geoc

version 0.8

Jared Erickson

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geoc Commandline Application

geoc is a geospatial command line application that follows the unix philosophy. Each command does one thing well (buffer a layer, crop a raster) by reading a vector layer as a CSV text stream or a raster layer as an ASCII grid, processing the layer or raster, and then writing out the vector layer as a CSV or a raster layer as an ASCII grid. Individual commands can be chained together with unix pipes.

geoc is very much under development (command names may change). Originally is was developed as a complement to geometry commands and to stress test GeoScript Groovy. The commands have not been optimized for large datasets.

geoc is built on the shoulders of giants: GeoTools and the Java Topology Suite. geoc just provides a command line application that wraps the herculean effort that the developers of these two libraries have undertaken.

PDF

Contents:

Key Features

1. Git style commands. One command (geoc) and many subcommands (which can be more than one word).
2. By default geoc reads and writes vector layers as CSV and raster layers as ASCII grids.
3. But geoc can read and write to any supported GeoTools DataStore (Shapefiles, PostGIS, H2) or CoverageStore (GeoTIFF, WorldImage, GTOPO).
4. Commands are looked up using Java's Service Provider Interface (SPI) so the framework is extensible.
5. Where appropriate, values are expressions (literals, properties, or CQL with functions)
6. Uses GeoScript Groovy for extremely terse code.

Data Sources

By default, vector commands read and write CSV using WKT for geometry fields and raster commands read and write ASCII grids. But, geoc can read and write any supported GeoTools DataStore or CoverageStore by using Connection Strings. GeoTools uses connection maps to connect to DataStore's. geoc connection strings are these connection maps where the key/value pairs are separated by an '=' sign and multiple key/value pairs are separated by a white space. Values can be single quoted.

Vector

PostGIS

dbtype=postgis database=postgres host=localhost port=5432 user=postgres passwd=postgres

MySQL

dbtype=mysql database=layers host=localhost port=5432 user=me passwd=scrt

H2

test.db

dbtype=h2 database=test.db

dbtype=h2 host=localhost port=5432 schema=public user=me password=scrt

dbtype=h2 jndiReferenceName=layers schema=public

Shapefile

url=data/states.shp

data/states.shp

Memory

memory

Properties

data/states.properties

directory=data/properties

GeoPackage

layers.gpkg

database=layers.gpkg dbtype=geopkg user=me passwd=scrt

Geobuf

layer.pbf

file=layers precision=6 dimension=2

Spatialite

layers.sqlite

dbtype=spatialite database=layers.sqlite

OGR

DatasourceName=states.shp DriverName='ESRI Shapefile' namespace=shp

WFS

http://geoserver.org/wfs?request=getcapabilities

Raster

Raster sources are currently all file based.

data/earth.tif

world.png

Tile

pyramid

Several tile layers can take a pyramid attribute. You can use one of several well known pyramid names:

- globalmercator
- mercator
- globalmercatorbottomleft
- globalgeodetic
- geodetic

or use a file that contains pyramid metadata in csv, xml, or json format.

mbtiles

type=mbtiles file=states.mbtiles

type=mbtiles file=states.mbtiles name=states description='The united states'

states.mbtiles

geopackage

type=geopackage file=states.gpkg name=states pyramid=globalmercator

states.gpkg

tms

type=tms file=/Users/you/tms format=jpeg

type=tms file=/Users/you/tms format=png name=tms pyramid=geodetic

osm

type=osm url=http://a.tile.openstreetmap.org

type=osm urls=http://a.tile.openstreetmap.org,http://b.tile.openstreetmap.org

utfgrid

type=utfgrid file=/Users/me/tiles/states

vectortiles

type=vectortiles name=states file=/Users/me/tiles/states format=mvt pyramid=GlobalMercator

type=vectortiles name=states url=http://vectortiles.org format=pbf pyramid=GlobalGeodetic

Map Layer

Map layer strings contain a layertype, layername, layerprojection, and style properties.

layertype

- layer
- raster
- tile

For layer layertype, you can use the same key value pairs used to specify a Workspace.

For raster layertype, you specify a source=file key value pair.

For tile layertype, you use the same key value pairs used to specify a tile layer.

layername

The name of the layer

style

A SLD or CSS File

Examples

layertype=layer dbtype=geopkg database=/Users/user/Desktop/countries.gpkg layername=countries style=/Users/user/Desktop/countries.sld

layertype=layer file=/Users/user/Desktop/geoc/polygons.csv layername=polygons style=/Users/user/Desktop/geoc/polygons.sld

layertype=layer file=/Users/user/Desktop/geoc/points.properties style=/Users/user/Desktop/geoc/points.sld

layertype=layer file=/Users/user/Projects/geoc/src/test/resources/polygons.shp

layertype=layer directory=/Users/user/Projects/geoc/src/test/resources/points.properties layername=points

layertype=raster source=rasters/earth.tif

layertype=tile file=world.mbtiles

layertype=tile type=geopackage file=states.gpkg

Examples

List commands:

```
>>> geoc list
```

Count features in a CSV layer:

```
>>> cat states.csv | geoc vector count
```

Buffer feature from a shapefile:

```
>>> geoc vector buffer -i earthquakes.shp -o earthquake_buffers.shp
```

Get the envelope of a layer and then calculate the buffer:

```
>>> cat states.csv | geoc vector envelope | geoc vector buffer -d 0.1
```

Crop a raster:

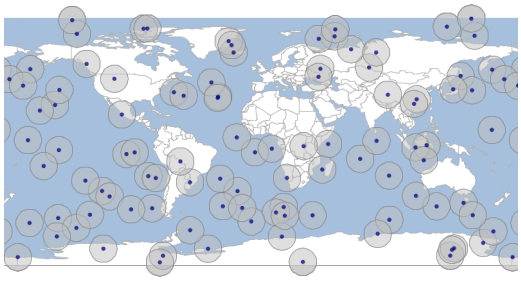
```
>>> geoc raster crop -i raster.tif -b "-120,-40,120,40" -o raster_croped.tif
```

Create 100 random points in a GeoPackage database, get's metadata of that layer, and then finally converts the layer to CSV::

```
>>> geoc vector randompoints -g "0 0 10 10" -n 100 -o test.gpkg -r points100

>>> geoc vector info -i test.gpkg -l points100

>>> geoc vector to -i test.gpkg -f csv
```

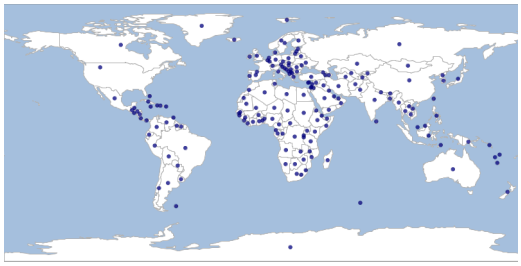
Buffer a Vector Layer

```
geoc vector randompoints -g -180,-90,180,90 -n 100 > points.csv

cat points.csv | geoc vector buffer -d 10 > polygons.csv

cat points.csv | geoc vector defaultstyle --color navy -o 0.75 > points.sld

cat polygons.csv | geoc vector defaultstyle --color silver -o 0.5 > polygons.sld

geoc map draw -f vector_buffer.png -l "layertype=layer file=naturalearth.gpkg layername=ocea
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=polygons.csv style=polygons.sld" \
    -l "layertype=layer file=points.csv style=points.sld"
```



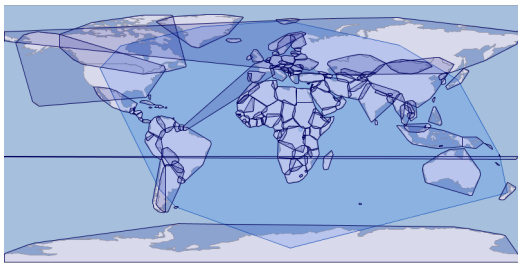
Create Centroids from a Vector Layer

```
geoc vector centroid -i naturalearth.gpkg -l countries -o countries_centroids.shp

geoc vector defaultstyle --color navy -o 0.75 -i countries_centroids.shp > countries_centroi

geoc map draw -f vector_centroid.png -l "layertype=layer file=naturalearth.gpkg layername=oc
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=countries_centroids.shp style=countries_centroids.sld"
```



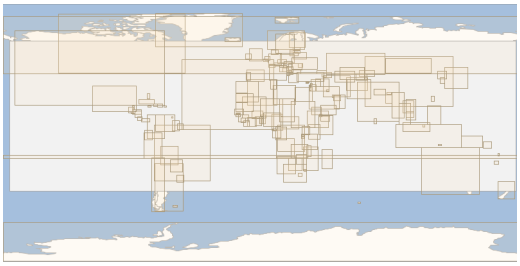
Create Convex Hulls around a Vector Layer

```
#!/bin/bash
geoc vector centroid -i naturalearth.gpkg -l countries | geoc vector convexhull -o countries
geoc vector convexhulls -i naturalearth.gpkg -l countries -o countries_convexhulls.shp

geoc vector defaultstyle --color "#0066FF" -o 0.15 -g line > countries_convexhull.sld
geoc vector defaultstyle --color navy -o 0.15 -g polygon > countries_convexhulls.sld

geoc map draw -f vector_convexhull.png -b "-180,-90,180,90" \
    -l "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=countries_convexhull.shp" \
    -l "layertype=layer file=countries_convexhulls.shp"
```



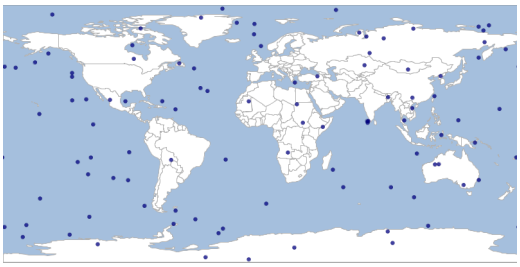
Create Envelopes around a Vector Layer

```
#!/bin/bash

rm envelope.db.*

geoc vector envelope -i naturalearth.gpkg -l places -o envelope.db -r envelope
geoc vector envelopes -i naturalearth.gpkg -l countries -o envelope.db -r envelopes

geoc map draw -f vector_envelope.png -b "-180,-90,180,90" \
    -l "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer dbtype=h2 database=envelope.db layername=envelope style='stroke=#006
    -l "layertype=layer dbtype=h2 database=envelope.db layername=envelopes style='stroke=#ab
```



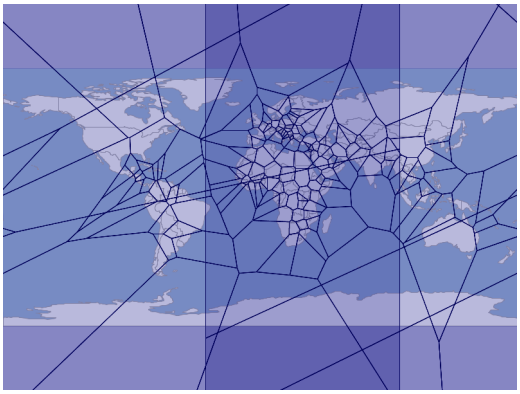
Create a Vector Layer of Random Points

```
#!/bin/bash
geoc vector randompoints -g -180,-90,180,90 -n 100 > points.csv

cat points.csv | geoc vector defaultstyle --color navy -o 0.75 > points.sld

geoc map draw -f vector_random.png -l "layertype=layer file=naturalearth.gpkg layername=ocea
  -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
  -l "layertype=layer file=points.csv style=points.sld"
```



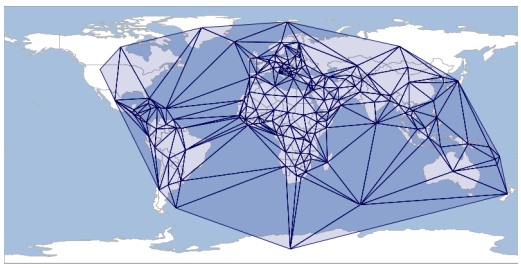
Create a Voronoi Diagram from a Vector Layer

```
geoc vector centroid -i naturalearth.gpkg -l countries | geoc vector voronoi -o countries_vo

geoc vector defaultstyle --color navy -o 0.15 -i countries_voronoi.shp > countries_voronoi.s

geoc map draw -f vector_voronoi.png -b "-180,-90,180,90" \
    -l "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=countries_voronoi.shp layername=countries_voronoi style=countri
```



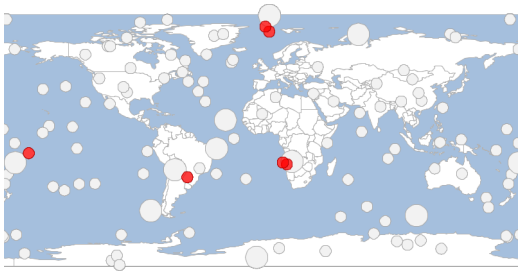
Create a Delaunay Diagram from a Vector Layer

```
#!/bin/bash
geoc vector centroid -i naturalearth.gpkg -l countries | geoc vector delaunay -o countries_d

geoc vector defaultstyle --color navy -o 0.15 -g polygon > countries_delaunay.sld

geoc map draw -f vector_delaunay.png -b "-180,-90,180,90" \
    -l "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=countries_delaunay.pbf layername=countries_delaunay style=count
```



Select Features that intersect other Features

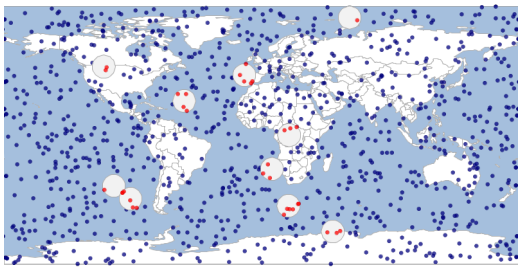
```
#!/bin/bash
geoc vector randompoints -g -180,-90,180,90 -n 100 | geoc vector buffer -d 4 -o polys1.shp

geoc vector randompoints -g -180,-90,180,90 -n 10 | geoc vector buffer -d 8 -o polys2.shp

geoc vector intersects -i polys1.shp -k polys2.shp > intersectingPolys.csv

cat intersectingPolys.csv | geoc vector defaultstyle --color red -o 0.75 > intersectingPolys

geoc map draw -f vector_intersects.png -l "layertype=layer file=naturalearth.gpkg layername=
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=polys1.shp" \
    -l "layertype=layer file=polys2.shp" \
    -l "layertype=layer file=intersectingPolys.csv style=intersectingPolys.sld"
```



Select Features contained in other Features

```
#!/bin/bash
geoc vector randompoints -g -180,-90,180,90 -n 1000 -o points.shp
```

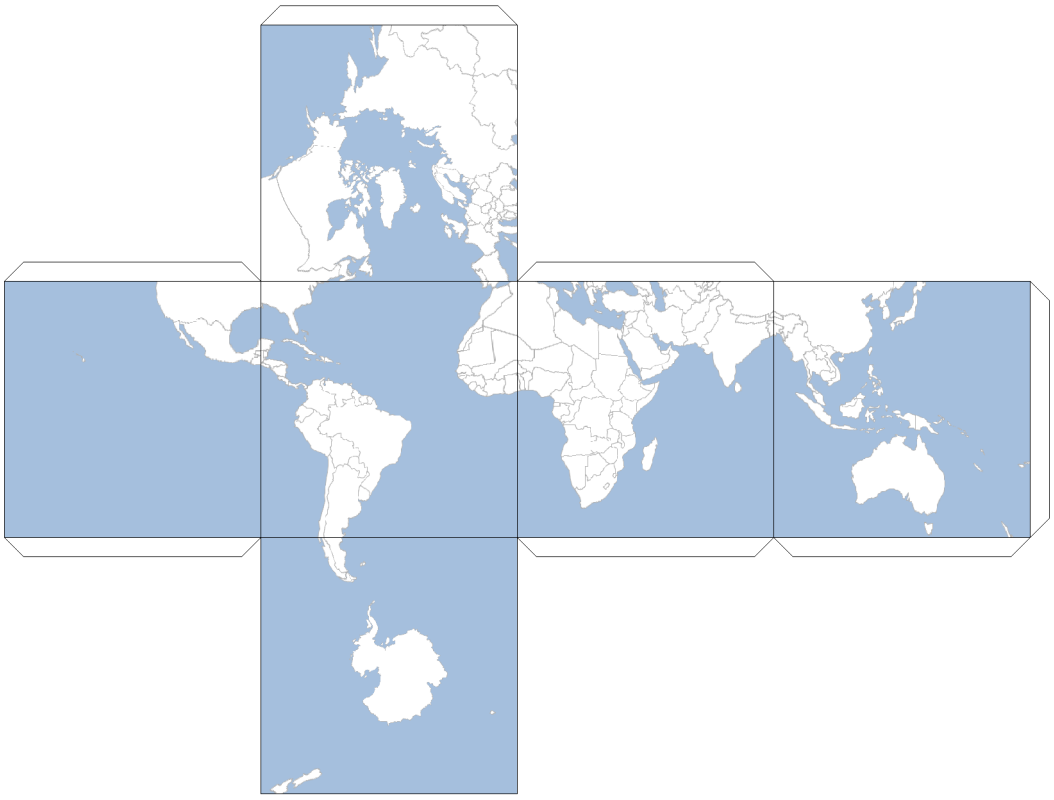
```
geoc vector randompoints -g -180,-90,180,90 -n 10 | geoc vector buffer -d 8 -o polys.shp

geoc vector contains -i points.shp -k polys.shp > pointsInPolys.csv

cat pointsInPolys.csv | geoc vector defaultstyle --color red -o 0.75 > pointsInPolys.sld

geoc map draw -f vector_contains.png -l "layertype=layer file=naturalearth.gpkg layername=oc
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -l "layertype=layer file=points.shp" \
    -l "layertype=layer file=polys.shp" \
    -l "layertype=layer file=pointsInPolys.csv style=pointsInPolys.sld"
```



Create a Map Cube

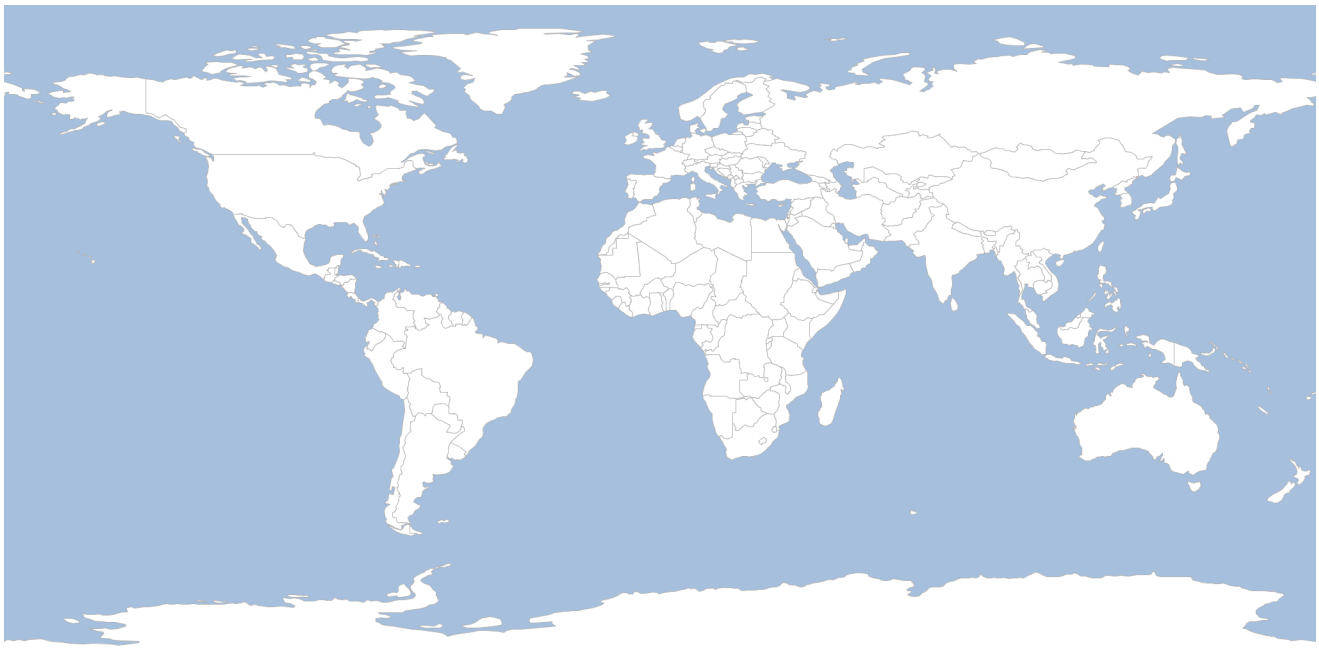
```
geoc map cube -f map_cube.png -t -o -i 'Natural Earth' \
    -l "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -l "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
```

Natural Earth



Generate Geodetic Tiles

```
#!/bin/bash
rm tiles.gpkg

geoc tile generate -l "type=geopackage file=tiles.gpkg name=world_geodetic pyramid=geodetic"
    -m "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
    -m "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
    -s 0 \
    -e 3 \
    -v

geoc tile pyramid -l "type=geopackage file=tiles.gpkg name=world_geodetic" -o json

geoc tile stitch raster -l "type=geopackage file=tiles.gpkg name=world_geodetic" \
    -o world_geodetic_2.png -z 2
```



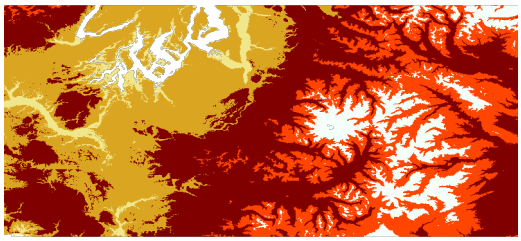
Generate Web Mercator Tiles in MBTiles

```
#!/bin/bash
rm countries.mbtiles

geoc tile generate -l countries.mbtiles \
-m "layertype=layer file=naturalearth.gpkg layername=ocean style=ocean.sld" \
-m "layertype=layer file=naturalearth.gpkg layername=countries style=countries.sld" \
-s 0 \
-e 4

geoc tile pyramid -l countries.mbtiles -o text

geoc tile stitch raster -l countries.mbtiles -o countries_1.png -z 1
```

Reclassify a Raster

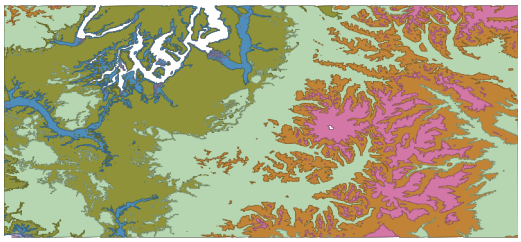
```
#!/bin/sh

geoc raster reclassify -i pc.tif -o pc_reclass.tif \
    -r 0-0=1 -r 0-50=2 -r 50-200=3 \
    -r 200-1000=5 -r 1000-1500=4 -r 1500-4000=6

geoc raster style colormap \
    -v 1=#FFFACD -v 2=#F0E68C -v 3=#DAA520 \
    -v 4=#FF4500 -v 5=#800000 -v 6=#F5FFFA > pc_reclass.sld
```

```
geoc map draw -f pc_reclass.png -l "layertype=raster source=pc_reclass.tif style=pc_reclass.
```



Create Polygons from a Raster

```
#!/bin/sh

geoc raster reclassify -i pc.tif -o pc_reclass.tif \
    -r 0-0=1 -r 0-50=2 -r 50-200=3 \
    -r 200-1000=5 -r 1000-1500=4 -r 1500-4000=6

geoc raster polygon -e -i pc_reclass.tif -o pc_reclass_poly.shp

geoc vector uniquevaluesstyle -i pc_reclass_poly.shp -f value \
    -c BoldLandUse > pc_reclass_poly.sld

geoc map draw -f pc_reclass_poly.png \
    -l "layertype=layer file=pc_reclass_poly.shp style=pc_reclass_poly.sld"
```



Commands

list

Name:

geoc list

Description:

List all geocommands

Arguments:

- -d --description: Include the description

- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc list
```

proj wkt

Name:

geoc proj wkt

Description:

Get the WKT of a Projection

Arguments:

- -e --epsg: The EPSG Projection code
- -f --file: The output File
- -c --citation: The citations (epsg or esri)
- -i --indentation: The number of spaces to indent
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc proj wkt -e EPSG:4326
```

proj envelope

Name:

geoc proj envelope

Description:

Get a Projection's envelope

Arguments:

- -e --epsg: The EPSG Projection code
- -g --geo-bounds: The flag for whether to use geo bounds or not
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc proj envelope -e EPSG:2927
```

style create

Name:

geoc style create

Description:

Create a simple style

Arguments:

- -s --style-options: A style options
- -t --type: The output type (sld or ysld)
- -o --output: The output file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc style create -s fill=white -s stroke=black -s stroke-width=0.1 -t ysld
```

style css2sld

Name:

geoc style css2sld

Description:

Convert CSS to SLD

Arguments:

- -i --input: The input file or url
- -o --output: The output file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc style css2sld -i states.css -o states.sld
```

style sld2ysld

Name:

geoc style sld2ysld

Description:

Convert SLD to YSLD

Arguments:

- -i --input: The input file or url
- -o --output: The output file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc style sld2ysld -i countries.sld -o countries.yml
```

style ysld2sld

Name:

geoc style ysld2sld

Description:

Convert YSLD to SLD

Arguments:

- -i --input: The input file or url
- -o --output: The output file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc style ysld2sld -i countries.yml -o countries.sld
```

style uniquevaluesfromtext

Name:

geoc style uniquevaluesfromtext

Description:

Create a Style from reading values in the unique values format

Arguments:

- -f --field: The field
- -g --geometry-type: The geometry type (point, linestring, polygon)
- -i --input: The input file or url
- -t --type: The output type (sld or ysld)
- -o --output: The output file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc style uniquevaluesfromtext -f unit -g Polygon -i units.txt -o units.sld
```

geometry convert

Name:

geoc geometry convert

Description:

Convert a geometry from one format to another

Arguments:

- -i --input: The input geometry
- -f --format: The output format (wkt, geojson, gml2, gml3, kml, georss, gpx, csv, wkb)
- -p --format-options: The output format options
- -t --type: The output type (geometry, feature, layer)
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry convert -i "POINT (-122 48)" -f geojson
```

geometry dd2pt

Name:

geoc geometry dd2pt

Description:

Convert a decimal degrees formatted string into a Point

Arguments:

- -d --decimaldegrees: The decimal degrees
- -t --type: The output type (xy, wkt, json)
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry dd2pt -d "122d 19m 59.0016s W, 47d 36m 34.9992s N"
```

geometry geohash encode

Name:

geoc geometry geohash encode

Description:

Encode a Geometry as a GeoHash

Arguments:

- -i --input: The input geometry
- -t --type: The encoding type (string or long). The default is string.
- -n --number-of-chars: The number of characters. The default is 9.
- -d --bit-depth: The bit depth. The default is 52.
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry geohash encode -i "POINT (45 78)"
```

geometry geohash decode

Name:

geoc geometry geohash decode

Description:

Decode a GeoHash to a Geometry.

Arguments:

- -i --input: The input geohash
- -t --type: Whether the geohash is a point or bounds
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry geohash decode -i uf8vk6wjr
```

geometry geohash bounds

Name:

geoc geometry geohash bounds

Description:

Calculate the geohashes for the given bounds

Arguments:

- -b --bounds: The input geometry
- -t --type: The encoding type (string or long). The default is string.
- -n --number-of-chars: The number of characters. The default is 9.
- -d --bit-depth: The bit depth. The default is 52.
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry geohash bounds -b "120, 30, 120.0001, 30.0001"
```

geometry geohash neighbors

Name:

geoc geometry geohash neighbors

Description:

Get a geohash's neighbors

Arguments:

- -i --input: The input geometry
- -n --number-of-chars: The number of characters. The default is 9.
- -d --bit-depth: The bit depth. The default is 52.
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry geohash neighbors -i uf8vk6wjr
```

geometry greatcirclearc

Name:

geoc geometry greatcirclearc

Description:

Create a great circle arc.

Arguments:

- -e --ellipsoid: The ellipsoid
- -p --start-point: The start point
- -t --end-point: The end point
- -n --num-points: The number of points
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry greatcirclearc -p "POINT (-122 48)" -t "POINT (-77 39)"
```

geometry offset

Name:

geoc geometry offset

Description:

Create a Geometry offset from the input Geometry

Arguments:

- -i --input: The input geometry
- -d --offset: The offset distance
- -s --quadrant-segements: The number of quadrant segments (defaults to 8)
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry offset -i "LINESTRING (10 0, 10 10)" -d 5 -s 8
```

geometry orthodromicdistance

Name:

geoc geometry orthodromicdistance

Description:

Calculate the orthodromic distance between two points.

Arguments:

- -e --ellipsoid: The ellipsoid
- -p --start-point: The start point
- -t --end-point: The end point
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry orthodromicdistance -e wgs84 -p "-86.67 36.12" -t "-118.40 33.94"
```

geometry plot

Name:

geoc geometry plot

Description:

Draw a geometry to a plot

Arguments:

- -i --input: The input geometry
- -f --file: The output file
- -w --width: The image width
- -h --height: The image height
- -l --legend: Whether to show the legend
- -r --fill-coords: Whether to fill coordinates
- -p --fill-polys: Whether to fill polygons
- -d --draw-coords: Whether to draw coordinates
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry plot -d -i "POLYGON ((80 80, 80 120, 120 120, 120 80, 80 80))"
```

geometry pt2dd

Name:

geoc geometry pt2dd

Description:

Format a Point in Decimal Degrees

Arguments:

- -p --point: The Point
- -t --type: The output type (dms, dms_char, ddm, ddm_char)
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc geometry pt2dd -p "POINT (-122.5256194 47.212022222)" -t dms
```

filter cql2xml

Name:

geoc filter cql2xml

Description:

Convert a CQL statement to an OCG XML Filter

Arguments:

- -c --cql: The CQL statement
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc filter cql2xml -c STATE_ABBR=WA
```

map cube

Name:

geoc map cube

Description:

Create a map cube

Arguments:

- -l --layer: The map layer
- -f --file: The output image file
- -o --draw-outline: The flag to whether to draw outlines or not
- -t --draw-tabs: The flag to whether to draw tabs or not
- -s --tab-size: The tab size
- -i --title: The title
- -c --source: The data source or credits
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc map cube -m map.groovy -f mapcube.png
```

map draw

Name:

geoc map draw

Description:

Draw a Map

Arguments:

- -l --layer: The map layer
- -i --layer-file: The input layer file
- -f --file: The output image file
- -t --type: The type of document
- -w --width: The width
- -h --height: The height
- -b --bounds: The bounds
- -g --background-color: The background color
- -p --projection: The projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc map draw -l "layertype=layer dbtype=geopkg database=data/countries.gpkg layername=count
```

vector datastorelist

Name:

geoc vector datastorelist

Description:

List all available DataStores

Arguments:

- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector datastorelist
```

vector datastoreparams

Name:

geoc vector datastoreparams

Description:

List all parameters for the given DataStore

Arguments:

- -n --name: The DataStore name
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector datastoreparams -n PostGIS
```

vector display

Name:

geoc vector display

Description:

Display a Layer in a simple viewer

Arguments:

- -w --width: The width
- -h --height: The height
- -s --sld-file: The sld file
- -b --bounds: The bounds
- -m --layer: The map layer
- -g --background-color: The background color
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector display -i points.shp -w 400 -h 400
```

vector list layers

Name:

geoc vector list layers

Description:

List Layers in a DataStore

Arguments:

- -i --input-workspace: The input workspace
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector list layers -i "dbtype=postgis database=naturalearth host=localhost port=5432 us
```

vector count

Name:

geoc vector count

Description:

Count the features, geometries, or points in a Layer

Arguments:

- -t --type: Count features, geometries, or points
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector count -i states.shp
```

vector buffer

Name:

geoc vector buffer

Description:

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

Arguments:

- -d --distance: The buffer distance
- -q --quadrantsegments: The number of quadrant segments
- -s --singlesided: Whether buffer should be single sided or not
- -c --capstyle: The cap style
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector randompoints -n 10 -g "1,1,10,10" | geoc vector buffer -d 10
```

vector envelope

Name:

geoc vector envelope

Description:

Get the bounding envelope of all the features of the input Layer and save it to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector envelope -i states.shp -o states_envelope.shp
```

vector envelopes

Name:

geoc vector envelopes

Description:

Calculate the envelope of each feature in the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector envelopes -i states.shp -o state_envelopes.shp
```

vector centroid

Name:

geoc vector centroid

Description:

Get the centroid of each feature in the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector centroid -i states.shp -o state_centroids.shp
```

vector convexhull

Name:

geoc vector convexhull

Description:

Calculate the convex hull of the input Layer and save it to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector convexhull -i states.shp -o state_convexhull.shp
```

vector convexhulls

Name:

geoc vector convexhulls

Description:

Calculate the convex hull of each feature in the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace

- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector convexhulls -i states.shp -o state_convexhulls.shp
```

vector interiorpoint

Name:

geoc vector interiorpoint

Description:

Get the interior point of each feature in the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector interiorpoint -i states.shp -o state_interiorpoints.shp
```

vector join attribute

Name:

geoc vector join attribute

Description:

Perform a attribute join between a Layers and a table.

Arguments:

- -s --table-source: The table source
- -t --table-name: The table name
- -y --layer-field: The input layer field name
- -j --table-field: The other layer field name
- -h --field: The join field names to include in the output layer
- -m --only-include-matching: The flag to whether only include matching rows
- -p --options: The options (for csv separator and quote, for dbf encoding)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector join attribute -i polygons.shp -s table.csv -o polygons_table.shp -y id -j key -
```

vector join spatial

Name:

geoc vector join spatial

Description:

Spatially join two layers to create the output Layer.

Arguments:

- -f --field: A Field name
- -t --spatial-type: The spatial type (intersects, contains). Defaults to intersects.
- -m --multiple-type: The multiple type (first, closest, largest). Defaults to first.
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector join spatial -i points.shp -k polygons.shp -o points_joined.shp -f name -f descr
```

vector mincircle

Name:

geoc vector mincircle

Description:

Calculate the minimum bounding circle of the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector mincircle -i states.shp -o state_mincircle.shp
```

vector mincircles

Name:

geoc vector mincircles

Description:

Calculate the minimum bounding circles of each feature in the input Layer and save them to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector mincircles -i states.shp -o state_mincircles.shp
```

vector minrect

Name:

geoc vector minrect

Description:

Calculate the minimum rectangle of the input Layer and save it to the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector minrect -i states.shp -o state_minrect.shp
```

vector minrects

Name:

geoc vector minrects

Description:

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

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector minrects -i states.shp -o state_minrects.shp
```

vector octagonalenvelope

Name:

geoc vector octagonalenvelope

Description:

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

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector octagonalenvelope -i states.shp -o state_octagonalenvelope.shp
```

vector octagonalenvelopes

Name:

geoc vector octagonalenvelopes

Description:

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

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer

- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector octagonalenvelopes -i states.shp -o state_octagonalenvelopes.shp
```

vector draw

Name:

geoc vector draw

Description:

Draw a Layer to an Image, PDF, or SVG Document

Arguments:

- -f --file: The output file
- -t --type: The type of document
- -w --width: The width
- -h --height: The height
- -s --sld-file: The sld file
- -b --bounds: The bounds
- -m --layer: The map layer
- -g --background-color: The background color
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector draw -i states.shp -f image.png -w 600 -h 400 && open image.png
```

vector voronoi

Name:

geoc vector voronoi

Description:

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

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector voronoi -i states.shp -o states_voronoi.shp
```

vector delaunay

Name:

geoc vector delaunay

Description:

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

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector delaunay -i states.shp -o states_delaunay.shp
```

vector geomw

Name:

geoc vector geomw

Description:

Convert the input layer to a text stream of WKT geometries that can be read by the geom commands

Arguments:

- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector geomw -i states.shp | geom combine | geom draw && open image.png
```

vector geomr

Name:

geoc vector geomr

Description:

Convert a text stream of WKT geometries to a Layer

Arguments:

- -t --text: The text
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
echo "POINT (1 1)" | geom buffer -d 100 | geom random -n 100 | geom dump | geoc vector geomr
```

vector coordinates

Name:

geoc vector coordinates

Description:

Extract coordinates from the input Layer and save them to the output Layer.

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector coordinates -i states.shp -o states_coordinates.shp
```

vector simplify

Name:

geoc vector simplify

Description:

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

Arguments:

- -a --algorithm: The simplify algorithm (DouglasPeucker - dp or TopologyPreserving - tp)
- -d --distance: The distance tolerance
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector simplify -i states.shp -o states_simplified.shp -a DouglasPeucker -d 100
```

vector densify

Name:

geoc vector densify

Description:

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

Arguments:

- -d --distance: The distance tolerance
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector densify -i states.shp -o states_densified -d 10
```

vector filter

Name:

geoc vector filter

Description:

Filter features from the input Layer and save them to the output Layer

Arguments:

- -f --filter: The CQL Filter
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector filter -i states.shp -f "STATE_POP > 1000000" -o states_largepop.shp
```

vector delete

Name:

geoc vector delete

Description:

Delete features from a Layer in place

Arguments:

- -f --filter: The CQL Filter
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector delete -i states.shp -f "STATE_NAME = 'Washington'" -i states_no_wash.shp
```

vector schema

Name:

geoc vector schema

Description:

Get the Layer's schema

Arguments:

- -p --pretty-print: Whether to pretty print the output
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector schema -i states.shp -p
```

vector updatefield

Name:

geoc vector updatefield

Description:

Update the values of a Layer's Field

Arguments:

- -d --field: The Field name
- -v --value: The value
- -f --filter: The CQL Filter
- -s --script: Whether the value is a script or not
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector updatefield -i states_xy.shp -f INCLUDE -s -v "return f.geom.centroid.x" -d x
```

vector project

Name:

geoc vector project

Description:

Project the input Layer to another Projection and save it as the output Layer.

Arguments:

- -s --source-projection: The source projection
- -t --target-projection: The target projection
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer

- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector project -i states.shp -o states_2927.shp -t "EPSG:2927"
```

vector copy

Name:

geoc vector copy

Description:

Copy the input Layer to the output Layer

Arguments:

- -f --filter: The CQL Filter
- -s --sort: The sort Field
- -t --start: The start index
- -m --max: The max number of Features
- -d --field: The sub Field
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector copy -i states.shp -o states.gpkg -r states
```

vector randompoints

Name:

geoc vector randompoints

Description:

Create a new Layer with randomly placed points

Arguments:

- -n --number: The number of points
- -p --projection: The projection
- -g --geometry: The geometry
- -d --grid: Whether to create random points in grid
- -c --constrained-to-circle: Whether the points should be constrained to a circle or not
- -f --gutter-fraction: The size of the gutter between cells
- -e --geom-fieldname: The geometry field name
- -u --id-fieldname: The id field name

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector randompoints -n 10 -g "0,0,10,10" -o "dbtype=h2 database=h2.db" -r points
```

vector create

Name:

geoc vector create

Description:

Create a new Layer

Arguments:

- -f --field: A Field in the format 'name=type'
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector create -o mypoints.shp -f "the_geom=POINT EPSG:4326" -f "id=int" -f "name=string
```

vector add

Name:

geoc vector add

Description:

Add a Feature to an existing Layer

Arguments:

- -v --value: A value 'field=value'
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector add -i mypoints.shp -v "id=1" -v "the_geom=POINT(1 1)" -v "name=House"
```

vector grid

Name:

geoc vector grid

Description:

Create a vector grid

Arguments:

- -y --rows: The number of rows
- -x --columns: The number of columns
- -w --cell-width: The cell width
- -h --cell-height: The cell height
- -t --type: The grid cell type
- -g --geometry: The geometry
- -p --projection: The projection
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector grid -g "0,0,10,10" -x 4 -y 4
```

vector to

Name:

geoc vector to

Description:

Write a Layer to a String format (CSV, GeoJSON, KML, GML, GEORSS, GPX)

Arguments:

- -f --format: The string format (CSV, GeoJSON, KML, GML, GEORSS, GPX)
- -p --format-options: A format options 'key=value'
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector to -i alki_points.properties -f csv > alki_points.csv
```

vector from

Name:

geoc vector from

Description:

Create a Layer from a string of KML, CSV, GML, GEORSS, GEOBUF, GPX or GeoJSON

Arguments:

- -t --text: The text
- -f --format: The string format (CSV, GeoJSON, KML, GML)
- -g --geometry-type: The geometry type
- -p --format-options: A format options 'key=value'

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
curl -s http://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/all_hour.geojson | geoc vec
```

vector info

Name:

geoc vector info

Description:

Get basic information about the Layer

Arguments:

- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector info -i zones.shp
```

vector defaultstyle

Name:

geoc vector defaultstyle

Description:

Get the default style for the Layer

Arguments:

- -g --geometry-type: The geometry type
- -c --color: The base color
- -o --opacity: The opacity (defaults to 1.0)
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector defaultstyle zones.shp
```

vector uniquevaluesstyle

Name:

geoc vector uniquevaluesstyle

Description:

Create an SLD document where each unique value in the Layer is a rule.

Arguments:

- -f --field: The field name
- -c --colors: The color brewer palette name or a list of colors (space delimited)
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector uniquevaluesstyle -i states.shp -f STATE_ABBR -c "Greens"
```

vector gradientstyle

Name:

geoc vector gradientstyle

Description:

Create a gradient SLD for the Layer.

Arguments:

- -f --field: The field name
- -n --number: The number of categories
- -c --colors: The color brewer palette name or a list of colors (space delimited)
- -m --method: The classification method (Quantile or EqualInterval)
- -e --else-mode: The else mode (ignore, min, max)
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector gradientstyle -i states.shp -f SAMP_POP -n 6 -c greens
```

vector addfields

Name:

geoc vector addfields

Description:

Add one or more Fields to the input Layer to create the output Layer

Arguments:

- -f --field: A Field in the format 'name=type'
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector addfields -i states.shp -o states_xy.shp -f x=double -f y=double
```

vector removefields

Name:

geoc vector removefields

Description:

Remove one or more Fields from the input Layer to create the output Layer

Arguments:

- -f --field: A Field name
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector removefields -i states.shp -o states_temp.shp -f description -f name -f boundedB
```

vector addidfield

Name:

geoc vector addidfield

Description:

Add an ID Field

Arguments:

- -f --id-fieldname: The name for the ID Field
- -s --start: The number of start at
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector addidfield -i states.shp -o states_id.shp -f ID -s 1
```

vector addareafield

Name:

geoc vector addareafield

Description:

Add an area Field

Arguments:

- -f --area-fieldname: The name for the area Field
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector addareafield -i states.shp -o states_area.shp -f area
```

vector addlengthfield

Name:

geoc vector addlengthfield

Description:

Add an length/perimeter Field

Arguments:

- -f --length-fieldname: The name for the length Field
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector addlengthfield -i roads.shp -o roads_len.shp -f LENGTH
```

vector addxyfields

Name:

geoc vector addxyfields

Description:

Add a XY Fields

Arguments:

- -x --x-fieldname: The name for the X Field
- -y --y-fieldname: The name for the Y Field
- -a --algorithm: The XY generation algorithm (centroid or interiorpoint)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector addxyfields -i points.shp -o points_xy.shp -x X_COL -y Y_COL
```

vector splitbyfield

Name:

geoc vector splitbyfield

Description:

Split a Layer into separate Layers based on values from a Field

Arguments:

- -f --field: The field name
- -o --output-workspace: The output workspace
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector splitbyfield -i states.shp -o state_regions -f SUB_REGION
```

vector splitbylayer

Name:

geoc vector splitbylayer

Description:

Split a Layer into separate Layers based on the Feature from another Layer

Arguments:

- -s --split-workspace: The input workspace
- -p --split-layer: The input layer
- -f --field: The field name
- -o --output-workspace: The output workspace
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector splitbylayer -i states.shp -s states_grid.shp -o statesgrid -f col_row
```

vector dissolvebyfield

Name:

geoc vector dissolvebyfield

Description:

Dissolve the Features of a Layer by a Field.

Arguments:

- -f --field: The field name
- -d --id-field: The id field name
- -c --count-field: The count field name
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector dissolvebyfield -i states.shp -o states_subregions.shp -f SUB_REGION
```

vector dissolveintersecting

Name:

geoc vector dissolveintersecting

Description:

Dissolve the intersecting Features of a Layer.

Arguments:

- -d --id-field: The id field name
- -c --count-field: The count field name
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer

- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector dissolveintersecting -i polys -o polys_dissolved -d ID -c COUNT
```

vector append

Name:

geoc vector append

Description:

Append the Features from an other Layer to the input Layer

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector append -i points.shp -k locations.shp
```

vector merge

Name:

geoc vector merge

Description:

Merge two Layers together to create a new Layer

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector merge -i states_SUB_REGION_Pacific.shp -k states_SUB_REGION_Mtn.shp -o states_we
```

vector clip

Name:

geoc vector clip

Description:

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

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector clip -i states.shp -k area_of_interest.shp -o states_clipped.shp
```

vector union

Name:

geoc vector union

Description:

Union one Layer with another Layer

Arguments:

- -p --postfix-all: Whether to postfix all field names (true) or not (false). If true, all Fields from the this current Schema will have '1' at the end of their name while the other Schema's Fields will have '2'.
- -d --include-duplicates: Whether or not to include duplicate fields names. Defaults to false. If a duplicate is found a '2' will be added.
- -m --maxfieldname-length: The maximum new Field name length (mostly to support shapefiles where Field names can't be longer than 10 characters
- -f --first-postfix: The postfix for fields from the first Layer
- -s --second-postfix: The postfix for fields from the second Layer
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector union -i states.shp -k clip_layer.shp -o states_union.shp
```

vector intersection

Name:

geoc vector intersection

Description:

Calculate the intersection between two Layers

Arguments:

- -p --postfix-all: Whether to postfix all field names (true) or not (false). If true, all Fields from the this current Schema will have '1' at the end of their name while the other Schema's Fields will have '2'.
- -d --include-duplicates: Whether or not to include duplicate fields names. Defaults to false. If a duplicate is found a '2' will be added.
- -m --maxfieldname-length: The maximum new Field name length (mostly to support shapefiles where Field names can't be longer than 10 characters
- -f --first-postfix: The postfix for fields from the first Layer
- -s --second-postfix: The postfix for fields from the second Layer
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector intersection -i states.shp -k clip_layer.shp -o states_intersection.shp
```

vector intersects

Name:

geoc vector intersects

Description:

Only include Features from the Input Layer that Intersect with Features from the Other Layer in the Output Layer.

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector intersects -i points.shp -k polygons.shp -o pointsIntersectingPolygons.shp
```

vector contains

Name:

geoc vector contains

Description:

Only include Features from the Input Layer that are contained by Features from the Other Layer in the Output Layer.

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector contains -i points.shp -k polygons.shp -o pointsInPolygons.shp
```

vector erase

Name:

geoc vector erase

Description:

Erase features from one Layer based on another Layer

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector erase -i states.shp -k clip_layer.shp -o states_erase.shp
```

vector identity

Name:

geoc vector identity

Description:

Calculate the identity between one Layer and another Layer.

Arguments:

- -p --postfix-all: Whether to postfix all field names (true) or not (false). If true, all Fields from the this current Schema will have '1' at the end of their name while the other Schema's Fields will have '2'.
- -d --include-duplicates: Whether or not to include duplicate fields names. Defaults to false. If a duplicate is found a '2' will be added.
- -m --maxfieldname-length: The maximum new Field name length (mostly to support shapefiles where Field names can't be longer than 10 characters
- -f --first-postfix: The postfix for fields from the first Layer
- -s --second-postfix: The postfix for fields from the second Layer
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector identity -i states.shp -k clip_layer.shp -o states_identity.shp
```

vector update

Name:

geoc vector update

Description:

Update one Layer with another Layer

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector update -i states.shp -k clip_layer.shp -o states_update.shp
```

vector symdifference

Name:

geoc vector symdifference

Description:

Calculate the symmetric difference between two Layers.

Arguments:

- -p --postfix-all: Whether to postfix all field names (true) or not (false). If true, all Fields from the this current Schema will have '1' at the end of their name while the other Schema's Fields will have '2'.
- -d --include-duplicates: Whether or not to include duplicate fields names. Defaults to false. If a duplicate is found a '2' will be added.
- -m --maxfieldname-length: The maximum new Field name length (mostly to support shapefiles where Field names can't be longer than 10 characters
- -f --first-postfix: The postfix for fields from the first Layer
- -s --second-postfix: The postfix for fields from the second Layer
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector symdifference -i states.shp -k clip_layer.shp -o states_symdifference.shp
```

vector validity

Name:

geoc vector validity

Description:

Check whether geometry in a Layer is valid or not

Arguments:

- -f --field: A Field to include when reporting an invalid Geometry
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
cat invalid.csv | geoc vector validity
```

vector single2multiple

Name:

geoc vector single2multiple

Description:

Combine all of the geometries in the input Layer into one multipart geometry in the output Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer

- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
cat points.csv | geoc vector single2multiple -o multi.properties
```

vector multiple2single

Name:

geoc vector multiple2single

Description:

Convert multipart geometries in the input Layer into single geometries in the output Layer.

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector multiple2single -i multi.properties
```

vector compareschemas

Name:

geoc vector compareschemas

Description:

Compare Schemas from two Layers

Arguments:

- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -p --pretty-print: Whether to pretty print the output
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector compareschemas -i states.shp -k states_xy.shp
```

vector transform

Name:

geoc vector transform

Description:

Transform the values of the input Layer using Expression and Functions

Arguments:

- -d --definition: A transform definition 'field=expression'
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector transform -i point.properties -i points_transformed.shp -d "the_geom=buffer(the_
```

vector pointstacker

Name:

geoc vector pointstacker

Description:

Group nearby points together

Arguments:

- -c --cell-size: The cell size in pixels which aggregates points
- -b --bounds: The bounds
- -w --width: The output width
- -h --height: The output height
- -s --source-projection: The source projection
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector poinstacker -i earthquakes.shp -o stacked_quakes.shp -c 5 -w 800 -h 600
```

vector raster

Name:

geoc vector raster

Description:

Convert a vector Layer to a Raster

Arguments:

- -d --field: The field name with value

- -s --grid-size: The grid size
- -b --bounds: The bounds
- -n --raster-name: The raster name
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector raster -i states.shp -o states.tif -d population -s 600,600
```

vector heatmap

Name:

geoc vector heatmap

Description:

Create a heatmap of the input layer

Arguments:

- -r --radius-pixels: The radius of the density kernel in pixels
- -a --weight-field: The name of the weight field
- -p --pixels-per-cell: The resolution of the computed grid
- -b --bounds: The output bounds
- -w --width: The output width
- -h --height: The output height
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector heatmap -i earthquakes.properties -o heatmap.tif -r 50 -w 800 -h 800
```

vector barnessurface

Name:

geoc vector barnessurface

Description:

Create a barnes surface of the features from the input layer

Arguments:

- -v --value-field: The name of the value field

- -d --data-limit: The maximum number of features to process
- -s --scale: The interpolation length
- -c --convergence: The refinement factor
- -p --passes: The number of passes
- -m --min-observations: The minimum number of observations to be a grid cell
- -x --max-observation-distance: The max distance for an observation to be a grid cell
- -n --no-data: The no data value
- -e --pixels-per-cell: The resolution of the computed grid
- -q --query-buffer: The query buffer
- -b --bounds: The output bounds
- -w --width: The output width
- -h --height: The output height
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector barnessurface -i point_grid.properties -o barnes.tif -s 1 -v value -m 1 -w 800 -
```

vector raster values

Name:

geoc vector raster values

Description:

Get value from a Raster for each Feature's geometry

Arguments:

- -n --field-name: The new value field name (defaults to value)
- -t --field-type: The new value field type (defaults to double)
- -b --band: The band to get values from (defaults to 0)
- -s --input-raster: The input raster
- -e --input-raster-name: The input raster name
- -p --input-projection: The input projection
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector raster values -i points.shp -s raster.tif -o points_values.shp
```

vector subset

Name:

geoc vector subset

Description:

Extract a subset of Features from the input Layer

Arguments:

- -f --filter: The CQL Filter
- -s --sort: The sort field
- -m --max: The maximum number of Features to include
- -t --start: The index of the Feature to start at
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector subset -i earthquakes.shp -s "date ASC" -s "title ASC" -t 5 -m 10 -o ten_earthqu
```

vector sort

Name:

geoc vector sort

Description:

Sort the Features in the input Layer.

Arguments:

- -s --sort: The sort field
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
cat states.csv | geoc vector sort -s "STATE_NAME ASC"
```

vector page

Name:

geoc vector page

Description:

Page through Feature in the input Layer

Arguments:

- -m --max: The maximum number of Features to include
- -t --start: The index of the Feature to start at
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
cat states.csv | geoc vector page -t 0 -m 2
```

vector translate

Name:

geoc vector translate

Description:

Translate or move Feature in a Layer

Arguments:

- -x --x-distance: The x distance
- -y --y-distance: The y distance
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector translate -i points.properties -i points_transolate.shp -x 5 -y 10
```

vector uniquevalues

Name:

geoc vector uniquevalues

Description:

List the unique values in a Layer's Field

Arguments:

- -f --field: The field name
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer

- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
$ cat states.csv | geoc vector uniquevalues -f SUB_REGION
```

vector shear

Name:

geoc vector shear

Description:

Shear Features in a Layer

Arguments:

- -x --x-distance: The x distance
- -y --y-distance: The y distance
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector shear -i points.properties -o points_sheared.shp -x 5 -y 10
```

vector rotate

Name:

geoc vector rotate

Description:

Rotate Features in a Layer

Arguments:

- -t --theta: The angle of rotation in radians
- -s --sine: The sine of the angle of rotation in radians
- -c --cosine: The cosine of the angle of rotation in radians
- -x --x-coord: The x coordinate of the rotation point
- -y --y-coord: The y coordinate of the rotation point
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector rotate -i polys.properties -o rotated_polys.shp -t 0.785 -x "getX(centroid(geom)
```

vector scale

Name:

geoc vector scale

Description:

Scale Feature in a Layer

Arguments:

- -x --x-distance: The x distance
- -y --y-distance: The y distance
- -c --x-coord: The x coordinate
- -d --y-coord: The y coordinate
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector scale -i polys.properties -o scaled_polys.shp -x 5 -y 5 -c "getX(centroid(geom))
```

vector reflect

Name:

geoc vector reflect

Description:

Reflect Features in a Layer

Arguments:

- -x --x1-distance: The x1 distance
- -y --y1-distance: The y1 distance
- -c --x2-distance: The x2 distance
- -d --y2-distance: The y2 distance
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector reflect -i polys.properties -o reflected_polys.shp -x 5 -y 5
```

vector smooth

Name:

geoc vector smooth

Description:

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

Arguments:

- -f --fit: The amount of smoothing (between 0 - more and 1 - less)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector smooth -i jagged.shp -o smooth.shp -f 0.25
```

vector arc

Name:

geoc vector arc

Description:

Create a arc shape around each feature of the input Layer

Arguments:

- -s --start-angle: The start angle
- -e --end-angle: The end angle
- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector arc -i states.shp -o states_arc.shp -p 100 -s 45 -e 90
```

vector arcpolygon

Name:

geoc vector arcpolygon

Description:

Create a arc polygon shape around each feature of the input Layer

Arguments:

- -s --start-angle: The start angle
- -e --end-angle: The end angle
- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector arcpolygon -i states.shp -o states_arcpoly.shp -p 100 -s 45 -e 90
```

vector ellipse

Name:

geoc vector ellipse

Description:

Create a ellipse shape around each feature of the input Layer

Arguments:

- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector ellipse -i states.shp -o states_ellipse.shp -g "centroid(geom)" -w 10000 -h 2000
```

vector rectangle

Name:

geoc vector rectangle

Description:

Create a rectangle shape around each feature of the input Layer

Arguments:

- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector rectangle -i states.shp -o states_rects.shp -g "centroid(geom)" -w 10000 -h 2000
```

vector sinestar

Name:

geoc vector sinestar

Description:

Create a sinestar shape around each feature of the input Layer

Arguments:

- -n --number-of-arms: The number of arms
- -e --arm-length-ratio: The arm length ratio
- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector sinestar -i states.shp -o states_sinestar.shp -n 10 -e 0.75 -p 100
```

vector supercircle

Name:

geoc vector supercircle

Description:

Create a super circle shape around each feature of the input Layer

Arguments:

- -e --power: The power
- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector supercircle -i polys.properties -o supercircles.shp -p 40 -e 0.4
```

vector squircle

Name:

geoc vector squircle

Description:

Create a squircle shape around each feature of the input Layer

Arguments:

- -g --geometry: The geometry expression
- -w --width: The width of the bounds
- -h --height: The height of the bounds
- -p --num-points: The number of points
- -a --rotation: The angle of rotation
- -u --unit: The unit can either be degrees(d) or radians(r). The default is degrees.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector squircle -i polys.properties -o squircles.shp -p 40
```

vector database select

Name:

geoc vector database select

Description:

Get a Layer from a Database using a SELECT statement

Arguments:

- -w --database-workspace: The input workspace
- -l --layer-name: The input layer
- -s --sql: The input layer
- -g --geometry-field: The geometry field (name|type|projection)
- -p --primary-key-field: The primary key field names
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database select -w h2.db -l centroids -o centroids.properties -s "SELECT ST_CENT
```

vector database sql

Name:

geoc vector database sql

Description:

Execute SQL commands against a Database Workspace

Arguments:

- -w --database-workspace: The input workspace
- -s --sql: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database sql -w h2.db -s "insert into "points" ("id", "the_geom", "name") values
```

vector database index create

Name:

geoc vector database index create

Description:

Create a database index

Arguments:

- -w --database-workspace: The input workspace
- -l --layer-name: The input workspace
- -i --index-name: The input workspace
- -f --field: The input workspace
- -u --unique: The input workspace
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database index create -w points.db -i geom_index -l points50 -f the_geom
```

vector database index list

Name:

geoc vector database index list

Description:

List database indices

Arguments:

- -w --database-workspace: The input workspace
- -l --layer-name: The input workspace
- -p --pretty-print: Whether to pretty print the output
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database index list -w points.db -l points50 -p
```

vector database index delete

Name:

geoc vector database index delete

Description:

Delete a database index

Arguments:

- -w --database-workspace: The input workspace
- -l --layer-name: The input workspace
- -i --index-name: The input workspace
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database index delete -w points.db -l points50 -i geom_index
```

vector database remove

Name:

geoc vector database remove

Description:

Remove a Layer from a Database

Arguments:

- -w --database-workspace: The input workspace
- -l --layer-name: The input workspace
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector database remove -w points.db -l points50
```

vector count featuresInfeature

Name:

geoc vector count featuresInfeature

Description:

Count the number of features in a feature

Arguments:

- -f --count-fieldname: The name for the count Field
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector grid -g "0,0,10,10" -x 10 -y 10 -o grid.shp
```

geoc vector randompoints -g "0 0 10 10" -n 100 -o points.shp

geoc vector count featuresinfeature -i grid.shp -k points.shp -o grid_count.shp

vector snap points2lines

Name:

geoc vector snap points2lines

Description:

Snap points to their nearest line

Arguments:

- -d --search-distance: The distance to search for the closest line
- -s --snapped-fieldname: The name for the snapped Field
- -k --other-workspace: The other workspace
- -y --other-layer: The other layer
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector snap points2lines -i points.shp -k lines.shp -o snapped.shp -d 2
```

vector points2lines

Name:

geoc vector points2lines

Description:

Convert points to lines

Arguments:

- -s --sort-field: The Field to sort the field

- -g --group-field: The Field used create separate Lines
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector points2lines -i points.shp -o lines.shp -s id -g group
```

vector points2polygons

Name:

geoc vector points2polygons

Description:

Convert points to polygons

Arguments:

- -s --sort-field: The Field to sort the field
- -g --group-field: The Field used create separate Lines
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector points2polygons -i points.shp -o polygons.shp -s id -g group
```

vector dump shapefiles

Name:

geoc vector dump shapefiles

Description:

Create shapefiles from the input Layer

Arguments:

- -o --output-directory: The output directory
- -s --max-shp-size: The maximum shp size
- -d --max-dbf-size: The maximum dbf size
- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
cat pointsAndPolygons.csv | geoc vector dump shapfiles -o shapefiles
```

vector graticule square

Name:

geoc vector graticule square

Description:

Create square graticules

Arguments:

- -g --geometry: The geometry
- -l --length: The length
- -s --spacing: The spacing (defaults to -1)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector graticule square -l 10 -g -180,-90,180,90
```

vector graticule rectangle

Name:

geoc vector graticule rectangle

Description:

Create rectangle graticules

Arguments:

- -g --geometry: The geometry
- -w --width: The width
- -h --height: The height
- -s --spacing: The spacing (defaults to -1)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector graticule rectangle -w 10 -h 15 -g -180,-90,180,90
```

vector graticule hexagon

Name:

geoc vector graticule hexagon

Description:

Create hexagon graticules

Arguments:

- -g --geometry: The geometry
- -l --length: The length
- -s --spacing: The spacing (defaults to -1)
- -t --orientation: The orientation (flat or angled).
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector graticule hexagon -l 10 -g -180,-90,180,90
```

vector graticule line

Name:

geoc vector graticule line

Description:

Create line graticules

Arguments:

- -g --geometry: The geometry
- -s --spacing: The spacing (defaults to -1)
- -l --line-definition: Each line definition has comma delimited orientation (vertical or horizontal), level, and spacing)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector graticule line -g -180,-90,180,90 -l "vertical,2,10" -l "vertical,1,2" -l "horiz
```

vector remove layer

Name:

geoc vector remove layer

Description:

Remove a Layer from a Workspace

Arguments:

- -i --input-workspace: The input workspace
- -l --input-layer: The input layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc vector remove layer -i layers.gpkg -l points
```

raster abs

Name:

geoc raster abs

Description:

Calculate the absolute value for each cell.

Arguments:

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster abs -i raster.tif -o raster_abs.tif
```

raster info

Name:

geoc raster info

Description:

Get information about a Raster

Arguments:

- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster info -i raster.tif
```

raster display

Name:

geoc raster display

Description:

Display a Raster in a simple viewer

Arguments:

- -w --width: The width
- -h --height: The height

- -s --sld-file: The sld file
- -b --bounds: The bounds
- -m --layer: The map layer
- -g --background-color: The background color
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster display -i raster.tif -w 400 -h 400
```

raster draw

Name:

geoc raster draw

Description:

Draw a Raster to an image

Arguments:

- -f --file: The output file
- -t --type: The type of document
- -w --width: The width
- -h --height: The height
- -s --sld-file: The sld file
- -b --bounds: The bounds
- -m --layer: The map layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster draw -i raster.tif -f map.png
```

raster exp

Name:

geoc raster exp

Description:

Calculate the exponent for each cell.

Arguments:

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format

- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster exp -i raster.tif -o raster_exp.tif
```

raster crop

Name:

geoc raster crop

Description:

Crop a Raster

Arguments:

- -b --bound: The Bounds
- -x --pixel: Whether the Bounds is pixel or geographic
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster crop -i raster.tif -b "-120,-40,120,40" -o raster_croped.tif
```

raster crop with geometry

Name:

geoc raster crop with geometry

Description:

Crop a Raster with a Geometry

Arguments:

- -g --geometry: The Geometry
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster crop with geometry -i alki.gif -o alki_cropped.tif -g "`geom buffer -g "POINT (1
```

raster crop with layer

Name:

geoc raster crop with layer

Description:

Crop a Raster using the geometry from a Layer

Arguments:

- -w --input-workspace: The input workspace
- -y --input-layer: The input layer
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster crop with layer -i alki.tif -o alki_cropped.tif -w poly.shp
```

raster extractfootprint

Name:

geoc raster extractfootprint

Description:

Extract the footprint of the Raster as a Vector Layer

Arguments:

- -e --exclusion-range: A comma delimited range of values to exclude from the search.
- -t --threshold-area: A number used to exclude small Polygons. The default is 5.
- -f --compute-simplified-footprint: Whether to compute a simplified footprint or not. The default is false.
- -s --simplifier-factor: A number used to simplify the geometry. The default is 2.
- -c --remove-collinear: Whether to remove collinear coordinates. The default is true.
- -v --force-valid: Whether to force creation of valid polygons. The default is true.
- -y --loading-type: The image loading type (Deferred or Immediate). Immediate is the default.
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster extractfootprint -i raster.tif -o footprint.shp
```

raster log

Name:

geoc raster log

Description:

Calculate the log for each cell.

Arguments:

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster log -i raster.tif -o raster_log.tif
```

raster normalize

Name:

geoc raster normalize

Description:

Normalize the values of a Raster

Arguments:

- -o --output-raster: The output raster

- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster normalize -i raster.tif -o raster_normalized.tif
```

raster convolve

Name:

geoc raster convolve

Description:

Convolve the values of a Raster

Arguments:

- -w --width: The kernel width
- -h --height: The kernel height
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster convolve -i raster.tif -o raster_convolved.tif -w 2 -h 3
```

raster get value

Name:

geoc raster get value

Description:

Get the cell value from a Raster

Arguments:

- -x --x-coordinate: The x coordinate
- -y --y-coordinate: The y coordinate
- -t --type: The type can be point or pixel
- -b --band: The band to get a value from
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster get value -i alki.tif -x 5 -y 5 -t pixel
```

raster scale

Name:

geoc raster scale

Description:

Scale a Raster

Arguments:

- -x --x-scale: The scale factor along the x axis
- -y --y-scale: The scale factor along the y axis
- -t --x-translate: The x translation
- -r --y-translate: The y translation
- -n --interpolation: The interpolation method (bicubic, bicubic2, bilinear, nearest)
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster scale -i raster.tif -x 2 -y 3 -o raster_scaled.tif
```

raster project

Name:

geoc raster project

Description:

Project a Raster

Arguments:

- -t --target-projection: The target projection

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster project -i raster.tif -o raster_4326.tif -t EPSG:4326
```

raster reclassify

Name:

geoc raster reclassify

Description:

Reclassify a Raster

Arguments:

- -b --band: The band
- -n --nodata: The NODATA value
- -r --range: A range: from-to=value or 1-10=5
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster reclassify -i raster.tif -o raster_reclass.tif -r 49-100=1 -r 100-256=255
```

raster resample

Name:

geoc raster resample

Description:

Resample a Raster

Arguments:

- -b --bounds: The bounding box
- -s --size: The output size
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster

- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster resample -i alki.tif -s "200,400" -o alki_resized.tif
```

raster invert

Name:

geoc raster invert

Description:

Invert the values of a Raster

Arguments:

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster invert -i raster.tif -o raster_inv.tif
```

raster stylize

Name:

geoc raster stylize

Description:

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

Arguments:

- -s --style: The SLD style file
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster stylize -i raster.tif -o raster_stylized.tif -s raster_colormap.sld
```

raster add constant

Name:

geoc raster add constant

Description:

Add a constant value to a Raster

Arguments:

- -v --value: The value
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster add constant -i raster.tif -v 100 -o raster_add_100.tif
```

raster add

Name:

geoc raster add

Description:

Add two Rasters together

Arguments:

- -k --other-raster: The other raster
- -y --other-raster-name: The other raster name
- -j --other-projection: The other projection
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster add -i raster1.acs -p "EPSG:4326" -k raster2.acs -j "EPSG:4326" -o raster_add.ti
```

raster subtract constant

Name:

geoc raster subtract constant

Description:

Substract a constant value to a Raster

Arguments:

- -v --value: The value
- -m --from: Whether to subtract the Raster from the constant or vice verse
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster subtract constant -i raster.tif -v 50 -o raster_minus_50.tif
```

raster subtract

Name:

geoc raster subtract

Description:

Subtract one Raster from another Raster

Arguments:

- -k --other-raster: The other raster
- -y --other-raster-name: The other raster name
- -j --other-projection: The other projection
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster substract -i raster1.acs -p "EPSG:4326" -k raster2.acs -j "EPSG:4326" -o raster_
```

raster multiply constant

Name:

geoc raster multiply constant

Description:

Multiply a constant value to a Raster

Arguments:

- -v --value: The value

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster multiply constant -i raster.tif -o raster_mul_2.tif -v 2
```

raster multiply

Name:

geoc raster multiply

Description:

Multiply two Rasters together

Arguments:

- -k --other-raster: The other raster
- -y --other-raster-name: The other raster name
- -j --other-projection: The other projection
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster multiply -i raster1.acs -p "EPSG:4326" -k raster2.acs -j "EPSG:4326" -o raster_m
```

raster divide constant

Name:

geoc raster divide constant

Description:

Divide a constant value to a Raster

Arguments:

- -v --value: The value
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name

- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster divide constant -i raster.tif -o raster_div_2.tif -v 2
```

raster divide

Name:

geoc raster divide

Description:

Divide one Raster by another Raster

Arguments:

- -k --other-raster: The other raster
- -y --other-raster-name: The other raster name
- -j --other-projection: The other projection
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster divide -i raster1.acs -p "EPSG:4326" -k raster2.acs -j "EPSG:4326" -o raster_div
```

raster envelope

Name:

geoc raster envelope

Description:

Get the Envelope of a Raster as a Vector Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster envelope -i raster.tif
```

raster point

Name:

geoc raster point

Description:

Convert a Raster to a Point Vector Layer

Arguments:

- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster point -i raster.tif -o points.shp
```

raster polygon

Name:

geoc raster polygon

Description:

Convert a Raster to a Polygon Vector Layer

Arguments:

- -b --band: The band
- -e --inside-edges: Whether to include inside edges
- -g --region-of-interest: The region of interest
- -n --no-data: A no data value
- -a --range: A range (min,minIncluded,max,maxIncluded)
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster polygon -i raster.tif -o polygons.shp
```

raster contour

Name:

geoc raster contour

Description:

Create contours from a Raster

Arguments:

- -b --band: The band
- -v --level: A level or interval
- -s --simplify: Whether to simplify
- -m --smooth: Whether to smooth
- -n --bounds: The bounds
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster contour -i raster.tif -o contours.shp -l 10 -s -m
```

raster to

Name:

geoc raster to

Description:

Convert a Raster from one format to another

Arguments:

- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster to -i raster.tif -o raster.png -f worldimage
```

raster mapalgebra

Name:

geoc raster mapalgebra

Description:

Perform map algebra

Arguments:

- -s --script: The map algebra (jiffle) script
- -r --raster: An input Raster
- -b --bounds: The bounds
- -z --size: The size
- -n --output-name: The output name
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- -p --output-raster-projection: The output raster projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster mapalgebra -s "dest = r1 * r2" -r "r1=raster1.acs" -r "r2=raster2.acs" -o raster
```

raster worldfile

Name:

geoc raster worldfile

Description:

Create a Raster world file

Arguments:

- -b --bounds: The bounds
- -s --size: The size
- -f --file: The world file
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster worldfile -b 0,0,10,10 -s 5,5 -f test.pgw
```

raster size

Name:

geoc raster size

Description:

Get the Raster size (width,height)

Arguments:

- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster size -i raster.tif
```

raster projection

Name:

geoc raster projection

Description:

Get the Raster Projection

Arguments:

- -t --type: The output type (epsg, id, srs, wkt)
- -i --input-raster: The input raster
- -l --input-raster-name: The input raster name
- -p --input-projection: The input projection
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster projection -i raster.tif -t epsg
```

raster style default

Name:

geoc raster style default

Description:

Create a simple Raster SLD

Arguments:

- -o --opacity: The opacity
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster style default
```

raster style shadedrelief

Name:

geoc raster style shadedrelief

Description:

Create a shaded relief Raster SLD

Arguments:

- -b --brightness-only: The brightness only flag
- -r --relief-factor: The relief factor
- -o --opacity: The opacity
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster style shadedrelief -r 65 -b -o 0.85
```

raster style channel selection

Name:

geoc raster style channel selection

Description:

Create a channel selection Raster SLD

Arguments:

- -r --red: The red channel name
- -g --green: The green channel name
- -b --blue: The blue channel name
- -y --gray: The gray channel name
- -o --opacity: The opacity
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster style channel selection -r "red,histogram,0.5" -g "green,normalize,0.25" -b "gre
```

raster style contrast enhancement

Name:

geoc raster style contrast enhancement

Description:

Create a contrast enhancement Raster SLD

Arguments:

- -m --method: The method (normalize or histogram)
- -g --gamma-value: The gamma value
- -o --opacity: The opacity
- --help : Print the help message
- --web-help : Open help in a browser

raster style colormap

Name:

geoc raster style colormap

Description:

Create a color map Raster style

Arguments:

- -v --value: A value
- -t --type: The type (intervals, values, ramp)
- -e --extended: Whether to use extended colors or not
- -o --opacity: The opacity

- --help : Print the help message
- --web-help : Open help in a browser

raster animatedgif

Name:

geoc raster animatedgif

Description:

Create an animated GIF from a list of GIFs.

Arguments:

- -f --file: The GIF file
- -o --output-file: The output animated GIF file
- -d --delay: The delay between images
- -r --repeat: Whether to repeat the animation or not
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc raster animatedgif -f image1.gif -f image2.gif -f image2.gif -o animated.gif -d 450 -r
```

tile generate

Name:

geoc tile generate

Description:

Generate tiles

Arguments:

- -l --tile-layer: The tile layer
- -f --field: A field
- -d --layer-fields: A List of sub fields for a layer
- -m --layer: The map layer
- -s --start-zoom: The start zoom level
- -e --end-zoom: The end zoom level
- -b --bounds: The bounds
- -i --missing: Whether to generate only missing tiles
- -v --verbose: The verbose flag
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile generate -l earthquakes.mbtiles -m layerFile -s 0 -e 2 -v false
```

tile delete

Name:

geoc tile delete

Description:

Delete tiles from a tile layer

Arguments:

- -l --tile-layer: The tile layer
- -i --tile: The Tile Z/X/Y coordinates
- -b --bounds: The bounds
- -z --zoom-level: The tile zoom level
- -x --minx: The min x or col
- -y --miny: The min y or row
- -c --maxx: The max x or col
- -u --maxy: The max y or row
- -w --width: The raster width
- -h --height: The raster height
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile delete -l earthquakes.mbtiles -z 2
```

tile pyramid

Name:

geoc tile pyramid

Description:

Get a Pyramid from a TileLayer

Arguments:

- -l --tile-layer: The tile layer
- -o --output-type: The output type (text, xml, json)
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile pyramid -l src/test/resources/earthquakes.mbtiles
```

tile stitch raster

Name:

geoc tile stitch raster

Description:

Stitch image tiles together to create a Raster

Arguments:

- -l --tile-layer: The tile layer
- -b --bounds: The bounds

- -w --width: The raster width
- -h --height: The raster height
- -z --zoom-level: The tile zoom level
- -x --minx: The min x or col
- -y --miny: The min y or row
- -c --maxx: The max x or col
- -u --maxy: The max y or row
- -o --output-raster: The output raster
- -f --output-raster-format: The output raster format
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile stitch raster -l earthquakes.mbtiles -z 1 -o earthquakes.tif
```

tile stitch vector

Name:

geoc tile stitch vector

Description:

Stitch vector tiles together to create a one or more Layers

Arguments:

- -l --tile-layer: The tile layer
- -b --bounds: The bounds
- -w --width: The raster width
- -h --height: The raster height
- -z --zoom-level: The tile zoom level
- -x --minx: The min x or col
- -y --miny: The min y or row
- -c --maxx: The max x or col
- -u --maxy: The max y or row
- -o --output-workspace: The output workspace
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile stitch vector -l "type=vectortiles format=mvt file=earthquakes/mvt name=earthquake
```

tile vector grid

Name:

geoc tile vector grid

Description:

Create a vector grid of a tile layers cells.

Arguments:

- -l --tile-layer: The tile layer
- -b --bounds: The bounds
- -z --zoom-level: The tile zoom level
- -x --minx: The min x or col
- -y --miny: The min y or row
- -c --maxx: The max x or col
- -u --maxy: The max y or row
- -w --width: The raster width
- -h --height: The raster height
- -o --output-workspace: The output workspace
- -r --output-layer: The output layer
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile vector grid -l earthquakes.mbtiles -z 1 -o grid.shp
```

tile get bounds

Name:

geoc tile get bounds

Description:

Get the Bounds of a tile

Arguments:

- -p --pyramid: The tile pyramid
- -z --zoom-level: The tile zoom level
- -x --column: The tile x or column
- -y --row: The tile y or row
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile get bounds -p mercator -z 10 -x 245 -y 310
```

tile list tiles

Name:

geoc tile list tiles

Description:

Get a list of tiles for a given geometry

Arguments:

- -p --pyramid: The tile pyramid
- -b --bounds: The bounds

- -z --zoom-level: The tile zoom level
- --help : Print the help message
- --web-help : Open help in a browser

Example:

```
geoc tile list tiles -p mercator -z 10 -b "-13731759.2574,5981350.3374,-13512843.6084,609554
```

Build

Building geoc is very easy but you will need Java 8 and Maven 3.

Check it out:

```
git checkout https://github.com/jericks/geoc.git
```

Build it:

```
cd geoc
mvn clean install
```

Help

Each command contains a --help option:

```
>>> geoc vector buffer --help
geoc vector buffer: Buffer the features of the input Layer and save them to the output Layer
--help                      : Print the help message
-c (--capstyle) VAL         : The cap style
-d (--distance) VAL         : The buffer distance
-i (--input-workspace) VAL  : The input workspace
-l (--input-layer) VAL      : The input layer
-o (--output-workspace) VAL : The output workspace
-q (--quadrantsegments) N   : The number of quadrant segments
-r (--output-layer) VAL     : The output layer
-s (--singlesided)          : Whether buffer should be single sided or not
```

There is also a man page for each subcommand:

```
>>> man geoc-vector-buffer
geoc-vector-buffer(1)                                  geoc-vector-buffer(1)

NAME
       geoc vector buffer

DESCRIPTION
       Buffer  the  features  of  the  input Layer and save them to the output
       Layer

USAGE
       geoc vector randompoints -n 10 -g "1,1,10,10" | geoc vector  buffer  -d
       10

OPTIONS
       -d --distance: The buffer distance

       -q --quadrantsegments: The number of quadrant segments

       -s --singlesided: Whether buffer should be single sided or not

       -c --capstyle: The cap style

       -o --output-workspace: The output workspace
```

Finally, there is a bash completion script which makes using geoc with bash much easier.

Install it is your .bash_profile:

```
source /Users/You/geoc/shell/geoc_bash_comp
```

Indices and tables

- *genindex*
- *modindex*
- *search*