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# Tile

## Open

Open a Tile Layer.

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles
```

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

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles  
Tile Layer countries opened!
```

```
geo-shell> tile close --name countries  
Tile Layer countries closed!
```

## Close

Close a Tile Layer.

```
geo-shell> tile close --name countries
```

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

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles  
Tile Layer countries opened!
```

```
geo-shell> tile close --name countries  
Tile Layer countries closed!
```

## List

List open Tile Layers.

```
geo-shell> tile list
```



No parameters

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles  
Tile Layer countries opened!
```

```
geo-shell> tile list  
countries = MBTiles
```

```
geo-shell> tile close --name countries  
Tile Layer countries closed!
```

## Info

Get information about a Tile Layer.

```
geo-shell> tile info --name countries
```

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

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles  
Tile Layer countries opened!
```

```
geo-shell> tile info --name countries  
countries  
EPSG:3857  
-2.0036395147881314E7,  
-2.0037471205137067E7,2.0036395147881314E7,2.003747120513706E7,EPSG:3857  
BOTTOM_LEFT  
256,256  
0,1,1,156412.0,156412.0  
1,2,2,78206.0,78206.0  
2,4,4,39103.0,39103.0  
3,8,8,19551.5,19551.5  
4,16,16,9775.75,9775.75  
5,32,32,4887.875,4887.875  
6,64,64,2443.9375,2443.9375  
7,128,128,1221.96875,1221.96875  
8,256,256,610.984375,610.984375  
9,512,512,305.4921875,305.4921875  
10,1024,1024,152.74609375,152.74609375  
11,2048,2048,76.373046875,76.373046875  
12,4096,4096,38.1865234375,38.1865234375  
13,8192,8192,19.09326171875,19.09326171875  
14,16384,16384,9.546630859375,9.546630859375  
15,32768,32768,4.7733154296875,4.7733154296875  
16,65536,65536,2.38665771484375,2.38665771484375  
17,131072,131072,1.193328857421875,1.193328857421875  
18,262144,262144,0.5966644287109375,0.5966644287109375  
19,524288,524288,0.29833221435546875,0.29833221435546875
```

```
geo-shell> tile close --name countries
```

Tile Layer countries closed!

## Delete

Delete tiles from a Tile Layer.

```
geo-shell> tile delete --name tiles --z 3
```

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
tile	The tile z/x/y	false		
bounds	The bounds	false		
width	The width	false	400	400
height	The height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1
maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

```
geo-shell> tile open --name tiles --params target/tiles.mbtiles
```

Tile Layer tiles opened!

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

Workspace naturalearth opened!

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

Opened Workspace naturalearth Layer countries as countries

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

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

```
geo-shell> layer open --workspace naturalearth --layer ocean --name ocean
```

Opened Workspace naturalearth Layer ocean as ocean

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

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

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

Map world opened!

```
geo-shell> map add layer --name world --layer ocean
```

Added ocean layer to map world

geo-shell> **map add layer** --name world --layer countries

Added countries layer to map world

geo-shell> **tile generate** --name tiles --map world --start 0 --end 3

Tiles generated!

geo-shell> **tile delete** --name tiles --z 3

Deleting tiles at z level 3

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

Map world closed!

## Generate

Generate tiles for a Tile Layer.

geo-shell> **tile generate** --name tiles --map world --start 0 --end 3

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
map	The map name	true		
start	The map name	true		
end	The map name	true		
bounds	The map name	false		
metatile	The metatile width,height	false		
missingOnly	The map name	false	false	false
verbose	The map name	false	false	false

geo-shell> **tile open** --name tiles --params target/tiles.mbtiles

Tile Layer tiles opened!

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

Workspace naturalearth opened!

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

Opened Workspace naturalearth Layer countries as countries

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

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

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

Opened Workspace naturalearth Layer ocean as ocean

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

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

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

Map world opened!

```
geo-shell> map add layer --name world --layer ocean
```

Added ocean layer to map world

```
geo-shell> map add layer --name world --layer countries
```

Added countries layer to map world

```
geo-shell> tile generate --name tiles --map world --start 0 --end 3
```

Tiles generated!

```
geo-shell> format open --name world_level2 --input examples/tile_generate.png
```

Format world\_level2 opened!

```
geo-shell> tile stitch raster --name tiles --format world_level2 --raster world_level2 --z 2
```

Done stitching Raster world\_level2 from tiles!

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

Map world closed!



## Stitch Raster

Create a Raster from a Tile Layer.

```
geo-shell> tile stitch raster --name countries --format states --raster states --bounds  
-18217695.5734,1222992.4526,-4207094.0368,7924991.0926
```

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
format	The raster format name	true		
raster	The raster name	true		
bounds	The bounds	false		

width	The raster width	false	400	400
height	The raster height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1
maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

Create a Raster from a Tile Layer with a geographic bounds.

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles
Tile Layer countries opened!
```

```
geo-shell> format open --name states --input examples/tile_stitch_bounds.png
Format states opened!
```

```
geo-shell> tile stitch raster --name countries --format states --raster states --bounds
-18217695.5734,1222992.4526,-4207094.0368,7924991.0926
Done stitching Raster states from countries!
```



## Tiles

List tiles within a given bounds.

```
geo-shell> tile tiles --name countries --z 8 --bounds -13787405.4140,5872198.2610,
-13349574.1159,6081635.7185
```

Name	Description	Mandatory	Specified Default	Unspecified Default
------	-------------	-----------	-------------------	---------------------



name	The tile name	true		
bounds	The bounds	true		
z	The zoom level	true		

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles
```

Tile Layer countries opened!

```
geo-shell> tile tiles --name countries --z 8 --bounds -13787405.4140,5872198.2610,-13349574.1159,6081635.7185
```

8/39/165

8/40/165

8/41/165

8/42/165

8/39/166

8/40/166

8/41/166

8/42/166

```
geo-shell> tile close --name countries
```

Tile Layer countries closed!

## Vector Grid

Create a Vector Grid Layer from the pyramid of a Tile Layer.

```
geo-shell> tile vector grid --name countries --workspace layers --layer level3 --z 3
```

Name	Description	Mandatory	Specified Default	Unspecified Default
name	The tile name	true		
workspace	The workspace name	true		
layer	The layer name	true		
bounds	The bounds	false		
width	The raster width	false	400	400
height	The raster height	false	400	400
z	The zoom level	false	0	-1
minx	The min x or column	false		-1
miny	The min y or row	false		-1
maxx	The max x or column	false		-1
maxy	The max y or row	false		-1

```
geo-shell> tile open --name countries --params src/test/resources/countries.mbtiles
```

Tile Layer countries opened!

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

```
geo-shell> tile vector grid --name countries --workspace layers --layer level3 --z 3  
Done generating the vector grid level3 from countries!
```

```
geo-shell> style vector default --layer level3 --color #ffffff --opacity 0.25 --file examples/level3.sld  
Default Vector Style for level3 written to /home/travis/build/jericks/geo-shell/examples/level3.sld!
```

```
geo-shell> layer style set --name level3 --style examples/level3.sld  
Style /home/travis/build/jericks/geo-shell/examples/level3.sld set on level3
```

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

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

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

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

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

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

```
geo-shell> map add layer --name vectorGridMap --layer ocean  
Added ocean layer to map vectorGridMap
```

```
geo-shell> map add layer --name vectorGridMap --layer countries  
Added countries layer to map vectorGridMap
```

```
geo-shell> map add layer --name vectorGridMap --layer level3  
Added level3 layer to map vectorGridMap
```

```
geo-shell> map draw --name vectorGridMap --file examples/tile_vector_grid.png --projection  
EPSG:3857 --width 400 --height 400 --bounds -20026376.39,-20048966.10,20026376.39,20048966.10  
Done drawing /home/travis/build/jericks/geo-shell/examples/tile_vector_grid.png!
```

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

