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Raster

Open

Open a Raster.

geo-shell> **raster open** --format earth --raster earth --name earth

Name	Description	Mandatory	Specified Default	Unspecified Default
format	The Format name	true		
raster	The Raster name	true		
name	The name	false		

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **raster close** --name earth
Raster earth closed!

geo-shell> **format close** --name earth
Format earth closed!

Close

Close a Raster.

geo-shell> **raster close** --name earth

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **raster close** --name earth
Raster earth closed!

geo-shell> **format close** --name earth
Format earth closed!

List

List open Rasters.

geo-shell> **raster list**

No parameters

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **raster list**
earth = GeoTIFF

geo-shell> **raster close** --name earth
Raster earth closed!

geo-shell> **format close** --name earth
Format earth closed!

Info

Get information about a Raster.

geo-shell> **raster info** --name earth

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **raster info** --name earth
Format: GeoTIFF
Size: 800, 400
Projection ID: EPSG:4326
Projection WKT: GEOGCS["WGS 84",
DATUM["World Geodetic System 1984",
SPHEROID["WGS 84", 6378137.0, 298.257223563, AUTHORITY["EPSG","7030"]],
AUTHORITY["EPSG","6326"]],
PRIMEM["Greenwich", 0.0, AUTHORITY["EPSG","8901"]],
UNIT["degree", 0.017453292519943295],

AXIS["Geodetic longitude", EAST],
AXIS["Geodetic latitude", NORTH],
AUTHORITY["EPSG","4326"]]
Extent: -179.99999999999997, -89.99999999998205, 179.99999999996405, 90.0
Pixel Size: 0.44999999999995505, 0.4499999999999551
Block Size: 800, 8
Bands:
RED_BAND
Min Value: 56.0 Max Value: 255.0
GREEN_BAND
Min Value: 84.0 Max Value: 255.0
BLUE_BAND
Min Value: 91.0 Max Value: 255.0

geo-shell> **raster close** --name earth
Raster earth closed!

geo-shell> **format close** --name earth
Format earth closed!

Value

Get a value from the Raster.

geo-shell> **raster value** --name earth --x 60 --y 45

geo-shell> **raster value** --name earth --x 10 --y 15 --type pixel

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
band	The x coordinate	false	0	0
x	The x coordinate	true		
y	The y coordinate	true		
type	The y coordinate	false	geometry	geometry

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **raster value** --name earth --x 60 --y 45
235.0

geo-shell> **raster value** --name earth --x 10 --y 15 --type pixel
109.0

geo-shell> **raster close** --name earth
Raster earth closed!

geo-shell> **format close** --name earth
Format earth closed!

Envelope

Create a Vector Layer from the envelope of a Raster.

geo-shell> **raster envelope** --name earth --output-workspace layers --output-name outline

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		

geo-shell> **format open** --name earth --input src/test/resources/earth.tif
Format earth opened!

geo-shell> **raster open** --format earth --raster earth --name earth
Opened Format earth Raster earth as earth

geo-shell> **workspace open** --name layers --params memory
Workspace layers opened!

geo-shell> **raster envelope** --name earth --output-workspace layers --output-name outline
Done creating envelope in outline from earth!

geo-shell> **style create** --params "stroke=black stroke-width=3" --file examples/outline.sld
Style stroke=black stroke-width=3 written to /home/travis/build/jericks/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name outline --style examples/outline.sld
Style /home/travis/build/jericks/geo-shell/examples/outline.sld set on outline

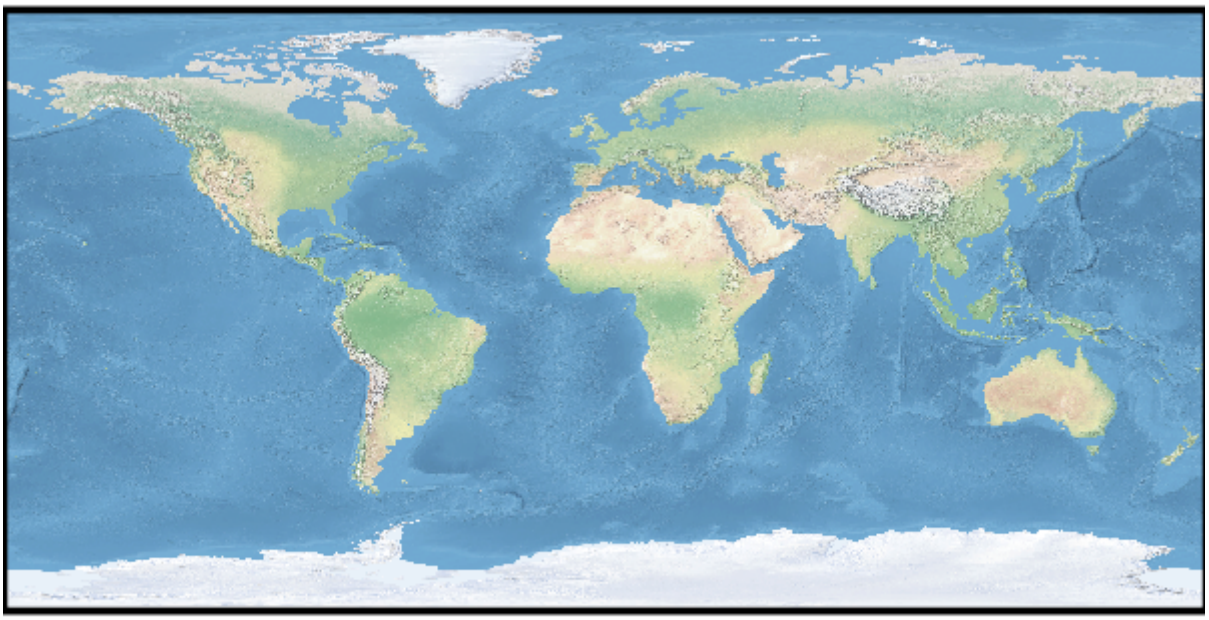
geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster earth
Added earth layer to map map

geo-shell> **map add layer** --name map --layer outline
Added outline layer to map map

geo-shell> **map draw** --name map --file examples/raster_envelope.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_envelope.png!

geo-shell> **map close** --name map
Map map closed!



Get Style

Get the Raster's style.

geo-shell> **raster style get** --name pc --style examples/pc_style.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
style	The SLD File	false		

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **style raster colormap** --raster pc --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld
Colormap Raster Style for pc written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pc

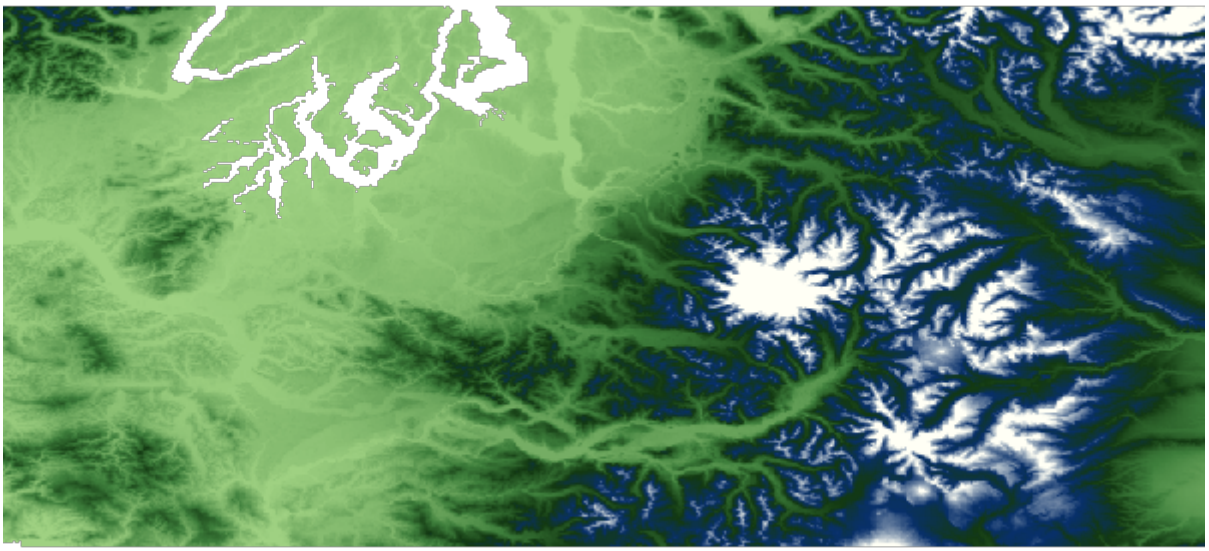
geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pc
Added pc layer to map map

geo-shell> **map draw** --name map --file examples/raster_style_get.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_style_get.png!

geo-shell> **map close** --name map
Map map closed!

geo-shell> **raster style get** --name pc --style examples/pc_style.sld
pc style written to /home/travis/build/jericks/geo-shell/examples/pc_style.sld



Set Style

Set a Raster's style

geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
style	The SLD or CSS File	true		

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **style raster colormap** --raster pc --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld
Colormap Raster Style for pc written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

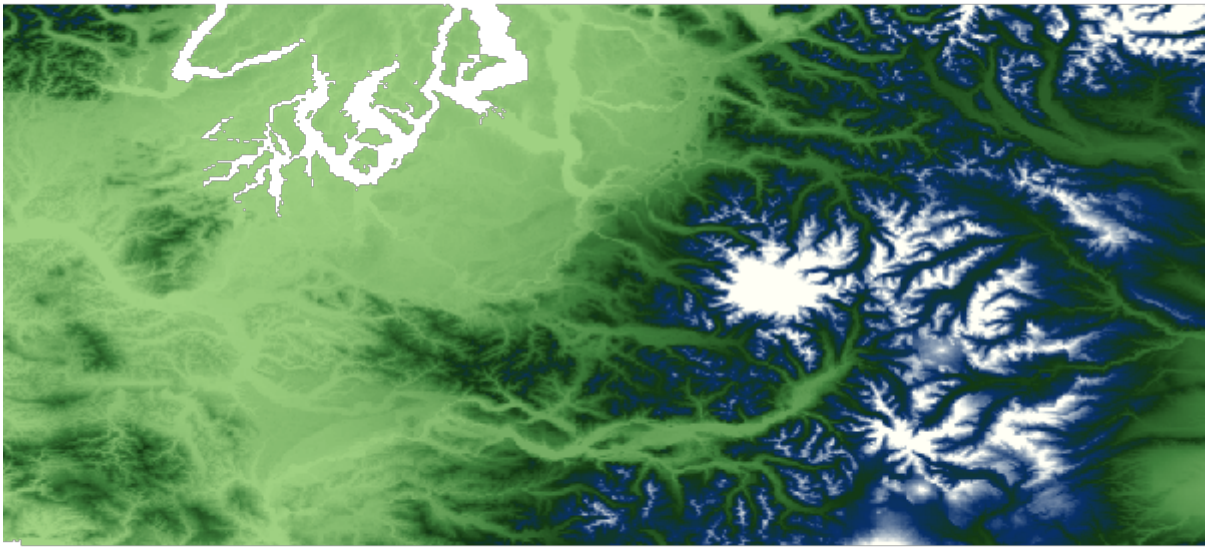
geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pc

geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pc
Added pc layer to map map

geo-shell> **map draw** --name map --file examples/raster_style_set.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_style_set.png!

geo-shell> **map close** --name map
Map map closed!



Add Raster

Add two Rasters together

Name	Description	Mandatory	Specified Default	Unspecified Default
name1	The Raster name	true		
name2	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		

Add Constant

Add constant values to a Raster

geo-shell> **raster add constant** --name pc --output-format pcAdd100 --output-name pcAdd100 --values 100

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
values	The values	true		

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **raster value** --name pc --x -121.799927 --y 46.867703
3069.0

geo-shell> **format open** --name pcAdd100 --input examples/pcAdd100.tif
Format pcAdd100 opened!

geo-shell> **raster add constant** --name pc --output-format pcAdd100 --output-name pcAdd100 --values 100
Added 100 to pc to create pcAdd100!

geo-shell> **raster value** --name pcAdd100 --x -121.799927 --y 46.867703
3169.0

geo-shell> **style raster colormap** --raster pcAdd100 --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld

Colormap Raster Style for pcAdd100 written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

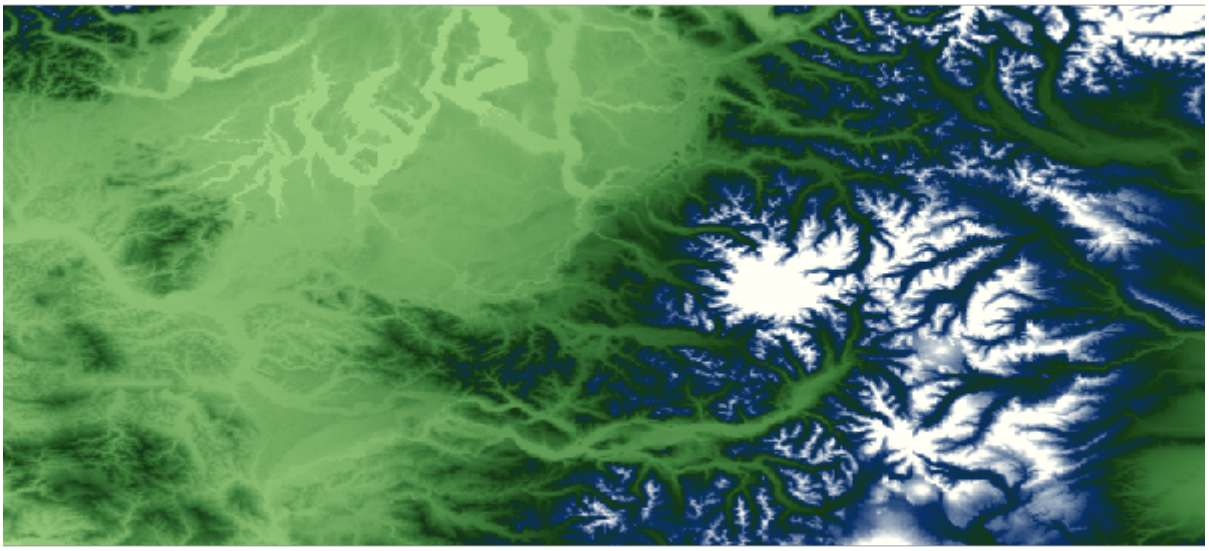
geo-shell> **raster style set** --name pcAdd100 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcAdd100

geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pcAdd100
Added pcAdd100 layer to map map

geo-shell> **map draw** --name map --file examples/raster_add_constant.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_add_constant.png!

geo-shell> **map close** --name map
Map map closed!



Subtract Raster

Subtract one Raster from another

Name	Description	Mandatory	Specified Default	Unspecified Default
name1	The Raster name	true		
name2	The Raster name	true		
output-format	The output Format Workspace	true		

output-name	The output Raster name	false		

Subtract Constant

Subtract constant values from a Raster

geo-shell> **raster subtract constant** --name pc --output-format pcMinus100 --output-name pcMinus100 --values 100

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
values	The values	true		
from	Whether to subtract the Raster from the constant or vice verse	false	false	false

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **raster value** --name pc --x -121.799927 --y 46.867703
3069.0

geo-shell> **format open** --name pcMinus100 --input examples/pcMinus100.tif
Format pcMinus100 opened!

geo-shell> **raster subtract constant** --name pc --output-format pcMinus100 --output-name pcMinus100 --values 100
Subtracted 100 from pc to create pcMinus100!

geo-shell> **raster value** --name pcMinus100 --x -121.799927 --y 46.867703
2969.0

geo-shell> **style raster colormap** --raster pcMinus100 --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld
Colormap Raster Style for pcMinus100 written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

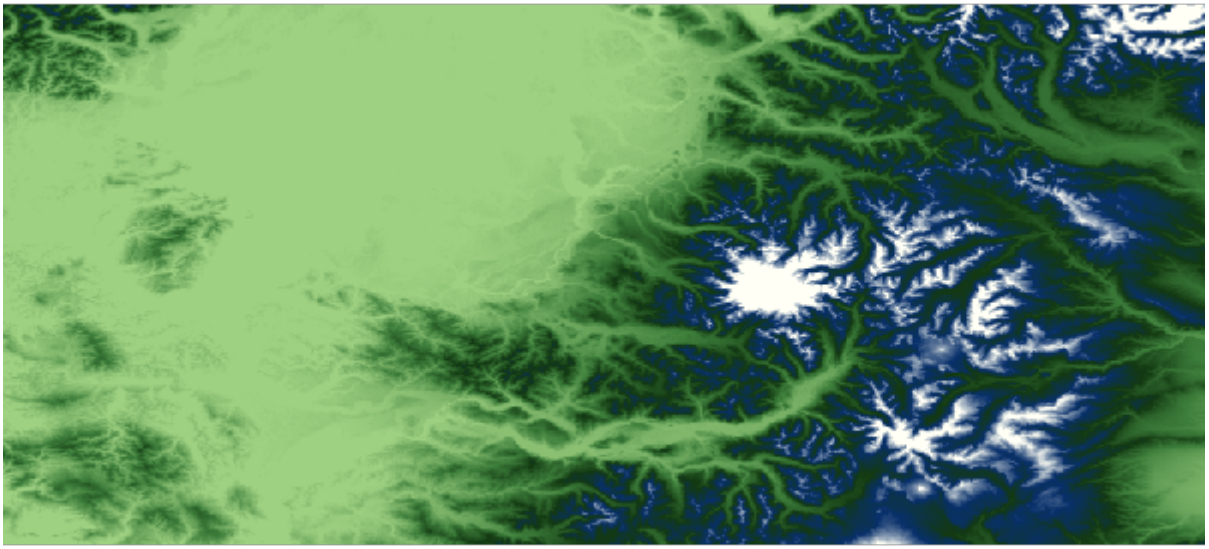
geo-shell> **raster style set** --name pcMinus100 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcMinus100

geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pcMinus100
Added pcMinus100 layer to map map

geo-shell> **map draw** --name map --file examples/raster_subtract_constant.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_subtract_constant.png!

geo-shell> **map close** --name map
Map map closed!



Multiply Raster

Multiply two Raster together

Name	Description	Mandatory	Specified Default	Unspecified Default
name1	The Raster name	true		
name2	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		

Multiply Constant

Multiply constant values to a Raster

geo-shell> **raster multiply constant** --name pc --output-format pcTimes2 --output-name pcTimes2 --values 2

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
values	The values	true		

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **raster value** --name pc --x -121.799927 --y 46.867703
3069.0

geo-shell> **format open** --name pcTimes2 --input examples/pcTimes2.tif
Format pcTimes2 opened!

geo-shell> **raster multiply constant** --name pc --output-format pcTimes2 --output-name pcTimes2 --values 2
Multiplied pc by 2 to create pcTimes2!

geo-shell> **raster value** --name pcTimes2 --x -121.799927 --y 46.867703
6138.0

geo-shell> **style raster colormap** --raster pcTimes2 --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld
Colormap Raster Style for pcTimes2 written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

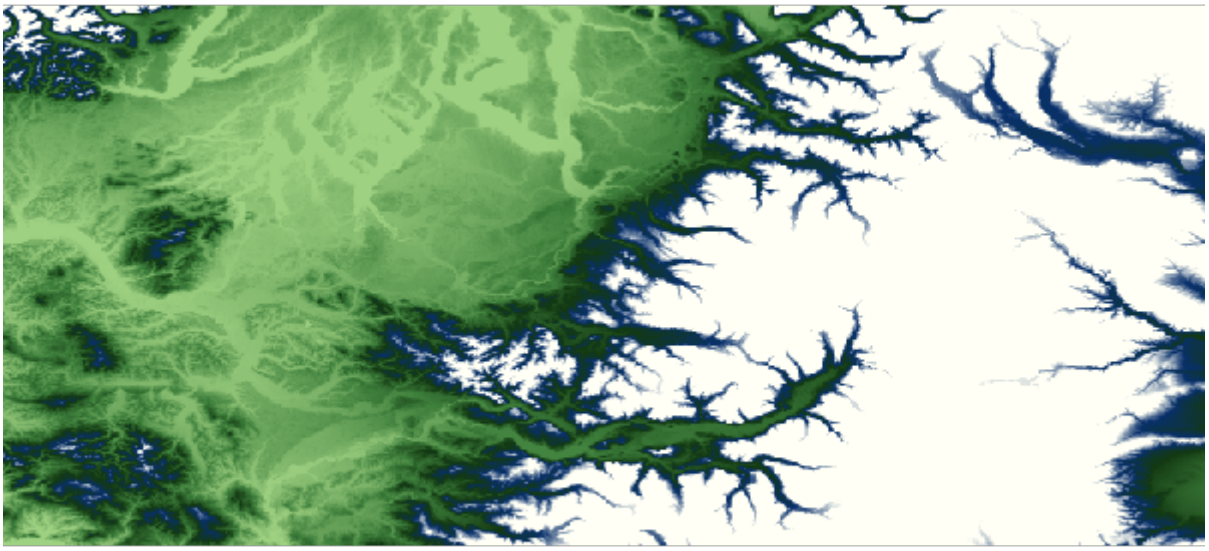
geo-shell> **raster style set** --name pcTimes2 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcTimes2

geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pcTimes2
Added pcTimes2 layer to map map

geo-shell> **map draw** --name map --file examples/raster_multiply_constant.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_multiply_constant.png!

geo-shell> **map close** --name map
Map map closed!



Divide Raster

Divide one Raster by another Raster

Name	Description	Mandatory	Specified Default	Unspecified Default
name1	The Raster name	true		
name2	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		

Divide Constant

Divide constant values against a Raster

geo-shell> **raster divide constant** --name pc --output-format pcDividedBy2 --output-name pcDividedBy2 --values 2

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
values	The values	true		

geo-shell> **format open** --name pierce_county --input src/test/resources/pc.tif
Format pierce_county opened!

geo-shell> **raster open** --format pierce_county --raster pc --name pc
Opened Format pierce_county Raster pc as pc

geo-shell> **raster value** --name pc --x -121.799927 --y 46.867703
3069.0

geo-shell> **format open** --name pcDividedBy2 --input examples/pcDividedBy2.tif
Format pcDividedBy2 opened!

geo-shell> **raster divide constant** --name pc --output-format pcDividedBy2 --output-name pcDividedBy2 --values 2
Divided pc by 2 to create pcDividedBy2!

geo-shell> **raster value** --name pcDividedBy2 --x -121.799927 --y 46.867703
1534.5

geo-shell> **style raster colormap** --raster pcDividedBy2 --values "25=#9fd182,470=#3e7f3c,920=#133912,1370=#08306b,1820=#fffff5" --file examples/style_raster_colormap.sld
Colormap Raster Style for pcDividedBy2 written to /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld!

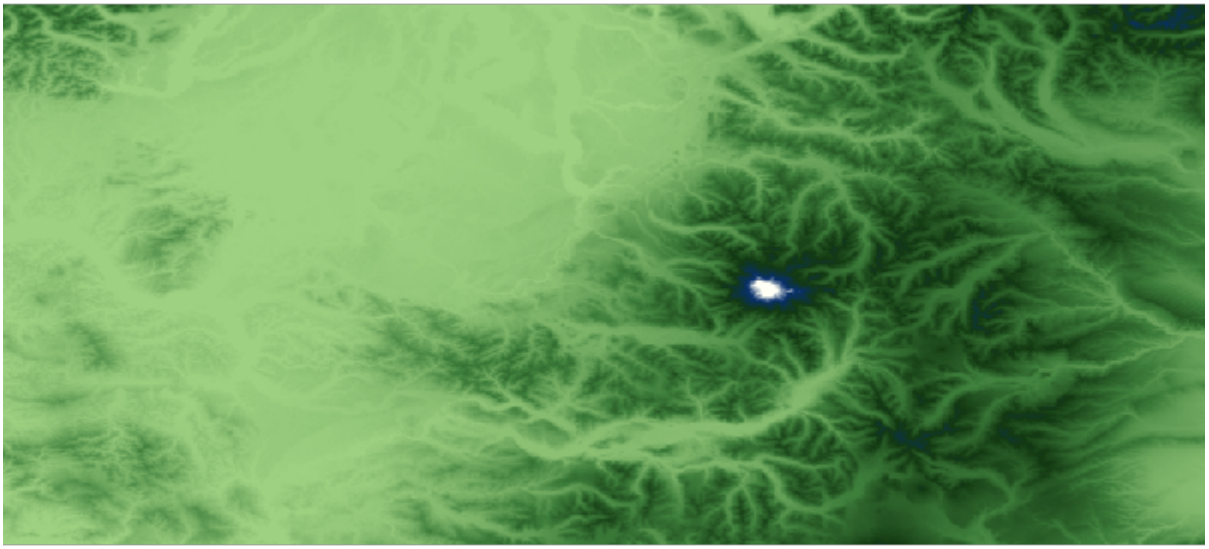
geo-shell> **raster style set** --name pcDividedBy2 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcDividedBy2

geo-shell> **map open** --name map
Map map opened!

geo-shell> **map add raster** --name map --raster pcDividedBy2
Added pcDividedBy2 layer to map map

geo-shell> **map draw** --name map --file examples/raster_divide_constant.png
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_divide_constant.png!

geo-shell> **map close** --name map
Map map closed!



Contours

Create contours.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
band	The Raster band to contour	false	0	0
levels	The contour level or interval	true		
simplify	Whether to simplify	false	false	false
smooth	Whether to smooth	false	false	false
bounds	The Bounds	false		

Crop

Crop a Raster.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
geometry	The geometry	true		

Mosaic

Mosaic two Rasters together

Name	Description	Mandatory	Specified Default	Unspecified Default
name1	The Raster name	true		
name2	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		

Reclassify

Reclassify a Raster.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
ranges	The comma delimited reclassification ranges (from-to=value)	true		
band	The Raster band to contour	false	0	0
nodata	The NODATA value	false	0	0

Reproject

Project a Raster.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
projection	The projection	true		

Scale

Scale a Raster.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		
x	The scale factor along the x axis	true		
y	The scale factor along the y axis	true		
x-trans	The x translation	false	0	0
y-trans	The y translation	false	0	0
interpolation	The interpolation method (bicubic, bicubic2, bilinear, nearest)	false	nearest	nearest

Shaded Relief

Create a shaded relief raster

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		

output-name	The output Raster name	false		
scale	The scale	true		
altitude	The altitude	true		
azimuth	The azimuth	true		
resx	The x resolution	false	0.5	0.5
resy	The y resolution	false	0.5	0.5
zetafactory	The zeta factory	false	1.0	1.0
algorithm	The x resolution	false	DEFAULT	DEFAULT

Stylize

Create a new Raster by baking the style into an existing Raster

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Raster name	true		
output-format	The output Format Workspace	true		
output-name	The output Raster name	false		