

Live Traffic Information with Python

Rich Wareham

Department of Engineering
University of Cambridge

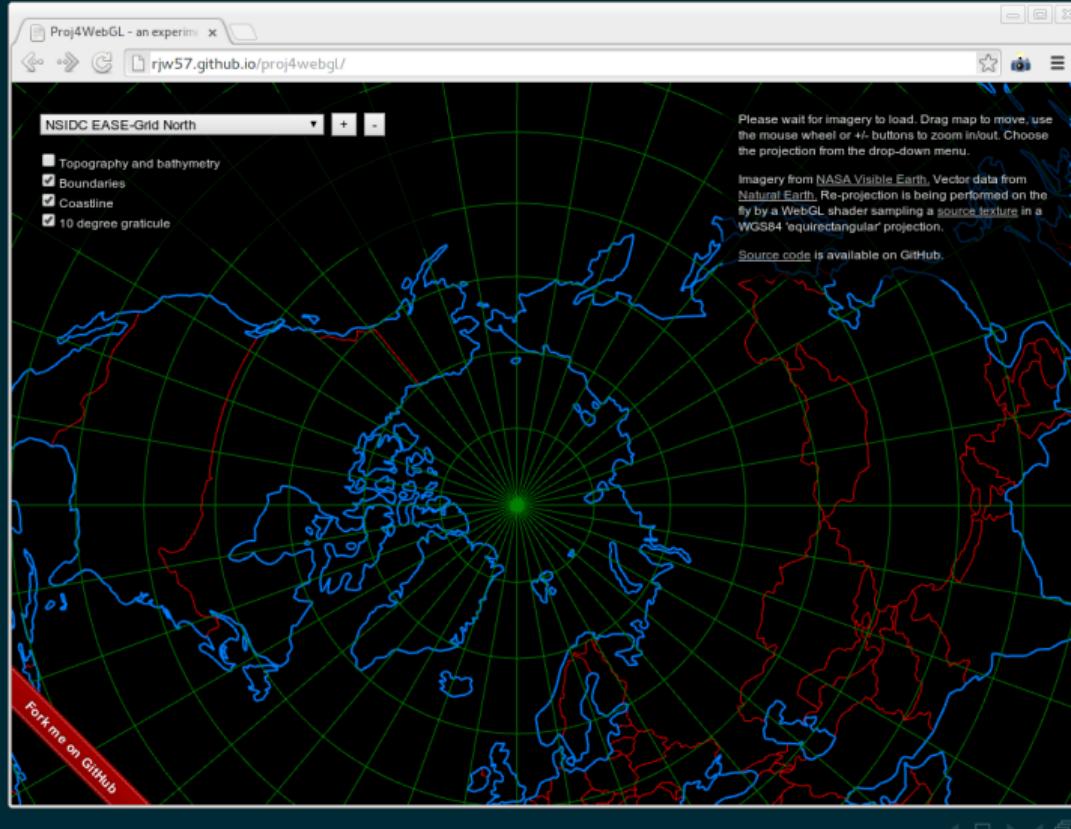
29 April 2013







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









HIGHWAYS
AGENCY

Network Map

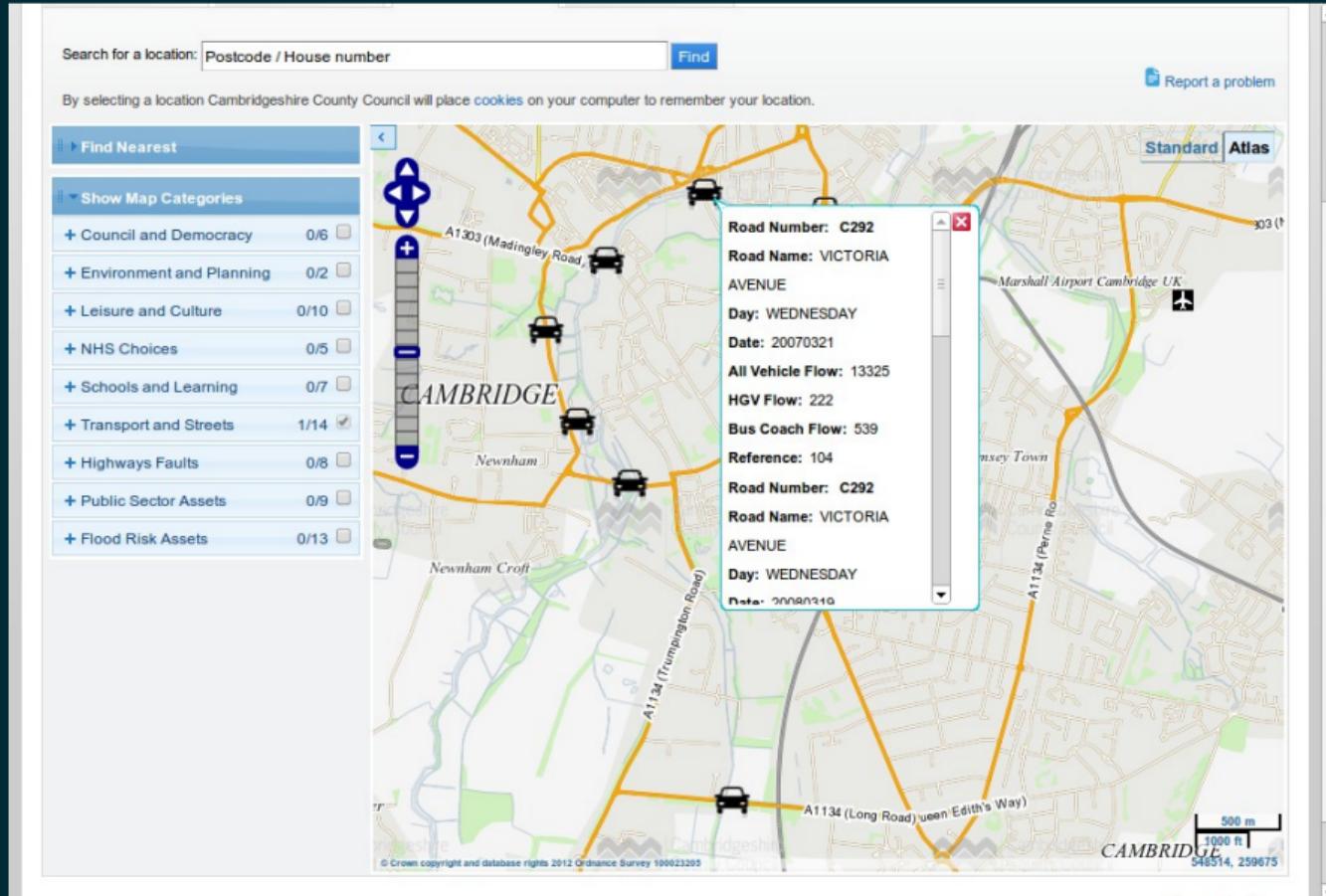
Core National Route
Major Roads





© Toby Smith

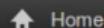




<http://data.gov.uk/>



Beta



Home

Data

Participate

Data requests

Apps

Location

Linked Data

Library

About



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



Resources (9)



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

Enquiries:

Paul Knights

- Email: paul.knights@highways.gsi.gov.uk
- Phone: 0113 2836846

FOI Contact:

HAIL

- Email: ha_info@highways.gsi.gov.uk

Tags

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

Social

Tell the world about this dataset!



0



Share



1



Google +1

Data Resources (9)

| | | | | |
|--|---------------------|-------------------------|--------------------------|---|
|  Current roadworks | XML | Preview | Download |  |
|  Future roadworks | XML | Preview | Download |  |
|  Current planned events | XML | Preview | Download |  |
|  Future planned events | XML | Preview | Download |  |
|  Unplanned events | XML | Preview | Download |  |
|  Journey time data | XML | Preview | Download |  |
|  Traffic data | XML | Preview | Download |  |
|  Variable Message Signs (VMS) | XML | Preview | Download |  |
|  Matrix signals | XML | Preview | Download |  |

HOME | DATEX II | NEWS | DOWNLOAD | DEPLOYMENTS | FORUM | ISSUES | USER FORUM | CONTACTS

EASYWAY ★★★

In Evidence

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. Please visit

Search

Search this site:

Search

User login

Username: *

Password: *

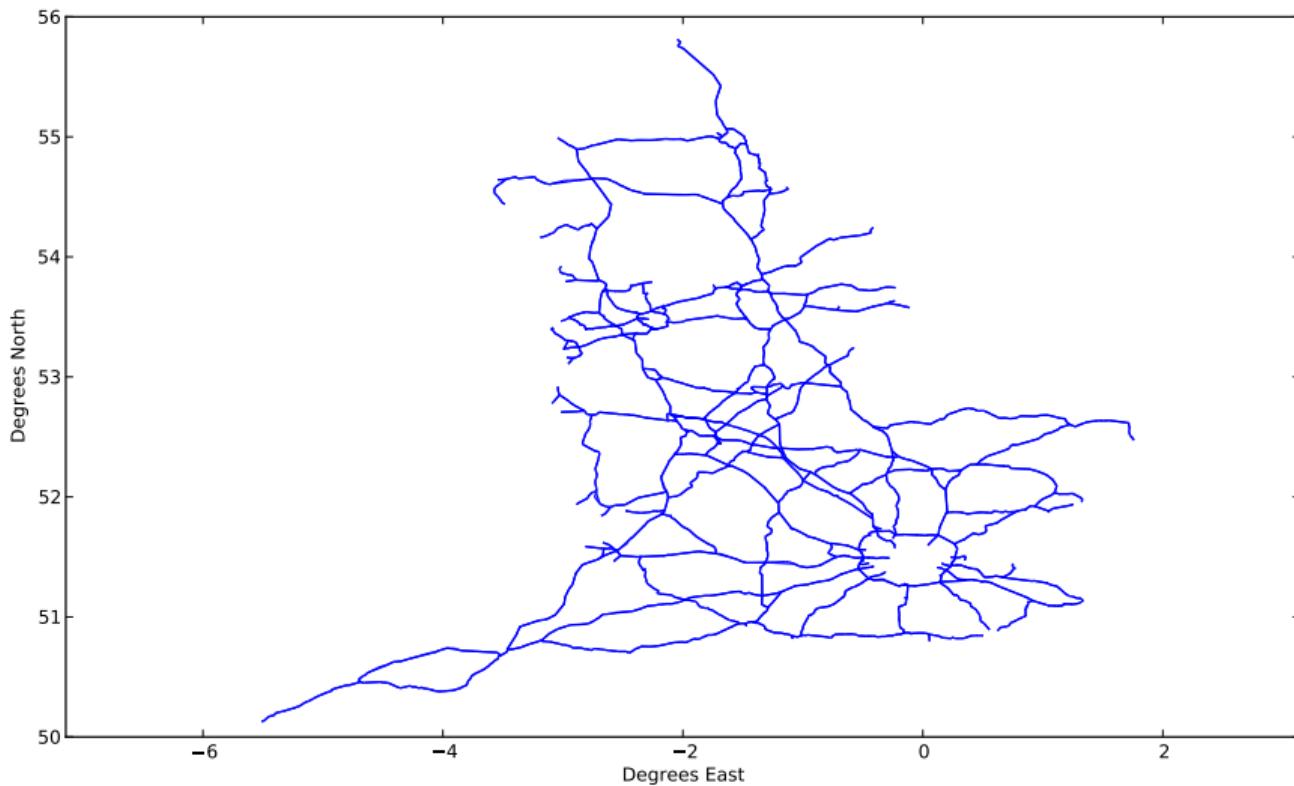
Log in

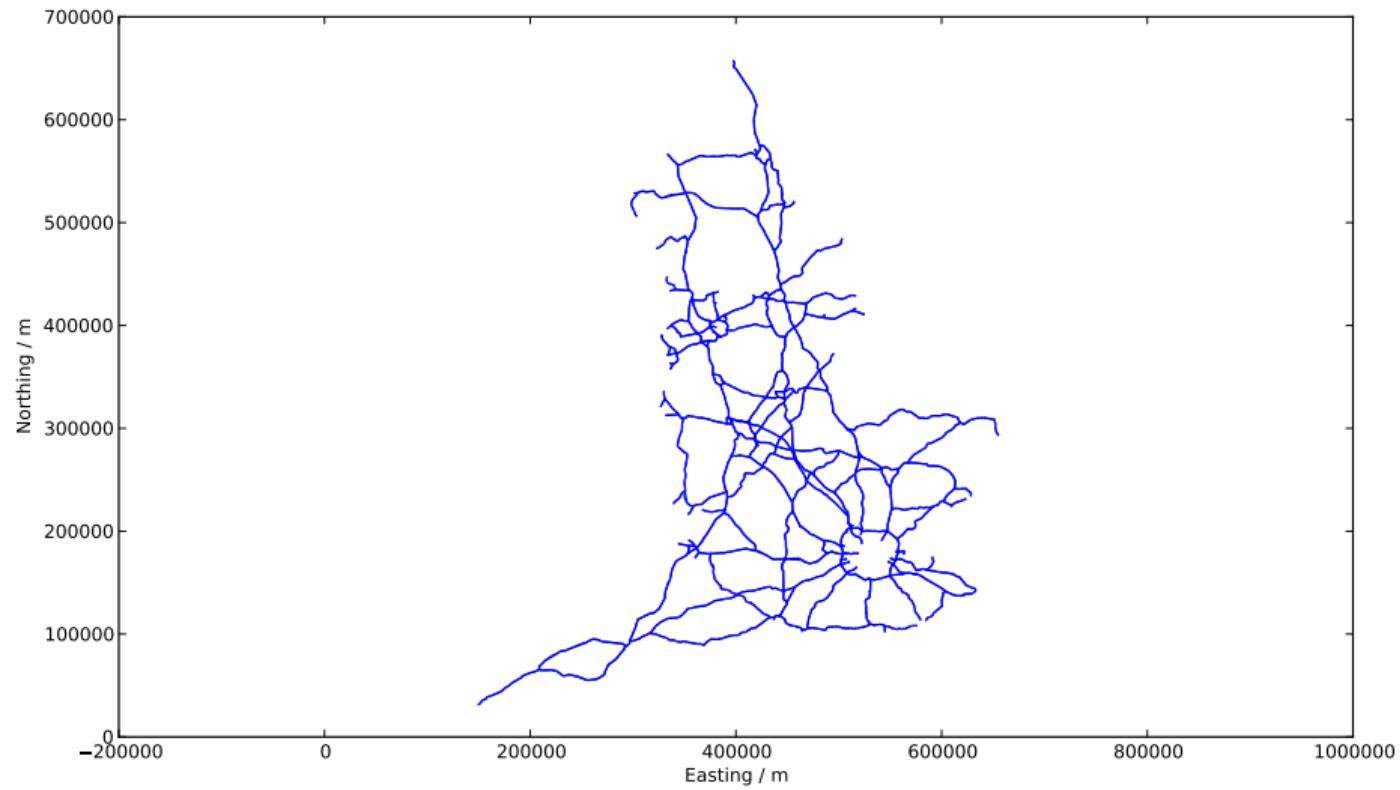
Create new account

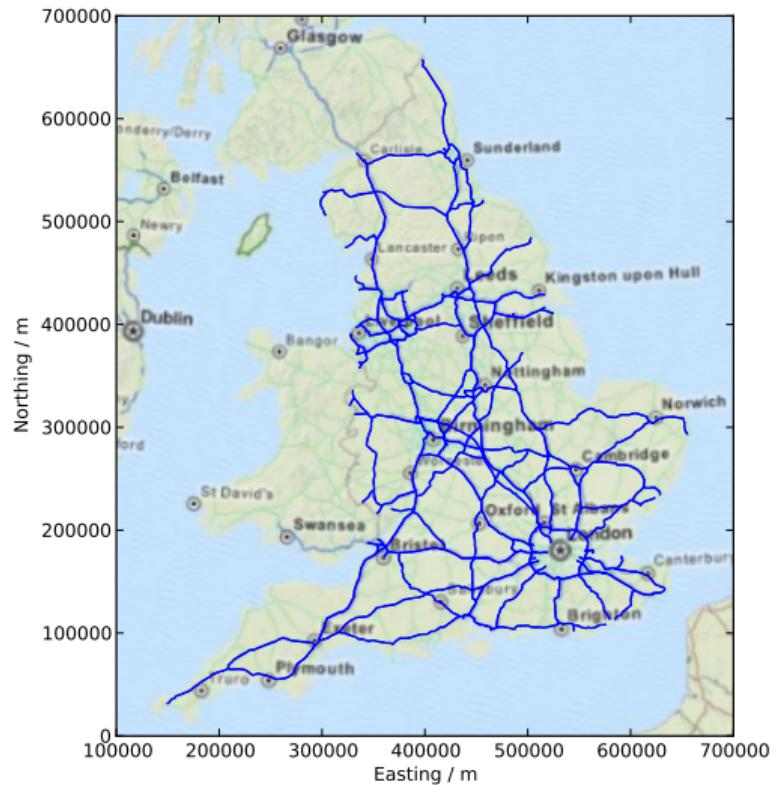
Request new password

DATEX II newsletter

PredefinedLocationLinks







TrafficData

Movie

Search or type a command ⌘ ↵ Explore Gist Blog Help rjw57

PUBLIC rjw57 / highways-agency-live-traffic Pull Request Unwatch Star Fork 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.g1 Read+Write access

branch: master Files Commits Branches 1 Tags

highways-agency-live-traffic / [blob](#) 514 commits

Automatic commit for Tue Apr 23 16:09:21 BST 2013

| rjw57 authored 39 minutes ago | latest commit 3f2bdec16b |
|---------------------------------------|--|
| 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 16:00:21 BST 2013 [rjw57] |

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’.

<http://gplus.to/richwareham> rjw57@cam.ac.uk