iShare NEWS

Welcome to iShare News

It's Spring and the weather has been gorgeous... so we are told, for we have only just come up for air... needless to say it has been a busy time and there is lots to talk about.

In this issue we look at an unusual (for Astun), project that uses a predictive crime model for burglaries. There's an update on the GIS module detailing the latest enhancements and finally a peek into the future of Local Authority collaboration, that uses Yahoo 'Pipes' to build a shared service.

We have some new members of staff we'd like to introduce you to and news of OSGIS 2011 which we are sponsoring. If you are interested in Open Source - be there!

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Four New OEAs

We have signed our first four Open Enterprise Agreements with:

- New Forest National Park
- North East Lincolnshire
- Surrey Heath Borough Council
- Swindon Borough Council

Open Enterprise Agreements are our new way of supporting iShare deployments across the enterprise.

If you want to find out more please contact Mike Smith.

mikesmith@astuntechnology.com

ZenDesk

We have recently introduced Zen Desk as a replacement for Ning. ZenDesk is web-based help desk software with an elegant support ticket system. It is the place to go to log feature requests, take part in forums, view tips & tricks and access iShare documentation. You can register here: *http://astun.zendesk.com*

My Wycombe

Wycome District Council has just gone live with iShare and we wish them every success. iShare is tightly integrated into Wycombe's website and already has My Alerts set up for abandoned cars.

http://www.wycombe.gov.uk

Logger

We have just published our latest Case Study which is now up on the Astun website. It features two recent deployments of Logger.

In case you didn't know Logger is an iShare module that uses the basic iShare foundations to enable map based fault reporting via public facing websites. Logger also offers CRM integration to make it easier for contact centre staff to deal with incidents and pass on information to the relevant service area. Logger can also be used for Public Consultations. Find out more by downloading the case study.

OSGIS 2011
Centre for Geospatial Science, University of Nottingham, June 21-22nd

The Open Source Geospatial Foundation, or OSGeo, as we know it, is an international, not-for-profit organisation whose mission is to support and promote the collaborative development of open geospatial technologies and data.

The UK local chapter of OSGeo, founded by our own Jo Cook, aims to establish a focal point for developers and users of open source geospatial software within the UK, for networking and advice, and to raise the profile of open source geospatial development within the UK.

OSGeo UK supports the OSGIS conference hosted by the Centre for Geospatial Science at the University of Nottingham. You can find out more here: *http://bit.ly/gH81Lh*

This year Astun is a 'Silver' sponsor of the event. Day one is an 'Interoperability Day' to help teach and highlight the complimentary roles of open source software and OGC open standards. Astun Technology will be leading one of the afternoon workshop sessions: 'Translating ANY Ordnance Survey data with OSGeo tools and using in MapServer and other OWS.'

Product News

Intranet GIS development marches onwards and upwards

The GIS module of iShare is moving on at pace and we now have a detailed roadmap for ongoing development based upon what our clients have been telling us they need.

Phase 1 delivered the basic measuring and navigation tools, layer management, find address, find nearest, feature find etc.

The recently delivered Phase 2 updates include, Analytics - i.e. the ability to aggregate data and then present it thematically on the map.

Security profiles have been added enabling full control, using Windows authentication, of who gets access to what.

Finally there's advanced printing including print to PDF.

Phase 3, due by the end of 2011, will introduce a lot of new tools, these include vector drawing - polygon, circle, points and text with full style control. There are also annotation tools and SQL like query capabilities. You will be able to select features in one layer and then others from another and we are adding the ability to select from a layer catalog, especially useful if you have a Spatial Data Warehouse. You will be able to store and search metadata and override set layer styles too.

The GIS module will enable iShare customers to leverage their investment and continue to move forwards. Phase four development is already in the roadmap!

The new girls at Astun

We have some new members of staff that we'd like to introduce you to.

Carrie Ivens

Carrie Ivens joined us in the Autumn. Carrie was a Food Technologist for over 20 years where developing tasty food concepts from field to fork required some super organisational and communication skills. Carrie has already become the Office linchpin keeping it supplied with stationery, coffee and bananas - paying the bills and sending out invoices - collecting and collating figures - fielding calls and passing on messages etc. etc..

Jo Cook, who joined Astun in January, has been working with GIS for over a decade, mostly within the archaeological and heritage sector.

She spent the last 9 years working for Oxford Archaeology, where she was responsible for managing small and large-scale GI-based projects. She has been working with web-based GIS since 2005, including Mapserver, Geoserver, PostgreSQL, PostGIS and OpenLayers.

Jo is a Charter Member of the Open Source Geospatial Foundation (OSGeo), and founded the UK local chapter in 2006.

Jo will be working as part of the consultancy team at Astun, working on software deployment and data integration.

Jo Cook

Crime Mapping
Vigilance Modeller

According to Dr. Shane Johnson of the UCL, Jill Dando Institute of Crime Science, the future pattern of burglaries within an area can be predicted using a mathematical formula that the Institute has developed.

A little over a year ago North Lincolnshire Council decided to create its own predictive modeller based on the UCL research. The idea from the outset was to use the modeller for more general purposes such as crime prevention, targeting the setting up of neighbourhood watches etc. things that could be handled by community safety partnerships rather than the Police.

Steve Foston, North Lincolnshire Council's Senior Safer Neighbourhood's Officer also came up with the idea of linking the results to iShare's My Alerts service.

inform the user that the table is ready for download. The table is downloaded as a ZIP file containing 'shape/tab' files to enable the creation of a predictive hotspot map using an ESRI or MapInfo GIS.

The table contains predictive risk scores for every week of data that was included in the uploaded file and for each week thereafter. To display the information for a particular week the user simply creates an SQL query within the GIS and then uses the software tools to create a colour coded thematic map. The regression testing that has taken place since the modeller went live shows how accurate the predictions can be.

The modeller is not and was never intended to be a police tasking tool and is not formally endorsed
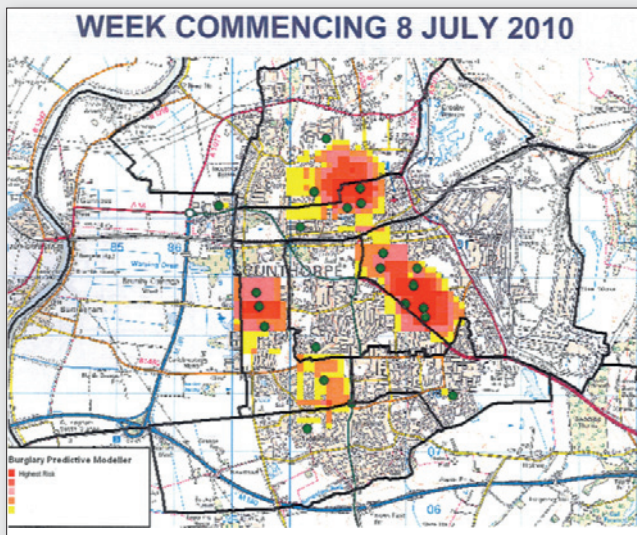
Shown above is a map of Scunthorpe for a week during July 2010. The hotspots are colour coded according to the risk calculated by the Predictive Modeller. The green dots show where the actual burglary incidents occurred.

The Predictive Modeller is a secure web based application developed by North Lincolnshire Council and Astun who also host it. It uses the UCL process and algorithms and is built upon Open Source foundations with the bulk of the calculations being carried out within PostGIS. Python scripts are used to automate the processes, including data import and export.

For the modeller to run, Police burglary stats are required complete with an Easting and a Northing to precisely locate the crime, plus the date of the burglary. The risk is determined by dividing the area into a grid of cells with each cell getting a risk score based on incidents nearby in space and time. Users simply upload a .CSV file of crime data to a secure server which then creates a table of predictive risk scores. Once calculated the modeller will automatically send an email to

by Humberside Police. However a Humberside Police officer has commented that the predictive mapping has helped them focus their efforts on a particular area. As a result of their patrol activity a team of burglars was "pretty much caught in the act" within 50 yards of a hotspot predicted by the modeller! This team "who were responsible for most of the recent crime" in the area have now been apprehended by the police. The officer further commented that this "will be a significant event for Divisional performance".

The project was funded by the Home Office Vigilance programme and the modeller is freely available for use by other community safety partnerships at: *https://www.vigilancemodeller.net*
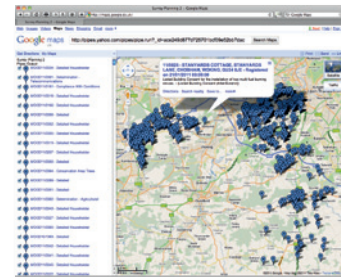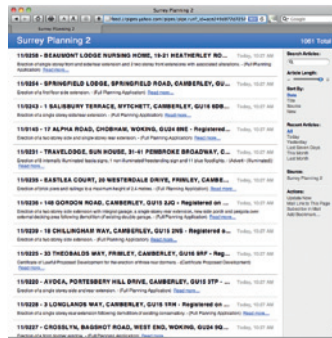
Shared Services
The Pipes are Calling – building a 'Shared Service' for next to nothing

With all the talk about 'Shared Services' and cross boundary collaboration, it is gratifying to report on a new 'proof of concept' initiative taking place in Surrey. This uses iShare, GeoRSS and some smart Yahoo technology to build a simple cross boundary agreggated data service for planning applications...for next to nothing!

Surrey planning applications for the last 90 days viewed in a typical RSS reader

The four District Councils involved: Surrey Heath, Spelthorne, Mole Valley and Elmbridge are all iShare customers. In each case iShare takes a feed from each Council's planning system (Accolaid, MVM, Swift and Uniform). iShare then performs some field concatenation and transforms British National Grid coordinates to WGS 84, that's latitude and longitude to me and you!

Feeds from each instance of iShare are then aggregated using Yahoo 'Pipes'. Pipes is a powerful composition tool that can aggregate, manipulate, and mashup content from around the web. In this case it aggregates the feeds from

each Council's instance of iShare.

Pipes pulls together all the registered planning applications from the four Surrey Councils for the last 90 days. The resulting feed can then be used with any RSS reader to provide a simple list with clickable links to each application on the relevant Council website or better still, you can copy and paste the URL into Google and view

Surrey planning applications this time displayed on Google Maps

them all on a map. Clicking on one of the map's drop pins brings up a balloon with more information and a clickable link to the application.

The point here is that a member of the public living on the border of two local authorities does not need to check two websites to find out about nearby planning applications. Signing up to this feed will provide information and links for all registered planning applications across all four districts. This is a simple use of data and available technology, achieved in house with practically no input from Astun. As a proof of concept it demonstrates that it is easy to aggregate data from different councils and make it accessible to citizens.