Application Programming Interface (API) for meteorological data

The Israeli Meteorological Service (IMS) collects, inspects and provides accessibility to meteorological data (such as temperature, precipitation, wind, UV) from approx. 85 automatic stations spread out over Israel.

In order to provide our users a near-real time automatic way to pull meteorological data, we provide a new API. The new API pulls data based on station, region, channel (meteorological parameter, such as temp) and time range.

Terms of Use

The user should agree to [terms of use](#).

The authorization method is APIToken. Please contact IMS by mail ims@ims.gov.il in order to get an API token.

Using the API

The API provides command set for pulling Meta Data on the stations and another set for pulling the meteorological data from a specific station - see appendix A commands list

The automatic stations collects various meteorological variables, called channels. Please notice, not all stations collect all variables and the channel Id for the same meteorological variable might be different for different stations. To find the right channel Id, you can run the meta-data command for station information. For list of channel, see appendix C – channels list.

The observation date is always in Israel winter time (UTC + 2), and not as mentioned in the output datetime +03:00

For testing the API, we recommend using free tools such as Fiddler – see appendix B using Fiddler
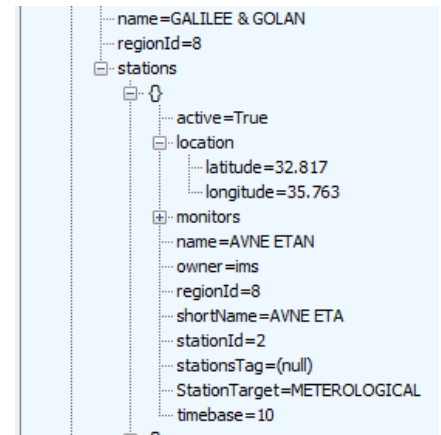
Requesting region meta-data:

Command structure:

https://api.ims.gov.il/v1/envista/regions/{%REG_ID%}

{%REG_ID%}: region Id

name=GALILEE & GOLAN
regionId=8
stations
{}
active=True
location
latitude=32.817
longitude=35.763
monitors
name=AVNE ETAN
owner=ims
regionId=8
shortName=AVNE ETA
stationId=2
stationsTag=(null)
StationTarget=METEROLOGICAL
timebase=10

The region information include:

- Region Id
- Region name
- A list of all stations (and their channel) in the region

Requesting station meta-data:
Command structure:

https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}

{%ST_ID%}: Station ID (optional)

The command result include:

- Station name
- Location
- Region Id
- List of monitors/channels (Meteorological variables)
  , for each monitor:
    - Status
    - Channel Id
    - Channel name
    - Type Id
    - Measurement units

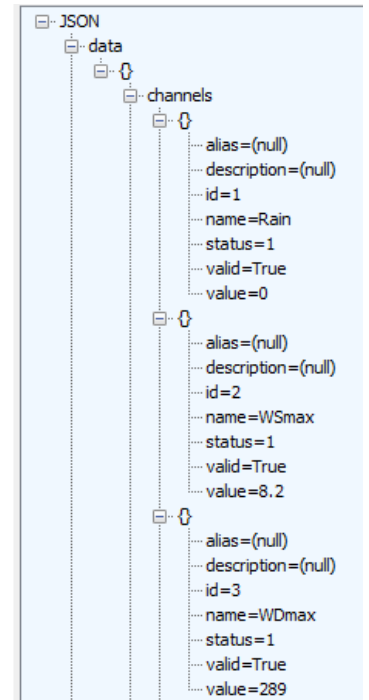## Requesting meteorological variables from stations:
Command structure:

https://api.ims.gov.il/v1/envista/stations/{%ST_ID%)/data/{%CH_ID%}/{%TIME RANGE%}

- {%ST_ID%}: station Id
- {%CH_ID%}- channel Id (optional)
- {%TIME_RANGE%}

The command results include:

- Station Id
- Measurement time
- Channel list. The channel information include:
    - Id - Channel Id
    - Name - Channel name
    - Status – 1=correct 2=incorrect
    - Valid (true or false)
    - Value - Meteorological variable value

```
JSON
  data
    {}
      channels
        {}
          alias=(null)
          description=(null)
          id=1
          name=Rain
          status=1
          valid=True
          value=0
        {}
          alias=(null)
          description=(null)
          id=2
          name=WSmax
          status=1
          valid=True
          value=8.2
        {}
          alias=(null)
          description=(null)
          id=3
          name=WDmax
          status=1
          valid=True
          value=289
```

Appendix A – commands list

If the following place holders exist in the command, please replace them with the desired input values

- {%REG_ID%}: region Id
- {%ST_ID%}: station Id
- {%CH_ID%}: channel Id
- YYYY: Year (e.g. 2017)
- MM: Month (e.g. 05)
- DD: Day (e.g. 28)

| **Meta-data commands**	
Stations meta-data	For all stations: https://api.ims.gov.il/v1/envista/stations For specific station: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}
Regions meta-data	For all regions: https://api.ims.gov.il/v1/envista/regions for specific region: https://api.ims.gov.il/v1/envista/regions/{%REG_ID%}
Meteorological data from a station (optional – by channel)	
Recent data	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/latest For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}/latest
Latest data	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/earliest For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}/earliest
Data from the current day	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/daily For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}/daily

Data from the current month	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/monthly For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}/monthly
Data from a specific date	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/daily/YYYY/MM/DD For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/daily/{%CH_ID%}/YYYY/MM/DD
Data from a specific month	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/monthly/YYYY/MM For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}/monthly/YYYY/MM
Data for a range of dates	For all channels: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data?from=YYYY/MM/DD&to=YYYY/MM/DD For specific channel: https://api.ims.gov.il/v1/envista/stations/{%ST_ID%}/data/{%CH_ID%}?from=YYYY/MM/DD&to=YYYY/MM/DD

Appendix B: Using Fiddle

- Download the free tool Fiddler http://fiddler.en.lo4d.com
- Open the tool, choose TAB Composer
- Next to the GET dropdown, type the desired command – for a list of command, see appendix A
- In the text area below the GET dropdown, type the following:
  Authorization: ApiToken XXXX
  Replace XXXX with the token supplied by IMS (if you don't have one, please contact ims@ims.gov.il)

- Click on Excute button
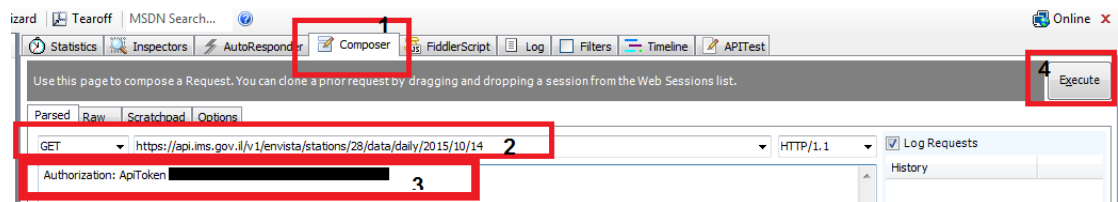
- The result should appear as a new line at the left window, by clicking on the new line the detailed result will apear at the bottom right window
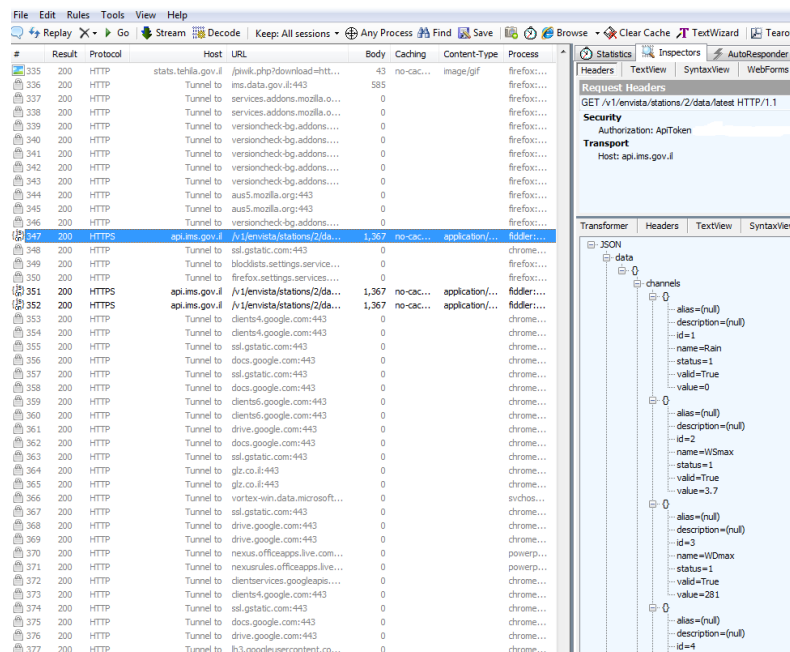
Appendix C: Channels list – Meteorological variables

Variable code	Unit	Description
BP	mb	average pressure at station level
DiffR	w/m2	diffused radiation
Grad	w/m2	Global radiation
NIP	w/m2	Direct radiation
Rain	mm	rainfall
RH	%	Relative humidity
STDwd	deg	Standard deviation wind direction
TD	degC	temperature
TDmax	degC	Maximum temperature
TDmin	degC	Minimum temperature
TG	degC	grass minimum temperature
Time	hhmm	end time of Ws10mm
WD	deg	Wind direction
WDmax	deg	Gust wind direction
WS	m/sec	Wind speed
Ws10mm	m/sec	maximum 10 minutes wind speed
WS1mm	m/sec	maximum 1 minute wind speed
WSmax	m/sec	gust wind speed