

# MapQuest API

MapQuest provides location-enabled geospatial solutions in form of RESTful WebServices for functions like generating street-maps and calculating route-plans.

Overview of available RESTful Web-APIs:

- <https://developer.mapquest.com/>

MapQuest is a commercial site, for educational purposes an API-Key (15000 requests per month) can be requested – register here:

- [https://developer.mapquest.com/plan\\_purchase/steps/business\\_edition/business\\_edition\\_free/register](https://developer.mapquest.com/plan_purchase/steps/business_edition/business_edition_free/register)

HOWTO use the MapQuest-APIs to retrieve maps and route information:

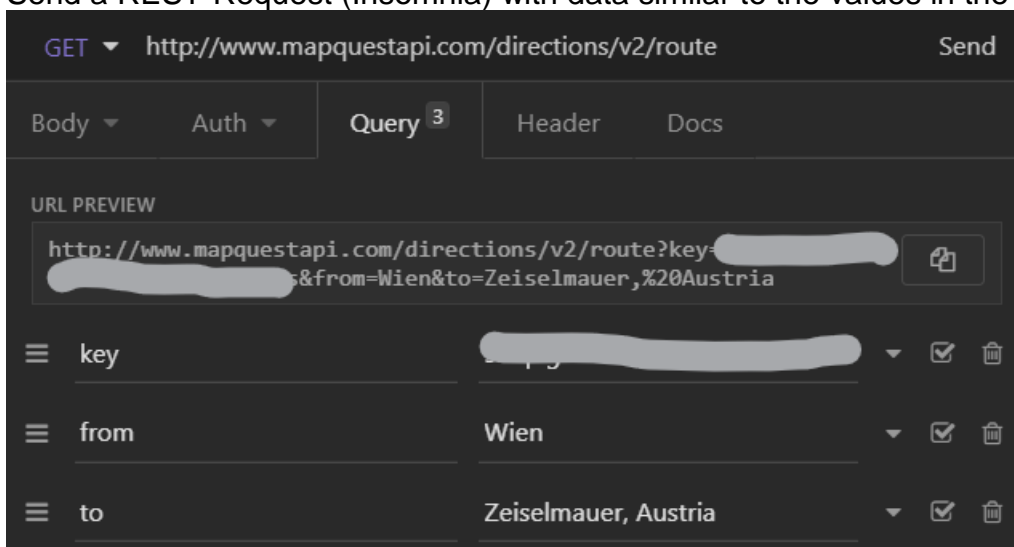
1. Request Free Key and store the token-value (this token must be used in the RESTful requests)
2. Use the Directions-API to do route planning
3. Use the StaticMap-API to generate maps for the calculated route.

Hint: Try all the request in a REST-Client like Insomnia or Postman.

## Directions-API:

REST-API docs: <https://developer.mapquest.com/documentation/directions-api/route/get/>

Send a REST-Request (Insomnia) with data similar to the values in the screenshot:



- For the parameter „key“ use your own authentication key
- From, to: these parameters contain the start and end addresses for the route. The values are

simple strings, which is a format you already know from other routing services like the one from Google-Maps.

Hint: MapQuest is very resilient to wrongly formatted addresses, it will find the right town very often.

- Further parameters (language, metrics...) see API-Docs.

The received response will contain data in JSON-format (or XML if requested):

```
1 {
2   "route": {
3     "hasTollRoad": false,
4     "hasBridge": false,
5     "boundingBox": {
6       "l": {
7         "lng": 16.385189,
8         "lat": 48.192204
9       },
10      "ul": {
11        "lng": 16.174952,
12        "lat": 48.329254
13      }
14    },
15    "distance": 18.034,
16    "hasTimedRestriction": false,
17    "hasTunnel": false,
18    "hasHighway": true,
19    "computedWaypoints": [],
20    "routeError": {
21      "errorCode": -400,
22      "message": ""
23    },
24    "formattedTime": "00:38:47",
25    "sessionId": "604f3198-0185-4ee4-02b4-363b-0a3035863735",
26    "hasAccessRestriction": false,
27    "realTime": -1,
28    "hasSeasonalClosure": false,
29    "hasCountryCross": false
```

The following JSON-parameters are relevant for the second request, to retrieve the corresponding map:

- „boundingBox“, the coordinates for the map
- „sessionId“; references the calculated route, if given then the route will show up in the map

# Staticmap API

REST-API documentation see: <https://developer.mapquest.com/documentation/static-map-api/v5/map/>

The second request uses the Staticmap-API and will be filled with the parameters retrieved from the first response:

GET <http://www.mapquestapi.com/staticmap/v5/map> Send

Body Auth Query 7 Header Docs

URL PREVIEW

[http://www.mapquestapi.com/staticmap/v5/map?key=\[redacted\]&size=640,480&defaultMarker=none&zoom=11&rand=737758036&session=604f3198-0185-4ee4-02b4-363b-0a3035863735&boundingBox=48.329254,16.174952,48.192204,16.385189](http://www.mapquestapi.com/staticmap/v5/map?key=[redacted]&size=640,480&defaultMarker=none&zoom=11&rand=737758036&session=604f3198-0185-4ee4-02b4-363b-0a3035863735&boundingBox=48.329254,16.174952,48.192204,16.385189)

key	[redacted]	▼	✓	🗑️
size	640,480	▼	✓	🗑️
defaultMarker	none	▼	✓	🗑️
zoom	11	▼	✓	🗑️
rand	737758036	▼	✓	🗑️
session	604f3198-0185-4ee4-02b4-363b	▼	✓	🗑️
boundingBox	48.329254,16.174952,48.192204,16.385189	▼	✓	🗑️

⚙️ New name New value

- Key – you again need your authentication key
- session – the sessionId from the first response
- latitude, longitude – take out the coordinates from the response's parameters: ul (=“upper left”) and lr (=“lower right”) and provide them as boundingBox.
- Further parameters (image size...) see API-docs.

The second response will return the street map as jpg image file:

