

# POP/AS Visualization

## User Guide



### What is the PoP/AS Visualizer?

The POP/AS visualization system is a visual, easy-to-use interface to the NetDimes database, especially to the PoP-AS geographic information. It enables to query the DB and view the results using Google earth plugin with extensions.

### How can I use it?

Very simple! Register to the website. After the administrator will accept your request you are ready to login and use the system.

### Getting started

After login you will reach your personalized page (an image on the next page). it divides to two parts –

- Make a new query
- My queries

# PoP/AS Visualizer

### Make a new query

Select blade  
Blade: B4

Select date  
Year : Select year  
Week: Select week

Get tables

Select table  
PoP IP: Select PoP IP table  
PoP : Select PoP table  
Edge: Select edge table

Get AS list!

After clicking the list will appear.

Send query

### My queries

QID	Year	Week	Tables	AS Count	Status	Delete
bbaf	2010	42	IPEdgesMedianTbl_2010_42 PoPLocationTbl_2010_week_42 PoPIPTbl_2010_week_42	4	Complete	X

## Generating a new query

Use the dropdown menus to select parameters to the query. After each selection the next menu will be updated accordingly. The options available are corresponding to the options that exist in the DIMES database. Now click the 'send query' button and your query will be sent to the server.

Select blade  
Blade: B4

Select date  
Year : 2010  
Week: 31

Get tables

Select table  
PoP IP: PoPIPTbl\_2010\_week\_31  
PoP : PoPLocationTbl\_2010\_week\_31  
Edge: IPEdgesMedianTbl\_2010\_31

Get AS list!

Search: germanv

553 GERMANY BELWUE-AS  
680 GERMANY DFN-WIN-AS  
1273 GERMANY CW-ECRC  
2857 GERMANY AS2857

>><<

Selected  
3 UNITED STATES MIT-GATEW  
9 UNITED STATES CMU-ROUTE  
12 UNITED STATES NYU-DOMA

Sort  
Top  
Up  
Down  
Bottom

Send query

## My queries

QID	Year	Week	Tables	AS Count	Status	Delete
bbaf	2010	42	IPEdgesMedianTbl_2010_42 PoPLocationTbl_2010_week_42 PoPIPTbl_2010_week_42	4	<button>Complete</button>	<button>X</button>
5263	2009	31	IPEdgesMedianTbl_2009_31 PoPLocationTbl_2009_week_31_2weeks_IPligence PopIPTbl_2009_week_31_2weeks	20	running	<button>X</button>

This part shows all your queries, information about them and manage options.

Special attributes are:

- QID – 4 last notes of the query ID. This way you can distinct between similar queries.
- Status – the current status of the query. Running means the server is still working on the query. Checking means that the system checks if your query has finished. Completed means that the query is finished - click the 'Completed' button and the visualization page with the query's data will open. Error means that there is a problem with the query. Please run it again.
- Delete – by clicking the delete button you erase the query from your queries list. Be careful, there is no way to retrieve the query after deletion.

## Visualization page

On this page you can view and manipulate the geographic results from the query.

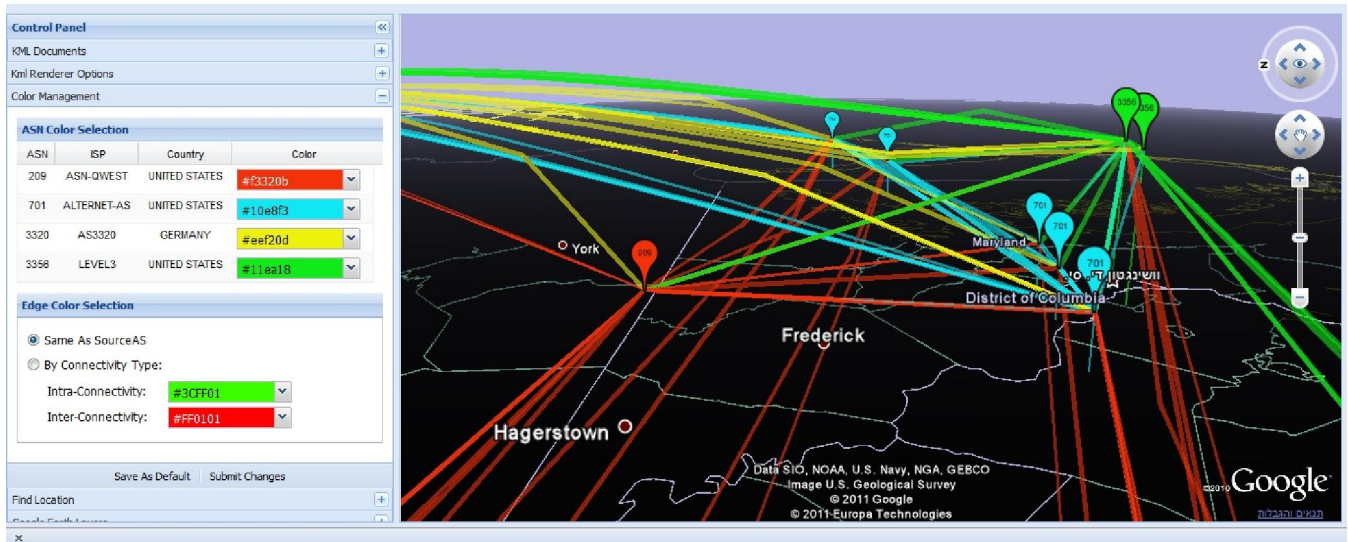
On the right side of the page you can view the result in a Google earth plugin.

On the left side of the page you can manipulate the visualization of the results using the control panel, consistent with the following panels:

[Add a picture](#)

Welcome gadi, [Logout](#)

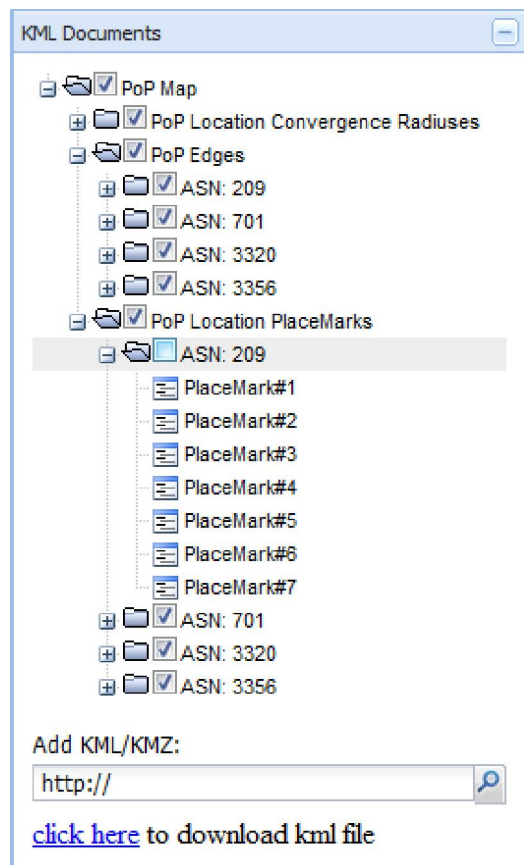
# PoP/AS Visualizer



## KML documents

in this panel you can remove elements from the map according to their KML entity.

For example, unchecking the 'ASN: 209' box will vanish its placemarks from the map.



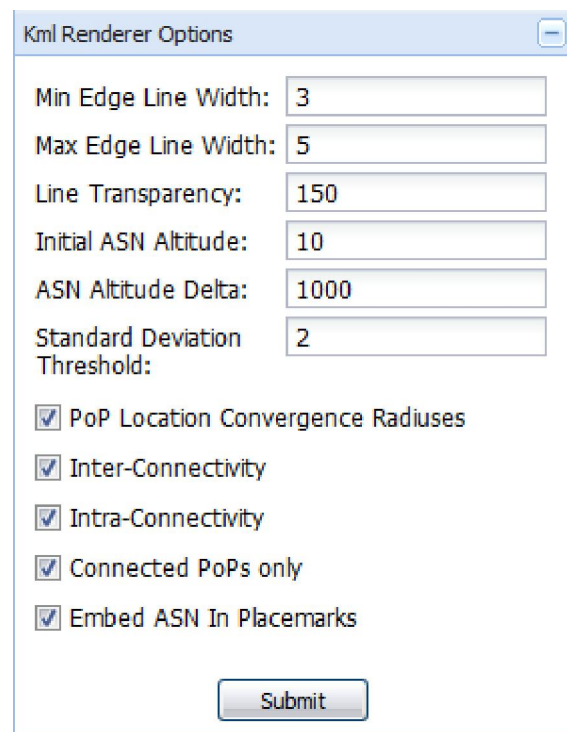
At this panel you can also load an existing KML\KMZ file, or save the current KML file.

### KML renderer options

This panel allows to manage the way entities appear in the map. You can control the line transparency, ASN altitude etc. moreover, several PoP-AS relations checkboxes are available:

- Pop location convergence radiuses – shows the convergence radius of the pop. Looks as a circle around the pop.
- Inter-connectivity – shows the connectivity between different ASs.
- Intra-connectivity – shows the connectivity inside ASs.
- Connected pops only – show only the pops that has a connection to another pop (not a standalone).
- Embed ASN in placemarks – shows the AS number inside the PoP's placemark

Clicking the submit button will render the requested map.



The screenshot shows a dialog box titled "Kml Renderer Options". It contains several input fields and checkboxes. The input fields are: "Min Edge Line Width:" with value 3, "Max Edge Line Width:" with value 5, "Line Transparency:" with value 150, "Initial ASN Altitude:" with value 10, "ASN Altitude Delta:" with value 1000, and "Standard Deviation Threshold:" with value 2. Below these are five checkboxes, all of which are checked: "PoP Location Convergence Radiuses", "Inter-Connectivity", "Intra-Connectivity", "Connected PoPs only", and "Embed ASN In Placemarks". At the bottom right of the dialog is a "Submit" button.

Min Edge Line Width:	3
Max Edge Line Width:	5
Line Transparency:	150
Initial ASN Altitude:	10
ASN Altitude Delta:	1000
Standard Deviation Threshold:	2
<input checked="" type="checkbox"/> PoP Location Convergence Radiuses	
<input checked="" type="checkbox"/> Inter-Connectivity	
<input checked="" type="checkbox"/> Intra-Connectivity	
<input checked="" type="checkbox"/> Connected PoPs only	
<input checked="" type="checkbox"/> Embed ASN In Placemarks	
<input type="button" value="Submit"/>	

### Color management

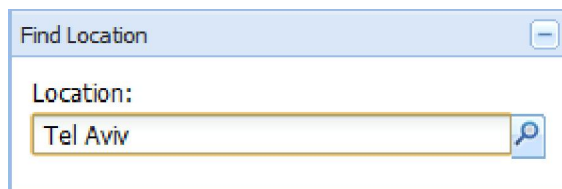
at this panel you can choose your own set of AS colors.

pay attention that the default view makes the edge color to be as the source AS, so it might affect the edges color too.

Add picture

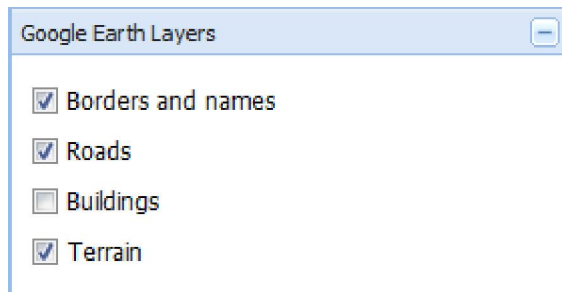
### Find location

Enter any location (e.g. Tel Aviv) and the Google earth plugin will focus the map on that location.



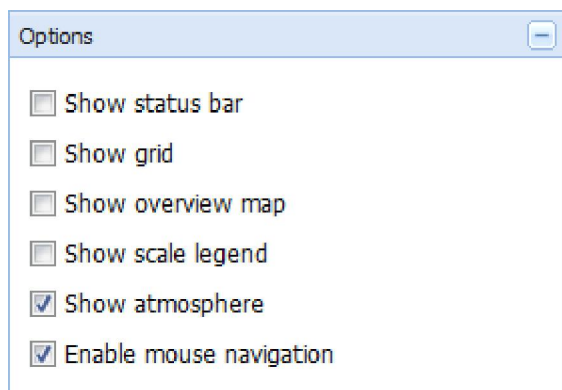
### Google earth layers

This panel enables more map layers such as roads, borders etc.



### Options

This panel enables more map options.





## Visualization examples

