



Session:

Labelled Maps – Verification, entering names into a GIS and Google Maps/Earth

V1.0

Pier-Giorgio Zaccheddu

Federal Agency for Cartography and
Geodesy (BKG)

Richard-Strauss-Allee 11

60598 Frankfurt am Main

Tel.: +49 69 6333 305

Fax: +49 69 6333 441

Email: pier.zaccheddu@bkg.bund.de



Content

Import and display of a database in a GIS

- Import and display with ESRI ArcGIS and QuantumGIS
- Creation of a map using with ESRI ArcGIS

Verification, entering names in Google Maps/Earth

- Export of a kml-file directly from ESRI ArcGIS
- Export a shapefile from the GIS and convert with open source tools
- Publish data in Google Earth through *.kml/kmz-format



Display names from the database into a GIS: Coordinate System!!!

The screenshot shows the website 'The World Coordinate Converter' with a map of South America. The conversion panel on the right is set to convert from *GPS (WGS84) (deg) to SIRGAS. The input coordinates are Lat = -15.9384658 °N and Lng = -5.71682 °E. The SIRGAS panel shows Hemisphere = South, Zone = 30, X = 209141.17 m, Y = 8235976.5 m, and Konvergenz = -0.7466 m. The website footer includes copyright information for 2010 Clément Ronzon and 2017 Google, INEGI, ORION-ME, and a scale bar of 500 km.

The World Coordinate Converter: WGS84 → SIRGAS conversion?

Website: <http://twcc.fr/en/#>



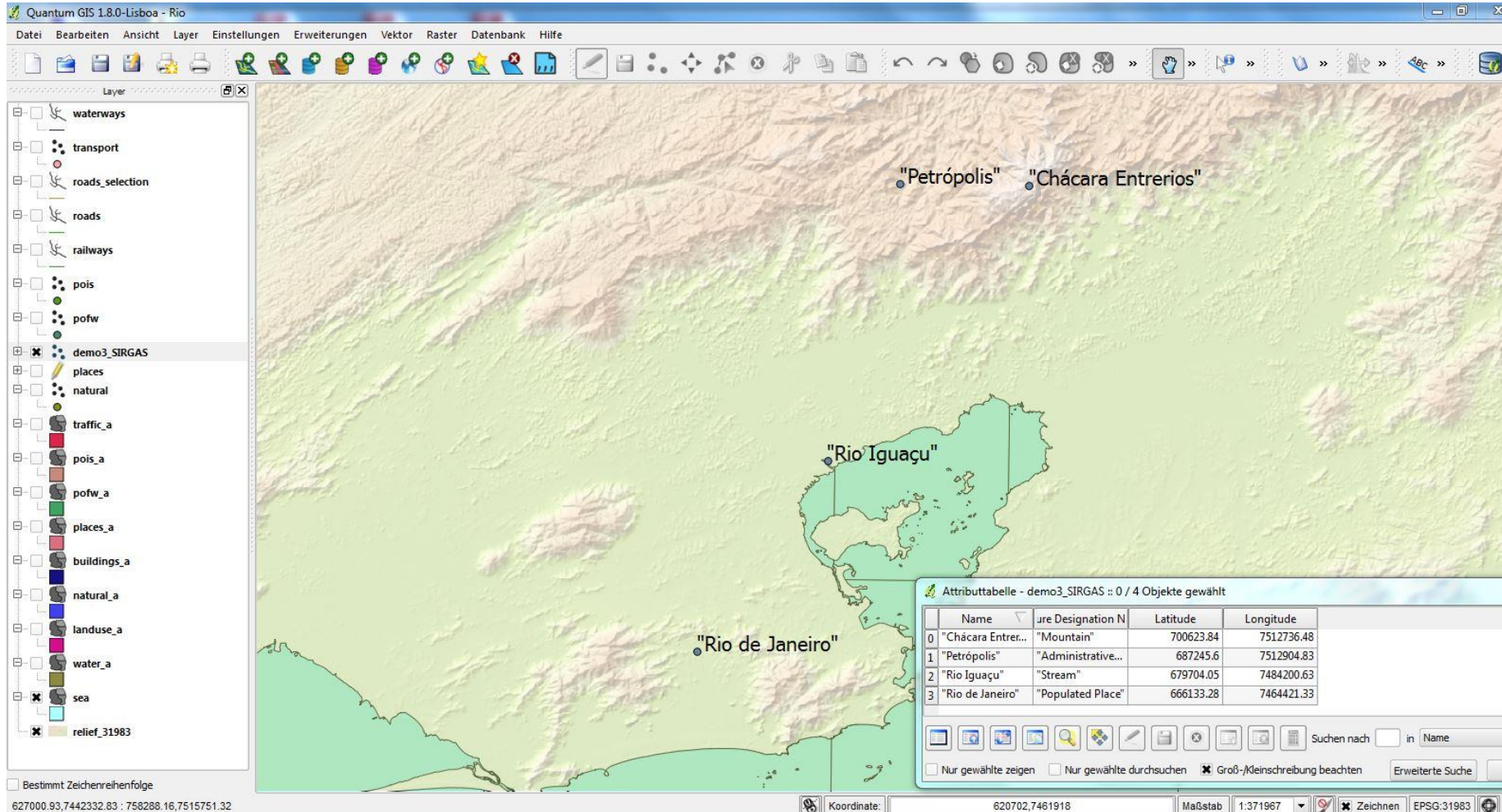
Display names from the database into a GIS: ESRI Arc GIS

Table

Name	Latitude	Longitude	Feature Designation Name
Chácara Entrerios	700623,84	7512736,48	Mountain
Petrópolis	687245,6	7512904,83	Administrative Unit
Rio Iguaçu	679704,05	7484200,63	Stream
Rio de Janeiro	666133,28	7464421,33	Populated Place

ESRI ArcGIS

Display names from the database into a GIS: Quantum GIS



The screenshot shows the Quantum GIS 1.8.0-Lisboa interface. The main map displays a topographic relief map of Rio de Janeiro, Brazil, with labels for "Petrópolis", "Chácara Entrerios", "Rio Iguaçú", and "Rio de Janeiro". The left sidebar shows a layer list with "demo3_SIRGAS" selected. An attribute table window is open, showing the following data:

ID	Name	ure Designation N	Latitude	Longitude
0	"Chácara Entrer...	"Mountain"	700623.84	7512736.48
1	"Petrópolis"	"Administrative...	687245.6	7512904.83
2	"Rio Iguaçú"	"Stream"	679704.05	7484200.63
3	"Rio de Janeiro"	"Populated Place"	666133.28	7464421.33

The status bar at the bottom shows the coordinate as 627002,7461918 and the scale as 1:371967.

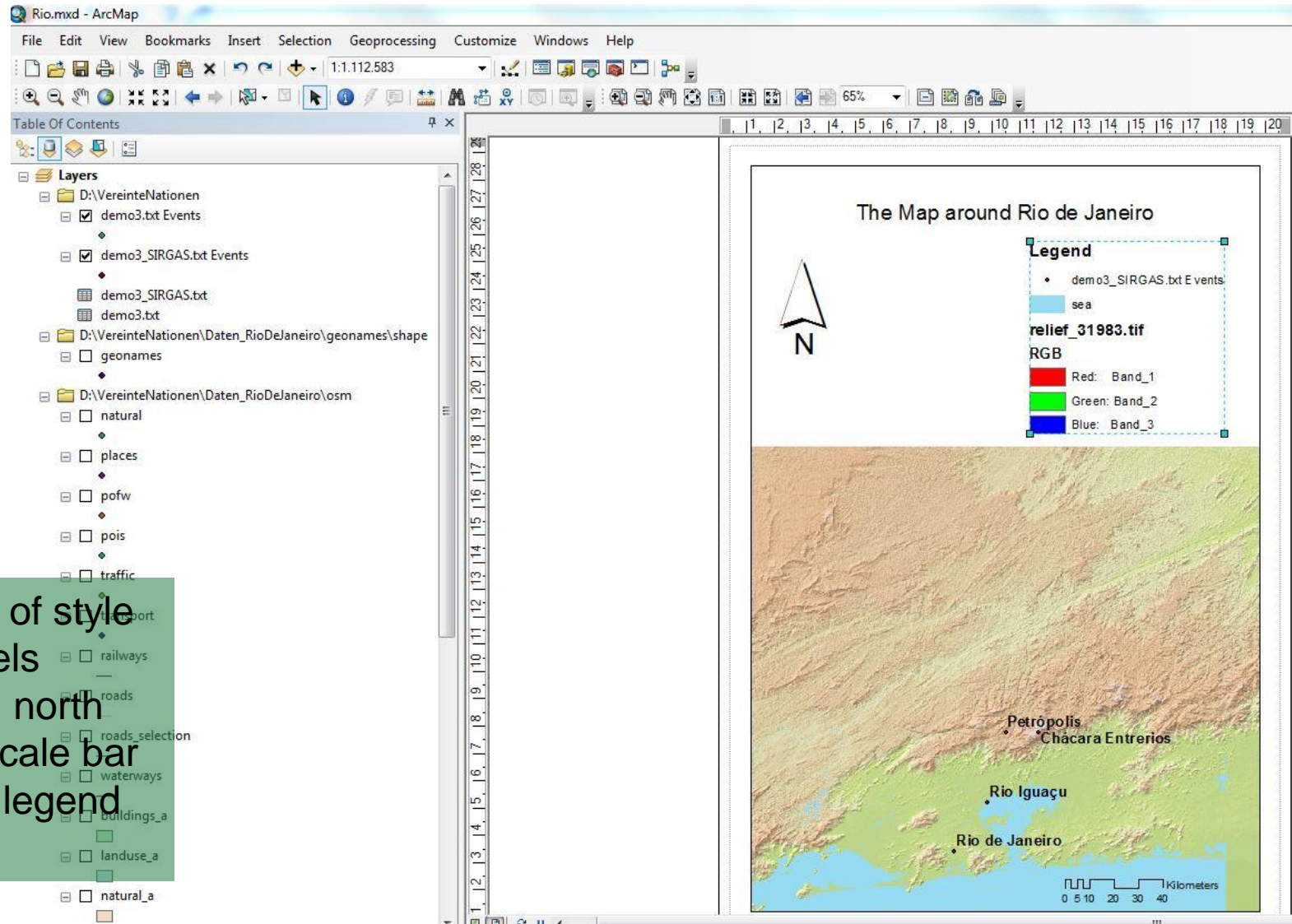
QuantumGIS



- Vector data: **DIVA-GIS**
URL: <http://www.diva-gis.org/gData>
abstract: download free geographic (GIS) data for any country in the world
- Vector data: **Natural Earth**
URL: <http://www.naturalearthdata.com>
- Vector data: **OpenStreetMap (OSM)**
URL: <http://download.geofabrik.de/>
- GN data: **geonames.org**
URL: <http://www.geonames.org/>
abstract: download free of charge under a creative commons attribution license



Create a map with the GIS: ESRI ArcGIS



- Change of style and labels
- Set title, north arrow, scale bar
- Insert a legend



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What are kml/kmz-files?

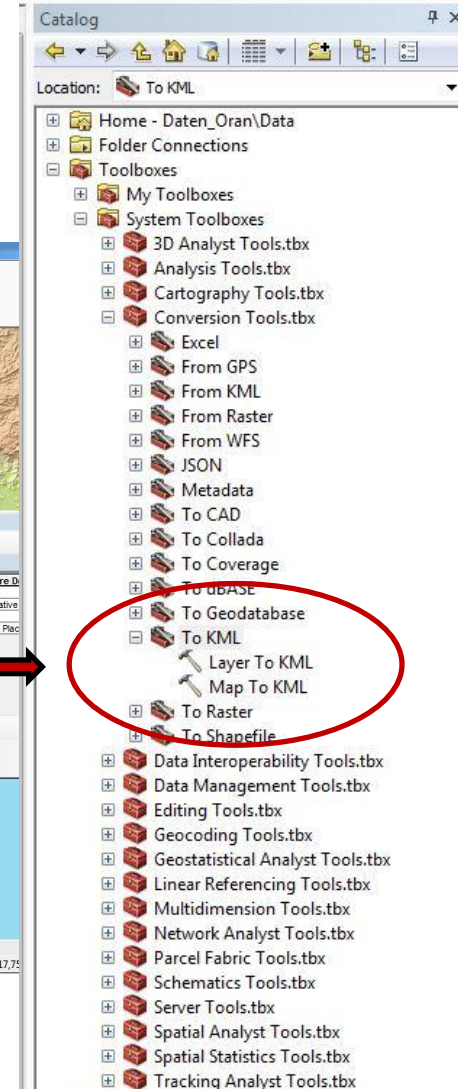
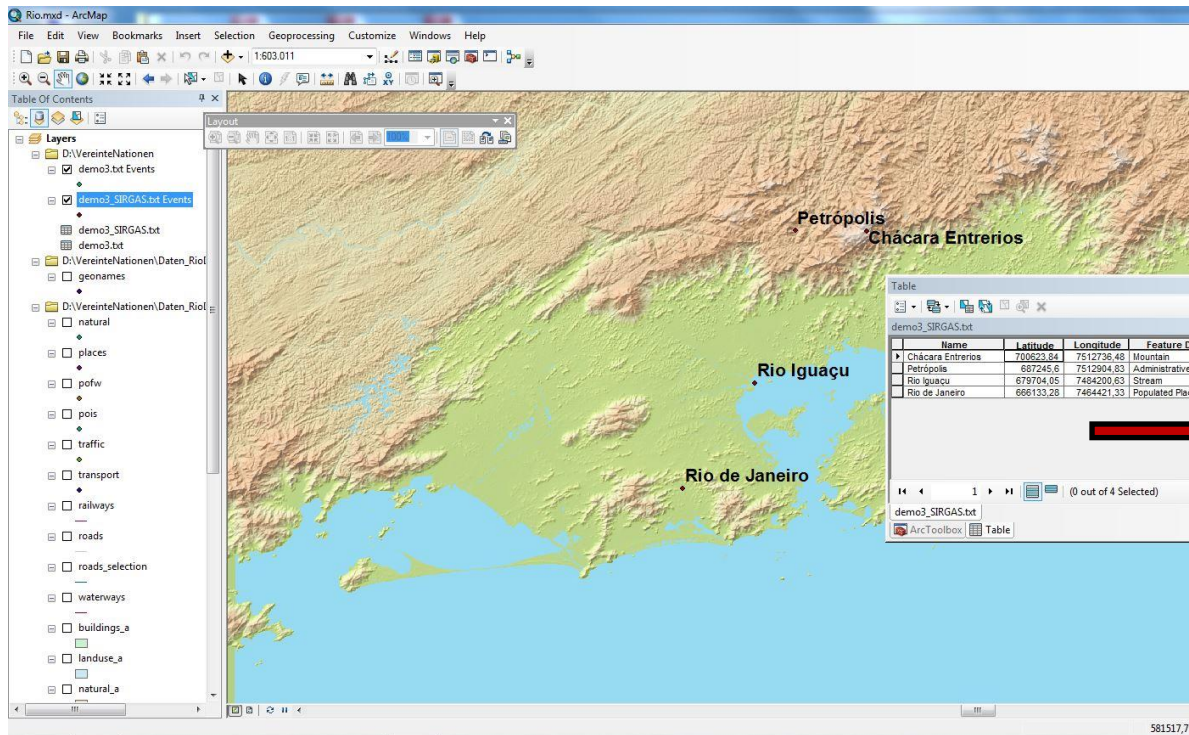
The general default file type for spatial data in Google Earth and Google Maps is KML (Keyhole Markup Language) or KMZ (a compressed or "zipped" KML file).

- KML files are text-based and employ coding tags like those used for XML or HTML programming.
- Google Earth processes KML files in a way that is similar to how web browsers process HTML and XML files.
- KML syntax tells applications like Google Earth and Google Maps how to display geographical features such as points, lines, images, polygons, and models.
- Each location included in a KML file must have longitude and latitude coordinates assigned to it.



Export of a kml/kmz-file directly from ESRI ArcGIS

1. Possibility



Demo3_SIRGAS.kml.kmz



Export a shapefile from the GIS and convert with open source tools

2. Possibility

Several tools are available to convert shape-files into a kml/kmz-format for the Google Maps/Earth application:

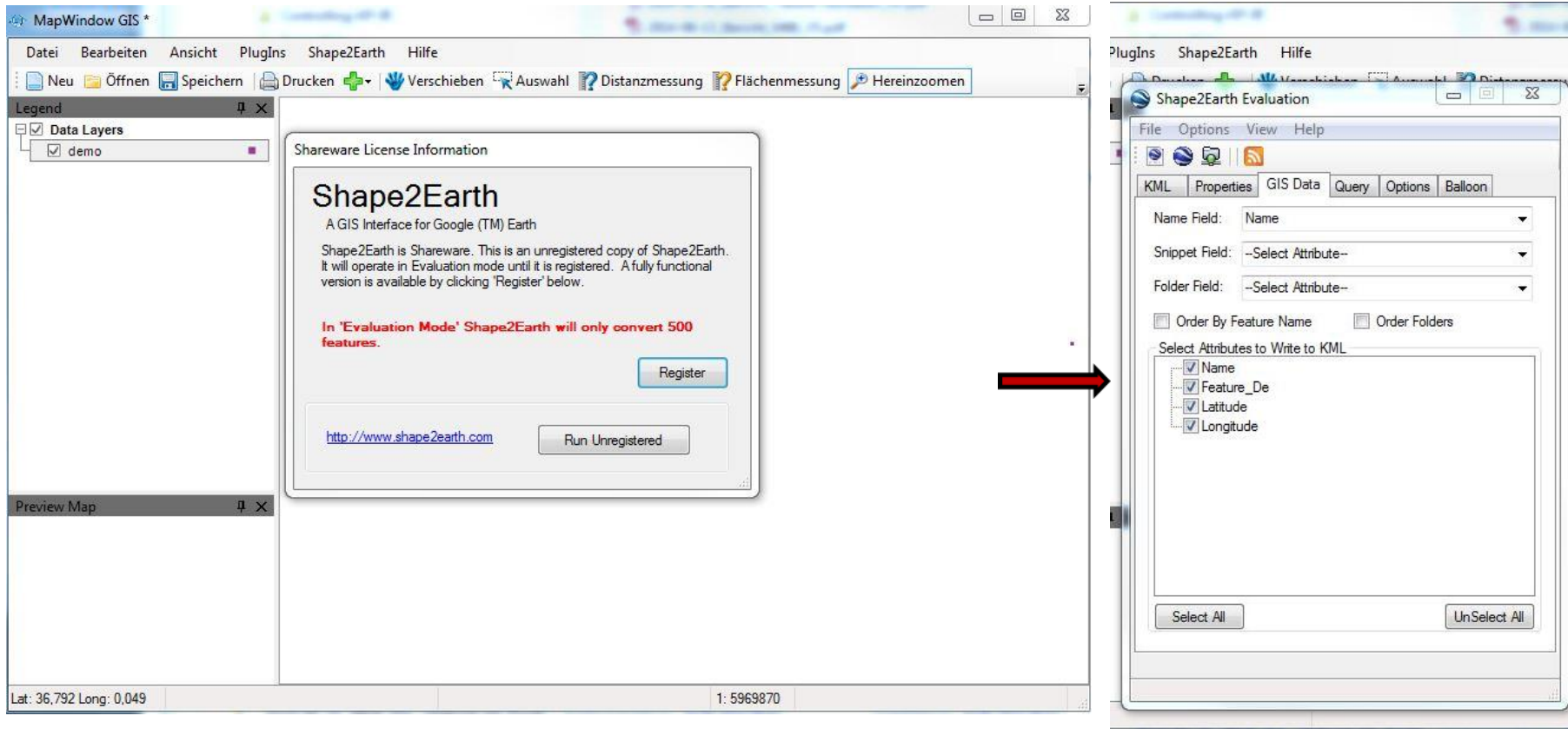
Software: Shape2Earth4MapWindow-v1.55-setup.exe (open source)

URL: <http://www.ulozto.net/x4B96CX8/shape2earth4mapwindow-v1-55-setup-exe>

Software: Shp2kml.exe (open source)

URL: http://sourceforge.net/project/showfiles.php?group_id=146609

2. Possibility - Shape2Earth4MapWindow-v1.55-setup.exe



→ Import ***demo_shp2kml.kml*** into GoogleEarth



Publish data in Google Maps / Earth through *.kml/kmz-format

Verification

1. Possibility: [Demo3_SIRGAS.kml.kmz](#)

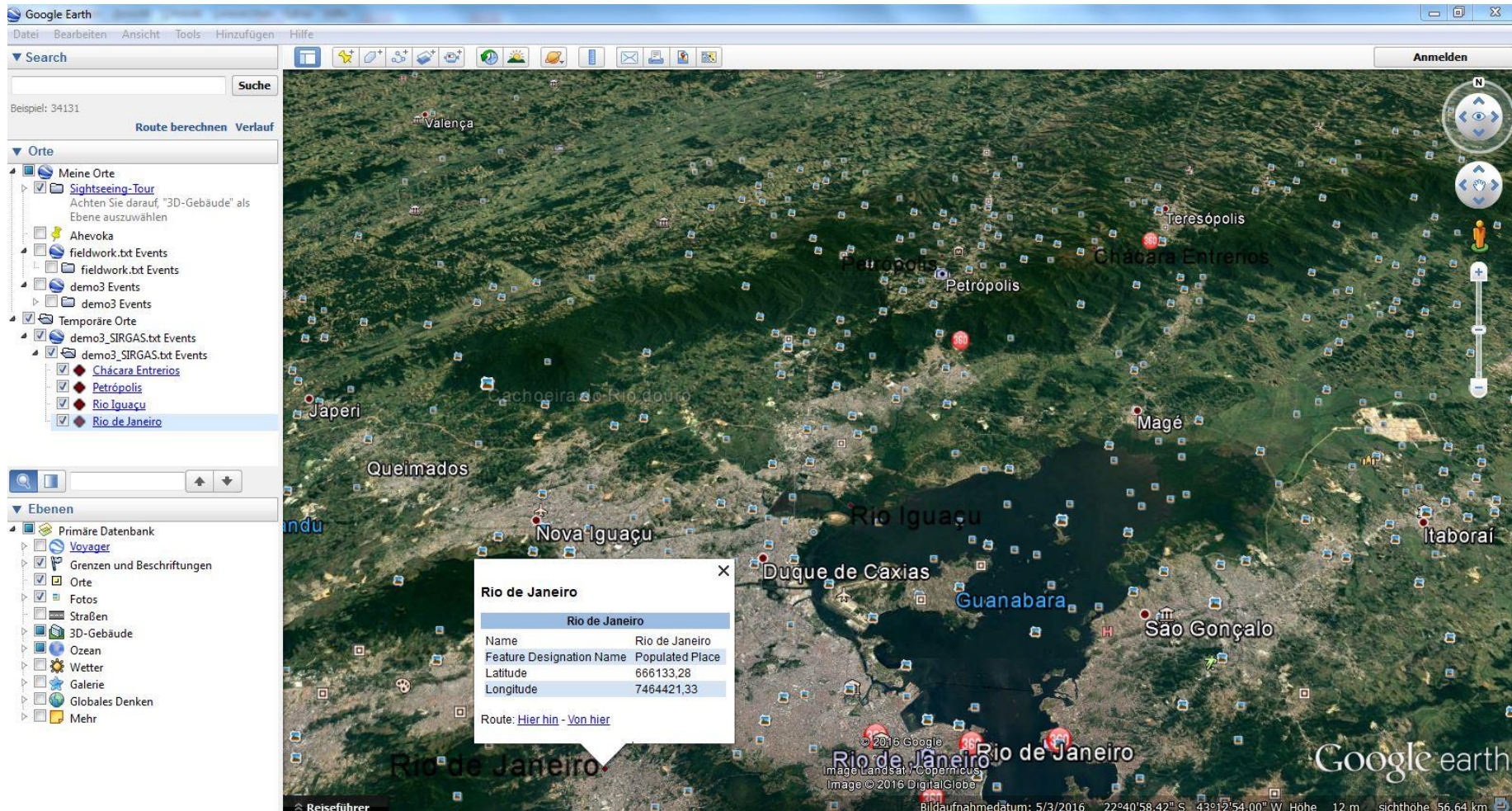
2. Possibility:

→ Start Google Maps/Earth application

→ Import *.kml* into Google Maps/Earth

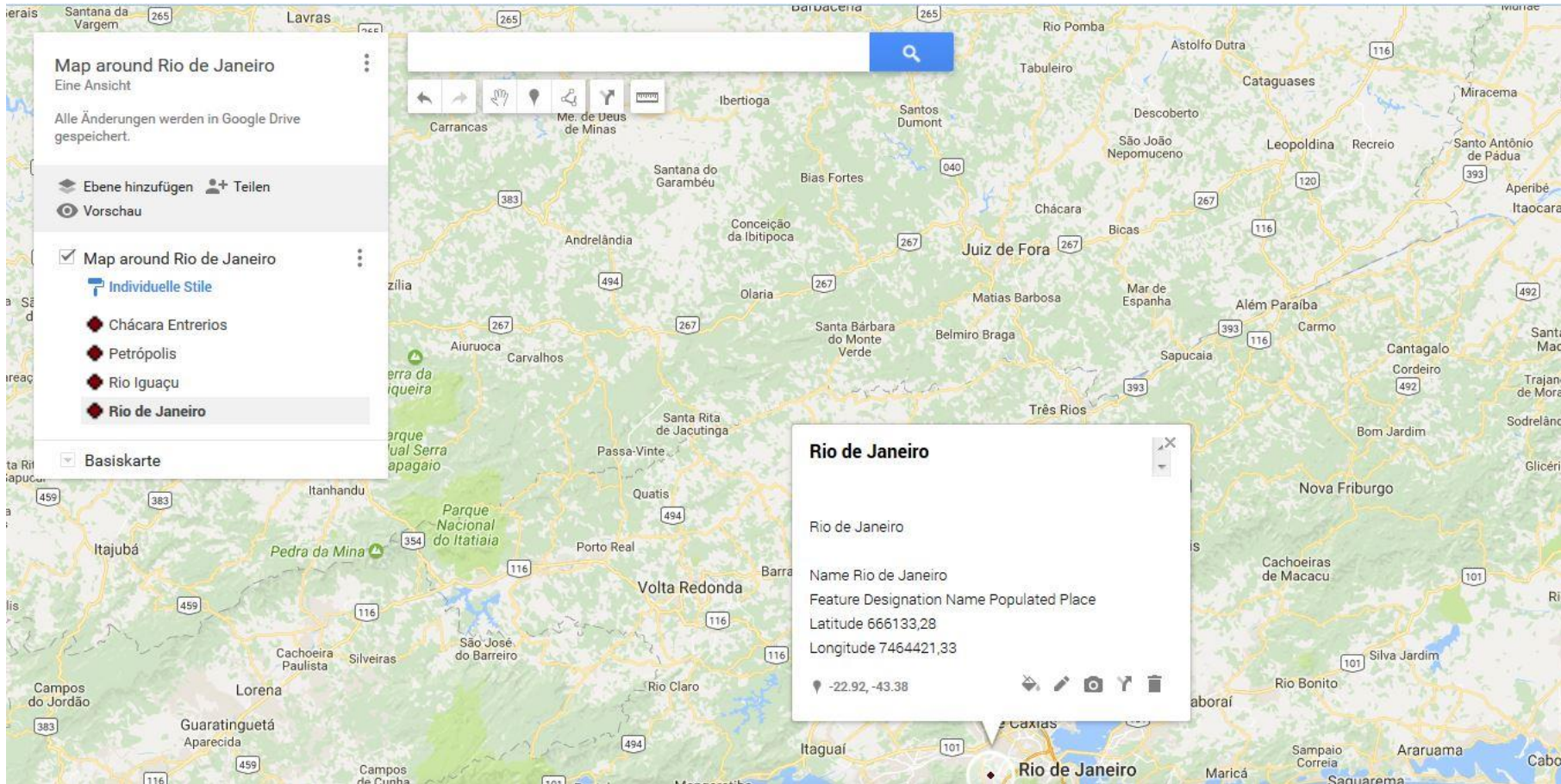


Publish data in Google Maps / Earth through *.kml/kmz-format





Publish data in Google Maps / Earth through *.kml/kmz-format





Thank you for your attention!