

# Module 1 - Video 1.5

## **Inside of the alerts data**



# Full alerts data structure

```
{  
  "jams": [ ... ],  
  "alerts": [ ... ],  
  "irregularities": [ ... ],  
  "startTime": "2018-09-20 23:55:00:000",  
  "endTime": "2018-09-20 23:56:00:000",  
  "startTimeMillis": 1537487700000,  
  "startTimeMillis": 1537487760000  
}
```

# **Types** of alerts

**Accident**

**Jam**

**Hazard/Weather**

**MISC**

**Construction**

**Road Closed**

# Types of alerts

## Accident

**Major:** Higher severity accident

**Minor:** Lower severity accident

## Jam

## Hazard/Weather

## MISC

## Construction

## Road Closed

# Types of alerts

## Accident Jam

Light Traffic

Moderate Traffic

Heavy Traffic

Stand Still Traffic

## Hazard/Weather

## MISC

## Construction

## Road Closed

# Types of alerts

**Accident**

**Jam**

**Hazard/Weather**

**Hazard on Road:** alerts of traffic issues on the road traffic lanes.

Object, Pothole, Road kill, Lane closed, Oil, Ice, Construction, Car Stopped and Broken Traffic Light

**Hazard on Shoulder:** alerts of traffic issues on the shoulder of a road

Car Stopped, Animals and Missing Sign

**Hazard Weather:** alerts of weather conditions that impact traffic

Fog, Hail, Heavy Rain, Heavy Snow, Flood, Monsoon, Tornado, Heat Wave, Hurricane and Freezing Rain

**MISC**

**Construction**

**Road Closed**

# **Types** of alerts

**Accident**

**Jam**

**Hazard/Weather**

**MISC**

Not classified alerts

**Construction**

**Road Closed**

# **Types** of alerts

**Accident**

**Jam**

**Hazard/Weather**

**MISC**

**Construction**

Alerts of construction work on roads that impacts traffic

**Road Closed**



# Types of alerts

Accident

Jam

Hazard/Weather

MISC

Construction

Road Closed

**Construction:** Closure to traffic by construction works

**Event:** Closure to traffic by events

**Hazard:** For partial closures or lane obstruction by different reasons

```
{  "alerts": {  
    "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
    "pubMillis": 1541628880148,  
    "country": "BR",  
    "city": "Osasco",  
    "street": "R. Manoel Martin",  
    "location": {"x": -46.766483, "y": -23.559919},  
    "nThumbsUp": 8,  
    "reportRating": 4,  
    "confidence": 3,  
    "reliability": 10,  
    "type": "WEATHERHAZARD",  
    "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
    "roadType": 2,  
    "magvar": 166,  
  }  
}
```

## General

## Location

## Alert Details

## Road Characteristics

# Data categories

## General

uuid  
pubMillis

## Alert Details

nThumbsUp  
reportRating  
confidence  
reliability  
type  
subtype

## Location

country  
city  
street  
location

## Road Characteristics

roadType  
magvar

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
  "pubMillis": 1541628880148,  
  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# uuid

General

## Type

string

## Description

unique value of an alert

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
  "pubMillis": 1541628880148,  
  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
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  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# pubMillis

General

## Type

integer

## Description

milliseconds since 1<sup>st</sup> of  
January of 1970

```
{ "alerts": {  
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

## country

Location

## Type

string

## Description

country name

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
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  "nThumbsUp": 8,  
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  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

**city**

Location

**Type**

string

**Description**

city name

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
  "pubMillis": 1541628880148,  
  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

## street

Location

## Type

string

## Description

street name



```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# location

Location

## Type

array

## Description

geographical position of an alert in latitude and longitude

```
{ "alerts": {  
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
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  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# nThumbsUp

Alert details

## Type

integer

## Description

number of thumbs up for the report

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
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  "roadType": 2,  
  "magvar": 166,  
}}
```

# reportRating

Alert details

## Type

integer

## Description

rating of the report based on the user experience ranking

From 1 (beginner) to 6 (higher ranked user)

```
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  "country": "BR",  
  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# confidence

Alert details

## Type

integer

## Description

confidence score based on the reaction of the others wazers ('Thumbs up', 'Not there').

the score ranges between 0 and 10, where a higher score indicates more positive feedback from Waze users

```
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  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
  "nThumbsUp": 8,  
  "reportRating": 4,  
  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# reliability

Alert details

## Type

integer

## Description

reliability score based on other user's reactions and the level of the reporter.

the score (from 0 to 10) indicates how reliable the report is

```
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  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "country": "BR",  
  "city": "Osasco",  
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  "reportRating": 4,  
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  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

## type

Alert details

## Type

string

## Description

event type description. The possible values are:

ACCIDENT

JAM

MISC

CONSTRUCTION

WEATHERHAZARD

ROADCLOSED

```
{ "alerts": {  
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  "city": "Osasco",  
  "street": "R. Manoel Martin",  
  "location": { "x": -46.766483, "y": -23.559919 },  
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  "confidence": 3,  
  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# subtype

Alert details

## Type

string

## Description

event subtype description.

ex: JAM\_STAND\_STILL\_TRAFFIC  
HAZARD\_ON\_ROAD\_POT\_HOLE  
ACCIDENT\_MAJOR  
ROAD\_CLOSED\_EVENT  
and others

```
{ "alerts": {  
  "uuid": 047aba11-99f4-306e-b04a-528559a2d226,  
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  "country": "BR",  
  "city": "Osasco",  
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  "location": { "x": -46.766483, "y": -23.559919 },  
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  "confidence": 3,  
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  "roadType": 2,  
  "magvar": 166,  
}}
```

# roadType

Road Characteristics

Type  
integer

Description  
road type code

- |                      |                      |
|----------------------|----------------------|
| 1 Streets,           | 10 Pedestrian,       |
| 2 Primary Street,    | 11 Exit,             |
| 3 Freeways,          | 15 Ferry crossing,   |
| 4 Ramps,             | 16 Stairway,         |
| 5 Trails,            | 17 Private road,     |
| 6 Primary,           | 18 Railroads,        |
| 7 Secondary,         | 19 Runway/Taxiway,   |
| 8 and 14 4X4 Trails, | 20 Parking lot road, |
| 9 Walkway,           | 21 Service road.     |



```
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  "reliability": 10,  
  "type": "WEATHERHAZARD",  
  "subtype": "HAZARD_ON_ROAD_POT_HOLE",  
  "roadType": 2,  
  "magvar": 166,  
}}
```

# magvar

Road Characteristics

## Type

integer

## Description

direction of the driver's device at report time

The 0 value is the north, 89 is east, 179 is South and 269 is West.

# In the next video...

```
{  
  "jams": [ ... ],  
  "alerts": [ ... ],  
  "irregularities": [ ... ],  
  "startTime": "2018-09-20 23:55:00:000" ,  
  "endTime": "2018-09-20 23:56:00:000" ,  
  "startTimeMillis": 1537487700000,  
  "startTimeMillis": 1537487760000  
}
```

See you in the  
next video!

