



## **Geographical Database Information – INFOPORTUGAL**

*This document describes the INFOPORTUGAL Traffic Service.*

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InfoPortugal Geographical Database is provided in Esri Personal Geodatabase format (ESRI®, Environmental Systems Research Institute, Inc.).

The current Geographic Coordinate System is:

Projection: Geographic (not projected)

Datum WGS84 (labeled GCS\_WGS\_1984 in ESRI products)

Parameters:

GEOGCS["GCS\_WGS\_1984", DATUM["D\_WGS\_1984", PHEROID["WGS\_1984",6378137,298.257223563]],  
PRIMEM["Greenwich",0], UNIT["Degree",0.017453292519943295]]

# 1-TMC LOCATION

This layer represents the TMC network and it has the following structure:

**Table 1: TMC Location table** – Geometric with Basic Attributes (Lines).

FIELD NAME	FIELD DESCRIPTION	FIELD TYPE	FIELD LENGTH
<b>ID</b>	Street unique identifier.	TEXT	20
<b>POINT_ID</b>	TMC point identifier.	TEXT	10
<b>RDSTMC</b>	RDS/TMC code (ABCCDEEEEEE*).	TEXT	30
<b>AV_SPEED</b>	Average speed in free flow (km/h).	DOUBLE	19
<b>LENG_M</b>	Length (meters).	DOUBLE	19
<b>MAP_V</b>	Map version.	TEXT	20

\* - The RDS/TMC Code is composed as follows (ABCCDEEEEEE):

A – Direction of road element

+: In line direction

- : Opposite to line direction

B – EBU Country Code = 8

CC – Location Database Number = 88 (temporarily number)

D – RDS direction

+: In positive direction and external to point location

- : In negative direction and external to point location

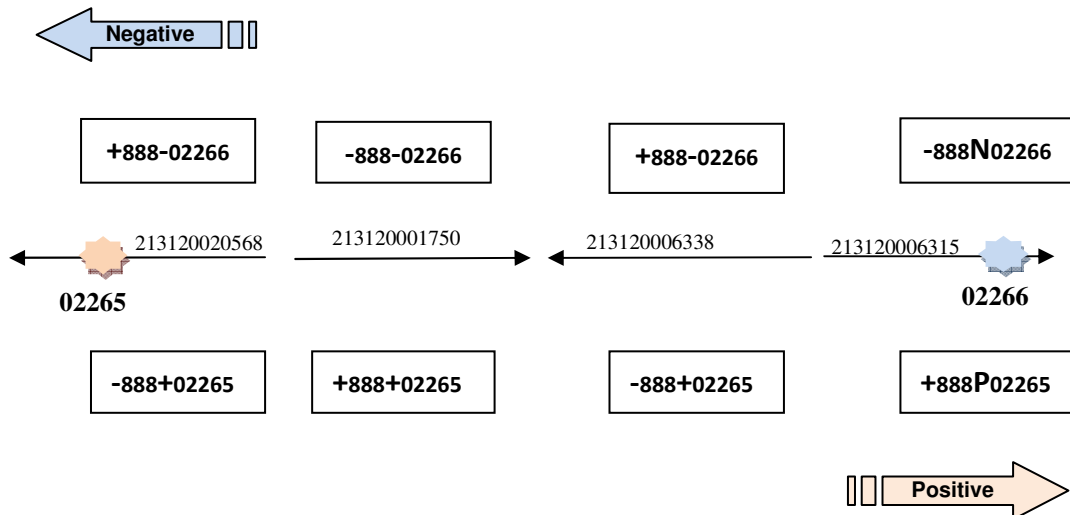
P: In positive direction and internal to point location

N: In negative direction and internal to point location

EEEE – Location Code. If the number is not 5 digits long, zeros will be added to the beginning of the number

## 2 - SPECIAL CASE – A Two directional road

The road elements are duplicated for each TMC point.



**Table 2: TMC Location table – In Positive direction**

POINT_ID	ID	RDSTMC	AV_SPEED	LENG_M	MAP_V
02265	213120020568	-888+02265	36	50,7747	PTX_IP_V_1.1.11
02265	213120001750	+888+02265	36	32,70509	PTX_IP_V_1.1.11
02265	213120206338	-888+02265	36	179,4149	PTX_IP_V_1.1.11
02265	213120006315	+888P02265	36	113,6366	PTX_IP_V_1.1.11

**Table 3: TMC Location table – In Negative direction**

POINT_ID	ID	RDSTMC	AV_SPEED	LENG_M	MAP_V
02266	213120001750	-888-02265	36	32,705092	PTX_IP_V_1.1.11
02266	213120006315	-888N02265	36	113,636605	PTX_IP_V_1.1.11
02266	213120020568	+888-02265	36	50,774702	PTX_IP_V_1.1.11
02266	213120206338	+888-02265	36	179,41486	PTX_IP_V_1.1.11

## 3 - TRAFFIC

Service for traffic.

### 3.1 - REQUEST

- (GET)

### 3.2 - PARAMETERS

- api\_key: API key (**required**)

### 3.3 - RESPONSE

The service will return the root element, *TrafficML\_Realtime*, which contains 0 or 1 instance of *Roadway\_Flow\_Items*. *Roadway\_Flow\_Items* contains 1 to many instances of *Roadway\_Flow\_Item*:

```
- <TRAFFICML_REALTIME TIMESTAMP="[dd/mm/yyyy hh:mm:ss GMT]" VERSION="1.0"
xmlns="[trafficml50_realtime]" MAP_VERSION="[PTX_IP_V_1.1.10]">

  -<ROADWAY_FLOW_ITEMS>
    -<ROADWAY_FLOW_ITEM>

      <ROADWAY_ID> [UNIQUE IDENTIFIER] </ROADWAY_ID>
      <DESCRIPTION> [ROADWAY NAME] </DESCRIPTION>

    - <FLOW_ITEMS DIRECTION="[*D]">
      -<FLOW_ITEM>

        <ID> [*BCCDEEEEE] </ID>
        -<RDS_LINK>
          - <LOCATION>

            <EBU_COUNTRY_CODE> [*B] </EBU_COUNTRY_CODE>
            <TABLE_ID> [*CC] </TABLE_ID>
            <LOCATION_ID> [*EEEE] </LOCATION_ID>
            <LOCATION_DESC> [NAME] </LOCATION_DESC>
            <RDS_DIRECTION> [*D] </RDS_DIRECTION>

          </LOCATION>
          <LENGTH UNITS="m"> [LENGTH IN METERS] </LENGTH>
        </RDS_LINK>
        -<CURRENT_FLOW>
          - <TRAVEL_TIMES>
            -<LANE_TYPE TYPE="[THRU]" event_degree="[EVENT_DEGREE]">

              - <TRAVEL_TIME TYPE="current">

                <DURATION UNITS="min"> [CURRENT DURATION] </DURATION>
                <AVERAGE_SPEED UNITS="km/h"> [CURRENT SPEED]
                </AVERAGE_SPEED>

              </TRAVEL_TIME>
              - <TRAVEL_TIME TYPE="freeflow">

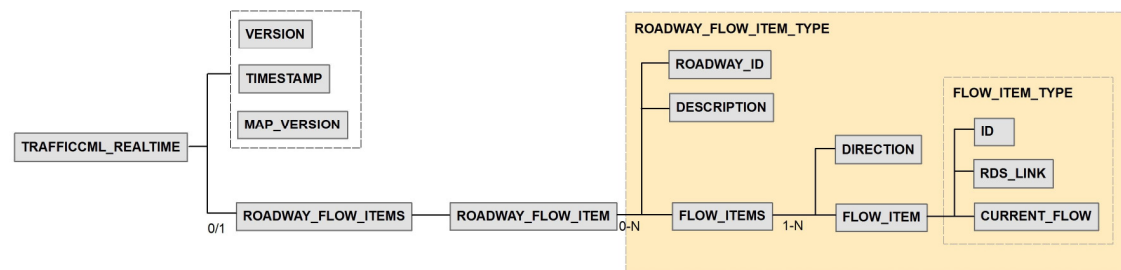
                <DURATION UNITS="min"> [FREEFLOW DURATION] </DURATION>
                <AVERAGE_SPEED UNITS="km/h"> [FREEFLOW SPEED]
                </AVERAGE_SPEED>

              </TRAVEL_TIME>
            </LANE_TYPE>
          </TRAVEL_TIMES>
          <JAM_FACTOR> [-1] </JAM_FACTOR>
          <JAM_FACTOR_TREND />
          <CONFIDENCE />
        </CURRENT_FLOW>
      </FLOW_ITEM>
    </FLOW_ITEMS>

  </ROADWAY_FLOW_ITEM>
</ROADWAY_FLOW_ITEMS>
```

\* - FLOW ITEM: B - COUNTRY CODE = 8; CC - TABLE\_ID = 88 (temporary number); D - DIRECTION ["+": Positive direction of TMC Point; "-": Negative direction of TMC Point]; EEEEE - TMC Point code, with leading zeros.

**Figure 1: Service schema**



## **ROADWAY\_FLOW\_ITEM**

This is the composite item for flow across an entire roadway. There would exist one roadway item for each roadway traffic flow information.

## **FLOW\_ITEM**

This is the main item that incorporates flow information for a single location from real-time traffic services. It describes all of the current flow information in terms of travel times and speeds for Portugal based on INFOPORTUGAL location codes. This section includes the current, real-time flow as well as freeflow data.

## **CURRENT\_FLOW**

This represents the complex data type for all flow elements. It contains the travel time, speed, event description and jam factor data.

The jam factor is always “-1” and the event description is a code from the standard event list EN ISO 14819-2 of ALERT C. This field gives details of road event situations and general traffic problems (e.g. congestion caused by accident) and where appropriate its severity (e.g. resulting queue length).