

# Processing England's Live Traffic Information with Python

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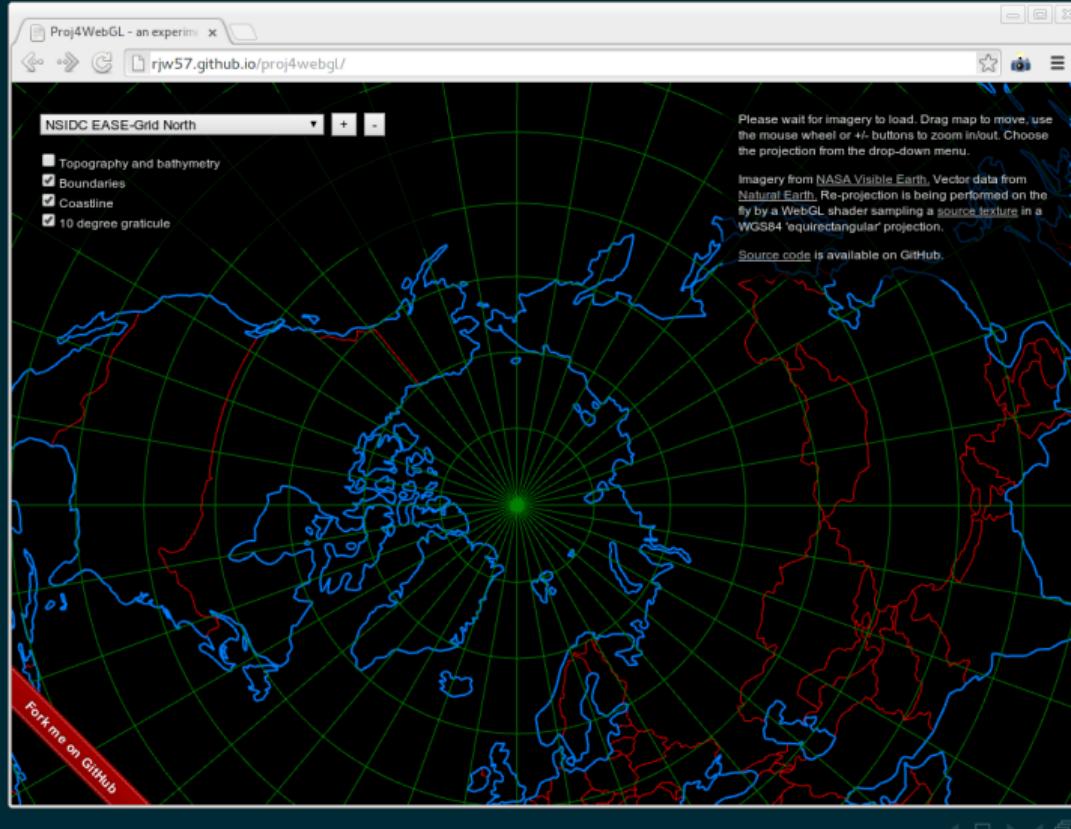
29 April 2013







<http://rjw57.github.io/proj4webgl/>







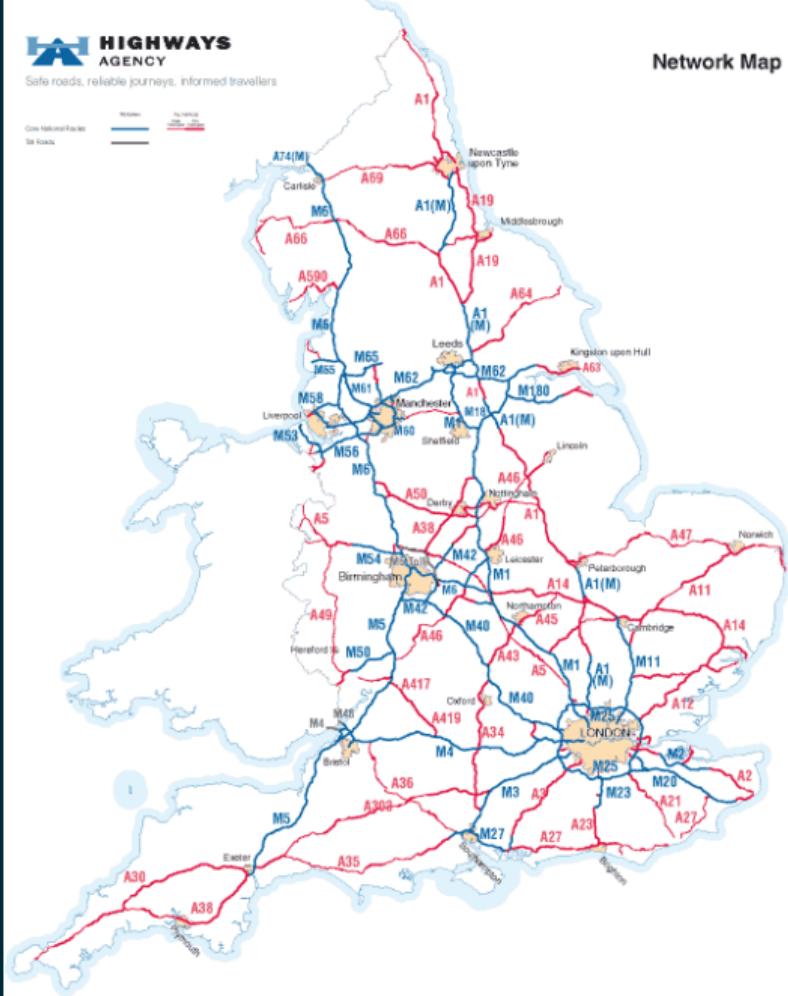


**HIGHWAYS**  
AGENCY

## Network Map

Core National Route  
Star Roads

National  
Regional  
Local







Search for a location: Postcode / House number

Find

Report a problem

By selecting a location Cambridgeshire County Council will place cookies on your computer to remember your location.

Find Nearest

Show Map Categories

+ Council and Democracy 0/6

+ Environment and Planning 0/2

+ Leisure and Culture 0/10

+ NHS Choices 0/5

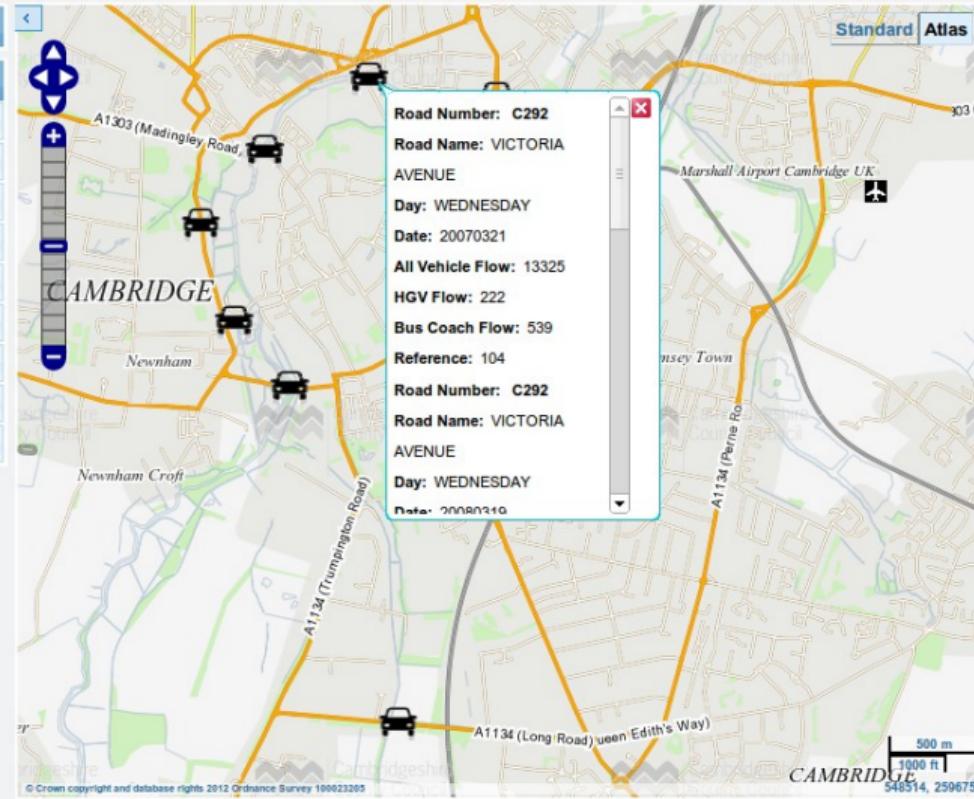
+ Schools and Learning 0/7

+ Transport and Streets 1/14

+ Highways Faults 0/8

+ Public Sector Assets 0/9

+ Flood Risk Assets 0/13



<http://data.gov.uk/>



Beta



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What is Linked Data?

An introduction to Linked Data



## SEARCH AND PREVIEW

New map widgets

CODE  
OF PRACTICE  
[DATASETS]  
CONSULTATION  
RESPONSES

## BATHING QUALITY DATA AS LINKED DATA

A BLOG BY Dr IAN DICKINSON



data.gov.uk technologies

New features to get at the data!

DEPARTMENTAL  
OPEN DATA  
STRATEGIES

9361

search data

Search

search other content

Search



## Live traffic information from the Highways Agency



View



Resources (9)



History

### Description

Live traffic information data showing traffic information on the strategic road network in England, maintained by the Highways Agency.

The separate datasets are referred to as "information products" and presented as XML, conforming to a Datex 2 data specification. A supporting document is provided to support understanding of the Datex 2 schema.

Information products consist of: Current Roadworks updated every 10 mins (1 M bytes) Future Roadworks updated every 6 hours (2 M bytes) Current Planned Events updated every 10 mins (10 K bytes) Future Planned Events updated every 6 hours (200K bytes) Unplanned Events updated every 10 mins (50 K bytes) All Traffic Data updated every 10 mins (30 M bytes) Journey Time Data updated every 10 mins (500 K bytes) Variable Message Signs updated every 10 mins (3 M bytes) The Variable Message Signs (VMS) information product will contain the status of all currently set or faulty VMS on the HA network. If the next publication no longer contains a particular VMS, then either the message or fault has been cleared. The payload file will contain VariableMessageSignSetting elements.

Matrix Signals updated every 10 mins (9 M bytes) The Matrix Signal information product will contain the status of all currently set or faulty Matrix Signals on the HA network. If the next publication no longer contains a particular Matrix Signal, then either the setting or fault has been cleared. The payload file will contain MatrixSignalSetting elements.

### Licence

- UK Open Government Licence (OGL)

[OPEN DATA](#)

### Contact

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#### FOI Contact:

HAIL

- Email: [ha\\_info@highways.gsi.gov.uk](mailto:ha_info@highways.gsi.gov.uk)

### Tags

[Transportation](#)[highways-agency](#)[traffic-information](#)

### Social

Tell the world about this dataset!



Tweet

0



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1



Google +1

1

## Data Resources (9)

 Current roadworks	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Future roadworks	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Current planned events	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Future planned events	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Unplanned events	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Journey time data	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Traffic data	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Variable Message Signs (VMS)	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	
 Matrix signals	<a href="#">XML</a>	<a href="#">Preview</a>	<a href="#">Download</a>	





EASYWAY ★★☆

**Search**

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## DATEX User Forum 2012 - Stockholm

The 2012 edition of the DATEX User Forum have been held in Stockholm on 20th-21st March



Session Presentations are now [available from this link](#).

**News**

► DATEX II v2.1 has been released on DATEX II website

DATEX II v2.1 is finalised and available for download on datex website [www.datex2.eu](http://www.datex2.eu). Please visit



# PredefinedLocationLinks

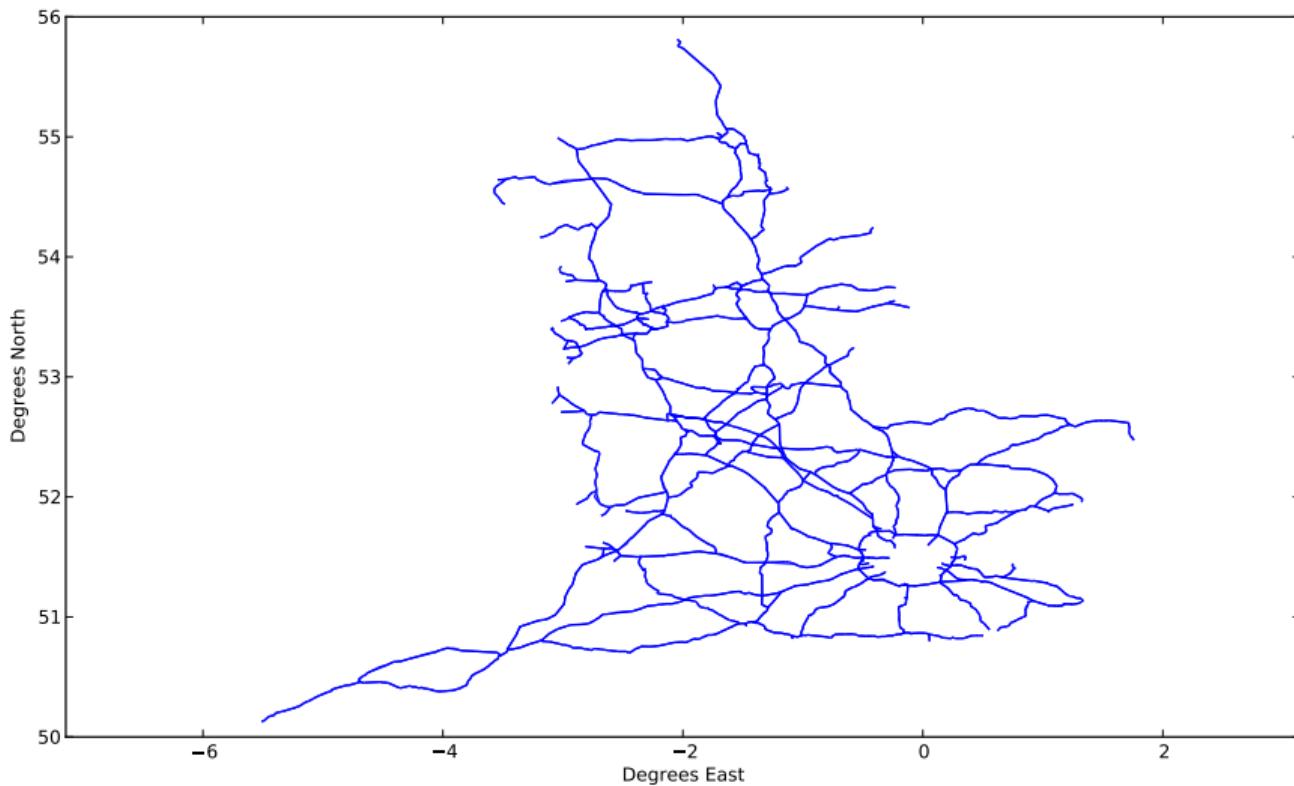








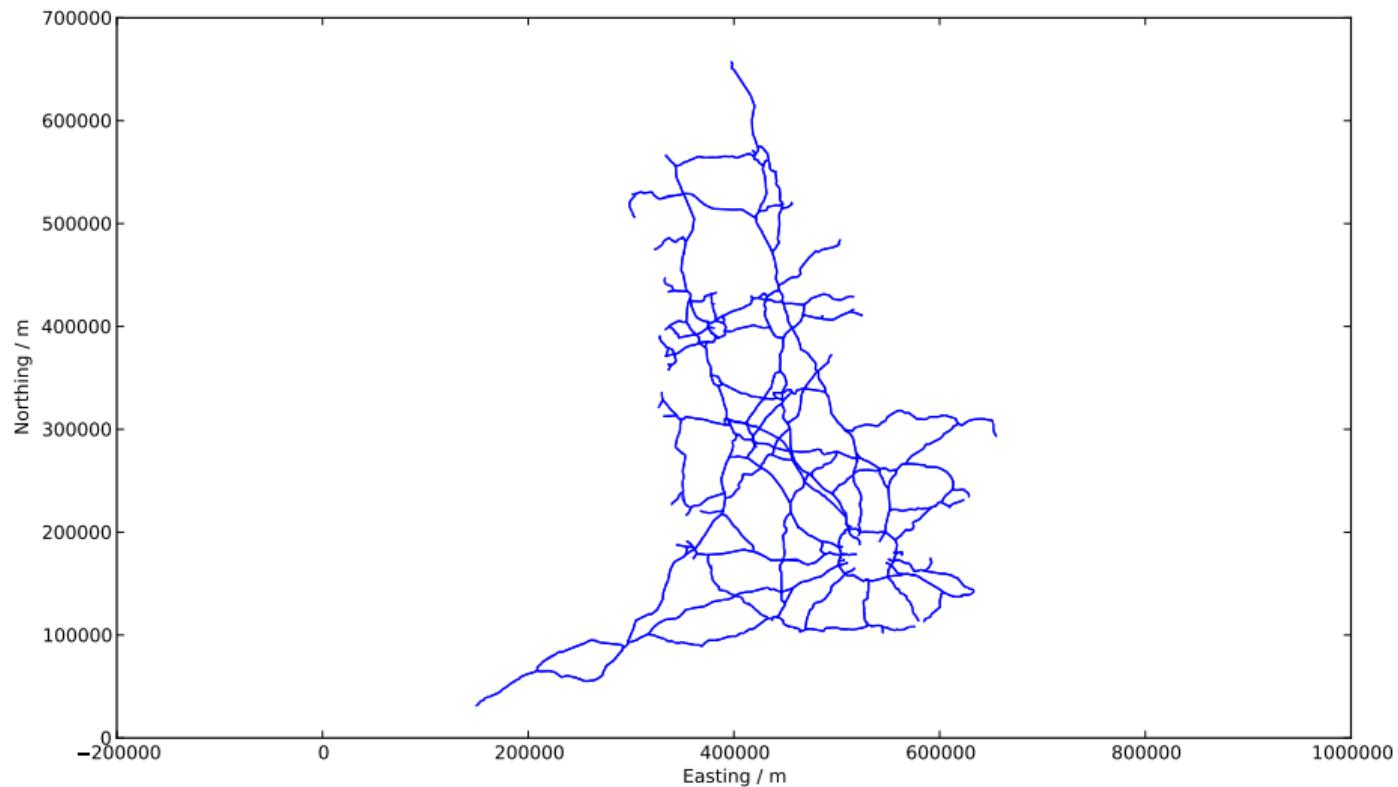






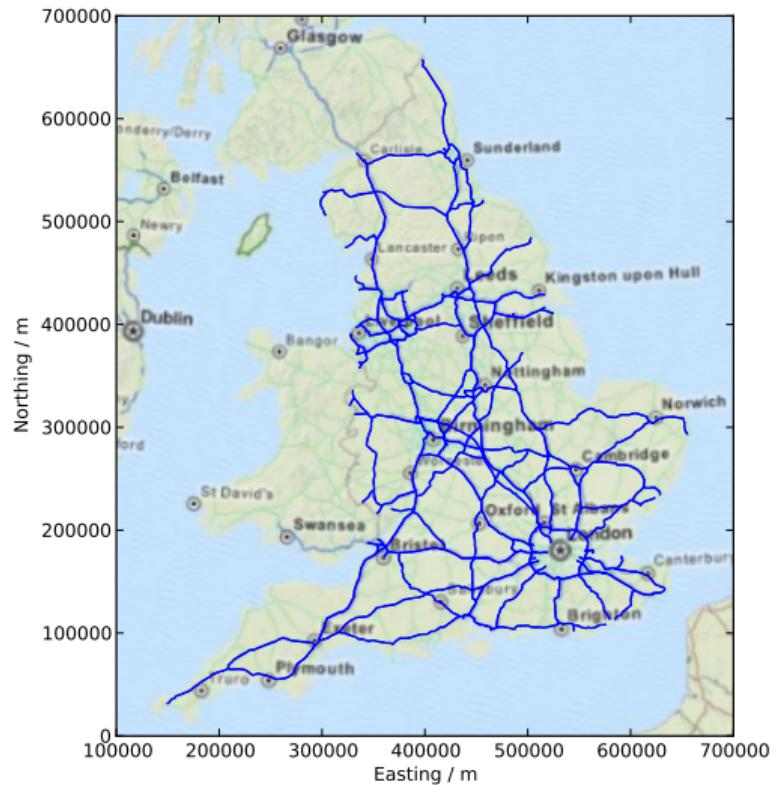












# TrafficData









# Movie

Search or type a command  Explore Gist Blog Help  rjw57   

PUBLIC  rjw57 / highways-agency-live-traffic    0  0

 **Code** Network Pull Requests 0 Issues 0 Wiki Graphs Settings

An automatically updated historical record of data from <http://www.data.gov.uk/dataset/live-traffic-information-from-the-highways-agency-road-network> — [Read more](#)

 ZIP  HTTP  SSH  Git Read-Only git@github.com:rjw57/highways-agency-live-traffic.git  Read+Write access

 branch: **master**  Files Commits Branches 1 Tags

## highways-agency-live-traffic /

514 commits

Automatic commit for Tue Apr 23 16:09:21 BST 2013		
 rjw57 authored 39 minutes ago		latest commit <a href="#">3f2bdec16b</a> 
 CurrentPlanned	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 CurrentRoadworks	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 FuturePlanned	an hour ago	Automatic commit for Tue Apr 23 16:00:24 BST 2013 [rjw57]
 FutureRoadworks	an hour ago	Automatic commit for Tue Apr 23 16:00:24 BST 2013 [rjw57]
 JourneyTimeData	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 PredefinedLocationJourneyTimeSections	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 PredefinedLocationLinks	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 TrafficData	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]
 UnplannedEvent	39 minutes ago	Automatic commit for Tue Apr 23 16:09:21 BST 2013 [rjw57]

chrome://newtab/



# Movie



# Conclusions

- ▶ Python is a universal ‘glue’ language.
- ▶ The IPython web notebook is amazing.
- ▶ Plotting and numerical processing on a par with MATLAB.
- ▶ GPU acceleration is easily exposed as needed by PyOpenCL.
- ▶ Playing with data is fun.
- ▶ You too can make ‘mission control’.

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