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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: -179.9999999999997, -89.99999999998205, 179.99999999996405, 90.0
Pixel Size: 0.4499999999995505, 0.449999999999551
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
```

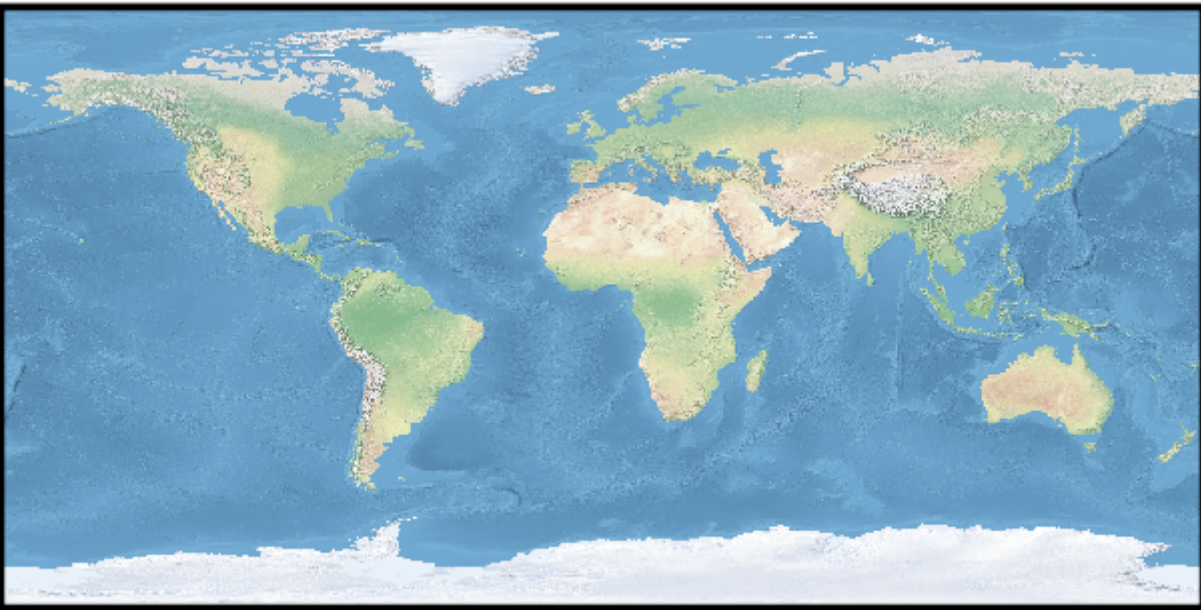
```
geo-shell> map open --name map
Map map opened!
```

```
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=#ffff5"
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
```

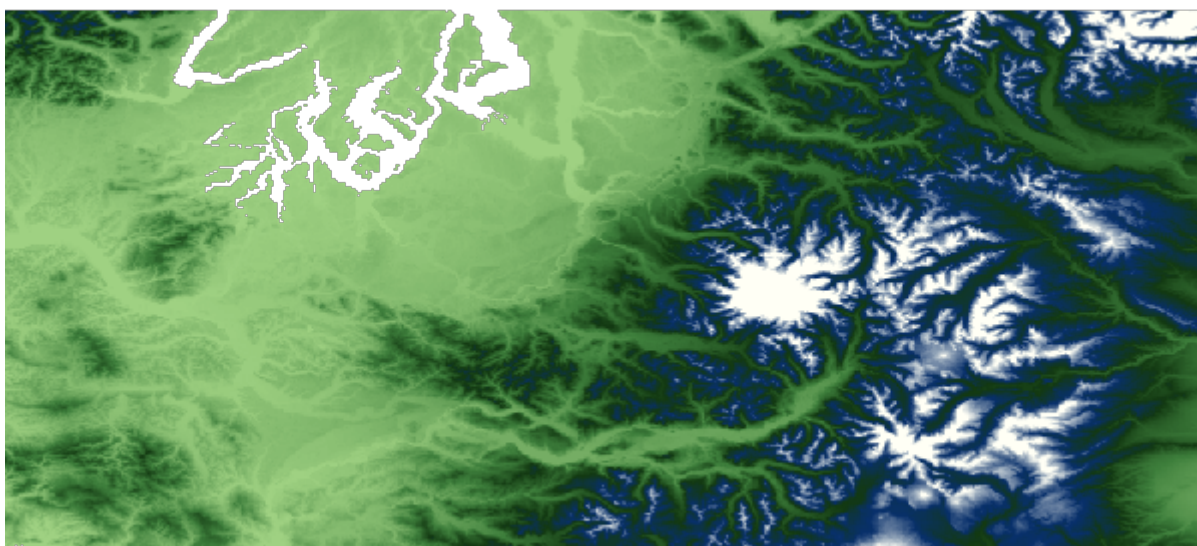
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_style_get.png!

```
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=#ffffff5" --file
examples/style_raster_colormap.sld
Colormap Raster Style for pc written to /home/travis/build/jericks/geo-
shell/examples/style_raster_colormap.sld!
```

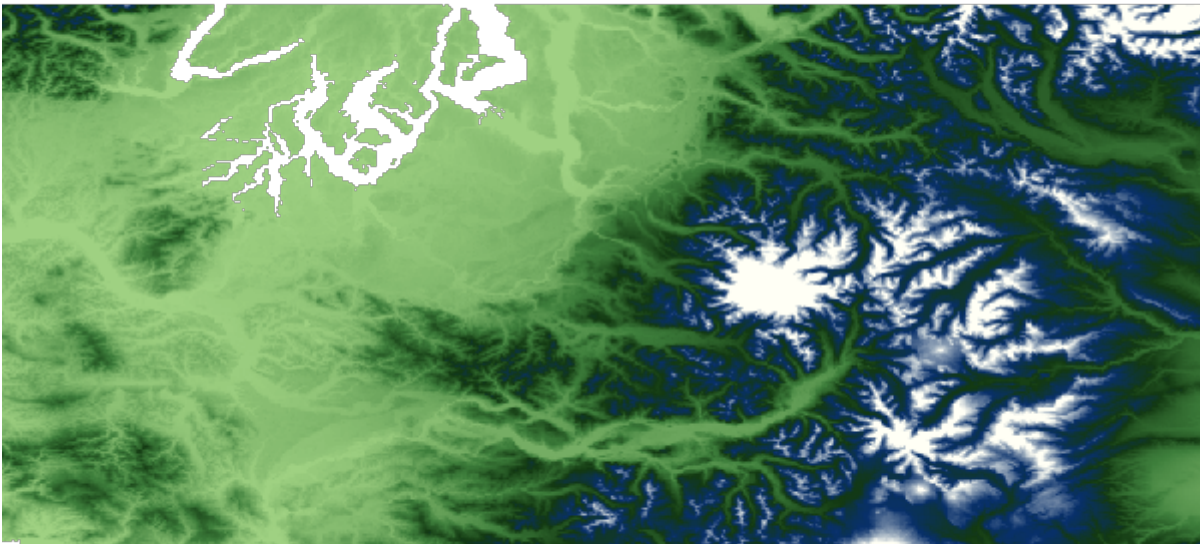
```
geo-shell> raster style set --name pc --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pc
```

```
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

```
geo-shell> raster add raster --name1 high --name2 low --output-format add --output-name add
```


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		

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

```
geo-shell> raster open --format high --raster high --name high
Opened Format high Raster high as high
```

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

```
geo-shell> style create --params "stroke=black stroke-width=2 label=value label-size=12" --file
examples/grid.sld
Style      stroke=black      stroke-width=2      label=value      label-size=12      written      to
/home/travis/build/jericks/geo-shell/examples/grid.sld!
```

```
geo-shell> raster polygon --name high --output-workspace layers --output-name high_polygons
Done converting Raster high to a Polygon Layer high_polygons!
```

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file
examples/high.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/high.sld!
```

```
geo-shell> raster style set --name high --style examples/high.sld
Style /home/travis/build/jericks/geo-shell/examples/high.sld set on high
```

```
geo-shell> layer style set --name high_polygons --style examples/grid.sld
Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on high_polygons
```

```
geo-shell> map open --name mapHigh
Map mapHigh opened!
```

```
geo-shell> map add raster --name mapHigh --raster high
Added high layer to map mapHigh
```

```
geo-shell> map add layer --name mapHigh --layer high_polygons
Added high_polygons layer to map mapHigh
```

```
geo-shell> map draw --name mapHigh --file examples/raster_add_raster_high.png --bounds "-180,-
90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_add_raster_high.png!
```

```
geo-shell> map close --name mapHigh
```

Map mapHigh closed!

17.0	18.0	19.0	20.0
13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0

```
geo-shell> format open --name low --input src/test/resources/low.tif
```

Format low opened!

```
geo-shell> raster open --format low --raster low --name low
```

Opened Format low Raster low as low

```
geo-shell> raster polygon --name low --output-workspace layers --output-name low_polygons
```

Done converting Raster low to a Polygon Layer low_polygons!

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file  
examples/low.sld
```

Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/low.sld!

```
geo-shell> raster style set --name low --style examples/low.sld
```

Style /home/travis/build/jericks/geo-shell/examples/low.sld set on low

```
geo-shell> layer style set --name low_polygons --style examples/grid.sld
```

Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on low_polygons

```
geo-shell> map open --name mapLow
```

Map mapLow opened!

```
geo-shell> map add raster --name mapLow --raster low
```

Added low layer to map mapLow

```
geo-shell> map add layer --name mapLow --layer low_polygons
```

Added low_polygons layer to map mapLow

```
geo-shell> map draw --name mapLow --file examples/raster_add_raster_low.png --bounds "-180,-90,180,90,EPSG:4326"
```

Done drawing /home/travis/build/jericks/geo-shell/examples/raster_add_raster_low.png!

```
geo-shell> map close --name mapLow
```

Map mapLow closed!

13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0
1.0	2.0	3.0	4.0

```
geo-shell> format open --name add --input examples/add.tif
```

Format add opened!

```
geo-shell> raster add raster --name1 high --name2 low --output-format add --output-name add
```

Added high to low to create add!

```
geo-shell> raster polygon --name add --output-workspace layers --output-name add_polygons
```

Done converting Raster add to a Polygon Layer add_polygons!

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/add.sld
```

Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/add.sld!

```
geo-shell> raster style set --name add --style examples/add.sld
```

Style /home/travis/build/jericks/geo-shell/examples/add.sld set on add

```
geo-shell> layer style set --name add_polygons --style examples/grid.sld
```

Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on add_polygons

```
geo-shell> map open --name mapAdd
```

Map mapAdd opened!

```
geo-shell> map add raster --name mapAdd --raster add
```

Added add layer to map mapAdd

```
geo-shell> map add layer --name mapAdd --layer add_polygons
Added add_polygons layer to map mapAdd
```

```
geo-shell> map draw --name mapAdd --file examples/raster_add_raster_add.png --bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_add_raster_add.png!
```

```
geo-shell> map close --name mapAdd
Map mapAdd closed!
```

30.0	32.0	34.0	36.0
22.0	24.0	26.0	28.0
14.0	16.0	18.0	20.0
6.0	8.0	10.0	12.0

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!
```

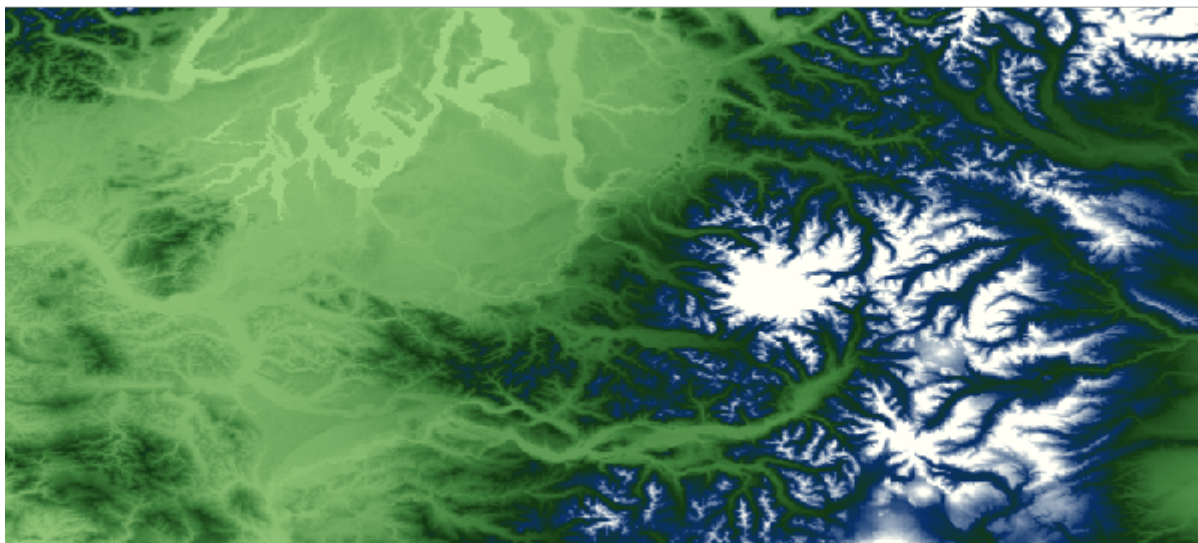
```
geo-shell> raster style set --name pcAdd100 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcAdd100
```

```
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

```
geo-shell> raster subtract raster --name1 high --name2 low --output-format subtract --output-name subtract
```

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		

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

```
geo-shell> raster open --format high --raster high --name high
Opened Format high Raster high as high
```

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

```
geo-shell> style create --params "stroke=black stroke-width=2 label=value label-size=12" --file
examples/grid.sld
Style      stroke=black      stroke-width=2      label=value      label-size=12      written      to
```

/home/travis/build/jericks/geo-shell/examples/grid.sld!

geo-shell> **raster polygon** --name high --output-workspace layers --output-name high_polygons
Done converting Raster high to a Polygon Layer high_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/high.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/high.sld!

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

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

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

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

geo-shell> **map add layer** --name mapHigh --layer high_polygons
Added high_polygons layer to map mapHigh

geo-shell> **map draw** --name mapHigh --file examples/raster_subtract_raster_high.png --bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_subtract_raster_high.png!

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

17.0	18.0	19.0	20.0
13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0

geo-shell> **format open** --name low --input src/test/resources/low.tif

Format low opened!

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

Opened Format low Raster low as low

geo-shell> **raster polygon** --name low --output-workspace layers --output-name low_polygons

Done converting Raster low to a Polygon Layer low_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/low.sld

Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/low.sld!

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

Style /home/travis/build/jericks/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld

Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on low_polygons

geo-shell> **map open** --name mapLow

Map mapLow opened!

geo-shell> **map add raster** --name mapLow --raster low

Added low layer to map mapLow

geo-shell> **map add layer** --name mapLow --layer low_polygons

Added low_polygons layer to map mapLow

geo-shell> **map draw** --name mapLow --file examples/raster_subtract_raster_low.png --bounds "-180,-90,180,90,EPSG:4326"

Done drawing /home/travis/build/jericks/geo-shell/examples/raster_subtract_raster_low.png!

geo-shell> **map close** --name mapLow

Map mapLow closed!

13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0
1.0	2.0	3.0	4.0

```
geo-shell> format open --name subtract --input examples/subtract.tif
Format subtract opened!
```

```
geo-shell> raster subtract raster --name1 high --name2 low --output-format subtract --output-name
subtract
Subtracted high from low to create subtract!
```

```
geo-shell> raster polygon --name subtract --output-workspace layers --output-name
subtract_polygons
Done converting Raster subtract to a Polygon Layer subtract_polygons!
```

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file
examples/subtract.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/subtract.sld!
```

```
geo-shell> raster style set --name subtract --style examples/subtract.sld
Style /home/travis/build/jericks/geo-shell/examples/subtract.sld set on subtract
```

```
geo-shell> layer style set --name subtract_polygons --style examples/grid.sld
Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on subtract_polygons
```

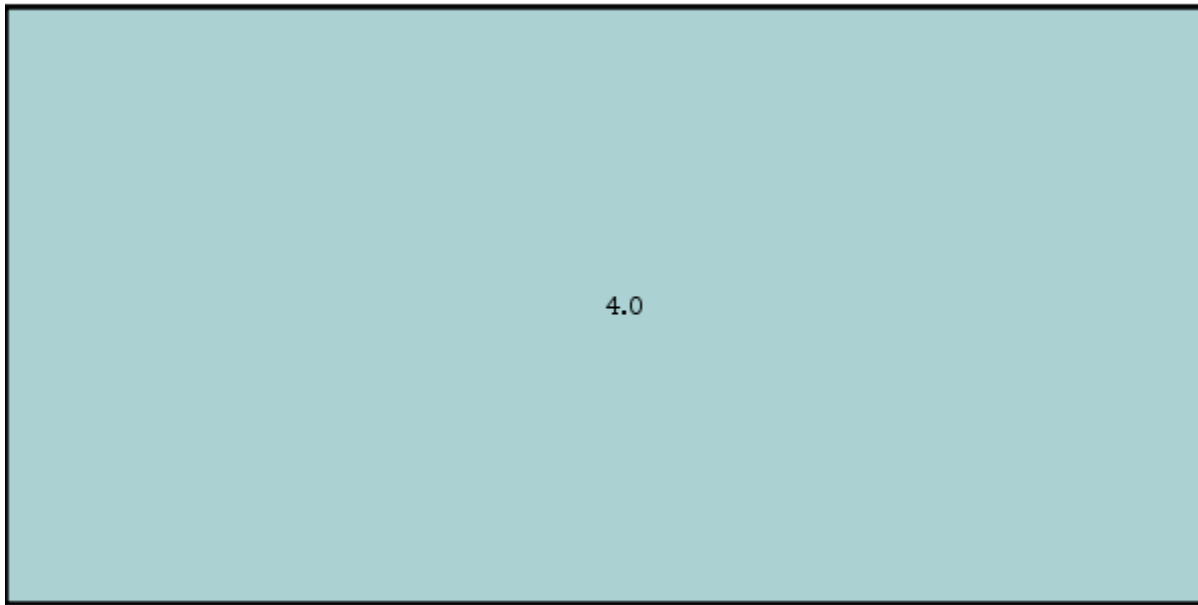
```
geo-shell> map open --name mapSubtract
Map mapSubtract opened!
```

```
geo-shell> map add raster --name mapSubtract --raster subtract
Added subtract layer to map mapSubtract
```

```
geo-shell> map add layer --name mapSubtract --layer subtract_polygons
Added subtract_polygons layer to map mapSubtract
```

```
geo-shell> map draw --name mapSubtract --file examples/raster_subtract_raster_subtract.png
--bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_subtract_raster_subtract.png!

geo-shell> map close --name mapSubtract
Map mapSubtract closed!
```



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!

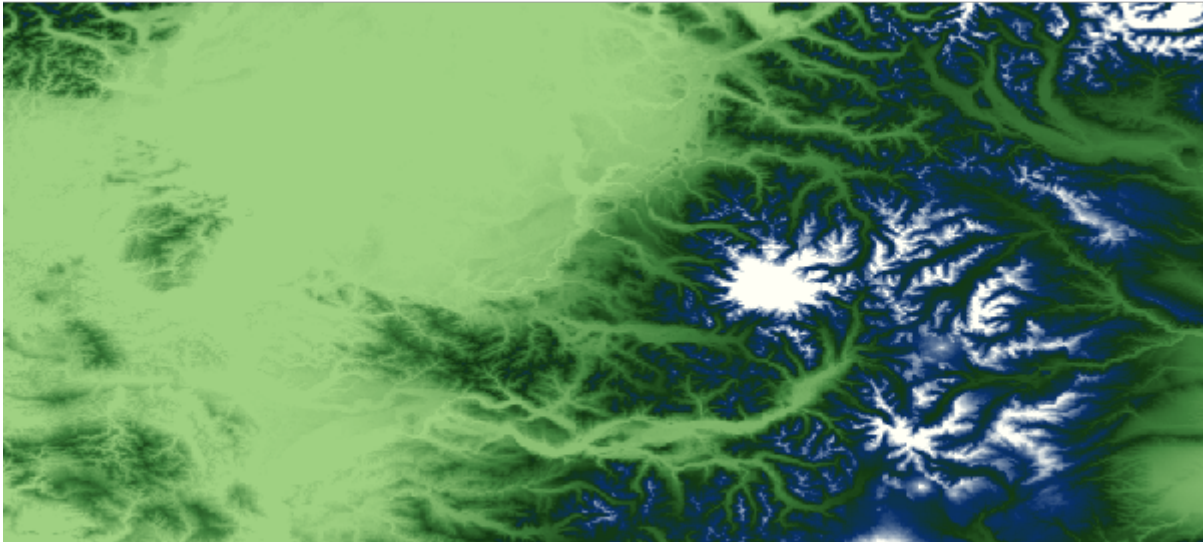
geo-shell> **raster style set** --name pcMinus100 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcMinus100

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

```
geo-shell> raster multiply raster --name1 high --name2 low --output-format multiply --output
-name multiply
```

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		

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

```
geo-shell> raster open --format high --raster high --name high
Opened Format high Raster high as high
```

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

```
geo-shell> style create --params "stroke=black stroke-width=2 label=value label-size=12" --file
examples/grid.sld
```

Style stroke=black stroke-width=2 label=value label-size=12 written to

/home/travis/build/jericks/geo-shell/examples/grid.sld!

geo-shell> **raster polygon** --name high --output-workspace layers --output-name high_polygons
Done converting Raster high to a Polygon Layer high_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/high.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/high.sld!

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

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

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

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

geo-shell> **map add layer** --name mapHigh --layer high_polygons
Added high_polygons layer to map mapHigh

geo-shell> **map draw** --name mapHigh --file examples/raster_multiply_raster_high.png --bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_multiply_raster_high.png!

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

17.0	18.0	19.0	20.0
13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0

geo-shell> **format open** --name low --input src/test/resources/low.tif

Format low opened!

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

Opened Format low Raster low as low

geo-shell> **raster polygon** --name low --output-workspace layers --output-name low_polygons

Done converting Raster low to a Polygon Layer low_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/low.sld

Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/low.sld!

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

Style /home/travis/build/jericks/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld

Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on low_polygons

geo-shell> **map open** --name mapLow

Map mapLow opened!

geo-shell> **map add raster** --name mapLow --raster low

Added low layer to map mapLow

geo-shell> **map add layer** --name mapLow --layer low_polygons

Added low_polygons layer to map mapLow

geo-shell> **map draw** --name mapLow --file examples/raster_multiply_raster_low.png --bounds "-180,-90,180,90,EPSG:4326"

Done drawing /home/travis/build/jericks/geo-shell/examples/raster_multiply_raster_low.png!

geo-shell> **map close** --name mapLow

Map mapLow closed!

13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0
1.0	2.0	3.0	4.0

```
geo-shell> format open --name multiply --input examples/multiply.tif
Format multiply opened!
```

```
geo-shell> raster multiply raster --name1 high --name2 low --output-format multiply --output
-name multiply
Multiplied high and low to create multiply!
```

```
geo-shell> raster polygon --name multiply --output-workspace layers --output-name
multiply_polygons
Done converting Raster multiply to a Polygon Layer multiply_polygons!
```

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file
examples/multiply.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/multiply.sld!
```

```
geo-shell> raster style set --name multiply --style examples/multiply.sld
Style /home/travis/build/jericks/geo-shell/examples/multiply.sld set on multiply
```

```
geo-shell> layer style set --name multiply_polygons --style examples/grid.sld
Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on multiply_polygons
```

```
geo-shell> map open --name mapSubtract
Map mapSubtract opened!
```

```
geo-shell> map add raster --name mapSubtract --raster multiply
Added multiply layer to map mapSubtract
```

```
geo-shell> map add layer --name mapSubtract --layer multiply_polygons
Added multiply_polygons layer to map mapSubtract
```

```

geo-shell> map draw --name mapSubtract --file examples/raster_multiply_raster_multiply.png
--bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_multiply_raster_multiply.png!

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

```

221.0	252.0	285.0	320.0
117.0	140.0	165.0	192.0
45.0	60.0	77.0	96.0
5.0	12.0	21.0	32.0

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!

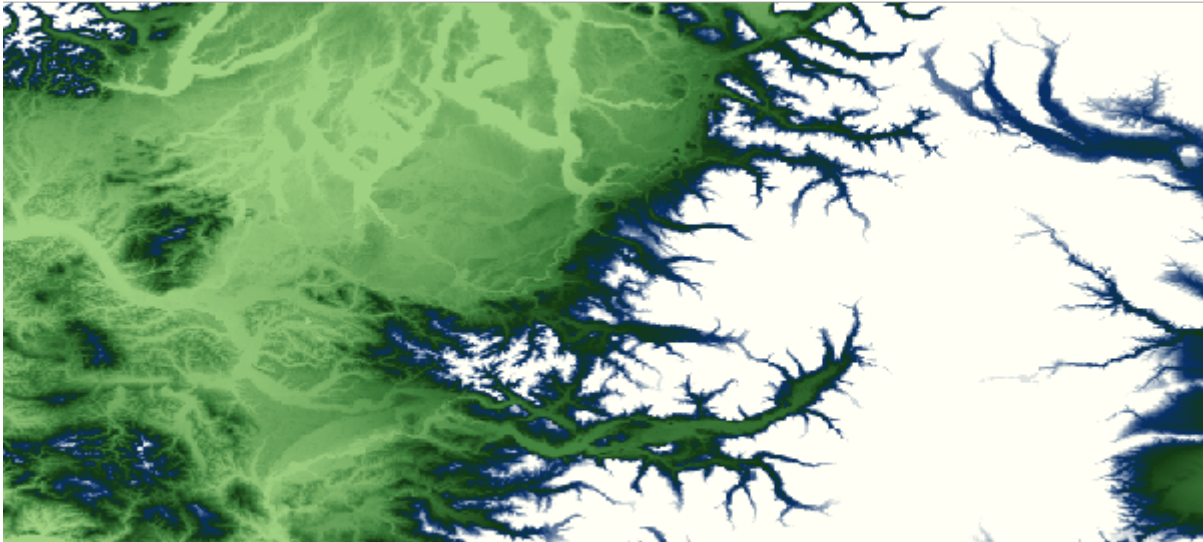
geo-shell> **raster style set** --name pcTimes2 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcTimes2

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

```
geo-shell> raster divide raster --name1 high --name2 low --output-format divide --output-name divide
```

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		

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

```
geo-shell> raster open --format high --raster high --name high  
Opened Format high Raster high as high
```

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

```
geo-shell> style create --params "stroke=black stroke-width=2 label=value label-size=12" --file  
examples/grid.sld  
Style      stroke=black      stroke-width=2      label=value      label-size=12      written      to
```

/home/travis/build/jericks/geo-shell/examples/grid.sld!

geo-shell> **raster polygon** --name high --output-workspace layers --output-name high_polygons
Done converting Raster high to a Polygon Layer high_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file
examples/high.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/high.sld!

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

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

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

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

geo-shell> **map add layer** --name mapHigh --layer high_polygons
Added high_polygons layer to map mapHigh

geo-shell> **map draw** --name mapHigh --file examples/raster_divide_raster_high.png --bounds "-
180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_divide_raster_high.png!

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

17.0	18.0	19.0	20.0
13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0

geo-shell> **format open** --name low --input src/test/resources/low.tif

Format low opened!

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

Opened Format low Raster low as low

geo-shell> **raster polygon** --name low --output-workspace layers --output-name low_polygons

Done converting Raster low to a Polygon Layer low_polygons!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/low.sld

Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/low.sld!

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

Style /home/travis/build/jericks/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld

Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on low_polygons

geo-shell> **map open** --name mapLow

Map mapLow opened!

geo-shell> **map add raster** --name mapLow --raster low

Added low layer to map mapLow

geo-shell> **map add layer** --name mapLow --layer low_polygons

Added low_polygons layer to map mapLow

geo-shell> **map draw** --name mapLow --file examples/raster_divide_raster_low.png --bounds "-180,-90,180,90,EPSG:4326"

Done drawing /home/travis/build/jericks/geo-shell/examples/raster_divide_raster_low.png!

geo-shell> **map close** --name mapLow

Map mapLow closed!

13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0
1.0	2.0	3.0	4.0

```
geo-shell> format open --name divide --input examples/divide.tif
Format divide opened!
```

```
geo-shell> raster divide raster --name1 high --name2 low --output-format divide --output-name divide
Divided high by low to create divide!
```

```
geo-shell> raster polygon --name divide --output-workspace layers --output-name divide_polygons
Done converting Raster divide to a Polygon Layer divide_polygons!
```

```
geo-shell> style raster palette colormap --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/divide.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/divide.sld!
```

```
geo-shell> raster style set --name divide --style examples/divide.sld
Style /home/travis/build/jericks/geo-shell/examples/divide.sld set on divide
```

```
geo-shell> layer style set --name divide_polygons --style examples/grid.sld
Style /home/travis/build/jericks/geo-shell/examples/grid.sld set on divide_polygons
```

```
geo-shell> map open --name mapSubtract
Map mapSubtract opened!
```

```
geo-shell> map add raster --name mapSubtract --raster divide
Added divide layer to map mapSubtract
```

```
geo-shell> map add layer --name mapSubtract --layer divide_polygons
Added divide_polygons layer to map mapSubtract
```

```
geo-shell> map draw --name mapSubtract --file examples/raster_divide_raster_divide.png --bounds
```


"-180,-90,180,90,EPSG:4326"

Done drawing /home/travis/build/jericks/geo-shell/examples/raster_divide_raster_divide.png!

geo-shell> **map close** --name mapSubtract

Map mapSubtract closed!

1.307692289352417	1.2857142857142857	1.2666666666666667	1.25
1.44444444179534912	1.399999976158142	1.3636363744735718	
1.7999999523162842	1.6666666269302368	1.5714285373687744	1.5
5.0	3.0	2.3333332538604736	2.0

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!

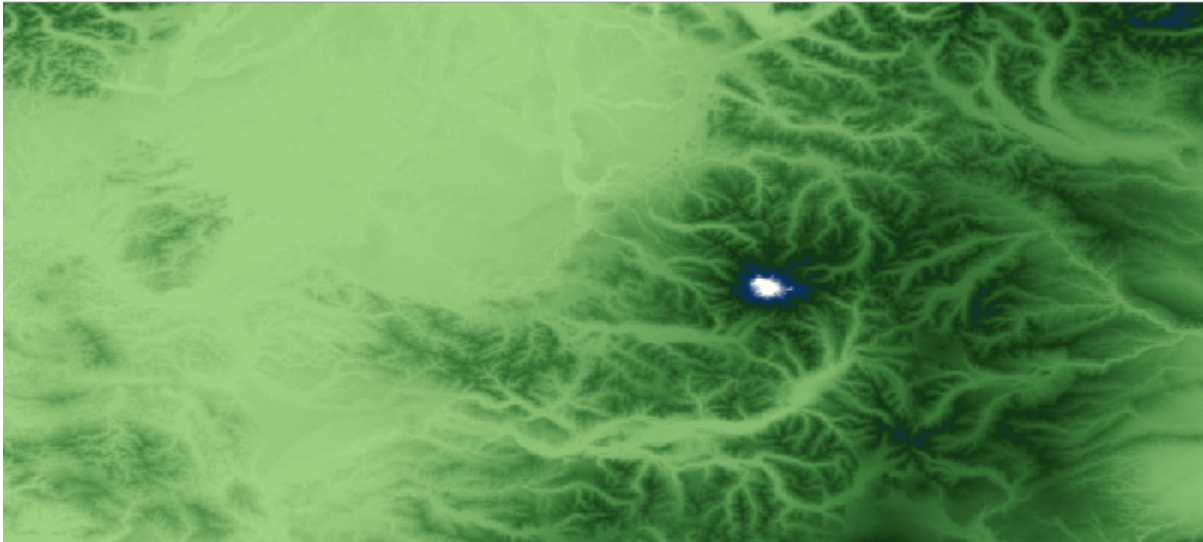
geo-shell> **raster style set** --name pcDividedBy2 --style examples/style_raster_colormap.sld
Style /home/travis/build/jericks/geo-shell/examples/style_raster_colormap.sld set on pcDividedBy2

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		

Polygon

Convert a raster in a polygon

geo-shell> **raster polygon** --name high --output-workspace layers --output-name grid

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 band	false	0	0
inside-edges	Whether to include inside edges	false	true	true
roi	The region of interest	false		
nodata	The NODATA value	false	0	0

ranges	The comma delimited reclassification ranges (min,minIncluded,max,maxIncluded)	false		
--------	---	-------	--	--

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

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

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

geo-shell> **raster polygon** --name high --output-workspace layers --output-name grid
Done converting Raster high to a Polygon Layer grid!

geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/high.sld
Colormap Palette Raster Style written to /home/travis/build/jericks/geo-shell/examples/high.sld!

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

geo-shell> **style create** --params "stroke=black stroke-width=2 label=value label-size=12" --file examples/grid.sld
Style stroke=black stroke-width=2 label=value label-size=12 written to /home/travis/build/jericks/geo-shell/examples/grid.sld!

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

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

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

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

geo-shell> **map draw** --name map --file examples/raster_polygon.png --bounds "-180,-90,180,90,EPSG:4326"
Done drawing /home/travis/build/jericks/geo-shell/examples/raster_polygon.png!

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

17.0	18.0	19.0	20.0
13.0	14.0	15.0	16.0
9.0	10.0	11.0	12.0
5.0	6.0	7.0	8.0