geo-shell

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### Introduction

geo-shell is an interactive shell for geospatial analysis.

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.

# 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.

Table 1. 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 open Workspaces

geo-shell> workspace list

mem = Memory

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

Table 2. 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

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.

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

### Close

Close a Layer.

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

#### List

List open Layers.

## **Geoprocessing**

#### **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/travis/build/jericks/geo-shell/examples/points.sld!

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

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

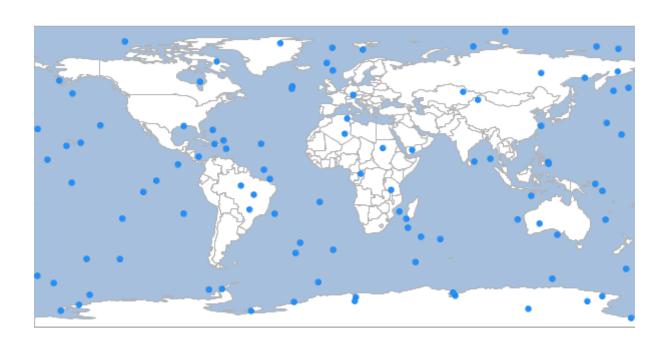
geo-shell> **map add layer** --name randomMap --layer ocean Added ocean layer to map randomMap

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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/buffers.sld!

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

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

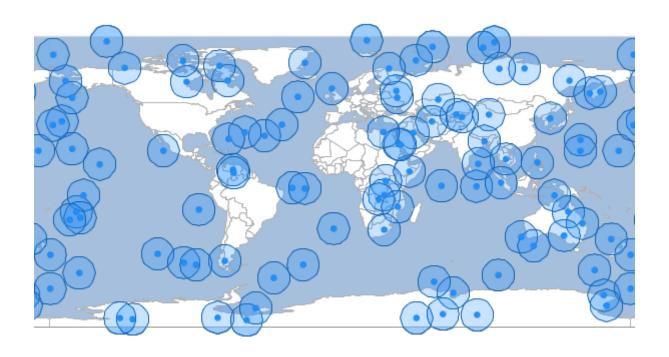
geo-shell> **map add layer** --name map --layer countries Added countries layer to map map

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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/centroids.sld!

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

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

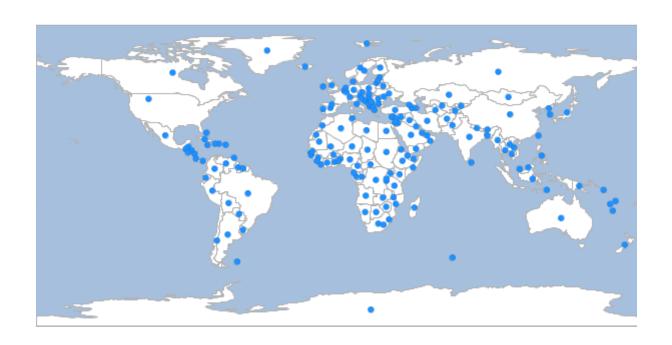
geo-shell> **map add layer** --name map --layer ocean Added ocean layer to map map

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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/countries.sld set on countries

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

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

Default Vector Style for interiorpoints written to /home/travis/build/jericks/geo-shell/examples/interiorpoints.sld!

geo-shell> **layer style set** --name interiorpoints --style examples/interiorpoints.sld Style /home/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/extent.sld!

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

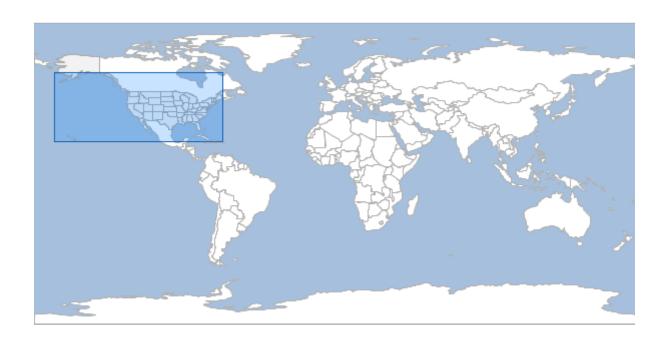
geo-shell> **map add layer** --name map --layer countries Added countries layer to map map

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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/extent.sld!

geo-shell> **layer style set** --name state\_extents --style examples/extent.sld Style /home/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/squares.sld!

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

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

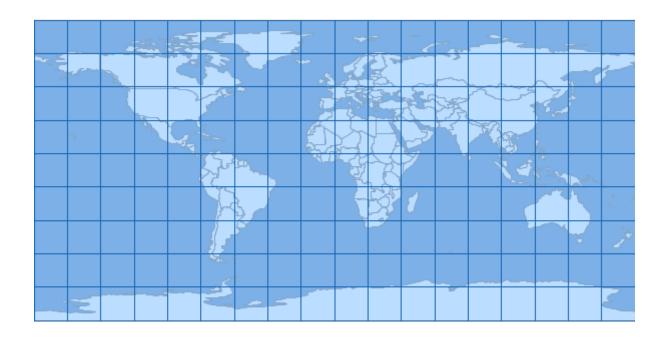
geo-shell> **map add layer** --name graticule --layer ocean Added ocean layer to map graticule

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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/rectangles.sld!

geo-shell> **layer style set** --name rectangles --style examples/rectangles.sld Style /home/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/ovals.sld!

geo-shell> **layer style set** --name ovals --style examples/ovals.sld Style /home/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/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/travis/build/jericks/geo-shell/examples/hexagons.sld!

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

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

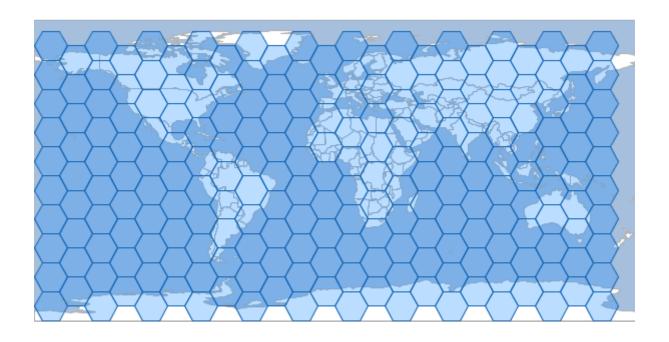
geo-shell> **map add layer** --name graticule --layer ocean Added ocean layer to map graticule

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/travis/build/jericks/geo-shell/examples/hexagon\_graticules.png!

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



## **Format**

# Open

Open a Raster Format.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Format name	false		
input	The input string	true		

## List

List open Raster Formats.

## Close

Close a Raster Format.

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

#### **Rasters**

List the Rasters in a Format.

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

## Raster

# Tile

# Style

### Create

Create a simple style.

Name	Description	Mandatory	Specified Default	Unspecified Default
params	The style parameters	true		
file	The output file	true		

### **Vector Default**

Create a default vector style.

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		

### **Vector Gradient**

Create a gradient vector style.

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		

# **Vector Unique Values**

Create a unique values vector style.

Name	Description	Mandatory	Specified Default	Unspecified Default
layer	The Layer	true		
field	The field	true		
colors	The colors	true		
file	The output file	true		

## **Vector Unique Values From Text File**

Create a unique values vector style from a text file

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		

#### **Raster Default**

Create a default raster style.

Name	Description	Mandatory	Specified Default	Unspecified Default
raster	The Raster	true		
opacity	The opacity	false	1.0	1.0

# **Raster Color Map**

Create a color map raster style.

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		

# Map

# Open

Open a new Map.

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

### Close

Close a Tile Layer.

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

## List

List open Maps.

# **Add Layer**

Add a Layer.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
layer	The layer	true		
mapLayerName	The map layer name	false		

## **Add Raster**

Add a Raster.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
raster	The raster	true		
mapLayerName	The map layer name	false		

## **Add Tle**

Add a Tile.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
tile	The tile	true		
mapLayerName	The map layer name	false		

# **Remove Layer**

Remove a Layer.

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The map name	true		
layer	The layer name	true		

## 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		

## Layers

List the Map's Layers.

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

## Draw

Draw a map.

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		

# Other

# Unzip

Unzip a file

Name	Description	Mandatory	Specified Default	Unspecified Default
file	The zip file	true		
directory	The directory	true		

# Open

Open a File.

Name	Description	Mandatory	Specified Default	Unspecified Default
file	The File	true		