

Kido Dynamics ODMatrix.app Tutorial

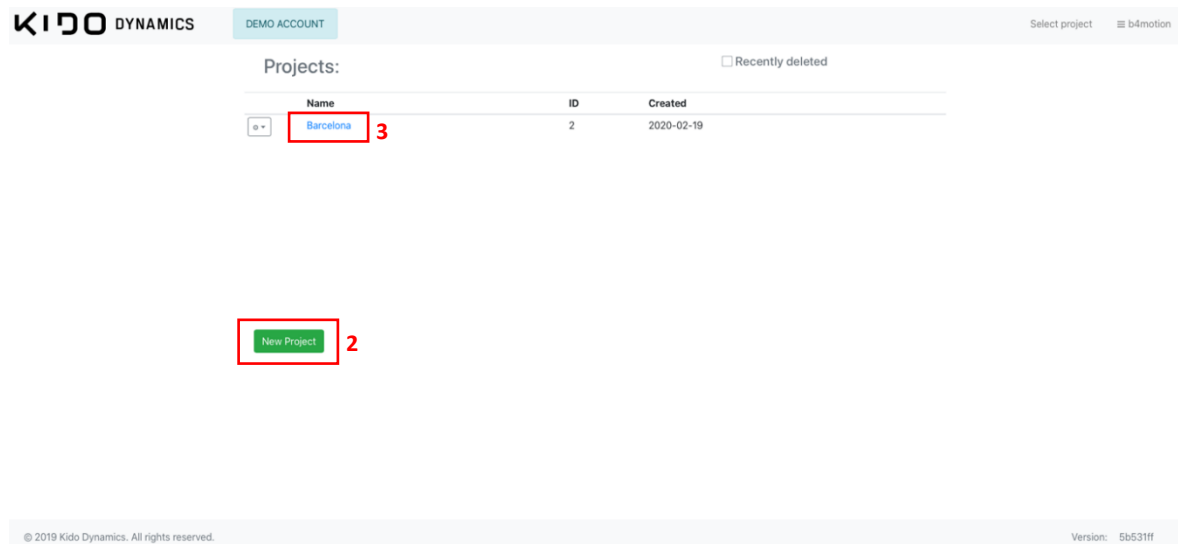
ODMatrix.app website

Access the web application at <https://odmatrix.app>. To *Sign in*, click the button at the top right (red square in Fig.1)



1. Main menu

1. If it's your first time at the app, create a project clicking at *New Project*.
2. If you already created a project, access it clicking its *Name*.



2. Create new project

1. Put a unique name to your new project
2. Choose a GeoJSON file with your sonification (see help below the panel)
3. Validate project.

Tip: Read the help at the Note box for the geojson format and type of polygons allowed

KIDO DYNAMICS DEMO ACCOUNT Select project b4motion

Create new project:

Project name: 4

GeoJSON polygons: no file selected 5

6

Note:
For the submitted polygons to be valid, they have to fulfill the following criteria:

1. Follow the GeoJSON format.
2. Describe each polygon in Longitude, Latitude coordinates (i.e. "epsg:4326")
3. Each polygon must have an ID property that identifies uniquely the polygon.
4. Each polygon must have a Type property that denotes whether the polygon is a **core** polygon or a **periphery** polygon. The accepted values are:
 - a. For **core** polygons: 'Core', 'core', 0, '0', 0.0, and False.
 - b. For **periphery** polygons: 'Periphery', 'periphery', 1, '1', 1.0, and True.
5. Each polygon will be capped to fit into administrative boundaries. Only polygons with a non-zero intersection with these boundary will be considered (internally, this is checked by requiring that the area of intersection is $> 10^{-8}$). Warning: This means that a sub-set of the original polygons can be returned as the set of valid polygons.
6. The set contains at least 1 valid polygon defined as core polygon.
7. The set contains at most 52 valid periphery polygons.
8. Polygons without a Type and ID properties are considered **invalid**.

3. Validate new project

1. If the file loaded correctly, confirm the project and got to 1. If it is not the case, follow the instructions showed in the screen.
2. At right, *Periphery* polygons are showed in green.
3. *Core* polygons are shown in blue.

Tip: At this time, so you know what Periphery and Core means from the Note box: all pairs of Origin and Destination involving Core polygons are computed (Core to Core, Core to Periphery and Periphery to Core), while pairs involving two Periphery polygons are not (Periphery to Periphery).

KIDO DYNAMICS Select project Alberto Hernando

Create new project:

Validation result
Project can be created.
Population covered by core polygons: 6519106

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Map showing Periphery (green) and Core (blue) polygons. 8 and 9 are labeled on the map.

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4. Projects: select dates

1. In first place, select the dates for your query to access the segmentation options.

The screenshot shows the KIDO DYNAMICS interface. On the left, there is a date selection calendar for October 2019. The 1st is highlighted. A red box labeled '10' highlights the date selection area. On the right, there is a map of a region with green and blue areas. The interface includes a header with the KIDO DYNAMICS logo, a 'DEMO ACCOUNT' button, and a 'Select project' dropdown. The footer shows the copyright notice '© 2019 Kido Dynamics. All rights reserved.' and the version '5b531ff'.

5. Projects: select dates

1. Select a filter. If no segment is specified, no filter is applied (all). Standard segmentation includes: zonification (Origin and Destination), user's demographics (age, gender, and residence), commuting trip (true or false), trip type (normal or micromobility), and departure time (up to by hour).
2. Once a filter is selected as desired, generate matrices for downloading

The screenshot shows the KIDO DYNAMICS interface with various filters selected. The 'Date' filter is set to '2019-10-07', '2019-10-08', and '2019-10-09'. The 'Origin' filter is set to 'Select...', 'Destination' to 'Select...', 'Age' to 'Value or range...', 'Gender' to 'Select...', 'Residence' to 'Select...', 'Commuting' to 'Select...', and 'Trip type' to 'Trip'. The 'Origin Time' filter is set to '05:00 - 05:59', '06:00 - 06:59', '07:00 - 07:59', '08:00 - 08:59', and '09:00 - 09:59'. A red box labeled '12' highlights the 'Generate matrix' button. On the right, there is a map of a region with green and blue areas. The interface includes a header with the KIDO DYNAMICS logo, a 'DEMO ACCOUNT' button, and a 'Select project' dropdown. The footer shows the copyright notice '© 2019 Kido Dynamics. All rights reserved.' and the version '5b531ff'.

6. Matrices

1. After obtaining the results, make a new filter clicking at *New query*.
2. Save the results into a csv file clicking at *Export to csv* and choosing a name at the text box.
3. See the results as a square matrix clicking at *Matrix*.
4. Visualize the Sankey diagram of the top 10 and 20 OD pairs by number of trips.

Tip: After generating matrix you can check the URL at the browser to get the query endpoint used por the API. For example:

https://odmatrix.app/result?project=2&ftimeorigin=0500_0559&ftimeorigin=0600_0659&ftimeorigin=0700_0759&ftimeorigin=0800_0859&ftimeorigin=0900_0959&ftrip=trip&date=2019-10-07&date=2019-10-08&date=2019-10-09

KIDO DYNAMICS

DEMO ACCOUNT

Select project ≡ b4motion

New query 13

Export to CSV 14

OD-matrix_20200306

Total trips: 2467192

List

Matrix

Top 10 destinations

Top 20 destinations

Origin	Destination	Trips
Alt Penedès 15	Badalona	175
Alt Penedès	Ciutat Vella	438
Alt Penedès	Eixample	774
Alt Penedès	Gràcia	178
Alt Penedès	Horta-Guinardó	182
Alt Penedès	les Corts	1584
Alt Penedès	l'Hospitalet de Llobregat	1261
Alt Penarès	Nou Barris	200

KIDO DYNAMICS

DEMO ACCOUNT

Select project ≡ b4motion

New query

Export to CSV

OD-matrix_20200306

Total trips: 2467192

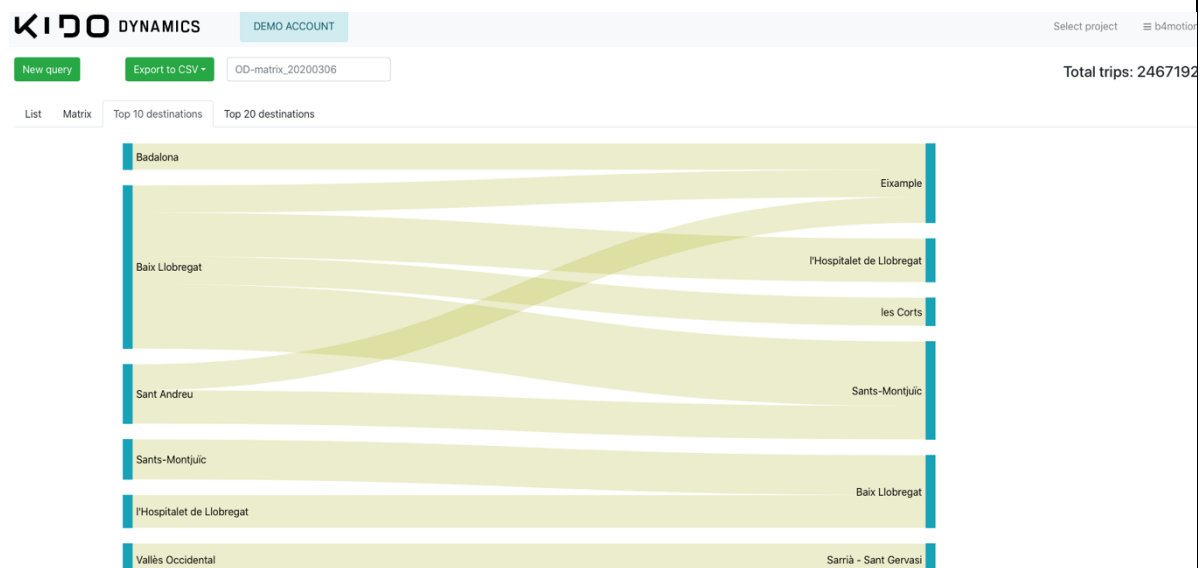
List

Matrix

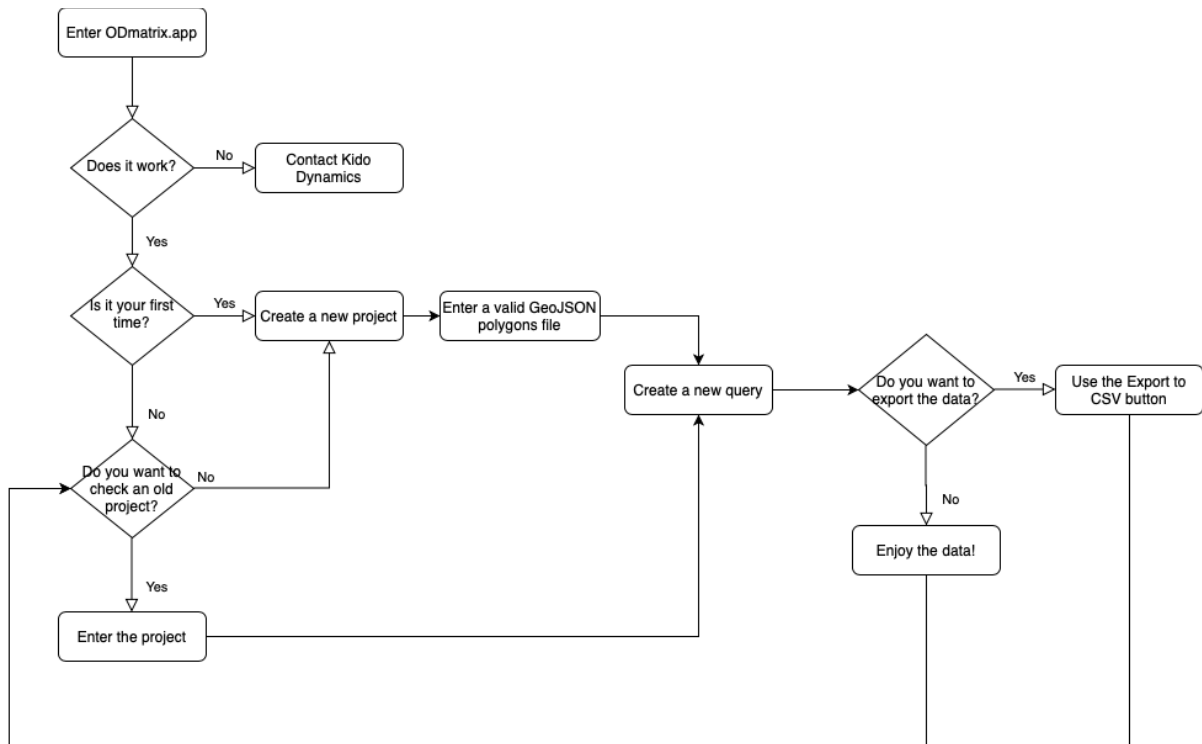
Top 10 destinations

Top 20 destinations

#	Alt Penedès	Anoia	Badalona	Bages	Baix Llobregat	Berguedà	Ciutat Vella	Eixample	Garraf	Gràcia	Horta-Guinardó	les Corts	l'Hospitalet de Llobregat	Maresme	Moianès	Nou Barris	Osona	Santa Coloma
Alt Penedès	0	0	175	0	0	0	438	774	0	178	182	1584	1261	0	0	200	0	46
Anoia	0	0	46	0	0	0	245	547	0	161	134	907	796	0	0	80	0	44
Badalona	213	151	40069	166	3955	0	5405	32053	80	2828	3620	2665	2009	13518	42	3318	129	4736
Bages	0	0	179	0	0	0	132	333	0	90	128	350	229	0	0	160	0	103
Baix Llobregat	0	0	2603	0	0	0	13547	33636	0	5740	5526	34222	53465	0	0	3174	0	1232
Berguedà	0	0	0	0	0	0	29	0	0	17	0	31	21	0	0	16	0	0
Ciutat Vella	199	145	2285	59	9298	35	15733	4847	225	791	911	1247	3694	2429	25	1457	109	641
Eixample	323	213	8880	244	19429	36	5129	27217	311	3812	6578	5390	8989	3400	0	5030	162	1188
Garraf	0	0	116	0	0	0	794	1533	0	230	281	1060	3475	0	0	99	0	55



7. Flowchart



8. Video tutorial (<https://youtu.be/y2wQi9xbwv4>)

KIDO DYNAMICS

DEMO ACCOUNT

Select project ≡ b4motion

Create new project:

Project name:

O/D polygons GeoJSON:
 no file selected

Note:

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