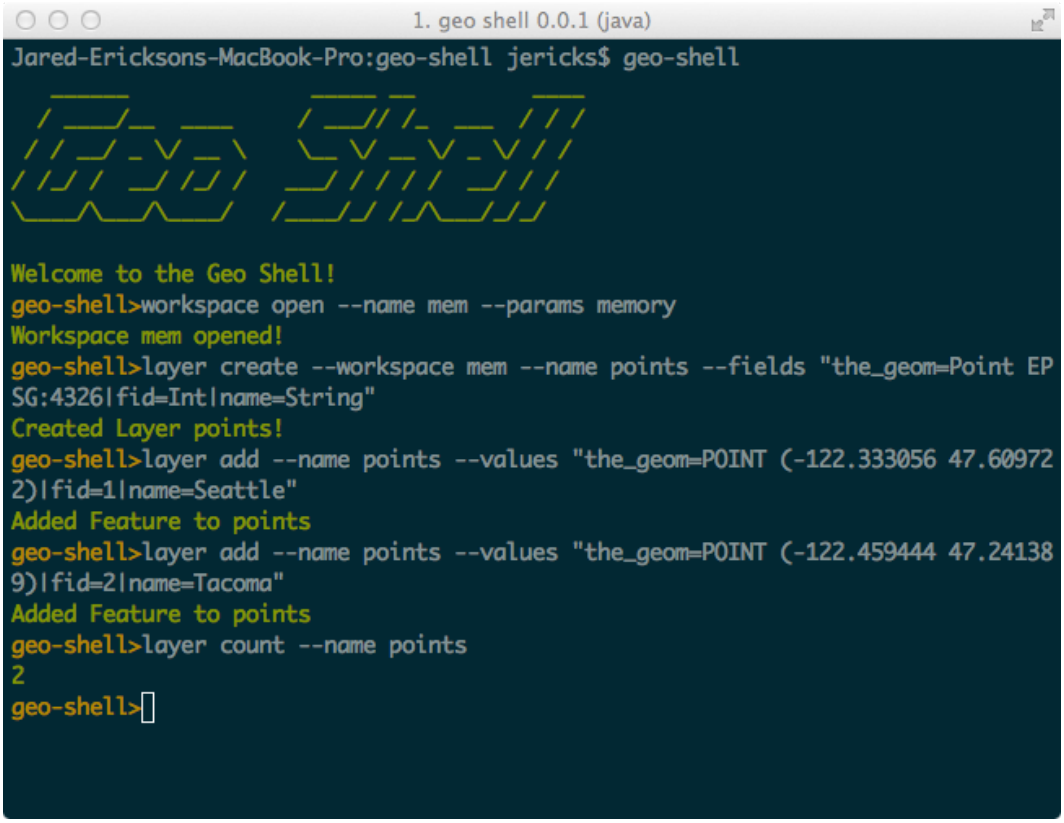


Geo Shell

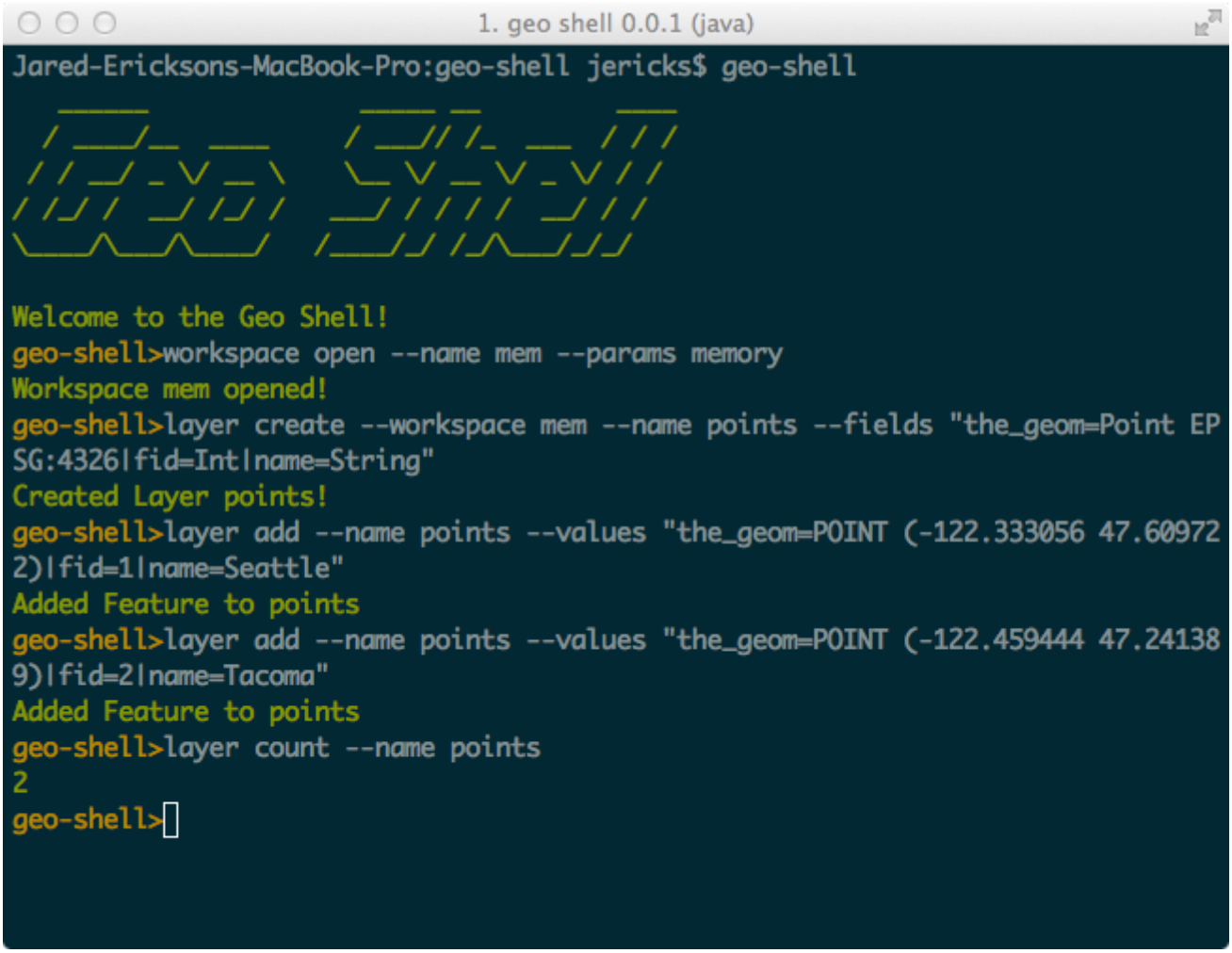
Jared Erickson

Version 0.11-SNAPSHOT

Table of Contents

Introduction

Geo Shell is an interactive shell for geospatial analysis.



Modules

Geo Shell has modules for dealing with **vectors**, **rasters**, **tiles**, **maps**, and **styles**.

For **vector** layers, you can use **workspace** commands access layers of spatial data in datasets like shapefiles, geopackages, or postgis databases. With **layer** commands you can perform geoprocessing functions like calculating centroids or buffer features.

For **raster** layers, you can use **format** commands access individual rasters from geotifs or world images. With **raster** commands you can perform mosaic, raster algebra, or crop functions.

The **tile** commands let you create tile layers, get tiles, and get rasters from tiles.

The **style** commands let you create styles for vector layers and raster.

The **map** commands allow you to visualize vector, raster, and tile layers.

Use

You can use geo-shell interactively by typing **geo-shell** at the command line.

Or you can write scripts and then execute them from the command line by typing **geo-shell --cmdfile script.txt**

Or by using the **script --file script.txt** command within a geo-shell session.

Workspace

Workspaces hold vector layers. A Workspace can be a GeoPackage database, a directory of Shapefiles, or a PostGIS database.

Basics

You can open, close, and list Workspaces. The eariest Workspace to open is an in memory Workspace.

Open

Open a Workspace.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Workspace name	true		
params	The connection parameters	true		

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

You can open a Workspace with --params or connection parameters. You can give it a name with --name flag.

List

List open Workspaces. NOTE: No parameters

geo-shell> **workspace list**
mem = Memory

Listing open Workspaces give you the name and the type Workspace.

Close

Close a Workspace.

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

geo-shell> **workspace close** --name mem
Workspace mem closed!

Once you close a Workspace by name it will no longer appear with the list command.

Layers

List the Layer in a Workspaces.

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

In this example, we will open a GeoPackage database filled with data from Natural Earth.

Open a Workspace

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

List open Workspaces

geo-shell> **workspace layers** --name naturalearth
countries
ocean
places
states

Close a Workspace

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Layer

Basics

Open

Open a Layer.

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		
layer	The Layer name	true		
name	The name	false		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Close

Close a Layer.

geo-shell> **layer close** --name countries

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer close** --name countries
Layer countries closed!

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

List

List open Layers.

geo-shell> **layer list**

No parameters

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer list**
countries = GeoPackage
ocean = GeoPackage
states = GeoPackage

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Schema

Inspect a Layer's Schema.

geo-shell> **layer schema** --name countries

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer schema** --name countries
Name Type
---------- ----------
the_geom MultiPolygon
ScaleRank Long
FeatureCla String
SOVEREIGNT String
SOVISO String
SOV_A3 String
LEVEL Double
TYPE String

NAME String
SORTNAME String
ADM0_A3 String
NAME_SM String
NAME_LNG String
TERR_ String
PARENTHETI String
NAME_ALT String
LOCAL_LNG String
LOCAL_SM String
FORMER String
ABBREV_ String
MAP_COLOR Double
PEOPLE Double
GDP_USDM Double
FIPS_10 String
ISO_A2 String
ISO_A3 String
ISO_N3 Double
ITU String
IOC String
FIFA String
DS String
WMO String
GAUL Double
MARC String
STANAG1059 String
GW_ID Double
DIAL Double
INTERNET_ String
COG String
ACTUAL String
CAPAY String
CRPAY String
ANI String
LIBENR String
ANCNOM String
PAYS_R_GIO String
COMMENT String

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Count

Count the Feature in a Layer.

geo-shell> **layer count** --name countries

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer count** --name countries
177

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Projection

Get the Projection of a Layer.

geo-shell> **layer projection** --name countries

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer projection** --name countries
EPSG:4326

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Features

Display the Features of a Layer.

geo-shell> **layer features** --name states --filter "NAME_1='North Dakota'"

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
filter	The CQL Filter	false		

sort	A Sort parameter (fld dir)	false		
start	The start index	false		-1
max	The maximum number of records	false		-1
field	A subfield to include	false		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer features** --name states --filter "NAME_1='North Dakota'"
Feature (states.3)
---
the_geom = MULTIPOLYGON
FID_1 = 31
ScaleRank = 2
FeatureCla = 1st Order Admin Polys
OBJECTID = 22
VertexCou = 223.0
ISO = USA
NAME_0 = United States
NAME_1 = North Dakota
VARNAME_1 = ND|N.D.
NL_NAME_1 =
HASC_1 = US.ND
TYPE_1 = State
ENGTYPE_1 = State
VALIDFR_1 = 18891102
VALIDTO_1 = Present
REMARKS_1 =
Region =
RegionVar =
ProvNumber = 23
NEV_Countr = United States
FIRST_FIPS =
FIRST_HASC =
FIPS_1 = US38
gadm_level = 1.0
CheckMe = 0
Region_Cod =
Region_C_1 =
ScaleRan_1 = 1
Region_C_2 =

Region_C_3 =
Country_Pr =

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Get Style

Get the Layer's style.

geo-shell> **layer style get** --name states --style target/states.sld

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **style vector default** --layer states --color #1E90FF --file examples/states_simple.sld
Default Vector Style for states written to /home/runner/work/geo-shell/geo-shell/examples/states_simple.sld!

geo-shell> **layer style get** --name states --style target/states.sld
states style written to /home/runner/work/geo-shell/geo-shell/target/states.sld

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#f2f2f2</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke">#a9a9a9</sld:CssParameter>
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

Set Style

Set a Layer's style

geo-shell> **layer style get** --name states --style target/states_simple.sld

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

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **style vector default** --layer states --color #1E90FF --file examples/states_simple.sld

Default Vector Style for states written to /home/runner/work/geo-shell/geo-shell/examples/states_simple.sld!

geo-shell> **layer style get** --name states --style target/states_simple.sld
states style written to /home/runner/work/geo-shell/geo-shell/target/states_simple.sld

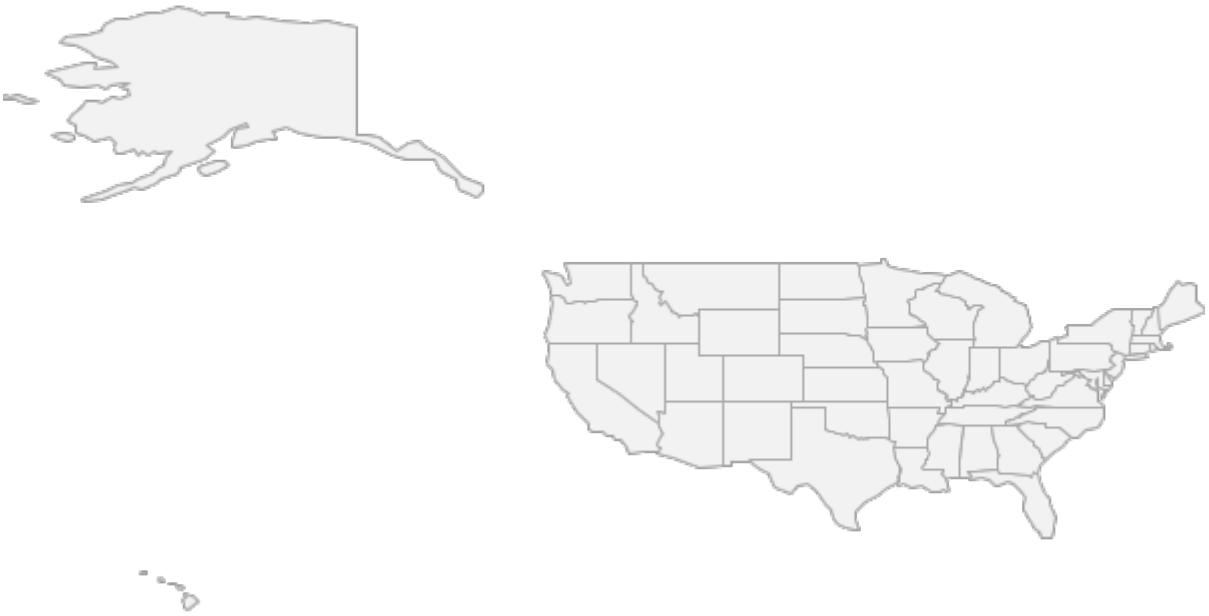
geo-shell> **map open** --name map
Map map opened!

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

geo-shell> **map draw** --name map --file examples/layer_set_style.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_set_style.png!

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

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!



Copy

Copy one Layer to another Workspace.

geo-shell> **layer copy** --input-name states_gpkg --output-workspace shapefiles --output-name states

Name	Description	Mandatory	Specified Default	Unspecified Default

input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
filter	The CQL Filter	false		
sort	A Sort parameter (fld dir)	false		
start	The start index	false		-1
max	The maximum number of records	false		-1
field	A subfield to include	false		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states_gpkg
Opened Workspace naturalearth Layer states as states_gpkg

geo-shell> **workspace open** --name shapefiles --params target/
Workspace shapefiles opened!

geo-shell> **layer copy** --input-name states_gpkg --output-workspace shapefiles --output-name states
Done!

geo-shell> **layer count** --name states
52

geo-shell> **workspace close** --name shapefiles
Workspace shapefiles closed!

geo-shell> **workspace close** --name naturalearth
Workspace naturalearth closed!

Create

Create a new Layer.

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326|fid=Int|name=String"

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		

name	The new Layer name	true		
fields	The pipe delimited list of fields (name=type)	true		

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326|fid=Int|name=String"
Created Layer points!

geo-shell> **layer schema** --name points
Name Type
---------- ----------
the_geom Point
fid Integer
name String

Add

Add a new Feature to a Layer.

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.333056 47.609722)|fid=1|name=Seattle"

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
values	The pipe delimited list of values (field=value)	true		

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326|fid=Int|name=String"
Created Layer points!

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.333056 47.609722)|fid=1|name=Seattle"
Added Feature to points

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.459444 47.241389)|fid=2|name=Tacoma"
Added Feature to points

geo-shell> **layer count** --name points
2

Delete

Delete features from the Layer

geo-shell> **layer delete** --name points --filter "fid=2"

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
filter	The CQL Filter	true		

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326|fid=Int|name=String"
Created Layer points!

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.333056 47.609722)|fid=1|name=Seattle"
Added Feature to points

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.459444 47.241389)|fid=2|name=Tacoma"
Added Feature to points

geo-shell> **layer count** --name points
2

geo-shell> **layer delete** --name points --filter "fid=2"
Deleted fid=2 Features from points

geo-shell> **layer count** --name points
1

Remove

Remove a Layer from a Workspace.

geo-shell> **layer remove** --layer polygons --workspace mem

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		

layer	The Layer name	true		

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326|fid=Int|name=String"
Created Layer points!

geo-shell> **layer create** --workspace mem --name lines --fields "the_geom=LineString EPSG:4326|fid=Int|name=String"
Created Layer lines!

geo-shell> **layer create** --workspace mem --name polygons --fields "the_geom=Polygon EPSG:4326|fid=Int|name=String"
Created Layer polygons!

geo-shell> **workspace layers** --name mem
lines
points
polygons

geo-shell> **layer remove** --layer polygons --workspace mem
Layer polygons removed from Workspace mem

geo-shell> **workspace layers** --name mem
lines
points

Update Field

Update the values of a field

geo-shell> **layer updatefield** --name points --field state --value WA

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
field	The field name	true		
value	The value	true		
filter	The CQL Filter	false	INCLUDE	INCLUDE
script	Whether the value is a script or not	false	false	false

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point

EPSG:4326|fid=Int|name=String|state=String"
Created Layer points!

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.333056 47.609722)|fid=1|name=Seattle"
Added Feature to points

geo-shell> **layer add** --name points --values "the_geom=POINT (-122.459444 47.241389)|fid=2|name=Tacoma"
Added Feature to points

geo-shell> **layer updatefield** --name points --field state --value WA
Done updating state with WA!

geo-shell> **layer features** --name points
Feature (fid—5b97d704_17df34330f0_-6480)
----
the_geom = POINT (-122.333056 47.609722)
fid = 1
name = Seattle
state = WA

Feature (fid—5b97d704_17df34330f0_-647e)
----
the_geom = POINT (-122.459444 47.241389)
fid = 2
name = Tacoma
state = WA

Add Fields

Add Fields to the input Layer and save the result to the output Layer

geo-shell> **layer addfields** --input-name points --output-workspace mem --output-name points2 --fields "name=String,state=String"

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
fields	The Fields (name=type proj)	true		

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

geo-shell> **layer create** --workspace mem --name points --fields "the_geom=Point EPSG:4326"
Created Layer points!

geo-shell> **layer addfields** --input-name points --output-workspace mem --output-name points2 --fields "name=String,state=String"
Done!

geo-shell> **layer schema** --name points2
Name Type
---------- ----------
the_geom Point
name String
state String

Add Area Field

Add area Field to the input Layer and save the result to the output Layer

geo-shell> **layer addareafield** --input-name states --output-workspace mem --output-name states_area --area-fieldname AREA

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
area-fieldname	The area field name	true	area	area

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer addareafield** --input-name states --output-workspace mem --output-name states_area --area-fieldname AREA
Done!

geo-shell> **layer schema** --name states_area
Name Type
---------- ----------
the_geom MultiPolygon

FID_1 Long
ScaleRank Long
FeatureCla String
OBJECTID Long
VertexCou Double
ISO String
NAME_0 String
NAME_1 String
VARNAME_1 String
NL_NAME_1 String
HASC_1 String
TYPE_1 String
ENGTYPE_1 String
VALIDFR_1 String
VALIDTO_1 String
REMARKS_1 String
Region String
RegionVar String
ProvNumber Long
NEV_Countr String
FIRST_FIPS String
FIRST_HASC String
FIPS_1 String
gadm_level Double
CheckMe Long
Region_Cod String
Region_C_1 String
ScaleRan_1 Long
Region_C_2 String
Region_C_3 String
Country_Pr String
AREA Double

geo-shell> **layer features** --name states_area --filter "NAME_1='North Dakota'" --field "NAME_0,AREA"
Feature (fid—5b97d704_17df34330f0_-6479)

NAME_0 = United States
AREA = 21.804544852979944

Add ID Field

Add area ID to the input Layer and save the result to the output Layer

geo-shell> **layer addidfield** --input-name places --output-workspace mem --output-name places_id --id-fieldname ID --start-value 1

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
id-fieldname	The id field name	true	id	id
start-value	The value to start at	true	1	1

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer places --name places
Opened Workspace naturalearth Layer places as places

geo-shell> **layer addidfield** --input-name places --output-workspace mem --output-name places_id --id-fieldname ID --start-value 1
Done!

geo-shell> **layer schema** --name places_id
Name Type
---------- ----------
the_geom Point
SCALERANK Long
NATSCALE Long
LABELRANK Long
FEATURECLA String
NAME String
NAMEPAR String
NAMEALT String
DIFFASCII Long
NAMEASCII String
ADM0CAP Double
CAPALT Double
CAPIN String
WORLDCITY Double
MEGACITY Long
SOV0NAME String
SOV_A3 String
ADM0NAME String
ADM0_A3 String

ADM1NAME String
ISO_A2 String
NOTE String
LATITUDE Double
LONGITUDE Double
CHANGED Double
NAMEDIFF Long
DIFFNOTE String
POP_MAX Long
POP_MIN Long
POP_OTHER Long
GEONAMEID Double
MEGANAME String
LS_NAME String
LS_MATCH Long
CHECKME Long
MAX_POP10 Long
MAX_POP20 Long
MAX_POP50 Long
MAX_POP300 Long
MAX_POP310 Long
MAX_NATSCA Long
MIN_AREAKM Long
MAX_AREAKM Double
MIN_AREAMI Double
MAX_AREAMI Double
MIN_PERKM Double
MAX_PERKM Double
MIN_PERMI Double
MAX_PERMI Double
MIN_BBXMIN Double
MAX_BBXMIN Double
MIN_BBXMAX Double
MAX_BBXMAX Double
MIN_BBYMIN Double
MAX_BBYMIN Double
MIN_BBYMAX Double
MAX_BBYMAX Double
MEAN_BBXC Double
MEAN_BBYC Double
COMPARE Long
GN_ASCII String
FEATURE_CL String
FEATURE_CO String
ADMIN1_COD Double
GN_POP Long
ELEVATION Double
GTOPO30 Double

TIMEZONE String
GEONAMESNO String
UN_FID Long
UN_ADM0 String
UN_LAT Double
UN_LONG Double
POP1950 Double
POP1955 Double
POP1960 Double
POP1965 Double
POP1970 Double
POP1975 Double
POP1980 Double
POP1985 Double
POP1990 Double
POP1995 Double
POP2000 Double
POP2005 Double
POP2010 Double
POP2015 Double
POP2020 Double
POP2025 Double
POP2050 Double
CITYALT String
popDiff Long
popPerc Double
ls_gross Long
ID Integer

geo-shell> **layer features** --name places_id --filter "NAME='Seattle'" --field "NAME,ID"
Feature (fid—5b97d704_17df34330f0_-65be)

NAME = Seattle
ID = 10

Add XY Fields

Add x and y coordinate Fields to the input Layer and save the result to the output Layer

geo-shell> **layer addxyfields** --input-name places --output-workspace mem --output-name places_xy --x-fieldname X --y-fieldname Y

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

output-name	The output Layer name	true		
x-fieldname	The x field name	true	x	x
y-fieldname	The y field name	true	y	y

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer places --name places
Opened Workspace naturalearth Layer places as places

geo-shell> **layer addxyfields** --input-name places --output-workspace mem --output-name places_xy --x-fieldname X --y-fieldname Y
Done!

geo-shell> **layer schema** --name places_xy
Name Type
---------- ----------
the_geom Point
SCALERANK Long
NATSCALE Long
LABELRANK Long
FEATURECLA String
NAME String
NAMEPAR String
NAMEALT String
DIFFASCII Long
NAMEASCII String
ADM0CAP Double
CAPALT Double
CAPIN String
WORLDCITY Double
MEGACITY Long
SOV0NAME String
SOV_A3 String
ADM0NAME String
ADM0_A3 String
ADM1NAME String
ISO_A2 String
NOTE String
LATITUDE Double
LONGITUDE Double
CHANGED Double
NAMEDIFF Long
DIFFNOTE String

POP_MAX Long
POP_MIN Long
POP_OTHER Long
GEONAMEID Double
MEGANAME String
LS_NAME String
LS_MATCH Long
CHECKME Long
MAX_POP10 Long
MAX_POP20 Long
MAX_POP50 Long
MAX_POP300 Long
MAX_POP310 Long
MAX_NATSCA Long
MIN_AREAKM Long
MAX_AREAKM Double
MIN_AREAMI Double
MAX_AREAMI Double
MIN_PERKM Double
MAX_PERKM Double
MIN_PERMI Double
MAX_PERMI Double
MIN_BBXMIN Double
MAX_BBXMIN Double
MIN_BBXMAX Double
MAX_BBXMAX Double
MIN_BBYMIN Double
MAX_BBYMIN Double
MIN_BBYMAX Double
MAX_BBYMAX Double
MEAN_BBXC Double
MEAN_BBYC Double
COMPARE Long
GN_ASCII String
FEATURE_CL String
FEATURE_CO String
ADMIN1_COD Double
GN_POP Long
ELEVATION Double
GTOPO30 Double
TIMEZONE String
GEONAMESNO String
UN_FID Long
UN_ADM0 String
UN_LAT Double
UN_LONG Double
POP1950 Double
POP1955 Double

POP1960 Double
POP1965 Double
POP1970 Double
POP1975 Double
POP1980 Double
POP1985 Double
POP1990 Double
POP1995 Double
POP2000 Double
POP2005 Double
POP2010 Double
POP2015 Double
POP2020 Double
POP2025 Double
POP2050 Double
CITYALT String
popDiff Long
popPerc Double
ls_gross Long
X Double
Y Double

geo-shell> **layer features** --name places_xy --filter "NAME='Seattle'" --field "NAME,X,Y"
Feature (fid—5b97d704_17df34330f0_-4c6e)

NAME = Seattle
X = -122.34193084586849
Y = 47.57194791253073

Validity

Check for invalid geometries in the Layer.

geo-shell> **layer validity** --name areas

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
fields	A comma delimited list of Fields to include	false		

geo-shell> **workspace open** --name areas --params src/test/resources/invalid.properties
Workspace areas opened!

geo-shell> **layer open** --workspace areas --layer invalid --name areas
Opened Workspace areas Layer invalid as areas

geo-shell> **layer validity** --name areas
Values Reason
---------- ----------
invalid.1360815594529 Self-intersection

Fix

Fix the geometries of the features of the input Layer and save them to the output Layer

geo-shell> **layer fix** --input-name lines --output-workspace mem --output-name lines_fixed

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

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

geo-shell> **layer create** --workspace mem --name lines --fields "the_geom=LineString EPSG:4326|fid=Int|name=String"
Created Layer lines!

geo-shell> **layer add** --name lines --values "the_geom=LINESTRING (0 0, 0 0, 0 0, 1 1)|fid=1|name=Location 1"
Added Feature to lines

geo-shell> **layer add** --name lines --values "the_geom=LINESTRING (1 1, 2 2, 2 2, 2 2, 3 3)|fid=2|name=Location 2"
Added Feature to lines

geo-shell> **layer fix** --input-name lines --output-workspace mem --output-name lines_fixed
Done!

geo-shell> **layer features** --name lines_fixed
Feature (fid—5b97d704_17df34330f0_-6435)
---
the_geom = LINESTRING (0 0, 1 1)
fid = 1
name = Location 1

Feature (fid—5b97d704_17df34330f0_-6434)
---
the_geom = LINESTRING (1 1, 2 2, 3 3)
fid = 2

name = Location 2

Geoprocessing

Clip

Clip the input Layer by the other Layer to produce the output Layer

geo-shell> **layer clip** --input-name a --clip-name b --output-workspace results --output-name results

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

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer clip** --input-name a --clip-name b --output-workspace results --output-name results
Done clipping a to b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld

Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

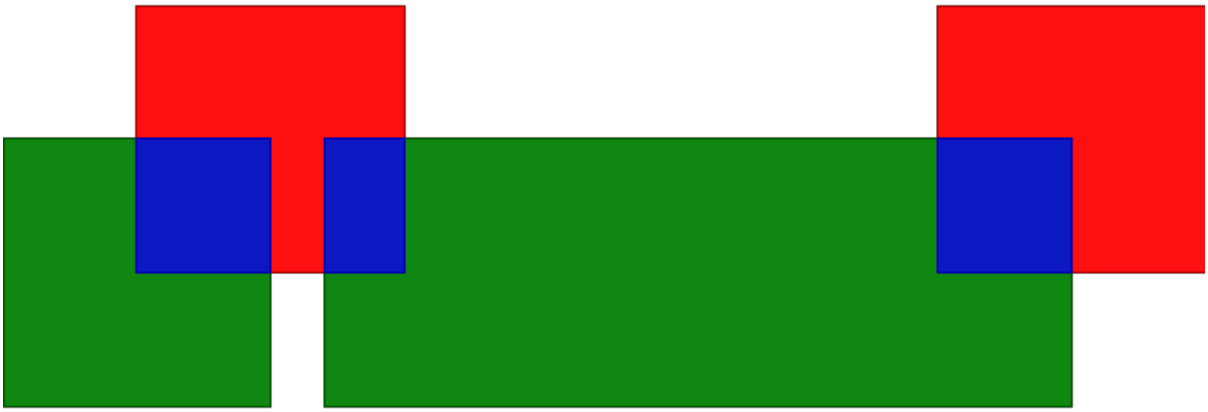
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_clip.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_clip.png!

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



Convex Hull

Calculate the convexhull of the input Layer and save it to the output Layer.

geo-shell> **layer convexhull** --input-name countries --output-workspace layers --output-name convexhull

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer convexhull** --input-name countries --output-workspace layers --output-name convexhull
Done!

geo-shell> **style vector default** --layer convexhull --color #1E90FF --opacity 0.25 --file examples/convexhull.sld
Default Vector Style for convexhull written to /home/runner/work/geo-shell/geo-shell/examples/convexhull.sld!

geo-shell> **layer style set** --name convexhull --style examples/convexhull.sld
Style /home/runner/work/geo-shell/geo-shell/examples/convexhull.sld set on convexhull

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

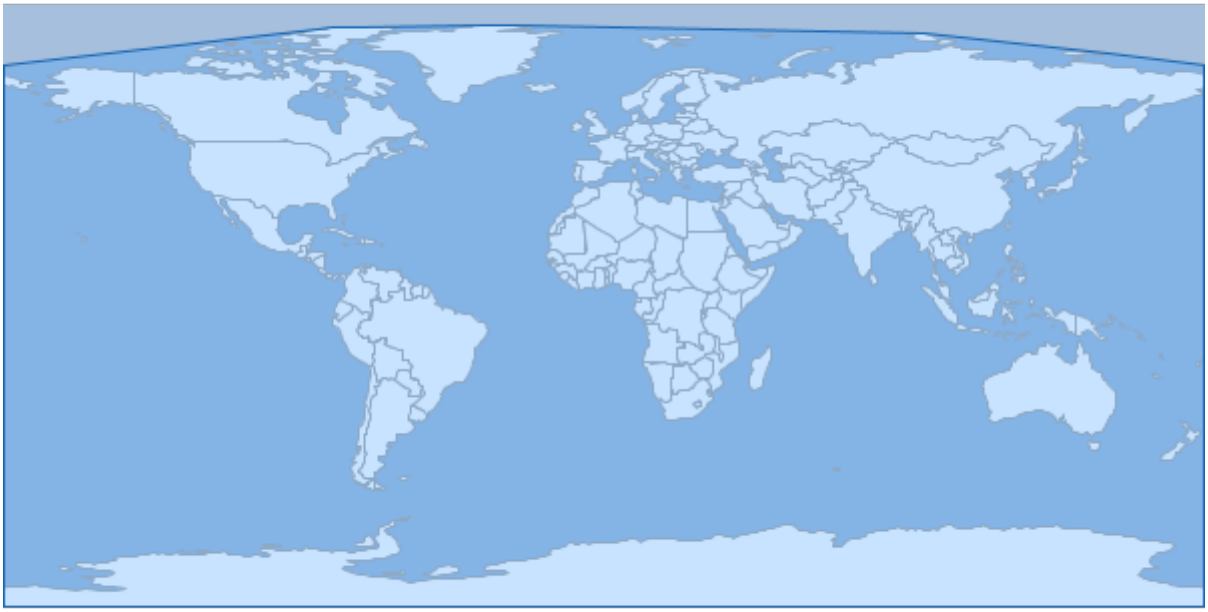
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_convexhull.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_convexhull.png!

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



Convex Hulls

Calculate the convexhull of each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer convexhulls** --input-name countries --output-workspace layers --output-name convexhulls

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg

Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer convexhulls** --input-name countries --output-workspace layers --output-name convexhulls
Done!

geo-shell> **style vector default** --layer convexhulls --color #1E90FF --opacity 0.25 --file examples/convexhulls.sld
Default Vector Style for convexhulls written to /home/runner/work/geo-shell/geo-shell/examples/convexhulls.sld!

geo-shell> **layer style set** --name convexhulls --style examples/convexhulls.sld
Style /home/runner/work/geo-shell/geo-shell/examples/convexhulls.sld set on convexhulls

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

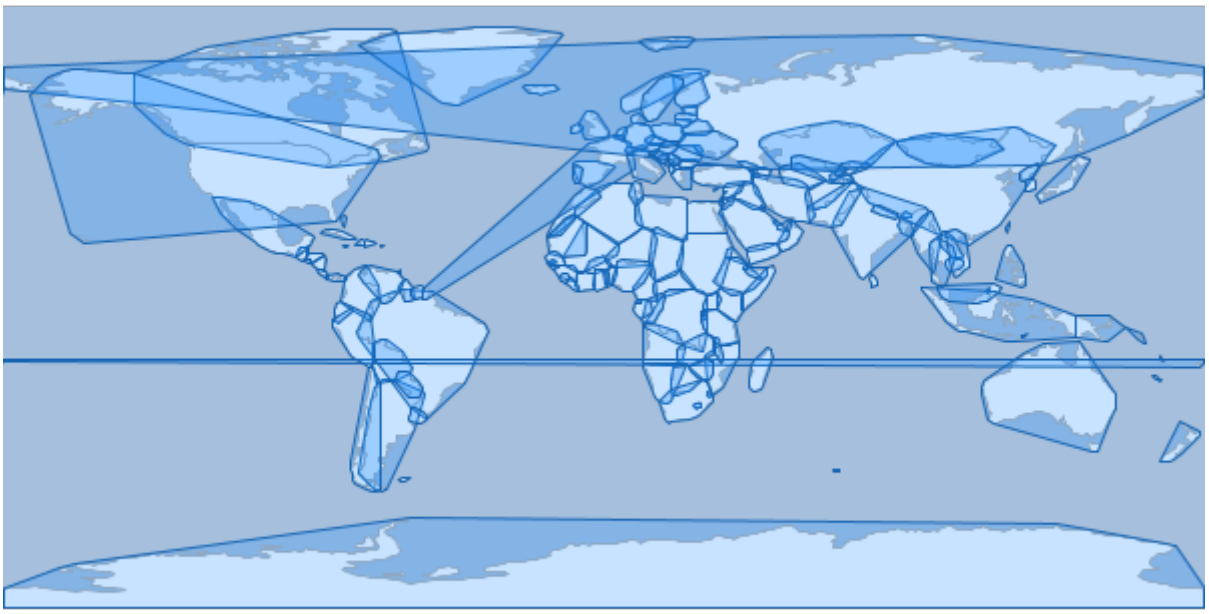
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_convexhulls.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_convexhulls.png!

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



Coordinates

Extract the coordinates each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer coordinates** --input-name states --output-workspace layers --output-name coordinates

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer coordinates** --input-name states --output-workspace layers --output-name coordinates
Done!

geo-shell> **style vector default** --layer coordinates --color #1E90FF --opacity 0.75 --file examples/coordinates.sld
Default Vector Style for coordinates written to /home/runner/work/geo-shell/geo-shell/examples/coordinates.sld!

geo-shell> **layer style set** --name coordinates --style examples/coordinates.sld
Style /home/runner/work/geo-shell/geo-shell/examples/coordinates.sld set on coordinates

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

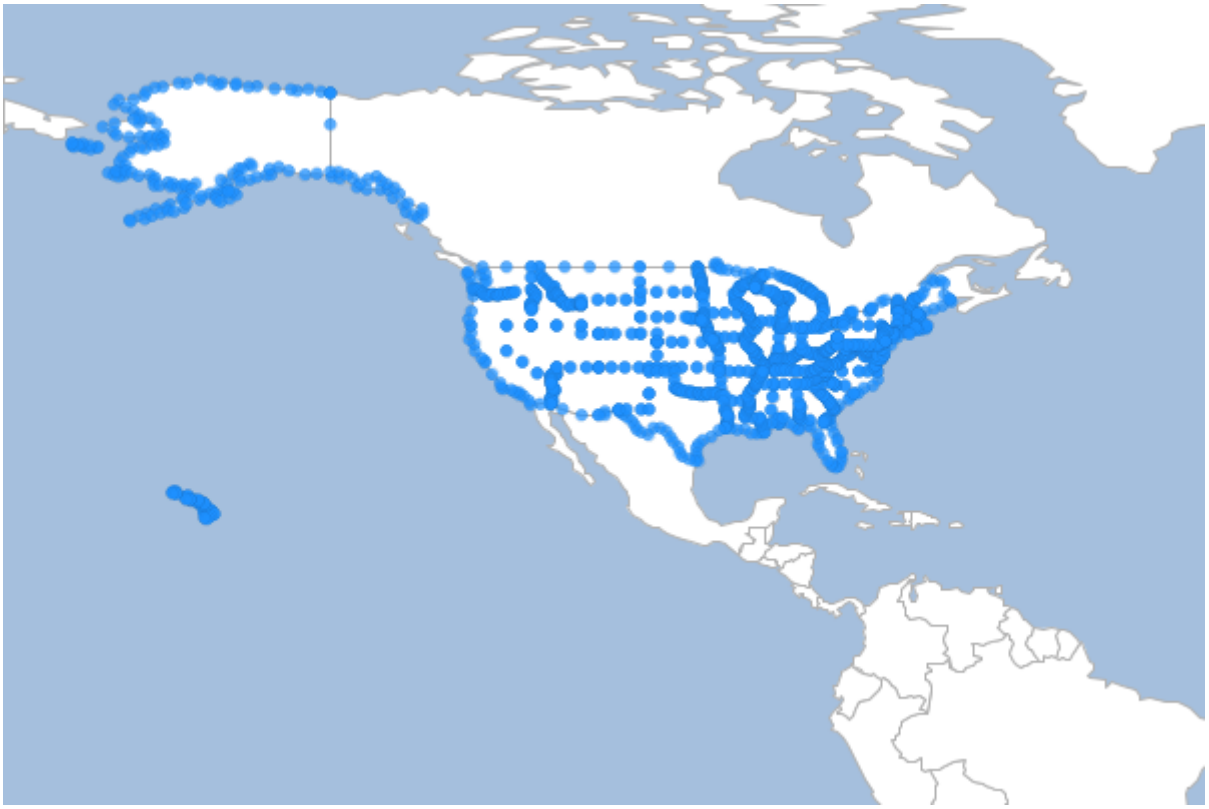
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_coordinates.png --bounds "-180,-8.233,-36.738,73.378"
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_coordinates.png!

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



Delaunay

Calculate a delaunay diagram of the input Layer and save it to the output Layer.

geo-shell> **layer delaunay** --input-name places --output-workspace layers --output-name delaunay

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer places --name places
Opened Workspace naturalearth Layer places as places

geo-shell> **layer delaunay** --input-name places --output-workspace layers --output-name delaunay
Done!

geo-shell> **style vector default** --layer delaunay --color #1E90FF --opacity 0.25 --file examples/delaunay.sld
Default Vector Style for delaunay written to /home/runner/work/geo-shell/geo-shell/examples/delaunay.sld!

geo-shell> **layer style set** --name delaunay --style examples/delaunay.sld
Style /home/runner/work/geo-shell/geo-shell/examples/delaunay.sld set on delaunay

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

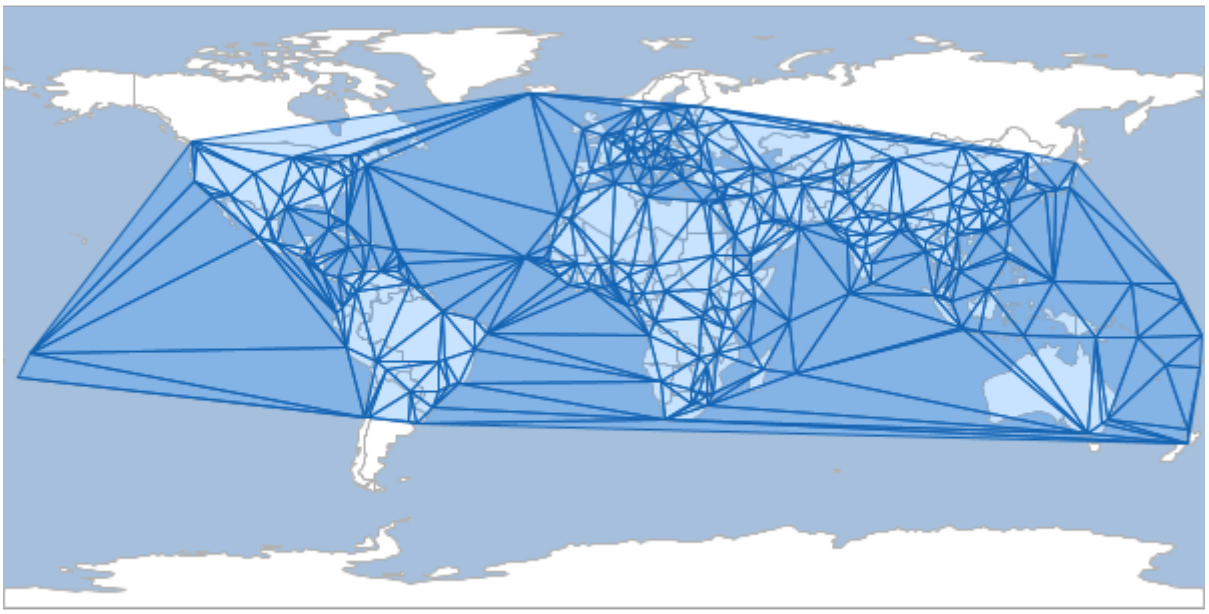
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_delaunay.png!
geo-shell> **map draw** --name map --file examples/layer_delaunay.png

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



Densify

Densify the features of the input Layer and save them to the output Layer

geo-shell> **layer densify** --input-name states --output-workspace layers --output-name states_densified --distance 0.1

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
distance	The distance tolerance	true		

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer densify** --input-name states --output-workspace layers --output-name

states_densified --distance 0.1
Done!

geo-shell> **layer coordinates** --input-name states_densified --output-workspace layers --output-name coordinates
Done!

geo-shell> **style vector default** --layer coordinates --color #1E90FF --opacity 0.75 --file examples/coordinates.sld
Default Vector Style for coordinates written to /home/runner/work/geo-shell/geo-shell/examples/coordinates.sld!

geo-shell> **layer style set** --name coordinates --style examples/coordinates.sld
Style /home/runner/work/geo-shell/geo-shell/examples/coordinates.sld set on coordinates

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

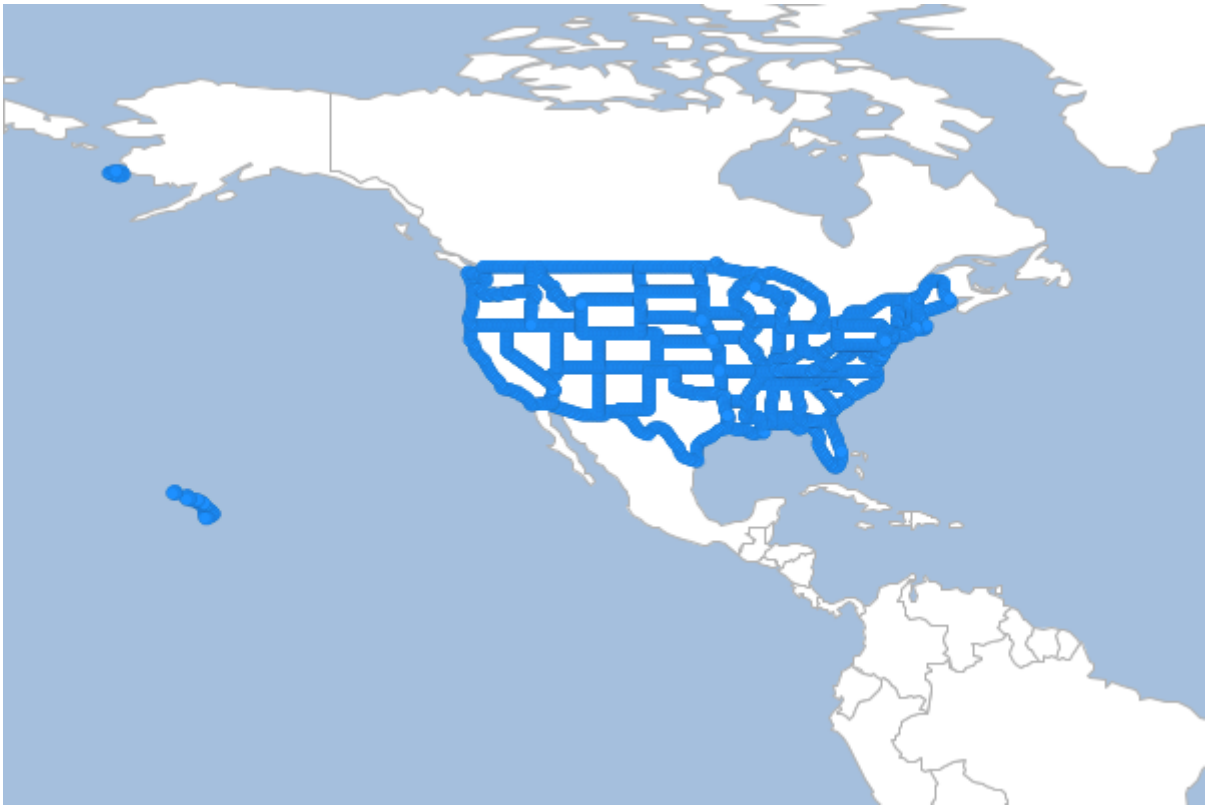
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_densify.png!
geo-shell> **map draw** --name map --file examples/layer_densify.png --bounds "-180,-8.233,-36.738,73.378"

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



Dissolve

Dissolve the Features of a Layer by a Field.

geo-shell> **layer dissolve** --input-name states --output-workspace layers --output-name regions --field SUB_REGION

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
field	The field to use to dissolve features	true		
idField	The name of the id field	false	id	id
countField	The name of the count field	false	count	count

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

geo-shell> **workspace open** --name shapefiles --params examples/states/states.shp
Workspace shapefiles opened!

geo-shell> **layer open** --workspace shapefiles --layer states --name states
Opened Workspace shapefiles Layer states as states

geo-shell> **layer dissolve** --input-name states --output-workspace layers --output-name regions --field SUB_REGION
Done dissolving states to regions by SUB_REGION!

geo-shell> **style vector uniquevalues** --layer regions --field SUB_REGION --colors MutedTerrain --file [silver] examples/regions.sld
Unique Values Vector Style for regions's SUB_REGION Field written to /home/runner/work/geo-shell/geo-shell/examples/regions.sld!

geo-shell> **layer style set** --name regions --style examples/regions.sld
Style /home/runner/work/geo-shell/geo-shell/examples/regions.sld set on regions

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

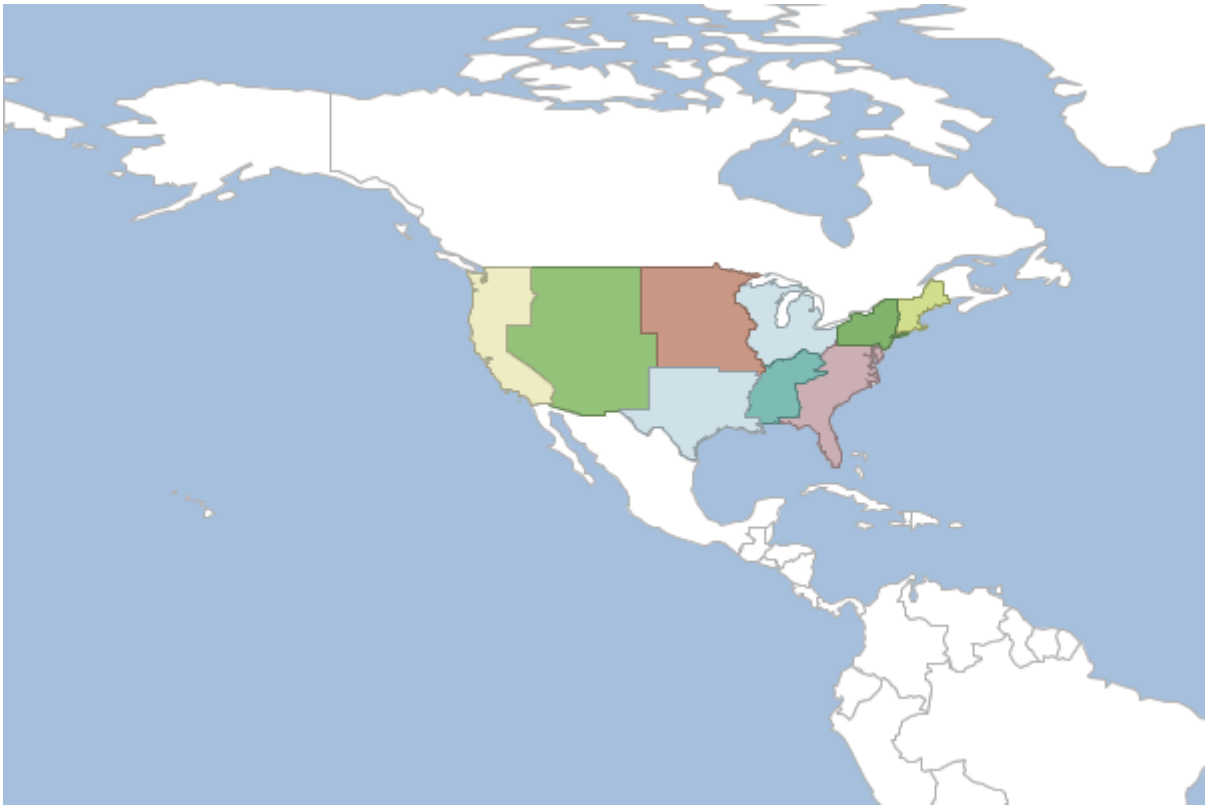
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_dissolve.png!
geo-shell> **map draw** --name map --file examples/layer_dissolve.png --bounds "-180,-8.233,-36.738,73.378"

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



Erase

Erase one Layer from another Layer

geo-shell> **layer erase** --input-name a --other-name b --output-workspace results --output-name results

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

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b

Opened Workspace layers Layer b as b

geo-shell> **layer erase** --input-name a --other-name b --output-workspace results --output-name results
Done erasing a from b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

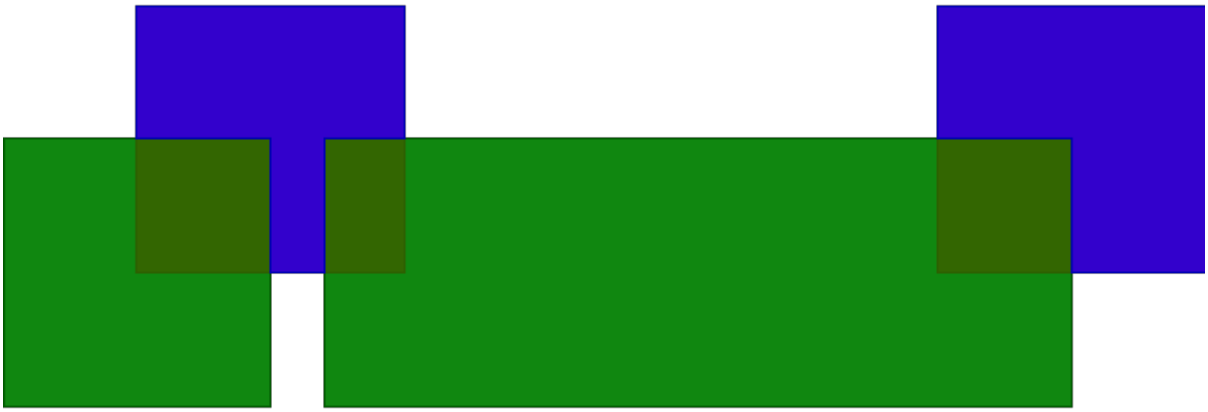
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_erase.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_erase.png!

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



Grid Row / Column

Create a grid Layer with rows and columns

geo-shell> **layer grid rowcol** --output-workspace layers --output-name rowcol --geometry -180,-90,180,90 --rows 10 --columns 8

Name	Description	Mandatory	Specified Default	Unspecified Default
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
rows	The number of rows	true		
columns	The number of columns	true		
geometry	The constraining geometry	true		
type	The geometry type (point or polygon	false	polygon	polygon
projection	The projection	false	EPSG:4326	EPSG:4326
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **layer grid rowcol** --output-workspace layers --output-name rowcol --geometry -180,-90,180,90 --rows 10 --columns 8
Done!

geo-shell> **style vector default** --layer rowcol --color #1E90FF --opacity 0.30 --file examples/rowcol.sld
Default Vector Style for rowcol written to /home/runner/work/geo-shell/geo-shell/examples/rowcol.sld!

geo-shell> **layer style set** --name rowcol --style examples/rowcol.sld
Style /home/runner/work/geo-shell/geo-shell/examples/rowcol.sld set on rowcol

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

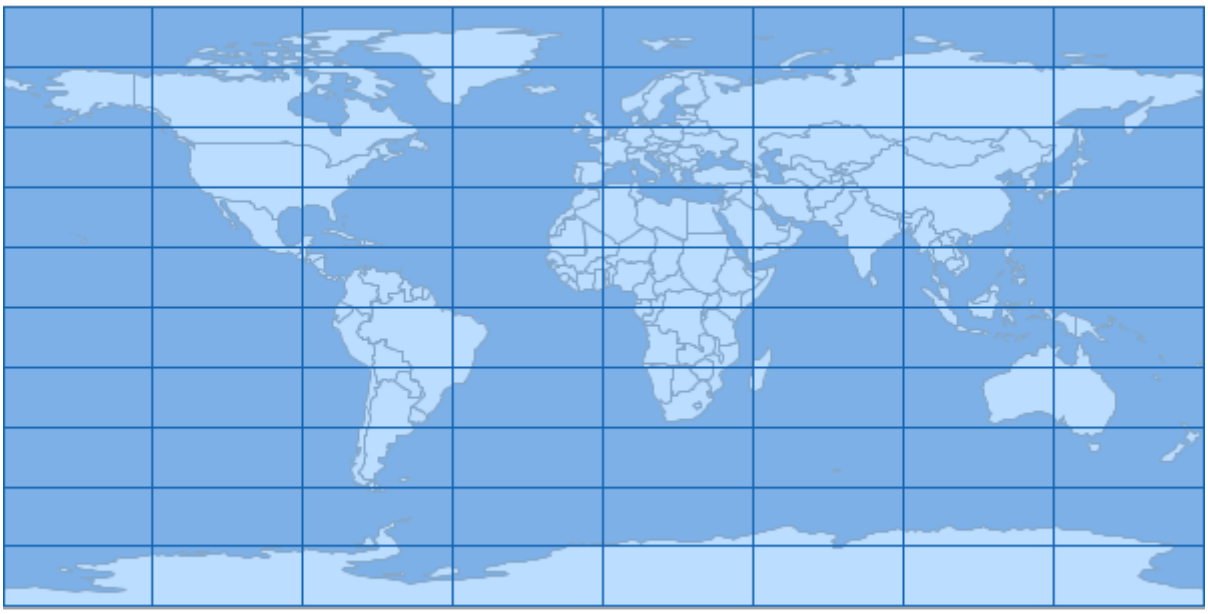
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_grid_rowcol.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_grid_rowcol.png!

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



Grid Width / Height

Create a grid Layer with cell width and height

geo-shell> **layer grid widthheight** --output-workspace layers --output-name widthheight --geometry -180,-90,180,90 --cell-width 8 --cell-height 7

Name	Description	Mandatory	Specified Default	Unspecified Default
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
cell-width	The width of each cell	true		
cell-height	The height of each cell	true		
geometry	The constraining geometry	true		
type	The geometry type (point or polygon	false	polygon	polygon
projection	The projection	false	EPSG:4326	EPSG:4326
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **layer grid widthheight** --output-workspace layers --output-name widthheight --geometry -180,-90,180,90 --cell-width 8 --cell-height 7
Done!

geo-shell> **style vector default** --layer widthheight --color #1E90FF --opacity 0.30 --file examples/widthheight.sld
Default Vector Style for widthheight written to /home/runner/work/geo-shell/geo-shell/examples/widthheight.sld!

geo-shell> **layer style set** --name widthheight --style examples/widthheight.sld
Style /home/runner/work/geo-shell/geo-shell/examples/widthheight.sld set on widthheight

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

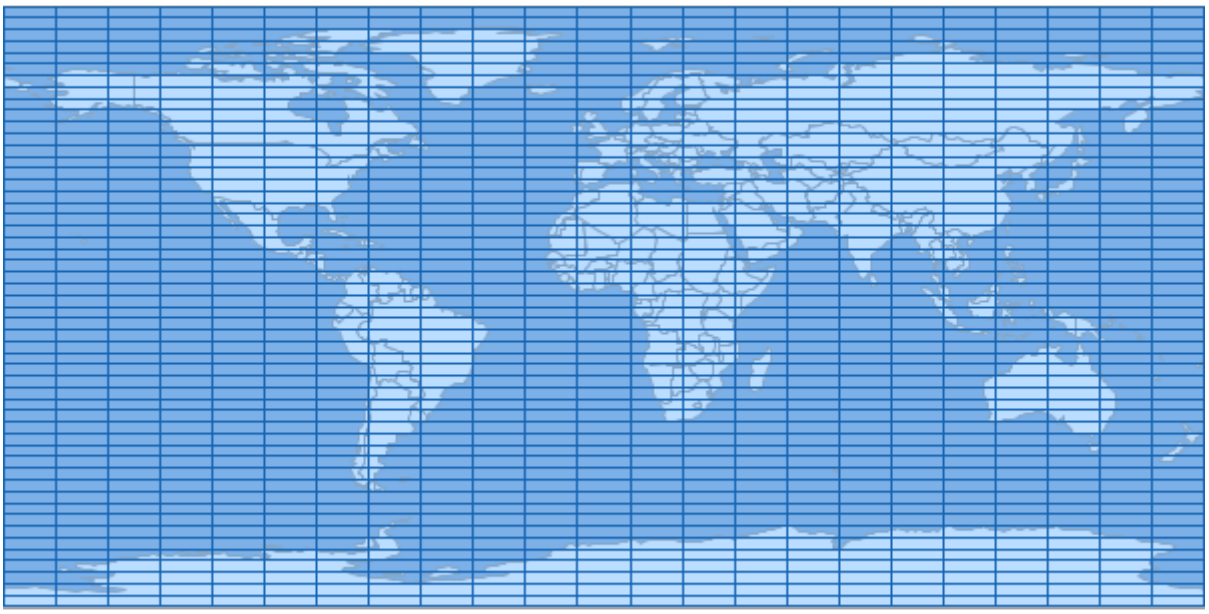
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_grid_widthheight.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_grid_widthheight.png!

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



Identity

Calculate the intersection between a Layer with another Layer

geo-shell> **layer identity** --input-name a --other-name b --output-workspace results --output-name results

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
other-name	The other Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
postfix-all	Whether to postfix all field names when combining schemas	false	false	false
include-duplicates	Whether to include duplicate field names	false	true	true

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer identity** --input-name a --other-name b --output-workspace results --output-name results
Done calculating the identity between a and b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

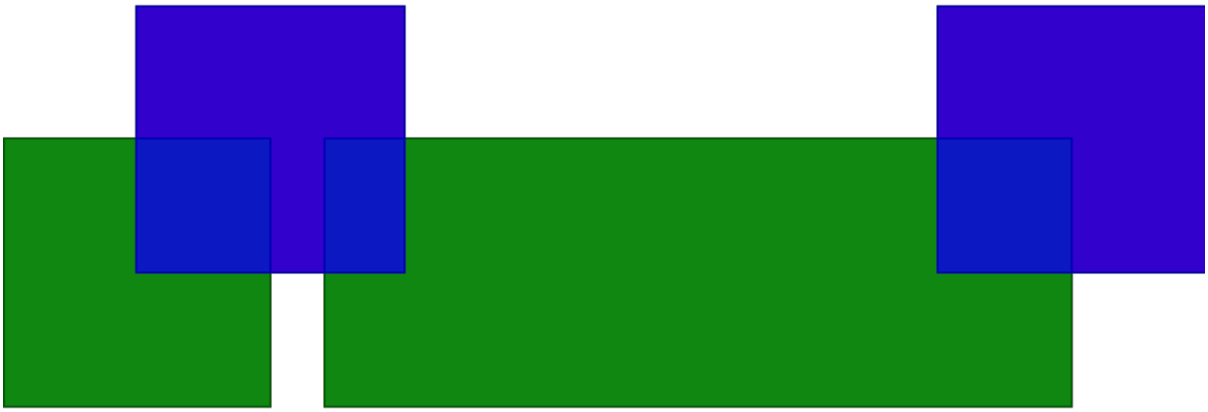
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_identity.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_identity.png!

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



Intersection

Calculate the intersection between a Layer with another Layer

geo-shell> **layer intersection** --input-name a --other-name b --output-workspace results --output -name results

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
other-name	The other Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
postfix-all	Whether to postfix all field names when combining schemas	false	false	false
include-duplicates	Whether to include duplicate field names	false	true	true

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer intersection** --input-name a --other-name b --output-workspace results --output-name results
Done calculating the intersection between a and b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

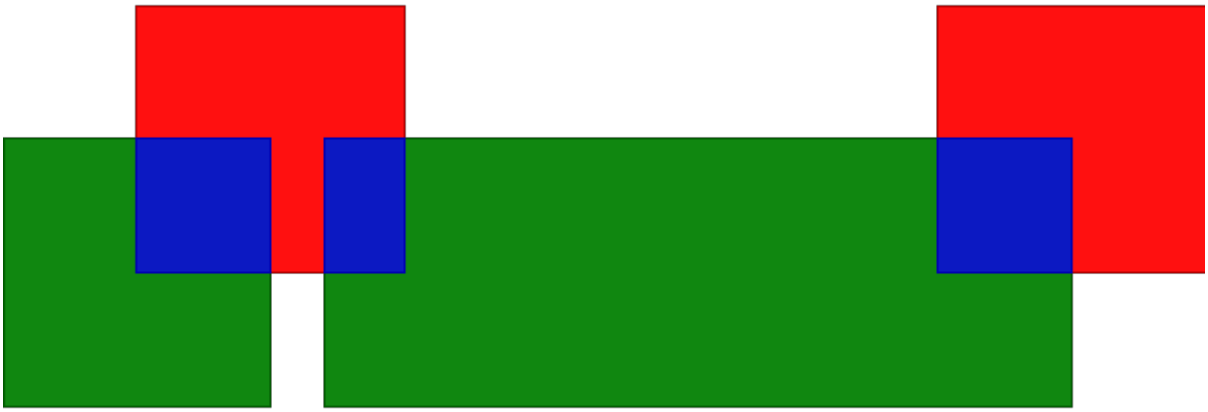
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_intersection.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_intersection.png!

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



Minimum Circle

Calculate the mininmum bounding circle of the input Layer and save it to the output Layer.

geo-shell> **layer mincircle** --input-name countries --output-workspace layers --output-name mincircle

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

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

Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer mincircle** --input-name countries --output-workspace layers --output-name mincircle
Done!

geo-shell> **style vector default** --layer mincircle --color #1E90FF --opacity 0.25 --file examples/mincircle.sld
Default Vector Style for mincircle written to /home/runner/work/geo-shell/geo-shell/examples/mincircle.sld!

geo-shell> **layer style set** --name mincircle --style examples/mincircle.sld
Style /home/runner/work/geo-shell/geo-shell/examples/mincircle.sld set on mincircle

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

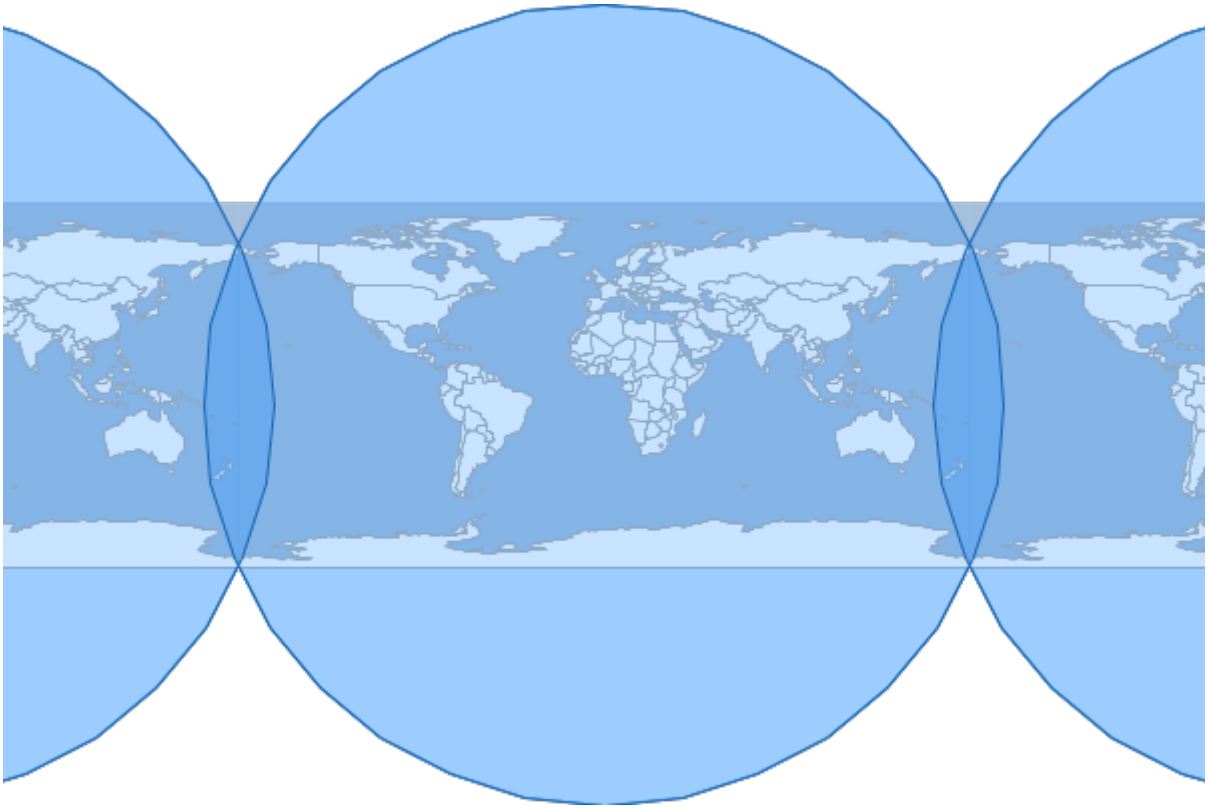
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_mincircle.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_mincircle.png!

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



Minimum Circles

Calculate the minimum bounding circle of each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer mincircles** --input-name countries --output-workspace layers --output-name mincircles

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer mincircles** --input-name countries --output-workspace layers --output-name mincircles
Done!

geo-shell> **style vector default** --layer mincircles --color #1E90FF --opacity 0.25 --file examples/mincircles.sld
Default Vector Style for mincircles written to /home/runner/work/geo-shell/geo-shell/examples/mincircles.sld!

geo-shell> **layer style set** --name mincircles --style examples/mincircles.sld
Style /home/runner/work/geo-shell/geo-shell/examples/mincircles.sld set on mincircles

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

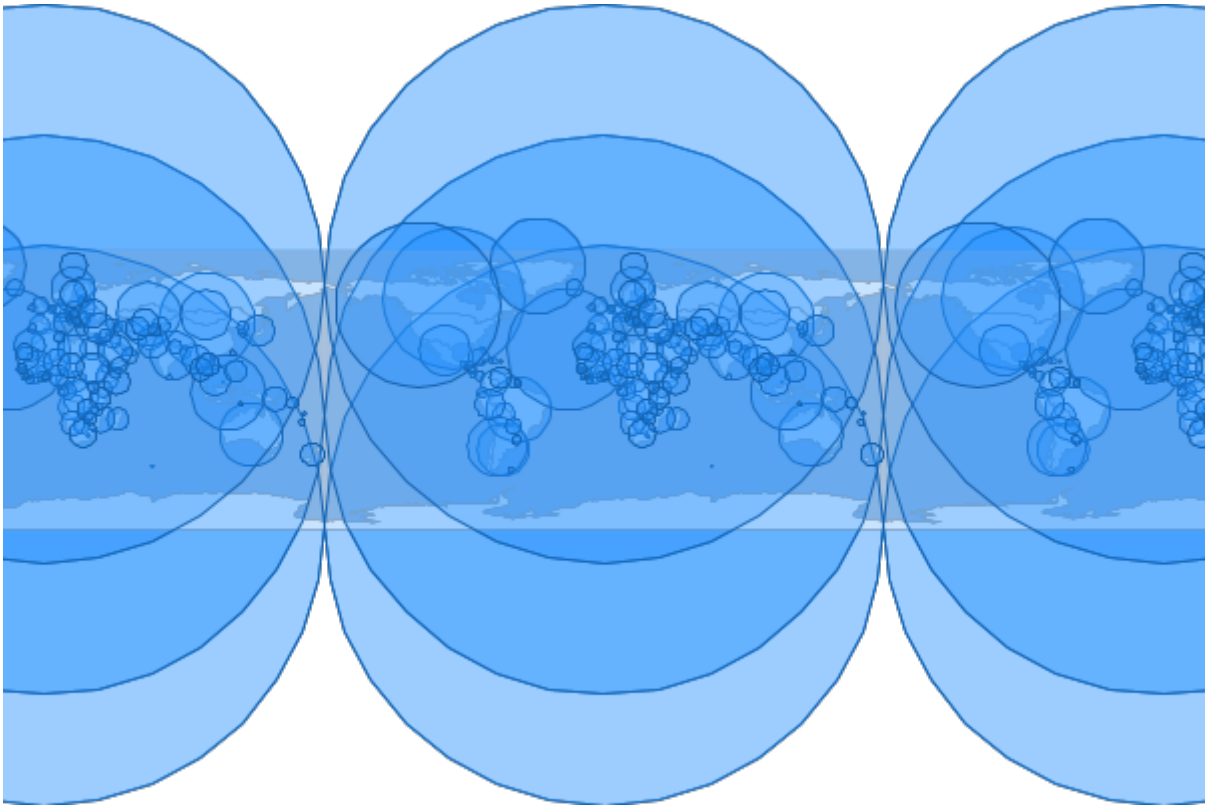
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_mincircles.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_mincircles.png!

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



Minimum Rectangle

Calculate the mininmum rectangle of the input Layer and save it to the output Layer.

geo-shell> **layer minrect** --input-name countries --output-workspace layers --output-name minrect

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer minrect** --input-name countries --output-workspace layers --output-name minrect
Done!

geo-shell> **style vector default** --layer minrect --color #1E90FF --opacity 0.25 --file examples/minrect.sld
Default Vector Style for minrect written to /home/runner/work/geo-shell/geo-shell/examples/minrect.sld!

geo-shell> **layer style set** --name minrect --style examples/minrect.sld
Style /home/runner/work/geo-shell/geo-shell/examples/minrect.sld set on minrect

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

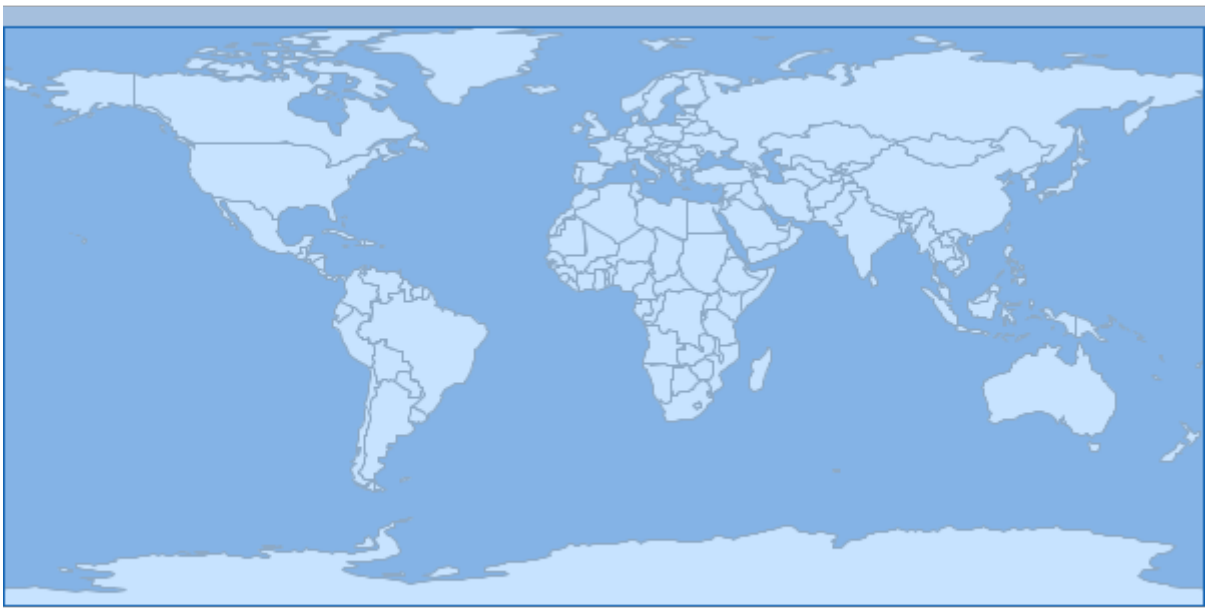
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_minrect.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_minrect.png!

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



Minimum Rectangles

Calculate the minimum rectangle of each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer minrects** --input-name countries --output-workspace layers --output-name minrects

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer minrects** --input-name countries --output-workspace layers --output-name minrects
Done!

geo-shell> **style vector default** --layer minrects --color #1E90FF --opacity 0.25 --file examples/minrects.sld
Default Vector Style for minrects written to /home/runner/work/geo-shell/geo-shell/examples/minrects.sld!

geo-shell> **layer style set** --name minrects --style examples/minrects.sld
Style /home/runner/work/geo-shell/geo-shell/examples/minrects.sld set on minrects

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

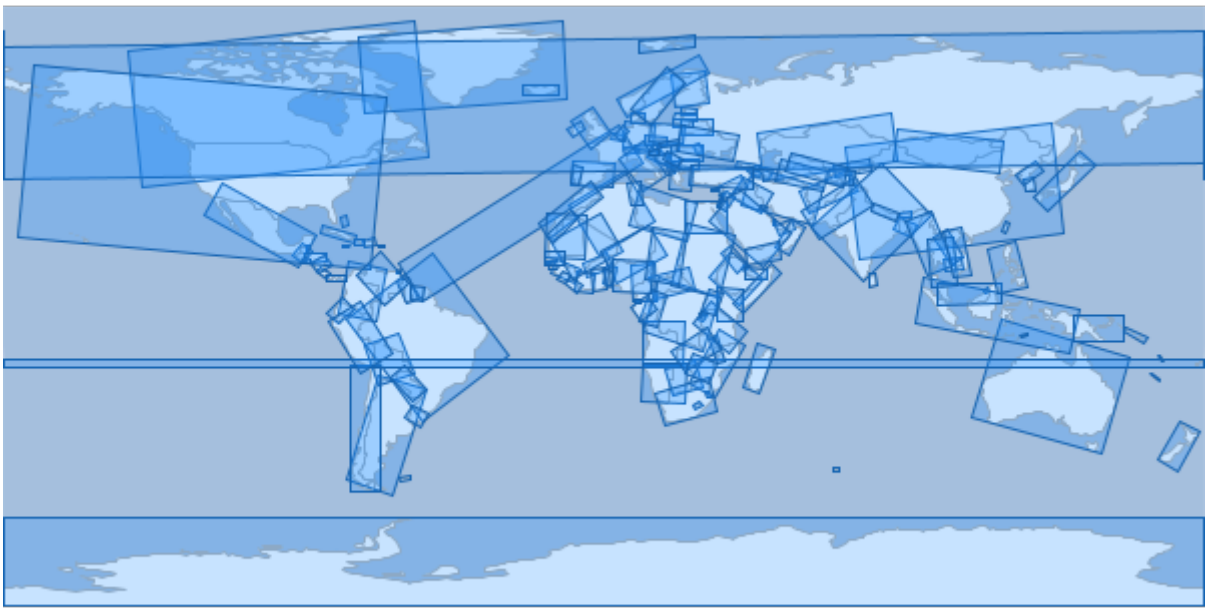
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_minrects.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_minrects.png!

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



Octangle Envelope

Calculate the octagonal envelope of the input Layer and save it to the output Layer.

geo-shell> **layer octagonalenvelope** --input-name countries --output-workspace layers --output -name octagonalenvelope

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

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

Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer octagonalenvelope** --input-name countries --output-workspace layers --output-name octagonalenvelope
Done!

geo-shell> **style vector default** --layer octagonalenvelope --color #1E90FF --opacity 0.25 --file examples/octagonalenvelope.sld
Default Vector Style for octagonalenvelope written to /home/runner/work/geo-shell/geo-shell/examples/octagonalenvelope.sld!

geo-shell> **layer style set** --name octagonalenvelope --style examples/octagonalenvelope.sld
Style /home/runner/work/geo-shell/geo-shell/examples/octagonalenvelope.sld set on octagonalenvelope

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

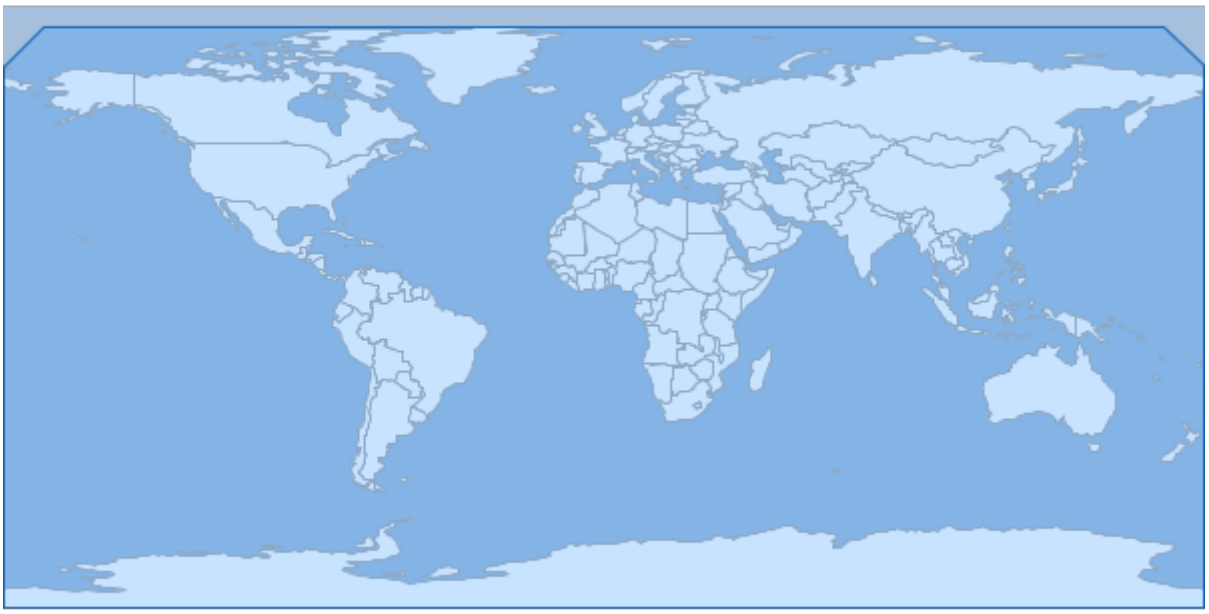
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_octagonalenvelope.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_octagonalenvelope.png!

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



Octangle Envelopes

Calculate the octagonal envelope of each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer octagonalenvelopes** --input-name countries --output-workspace layers --output -name octagonalenvelopes

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **layer octagonalenvelopes** --input-name countries --output-workspace layers --output -name octagonalenvelopes
Done!

geo-shell> **style vector default** --layer octagonalenvelopes --color #1E90FF --opacity 0.25 --file examples/octagonalenvelopes.sld
Default Vector Style for octagonalenvelopes written to /home/runner/work/geo-shell/geo-shell/examples/octagonalenvelopes.sld!

geo-shell> **layer style set** --name octagonalenvelopes --style examples/octagonalenvelopes.sld
Style /home/runner/work/geo-shell/geo-shell/examples/octagonalenvelopes.sld set on octagonalenvelopes

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

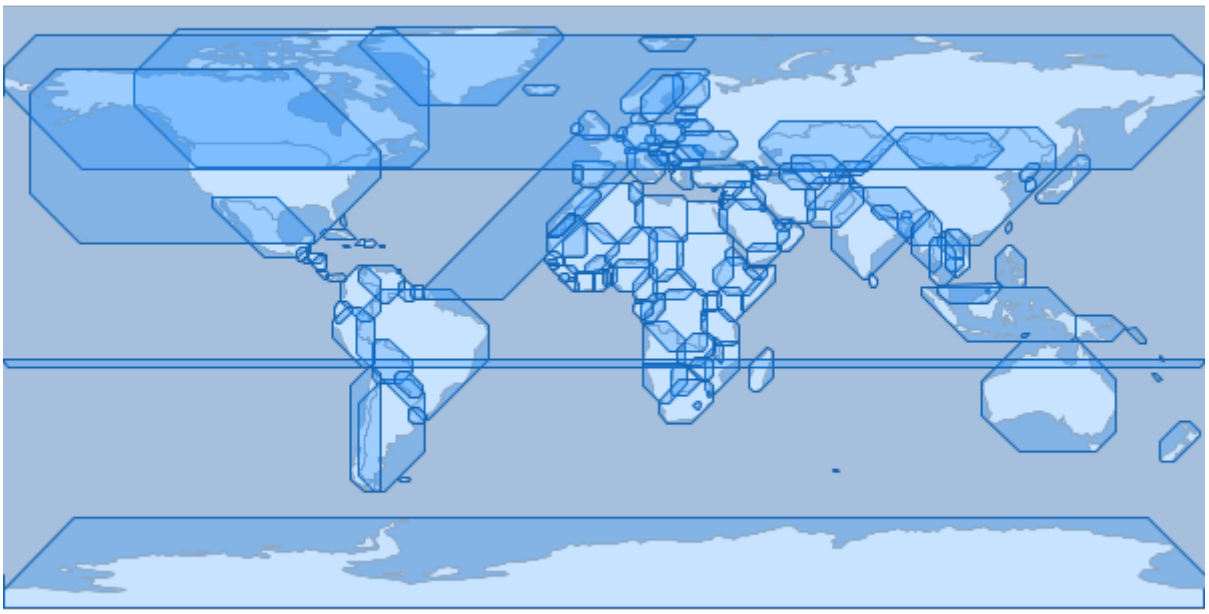
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_octagonalenvelopes.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_octagonalenvelopes.png!

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



Points Along Lines

Create points along lines

geo-shell> **layer points along lines** --input-name mississippi --output-workspace layers --output-name points --distance 2.0

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
distance	The distance between points	true		

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

geo-shell> **workspace open** --name rivers --params src/test/resources/rivers/ne_110m_rivers_lake_centerlines.shp
Workspace rivers opened!

geo-shell> **layer open** --workspace rivers --layer ne_110m_rivers_lake_centerlines --name rivers
Opened Workspace rivers Layer ne_110m_rivers_lake_centerlines as rivers

geo-shell> **layer copy** --input-name rivers --output-workspace layers --output-name mississippi # [gray]--filter# "name='Mississippi'"
Done!

geo-shell> **style vector default** --layer mississippi --color blue --file examples/river.sld
Default Vector Style for mississippi written to /home/runner/work/geo-shell/geo-shell/examples/river.sld!

geo-shell> **layer style set** --name mississippi --style examples/river.sld
Style /home/runner/work/geo-shell/geo-shell/examples/river.sld set on mississippi

geo-shell> **layer points along lines** --input-name mississippi --output-workspace layers --output -name points --distance 2.0
Done placing points along mississippi every 2.0 to create points!

geo-shell> **style vector default** --layer points --color green --file examples/points.sld
Default Vector Style for points written to /home/runner/work/geo-shell/geo-shell/examples/points.sld!

geo-shell> **layer style set** --name points --style examples/points.sld
Style /home/runner/work/geo-shell/geo-shell/examples/points.sld set on points

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

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

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

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

geo-shell> **map draw** --name map --file examples/layer_points_along_lines.png --bounds "-180,-8.233,-36.738,73.378"
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_points_along_lines.png!

Simplify

Simplify the features of the input Layer and save them to the output Layer

geo-shell> **layer simplify** --input-name mississippi --output-workspace layers --output-name simplified --distance 1.0

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
algorithm	The simplify algorithm (DouglasPeucker - dp or TopologyPreserving - tp)	false	tp	tp
distance	The distance tolerance	true		

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

geo-shell> **workspace open** --name rivers --params src/test/resources/rivers/ne_110m_rivers_lake_centerlines.shp
Workspace rivers opened!

geo-shell> **layer open** --workspace rivers --layer ne_110m_rivers_lake_centerlines --name rivers
Opened Workspace rivers Layer ne_110m_rivers_lake_centerlines as rivers

geo-shell> **layer copy** --input-name rivers --output-workspace layers --output-name mississippi # [gray]--filter# "name='Mississippi'"
Done!

geo-shell> **layer simplify** --input-name mississippi --output-workspace layers --output-name simplified --distance 1.0
Done!

geo-shell> **style vector default** --layer simplified --color blue --file examples/river.sld
Default Vector Style for simplified written to /home/runner/work/geo-shell/geo-shell/examples/river.sld!

geo-shell> **layer style set** --name simplified --style examples/river.sld
Style /home/runner/work/geo-shell/geo-shell/examples/river.sld set on simplified

geo-shell> **layer coordinates** --input-name simplified --output-workspace layers --output-name points
Done!

geo-shell> **style vector default** --layer points --color green --file examples/points.sld
Default Vector Style for points written to /home/runner/work/geo-shell/geo-shell/examples/points.sld!

geo-shell> **layer style set** --name points --style examples/points.sld
Style /home/runner/work/geo-shell/geo-shell/examples/points.sld set on points

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

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

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

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

geo-shell> **map draw** --name map --file examples/layer_simplify.png --bounds "-180,-8.233,-36.738,73.378"
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_simplify.png!

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

Symmetric Difference

Calculate the symmetric difference between a Layer and another Layer.

geo-shell> **layer symdifference** --input-name a --other-name b --output-workspace results --output-name results

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
other-name	The other Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
postfix-all	Whether to postfix all field names when combining schemas	false	false	false
include-duplicates	Whether to include duplicate field names	false	true	true

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer symdifference** --input-name a --other-name b --output-workspace results --output-name results
Done calculating the symmetric difference between a and b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

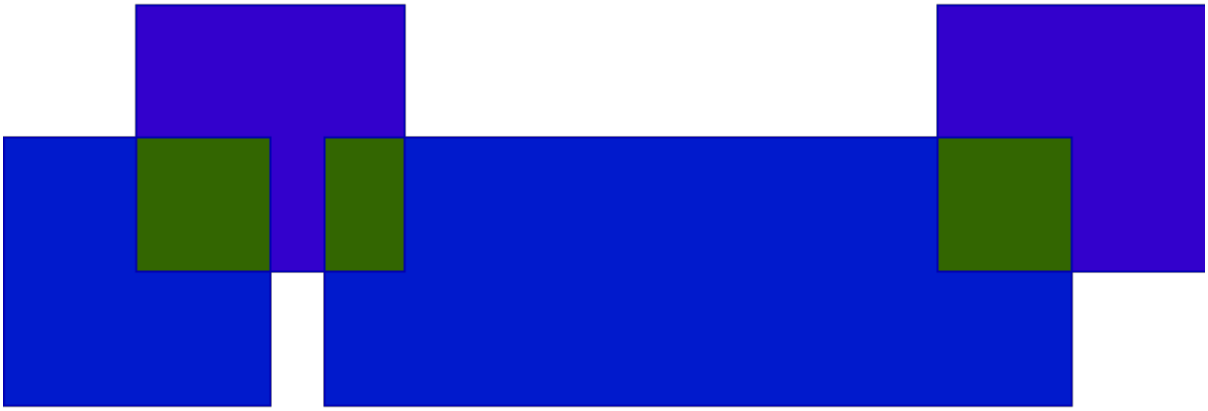
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_symdifference.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_symdifference.png!

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



Transform

Transform the features of the input Layer and save them to the output Layer

geo-shell> **layer transform** --input-name points --output-workspace layers --output-name polys --transforms "the_geom=buffer(the_geom, 5)|id=id*10"

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
transforms	The pipe delimited list of transforms (field=expression or function)	true		

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

geo-shell> **layer random** --output-workspace layers --output-name points --geometry -180,-90,180,90 --number 100 --projection EPSG:4326
Done!

geo-shell> **style vector default** --layer points --color #1E90FF --file examples/points.sld
Default Vector Style for points written to /home/runner/work/geo-shell/geo-shell/examples/points.sld!

geo-shell> **layer style set** --name points --style examples/points.sld
Style /home/runner/work/geo-shell/geo-shell/examples/points.sld set on points

geo-shell> **layer transform** --input-name points --output-workspace layers --output-name polys --transforms "the_geom=buffer(the_geom, 5)|id=id*10"
Done transforming points to polys with the_geom=buffer(the_geom, 5)|id=id*10!

geo-shell> **style vector default** --layer polys --color blue --opacity 0.25 --file examples/polys.sld
Default Vector Style for polys written to /home/runner/work/geo-shell/geo-shell/examples/polys.sld!

geo-shell> **layer style set** --name polys --style examples/polys.sld
Style /home/runner/work/geo-shell/geo-shell/examples/polys.sld set on polys

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

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

Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

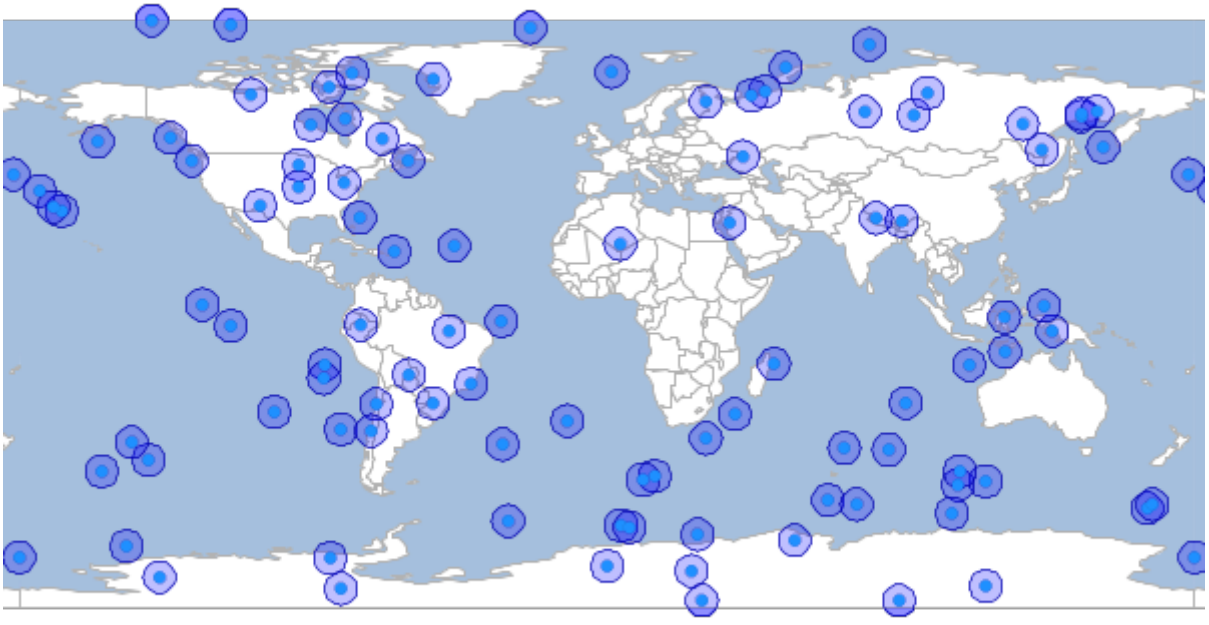
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_transform.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_transform.png!

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



Union

Union a Layer with another Layer

geo-shell> **layer union** --input-name a --other-name b --output-workspace results --output-name results

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
other-name	The other Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
postfix-all	Whether to postfix all field names when combining schemas	false	false	false
include-duplicates	Whether to include duplicate field names	false	true	true

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer union** --input-name a --other-name b --output-workspace results --output-name results
Done unioning a and b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

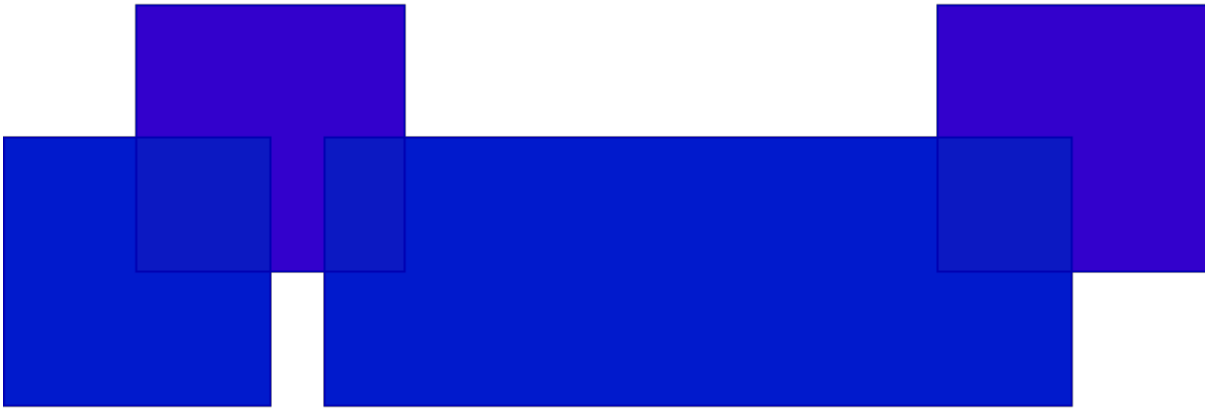
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_union.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_union.png!

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



Update

Calculate the update between a Layer with another Layer

geo-shell> **layer update** --input-name a --other-name b --output-workspace results --output-name results

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

geo-shell> **workspace open** --name layers --params src/test/resources/layeralgebra.gpkg
Workspace layers opened!

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

geo-shell> **layer open** --workspace layers --layer a --name a
Opened Workspace layers Layer a as a

geo-shell> **layer open** --workspace layers --layer b --name b
Opened Workspace layers Layer b as b

geo-shell> **layer update** --input-name a --other-name b --output-workspace results --output-name results
Done calculating the update between a and b to create results!

geo-shell> **style vector default** --layer a --color red --opacity 0.75 --file examples/red.sld
Default Vector Style for a written to /home/runner/work/geo-shell/geo-shell/examples/red.sld!

geo-shell> **style vector default** --layer b --color green --opacity 0.75 --file examples/green.sld
Default Vector Style for b written to /home/runner/work/geo-shell/geo-shell/examples/green.sld!

geo-shell> **style vector default** --layer results --color blue --opacity 0.75 --file examples/blue.sld
Default Vector Style for results written to /home/runner/work/geo-shell/geo-shell/examples/blue.sld!

geo-shell> **layer style set** --name a --style examples/red.sld
Style /home/runner/work/geo-shell/geo-shell/examples/red.sld set on a

geo-shell> **layer style set** --name b --style examples/green.sld
Style /home/runner/work/geo-shell/geo-shell/examples/green.sld set on b

geo-shell> **layer style set** --name results --style examples/blue.sld
Style /home/runner/work/geo-shell/geo-shell/examples/blue.sld set on results

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

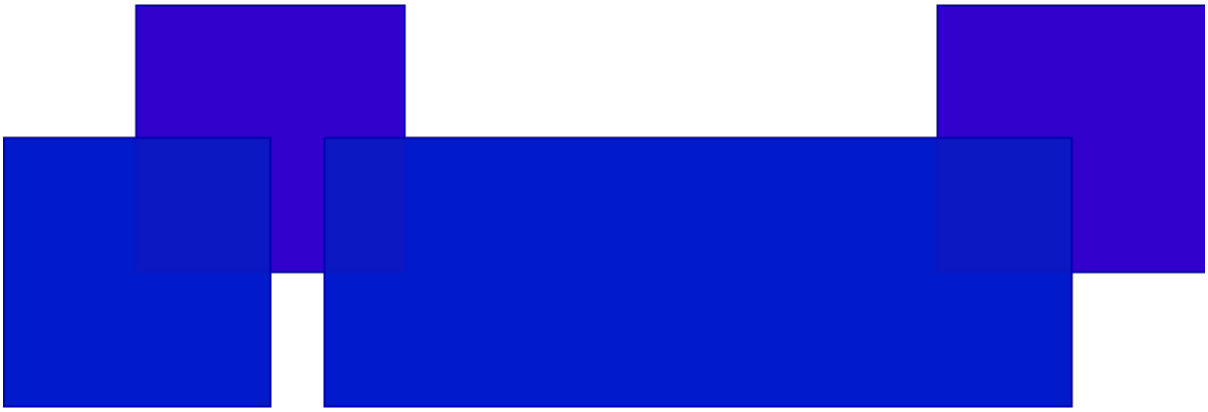
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_update.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_update.png!

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



Voronoi

Calculate a voronoi diagram of the input Layer and save it to the output Layer.

geo-shell> **layer voronoi** --input-name places --output-workspace layers --output-name voronoi

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer places --name places
Opened Workspace naturalearth Layer places as places

geo-shell> **layer voronoi** --input-name places --output-workspace layers --output-name voronoi
Done!

geo-shell> **style vector default** --layer voronoi --color #1E90FF --opacity 0.25 --file examples/voronoi.sld
Default Vector Style for voronoi written to /home/runner/work/geo-shell/geo-shell/examples/voronoi.sld!

geo-shell> **layer style set** --name voronoi --style examples/voronoi.sld
Style /home/runner/work/geo-shell/geo-shell/examples/voronoi.sld set on voronoi

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

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

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

Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_voronoi.png!
geo-shell> **map draw** --name map --file examples/layer_voronoi.png --bounds -180,-90,180,90

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

Random Points

Create a Layer with a number of randomly located points

geo-shell> **layer random** --output-workspace layers --output-name points --geometry -180,-90,180,90 --number 100 --projection EPSG:4326

Name	Description	Mandatory	Specified Default	Unspecified Default
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
number	The number of points	true		
geometry	The geometry or bounds in which to create the points	true		
projection	The projection	true		
id-field	The id field name	false	id	id
geometry-field	The geometry field name	false	the_geom	the_geom
grid	Whether to create points in a grid	false	false	false

constrained-to-circle	Whether points should be constrained to a circle	false	false	false
gutter-fraction	The size of gutter between cells	false	0	0

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

geo-shell> **layer random** --output-workspace layers --output-name points --geometry -180,-90,180,90 --number 100 --projection EPSG:4326
Done!

geo-shell> **style vector default** --layer points --color #1E90FF --file examples/points.sld
Default Vector Style for points written to /home/runner/work/geo-shell/geo-shell/examples/points.sld!

geo-shell> **layer style set** --name points --style examples/points.sld
Style /home/runner/work/geo-shell/geo-shell/examples/points.sld set on points

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

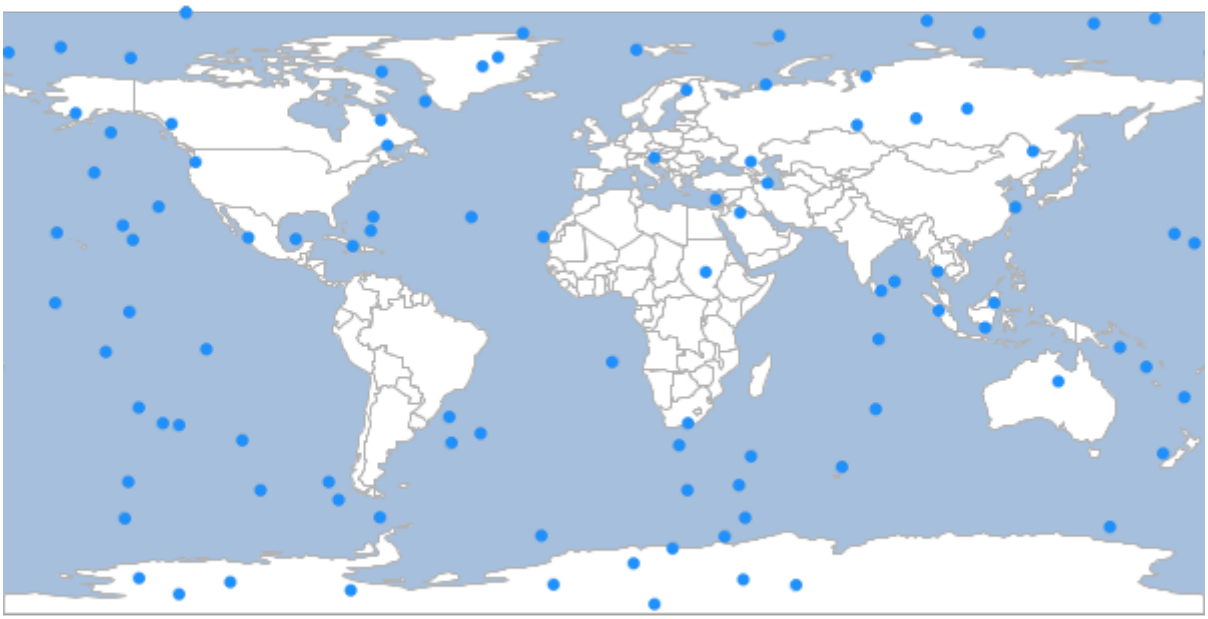
geo-shell> **map add layer** --name randomMap --layer ocean
Added ocean layer to map randomMap

geo-shell> **map add layer** --name randomMap --layer countries
Added countries layer to map randomMap

geo-shell> **map add layer** --name randomMap --layer points
Added points layer to map randomMap

geo-shell> **map draw** --name randomMap --file examples/random_points.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/random_points.png!

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



Buffer

Buffer the input Layer to the output Layer.

geo-shell> **layer buffer** --input-name points --output-workspace layers --output-name buffers --distance 10

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
distance	The buffer distance	true		

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

geo-shell> **layer random** --output-workspace layers --output-name points --geometry -180,-90,180,90 --number 100 --projection EPSG:4326
Done!

geo-shell> **layer buffer** --input-name points --output-workspace layers --output-name buffers --distance 10
Done!

geo-shell> **style vector default** --layer points --color #1E90FF --file examples/points.sld
Default Vector Style for points written to /home/runner/work/geo-shell/geo-shell/examples/points.sld!

geo-shell> **style vector default** --layer buffers --color #1E90FF --opacity 0.25 --file examples/buffers.sld
Default Vector Style for buffers written to /home/runner/work/geo-shell/geo-shell/examples/buffers.sld!

geo-shell> **layer style set** --name points --style examples/points.sld
Style /home/runner/work/geo-shell/geo-shell/examples/points.sld set on points

geo-shell> **layer style set** --name buffers --style examples/buffers.sld
Style /home/runner/work/geo-shell/geo-shell/examples/buffers.sld set on buffers

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

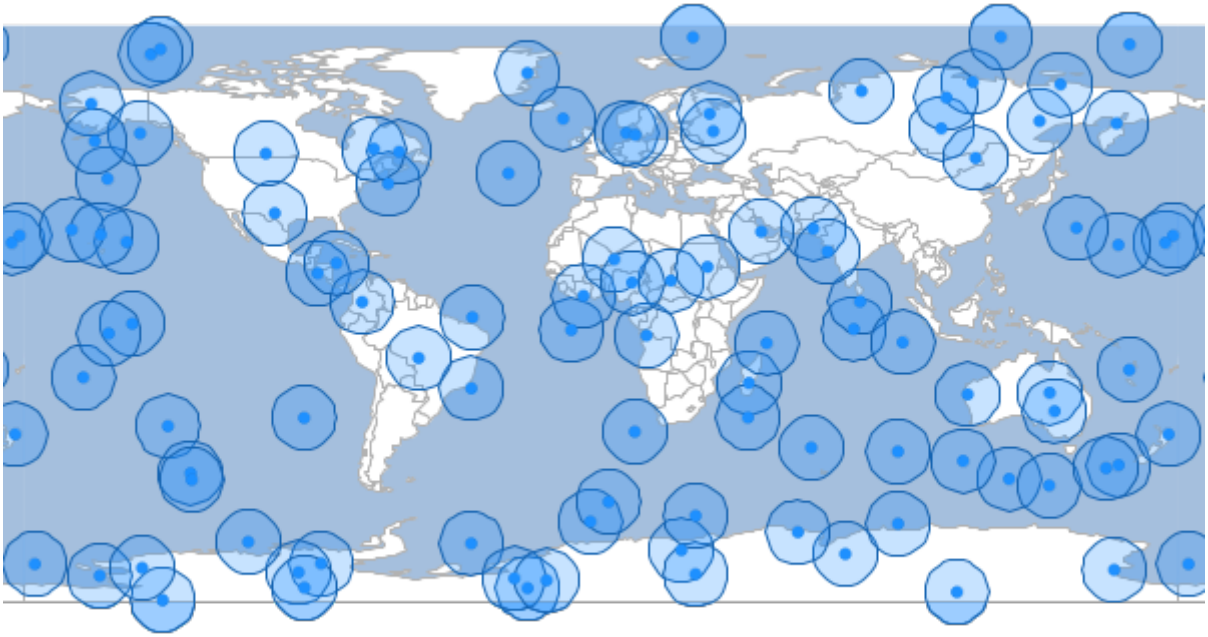
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_buffer.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_buffer.png!

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



Centroid

Calculate the centroids of the input Layer to the output Layer.

geo-shell> **layer centroid** --input-name countries --output-name centroids --output-workspace layers

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

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

Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer centroid** --input-name countries --output-name centroids --output-workspace layers
Done!

geo-shell> **style vector default** --layer centroids --color #1E90FF --file examples/centroids.sld
Default Vector Style for centroids written to /home/runner/work/geo-shell/geo-shell/examples/centroids.sld!

geo-shell> **layer style set** --name centroids --style examples/centroids.sld
Style /home/runner/work/geo-shell/geo-shell/examples/centroids.sld set on centroids

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

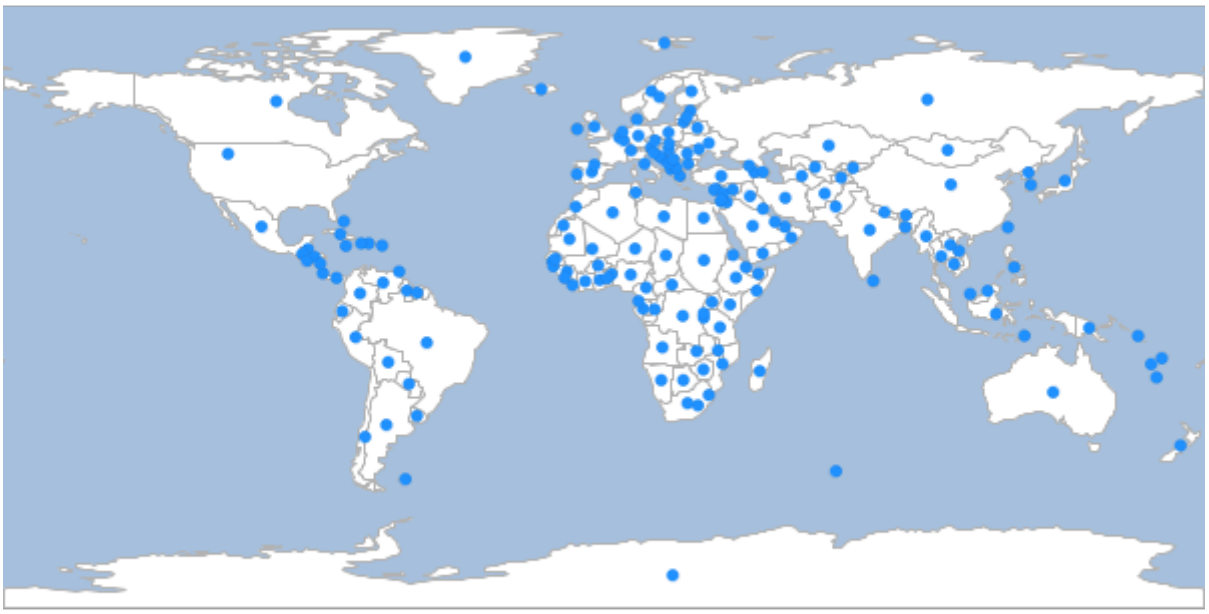
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_centroid.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_centroid.png!

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



Interior Point

Calculate the interior points of the input Layer to the output Layer.

geo-shell> **layer interiorpoint** --input-name countries --output-name interiorpoints --output -workspace layers

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer interiorpoint** --input-name countries --output-name interiorpoints --output

-workspace layers
Done!

geo-shell> **style vector default** --layer interiorpoints --color #1E90FF --file examples/interiorpoints.sld
Default Vector Style for interiorpoints written to /home/runner/work/geo-shell/geo-shell/examples/interiorpoints.sld!

geo-shell> **layer style set** --name interiorpoints --style examples/interiorpoints.sld
Style /home/runner/work/geo-shell/geo-shell/examples/interiorpoints.sld set on interiorpoints

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

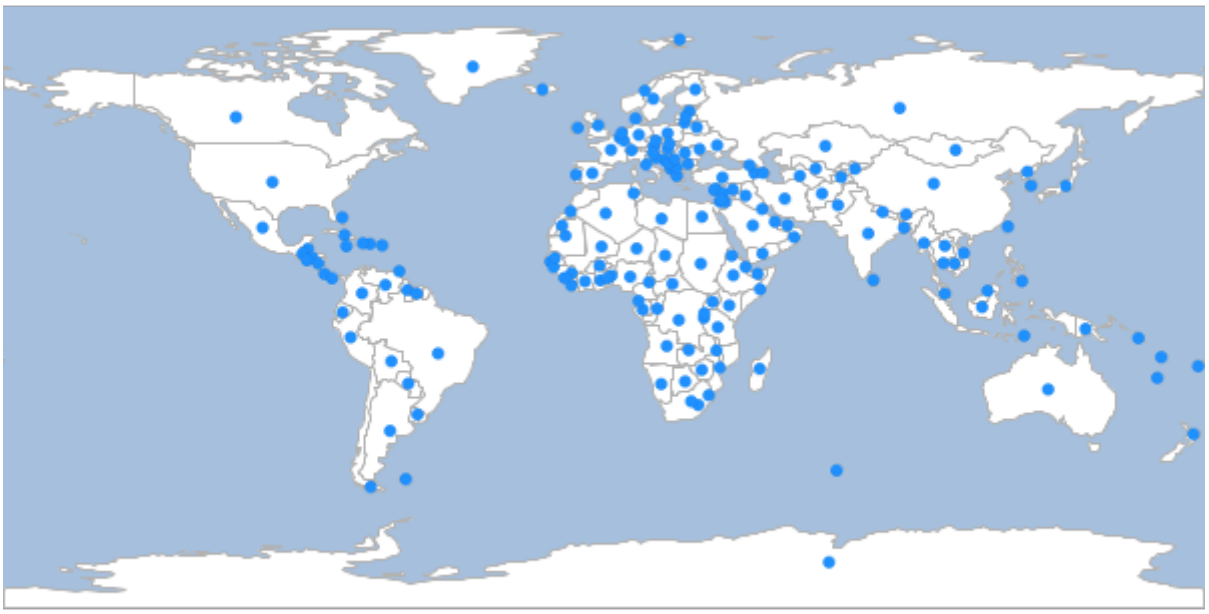
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_interiorpoint.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_interiorpoint.png!

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



Extent

Calculate the extent of the input Layer and save it to the output Layer.

geo-shell> **layer extent** --input-name states --output-workspace layers --output-name usa

Name	Description	Mandatory	Specified Default	Unspecified Default
input-name	The Layer name	true		
output-workspace	The output Layer Workspace	true		
output-name	The output Layer name	true		
geometry-field	The geometry field name	false	the_geom	the_geom

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer style set** --name states --style examples/states.sld
Unable to find Layer states

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer extent** --input-name states --output-workspace layers --output-name usa
Done!

geo-shell> **style vector default** --layer usa --color #1E90FF --opacity 0.25 --file examples/extent.sld
Default Vector Style for usa written to /home/runner/work/geo-shell/geo-shell/examples/extent.sld!

geo-shell> **layer style set** --name usa --style examples/extent.sld
Style /home/runner/work/geo-shell/geo-shell/examples/extent.sld set on usa

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

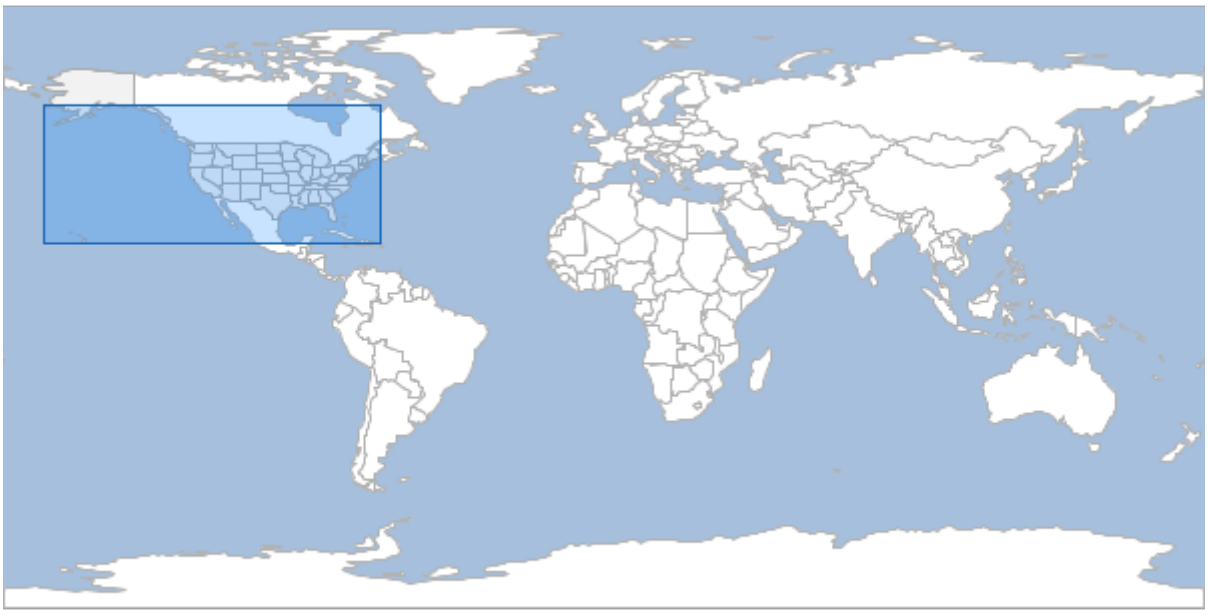
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_extent.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_extent.png!

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



Extents

Calculate the extents of each Feature in the input Layer and save them to the output Layer.

geo-shell> **layer extents** --input-name states --output-workspace layers --output-name state_extents

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

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer style set** --name states --style examples/states.sld
Unable to find Layer states

geo-shell> **layer open** --workspace naturalearth --layer states --name states
Opened Workspace naturalearth Layer states as states

geo-shell> **layer extents** --input-name states --output-workspace layers --output-name state_extents
Done!

geo-shell> **style vector default** --layer state_extents --color #1E90FF --opacity 0.25 --file examples/extent.sld
Default Vector Style for state_extents written to /home/runner/work/geo-shell/geo-shell/examples/extent.sld!

geo-shell> **layer style set** --name state_extents --style examples/extent.sld
Style /home/runner/work/geo-shell/geo-shell/examples/extent.sld set on state_extents

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

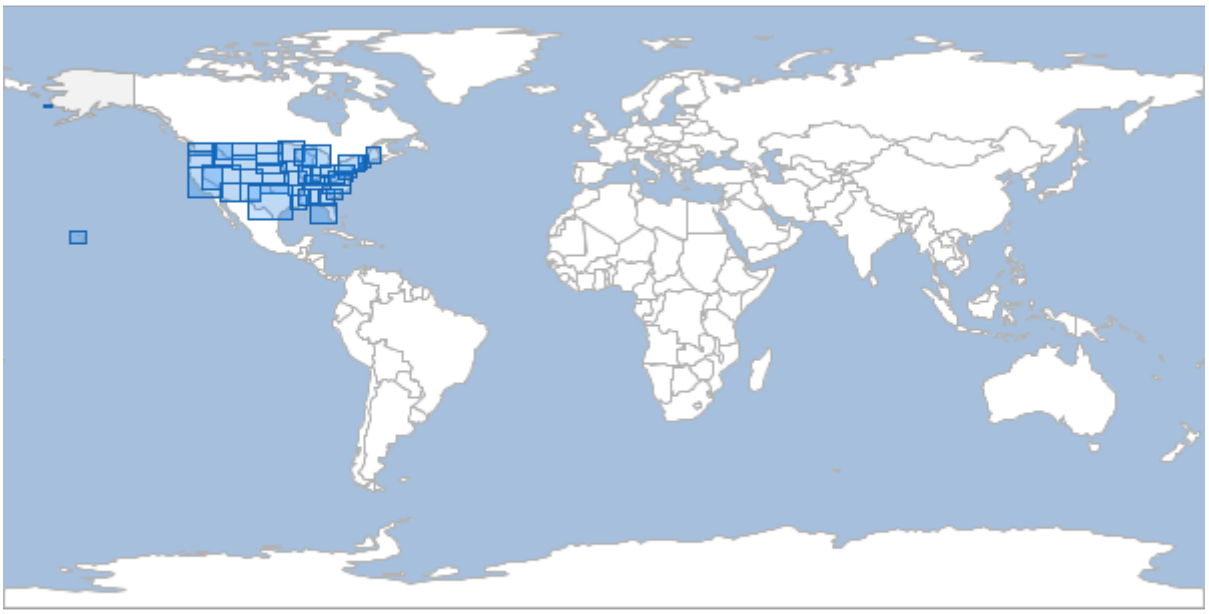
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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

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

geo-shell> **map draw** --name map --file examples/layer_extents.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/layer_extents.png!

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



Graticule

Square

Create a square graticule.

geo-shell> **layer graticule square** --workspace layers --name squares --bounds -180,-90,180,90 --length 20

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		
name	The new Layer name	true		
bounds	The bounds	true		
length	The length	true		
spacing	The spacing	false	-1	-1

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

geo-shell> **layer graticule square** --workspace layers --name squares --bounds -180,-90,180,90 --length 20
Created Square Graticule Layer squares!

geo-shell> **style vector default** --layer squares --color #1E90FF --opacity 0.30 --file examples/squares.sld
Default Vector Style for squares written to /home/runner/work/geo-shell/geo-shell/examples/squares.sld!

geo-shell> **layer style set** --name squares --style examples/squares.sld
Style /home/runner/work/geo-shell/geo-shell/examples/squares.sld set on squares

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

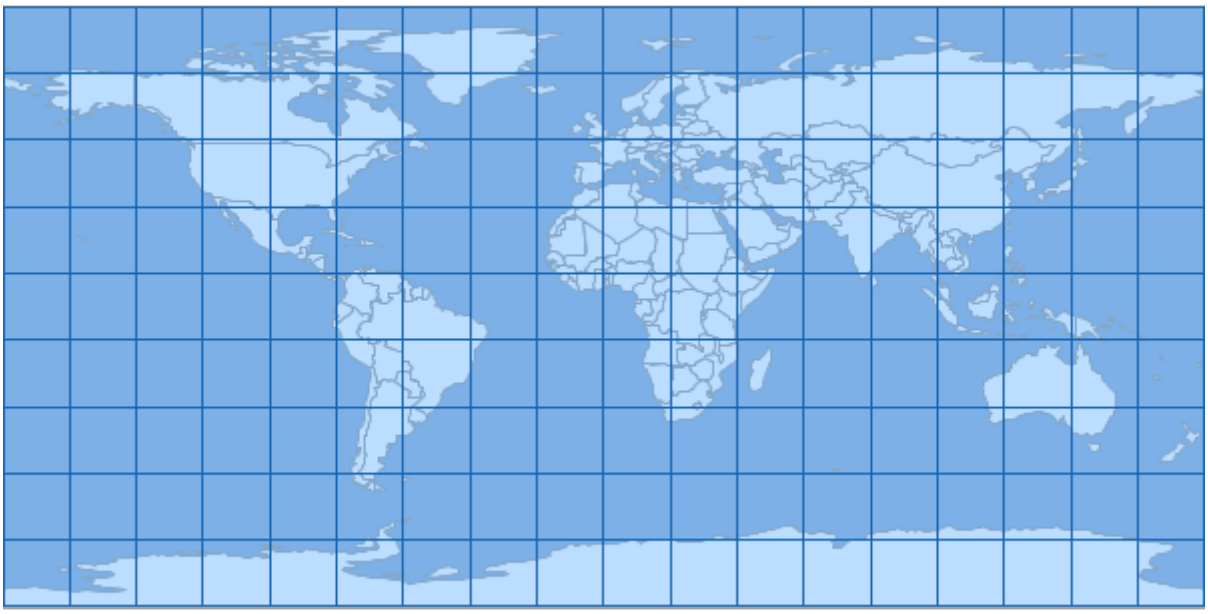
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

geo-shell> **map add layer** --name graticule --layer countries
Added countries layer to map graticule

geo-shell> **map add layer** --name graticule --layer squares
Added squares layer to map graticule

geo-shell> **map draw** --name graticule --file examples/square_graticules.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/square_graticules.png!

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



Rectangle

Create a rectangle graticule.

geo-shell> **layer graticule rectangle** --workspace layers --name rectangles --bounds -180,-90,180,90 --width 20 --height 10

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		
name	The new Layer name	true		
bounds	The bounds	true		
width	The width	true		
height	The height	true		
spacing	The spacing	false	-1	-1

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

geo-shell> **layer graticule rectangle** --workspace layers --name rectangles --bounds -180,-90,180,90 --width 20 --height 10
Created Rectangle Graticule Layer rectangles!

geo-shell> **style vector default** --layer rectangles --color #1E90FF --opacity 0.30 --file

examples/rectangles.sld
Default Vector Style for rectangles written to /home/runner/work/geo-shell/geo-shell/examples/rectangles.sld!

geo-shell> **layer style set** --name rectangles --style examples/rectangles.sld
Style /home/runner/work/geo-shell/geo-shell/examples/rectangles.sld set on rectangles

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

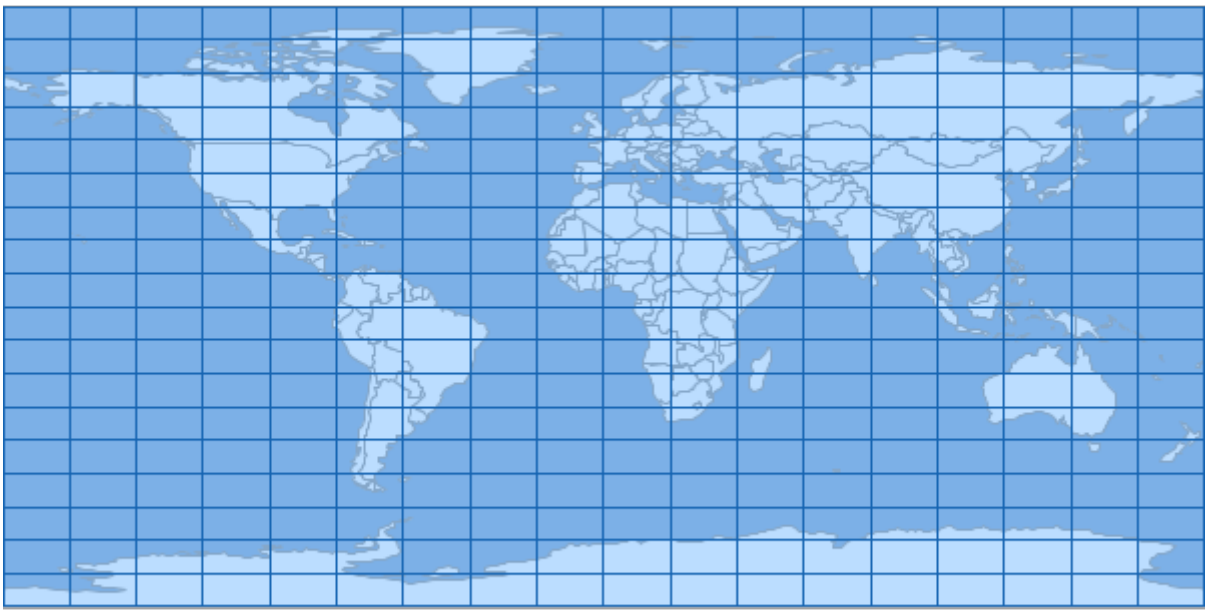
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

geo-shell> **map add layer** --name graticule --layer countries
Added countries layer to map graticule

geo-shell> **map add layer** --name graticule --layer rectangles
Added rectangles layer to map graticule

geo-shell> **map draw** --name graticule --file examples/rectangle_graticules.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/rectangle_graticules.png!

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



Oval

Create a oval graticule.

geo-shell> **layer graticule oval** --workspace layers --name ovals --bounds -180,-90,180,90 --size 20

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		
name	The new Layer name	true		
bounds	The bounds	true		
size	The size	true		

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

geo-shell> **layer graticule oval** --workspace layers --name ovals --bounds -180,-90,180,90 --size 20
Created Oval Graticule Layer ovals!

geo-shell> **style vector default** --layer ovals --color #1E90FF --opacity 0.30 --file examples/ovals.sld
Default Vector Style for ovals written to /home/runner/work/geo-shell/geo-shell/examples/ovals.sld!

geo-shell> **layer style set** --name ovals --style examples/ovals.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ovals.sld set on ovals

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

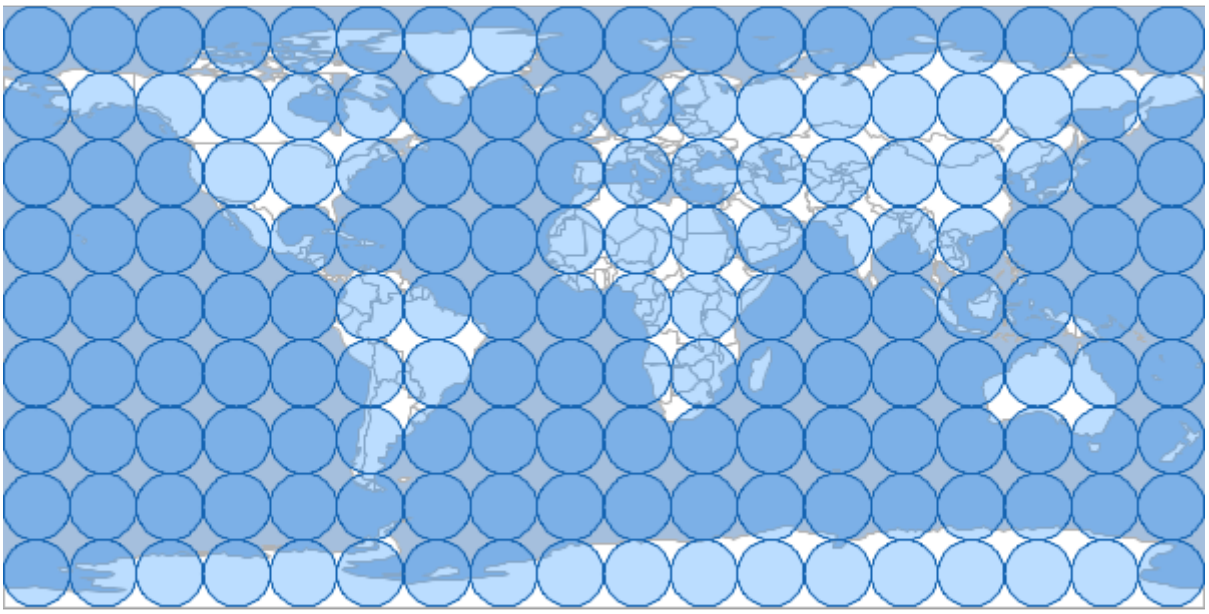
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

geo-shell> **map add layer** --name graticule --layer countries
Added countries layer to map graticule

geo-shell> **map add layer** --name graticule --layer ovals
Added ovals layer to map graticule

geo-shell> **map draw** --name graticule --file examples/oval_graticules.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/oval_graticules.png!

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



Hexagon

Create a hexagon graticule.

geo-shell> **layer graticule hexagon** --workspace layers --name hexagons --bounds -180,-90,180,90 --length 10

Name	Description	Mandatory	Specified Default	Unspecified Default
workspace	The Workspace name	true		
name	The new Layer name	true		
bounds	The bounds	true		
length	The length	true		
spacing	The spacing	false	5	5
orientation	The orientation (flat or angled)	false	flat	flat

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

geo-shell> **layer graticule hexagon** --workspace layers --name hexagons --bounds -180,-90,180,90 --length 10
Created Hexagon Graticule Layer hexagons!

geo-shell> **style vector default** --layer hexagons --color #1E90FF --opacity 0.30 --file examples/hexagons.sld
Default Vector Style for hexagons written to /home/runner/work/geo-shell/geo-shell/examples/hexagons.sld!

geo-shell> **layer style set** --name hexagons --style examples/hexagons.sld
Style /home/runner/work/geo-shell/geo-shell/examples/hexagons.sld set on hexagons

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

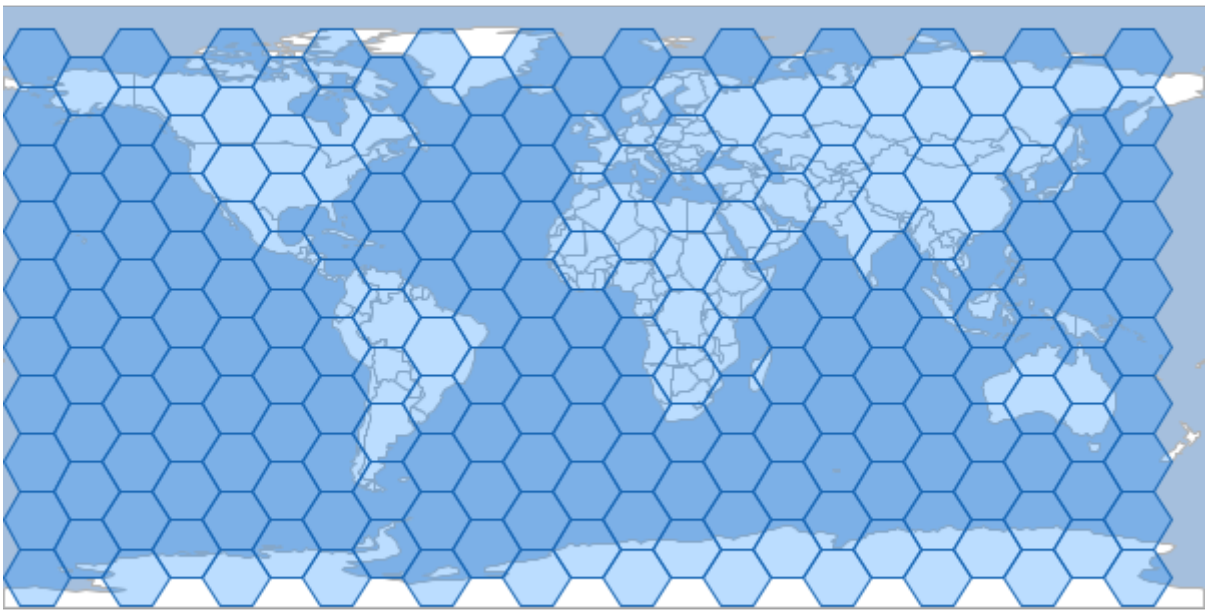
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

geo-shell> **map add layer** --name graticule --layer countries
Added countries layer to map graticule

geo-shell> **map add layer** --name graticule --layer hexagons
Added hexagons layer to map graticule

geo-shell> **map draw** --name graticule --file examples/hexagon_graticules.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/hexagon_graticules.png!

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



Format

Open

Open a Raster Format.

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

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Format name	false		
input	The input string	true		

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

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

List

List open Raster Formats.

geo-shell> **format list**

No parameters

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

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

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

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

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

Close

Close a Raster Format.

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

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

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

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

Rasters

List the Rasters in a Format.

geo-shell> **format rasters** --name earth

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

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

geo-shell> **format rasters** --name earth
earth

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

Format earth closed!

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/runner/work/geo-shell/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name outline --style examples/outline.sld
Style /home/runner/work/geo-shell/geo-shell/examples/outline.sld set on outline

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

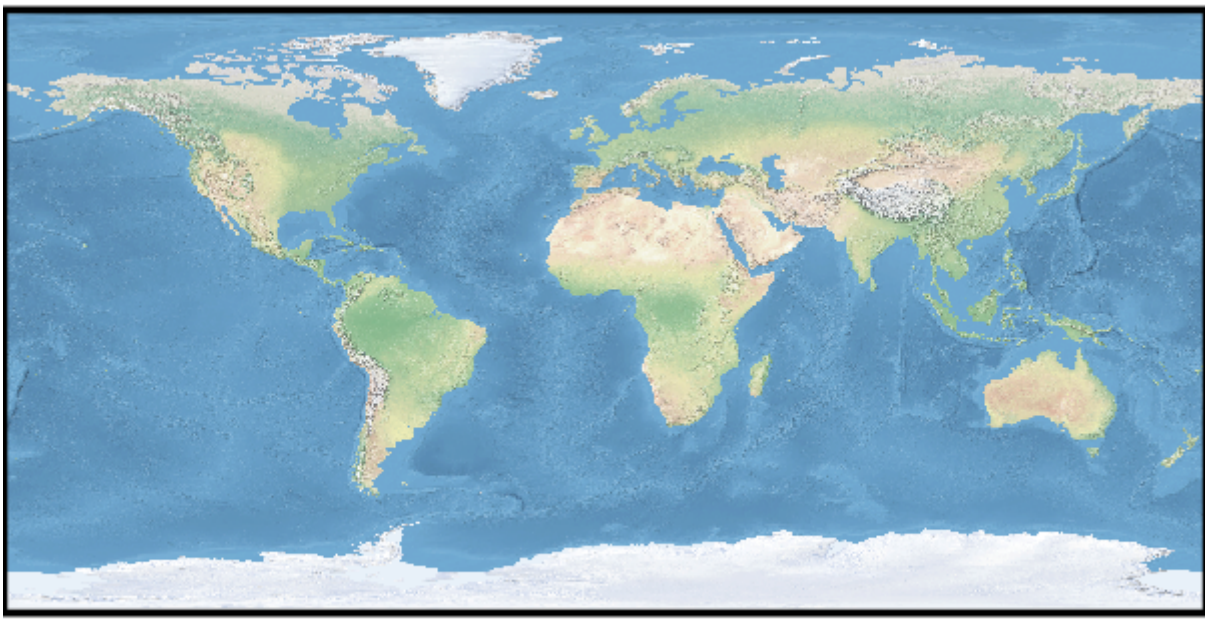
geo-shell> **map add raster** --name map --raster earth
Added earth layer to map map

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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pc

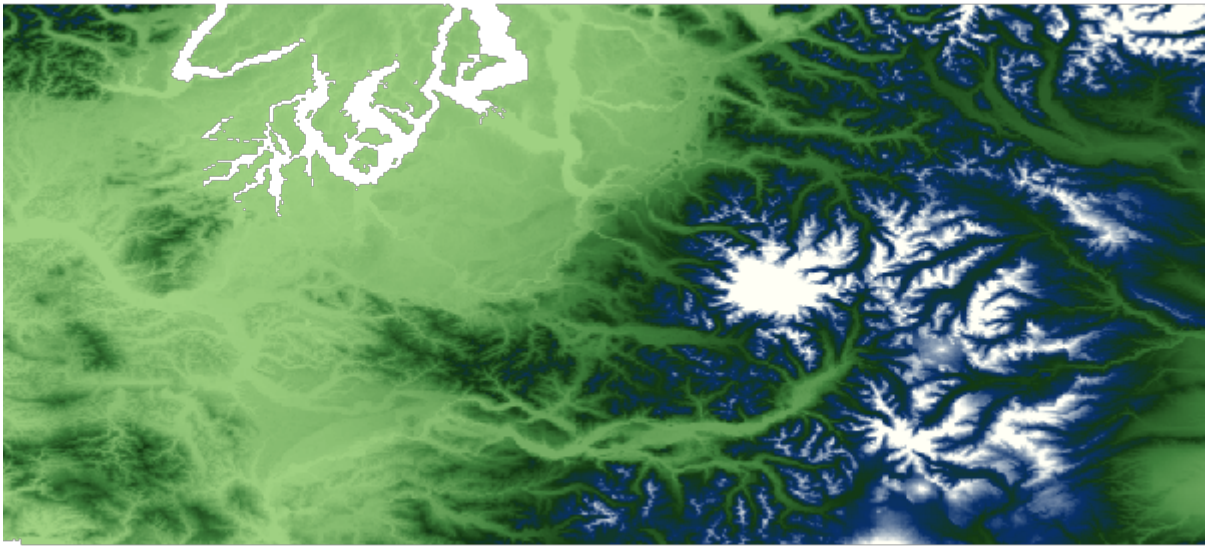
geo-shell> **map open** --name map
Map map opened!

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/runner/work/geo-shell/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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

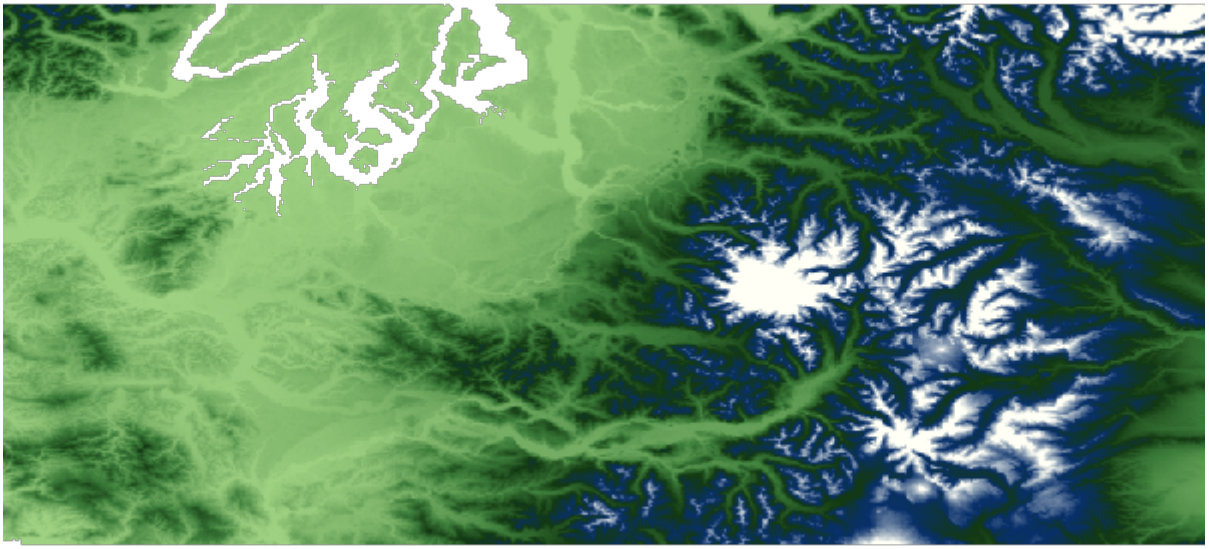
geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pc

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/runner/work/geo-shell/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/runner/work/geo-

shell/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/runner/work/geo-shell/geo-shell/examples/high.sld!

geo-shell> **raster style set** --name high --style examples/high.sld
Style /home/runner/work/geo-shell/geo-shell/examples/high.sld set on high

geo-shell> **layer style set** --name high_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on high_polygons

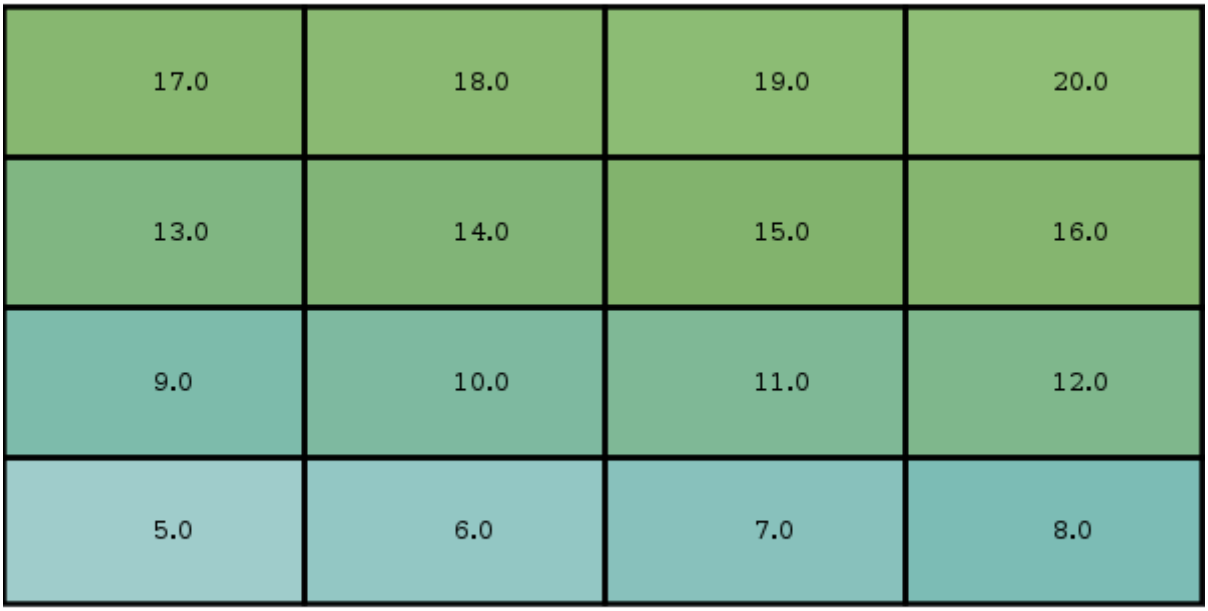
geo-shell> **map open** --name mapHigh
Map mapHigh opened!

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/runner/work/geo-shell/geo-shell/examples/raster_add_raster_high.png!

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



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/runner/work/geo-shell/geo-shell/examples/low.sld!

geo-shell> **raster style set** --name low --style examples/low.sld
Style /home/runner/work/geo-shell/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on low_polygons

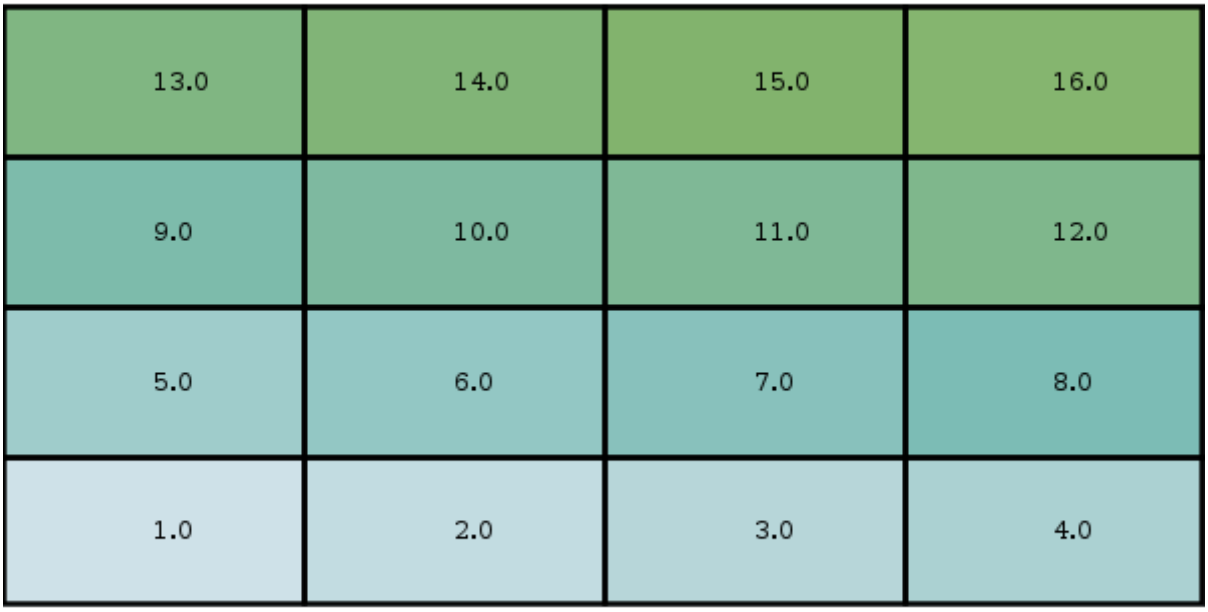
geo-shell> **map open** --name mapLow
Map mapLow opened!

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/runner/work/geo-shell/geo-shell/examples/raster_add_raster_low.png!

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



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/runner/work/geo-shell/geo-shell/examples/add.sld!

geo-shell> **raster style set** --name add --style examples/add.sld
Style /home/runner/work/geo-shell/geo-shell/examples/add.sld set on add

geo-shell> **layer style set** --name add_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on add_polygons

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

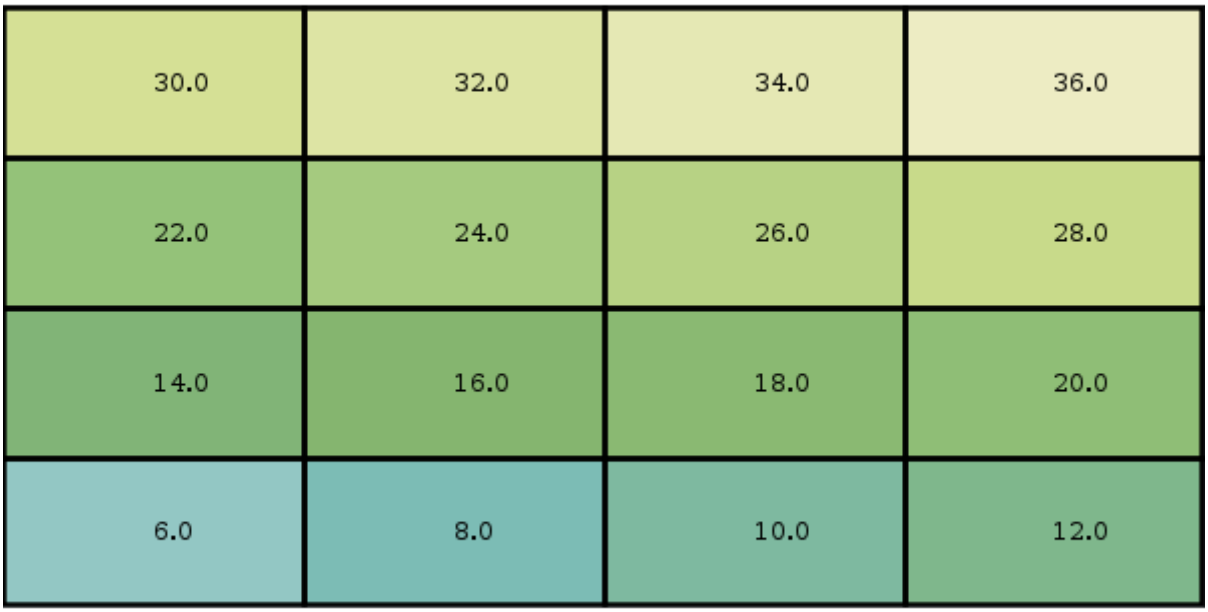
geo-shell> **map add raster** --name mapAdd --raster add
Added add layer to map mapAdd

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/runner/work/geo-shell/geo-shell/examples/raster_add_raster_add.png!

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



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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

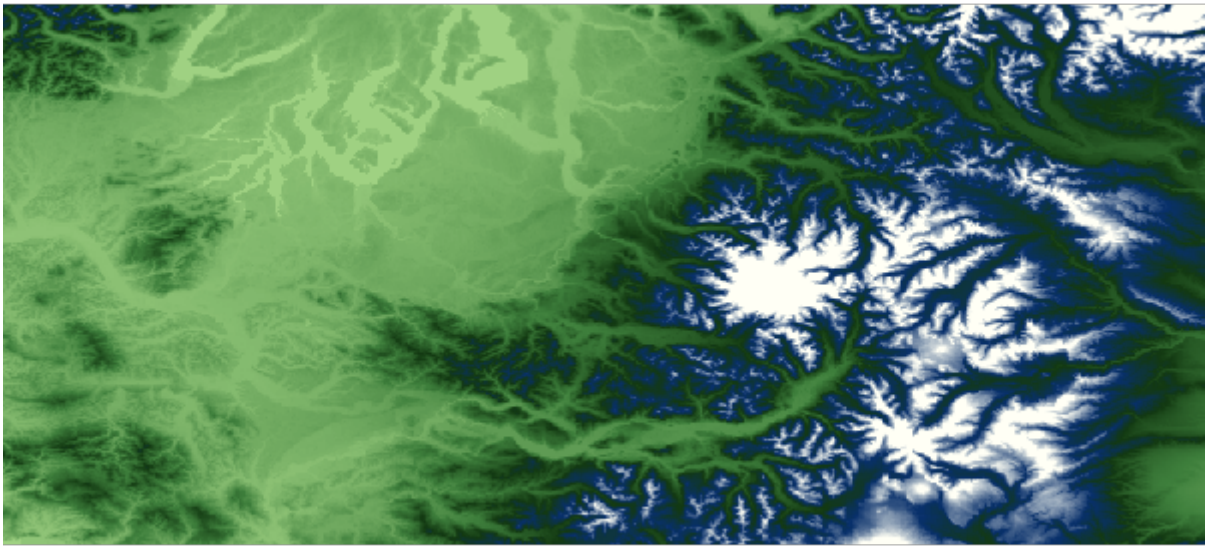
geo-shell> **raster style set** --name pcAdd100 --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pcAdd100

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/runner/work/geo-shell/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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/high.sld!

geo-shell> **raster style set** --name high --style examples/high.sld
Style /home/runner/work/geo-shell/geo-shell/examples/high.sld set on high

geo-shell> **layer style set** --name high_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on high_polygons

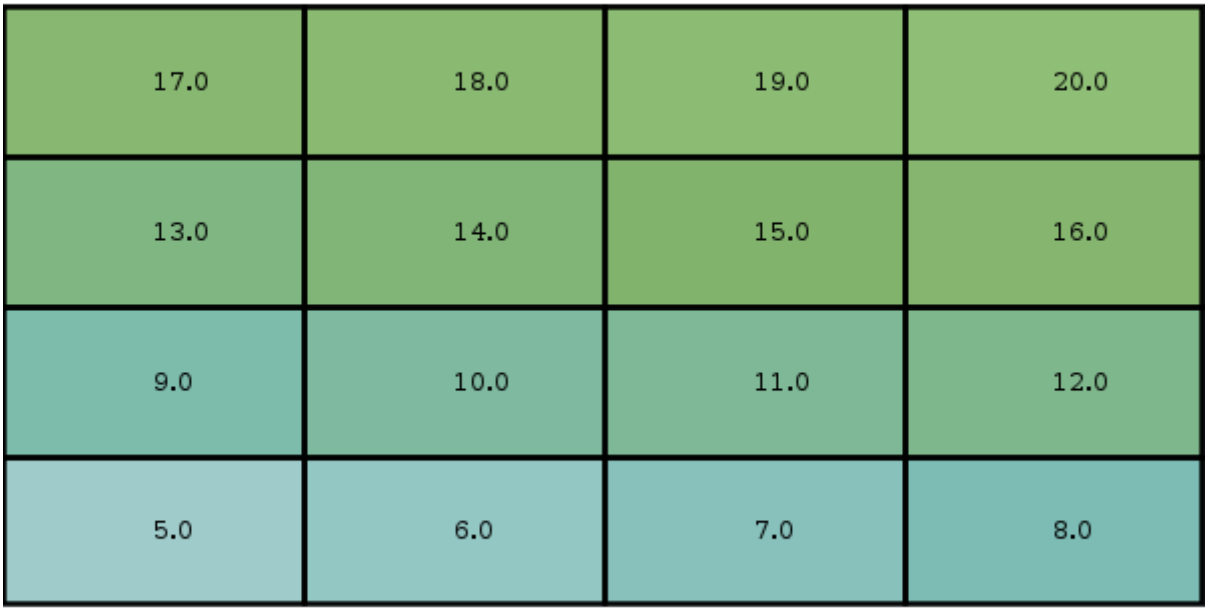
geo-shell> **map open** --name mapHigh
Map mapHigh opened!

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/runner/work/geo-shell/geo-shell/examples/raster_subtract_raster_high.png!

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



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/runner/work/geo-shell/geo-shell/examples/low.sld!

geo-shell> **raster style set** --name low --style examples/low.sld
Style /home/runner/work/geo-shell/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on low_polygons

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

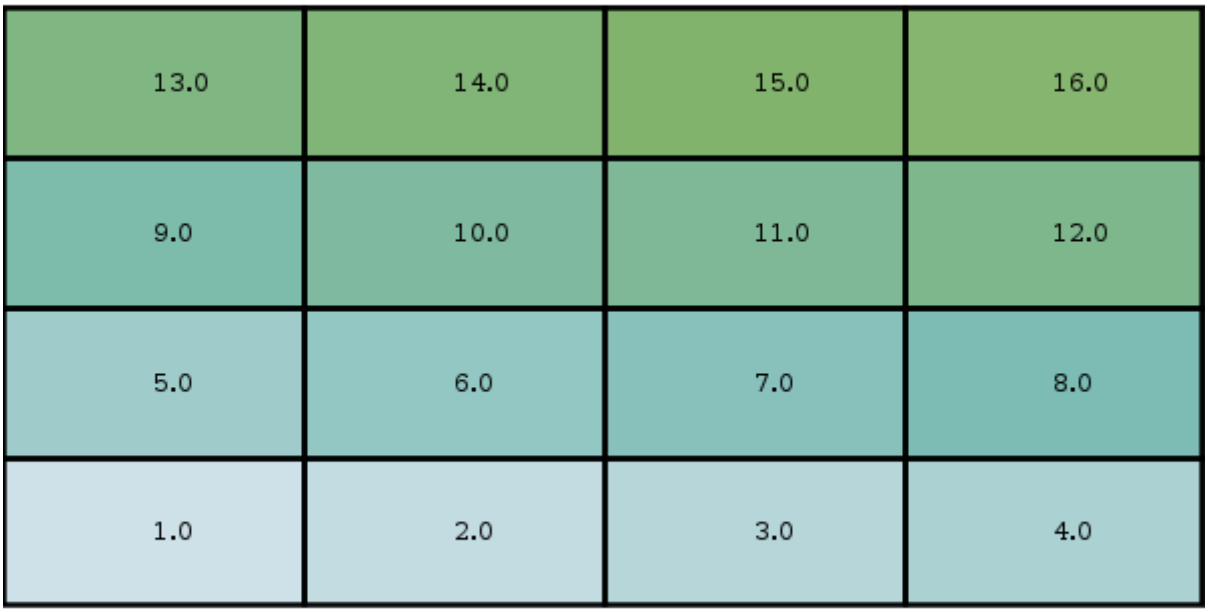
geo-shell> **map add raster** --name mapLow --raster low
Added low layer to map mapLow

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/runner/work/geo-shell/geo-shell/examples/raster_subtract_raster_low.png!

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



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/runner/work/geo-shell/geo-shell/examples/subtract.sld!

geo-shell> **raster style set** --name subtract --style examples/subtract.sld
Style /home/runner/work/geo-shell/geo-shell/examples/subtract.sld set on subtract

geo-shell> **layer style set** --name subtract_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on subtract_polygons

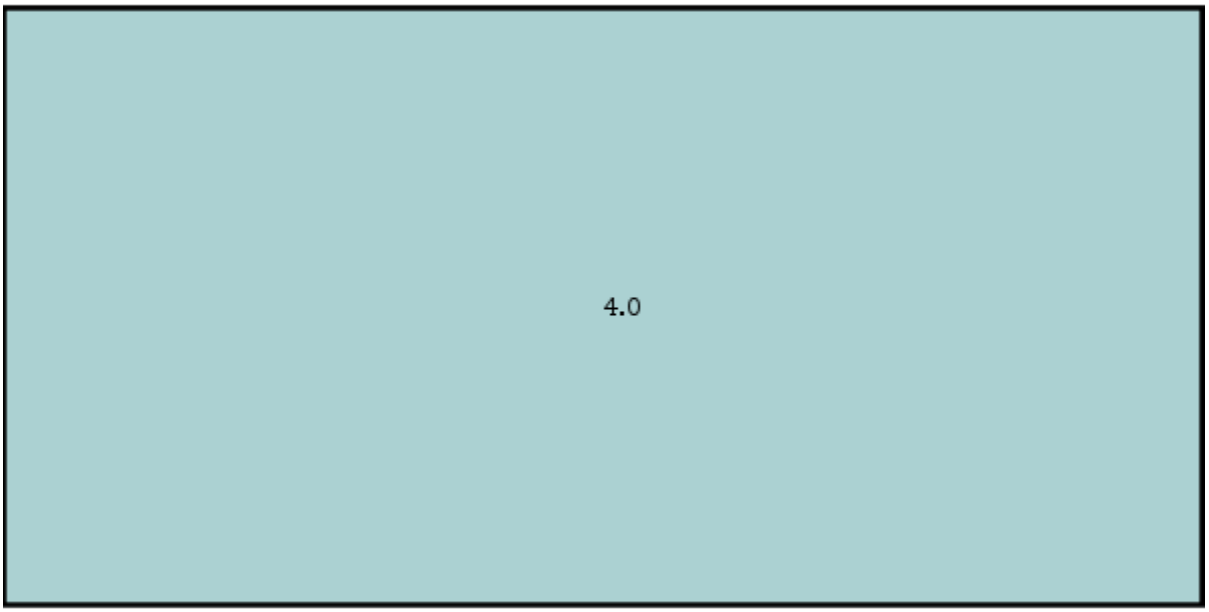
geo-shell> **map open** --name mapSubtract
Map mapSubtract opened!

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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

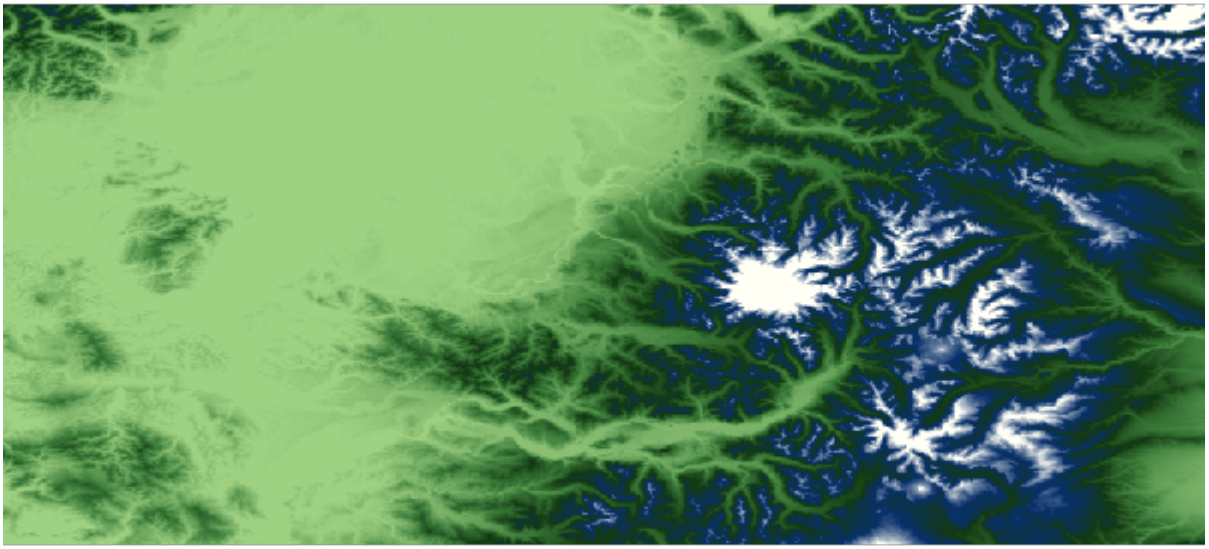
geo-shell> **raster style set** --name pcMinus100 --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pcMinus100

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/runner/work/geo-shell/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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/high.sld!

geo-shell> **raster style set** --name high --style examples/high.sld
Style /home/runner/work/geo-shell/geo-shell/examples/high.sld set on high

geo-shell> **layer style set** --name high_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on high_polygons

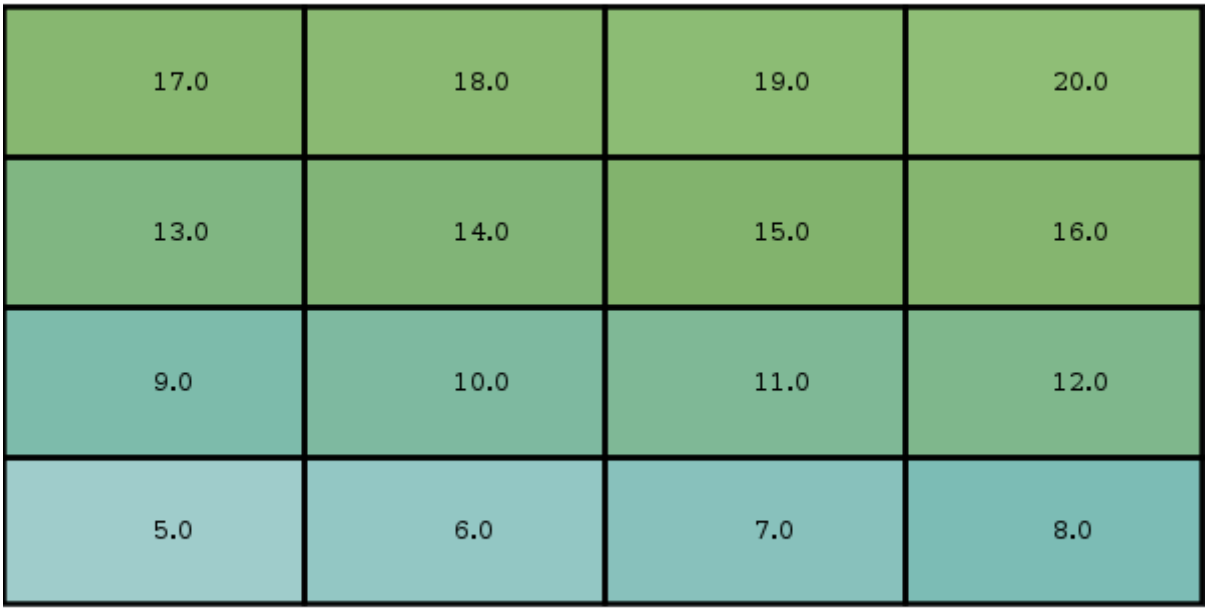
geo-shell> **map open** --name mapHigh
Map mapHigh opened!

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/runner/work/geo-shell/geo-shell/examples/raster_multiply_raster_high.png!

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



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/runner/work/geo-shell/geo-shell/examples/low.sld!

geo-shell> **raster style set** --name low --style examples/low.sld
Style /home/runner/work/geo-shell/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on low_polygons

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

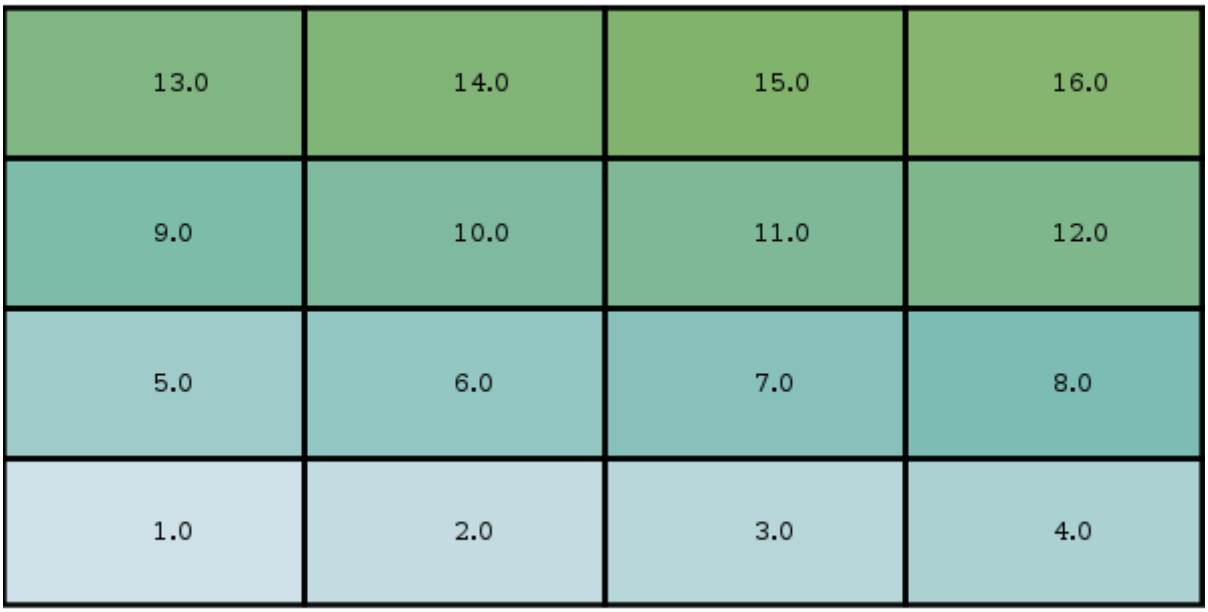
geo-shell> **map add raster** --name mapLow --raster low
Added low layer to map mapLow

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/runner/work/geo-shell/geo-shell/examples/raster_multiply_raster_low.png!

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



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/runner/work/geo-shell/geo-shell/examples/multiply.sld!

geo-shell> **raster style set** --name multiply --style examples/multiply.sld
Style /home/runner/work/geo-shell/geo-shell/examples/multiply.sld set on multiply

geo-shell> **layer style set** --name multiply_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on multiply_polygons

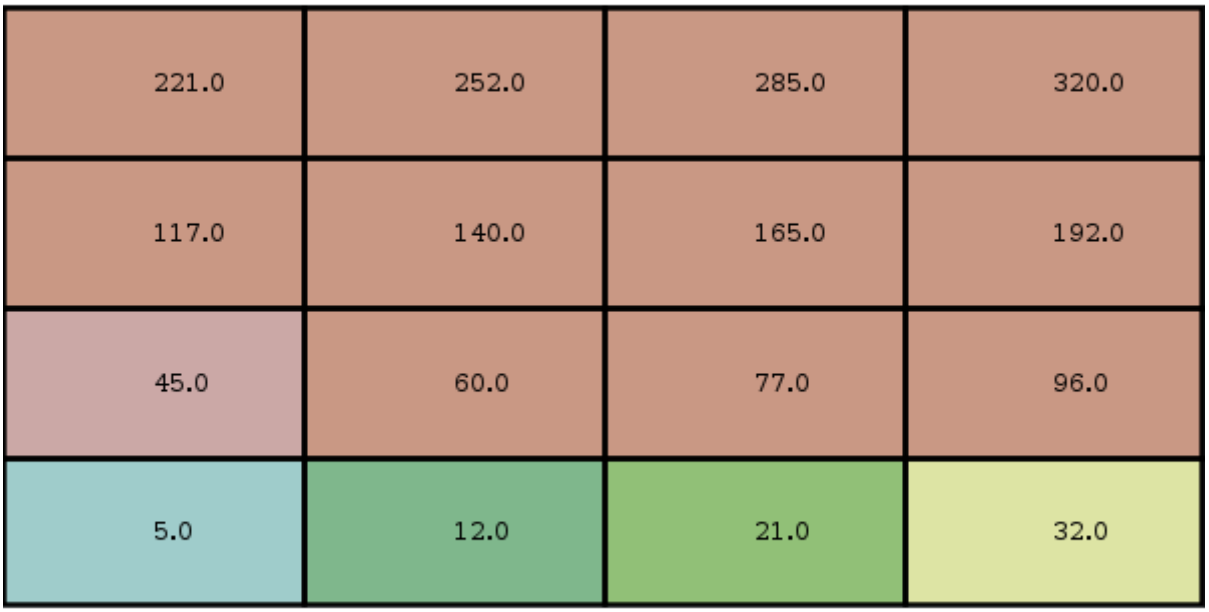
geo-shell> **map open** --name mapSubtract
Map mapSubtract opened!

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/runner/work/geo-shell/geo-shell/examples/raster_multiply_raster_multiply.png!

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



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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

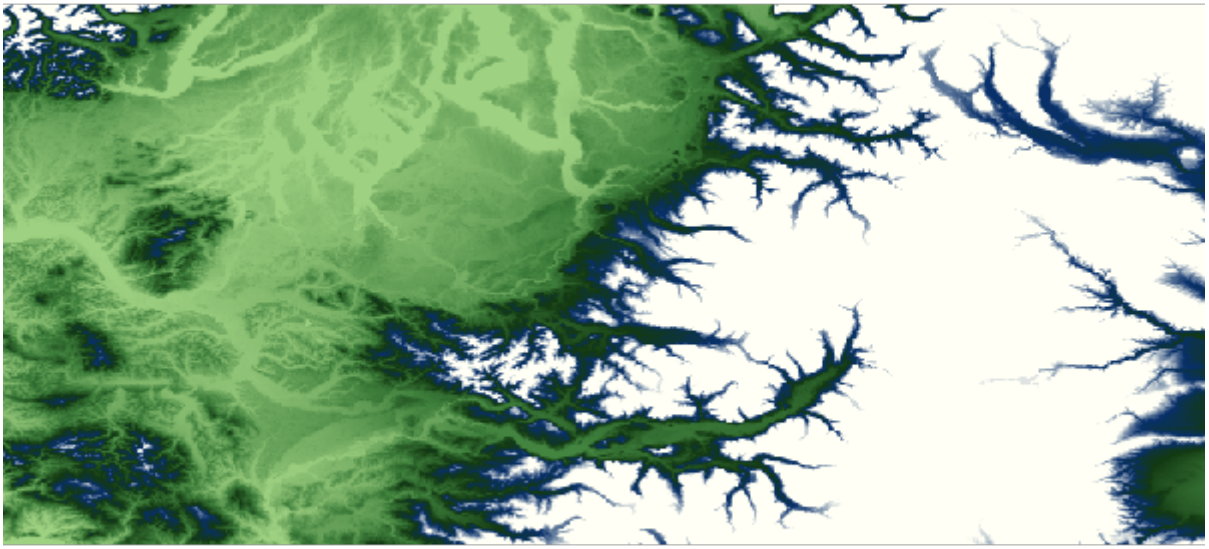
geo-shell> **raster style set** --name pcTimes2 --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pcTimes2

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/runner/work/geo-shell/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/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/high.sld!

geo-shell> **raster style set** --name high --style examples/high.sld
Style /home/runner/work/geo-shell/geo-shell/examples/high.sld set on high

geo-shell> **layer style set** --name high_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on high_polygons

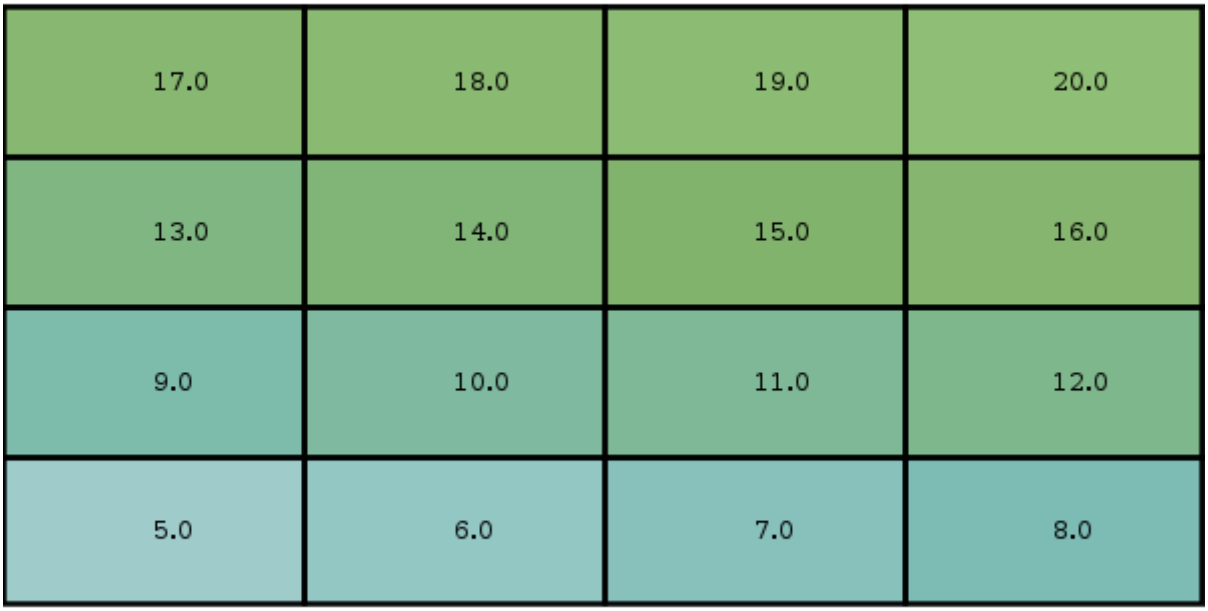
geo-shell> **map open** --name mapHigh
Map mapHigh opened!

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/runner/work/geo-shell/geo-shell/examples/raster_divide_raster_high.png!

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



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/runner/work/geo-shell/geo-shell/examples/low.sld!

geo-shell> **raster style set** --name low --style examples/low.sld
Style /home/runner/work/geo-shell/geo-shell/examples/low.sld set on low

geo-shell> **layer style set** --name low_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on low_polygons

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

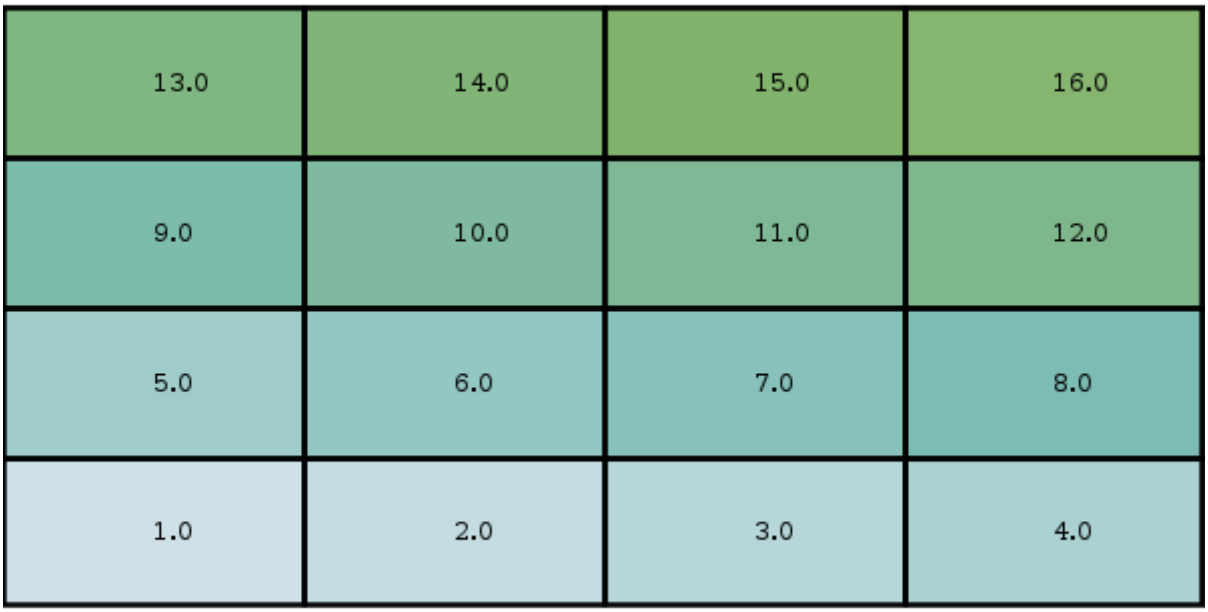
geo-shell> **map add raster** --name mapLow --raster low
Added low layer to map mapLow

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/runner/work/geo-shell/geo-shell/examples/raster_divide_raster_low.png!

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



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/runner/work/geo-shell/geo-shell/examples/divide.sld!

geo-shell> **raster style set** --name divide --style examples/divide.sld
Style /home/runner/work/geo-shell/geo-shell/examples/divide.sld set on divide

geo-shell> **layer style set** --name divide_polygons --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on divide_polygons

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

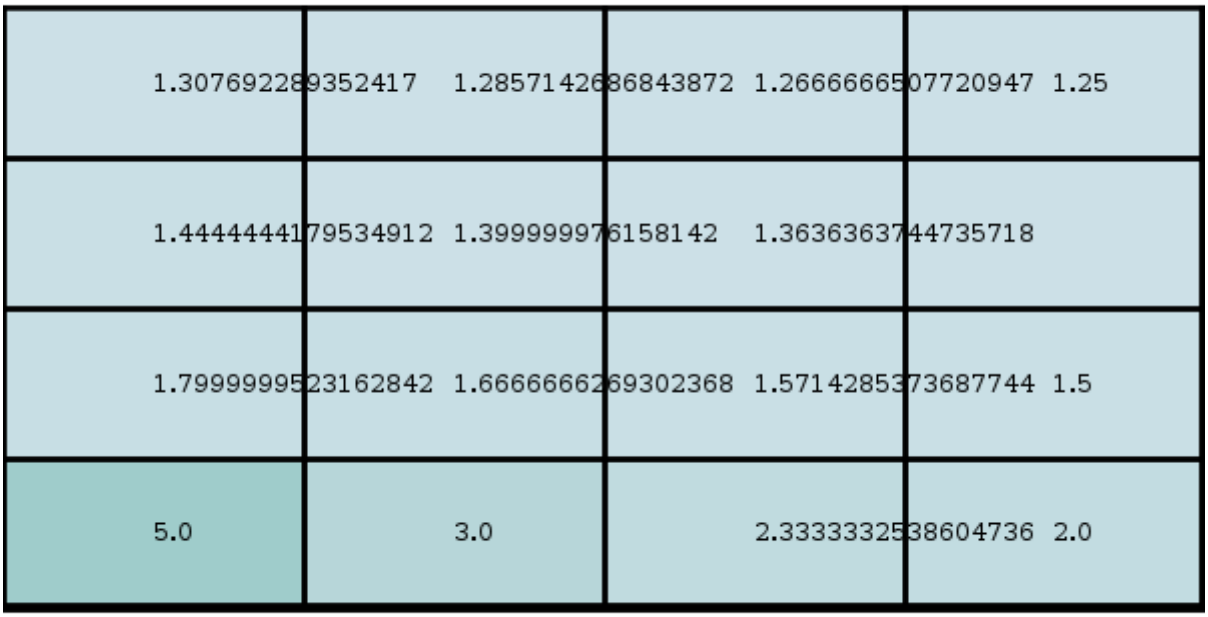
geo-shell> **map add raster** --name mapSubtract --raster divide

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/runner/work/geo-shell/geo-shell/examples/raster_divide_raster_divide.png!

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



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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

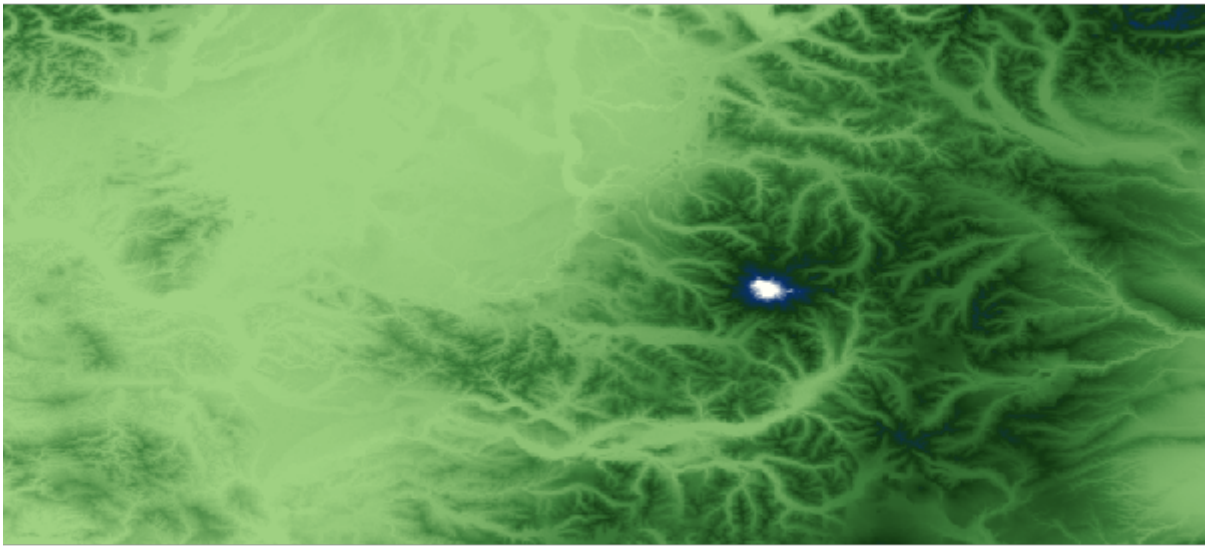
geo-shell> **raster style set** --name pcDividedBy2 --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pcDividedBy2

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/runner/work/geo-shell/geo-shell/examples/raster_divide_constant.png!

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



Contours

Create contours.

geo-shell> **raster contours** --name pc --output-workspace contours --output-name contours --levels 0,100,200,300,600,900

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		

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

Format pc opened!

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

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

geo-shell> **raster style set** --name pc --style examples/pc.sld
Style /home/runner/work/geo-shell/geo-shell/examples/pc.sld set on pc

geo-shell> **workspace open** --name contours --params examples/contours.shp
Workspace contours opened!

geo-shell> **raster contours** --name pc --output-workspace contours --output-name contours --levels 0,100,200,300,600,900
Done creating contours!

geo-shell> **style create** --params "stroke=black stroke-width=0.25" --file examples/contours.sld
Style stroke=black stroke-width=0.25 written to /home/runner/work/geo-shell/geo-shell/examples/contours.sld!

geo-shell> **layer style set** --name contours --style examples/contours.sld
Style /home/runner/work/geo-shell/geo-shell/examples/contours.sld set on contours

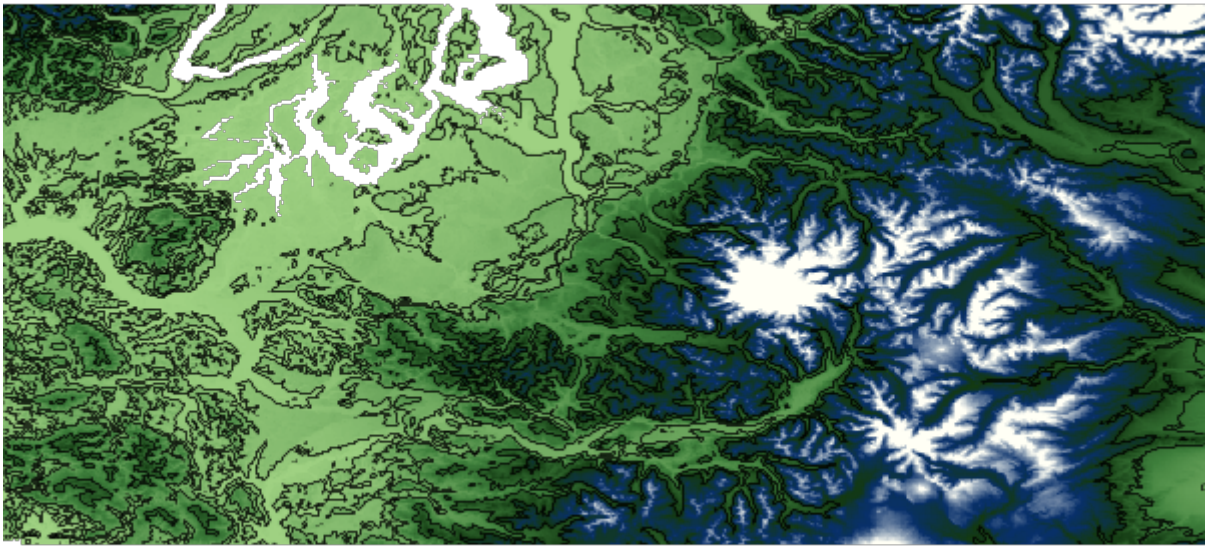
geo-shell> **map open** --name map
Map map opened!

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

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

geo-shell> **map draw** --name map --file examples/raster_contours.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_contours.png!

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



Crop

Crop a Raster.

geo-shell> **raster crop** --name earth --output-format earthCropped --output-name earthCropped --geometry "-160.927734,6.751896,-34.716797,57.279043"

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		

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> **format open** --name earthCropped --input examples/earthCropped.tif
Format earthCropped opened!

geo-shell> **raster crop** --name earth --output-format earthCropped --output-name earthCropped --geometry "-160.927734,6.751896,-34.716797,57.279043"

Raster earth cropped to earthCropped!

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

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

geo-shell> **map draw** --name map --file examples/raster_crop.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_crop.png!

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

Mosaic

Mosaic two Rasters together

geo-shell> **raster mosaic** --name1 alki2 --name2 alki3 --output-format mosaic --output-name mosaic

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** --input examples/alki2.tif --name alki2
Format alki2 opened!

geo-shell> **raster open** --format alki2 --raster alki2 --name alki2
Opened Format alki2 Raster alki2 as alki2

geo-shell> **format open** --input examples/alki3.tif --name alki3
Format alki3 opened!

geo-shell> **raster open** --format alki3 --raster alki3 --name alki3
Opened Format alki3 Raster alki3 as alki3

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

geo-shell> **raster mosaic** --name1 alki2 --name2 alki3 --output-format mosaic --output-name mosaic
Mosaic alki2 and alki3 to create mosaic!

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

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

geo-shell> **map draw** --name map --file examples/raster_mosaic.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_mosaic.png!

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

Reclassify

Reclassify a Raster.

geo-shell> **raster reclassify** --name pc --output-format pcReclass --output-name pcReclass --ranges "0-0=1,0-50=2,50-200=3,200-1000=4,1000-1500=5,1500-4000=6"

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

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

Format pc opened!

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

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

geo-shell> **raster reclassify** --name pc --output-format pcReclass --output-name pcReclass --ranges "0-0=1,0-50=2,50-200=3,200-1000=4,1000-1500=5,1500-4000=6"
Raster pc reclassified to pcReclass!

geo-shell> **style raster colormap** --raster pcReclass --values "1=#9fd182,2=#3e7f3c,3=#133912,4=#08306b,5=#FFF8DC,6=#ffffff" --file examples/pcReclass.sld
Colormap Raster Style for pcReclass written to /home/runner/work/geo-shell/geo-shell/examples/pcReclass.sld!

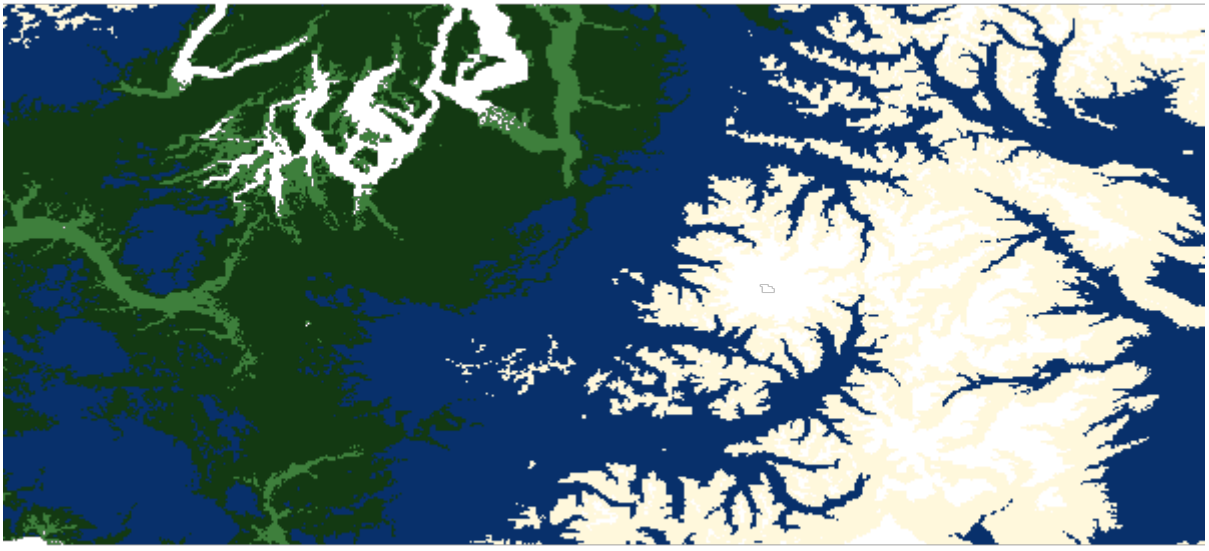
geo-shell> **raster style set** --name pcReclass --style examples/pcReclass.sld
Style /home/runner/work/geo-shell/geo-shell/examples/pcReclass.sld set on pcReclass

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

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

geo-shell> **map draw** --name map --file examples/raster_reclassify.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_reclassify.png!

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



Reproject

Project a Raster.

geo-shell> **raster reproject** --name earthCropped --output-format earth3857 --output-name earth3857 --projection "EPSG:3857"

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		

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> **format open** --name earthCropped --input examples/earthCropped.tif
Format earthCropped opened!

geo-shell> **raster crop** --name earth --output-format earthCropped --output-name earthCropped --geometry "-180.0,-85.06,180.0,85.06"

Raster earth cropped to earthCropped!

geo-shell> **format open** --name earth3857 --input examples/earth3857.tif
Format earth3857 opened!

geo-shell> **raster reproject** --name earthCropped --output-format earth3857 --output-name earth3857 --projection "EPSG:3857"
Raster earthCropped reprojected to earth3857 as EPSG:3857!

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

geo-shell> **map add raster** --name map --raster earth3857
Added earth3857 layer to map map

geo-shell> **map draw** --name map --file examples/raster_reproject.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_reproject.png!

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

Scale

Scale a Raster.

geo-shell> **raster scale** --name pc --output-format pcScaled --output-name pcScaled --x 0.5 --y 0.5

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

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

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

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

geo-shell> **raster scale** --name pc --output-format pcScaled --output-name pcScaled --x 0.5 --y 0.5
Raster pc scaled to pcScaled!

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

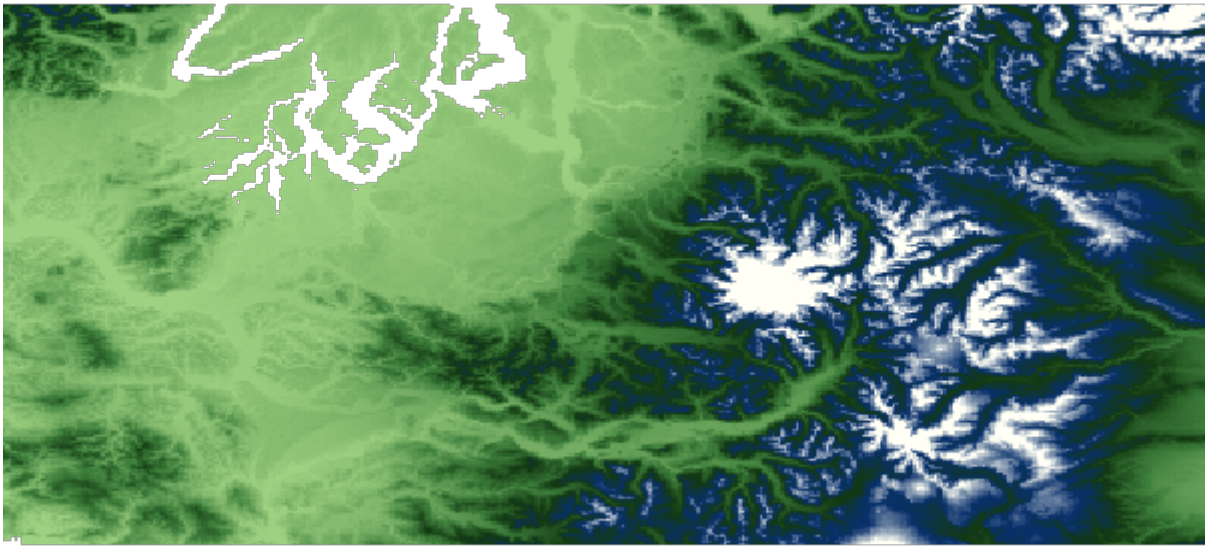
geo-shell> **raster style set** --name pcScaled --style examples/pcScaled.sld
Style /home/runner/work/geo-shell/geo-shell/examples/pcScaled.sld set on pcScaled

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

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

geo-shell> **map draw** --name map --file examples/raster_scale.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_scale.png!

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



Shaded Relief

Create a shaded relief raster

geo-shell> **raster shadedrelief** --name pc --output-format pcShaded --output-name pcShaded --scale 1.0 --altitude 25 --azimuth 260

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

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

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

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

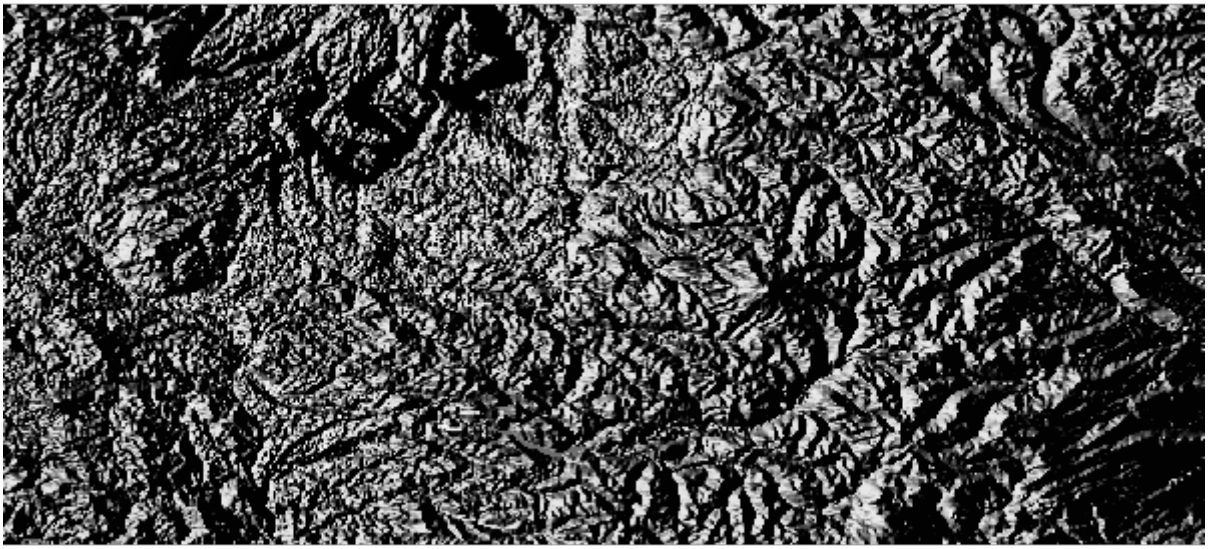
geo-shell> **raster shadedrelief** --name pc --output-format pcShaded --output-name pcShaded --scale 1.0 --altitude 25 --azimuth 260
Create shaded relief pcShaded from pc!

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

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

geo-shell> **map draw** --name map --file examples/raster_shadedrelief.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_shadedrelief.png!

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



Stylize

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

geo-shell> **raster stylize** --name pc --output-format pcStyled --output-name pcStyled

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		

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

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

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

geo-shell> **raster style set** --name pc --style examples/pc.sld
Style /home/runner/work/geo-shell/geo-shell/examples/pc.sld set on pc

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

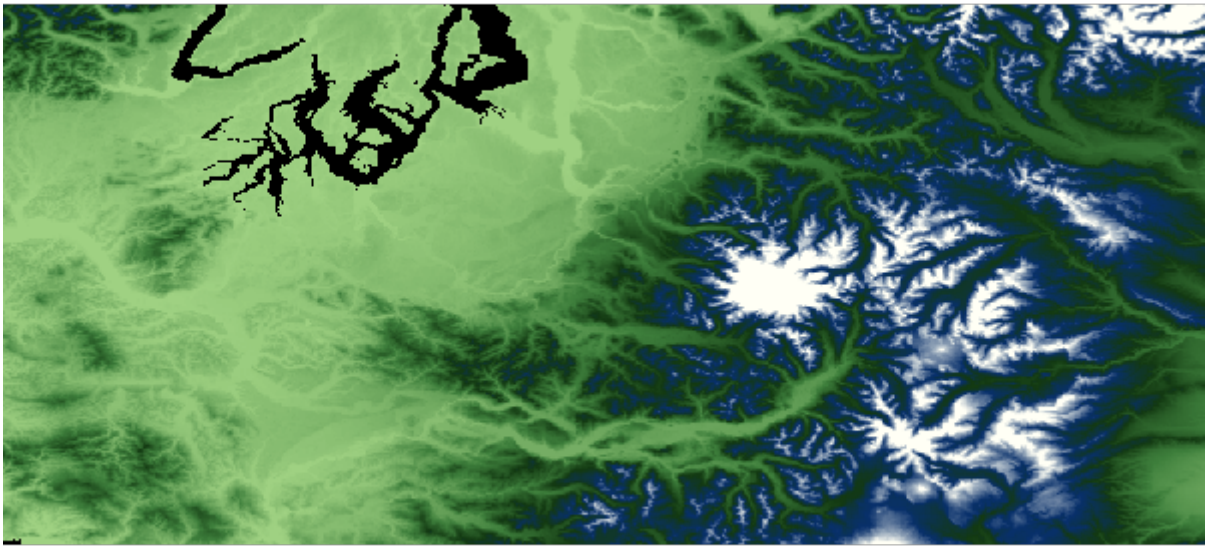
geo-shell> **raster stylize** --name pc --output-format pcStyled --output-name pcStyled
Stylized pc to create pcStyled!

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

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

geo-shell> **map draw** --name map --file examples/raster_stylize.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/raster_stylize.png!

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



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/runner/work/geo-shell/geo-shell/examples/high.sld!

geo-shell> **raster style set** --name high --style examples/high.sld
Style /home/runner/work/geo-shell/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/runner/work/geo-shell/geo-shell/examples/grid.sld!

geo-shell> **layer style set** --name grid --style examples/grid.sld
Style /home/runner/work/geo-shell/geo-shell/examples/grid.sld set on grid

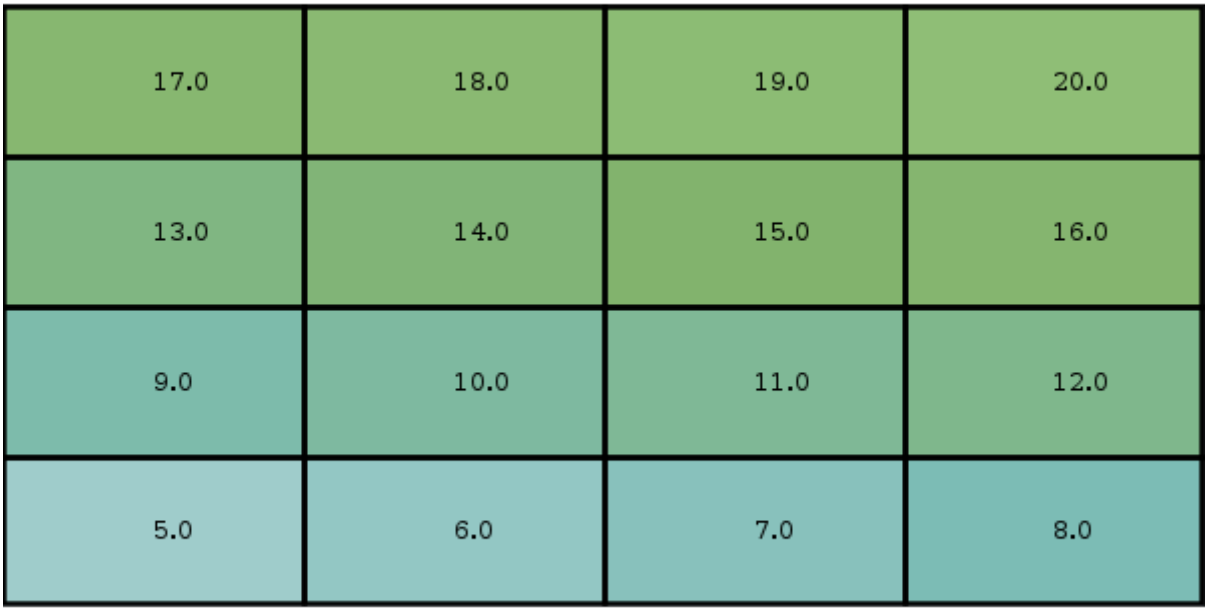
geo-shell> **map open** --name map
Map map opened!

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/runner/work/geo-shell/geo-shell/examples/raster_polygon.png!

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



Tile

Open

Open a Tile Layer.

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
params	The connection parameters	true		

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **tile close** --name countries
Tile Layer countries closed!

Close

Close a Tile Layer.

geo-shell> **tile close** --name countries

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

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **tile close** --name countries
Tile Layer countries closed!

List

List open Tile Layers.

geo-shell> **tile list**

No parameters

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **tile list**
countries = MBTiles

geo-shell> **tile close** --name countries
Tile Layer countries closed!

Info

Get information about a Tile Layer.

geo-shell> **tile info** --name countries

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

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **tile info** --name countries
countries
EPSG:3857
-2.003639514788131E7,
-2.0037471205137067E7,2.003639514788131E7,2.003747120513706E7,EPSG:3857
BOTTOM_LEFT
256,256
0,1,1,156412.0,156412.0

1,2,2,78206.0,78206.0
2,4,4,39103.0,39103.0
3,8,8,19551.5,19551.5
4,16,16,9775.75,9775.75
5,32,32,4887.875,4887.875
6,64,64,2443.9375,2443.9375
7,128,128,1221.96875,1221.96875
8,256,256,610.984375,610.984375
9,512,512,305.4921875,305.4921875
10,1024,1024,152.74609375,152.74609375
11,2048,2048,76.373046875,76.373046875
12,4096,4096,38.1865234375,38.1865234375
13,8192,8192,19.09326171875,19.09326171875
14,16384,16384,9.546630859375,9.546630859375
15,32768,32768,4.7733154296875,4.7733154296875
16,65536,65536,2.38665771484375,2.38665771484375
17,131072,131072,1.193328857421875,1.193328857421875
18,262144,262144,0.5966644287109375,0.5966644287109375
19,524288,524288,0.29833221435546875,0.29833221435546875

geo-shell> **tile close** --name countries
Tile Layer countries closed!

Delete

Delete tiles from a Tile Layer.

geo-shell> **tile delete** --name tiles --z 3

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
tile	The tile z/x/y	false		
bounds	The bounds	false		
width	The width	false	400	400
height	The height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1
maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

geo-shell> **tile open** --name tiles --params target/tiles.mbtiles
Tile Layer tiles opened!

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

geo-shell> **map add layer** --name world --layer ocean
Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **tile generate** --name tiles --map world --start 0 --end 3
Tiles generated!

geo-shell> **tile delete** --name tiles --z 3
Deleting tiles at z level 3

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

Generate

Generate tiles for a Tile Layer.

geo-shell> **tile generate** --name tiles --map world --start 0 --end 3

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
map	The map name	true		
start	The map name	true		
end	The map name	true		

bounds	The map name	false		
metatile	The metatile width,height	false		
missingOnly	The map name	false	false	false
verbose	The map name	false	false	false

geo-shell> **tile open** --name tiles --params target/tiles.mbtiles
Tile Layer tiles opened!

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

geo-shell> **map add layer** --name world --layer ocean
Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **tile generate** --name tiles --map world --start 0 --end 3
Tiles generated!

geo-shell> **format open** --name world_level2 --input examples/tile_generate.png
Format world_level2 opened!

geo-shell> **tile stitch raster** --name tiles --format world_level2 --raster world_level2 --z 2
Done stitching Raster world_level2 from tiles!

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

Stitch Raster

Create a Raster from a Tile Layer.

geo-shell> **tile stitch raster** --name countries --format states --raster states --bounds -18217695.5734,1222992.4526,-4207094.0368,7924991.0926

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
format	The raster format name	true		
raster	The raster name	true		

bounds	The bounds	false		
width	The raster width	false	400	400
height	The raster height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1
maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

Create a Raster from a Tile Layer with a geographic bounds.

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **format open** --name states --input examples/tile_stitch_bounds.png
Format states opened!

geo-shell> **tile stitch raster** --name countries --format states --raster states --bounds -18217695.5734,1222992.4526,-4207094.0368,7924991.0926
Done stitching Raster states from countries!

Tiles

List tiles within a given bounds.

geo-shell> **tile tiles** --name countries --z 8 --bounds -13787405.4140,5872198.2610,-13349574.1159,6081635.7185

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
bounds	The bounds	true		
z	The zoom level	true		

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

geo-shell> **tile tiles** --name countries --z 8 --bounds -13787405.4140,5872198.2610, -13349574.1159,6081635.7185
8/39/165
8/40/165
8/41/165
8/42/165
8/39/166
8/40/166
8/41/166
8/42/166

geo-shell> **tile close** --name countries
Tile Layer countries closed!

Vector Grid

Create a Vector Grid Layer from the pyramid of a Tile Layer.

geo-shell> **tile vector grid** --name countries --workspace layers --layer level3 --z 3

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
workspace	The workspace name	true		
layer	The layer name	true		
bounds	The bounds	false		
width	The raster width	false	400	400
height	The raster height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1

maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

geo-shell> **tile open** --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!

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

geo-shell> **tile vector grid** --name countries --workspace layers --layer level3 --z 3
Done generating the vector grid level3 from countries!

geo-shell> **style vector default** --layer level3 --color #ffffff --opacity 0.25 --file examples/level3.sld
Default Vector Style for level3 written to /home/runner/work/geo-shell/geo-shell/examples/level3.sld!

geo-shell> **layer style set** --name level3 --style examples/level3.sld
Style /home/runner/work/geo-shell/geo-shell/examples/level3.sld set on level3

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

geo-shell> **map add layer** --name vectorGridMap --layer ocean
Added ocean layer to map vectorGridMap

geo-shell> **map add layer** --name vectorGridMap --layer countries
Added countries layer to map vectorGridMap

geo-shell> **map add layer** --name vectorGridMap --layer level3
Added level3 layer to map vectorGridMap

geo-shell> **map draw** --name vectorGridMap --file examples/tile_vector_grid.png --projection EPSG:3857 --width 400 --height 400 --bounds -20026376.39,-20048966.10,20026376.39,20048966.10
Done drawing /home/runner/work/geo-shell/geo-shell/examples/tile_vector_grid.png!

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

Style

Create

Create a simple style.

geo-shell> **style create** --params "stroke=black stroke-width=0.25 fill=wheat" --file examples/style_create.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
params	The style parameters	true		
file	The output file	true		

geo-shell> **style create** --params "stroke=black stroke-width=0.25 fill=wheat" --file examples/style_create.sld
Style stroke=black stroke-width=0.25 fill=wheat written to /home/runner/work/geo-shell/geo-shell/examples/style_create.sld!

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries

Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/style_create.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_create.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

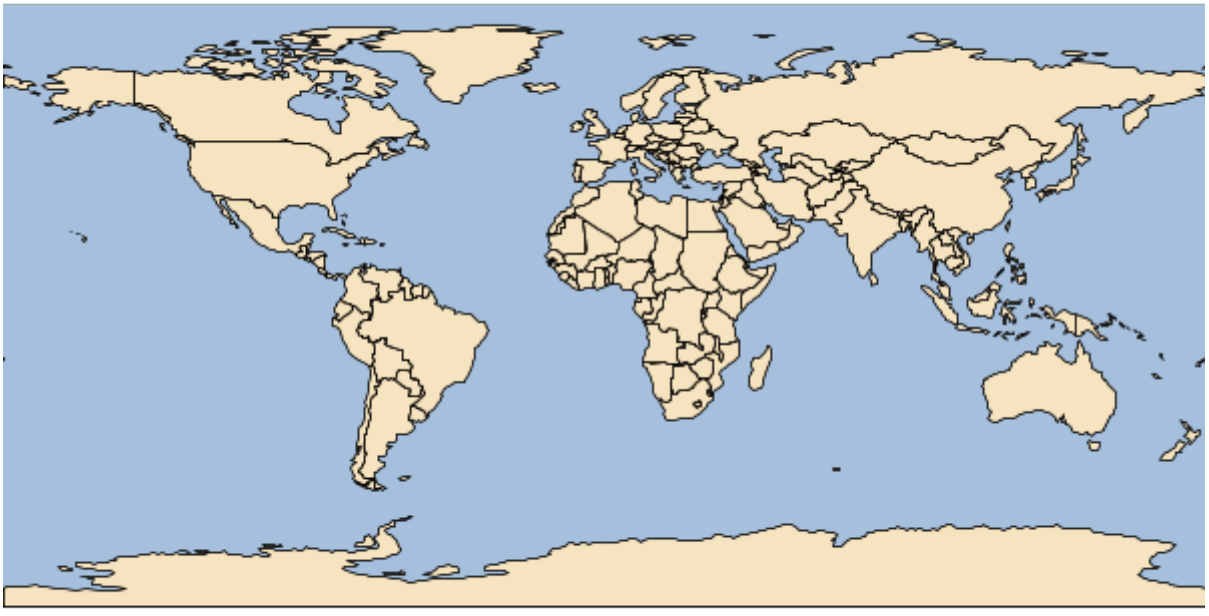
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

geo-shell> **map draw** --name map --file examples/style_create.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_create.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#f5deb3</sld:CssParameter>
              <sld:CssParameter name="fill-opacity">0.6</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke-width">0.25</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```



Vector Default

Create a default vector style.

geo-shell> **style vector default** --layer countries --color #F5F5DC --file examples/countries_default.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
layer	The Layer	true		
color	The color	false	#f2f2f2	#f2f2f2
opacity	The opacity	false	1.0	1.0
file	The output file	true		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style vector default** --layer countries --color #F5F5DC --file examples/countries_default.sld
Default Vector Style for countries written to /home/runner/work/geo-shell/geo-shell/examples/countries_default.sld!

geo-shell> **layer style set** --name countries --style examples/countries_default.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries_default.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **style vector default** --layer ocean --color DeepSkyBlue --file examples/ocean_default.sld
Default Vector Style for ocean written to /home/runner/work/geo-shell/geo-shell/examples/ocean_default.sld!

geo-shell> **layer style set** --name ocean --style examples/ocean_default.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean_default.sld set on ocean

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

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

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

geo-shell> **map draw** --name map --file examples/style_vector_default.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_vector_default.png!

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

Country Style

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#f5f5dc</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke">#abab9a</sld:CssParameter>
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

Ocean Style

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#00bfff</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke">#0085b2</sld:CssParameter>
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

Vector Gradient

Create a gradient vector style.

geo-shell> **style vector gradient** --layer countries --field PEOPLE --colors greens --number 8 --method quantile --file examples/style_vector_gradient.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
layer	The Layer	true		
field	The field	true		
number	The number of categories	true		
colors	The colors	true		
method	The classification method (Quantile or EqualInterval)	false	Quantile	Quantile
elsemode	The else mode (ignore, min, max)	false	ignore	ignore
file	The output file	true		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style vector gradient** --layer countries --field PEOPLE --colors greens --number 8 --method quantile --file examples/style_vector_gradient.sld
Gradient Vector Style for countries's PEOPLE Field written to /home/runner/work/geo-shell/geo-shell/examples/style_vector_gradient.sld!

geo-shell> **layer style set** --name countries --style examples/style_vector_gradient.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_vector_gradient.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

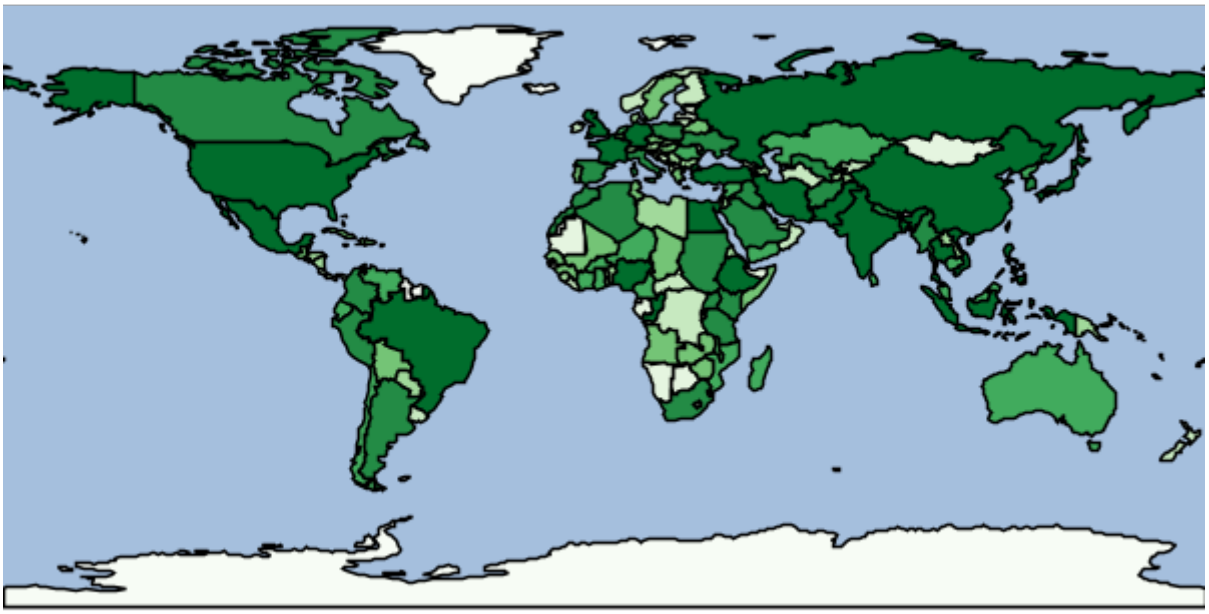
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

geo-shell> **map draw** --name map --file examples/style_vector_gradient.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_vector_gradient.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <ogc:Filter>
            <ogc:And>
              <ogc:PropertyIsGreaterThanOrEqualTo>
                <ogc:PropertyName>PEOPLE</ogc:PropertyName>
                <ogc:Literal>0</ogc:Literal>
              </ogc:PropertyIsGreaterThanOrEqualTo>
              <ogc:PropertyIsLessThan>
                <ogc:PropertyName>PEOPLE</ogc:PropertyName>
                <ogc:Literal>833285</ogc:Literal>
              </ogc:PropertyIsLessThan>
            </ogc:And>
          </ogc:Filter>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#F7FCF5</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke/>
          </sld:LineSymbolizer>
        </sld:Rule>
        <sld:Rule>
          <ogc:Filter>
            <ogc:And>
              <ogc:PropertyIsGreaterThanOrEqualTo>
                <ogc:PropertyName>PEOPLE</ogc:PropertyName>
                <ogc:Literal>833285</ogc:Literal>
              </ogc:PropertyIsGreaterThanOrEqualTo>
              <ogc:PropertyIsLessThan>
```

```
            <ogc:PropertyName>PEOPLE</ogc:PropertyName>
            <ogc:Literal>3360474</ogc:Literal>
          </ogc:PropertyIsLessThan>
        </ogc:And>
      </ogc:Filter>
      <sld:PolygonSymbolizer>
        <sld:Fill>
          <sld:CssParameter name="fill">#E5F5E0</sld:CssParameter>
        </sld:Fill>
      </sld:PolygonSymbolizer>
      <sld:LineSymbolizer>
```



Vector Unique Values

Create a unique values vector style.

geo-shell> **style vector uniquevalues** --layer countries --field NAME --colors random --file examples/style_vector_uniquevalues.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
layer	The Layer	true		
field	The field	true		
colors	The colors	true		
file	The output file	true		

geo-shell> **workspace open** --name naturalearth --params src/test/resources/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style vector uniquevalues** --layer countries --field NAME --colors random --file examples/style_vector_uniquevalues.sld
Unique Values Vector Style for countries's NAME Field written to /home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevalues.sld!

geo-shell> **layer style set** --name countries --style examples/style_vector_uniquevalues.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevalues.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

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

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

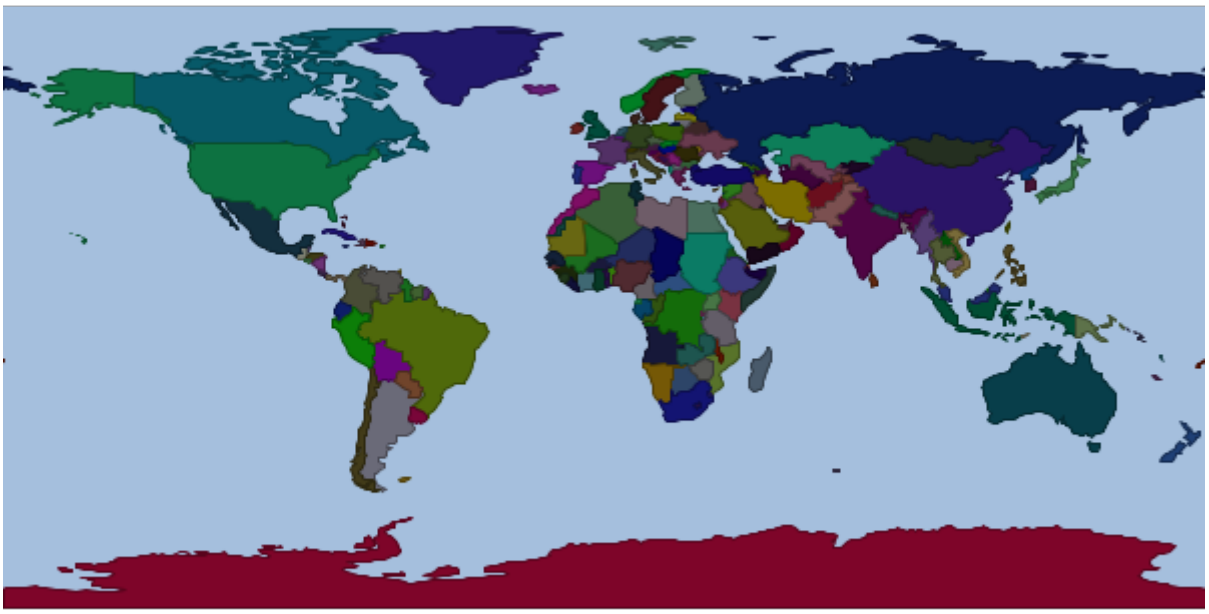
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

geo-shell> **map draw** --name map --file examples/style_vector_uniquevalues.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevalues.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <ogc:Filter>
            <ogc:PropertyIsEqualTo>
              <ogc:PropertyName>NAME</ogc:PropertyName>
```

```
            <ogc:Literal>Afghanistan</ogc:Literal>
          </ogc:PropertyIsEqualTo>
        </ogc:Filter>
        <sld:PolygonSymbolizer>
          <sld:Fill>
            <sld:CssParameter name="fill">#6a0f1d</sld:CssParameter>
          </sld:Fill>
        </sld:PolygonSymbolizer>
        <sld:LineSymbolizer>
          <sld:Stroke>
            <sld:CssParameter name="stroke">#4a0a14</sld:CssParameter>
            <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
          </sld:Stroke>
        </sld:LineSymbolizer>
      </sld:Rule>
      <sld:Rule>
        <ogc:Filter>
          <ogc:PropertyIsEqualTo>
            <ogc:PropertyName>NAME</ogc:PropertyName>
            <ogc:Literal>Albania</ogc:Literal>
          </ogc:PropertyIsEqualTo>
        </ogc:Filter>
        <sld:PolygonSymbolizer>
          <sld:Fill>
            <sld:CssParameter name="fill">#137a65</sld:CssParameter>
          </sld:Fill>
        </sld:PolygonSymbolizer>
        <sld:LineSymbolizer>
          <sld:Stroke>
            <sld:CssParameter name="stroke">#0d5546</sld:CssParameter>
            <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
          </sld:Stroke>
        </sld:LineSymbolizer>
      </sld:Rule>
      <sld:Rule>
        <ogc:Filter>
          <ogc:PropertyIsEqualTo>
```



Vector Unique Values From Text File

Create a unique values vector style from a text file

geo-shell> **style vector uniquevaluesfromtext** --field UnitSymbol --textFile src/test/resources/mars/I1802ABC_geo_units_RGBlut.txt --geometryType polygon --styleFile examples/style_vector_uniquevaluesfromtext.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
field	The field name	true		
geometryType	The geometry type	true		
textFile	The input text file	true		
styleFile	The output sld or ysld file	true		

geo-shell> **workspace open** --name mars --params src/test/resources/mars
Workspace mars opened!

geo-shell> **layer open** --workspace mars --layer geo_units_oc_dd --name mars
Opened Workspace mars Layer geo_units_oc_dd as mars

geo-shell> **style vector uniquevaluesfromtext** --field UnitSymbol --textFile src/test/resources/mars/I1802ABC_geo_units_RGBlut.txt --geometryType polygon --styleFile examples/style_vector_uniquevaluesfromtext.sld
Create a unique values style from /home/runner/work/geo-shell/geo-shell/src/test/resources/mars/I1802ABC_geo_units_RGBlut.txt for UnitSymbol and polygon to

/home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevaluesfromtext.sld

geo-shell> **layer style set** --name mars --style examples/style_vector_uniquevaluesfromtext.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevaluesfromtext.sld set on mars

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

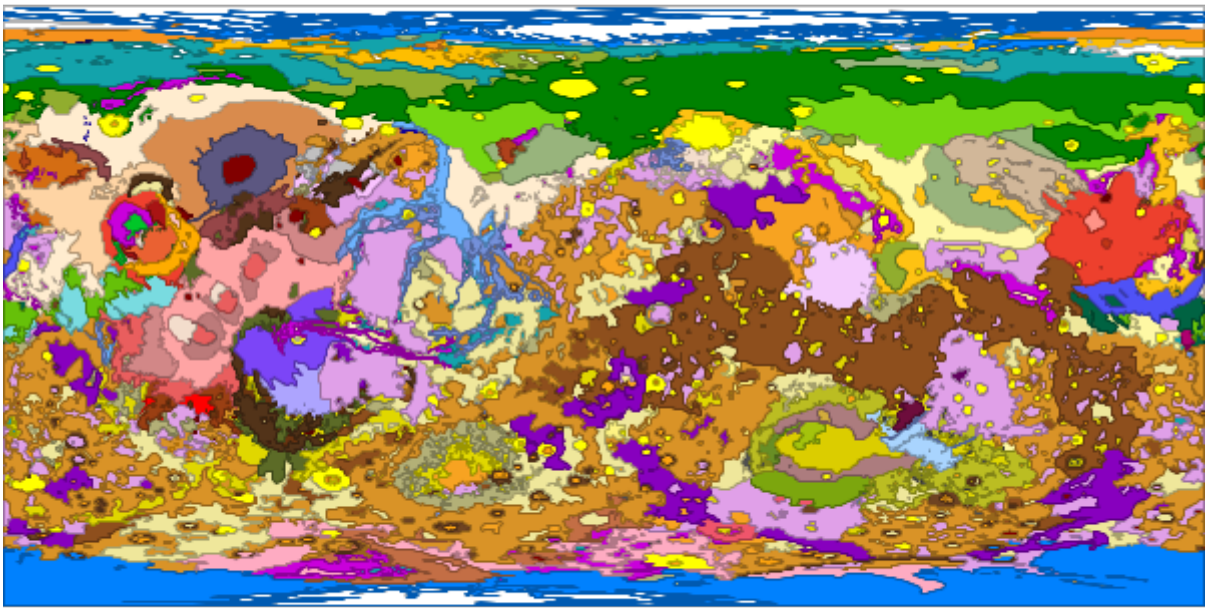
geo-shell> **map add layer** --name map --layer mars
Added mars layer to map map

geo-shell> **map draw** --name map --file examples/style_vector_uniquevaluesfromtext.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_vector_uniquevaluesfromtext.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <ogc:Filter>
            <ogc:PropertyIsEqualTo>
              <ogc:PropertyName>UnitSymbol</ogc:PropertyName>
              <ogc:Literal>AHa</ogc:Literal>
            </ogc:PropertyIsEqualTo>
          </ogc:Filter>
          <sld:PolygonSymbolizer>
            <sld:Fill>
              <sld:CssParameter name="fill">#af006f</sld:CssParameter>
            </sld:Fill>
          </sld:PolygonSymbolizer>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke">#7a004d</sld:CssParameter>
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
        <sld:Rule>
```

```
        <ogc:Filter>
          <ogc:PropertyIsEqualTo>
            <ogc:PropertyName>UnitSymbol</ogc:PropertyName>
            <ogc:Literal>AHat</ogc:Literal>
          </ogc:PropertyIsEqualTo>
        </ogc:Filter>
        <sld:PolygonSymbolizer>
          <sld:Fill>
            <sld:CssParameter name="fill">#c03616</sld:CssParameter>
          </sld:Fill>
        </sld:PolygonSymbolizer>
        <sld:LineSymbolizer>
          <sld:Stroke>
            <sld:CssParameter name="stroke">#86250f</sld:CssParameter>
            <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
          </sld:Stroke>
        </sld:LineSymbolizer>
      </sld:Rule>
      <sld:Rule>
        <ogc:Filter>
          <ogc:PropertyIsEqualTo>
```



Raster Default

Create a default raster style.

geo-shell> **style raster default** --raster pc --opacity 0.75 --file examples/style_raster_default.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
raster	The Raster	true		
opacity	The opacity	false	1.0	1.0
file	The output 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 default** --raster pc --opacity 0.75 --file examples/style_raster_default.sld
Default Raster Style for pc written to /home/runner/work/geo-shell/geo-shell/examples/style_raster_default.sld!

geo-shell> **raster style set** --name pc --style examples/style_raster_default.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_default.sld set on pc

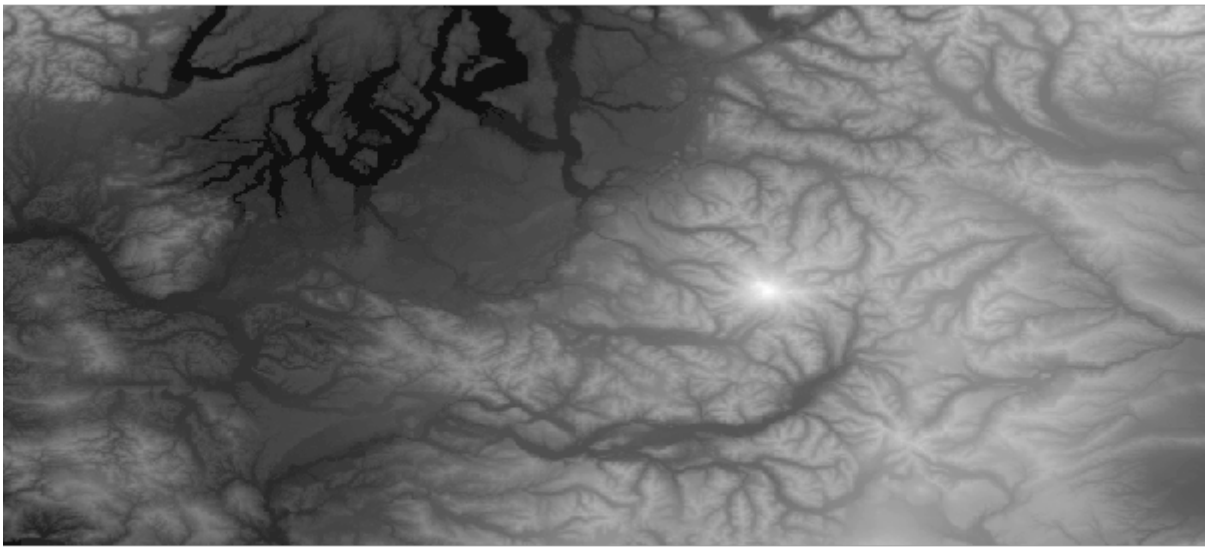
geo-shell> **map open** --name map
Map map opened!

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

geo-shell> **map draw** --name map --file examples/style_raster_default.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_raster_default.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:RasterSymbolizer>
            <sld:Geometry>
              <ogc:Literal>grid</ogc:Literal>
            </sld:Geometry>
            <sld:Opacity>0.75</sld:Opacity>
            <sld:ContrastEnhancement/>
          </sld:RasterSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```



Raster Color Map

Create a color map raster style.

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

Name	Description	Mandatory	Specified Default	Unspecified Default
raster	The Raster	true		
opacity	The opacity	false	1.0	1.0
values	The comma delimited list of values (key=value)	true		
type	The type (intervals, values, ramp)	false	ramp	ramp
extended	Whether to use extended colors or not	false	false	false
file	The output 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/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld!

geo-shell> **raster style set** --name pc --style examples/style_raster_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.sld set on pc

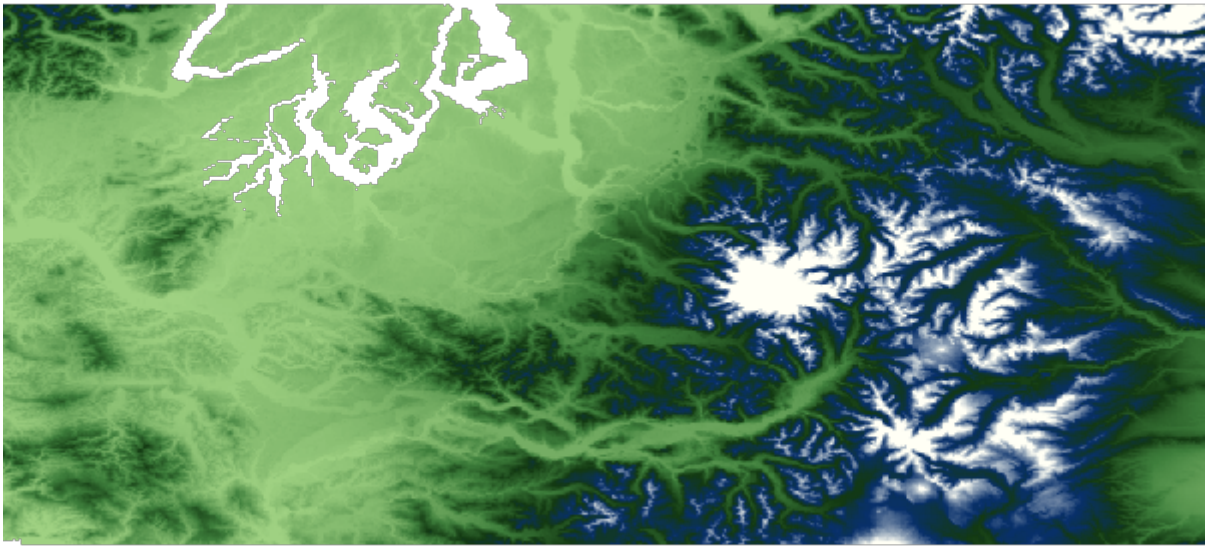
geo-shell> **map open** --name map
Map map opened!

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

geo-shell> **map draw** --name map --file examples/style_raster_colormap.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/style_raster_colormap.png!

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:RasterSymbolizer>
            <sld:Geometry>
              <ogc:Literal>grid</ogc:Literal>
            </sld:Geometry>
            <sld:ColorMap>
              <sld:ColorMapEntry color="#9fd182" opacity="1.0" quantity="25"/>
              <sld:ColorMapEntry color="#3e7f3c" opacity="1.0" quantity="470"/>
              <sld:ColorMapEntry color="#133912" opacity="1.0" quantity="920"/>
              <sld:ColorMapEntry color="#08306b" opacity="1.0" quantity="1370"/>
              <sld:ColorMapEntry color="#fffff5" opacity="1.0" quantity="1820"/>
            </sld:ColorMap>
            <sld:ContrastEnhancement/>
          </sld:RasterSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```



Raster Palette Color Map

Create a color map raster style from a color palette.

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

Name	Description	Mandatory	Specified Default	Unspecified Default
min	The min value	true		
max	The max value	true		
palette	The color palette name (from Color Brewer)	true		
number	The number of categories	true		
type	The type of interpolation	false	ramp	ramp
extended	Whether to use extended colors	false	false	false
opacity	The opacity	false	1.0	1.0
file	The output file	true		

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

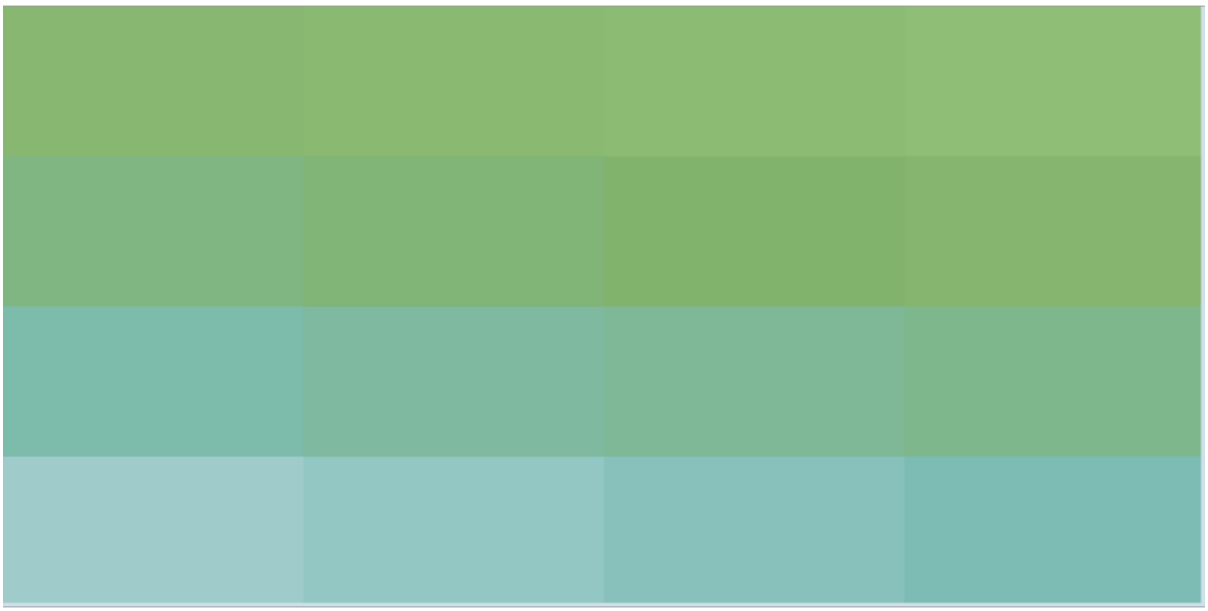
geo-shell> **style raster palette colormap** --min 1 --max 50 --palette MutedTerrain --number 20 --file examples/style_raster_palette_colormap.sld
Colormap Palette Raster Style written to /home/runner/work/geo-shell/geo-shell/examples/style_raster_palette_colormap.sld!

geo-shell> **raster style set** --name high --style examples/style_raster_palette_colormap.sld
Style /home/runner/work/geo-shell/geo-shell/examples/style_raster_palette_colormap.sld set on high

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

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

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:RasterSymbolizer>
            <sld:Geometry>
              <ogc:Literal>grid</ogc:Literal>
            </sld:Geometry>
            <sld:ColorMap>
              <sld:ColorMapEntry color="#CEE1E8" opacity="1.0" quantity="1.0"/>
              <sld:ColorMapEntry color="#7CBCB5" opacity="1.0" quantity="8.0"/>
              <sld:ColorMapEntry color="#82B36D" opacity="1.0" quantity="15.0"/>
              <sld:ColorMapEntry color="#94C279" opacity="1.0" quantity="22.0"/>
              <sld:ColorMapEntry color="#D1DE8D" opacity="1.0" quantity="29.0"/>
              <sld:ColorMapEntry color="#EDECC3" opacity="1.0" quantity="36.0"/>
              <sld:ColorMapEntry color="#CCAFB4" opacity="1.0" quantity="43.0"/>
              <sld:ColorMapEntry color="#C99884" opacity="1.0" quantity="50.0"/>
            </sld:ColorMap>
            <sld:ContrastEnhancement/>
          </sld:RasterSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```



Style Repository Save

Save a style to a style repository

geo-shell> **style repository save** --type sqlite --options file=target/styles.db --layerName fields --styleName fields --styleFile examples/fields.sld

Name	Description	Mandatory	Specified Default	Unspecified Default
type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
options	The style repository options	true		
layerName	The layer name	true		
styleName	The style name	true		
styleFile	The style file (sld or css)	true		

geo-shell> **style create** --params "stroke=black stroke-width=0.25 fill=wheat" --file examples/fields.sld
Style stroke=black stroke-width=0.25 fill=wheat written to /home/runner/work/geo-shell/geo-shell/examples/fields.sld!

geo-shell> **style repository save** --type sqlite --options file=target/styles.db --layerName fields --styleName fields --styleFile examples/fields.sld
Style fields for Layer fields saved to sqlite

Style Repository List

List styles in a style repository

geo-shell> **style repository list** --type h2 --options file=target/styles_county.db

Name	Description	Mandatory	Specified Default	Unspecified Default
type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
options	The style repository options	true		
layerName	The layer name	false		

geo-shell> **style create** --params "stroke=black stroke-width=1.0" --file examples/roads.sld
Style stroke=black stroke-width=1.0 written to /home/runner/work/geo-shell/geo-shell/examples/roads.sld!

geo-shell> **style create** --params "stroke=red stroke-width=0.50" --file examples/parcels.sld
Style stroke=red stroke-width=0.50 written to /home/runner/work/geo-shell/geo-shell/examples/parcels.sld!

geo-shell> **style repository save** --type h2 --options file=target/styles_county.db --layerName roads --styleName roads --styleFile examples/roads.sld
Style roads for Layer roads saved to h2

geo-shell> **style repository save** --type h2 --options file=target/styles_county.db --layerName parcels --styleName parcels --styleFile examples/parcels.sld
Style parcels for Layer parcels saved to h2

geo-shell> **style repository list** --type h2 --options file=target/styles_county.db
roads roads
parcels parcels

geo-shell> **style repository list** --type h2 --options file=target/styles_county.db --layerName roads
roads roads

Style Repository Delete

Delete a style from a style repository

geo-shell> **style repository delete** --type directory --options file=examples/styles --layerName parcels --styleName parcels

Name	Description	Mandatory	Specified Default	Unspecified Default
type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
options	The style repository options	true		
layerName	The layer name	true		
styleName	The style name	true		

geo-shell> **style create** --params "stroke=black stroke-width=1.0" --file examples/roads.sld
Style stroke=black stroke-width=1.0 written to /home/runner/work/geo-shell/geo-shell/examples/roads.sld!

geo-shell> **style create** --params "stroke=red stroke-width=0.50" --file examples/parcels.sld
Style stroke=red stroke-width=0.50 written to /home/runner/work/geo-shell/geo-shell/examples/parcels.sld!

geo-shell> **style repository save** --type directory --options file=examples/styles --layerName roads --styleName roads --styleFile examples/roads.sld
Style roads for Layer roads saved to directory

geo-shell> **style repository save** --type directory --options file=examples/styles --layerName parcels --styleName parcels --styleFile examples/parcels.sld
Style parcels for Layer parcels saved to directory

geo-shell> **style repository list** --type directory --options file=examples/styles
roads roads
parcels parcels

geo-shell> **style repository delete** --type directory --options file=examples/styles --layerName parcels --styleName parcels
Style parcels for Layer parcels deleted from directory

geo-shell> **style repository list** --type directory --options file=examples/styles
roads roads

Style Repository Get

Get a style from a style repository

geo-shell> **style repository get** --type nested-directory --options file=examples/county_styles --layerName roads --styleName roads

Name	Description	Mandatory	Specified Default	Unspecified Default
type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
options	The style repository options	true		
layerName	The layer name	true		
styleName	The style name	true		
styleFile	The style file (sld or css)	false		

geo-shell> **style create** --params "stroke=black stroke-width=1.0" --file examples/roads.sld
Style stroke=black stroke-width=1.0 written to /home/runner/work/geo-shell/geo-shell/examples/roads.sld!

geo-shell> **style create** --params "stroke=red stroke-width=0.50" --file examples/parcels.sld
Style stroke=red stroke-width=0.50 written to /home/runner/work/geo-shell/geo-shell/examples/parcels.sld!

geo-shell> **style repository save** --type nested-directory --options file=examples/county_styles --layerName roads --styleName roads --styleFile examples/roads.sld
Style roads for Layer roads saved to nested-directory

geo-shell> **style repository save** --type nested-directory --options file=examples/county_styles --layerName parcels --styleName parcels --styleFile examples/parcels.sld
Style parcels for Layer parcels saved to nested-directory

geo-shell> **style repository get** --type nested-directory --options file=examples/county_styles --layerName roads --styleName roads
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns="http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml="http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
<sld:UserLayer>
<sld:LayerFeatureConstraints>
<sld:FeatureTypeConstraint/>
</sld:LayerFeatureConstraints>
<sld:UserStyle>
<sld:Name>Default Styler</sld:Name>
<sld:FeatureTypeStyle>
<sld:Name>name</sld:Name>
<sld:Rule>
<sld:LineSymbolizer>
<sld:Stroke/>

</sld:LineSymbolizer>
</sld:Rule>
</sld:FeatureTypeStyle>
</sld:UserStyle>
</sld:UserLayer>
</sld:StyledLayerDescriptor>

geo-shell> **style repository get** --type nested-directory --options file=examples/county_styles --layerName parcels --styleName parcels --styleFile examples/roads_simple.sld
Style parcels for Layer parcels saved to roads_simple.sld

Style Repository Copy

Copy styles from one repository to another

geo-shell> **style repository copy** --inputType sqlite --inputOptions file=target/my-styles.db --outputType h2 --outputOptions file=target/h2-styles.db

Name	Description	Mandatory	Specified Default	Unspecified Default
inputType	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
inputOptions	The style repository options	true		
outputType	The type of style repository (directory, nested-directory, h2, sqlite, postgres)	true		
outputOptions	The style repository options	true		

geo-shell> **style create** --params "stroke=black stroke-width=1.0" --file examples/roads.sld
Style stroke=black stroke-width=1.0 written to /home/runner/work/geo-shell/geo-shell/examples/roads.sld!

geo-shell> **style create** --params "stroke=red stroke-width=0.50" --file examples/parcels.sld
Style stroke=red stroke-width=0.50 written to /home/runner/work/geo-shell/geo-shell/examples/parcels.sld!

geo-shell> **style repository save** --type sqlite --options file=target/my-styles.db --layerName roads --styleName roads --styleFile examples/roads.sld
Style roads for Layer roads saved to sqlite

geo-shell> **style repository save** --type sqlite --options file=target/my-styles.db --layerName parcels --styleName parcels --styleFile examples/parcels.sld
Style parcels for Layer parcels saved to sqlite

geo-shell> **style repository list** --type sqlite --options file=target/my-styles.db
roads roads
parcels parcels

geo-shell> **style repository copy** --inputType sqlite --inputOptions file=target/my-styles.db --outputType h2 --outputOptions file=target/h2-styles.db
Copy styles from sqlite to h2

geo-shell> **style repository list** --type h2 --options file=target/h2-styles.db
roads roads
parcels parcels

Map

Open

Open a new Map.

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

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

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

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

Close

Close a Map.

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

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

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

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

List

List open Maps.

geo-shell> **map list**

No parameters

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

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

geo-shell> **map list**
earth
us

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

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

Add Layer

Add a Vector Layer.

geo-shell> **map add layer** --name world --layer countries

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
layer	The layer	true		
mapLayerName	The map layer name	false		

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

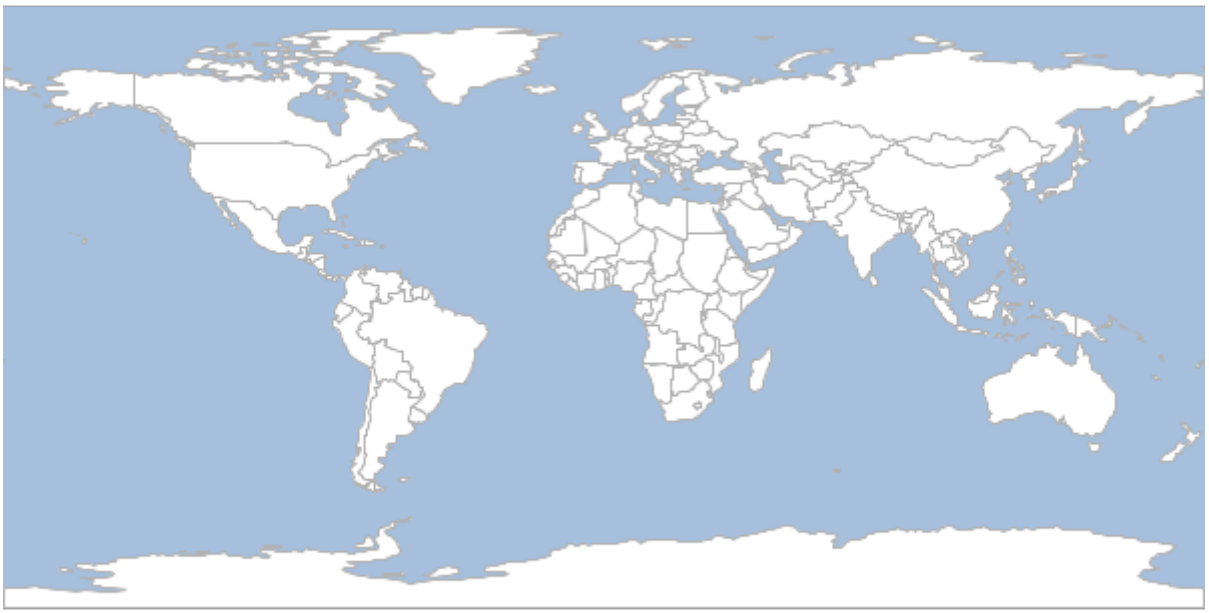
geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **map add layer** --name world --layer ocean
Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map draw** --name world --file examples/map_add_layer.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/map_add_layer.png!

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



Add Raster

Add a Raster Layer.

geo-shell> **map add raster** --name world --raster earth

Name	Description	Mandatory	Specified Default	Unspecified Default

name	The map name	true		
raster	The raster	true		
mapLayerName	The map layer name	false		

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

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> **map add raster** --name world --raster earth
Added earth layer to map world

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

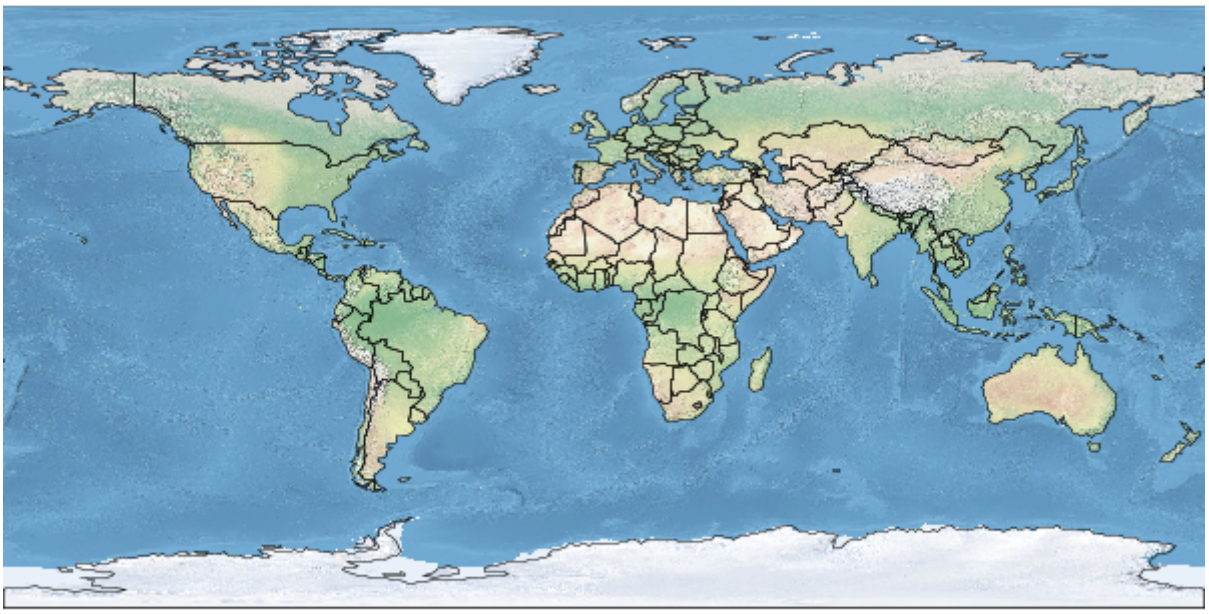
geo-shell> **style create** --params "stroke=black stroke-width=0.1" --file examples/outline.sld
Style stroke=black stroke-width=0.1 written to /home/runner/work/geo-shell/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name countries --style examples/outline.sld
Style /home/runner/work/geo-shell/geo-shell/examples/outline.sld set on countries

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map draw** --name world --file examples/map_add_raster.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/map_add_raster.png!

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



Add Tile Layer

Add a Tile Layer.

geo-shell> **map add tile** --name world --tile tiles

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
tile	The tile	true		
mapLayerName	The map layer name	false		

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

geo-shell> **tile open** --name tiles --params src/test/resources/countries.mbtiles
Tile Layer tiles opened!

geo-shell> **map add tile** --name world --tile tiles
Added tiles layer to map world

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer places --name places
Opened Workspace naturalearth Layer places as places

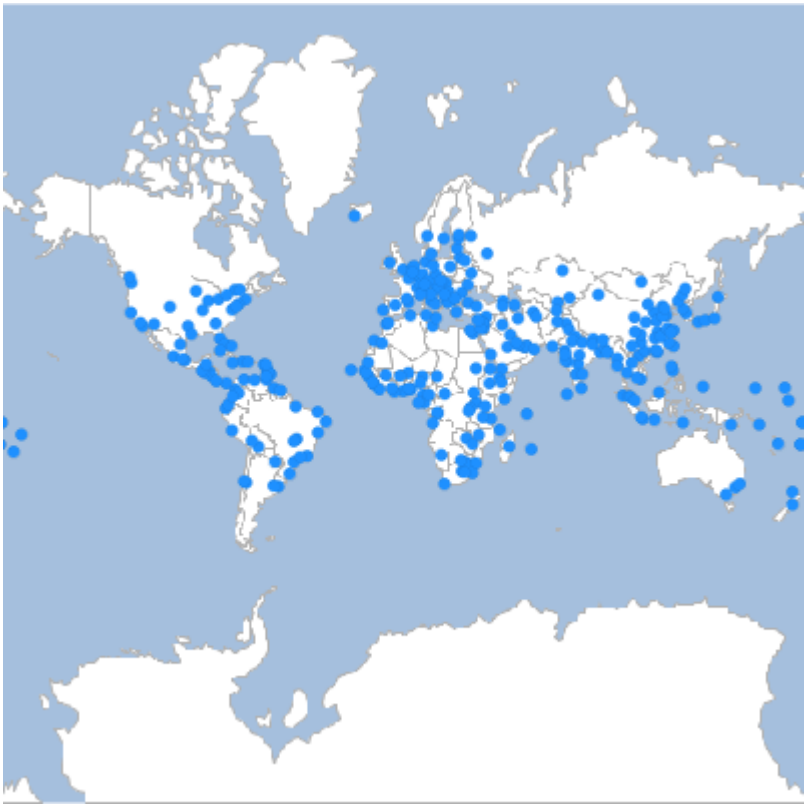
geo-shell> **style vector default** --layer places --color #1E90FF --file examples/places.sld
Default Vector Style for places written to /home/runner/work/geo-shell/geo-shell/examples/places.sld!

geo-shell> **layer style set** --name places --style examples/places.sld
Style /home/runner/work/geo-shell/geo-shell/examples/places.sld set on places

geo-shell> **map add layer** --name world --layer places
Added places layer to map world

geo-shell> **map draw** --name world --width 400 --height 400 --file examples/map_add_tile.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/map_add_tile.png!

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



Remove Layer

Remove a Layer.

geo-shell> **map remove layer** --name world --layer countries

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
layer	The layer name	true		

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

Map world opened!

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> **map add raster** --name world --raster earth
Added earth layer to map world

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style create** --params "stroke=black stroke-width=0.1" --file examples/outline.sld
Style stroke=black stroke-width=0.1 written to /home/runner/work/geo-shell/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name countries --style examples/outline.sld
Style /home/runner/work/geo-shell/geo-shell/examples/outline.sld set on countries

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map layers** --name world
earth
countries

geo-shell> **map remove layer** --name world --layer countries
Removed countries layer from map world

geo-shell> **map layers** --name world
earth

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

Reorder

Reorder a Layer in the Map.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
layer	The layer name	true		

order	The order parameters	true		

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style create** --params "stroke=black stroke-width=0.1" --file examples/outline.sld
Style stroke=black stroke-width=0.1 written to /home/runner/work/geo-shell/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name countries --style examples/outline.sld
Style /home/runner/work/geo-shell/geo-shell/examples/outline.sld set on countries

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

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> **map add raster** --name world --raster earth
Added earth layer to map world

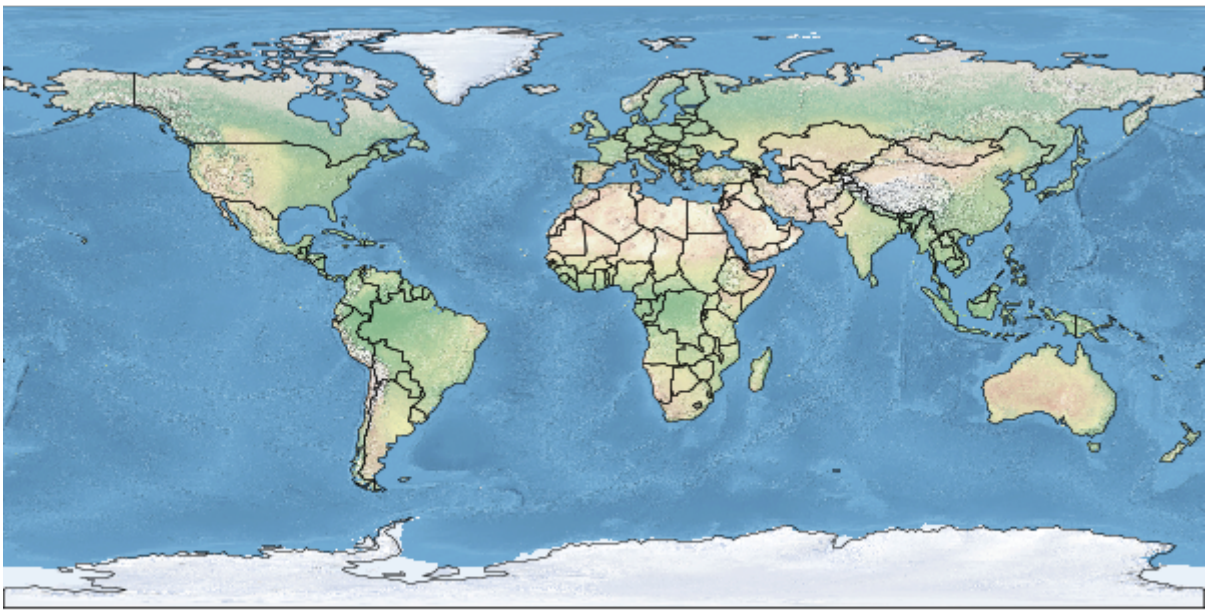
geo-shell> **map layers** --name world
countries
earth

geo-shell> **map reorder** --name world --layer countries --order 1
Moved countries from 0 to 1

geo-shell> **map layers** --name world
earth
countries

geo-shell> **map draw** --name world --file examples/map_reorder.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/map_reorder.png!

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



Layers

List the Map's Layers.

geo-shell> **map layers** --name world

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

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

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> **map add raster** --name world --raster earth
Added earth layer to map world

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **style create** --params "stroke=black stroke-width=0.1" --file examples/outline.sld

Style stroke=black stroke-width=0.1 written to /home/runner/work/geo-shell/geo-shell/examples/outline.sld!

geo-shell> **layer style set** --name countries --style examples/outline.sld
Style /home/runner/work/geo-shell/geo-shell/examples/outline.sld set on countries

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map layers** --name world
earth
countries

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

Draw

Draw a map.

geo-shell> **map draw** --name world --file examples/map_draw.png

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
bounds	The Bounds	false		
projection	The Projection	false		
width	The width	false	600	600
height	The height	false	400	400
type	The type	false	png	png
file	The file	false		
background-color	The background color	false		

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /home/runner/work/geo-shell/geo-shell/examples/countries.sld set on countries

geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean

Opened Workspace naturalearth Layer ocean as ocean

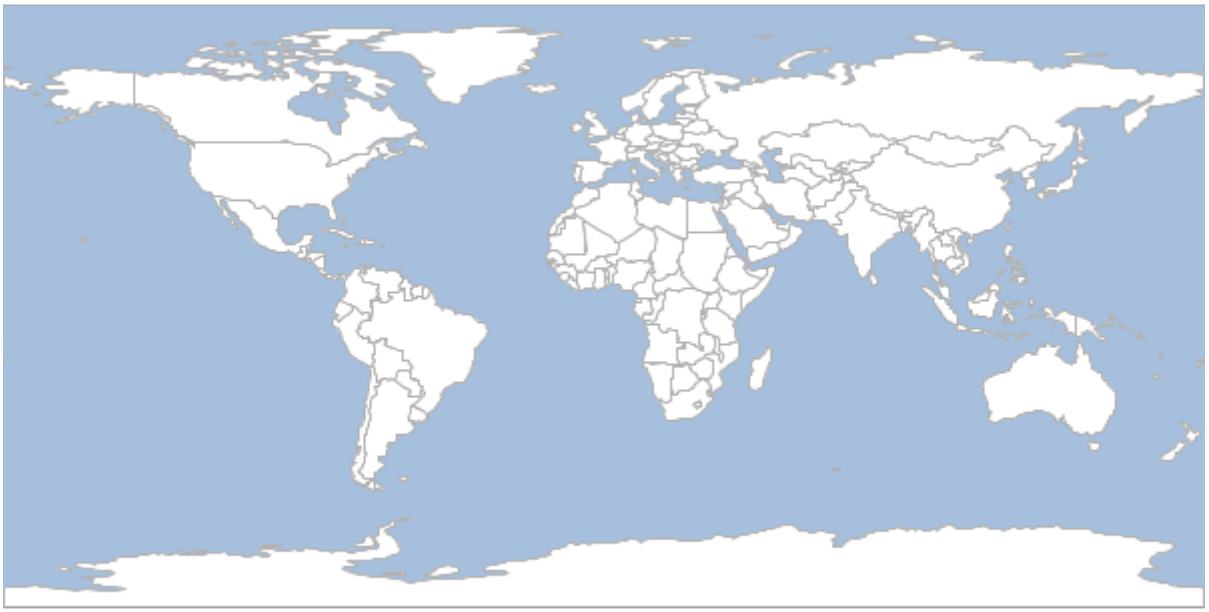
geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /home/runner/work/geo-shell/geo-shell/examples/ocean.sld set on ocean

geo-shell> **map add layer** --name world --layer ocean
Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map draw** --name world --file examples/map_draw.png
Done drawing /home/runner/work/geo-shell/geo-shell/examples/map_draw.png!

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



Display

Display a map in a GUI.

geo-shell> **map display** --name world

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
bounds	The Bounds	false		
projection	The Projection	false		

width	The width	false	600	600
height	The height	false	400	400
background-color	The background color	false		

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

geo-shell> **workspace open** --name naturalearth --params examples/naturalearth.gpkg
Workspace naturalearth opened!

geo-shell> **layer open** --workspace naturalearth --layer countries --name countries
Opened Workspace naturalearth Layer countries as countries

geo-shell> **layer style set** --name countries --style examples/countries.sld
Style /Users/jericks/Projects/geo-shell/examples/countries.sld set on countries

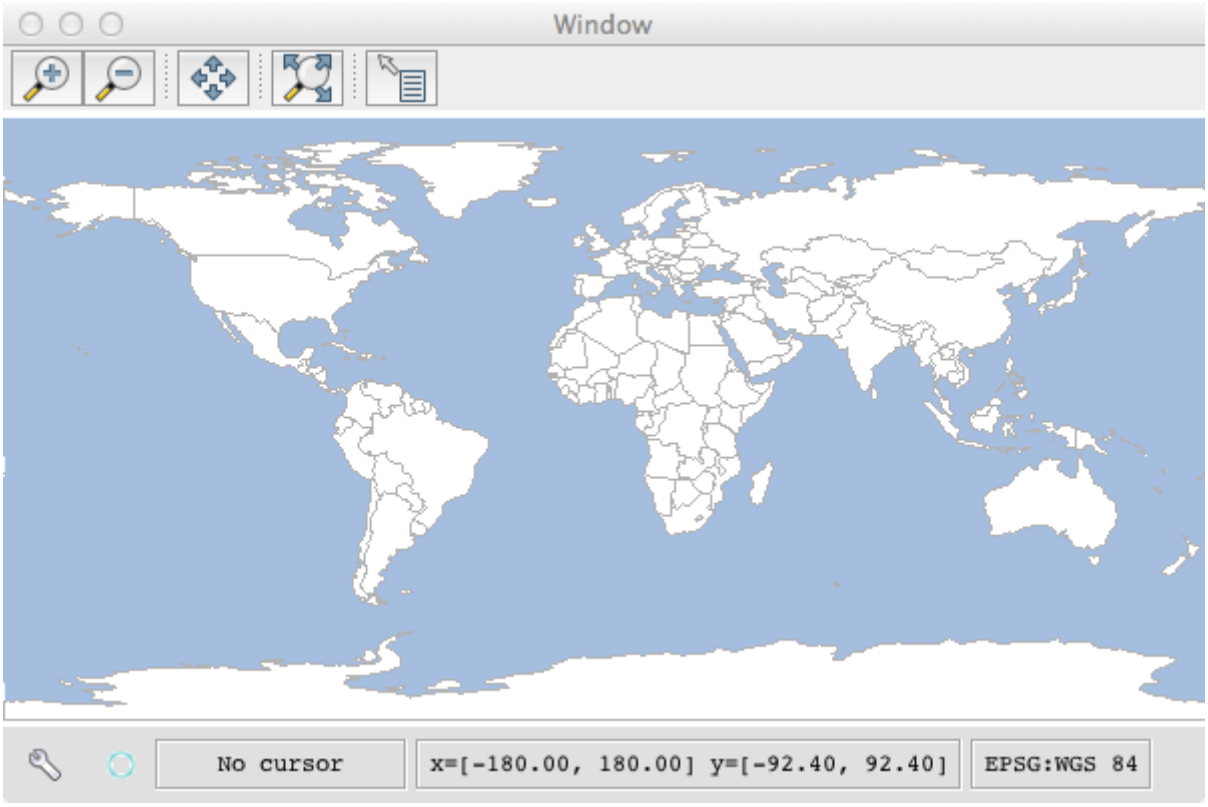
geo-shell> **layer open** --workspace naturalearth --layer ocean --name ocean
Opened Workspace naturalearth Layer ocean as ocean

geo-shell> **layer style set** --name ocean --style examples/ocean.sld
Style /Users/jericks/Projects/geo-shell/examples/ocean.sld set on ocean

geo-shell> **map add layer** --name world --layer ocean
Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries
Added countries layer to map world

geo-shell> **map display** --name world
Dislaying...



Built in

Exit / Quit

Exits the shell

geo-shell> **exit**

No parameters

Help

List all commands usage

Name	Description	Mandatory	Specified Default	Unspecified Default
	Command name to provide help for	false		

View all commands

geo-shell> **help**

* ! - Allows execution of operating system (OS) commands
* // - Inline comment markers (start of line only)
* ; - Inline comment markers (start of line only)

* clear - Clears the console
* cls - Clears the console
* date - Displays the local date and time
* download - Download a URL to a file.
* exit - Exits the shell
* format close - Close a Raster Format.
* format list - List open Raster Formats.

Get help for a command

geo-shell> **help layer open**

Keyword: layer open
Description: Open a Layer.
Keyword: workspace
Help: The Workspace name
Mandatory: true
Default if specified: '*NULL*'
Default if unspecified: '*NULL*'

Keyword: layer
Help: The Layer name
Mandatory: true
Default if specified: '*NULL*'
Default if unspecified: '*NULL*'

Keyword: name
Help: The name
Mandatory: false
Default if specified: '*NULL*'
Default if unspecified: '*NULL*'

* layer open - Open a Layer.

Run OS Command

Allows execution of operating system (OS) commands

geo-shell> **! ls src/test/resources/mars**

Name	Description	Mandatory	Specified Default	Unspecified Default
	The command to execute	false		

geo-shell> **! ls src/test/resources/mars**

I1802ABC_geo_units_RGBlut.txt
geo_units_oc_dd.dbf

geo_units_oc_dd.prj
geo_units_oc_dd.qix
geo_units_oc_dd.sbn
geo_units_oc_dd.sbx
geo_units_oc_dd.shp
geo_units_oc_dd.shp.xml
geo_units_oc_dd.shx

Date

Displays the local date and time

geo-shell> **date**

No parameters

geo-shell> **date**

Saturday, December 25, 2021 at 8:23:44 PM Coordinated Universal Time

Script

Parses the specified resource file and executes its commands

geo-shell> **script src/test/resources/layer_count.txt**

Name	Description	Mandatory	Specified Default	Unspecified Default
	The file to locate and execute	true		
lineNumbers	Display line numbers when executing the script	false	true	false

```
workspace open --name naturalearth --params src/test/resources/naturalearth.gpkg

layer open --workspace naturalearth --layer countries --name countries

layer count --name countries

workspace close --name naturalearth
```

geo-shell> **script src/test/resources/layer_count.txt**

Workspace naturalearth opened!
Opened Workspace naturalearth Layer countries as countries

177
Workspace naturalearth closed!

System Properties

Shows the shell's properties

geo-shell> **system properties**

No parameters

geo-shell> **system properties**

awt.toolkit = sun.awt.X11.XToolkit
basedir = /home/runner/work/geo-shell/geo-shell
file.encoding = UTF-8
file.separator = /
java.awt.graphicsenv = sun.awt.X11GraphicsEnvironment

Version

Displays shell version

No parameters

geo-shell> **version**

0.11-SNAPSHOT

Download

Download a URL to a file.

geo-shell> **download** --url https://astropedia.astrogeology.usgs.gov/download/Mars/Geology/Mars15MGeologicGISRenovation.zip --file mars.zip --overwrite false

Name	Description	Mandatory	Specified Default	Unspecified Default
url	The url	true		
file	The file	true		
overwrite	Whether to overwrite the file or not	false	true	true

geo-shell> **download** --url https://astropedia.astrogeology.usgs.gov/download/Mars/Geology/Mars15MGeologicGISRenovation.zip --file mars.zip --overwrite false
Downloading https://astropedia.astrogeology.usgs.gov/download/Mars/Geology/

Mars15MGeologicGISRenovation.zip to /Users/jericks/Projects/geo-shell/mars.zip...

geo-shell> **unzip** --file mars.zip --directory mars
Unzipping /Users/jericks/Projects/geo-shell/mars.zip to /Users/jericks/Projects/geo-shell/mars

geo-shell> **style vector uniquevaluesfromtext** --field UnitSymbol --geometryType Polygon --styleFile mars/units.sld --textFile mars/I1802ABC_Mars_global_geology/I1802ABC_geo_units_RGBlut.txt
Create a unique values style from /Users/jericks/Projects/geo-shell/mars/I1802ABC_Mars_global_geology/I1802ABC_geo_units_RGBlut.txt for UnitSymbol and Polygon to /Users/jericks/Projects/geo-shell/mars/units.sld

geo-shell> **workspace open** --name mars --params mars/I1802ABC_Mars_global_geology/Shapefiles/I1802ABC_Mars2000_Sphere/geo_units_oc_dd.shp
Workspace mars opened!

geo-shell> **layer open** --workspace mars --layer geo_units_oc_dd
Opened Workspace mars Layer geo_units_oc_dd as mars:geo_units_oc_dd

geo-shell> **layer style set** --name mars:geo_units_oc_dd --style mars/units.sld
Style /Users/jericks/Projects/geo-shell/mars/units.sld set on mars:geo_units_oc_dd

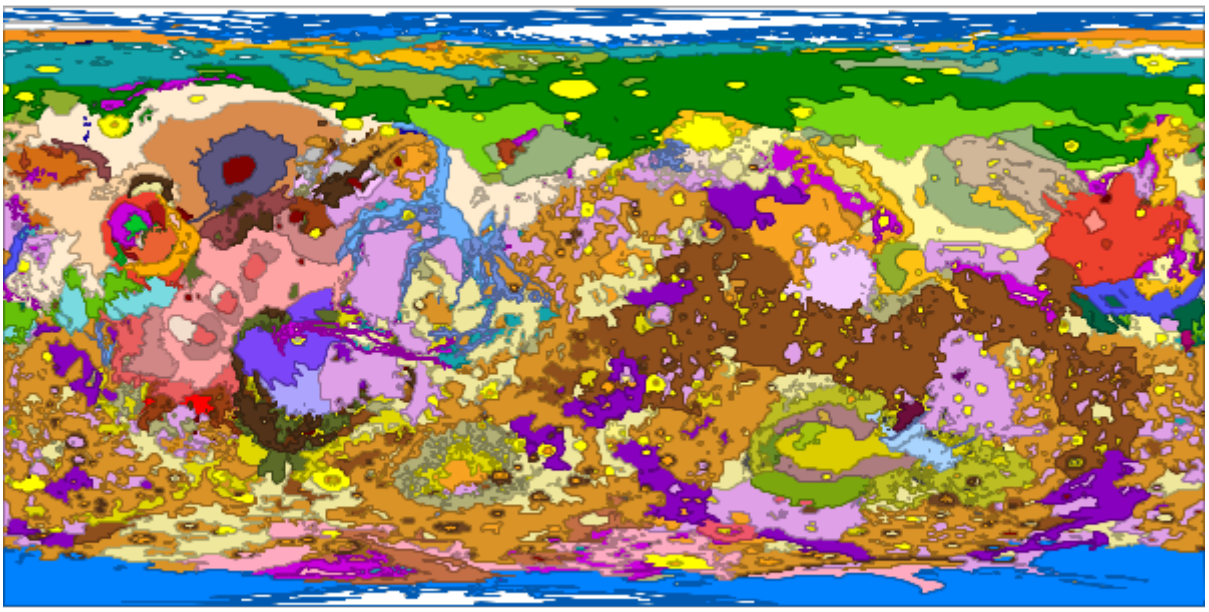
geo-shell> **map open** --name mars
Map mars opened!

geo-shell> **map add layer** --name mars --layer mars:geo_units_oc_dd
Added mars:geo_units_oc_dd layer to map mars

geo-shell> **map draw** --name mars
Done drawing /Users/jericks/Projects/geo-shell/image.png!

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

geo-shell> **open** --file image.png
Opening /Users/jericks/Projects/geo-shell/image.png...



Unzip

Unzip a file

geo-shell> **unzip** --file mars.zip --directory mars

Name	Description	Mandatory	Specified Default	Unspecified Default
file	The zip file	true		
directory	The directory	true		

geo-shell> **unzip** --file mars.zip --directory mars
Unzipping /Users/jericks/Projects/geo-shell/mars.zip to /Users/jericks/Projects/geo-shell/mars

Open

Open a File.

geo-shell> **open** --file image.png

Name	Description	Mandatory	Specified Default	Unspecified Default
file	The File	true		

geo-shell> **open** --file image.png
Opening /Users/jericks/Projects/geo-shell/image.png...