JASSY

Make your own maps with free/open source Geographic Information Systems

ALEXANDRU IOAN CUZA UNIVERSITY of IAȘI www.uaic.ro

Make Your Own Map!

Lecturer Mihai NICULIȚĂ
Department of Geography
Faculty of Geography and Geology

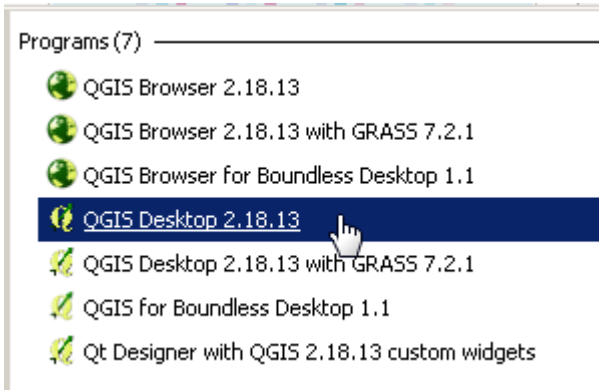
http://www.geomorphologyonline.com/node/127

mihai.niculita@uaic.ro

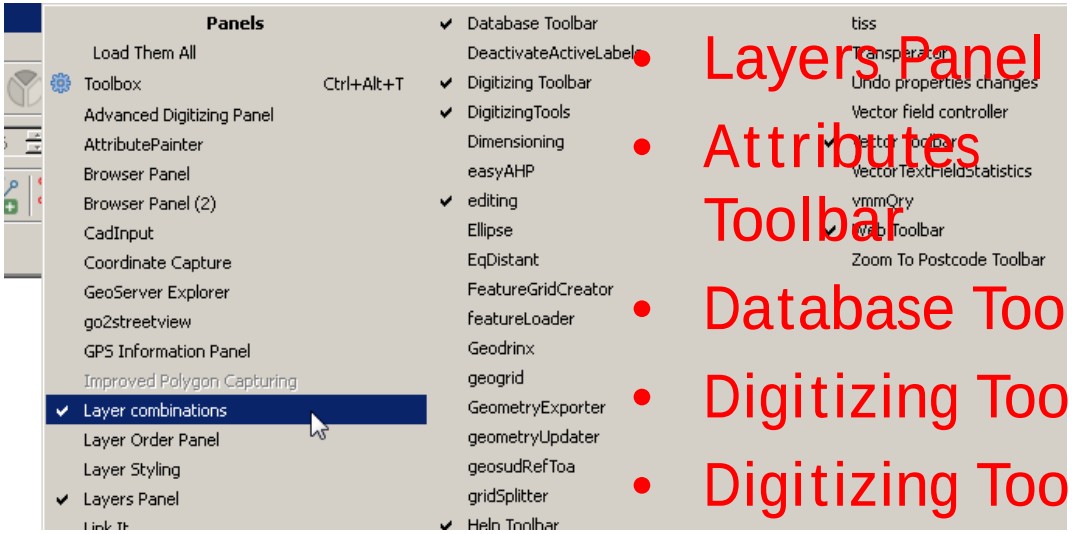
Map

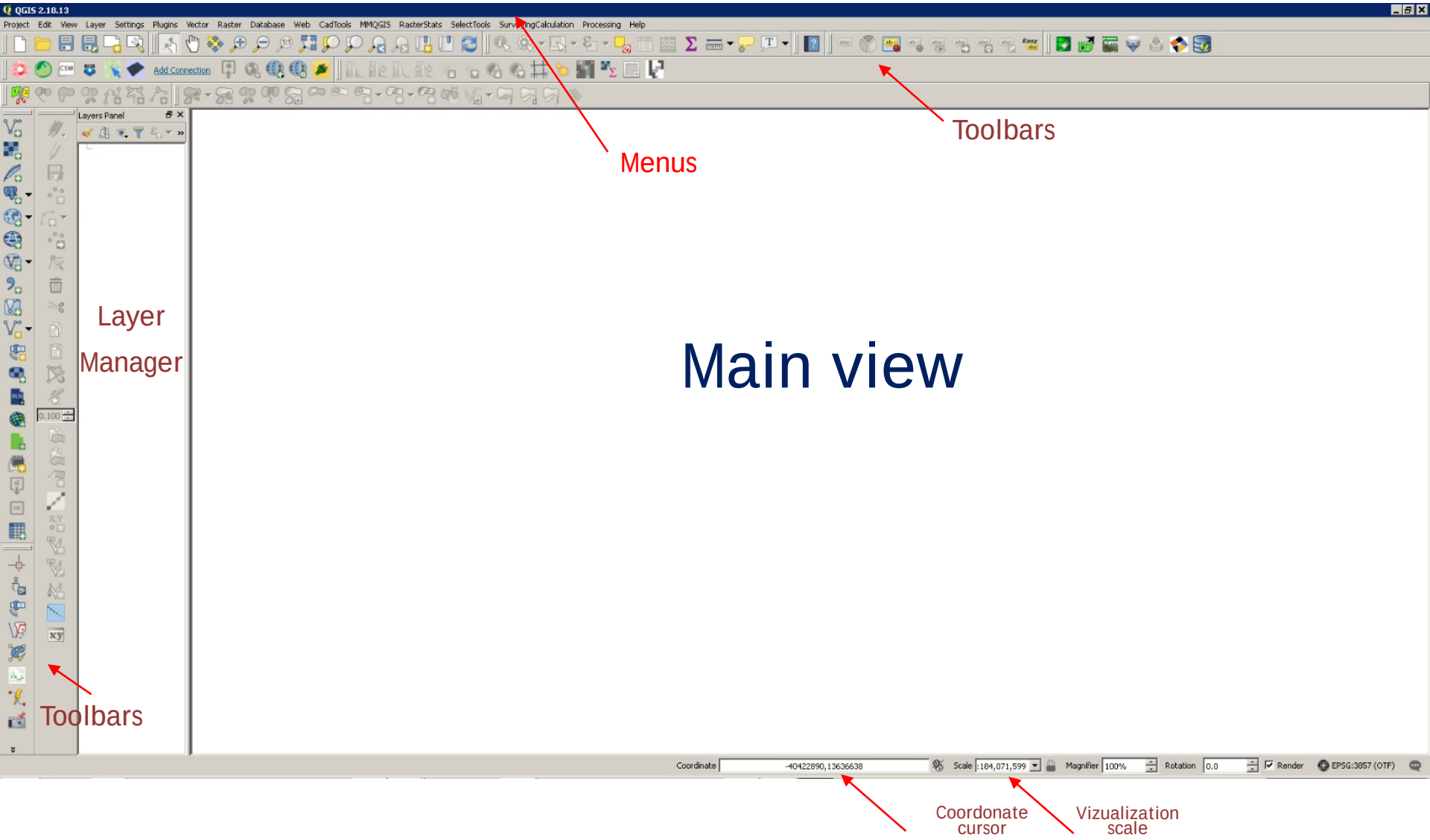
- From a cartographic perspective the map is a generalized and reduced (at scale) representation of the features of the Earth surface.
- Computers, Geographic Information Systems, open source libraries and remote sensing have revolutioned the domain.
- These days, anyone can create maps. The simple maps are **the mashups**.
- Any map should be viewed critically because has some features that are different from the reality, and can be used to distort the reality and for manipulating people perception.

QGIS –open source GIS



- The following panels (right click on the upper grey area of QGIS window) should be activated:
  - Layers Panel
  - Attributes Toolbar
  - Database Toolbar
  - Digitizing Toolbar
  - Digitizing Tools
  - Editing
  - Help Toolbar
  - Label Toolbar
  - Manage Layers Toolbar
  - Map Navigation Toolbar
  - Project Toolbar
  - Raster Toolbar
  - Vector Toolbar
  - Web Toolbar




QGIS 2.18.13
Project Edit View Layer Settings Plugins Vector Raster Database Web CadTools MMQGIS RasterStats SelectTools SurveyingCalculation Processing Help
Add Connection
Layers Panel
Menus
Toolbars
Layer Manager
Main view
Toolbars
Coordinate -40422890,13636638
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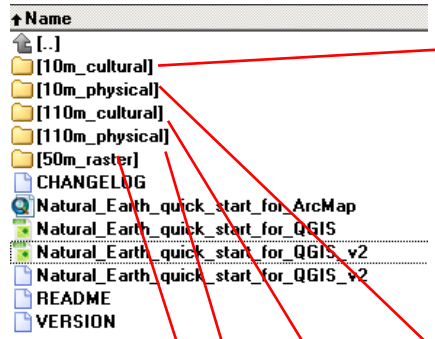
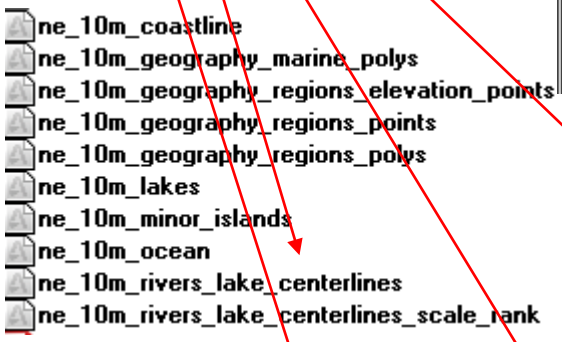
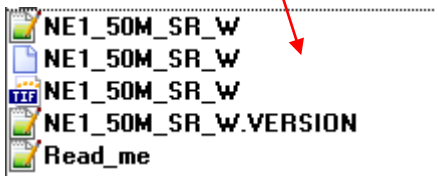
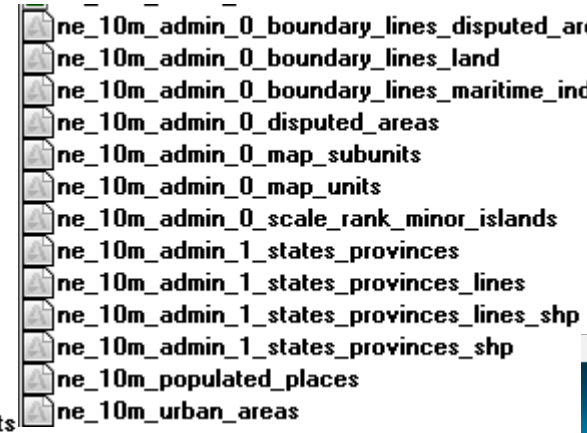
Magnifier 100%
Rotation 0.0
Render
EPSG:3857 (OTF)
Coordonate cursor
Vizualization scale

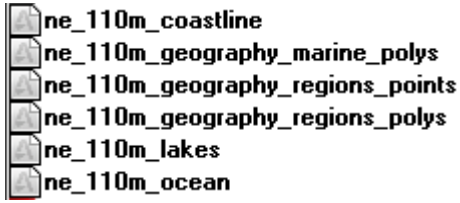
Natural Earth

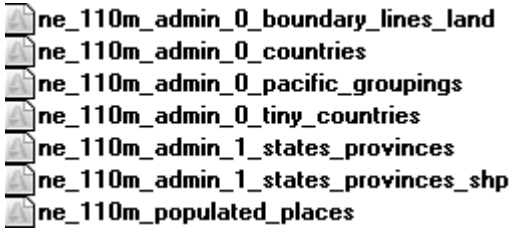


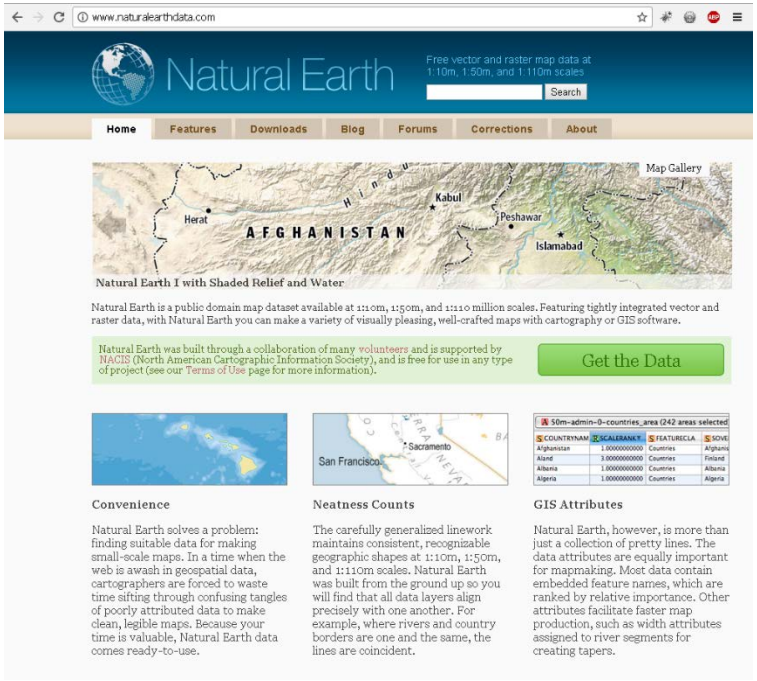






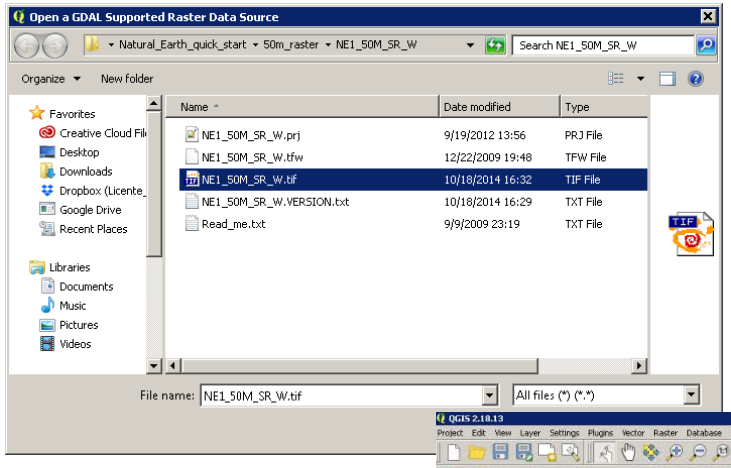


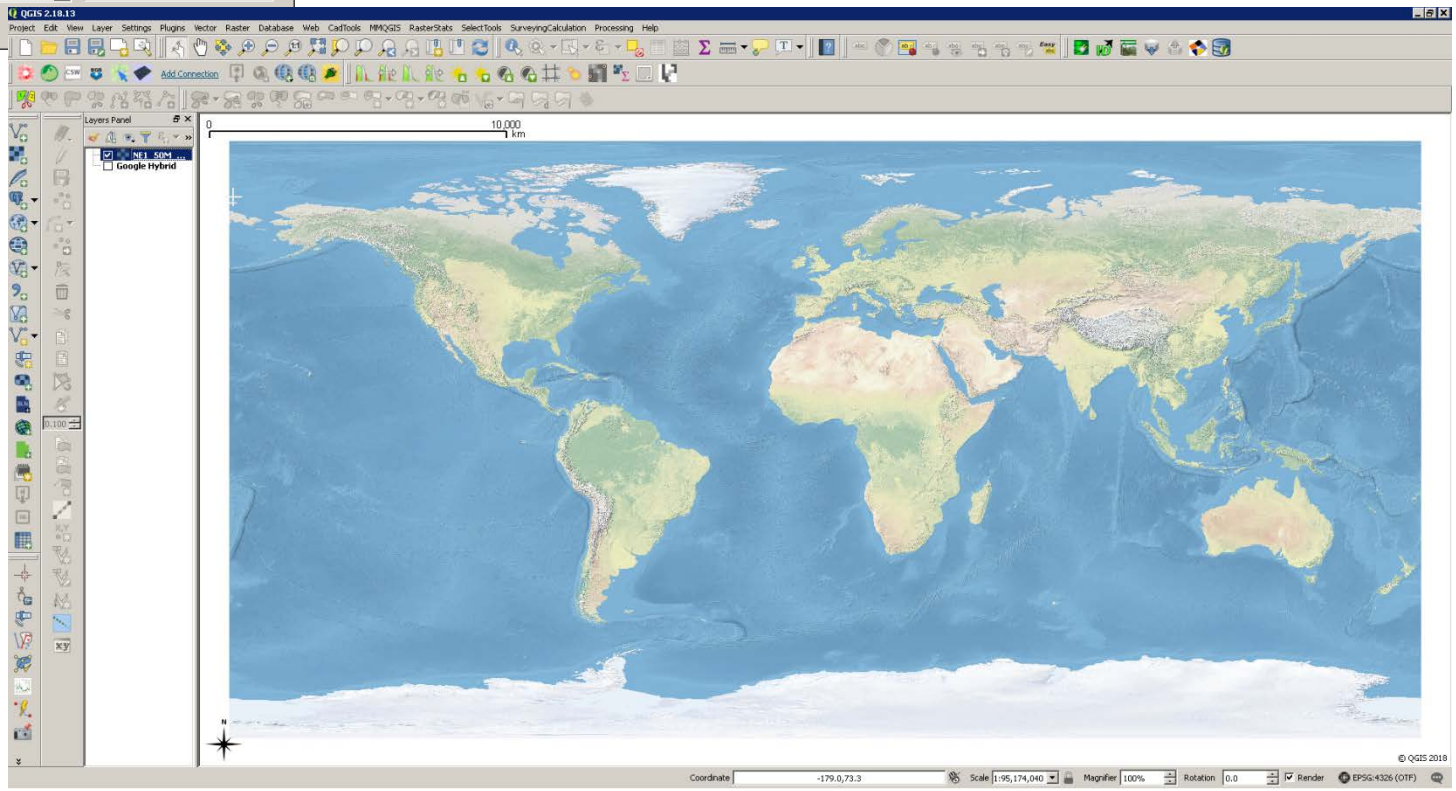




http://naciscdn.org/naturalearth/packages/Natural_Earth_quick_start.zip

Raster data (images)

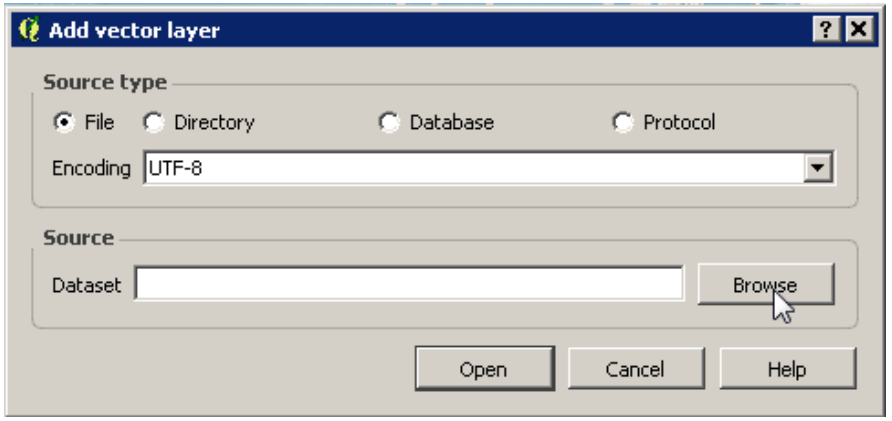


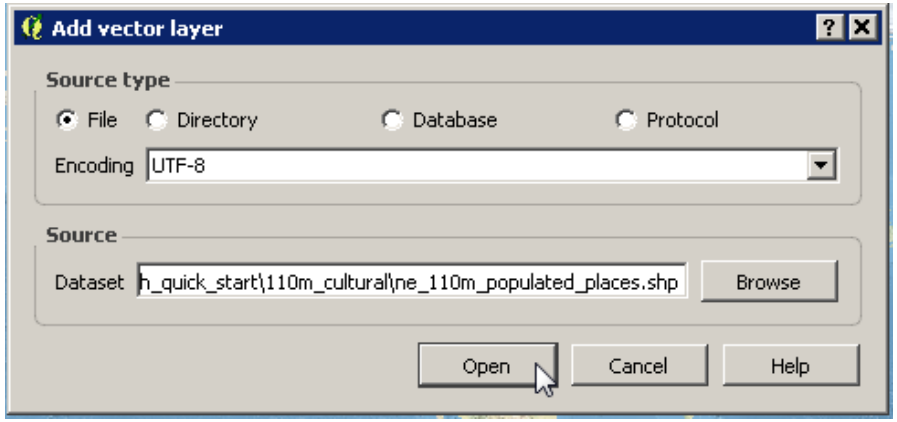


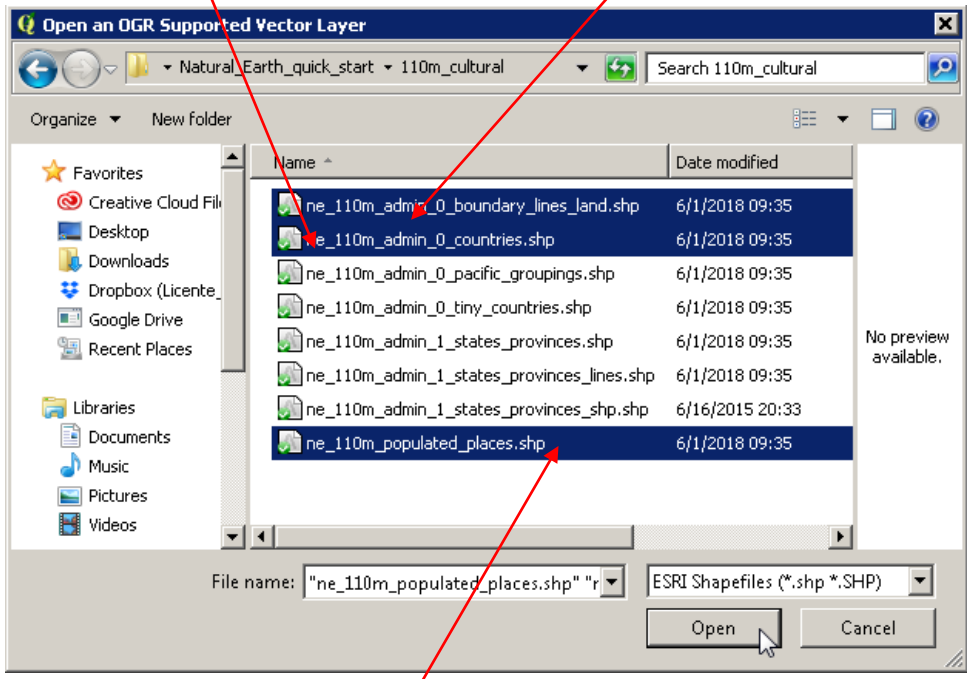
Vector data (drawings)

polygons

lines

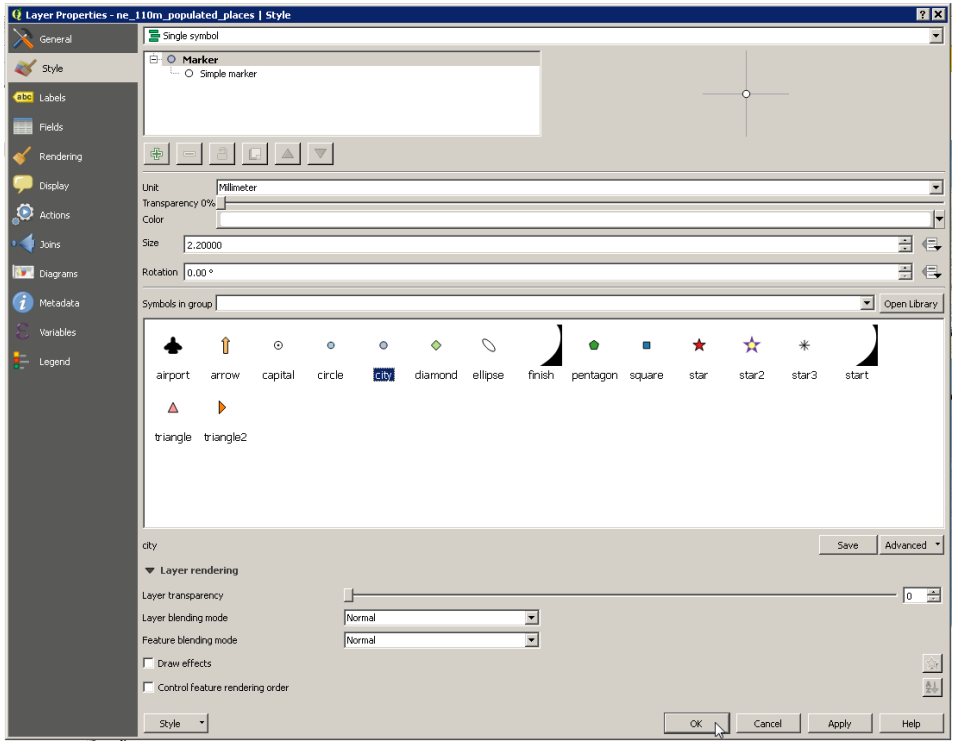


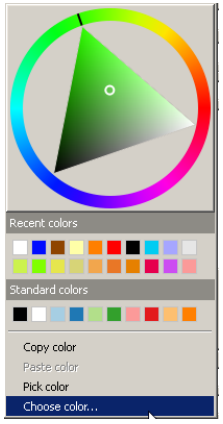


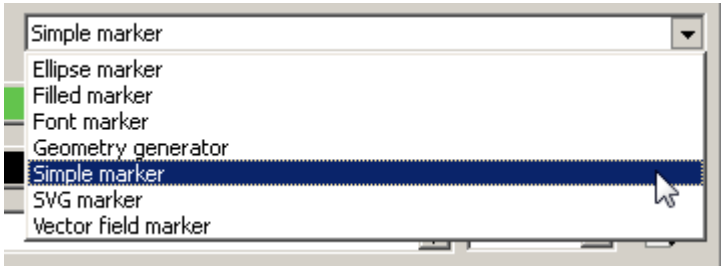


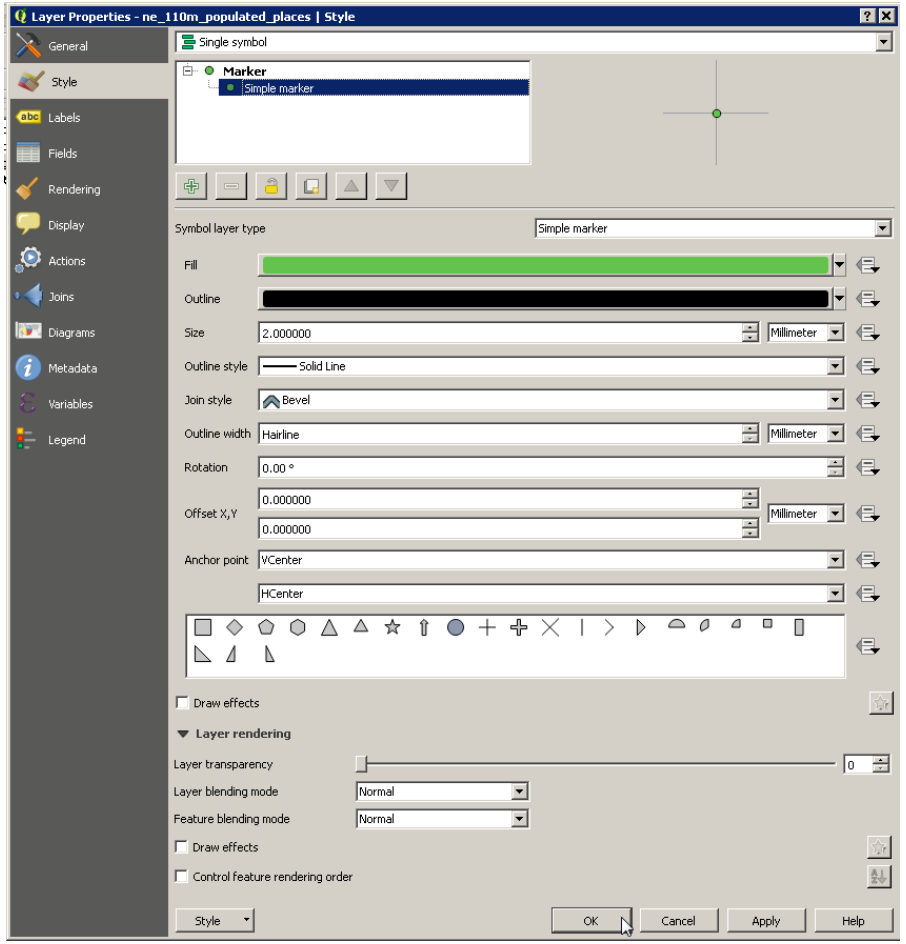
points

Point styling

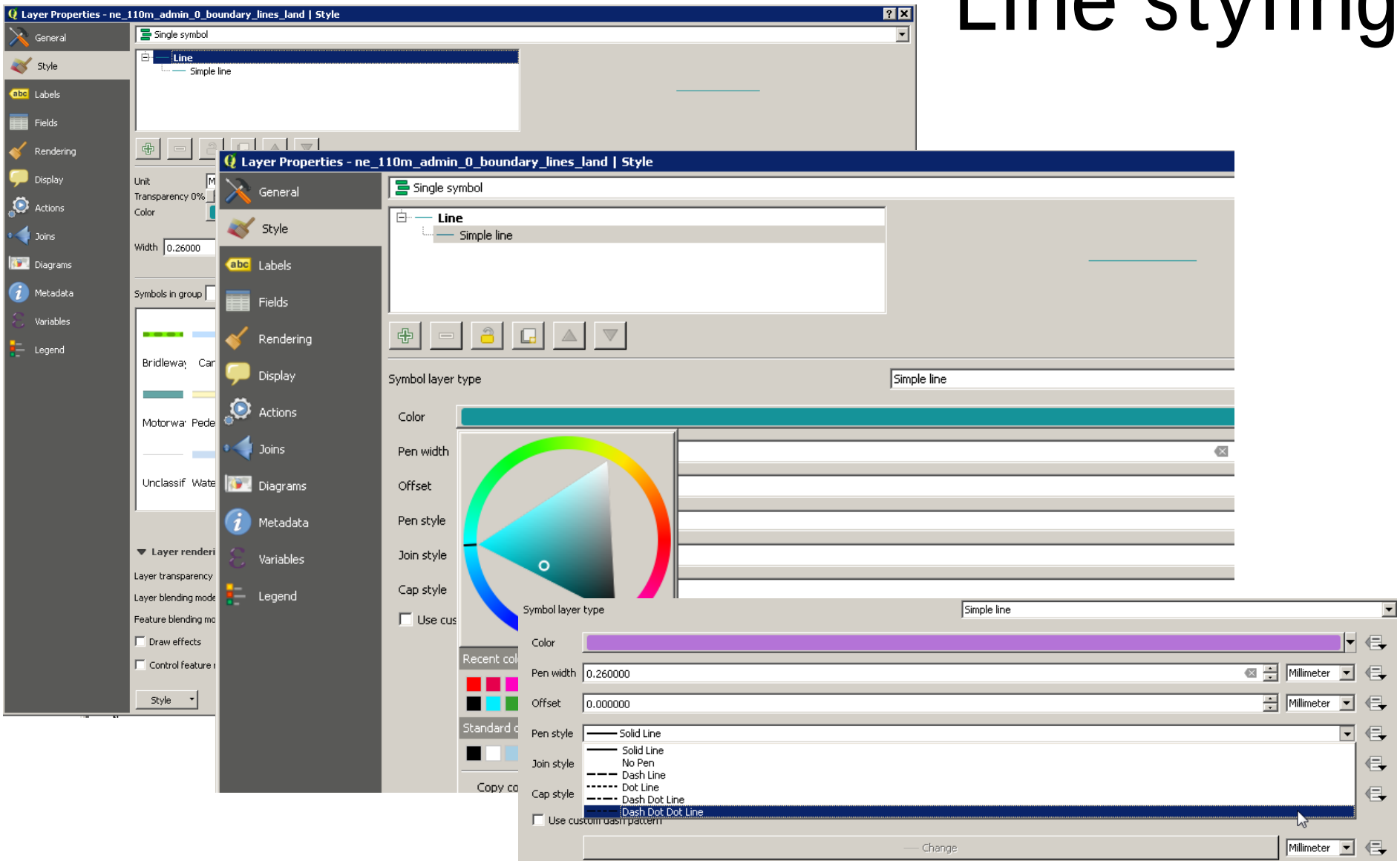




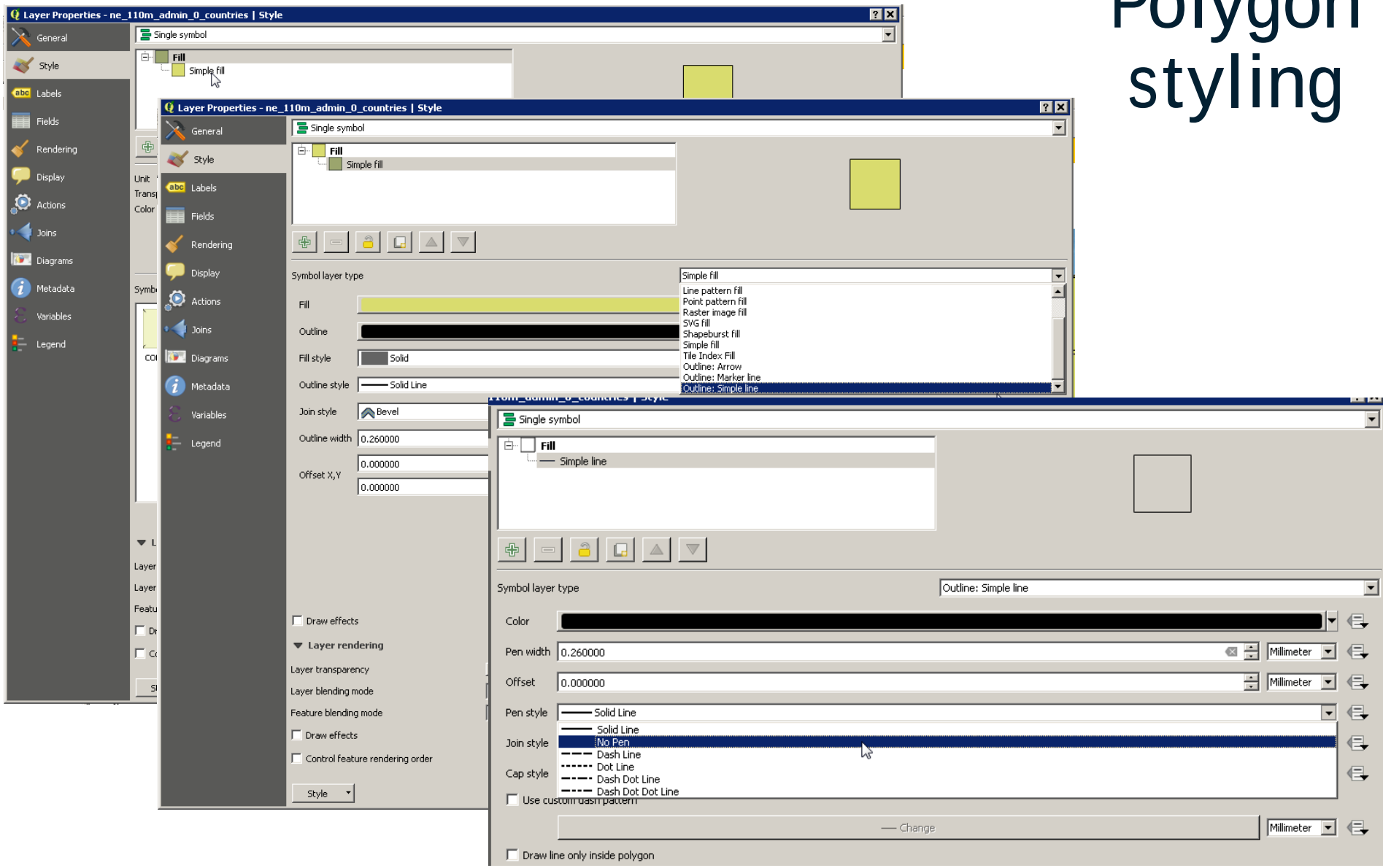




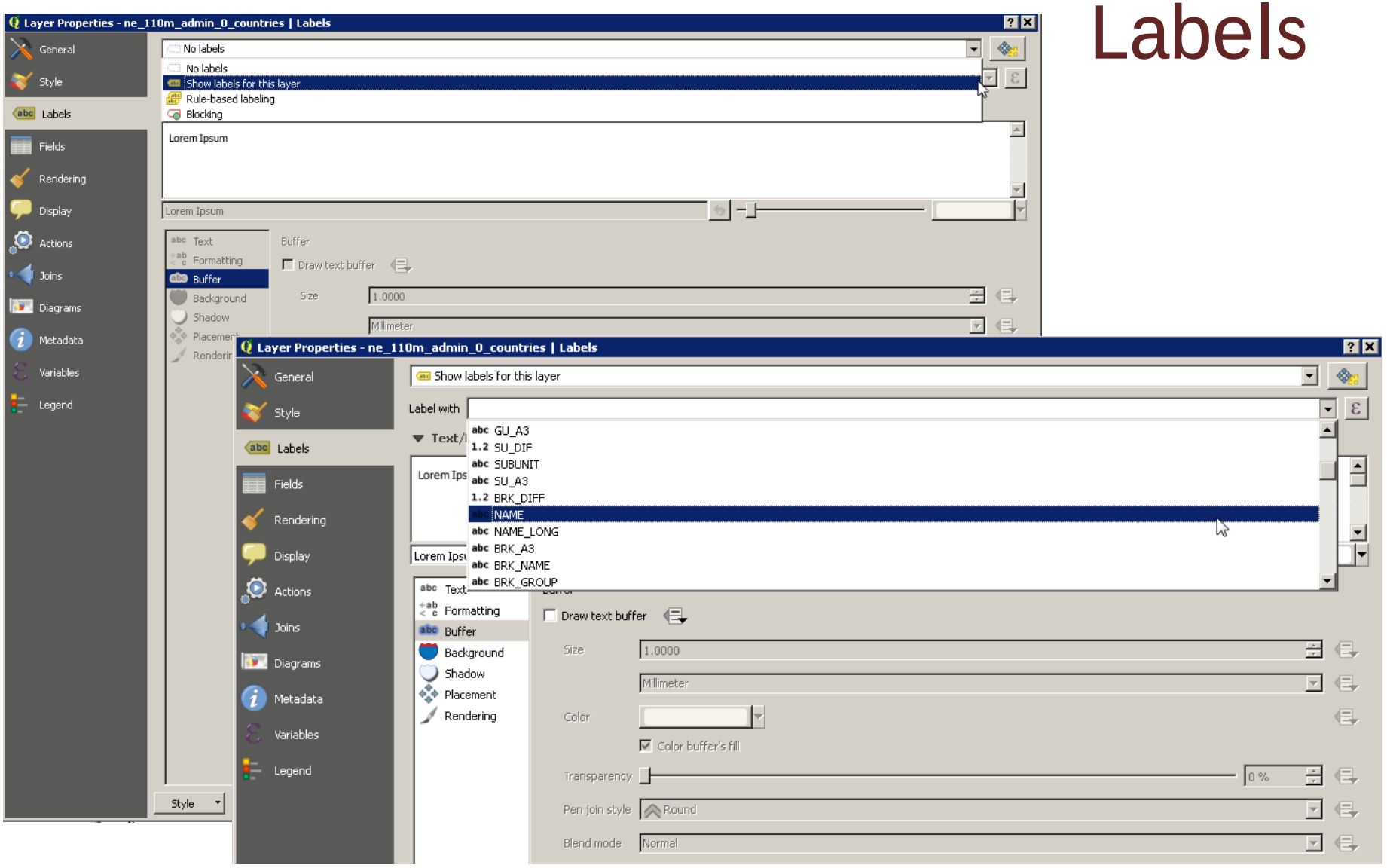
Line styling



Polygon styling



Labels


Layer Properties - ne_110m_admin_0_countries | Labels
General
Style
Labels
Fields
Rendering
Display
Actions
Joins
Diagrams
Metadata
Variables
Legend
No labels
No labels
Show labels for this layer
Rule-based labeling
Blocking
Lorem Ipsum
Lorem Ipsum
Text
Formatting
Buffer
Background
Shadow
Placement
Rendering
Buffer
Draw text buffer
Size
1.0000
Millimeter
Style
Layer Properties - ne_110m_admin_0_countries | Labels
General
Style
Labels
Fields
Rendering
Display
Actions
Joins
Diagrams
Metadata
Variables
Legend
Show labels for this layer
Label with
abc GU_A3
1.2 SU_DIF
abc SUBUNIT
abc SU_A3
1.2 BRK_DIFF
abc NAME
abc NAME_LONG
abc BRK_A3
abc BRK_NAME
abc BRK_GROUP
Text
Formatting
Buffer
Background
Shadow
Placement
Rendering
Draw text buffer
Size
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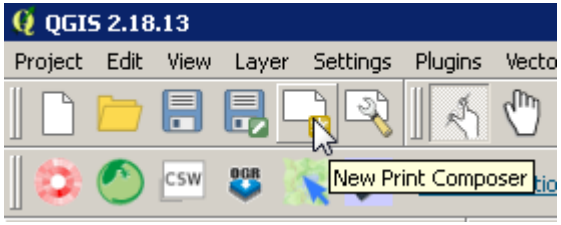
Millimeter
Color
Color buffer's fill
Transparency
0 %
Pen join style
Round
Blend mode
Normal

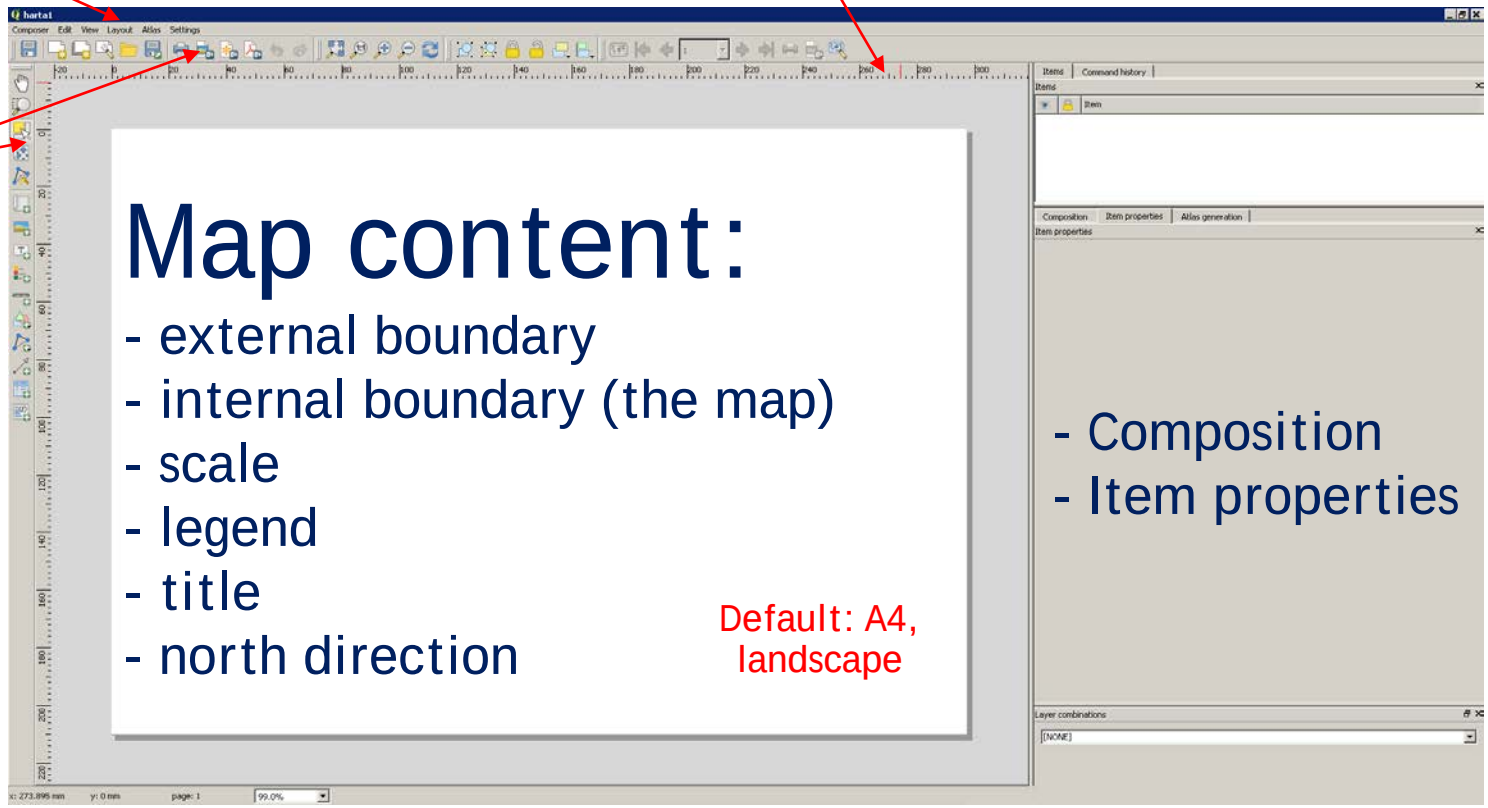
Map Composer



Menus

Rulers

Toolbars

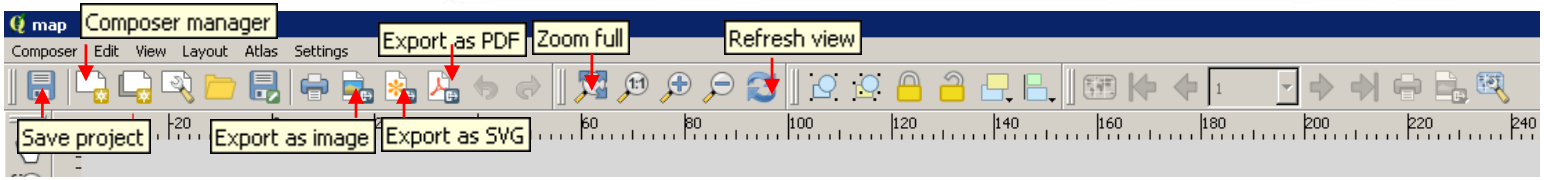


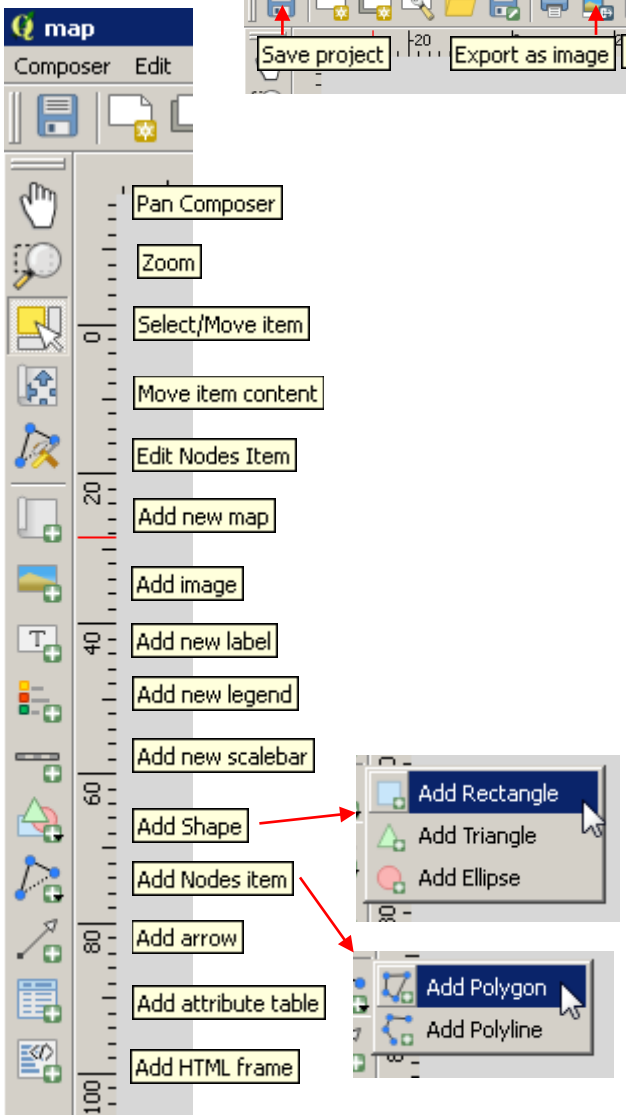
Map content:

- external boundary
- internal boundary (the map)
- scale
- legend
- title
- north direction

Default: A4, landscape

- Composition
- Item properties


map
Composer manager
Composer Edit View Layout Atlas Settings
Export as PDF
Zoom full
Refresh view
Save project
Export as image
Export as SVG


map
Composer Edit
Pan Composer
Zoom
Select/Move item
Move item content
Edit Nodes Item
Add new map
Add image
Add new label
Add new legend
Add new scalebar
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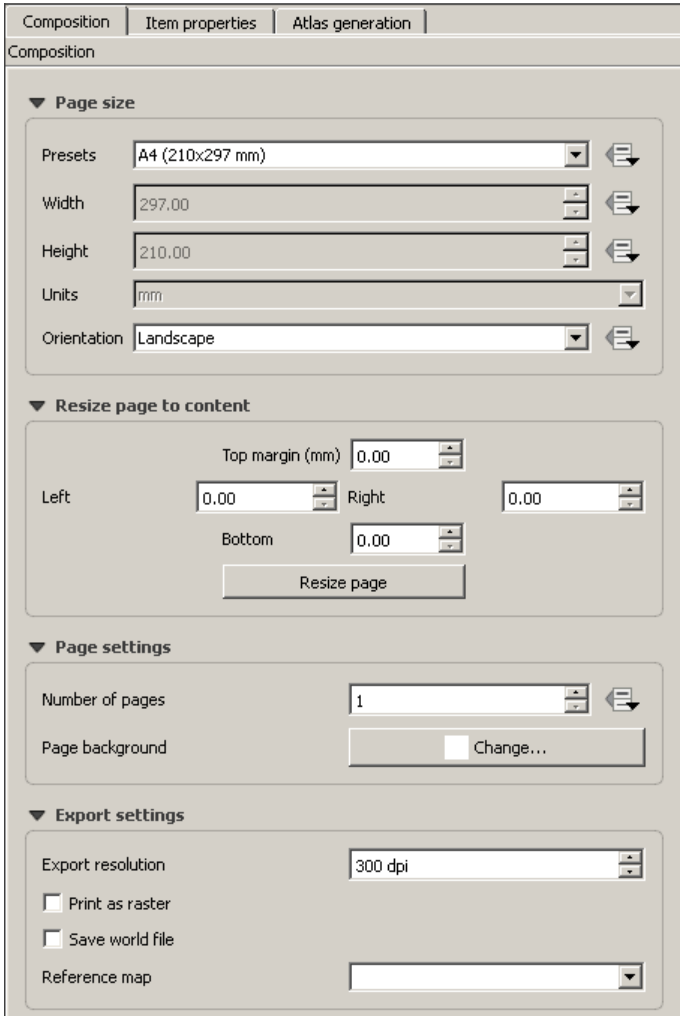
Add Ellipse
Add Polygon
Add Polyline


Composition
Item properties
Atlas generation
Composition
Page size
Presets
A4 (210x297 mm)
Width
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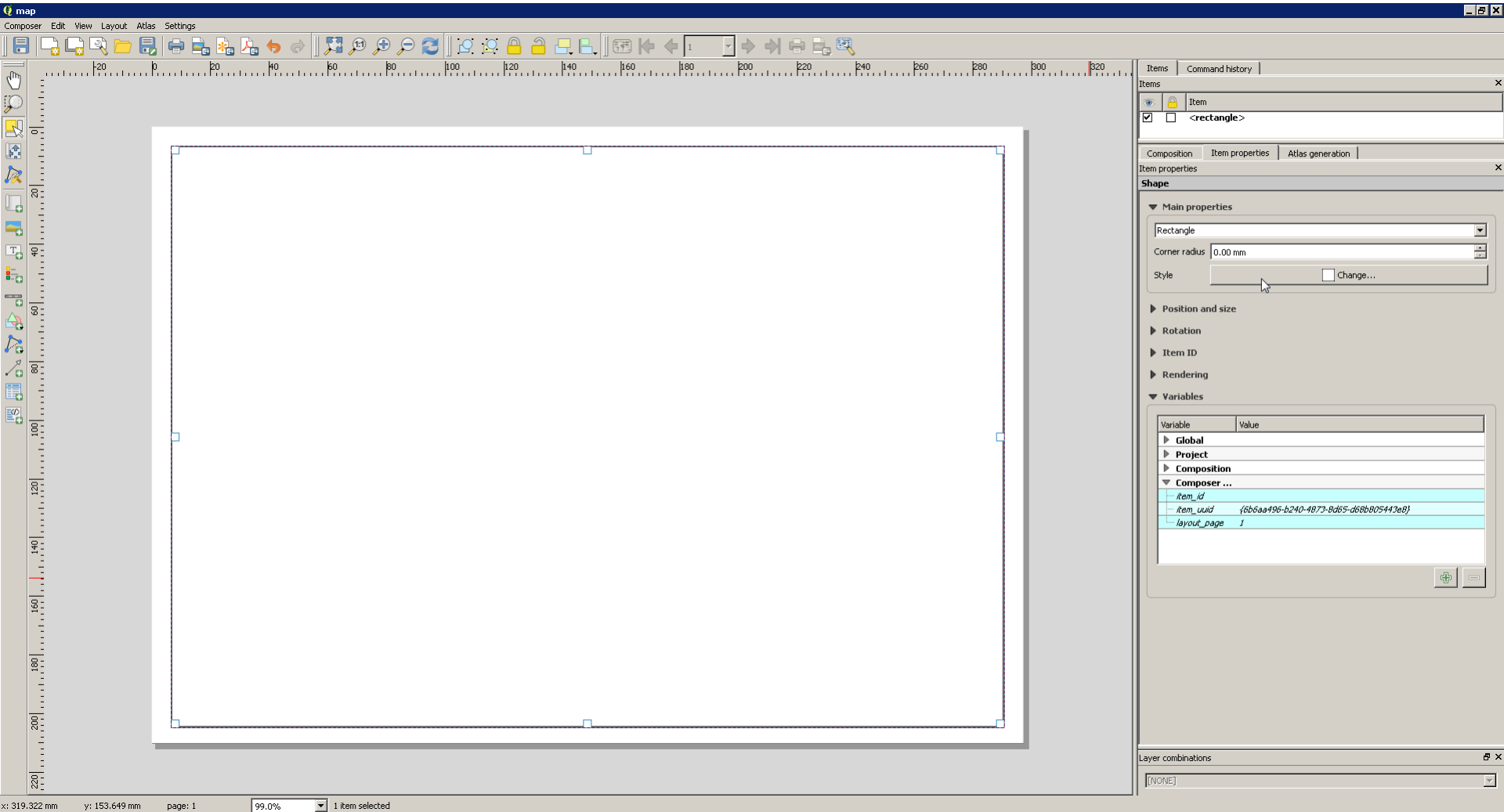
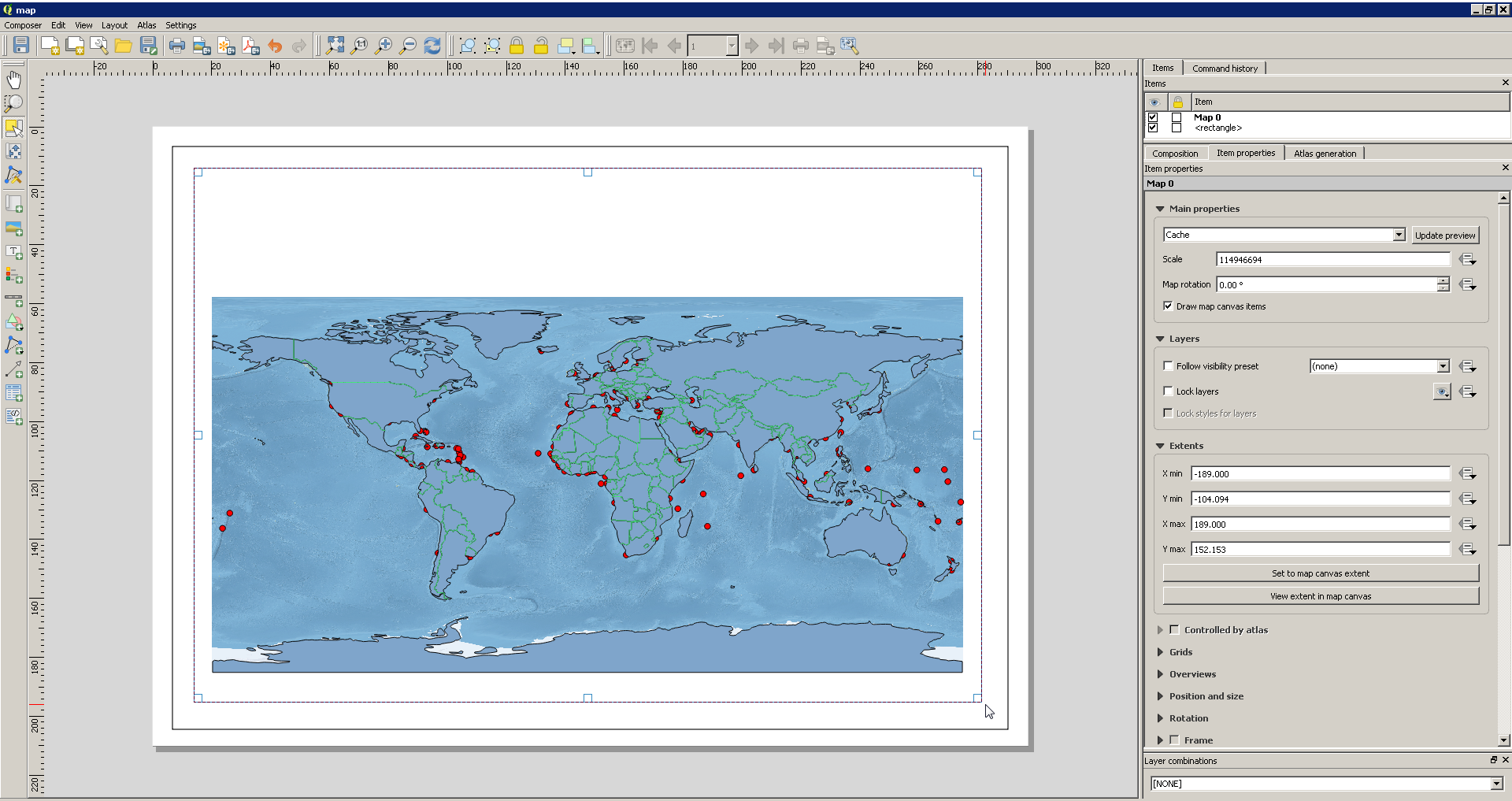
Height
210.00
Units
mm
Orientation
Landscape
Resize page to content
Top margin (mm)
0.00
Left
0.00
Right
0.00
Bottom
0.00
Resize page
Page settings
Number of pages
1
Page background
Change...
Export settings
Export resolution
300 dpi
Print as raster
Save world file
Reference map

External boundary as a rectangle



Adding a map


map
Composer Edit View Layout Atlas Settings
Items
Command history
Item
Map 0
<rectangle>
Composition
Item properties
Atlas generation
Item properties
Map 0
Main properties
Cache
Update preview
Scale
114946694
Map rotation
0.00 °
Draw map canvas items
Layers
Follow visibility preset
(none)
Lock layers
Lock styles for layers
Extents
X min
-189.000
Y min
-104.094
X max
189.000
Y max
152.153
Set to map canvas extent
View extent in map canvas
Controlled by atlas
Grids
Overviews
Position and size
Rotation
Frame
Layer combinations
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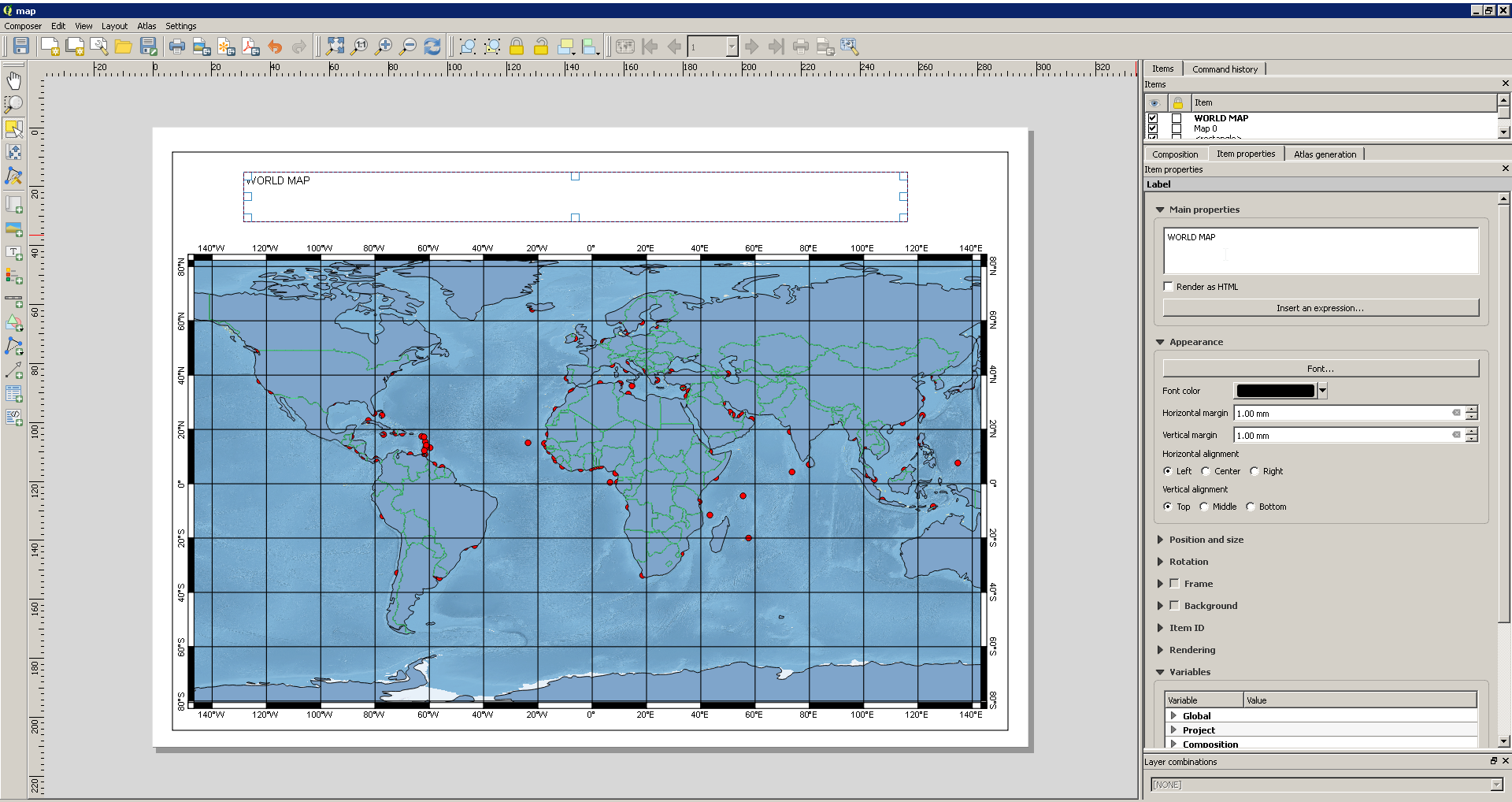
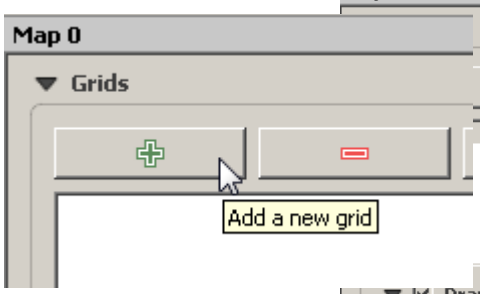
y: 195.869 mm
page: 1
99.0%
1 item selected

Adding a grid





Item properties

Map 0

Draw "Grid 1" grid

Grid type: Solid

CRS: change...

Interval units: Map unit

Interval: X 20.000000000000, Y 20.000000000000

Offset: X 0.000000000000, Y 0.000000000000

Line style: change...

Blend mode: Normal

Grid frame

Frame style: Zebra

Frame size

Frame line thickness

Frame fill colors

Left divisions: All

Right divisions: All

Top divisions: All

Bottom divisions: All

Left side

Right side

No frame
Zebra
Interior ticks
Exterior ticks
Interior and exterior ticks
Line border

Map 0

Bottom divisions: All

Left side

Right side

Top side

Bottom side

Draw coordinates

Format: Decimal with suffix

Left: Show all, Outside frame, Vertical ascending

Right: Show all, Outside frame, Vertical descending

Top: Show all, Outside frame, Horizontal

Bottom: Show all, Outside frame, Horizontal

Font: Font...

Font color

Distance to map frame: 1.00 mm

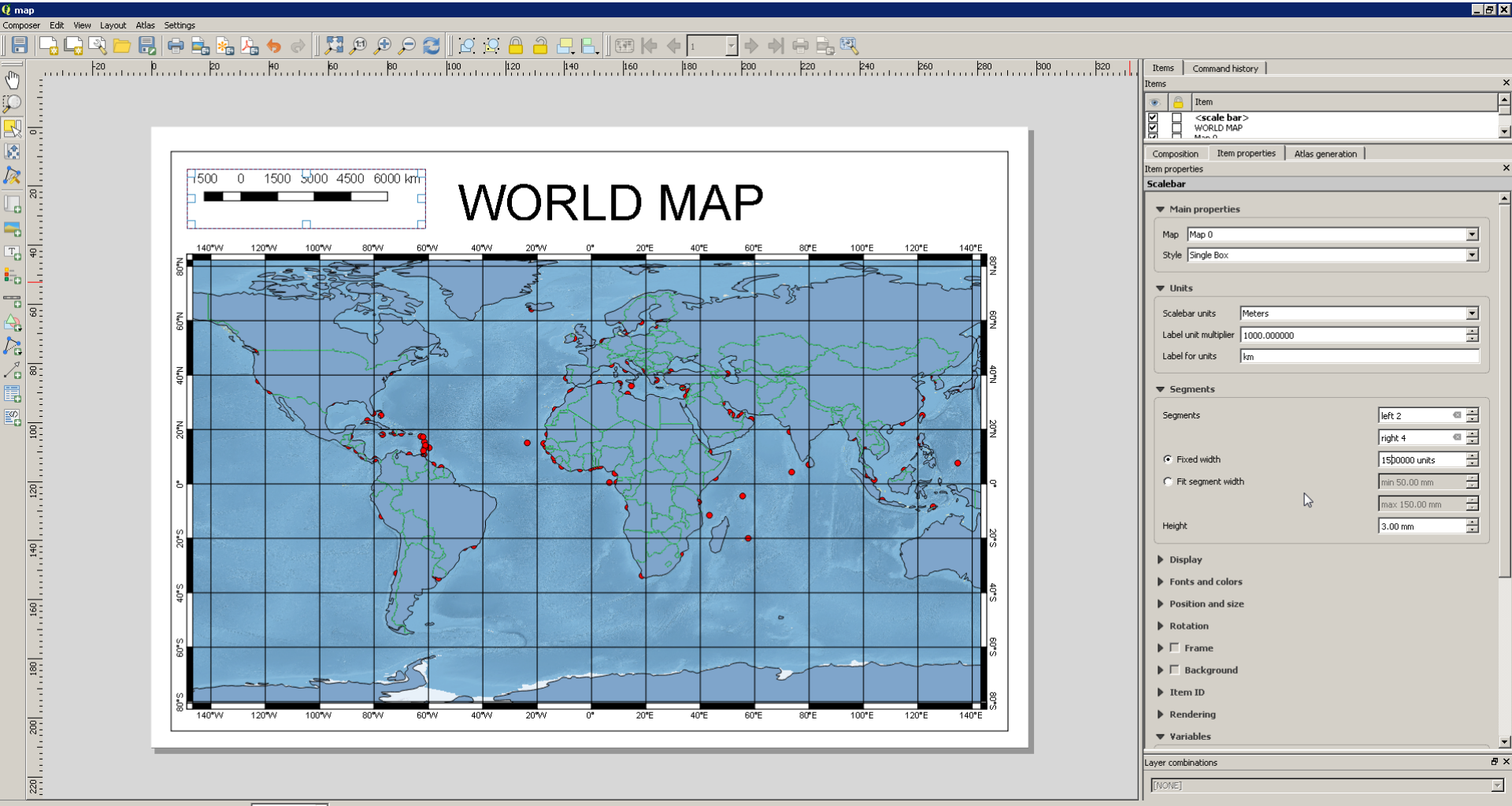
Coordinate precision: 0

Overviews

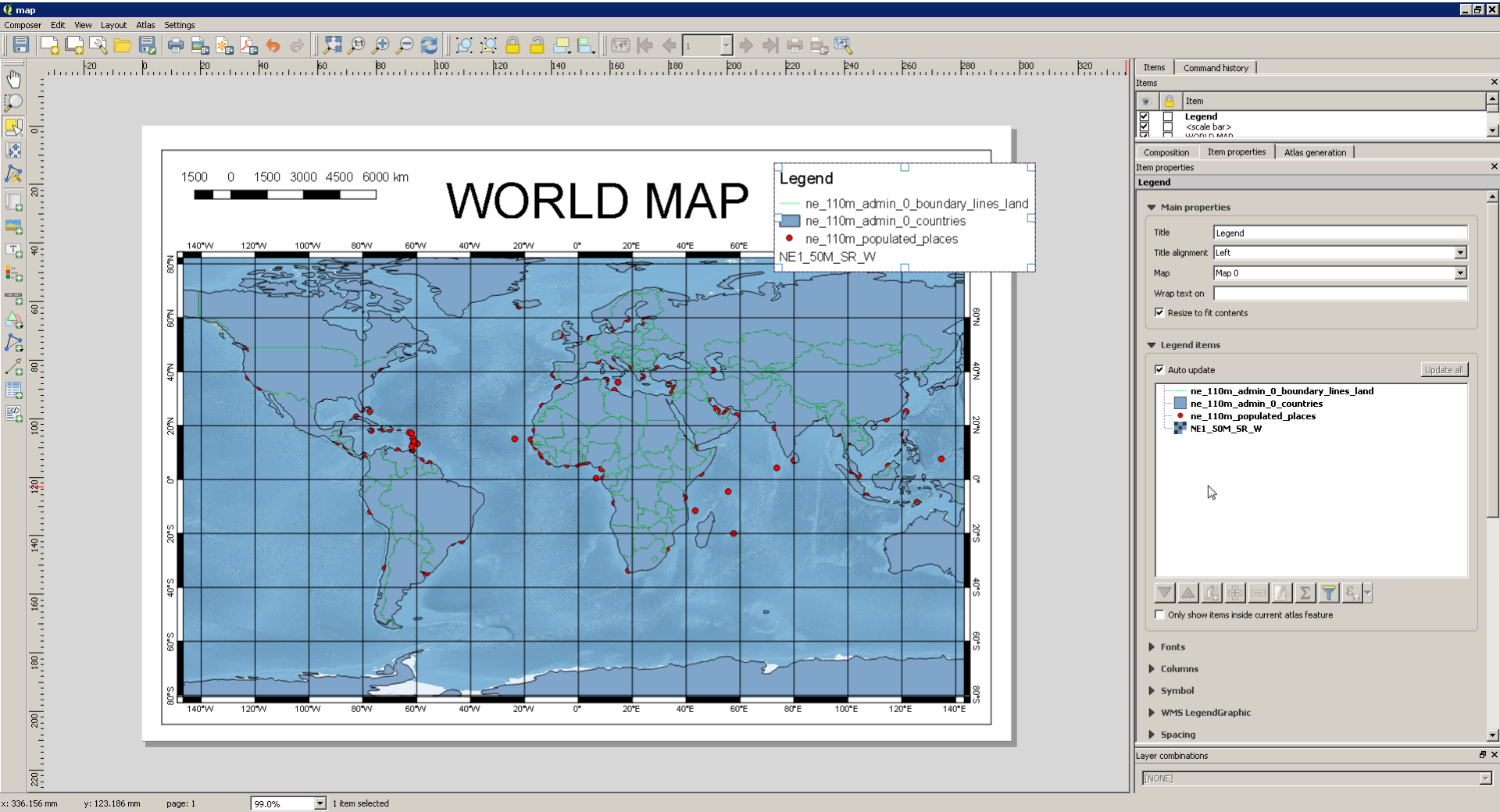
Position and size

Rotation

Adding a title



Adding a legend



Thank you for attending!