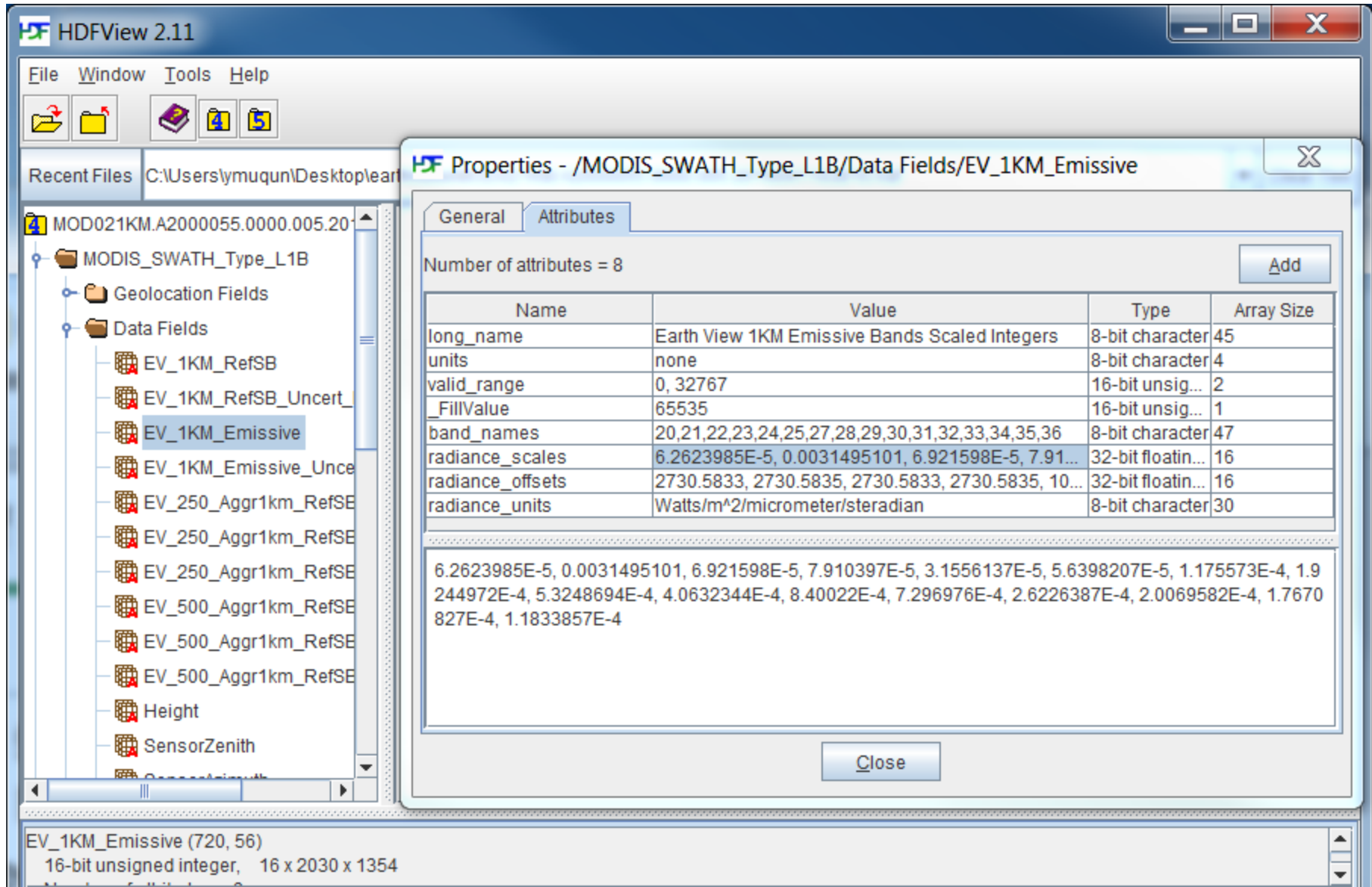


VIIRS Special Values	Meaning
65535	"N/A" – not applicable
65534	"MISS" – required value missing at time of processing
65533	"OBPT" – onboard pixel trim (overlapping/bow-tie pixel removed during SDR processing)
65532	"OGPT" – on-ground pixel trim (overlapping/bow-tie pixel removed during EDR processing)
65531	"ERR" – error occurred during processing / non-convergence
65530	"ELINT" – ellipsoid intersect failed / instrument line-of-sight does not intersect the Earth's surface
65529	"VDNE" – value does not exist / processing algorithm did not execute
65528	"SOUB" – scaled out-of-bounds / solution not within allowed range

Discussions in the past: <http://hdfeos.net/vbtest-/showthread.php?t=474>

Limitation of scalar scale/offset pair

- Scale/offset is a vector rather than a single value



HDFView 2.11

File Window Tools Help

Recent Files C:\Users\ymuqun\Desktop\learn

MOD021KM.A2000055.0000.005.20

MODIS\_SWATH\_Type\_L1B

Geolocation Fields

Data Fields

EV\_1KM\_RefSB

EV\_1KM\_RefSB\_Uncert

EV\_1KM\_Emissive

EV\_1KM\_Emissive\_Uncert

EV\_250\_Aggr1km\_RefSB

EV\_250\_Aggr1km\_RefSB\_Uncert

EV\_250\_Aggr1km\_RefSB\_Uncert

EV\_250\_Aggr1km\_RefSB\_Uncert

EV\_500\_Aggr1km\_RefSB

EV\_500\_Aggr1km\_RefSB\_Uncert

EV\_500\_Aggr1km\_RefSB\_Uncert

Height

SensorZenith

Properties - /MODIS\_SWATH\_Type\_L1B/Data Fields/EV\_1KM\_Emissive

General Attributes

Number of attributes = 8

Name	Value	Type	Array Size
long_name	Earth View 1KM Emissive Bands Scaled Integers	8-bit character	45
units	none	8-bit character	4
valid_range	0, 32767	16-bit unsig...	2
_FillValue	65535	16-bit unsig...	1
band_names	20,21,22,23,24,25,27,28,29,30,31,32,33,34,35,36	8-bit character	47
radiance_scales	6.2623985E-5, 0.0031495101, 6.921598E-5, 7.91...	32-bit floatin...	16
radiance_offsets	2730.5833, 2730.5835, 2730.5833, 2730.5835, 10...	32-bit floatin...	16
radiance_units	Watts/m^2/micrometer/steradian	8-bit character	30

6.2623985E-5, 0.0031495101, 6.921598E-5, 7.910397E-5, 3.1556137E-5, 5.6398207E-5, 1.175573E-4, 1.9244972E-4, 5.3248694E-4, 4.0632344E-4, 8.40022E-4, 7.296976E-4, 2.6226387E-4, 2.0069582E-4, 1.7670827E-4, 1.1833857E-4

Close

EV\_1KM\_Emissive (720, 56)

16-bit unsigned integer, 16 x 2030 x 1354