How to convert an image to a clickable map

Fireside Chat

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Using images in Qlik Sense

Converting arbitrary image to clickable and colorable map

Why?
Customer loves custom visualizations. A picture says more than a 1000 words. An interactive chart based on a picture says more 1000 x 1000 words.

How?
The map chart can do anything, it has more functions than any other Sense chart.
High level workflow

Using Qlik Sense, Qlik GeoAnalytics and open source tools

- Find a suitable image, the hardest part by far.
- Bucket fill areas, I prefer Inkscape.
- Vectorize and Simplify, QGIS is useful.
- Load into Sense.
- Done!
Image

A stilistic line drawing is optimal

• Most images has way too many details to look good.
• Pruning most likely necessary.
• I used a drawing shared by OCAL from clker.com for this example
• http://www.clker.com/clipart-15657.html#
Pruning image
Removing unnecessary details

- Load in your favorite image editor (Paint, Photoshop, Gimp)
- Remove redundant lines
- Try create large chunks, will look clearer later when rendered.
- Export as PNG
Bucket fill
Using lines as boundaries

- Load in favorite draw tool, I use Inkscape
- Flip vertical, easier to do it now than later
- Use image as mask, bucket fill area by area.
- Remove the image
- Export as PNG
Vectorize

Convert to objects from image

- Load in favorite GIS editor, I like QGIS. Drag image to Layers panel.
- Choose coordinate system EPSG:3857, other can work too.
- Vectorize (Raster → Conversion → Polygonize)
Clean up

The objects are too "jagged", let’s simplify

• Continue in QGIS
• Simplify  
  (Vector → Geometry Tools → Simplify)
• Tolerance 2.0 was ok for my image.
Add attributes

Setting id and adding names, continue in QGIS

• Continue in QGIS
• "Open Attribute table".
• Switch to edit mode.
• Select all rows (Ctrl-a)
• "Open field calculator"
• Add field "id" integer, formula “rownum”.
• Add new field name, string, 100 chrs.
• Go row by row, fill in name
Load into Qlik Sense

Export the layer and load into Sense with GeoAnalytics

• Save as shapefile in QGIS
• Store in dropbox folder, zip files together (local file requires QGA Plus).
• Get shareable link, replace www with dl
• QGA Connector ”Load”
• (Export to KML in QGIS is an option, QGA not required but then all attributes are lost...)
Build app in Sense

Use data loaded

• Add area layer, dimension: name, Location field: Geometry

• Using Name as dimension makes selection and popups readable.

• Make a second layer only({1} Geometry) to show unselected.
Other options

Alternative approaches

• Load CAD files, *if* the source is good enough...
• Convert from SVG to GeoJSON,
• Christof Schwarz TMS
  https://www.youtube.com/watch?v=4uWlmNm95n8,
  https://github.com/ChristofSchwarz/qs-GeoObject-BackgroundImg
• Wait for Qlik Sense April 2019, plain image backdrop is coming
Links

To more information

- Qlik www.qlik.com
- Draw program www.inkscape.org
- GIS Editor www.qgis.org