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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

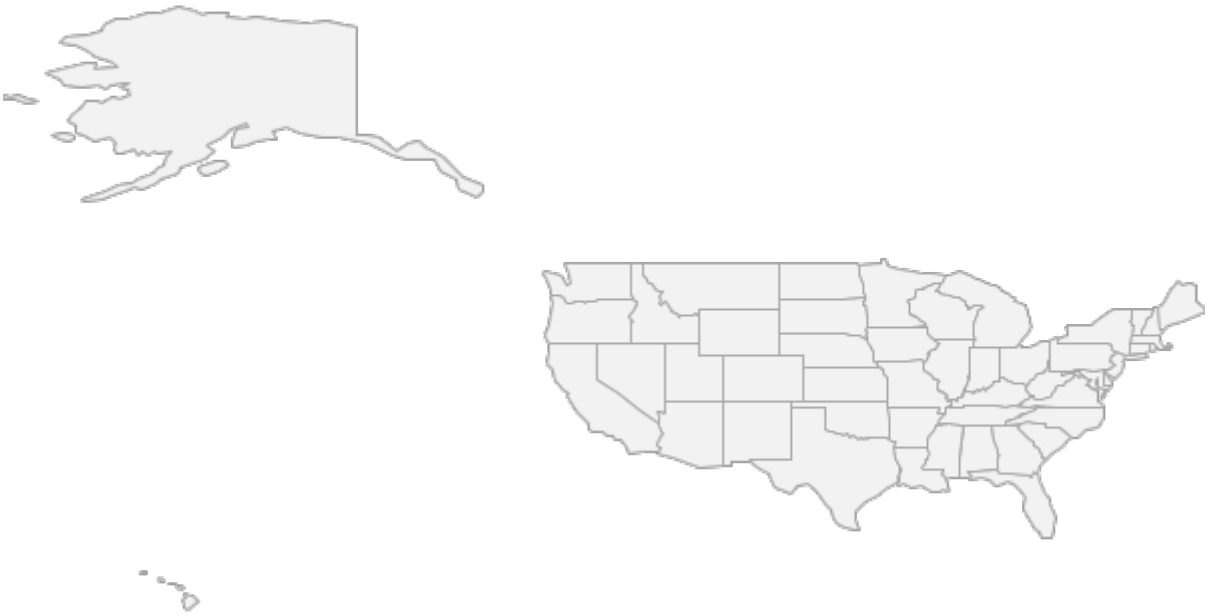
geo-shell> **map open** --name map
Map map opened!

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

Write

Write a Layer to GeoJSON, CSV, or KML.

geo-shell> **layer write** --name points --format geojson --file src/main/docs/output/points.json

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The Layer name	true		
format	The format	true		
file	The output file	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"
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 write** --name points --format geojson --file src/main/docs/output/points.json
Layer points written to /home/runner/work/geo-shell/geo-shell/src/main/docs/output/points.json as geojson

Read

Read a Layer from a GeoJSON, KML, or YAML file.

geo-shell> **layer read** --workspace mem --name points --file src/test/resources/points.json

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

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

geo-shell> **layer read** --workspace mem --name points --file src/test/resources/points.json
Created Layer points in Workspace mem for /home/runner/work/geo-shell/geo-shell/src/test/resources/points.json!

geo-shell> **layer features** --name points
Feature (fid-16fe70aa_18167fe270a_-5057)
---
geometry = POINT (1 1)
id = 1
name = Home

Feature (fid-16fe70aa_18167fe270a_-5056)
---
geometry = POINT (2 2)
id = 2
name = Work

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-16fe70aa_18167fe270a_-50ac)
---
the_geom = POINT (-122.333056 47.609722)
fid = 1
name = Seattle
state = WA

Feature (fid-16fe70aa_18167fe270a_-50aa)
---
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-16fe70aa_18167fe270a_-50a5)

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-16fe70aa_18167fe270a_-51ea)

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-16fe70aa_18167fe270a_-3890)

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-16fe70aa_18167fe270a_-5061)
---
the_geom = LINESTRING (0 0, 1 1)
fid = 1
name = Location 1

Feature (fid-16fe70aa_18167fe270a_-5060)
---
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!

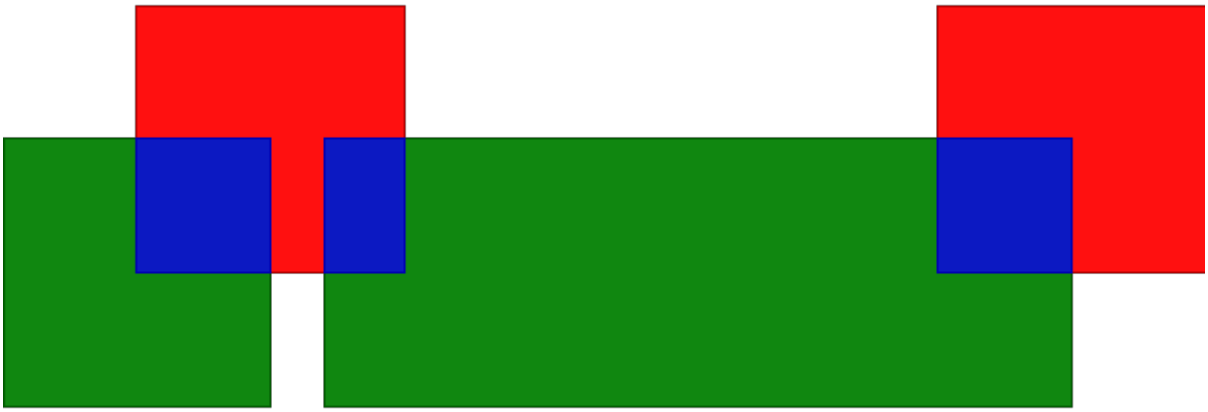
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

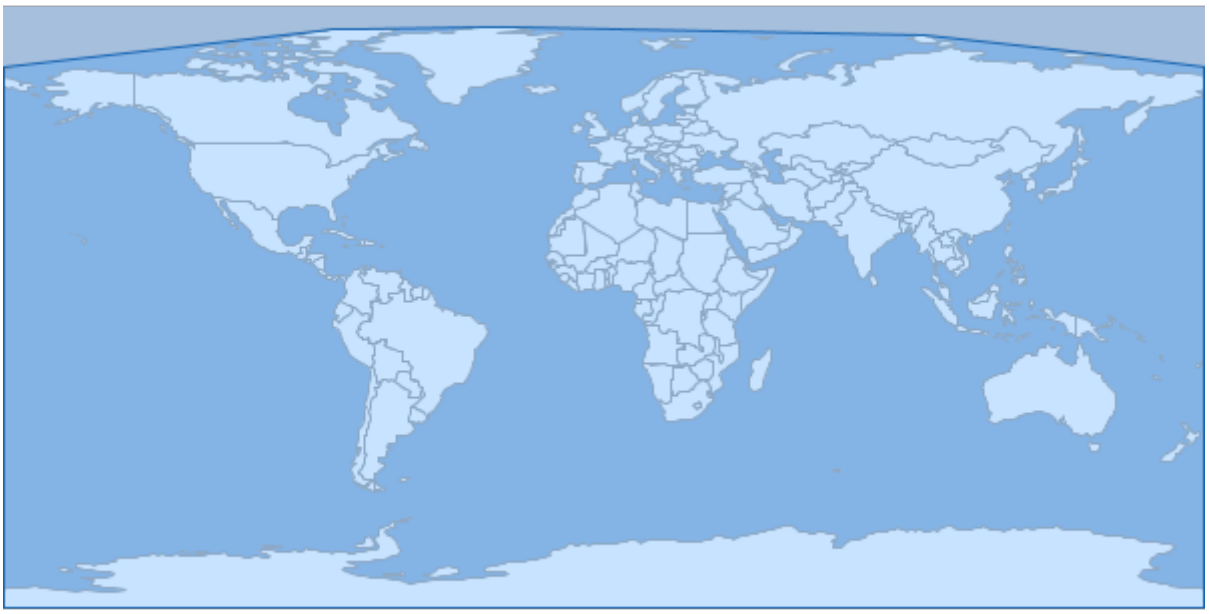
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

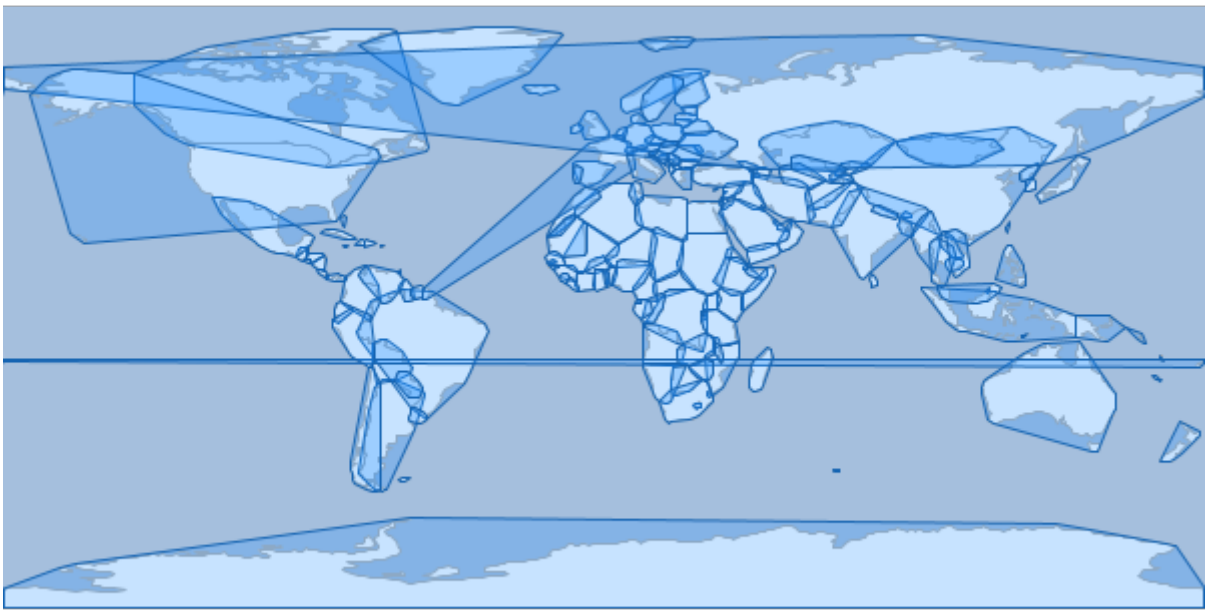
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

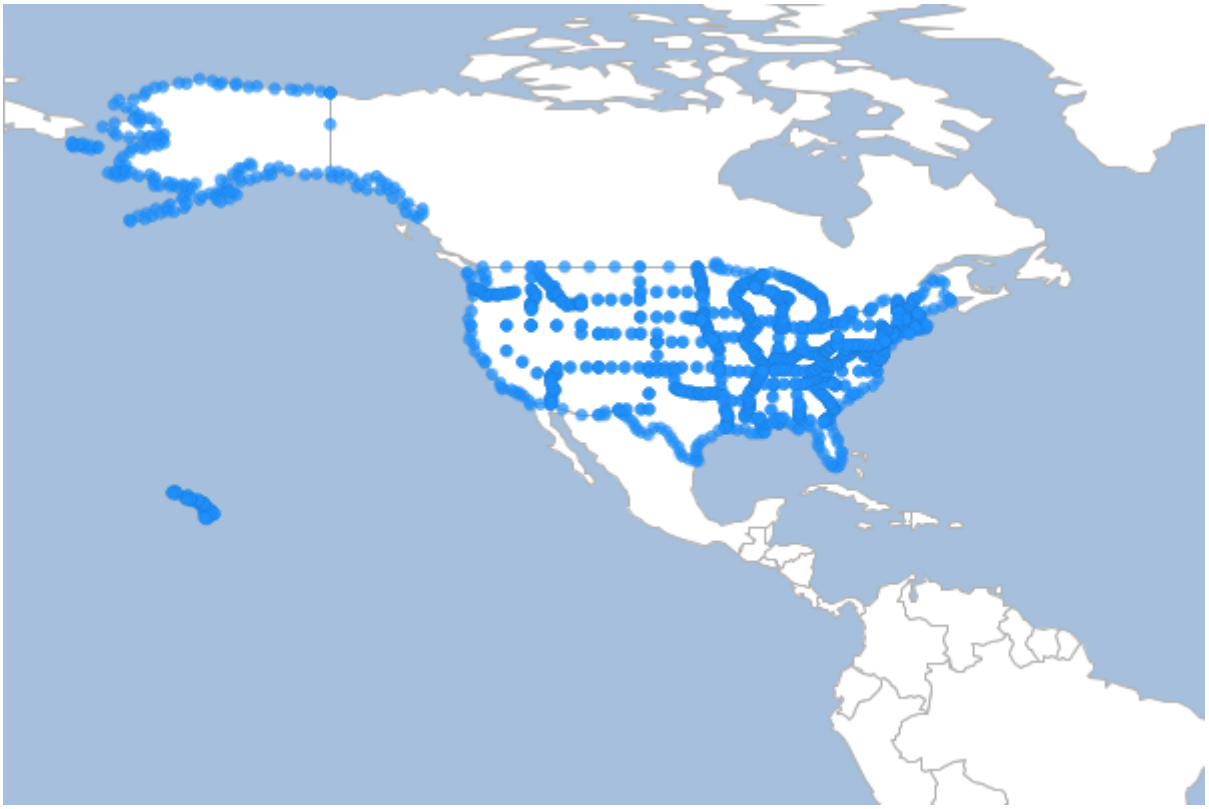
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

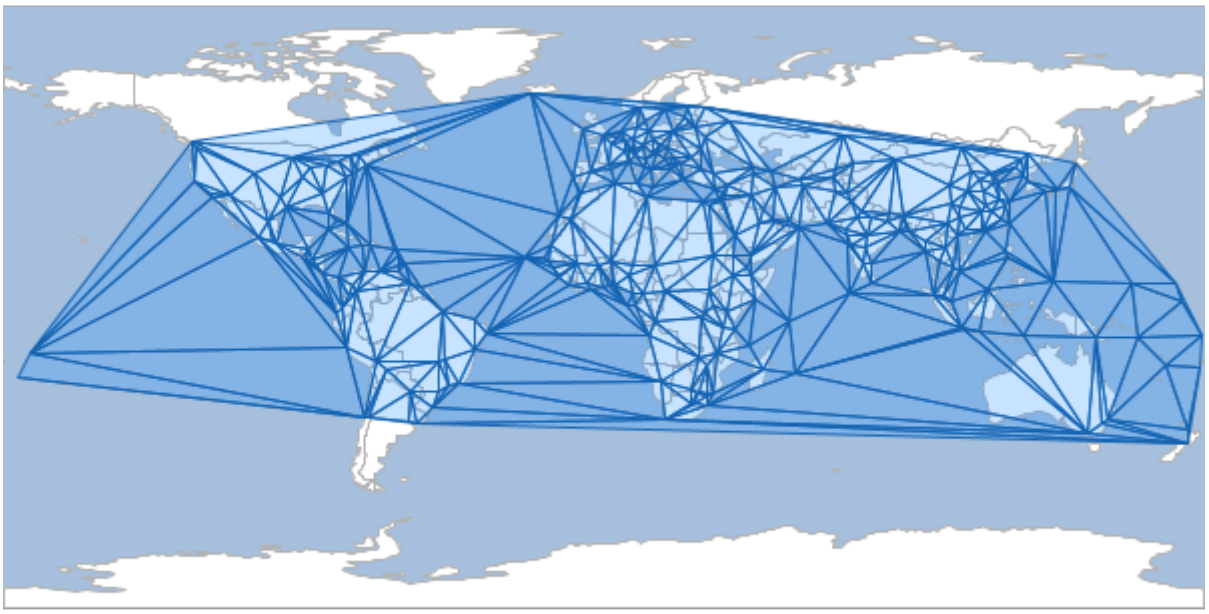
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

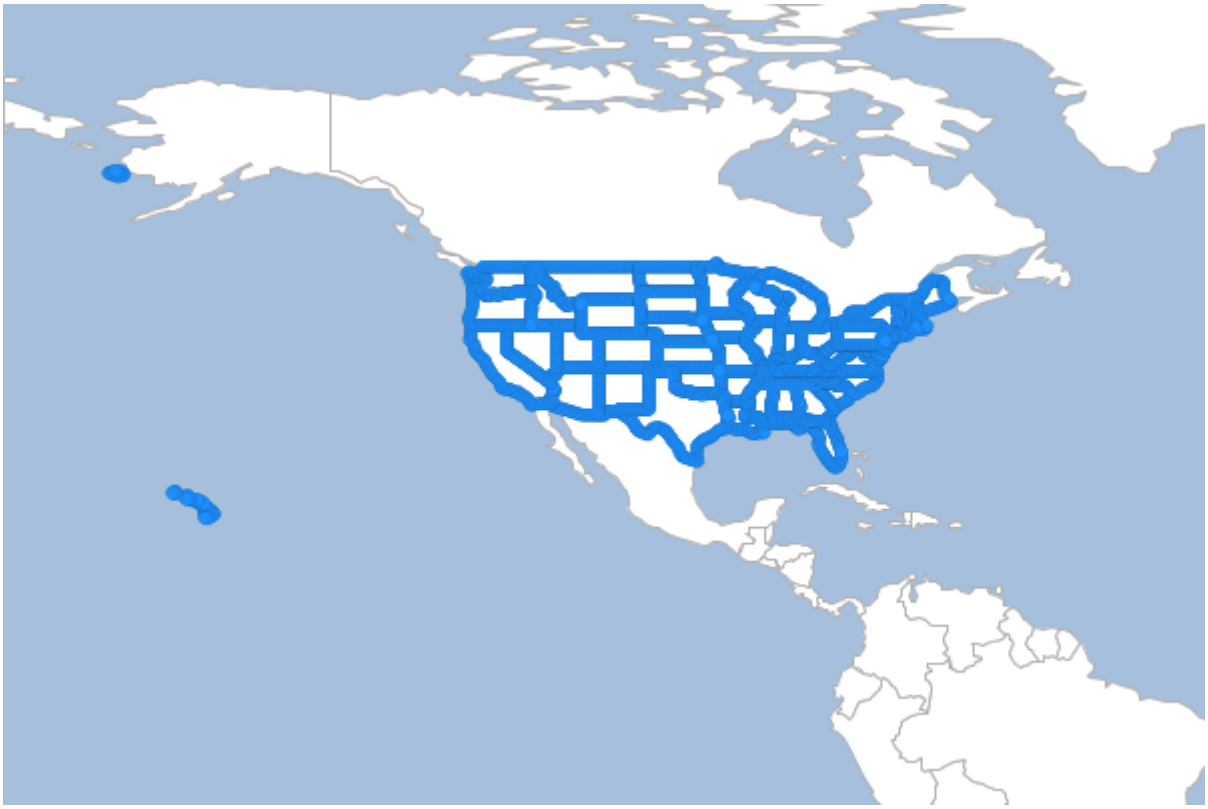
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

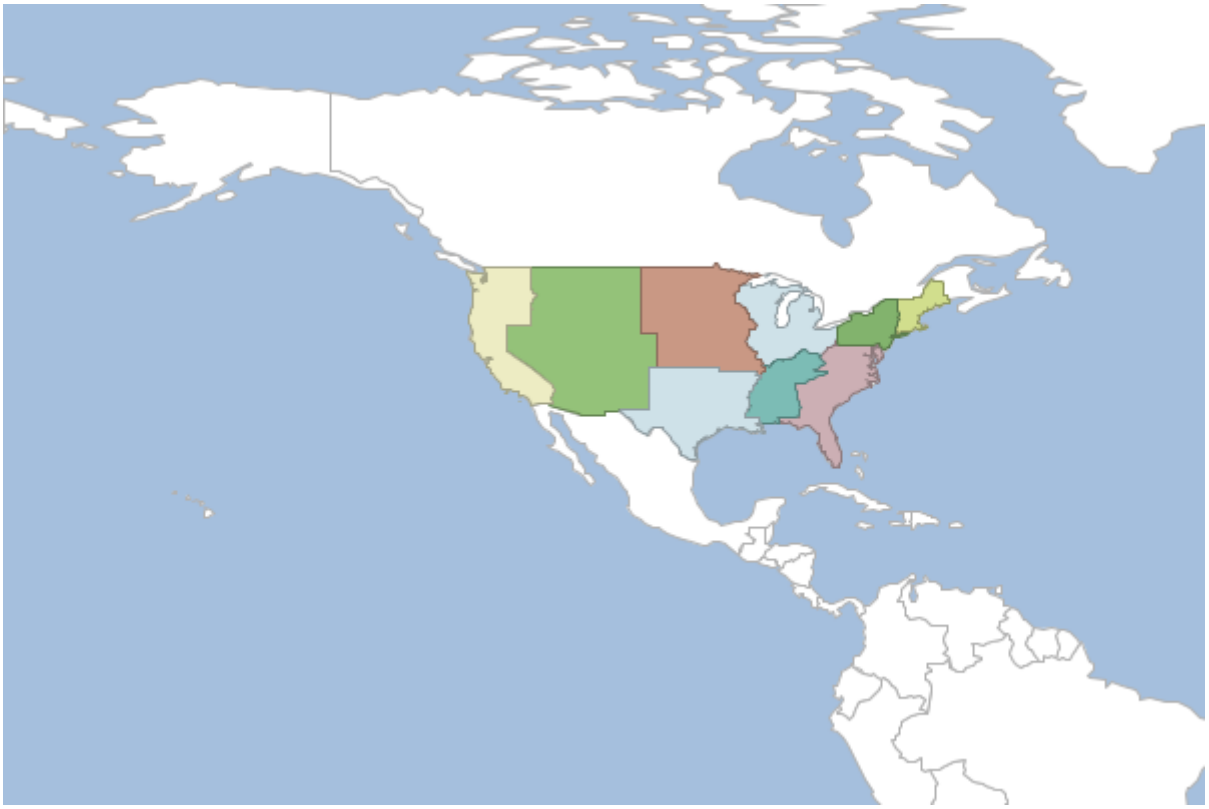
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

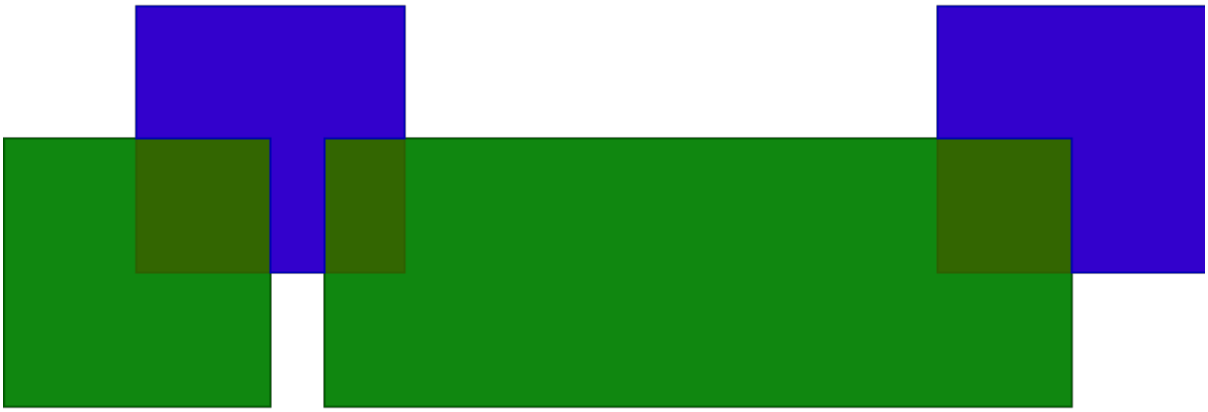
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

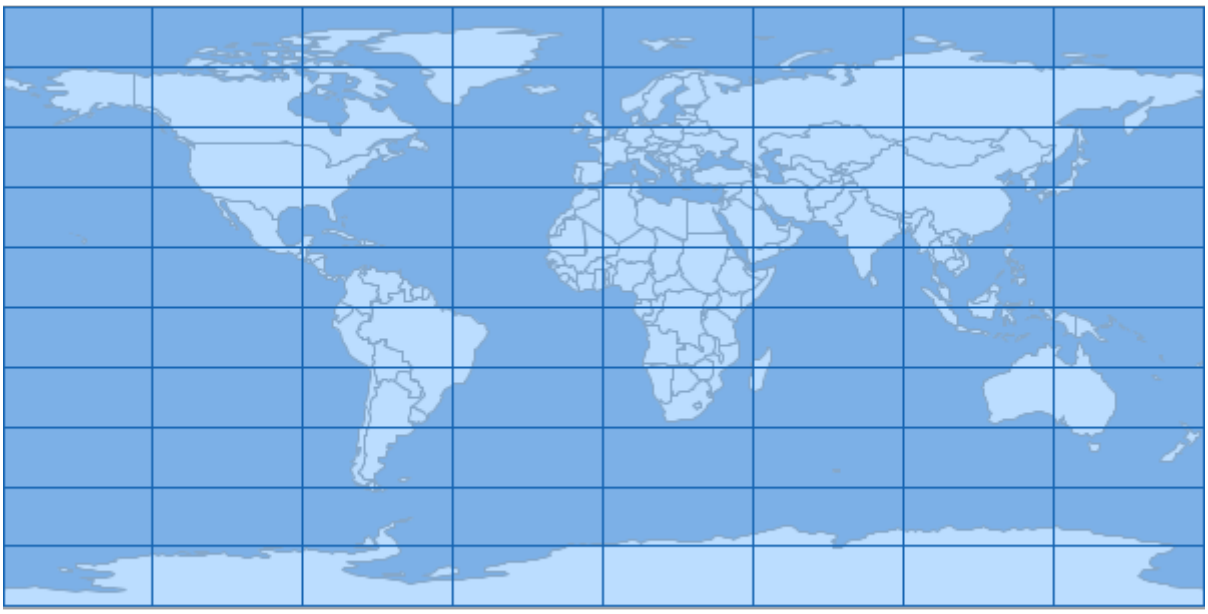
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

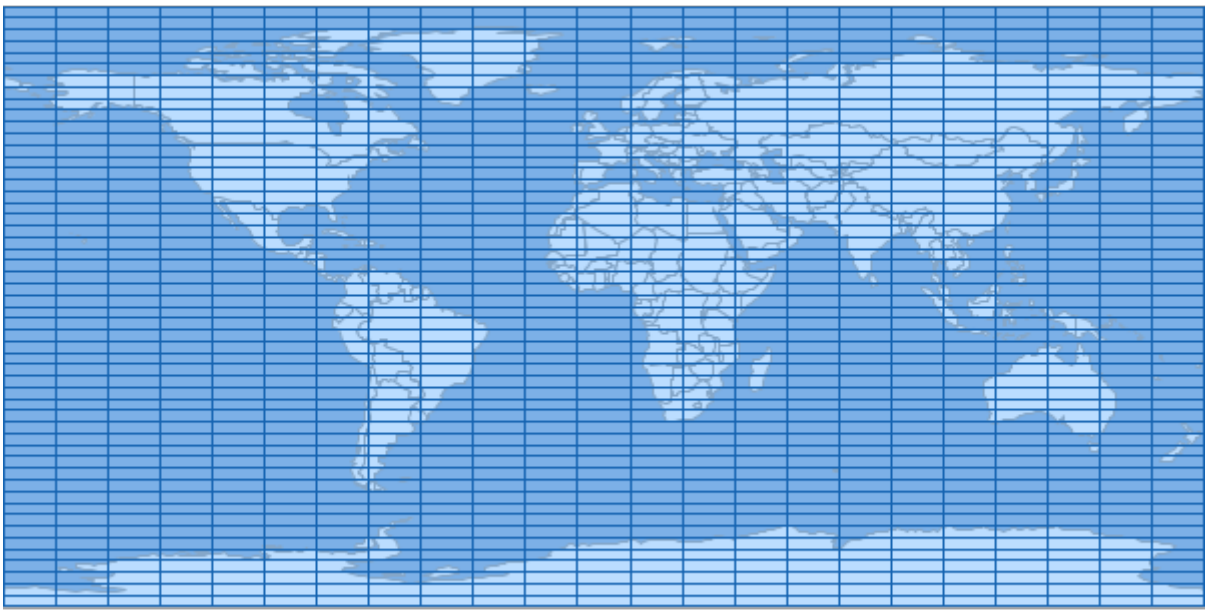
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

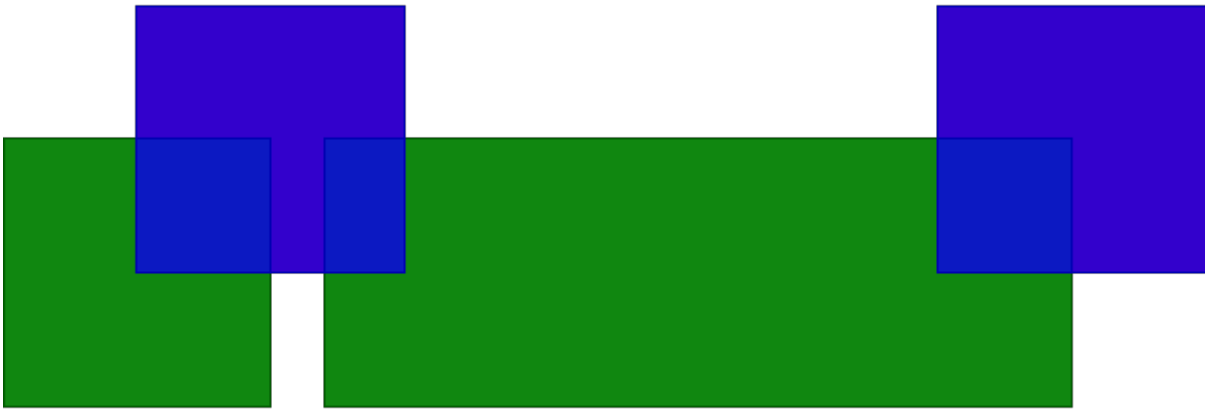
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

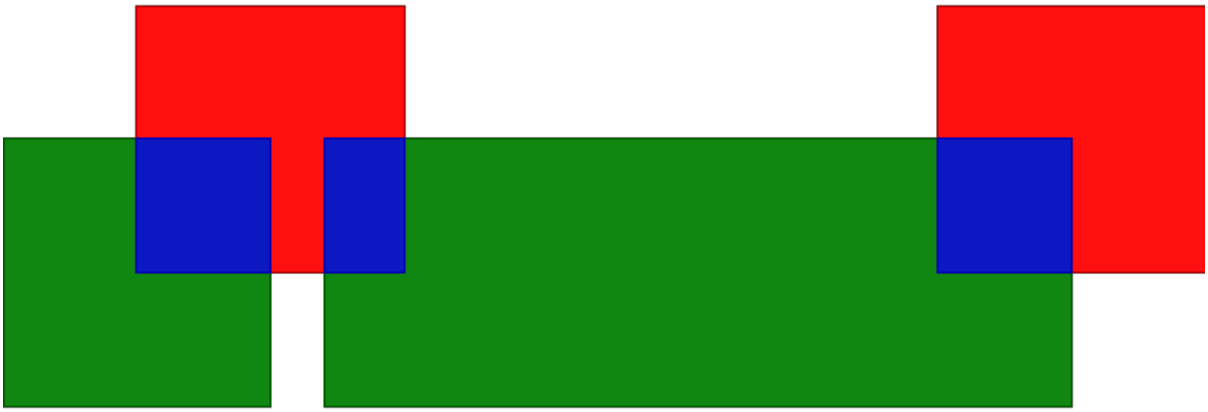
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

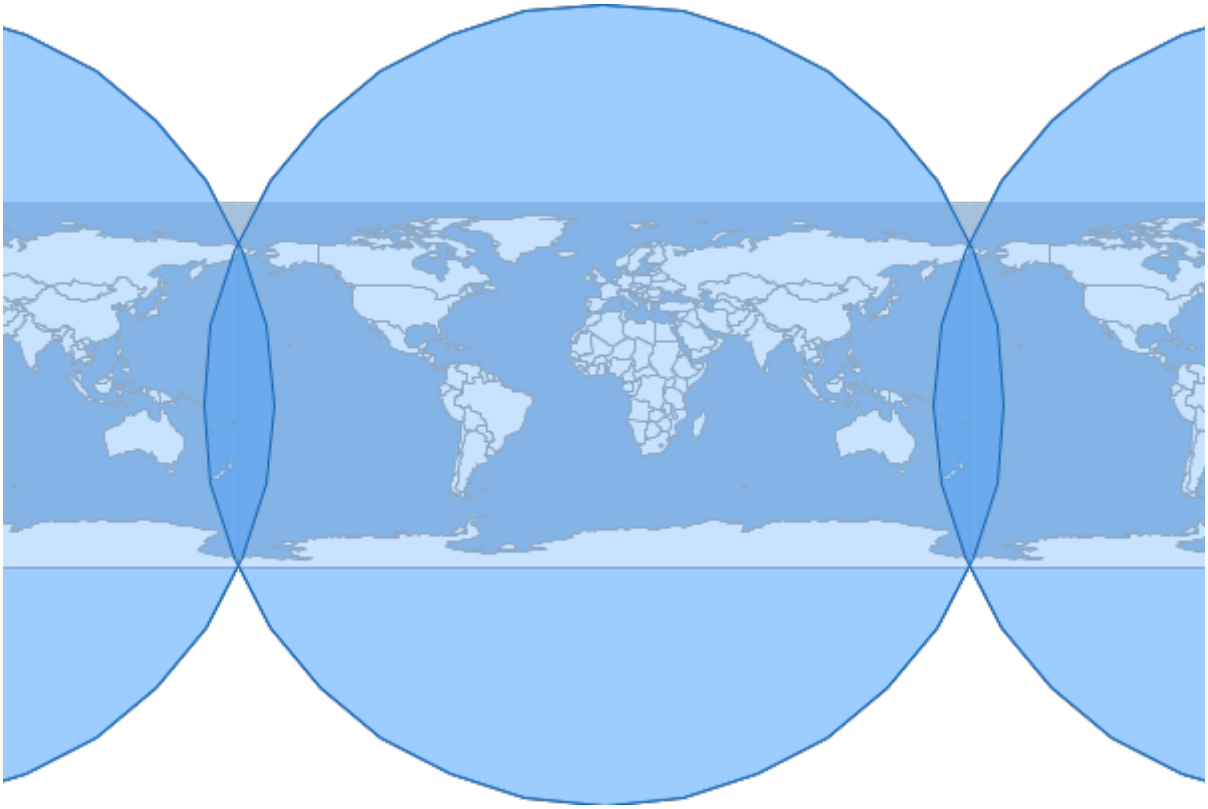
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

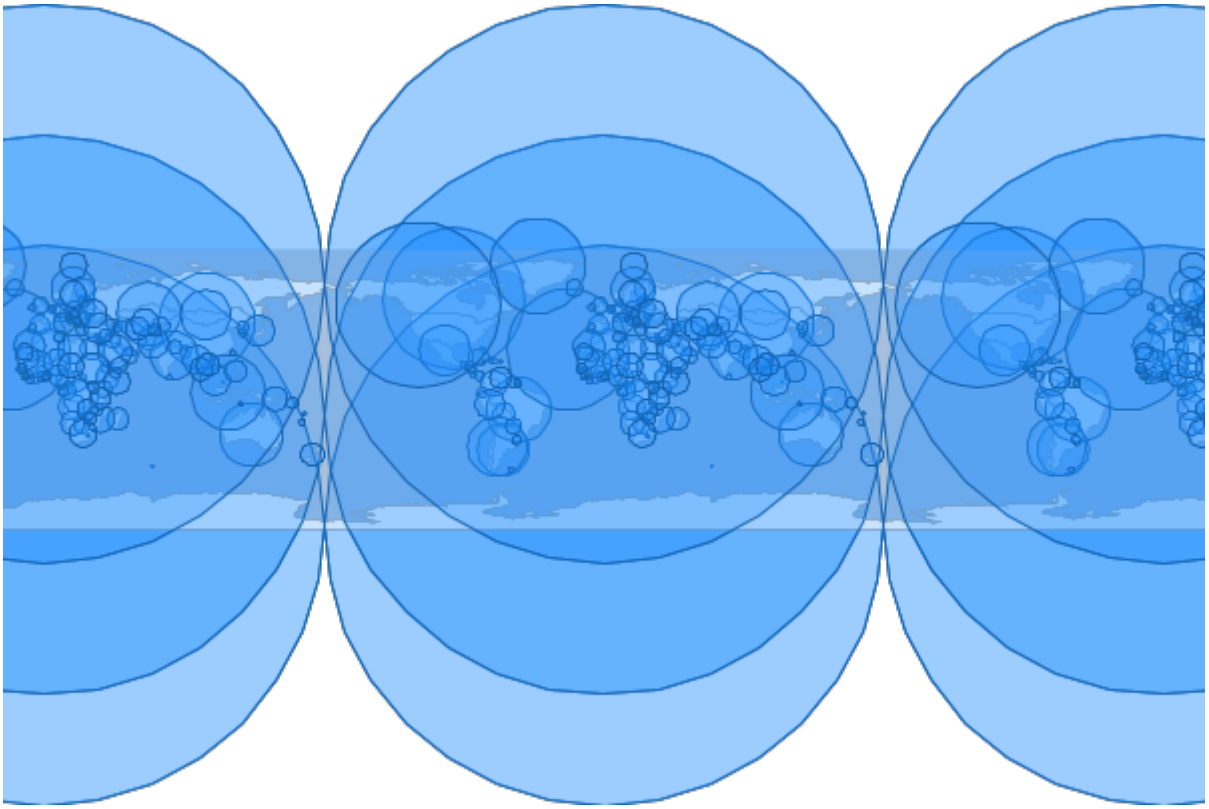
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

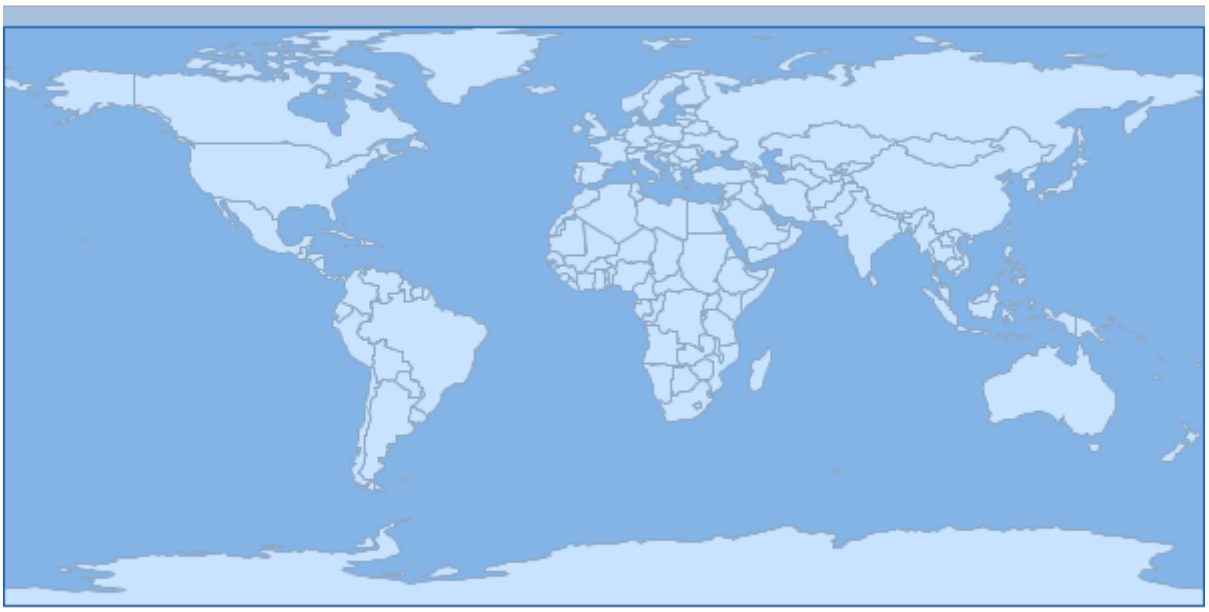
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

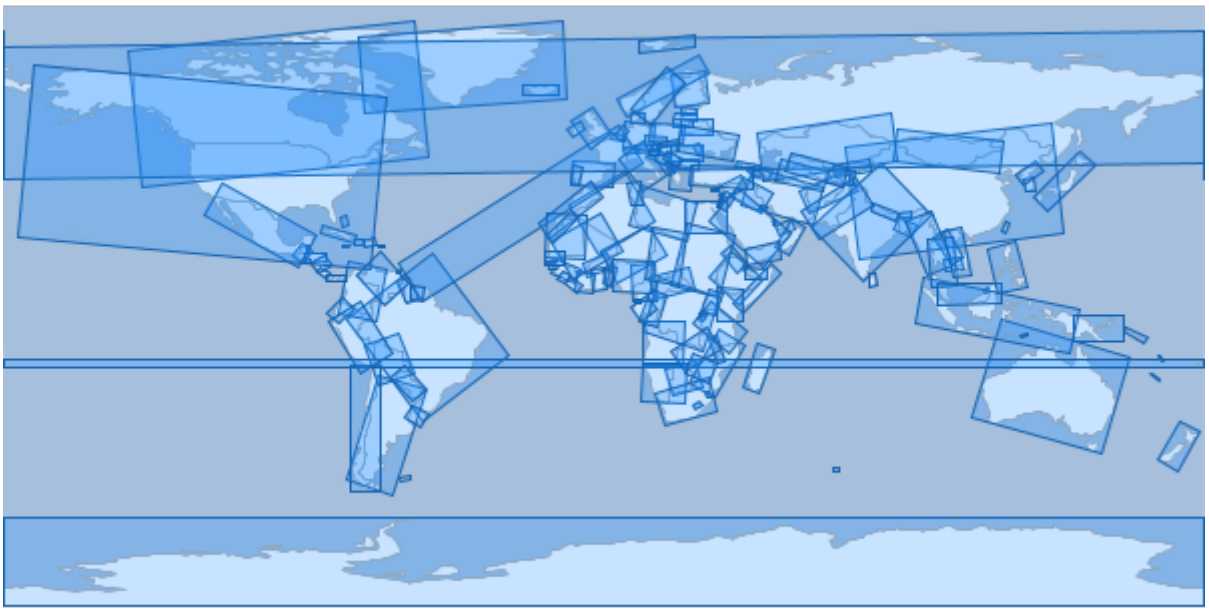
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

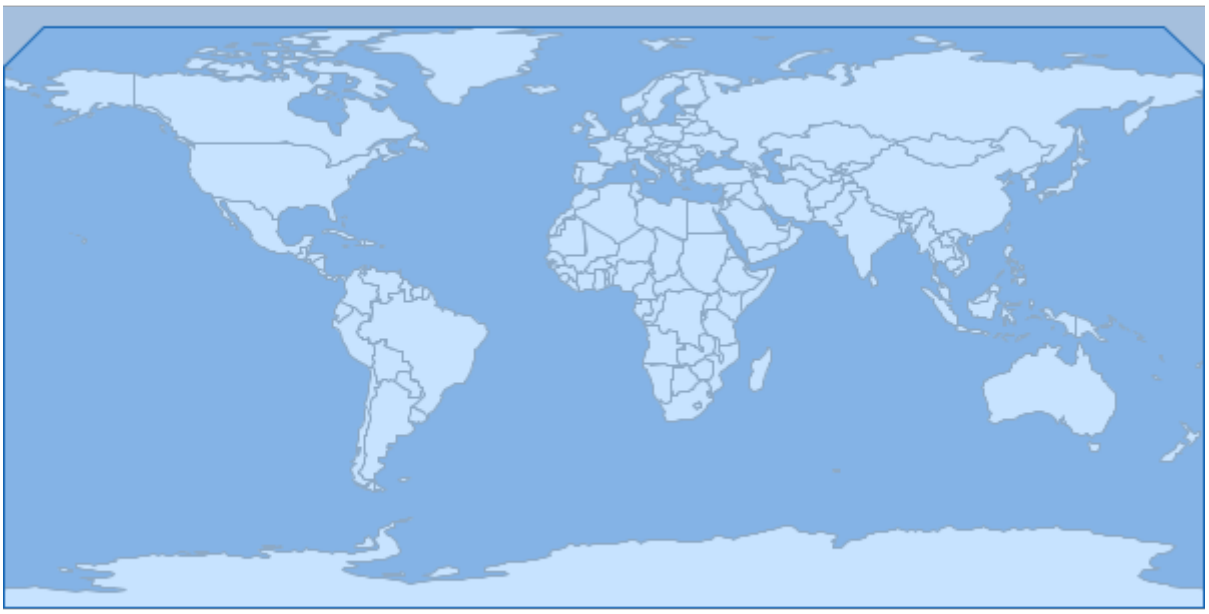
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

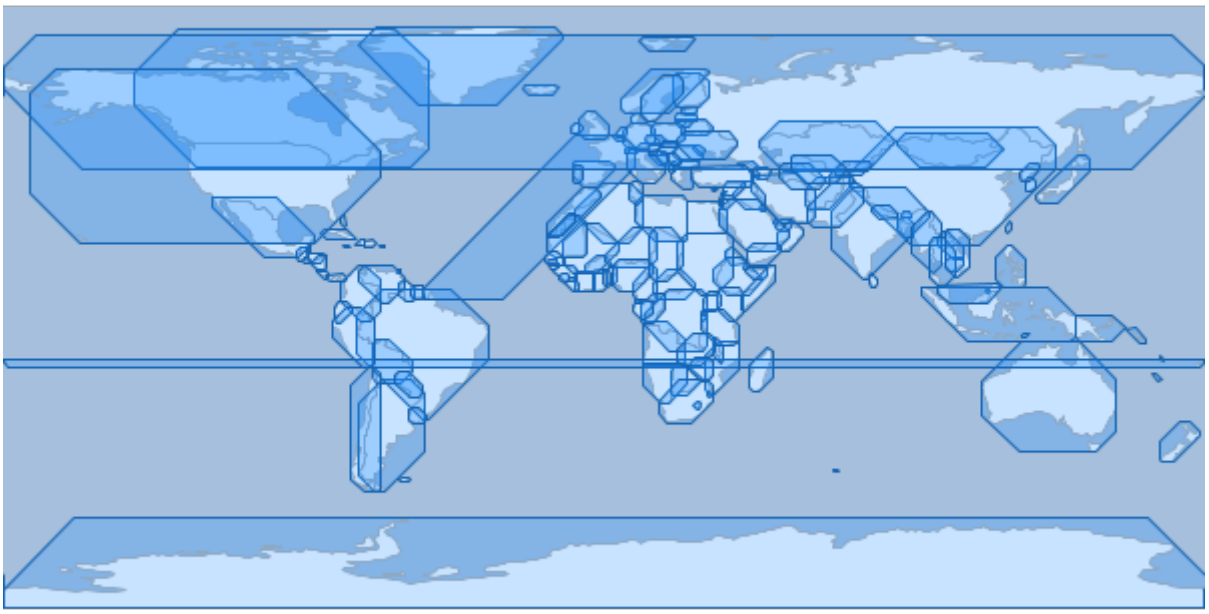
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

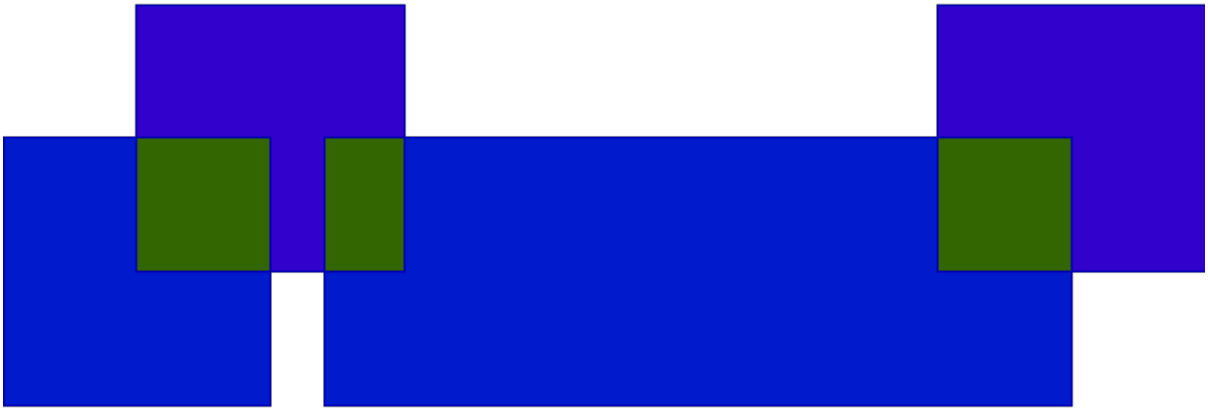
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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

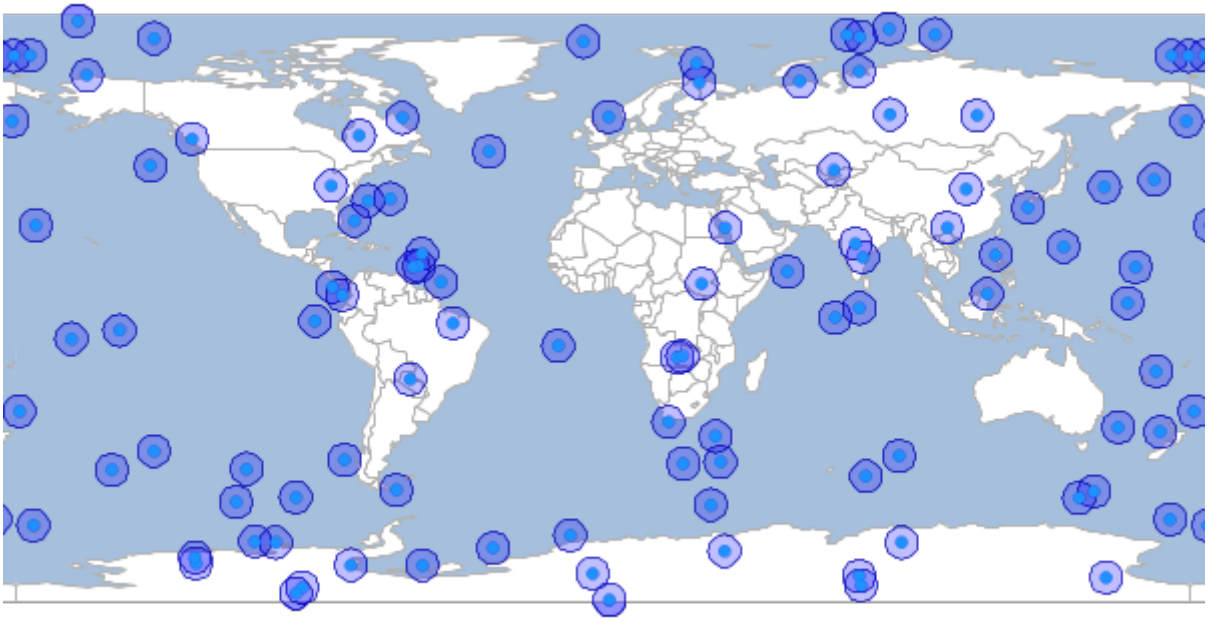
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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!

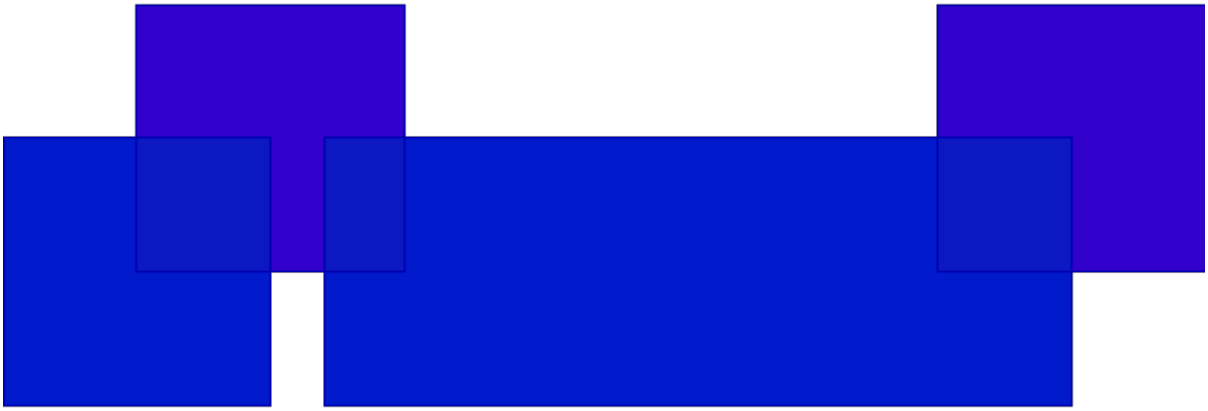
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

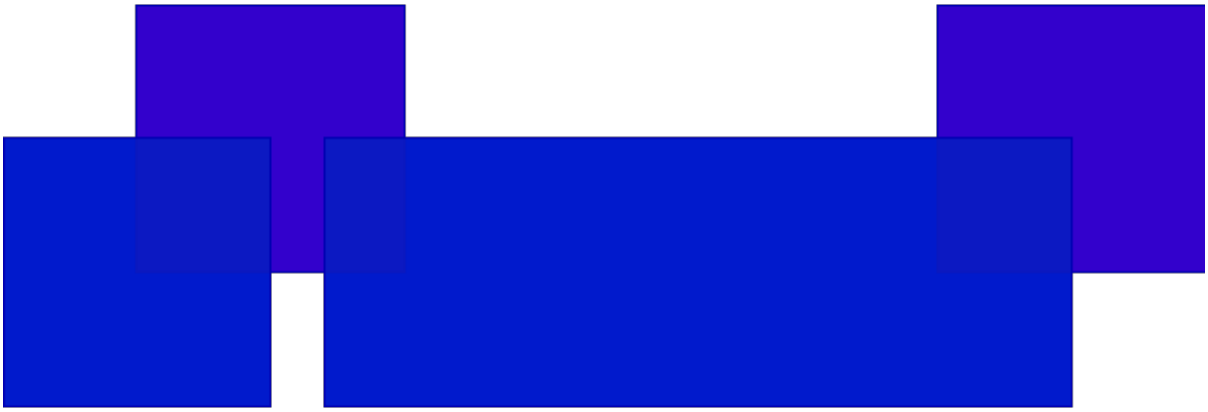
geo-shell> **map add layer** --name map --layer a
Added a layer to map map

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!

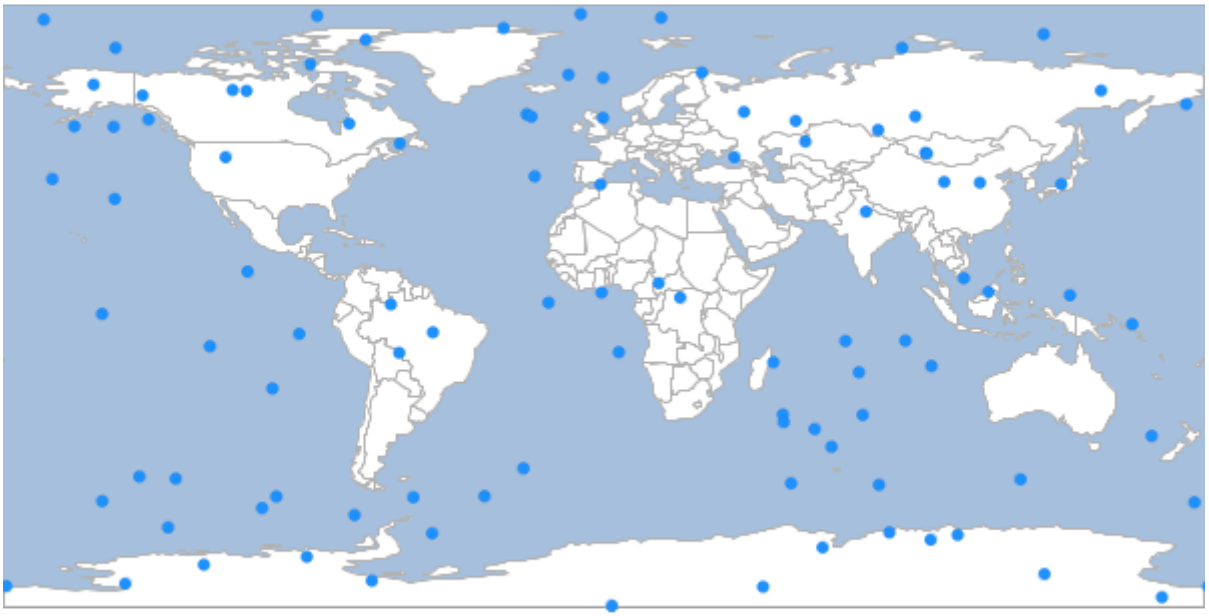
geo-shell> **map add layer** --name randomMap --layer ocean
Added ocean layer to map randomMap

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

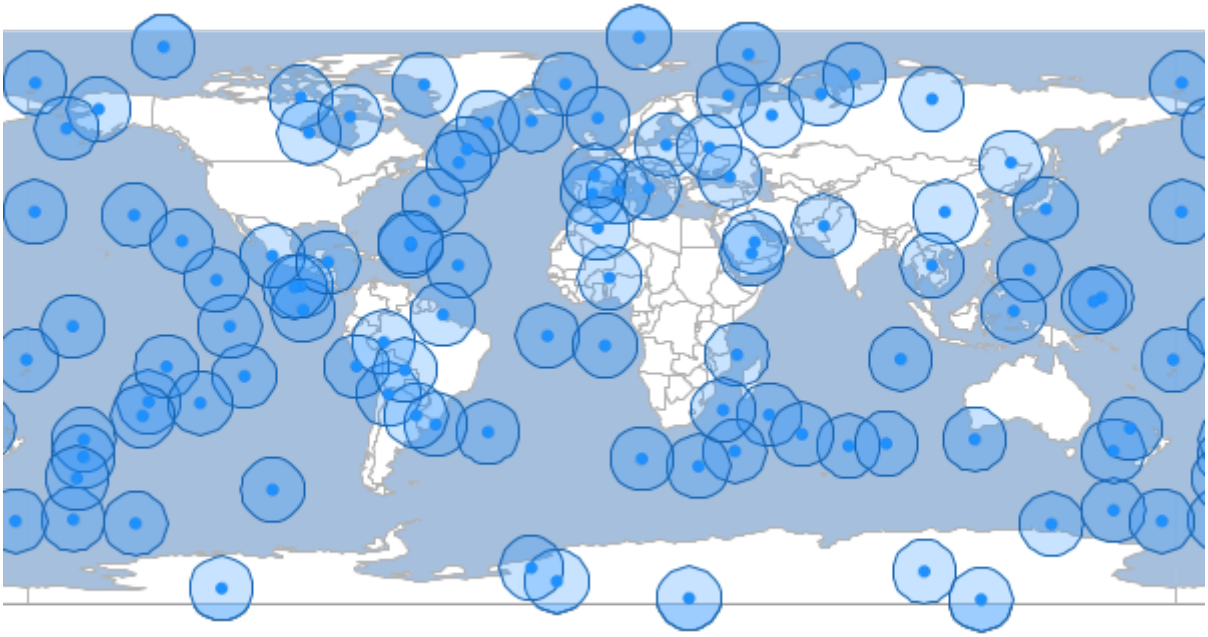
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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!

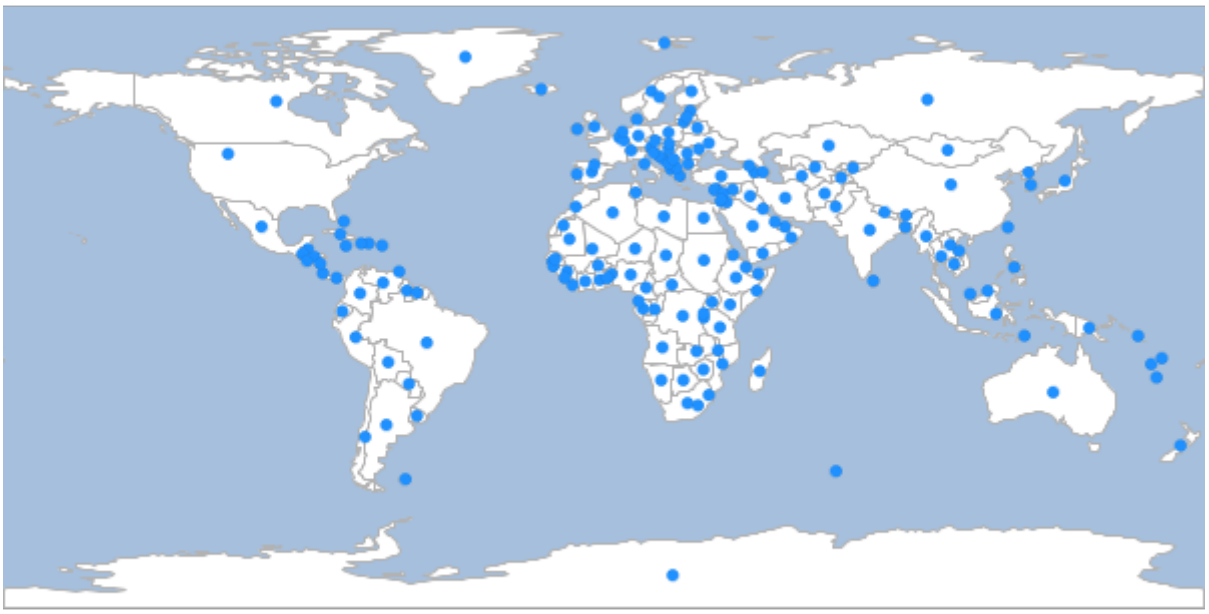
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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!

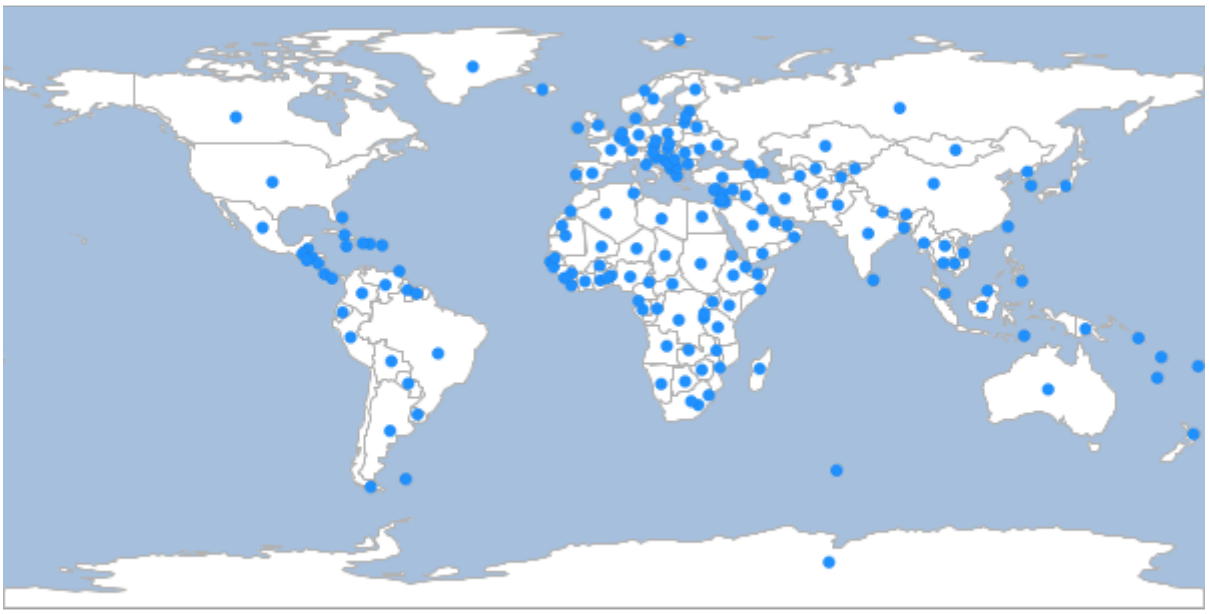
geo-shell> **map add layer** --name map --layer ocean
Added ocean layer to map map

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

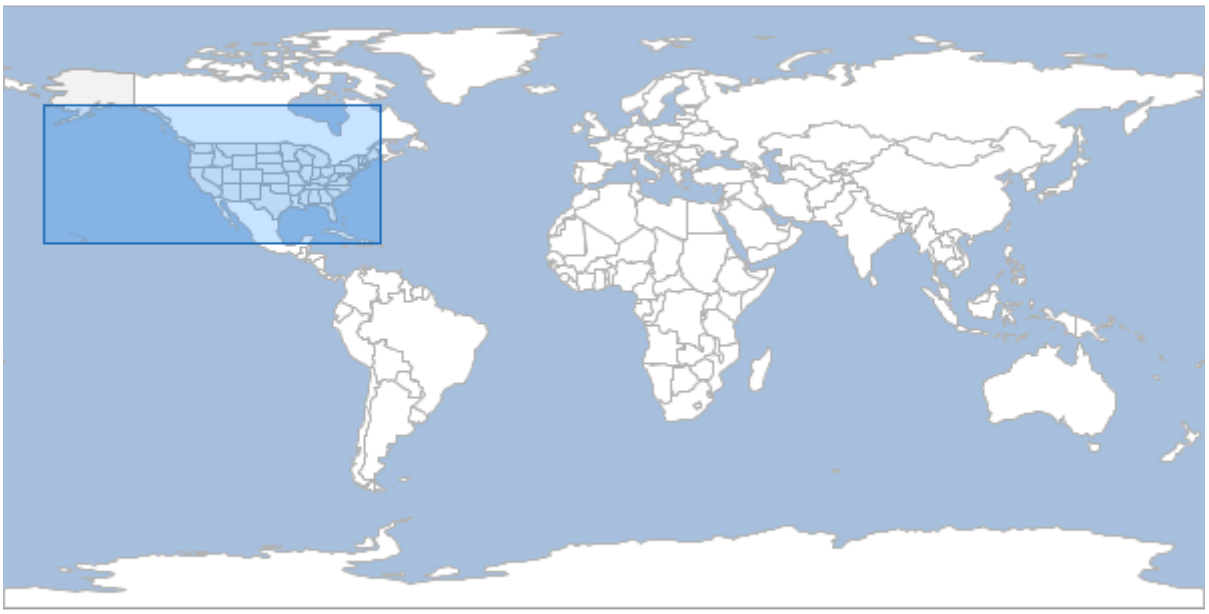
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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

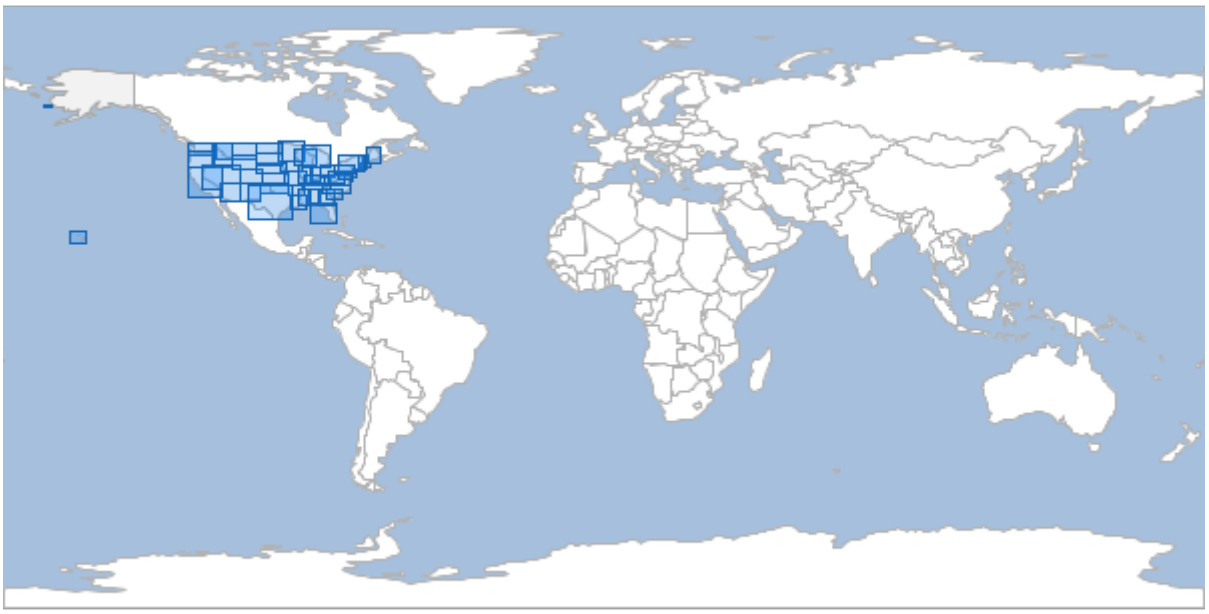
geo-shell> **map add layer** --name map --layer countries
Added countries layer to map map

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!

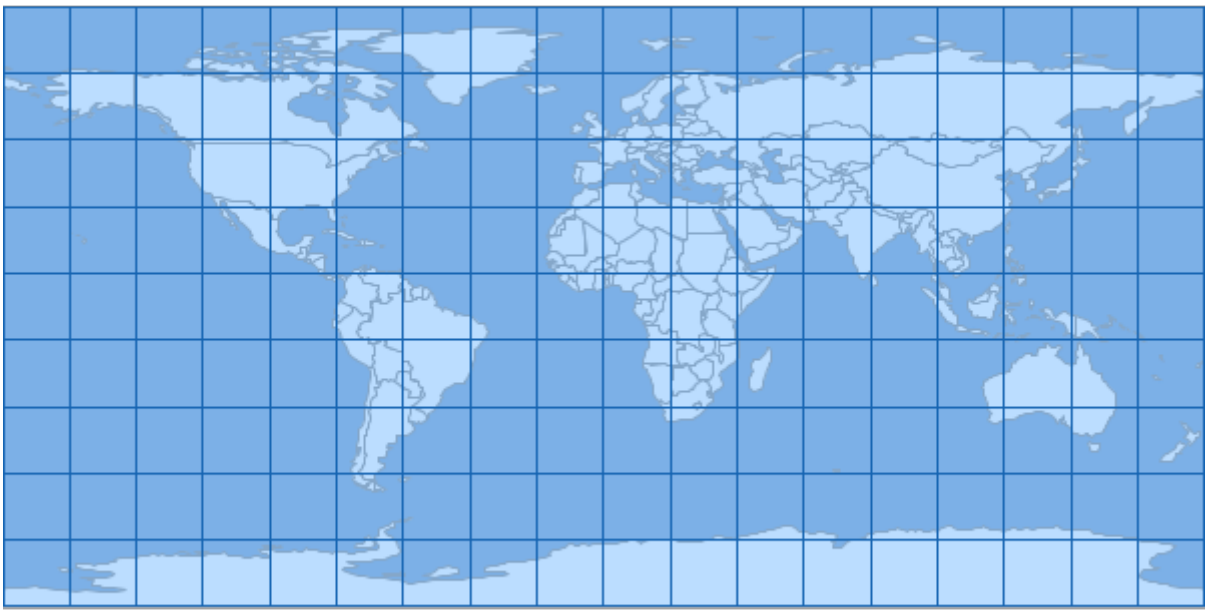
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

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!

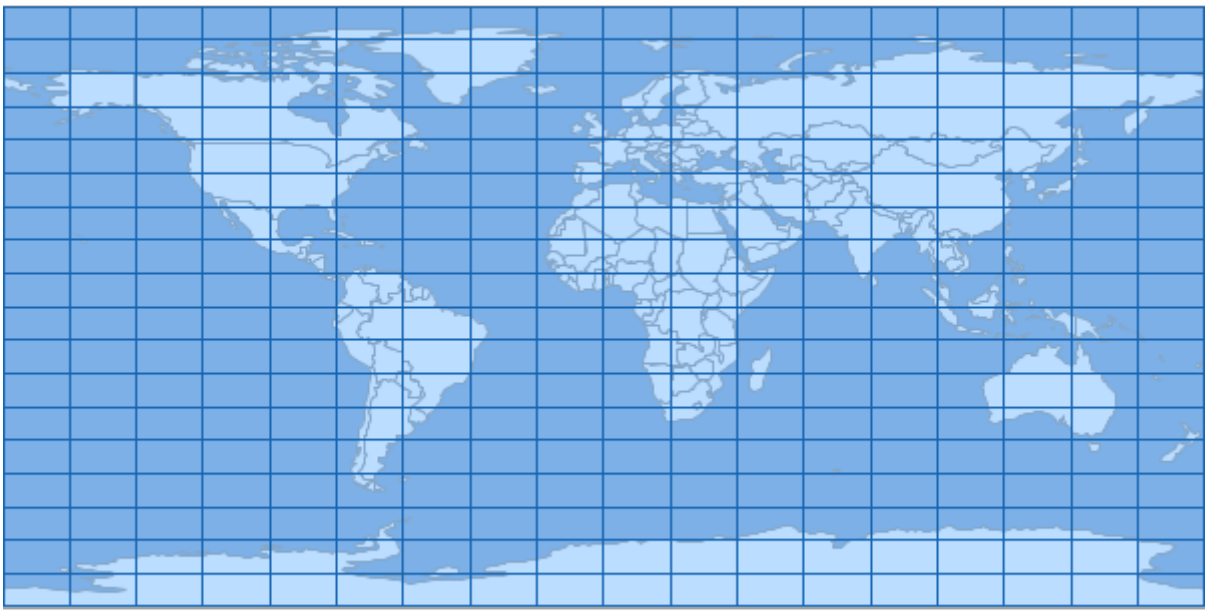
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

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!

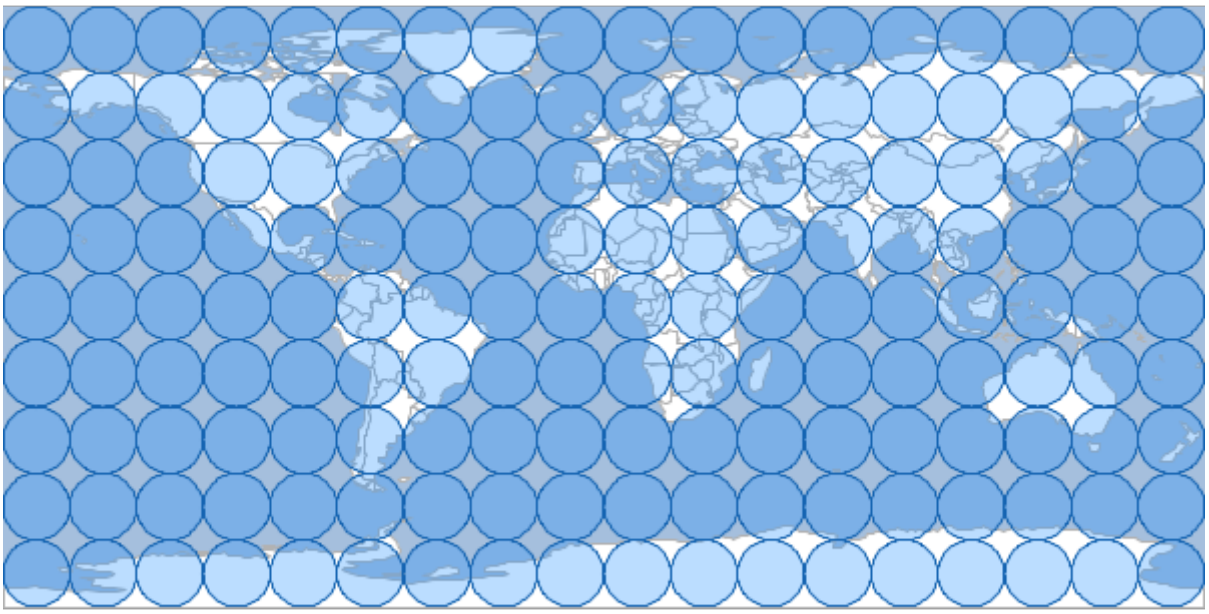
geo-shell> **map add layer** --name graticule --layer ocean
Added ocean layer to map graticule

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!