

OpenGIS workshop, visualization in kml (DSD2014)

Kees den Heijer

Deltares / TU Delft

November 3, 2014



- 1 **Introduction**
- 2 **Gallery**
 - Point
 - Line
 - Polygon
 - Overlay
- 3 **Exercises**
- 4 **Announcement**



What is KML

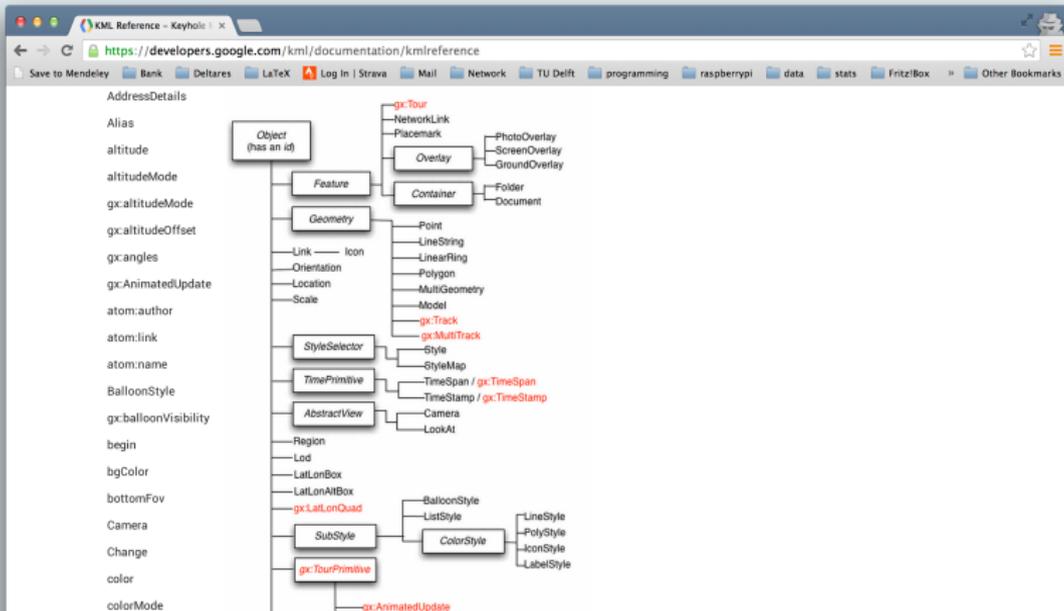
Keyhole Markup Language (KML) is an XML notation for expressing geographic annotation and visualization within Internet-based, two-dimensional maps and three-dimensional Earth browsers. KML was developed for use with Google Earth, which was originally named Keyhole Earth Viewer.



kml sample

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://www.opengis.net/kml/2.2">
  <Placemark>
    <name>Simple placemark</name>
    <description>Attached to the ground. Intelligently places itself
      at the height of the underlying terrain.</description>
    <Point>
      <coordinates>-122.0822035425683,37.42228990140251,0</coordinates>
    </Point>
  </Placemark>
</kml>
```





https://publicwiki.deltares.nl/display/OET/KML+Screenshots

KML Screenshots - OpenE...

← → ↻ https://publicwiki.deltares.nl/display/OET/KML+Screenshots

Save to Mendeley Bank Deltares LaTeX Log In | Strava Mail Network TU Delft programming raspberrypi data stats Fritz/Box Other Bookmarks

Dashboard Topics OpenEarth Pages OpenEarth Getting started Search

Deltares Dashboard Topics Communities Projects Others

KML Screenshots

This is a demonstration of various data visualizations that we have made using a combination of [Matlab](#), the free tools in the [OpenEarth toolbox](#), and the [Google Earth™](#) mapping service. To make your own, just sign up and check out the [tutorials](#) for the googleplot toolbox. In an [NCK 2012](#) paper we have shown that plotting data into Google Earth is possible for a wide variety of coastal datasets.

A few of the other *.kml files with which the screen shots below have been made are available in this (temporary) [open dir](#). Note that some of the bigger files might need a bit of time to load, just be patient.

There are more initiatives worldwide that offer data in [Google Earth](#).



Beach and foreshore elevation of Sand engine gathered with DGPS on quad and wheel barrow during JERICO 2014 summerschool

Beach and foreshore elevation of Sand engine gathered with DGPS on quad and wheel barrow during JERICO 2014 summerschool

Beach and foreshore elevation of Sand engine gathered with DGPS on quad and wheel barrow during JERICO 2014 summerschool

Beach and foreshore elevation of Sand engine gathered with DGI during JERICO 2014 summerschool

Exercises

bit.ly/gisworkshop

<https://publicwiki.deltares.nl/display/OET/Visualization+in+kml>



Point

Visualize points

The screenshot shows the Google Earth interface with a search bar containing "pizza near NYC". The left sidebar shows a list of places under the heading "Places", with several items checked, including "218" (Transsect id 17000051) and "258" (Transsect id 17001467). The "Layers" panel is also visible, showing various map layers like "Primary Database", "Borders and Labels", and "Ocean".

A pop-up window titled "Mean D₅₀ 195 μm" is open over a point on the map. The window contains the following information:

- Mean D₅₀ 195 μm**
- Transsect id: 7005200
- Area (kustvak): Noord-Holland
- Name: Noord-Holland
- Code: 7
- Latitude: 52.49 °N
- Longitude: 4.59 °E
- Mean D₅₀: 195 μm
- Sigma D₂₅: 35 μm
- Calculation D₅₀: 164 μm

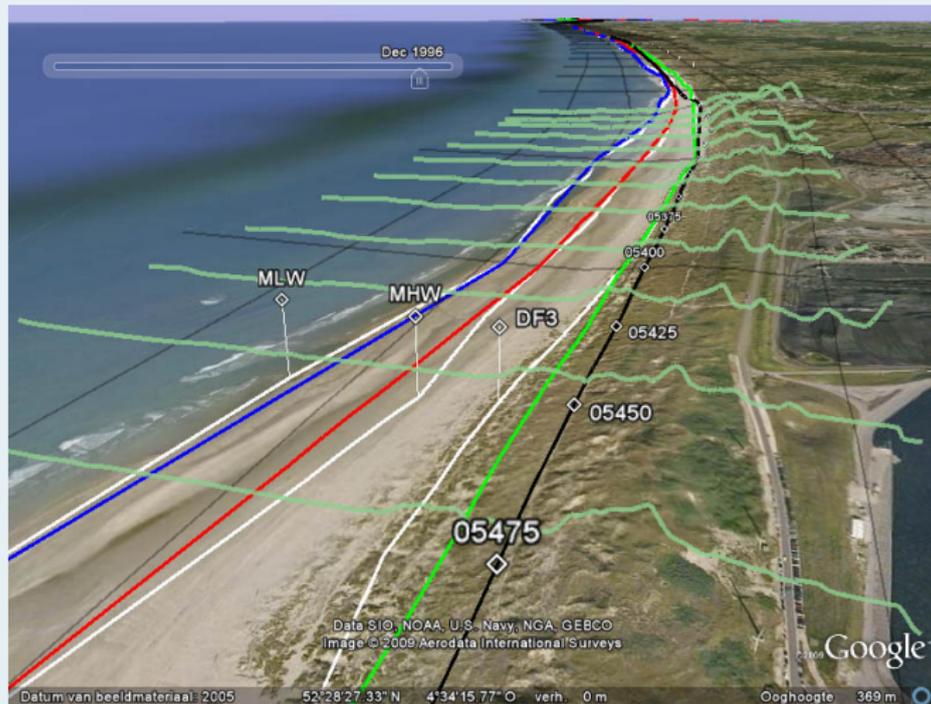
Below the main data, there is a section for "Meta information" with links for "THREDDS server" (mste.info) and "Download" (nwsCDFE.via.fru). The "Provided by:" section features logos for three organizations and the website www.openearth.eu.

At the bottom of the map, the text "Data SIO, NOAA, U.S. Navy, NGA, GEBCO" and "Image Landsat" is visible. The Google Earth logo is in the bottom right corner.



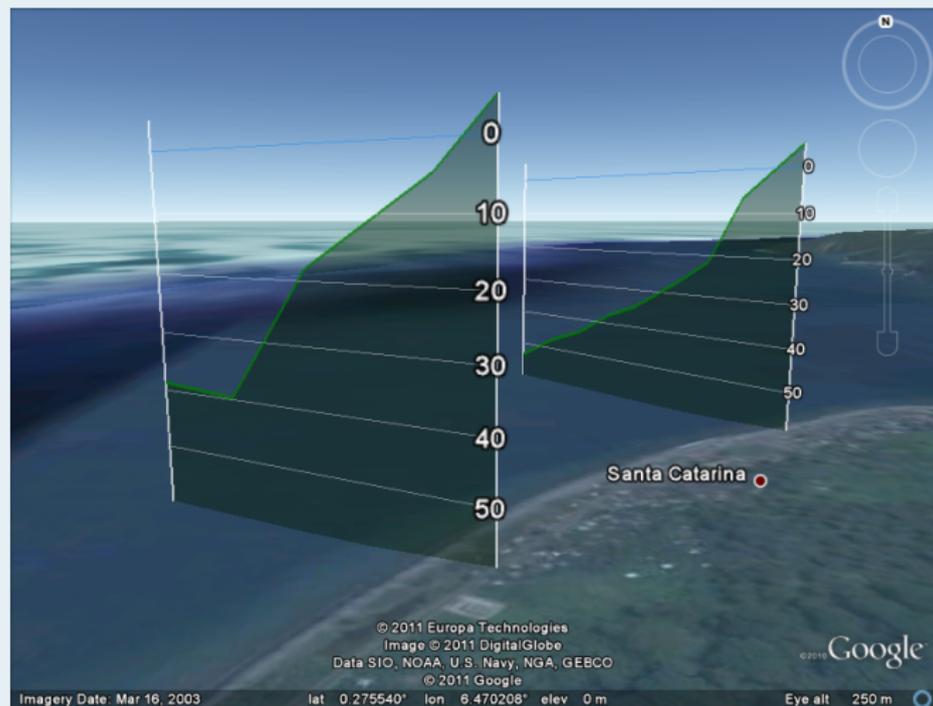
Line

Visualize line



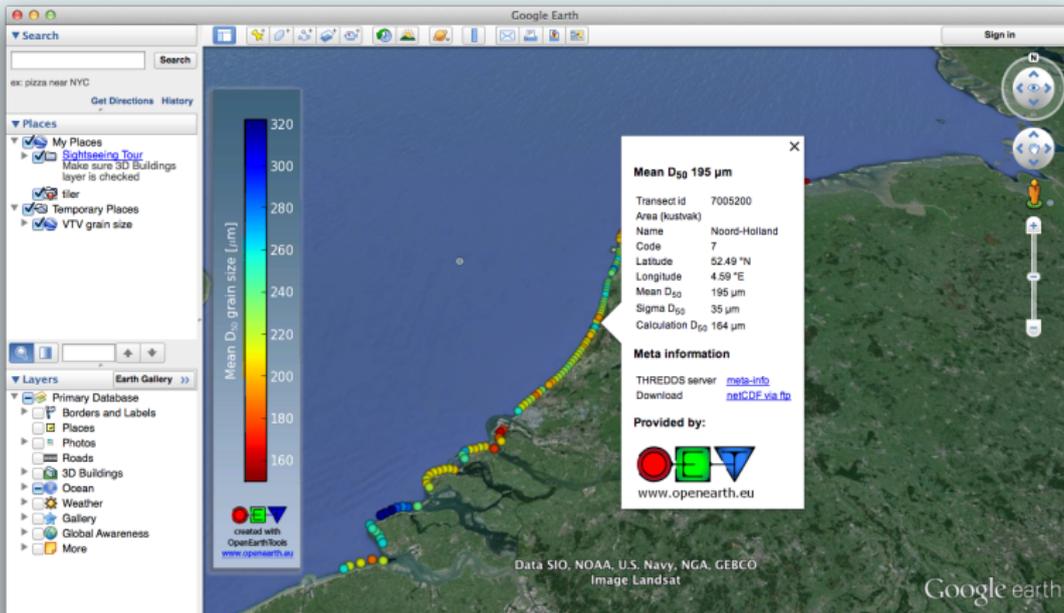
Line

Visualize line



Overlay

Add colorbar



Dutch data prize 2012



We are used to share...

- tools
- models
- data



Now we announce...

we also share our data prize

The OpenEarth best paper award!



- publication on use or developments of OpenEarth
- coming years, first award at DSD 2015
- prizes:
 - 1 1000 euro
 - 2 500 euro
- submission deadline: 1 September 2015
- jury: Deltares, Van Oord, 3TU.Datacentrum
- paper should be accepted or published
- more info will follow on OpenEarth LinkedIn group and www.openearth.eu

