

## Welcome ...

to this winter edition of forthvalleygisnews.

Inside you will find the latest Forth Valley GIS news and developments, interesting features about customer projects, upcoming events and activities and points of contact.

Many thanks go to all our readers who provided us with some really positive feedback from the first issue. Please keep your thoughts and ideas coming – we look forward to hearing from you.

## What's inside?

- News
  - internal & external business
  - data & technology
  - staff & training
- Going Forth
- Corporate Address Gazetteer
- Web Watch
- GIS Tutor
- ... and much more

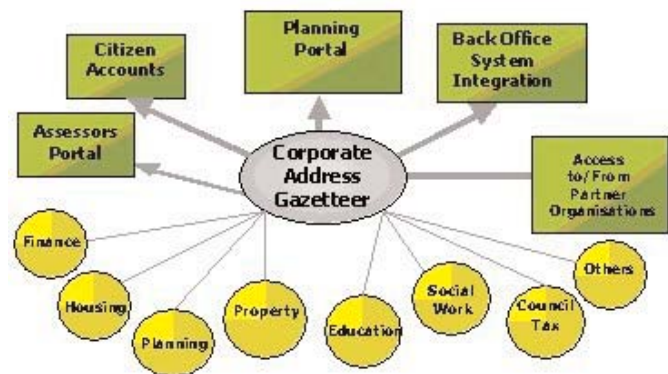
## Addressing the issues that matter

with the Corporate address Gazetteer

In the last edition of forthvalleygisnews we introduced the 'Corporate Address Gazetteer'. Gazetteer Custodian, Tom Moore, now provides more detail ...

### What's it all about?

Property addresses are relevant to almost all Council services. Indeed, creating and managing addresses for the local area is the responsibility of the Council and is a service in itself. A gazetteer extends the value of this address information by combining it with a geographic location. With a GIS and an address gazetteer, a user can create maps showing properties and their surrounding areas. Combining property details with other Council information relating to services such as Housing, Council Tax or Planning opens up a wide range of options for service analysis, planning and delivery.



Over the years, a large number of different address databases have been created throughout the Council. This situation allows individual systems or services to operate in isolation, but requires duplication of data. This duplication of data also requires duplication of effort and inevitably leads to inconsistencies in the information used by different services. This can ultimately affect the quality of services provided to citizens. The CAG projects aim to solve these problems by providing a single address database for all Council services.

See inside for more details ...



Welcome Simon!

## Hello & Goodbye ...

Since the last edition of forthvalleygisnews, Support Officer **Will Flanagan** has set off for pastures new in Canada. We all wish Will the best of luck for the exciting times ahead!

**Simon Hope** now joins David France in the Support Team at Forth Valley GIS. Simon has a wealth of experience from his previous work at both West of Scotland Water and North Ayrshire Council. Welcome to the Team!

# Addressing the issues that matter (continued)

## Local Progress

At the local level the project is being run as a partnership between the three Councils and managed by Forth Valley GIS. Each council has its own project manager but emphasis is placed on sharing experiences, methodologies and knowledge between the Councils. The CAG will be one of the most important Council resources and the success of the project is wholly dependant upon Council services taking ownership of the project and working in partnership with a number of local and national agencies - including the National Park, the Assessors and the Post Office, to name but a few.

There are two main work streams:

- The initial creation and cleansing of the Gazetteers from source datasets - Forth Valley GIS has combined the use of contracted staff from ASA Data Services and Infoshare address matching software to complete this task.
- The development of robust business processes for the sustained maintenance of the CAGs. This will require Services to formalise roles and responsibilities for the collection and communication of address change information to the gazetteer.

The creation work is anticipated to be complete by the first quarter of 2004/05. Development and implementation of business processes to maintain, manage and integrate the CAGs will extend over 2004/05.

**The Corporate Address Gazetteer (CAG) projects will produce a database of address information for all properties in Clackmannanshire, Falkirk and Stirling.**



### The Big Picture

The CAG projects are the three Council's contribution to a national consortium project - Definitive National Addressing for Scotland (DNAS). The project is funded by the second round of Modernising Government Funding (MGF2). The overall aim is to create CAGs for each Council that can be combined into a national address database for Scotland.

### Looking forward

Once the CAGs are complete, the working practices for creation and maintenance of addresses will be assessed to make sure that addresses are created once and only once. The CAG will ultimately act as a hub to integrate the numerous address based systems held within the Councils. This will provide better services to the citizen by providing Council officers with more accurate and up-to-date address information.

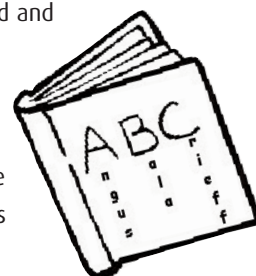


## Unravelling the Jargon!

This issue we look at the much quoted "Gazetteer" – a very strange sounding word indeed!

The term derives from the Latin 'Gazetta' and broadly means a 'geographical dictionary'. Simply put, it is a list of geographic place names together with their associated co-ordinate locations. Gazetteers have been around since the 16th Century. Their popularity in Britain reached a peak in the 19th Century, along with the imperial expansion of the time and increased knowledge and fascination about foreign lands. However, during the 20th Century, rapid changes in political boundaries meant that almost continual, expensive updates were required and so the gazetteer went into decline.

Now in the 21st Century, the potential for digital geography has put gazetteers back in to the fore. National initiatives to create and maintain address and street gazetteers are well underway ...



## INTERNAL

Work with the partner Councils continues to be focused on the main strategic projects, which are closely aligned to the e-Government and Modernising agendas of the three Councils.

The Joint Management Group and Head of Service have made information presentations to all the Management Teams across the three Councils and consultation sessions have been initiated between the FVGIS Project Managers and the IT, Network and Communications Teams in each Council.

Work is progressing rapidly:

- The clustered servers that make up the **Spatial Data Warehouse** have been built and test data has been loaded.
- **OS MasterMap** has been loaded into Oracle database tables and tested.
- The audit of **3rd party data** is complete, as is the 3rd party data awareness and requirements survey. A revised 3rd Party Data Management Plan is expected by the end of the financial year.
- A scoping study investigating the potential impact of the OS Positional Accuracy Improvement Programme (**PAI**) on each of the three Councils is complete.
- User questionnaire results on the current **Web GIS** have been compiled and a report produced. Software evaluation for the new web GIS is complete and a prototype development is now underway.

- Creation of the **Corporate Address Gazetteers** for the three Councils are at least 90% complete and estimated 100% by the end of March. Business process workshops have been held in each Council to investigate how these Gazetteers can be effectively maintained.
- A GIS application audit has been completed and results from the requirements questionnaire compiled. A **GIS Software Migration Plan** identifying how to move users from ArcView 3 will be prepared by the end of the year.

## EXTERNAL

### Forth Valley GIS Consultancy services continue to grow:

- East Lothian Council have contracted us to prepare a Corporate GIS Development Strategy.
- East Dunbartonshire Council have adopted our 'RoadNet' solution to develop and maintain their Local Street Gazetteer
- Loch Lomond and the Trossachs National Park Authority have requested technical consultancy and bureau services on a number of innovative new projects.

### Projects in focus:

- We have recently delivered a prototype web-mapping application for the National Library of Scotland. This will help NLS examine the feasibility of providing internet access to their vast and rapidly growing geographically referenced digital data resource.
- We are also working with the Central Assessors to provide a web-GIS interface to their Information Systems. Such enhanced access to valuable management information will assist major re-valuation and electoral tasks in the future.

## Headlines

Dear Colleague,

Welcome to the second edition of forthvalleygisnews. There are many exciting developments taking place and I'm sure you'll find something to interest you inside. Within the three partner Councils, very good progress is being made on the five main corporate projects. These projects will significantly improve the management and delivery of GIS services for everyone. In this issue we have included a 'focus' article on the Corporate Address Gazetteer projects - work which will underpin the future integration of land and property information across each Council. Development of the new web GIS is progressing well and users will soon be contributing to the design and content. Third party data management work is going well with a robust approach and new tools in place for maintaining OS MasterMap and populating the centralised geographic database.

Externally, we are keeping very busy supporting similar projects with many other local authorities - there is an ever increasing awareness of the importance of corporate GIS to modernising government work in the public sector. Significant challenges are ahead, particularly with respect to data management, systems integration, process change and partnership working. For Forth Valley GIS, the emphasis in the short term is on working more closely with customers. In the very near future we will be establishing improved customer/user representation in the partner Councils and reviewing our training and support strategies.

*A Moore*

Alan

## Joint Management Group Update

**Willie Watson**, Head of Resource Management has now taken up the role of JMG representative for Stirling Council. We would like to thank Ivan Condon, the previous representative, for all his hard work and support over the last eight years.

# Meet the team ...



We kick off our 'Meet the Team' interviews with Tracy Rich (Senior GIS Analyst). Tracy started work at Forth Valley GIS 6 months ago after a 10 year stint in the US.

## Why GIS?

I secretly enjoy the coolness of it. I spent most of my time at university taking GIS classes while contradictorily stating loudly that I would never become a GIS technogeek. Then when I started work I had to hide from my former academic peers at

GIS conferences so they wouldn't find out that I'd become "one of them".

## Tell me about the above picture?

It was taken in the California Sierra's last year where I was camped out for a few weeks doing GIS support on a 150,000 acre wildfire. Now that was a lot of fun.

## Career Highlights (feel free to 'drop in' achievements!)?

Interviewing rice farmers in Madagascar for my Master's thesis; making GIS happen at the City of Burbank, California; and of course, becoming a Prince(ss)2 Practitioner last year.

## Tell us about your role at Forth Valley GIS?

At the moment I manage the Corporate Address Gazetteer projects for Falkirk and Stirling Councils.

## Best thing about living in the US?

IKEA and Starbucks on every corner.

## Best thing about living in the UK?

IKEA and Starbucks on every corner.

## Where would we be more likely to find you ... in the pool or in the pub?

Usually it's the pool but recently it's been mostly the pub with the ever-so-social Forth Valley GIS folk. I've also just bought a flat so DIY has taken over my life.

## What was the first album you ever bought?

Something by Boney M.

## What was 'the time of your life'?

Probably the most memorable was living on a cockroach-infested boat docked in Senegal by night while working on a construction site by day.

## What would you be doing if you weren't the Queen of CAG?

I'd still be on that boat or a penniless artist wandering the streets of North Somerset.

## Training News

Training at Forth Valley GIS has made two significant steps since the last edition.

Firstly, plans have been approved to develop a GIS Training Strategy which will allow for a more structured approach to training and a wider range of courses to meet various customer needs - so look out for developments later in 2004!

Also, the next, eagerly awaited Arcview 8 training course is now available for booking.

'Arcview 8 Data Capture' continues where 'Starting Out in Arcview 8' left off. Features of the course include:

- data capture techniques.
- use of OS Mastermap and Trace tool.
- joins and relates to tables.

For further information about any training issues please contact [fvsupport@forthvalleygis.gov.uk](mailto:fvsupport@forthvalleygis.gov.uk)

## Web Watch



This edition of Web Watch features [www.upmystreet.com](http://www.upmystreet.com) - check it out!

A wide range of information is available including - property prices, school results, council contacts, crime statistics, your MP, street maps and a local business finder. UpMyStreet relies on a GIS powered address gazetteer. It is a great example of how web-based GIS technology can provide a useful service by pulling together large amounts of information from a number of databases and other websites.

## Forth Valley GIS Purchase CadCorp MapModeller

ForthValley GIS have recently licensed a copy of CadCorp MapModeller product to provide us with additional flexibility for our GI data management strategies.

# Data News & Technology Update



Forth Valley GIS have been making rapid progress. Data Co-ordinator Fiona Thomas and GIS Technology Co-ordinator Craig Walker brings you more details ...

Fiona has been working on a number of important documents - available for internal review. Topics include:

- Data Product Information - OS Address Point and GRO(s) Postcode Geography.
- Reviews - 3rd party data, PAI.
- Data Quality Monitoring - address Point.
- OS Copyright - quick guide.
- Summary of results of the 3rd Party Data Questionnaire.



These will ultimately be available through the Web GIS Portal. Until then, contact fvadmin@forthvalleygis.gov.uk for more details.

## OS Mastermap Update ...

### Forth Valley GIS purchase Snowflake's GO Loader



As mentioned in our last issue, OS Mastermap (OSMM) will eventually replace the Ordnance Survey's large scale Land-Line product ...

Forth Valley GIS have been evaluating various software solutions for migrating our partner Councils to OS MasterMap. We have now completed a thorough evaluation process, and are pleased to announce that our new OSMM translation software is 'GoLoader' by Snowflake Software. 'GoLoader' is ideal for OSMM as it includes specific support for duplicate removal, change only update and feature archiving. 'GoLoader' will allow Forth Valley GIS to take full advantage of the Oracle database to publish OSMM to a variety of clients. We will soon be populating our spatial data warehouse development area with an initial baseline supply of OSMM topographic data. Watch this space!

We would like to thank all the vendors involved in our evaluation process for taking the time to work with us. We were extremely impressed by the high standard and functional elegance of all products evaluated.

## Spatial Data Warehouse

Over the next few months, we will be concentrating on the migration of all 3rd party GI data products (ie those supplied by external agencies such as SNH, SEPA, Ordnance Survey etc) to the new spatial data warehouse. Work will include:

- The migration of all existing 3rd party data.
- Full migration to OSMM on regular Change Only Update.
- Data Archive.
- The incorporation of new products including OS 1:250K raster (GB coverage), additional datasets from SNH and Strategic vector data (Scottish coverage).
- Considerations for metadata maintenance.
- Evaluation of potential data purchases including 1:25K colour raster and OS Street View.

Development of the spatial data warehouse will mean that third party datasets are managed and maintained more efficiently and that opportunities to access and integrate this data are maximised. Future phases will be directed to working with internal Council services to improve the management of datasets.

## Positional Accuracy Improvement (PAI)

In our last edition, we outlined the Ordnance Survey PAI Programme - an OS initiative to improve the positional quality of its large scale data ...

Forth Valley GIS have now completed a scoping study which covers:

- Background to PAI.
- The effect of PAI on OS Products.
- The benefits of undertaking PAI.
- Which Tri-Council areas are affected & when.
- The effects of PAI on the quality of 'Internal' data (ie data produced by the councils).

Currently, the number of Internal datasets which will be affected by PAI is unknown. Forth Valley GIS will work with Council services to conduct an Internal data review in 2004. As well as assessing PAI implications, such a review will help to establish data ownership, examine how to improve and streamline current management processes and will also form a quality assurance exercise. Good quality data is an extremely valuable asset to us all, and we must ensure we invest in it properly to maintain its' fitness for purpose!

PAI isn't due to hit the Forth Valley area until October 2004 at the earliest - In the meantime, please have a think about PAI and how it might affect YOUR captured datasets!



## Other News ...

### Web-GIS Portal – Improving access to GI related information

Forth Valley GIS are working with Clackmannanshire, Falkirk and Stirling Councils on a number of major projects to modernise and improve the provision of services to users.

One of these projects is the development of a new GIS intranet site for the councils that will provide a first point of call for anyone wanting to find further information about GIS.

Want to know when the Council boundary data was last updated? Need to know how to perform basic analysis on some data using ArcView? Have to report a problem with data or a GIS application?

These will all be possible using the new Web-GIS portal site.

... Oh, and there will be maps as well! The on-line mapping section will access data from the Spatial Data Warehouse so that users can be confident that the information they are viewing is accurate and up-to-date.

The prototype of the new site is currently being developed. Consultation with users on the design and content will be underway soon and the new site is due to be launched at the beginning of the first quarter 2004/2005.

### GIS Tutor ...

Last time in the GIS Tutor we tried to explain “just exactly what is a GIS?” A system of software, hardware and data. In this lesson we take a look at the heart of the GIS - the data.

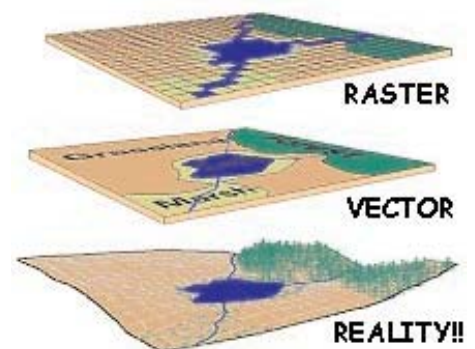
Any data that has a spatial component can be represented in a GIS. This could be anything from the location of badger sightings, to a councils refuse route or even a satellite image. In all cases, this data is merely a representation of the real world it is trying to portray. There are 2 main ‘formats’ for GIS data - these are known as raster and vector data.

In vector data, the features are recorded by pairs of xy coordinates. Vector data is either points, lines or polygons. Points are defined by a single pair of coordinate values, a line is a sequence of pairs and an area is similar to a line just with the first and last points joined together. Importantly, vector data can store a large amount of additional information about the features they represent – for example - the day and driver of a particular refuse route.

In raster data, the entire area of the map is subdivided into a grid of tiny cells. Each cell stores a value which represents whatever is on the ground at that point. A major use of raster data involves storing scanned paper maps as digital images – but it can also be much more than just a visual image. The raster data format is often used when a ‘continuously changing surface’ is being represented – for example – air temperature or pollution measurements.

Both types of data are very useful. There are no hard and fast rules as to which format will be used for a particular geographical feature.

In both cases, the scale that the data is captured at is an important component ...we will learn more about the importance of scale and resolution in the next edition of GIS Tutor...



### Congratulations ...

to External Services Manager **Richard Teed** and his wife **Michelle** on the birth of their baby girl. Erin was born on the 19th January and weighed in at a healthy 9lbs!



# Going FORTH ...

## GIS Bridges the Gap in Stirling

### Bridge Management



Stirling Council have recently risen to the challenge set by the "Surveyors Society", for local authorities to couple their bridge management systems with GIS. The Bridges Team at Stirling Council have considerable experience with the non map-based management system "Bridgeman". Whilst they were keen to 'spatially enable' their data, they also wished to avoid totally replacing this system with a costly GIS alternative. Ian Young (Bridges Team Leader) identified the requirement for a map-based browser providing access to selected management records and accurate locations for structures – information already recorded in Bridgeman. Ian consulted Forth Valley GIS who developed a neat Intranet GIS-based solution with self contained map window complete with reporting, and image viewing tools. Since delivery in October 2003, Ian says that the system has dramatically saved time, especially when dealing with enquiries and notification by the general public.

"This is an example of best practice and was developed at no additional cost to the Council."

### How it works

The solution makes use of ESRI technology for both data management and delivery. The user interacts with the information through a map-based interface. The map window contains the standard background Ordnance Survey mapping plus bridge management maps. The bridges information is updated on a nightly basis using co-ordinate and attribute data extracted from "Bridgeman". The entire operation is automated using a custom written program built from ArcObjects – the same technology from which ArcGIS 8 is built.

### What next? ...

The Bridges Team are now planning the use of Portable GIS coupled with Global Positioning System (GPS) to survey the location of structures and flooding extents – information that can be made accessible through Intranet GIS in the future.

## CAG nears completion in Clackmannanshire



Clackmannanshire Council's Corporate Address Gazetteer project is moving towards completion on a number of fronts. The main areas of work relate to completion of data cleaning and matching.

Forth Valley GIS are also working with Clackmannanshire Council staff to define the processes that will be used to maintain the data in the Gazetteer. Data maintenance is an important aspect of the Gazetteer since the address information will be used in a number of Council systems. The data is already being used in the Customer Relationship Management (CRM) system in the Council's Contact Centre. The data will also be used to support the search facilities provided in the forthcoming online planning system. Users will be able to search for all current planning applications in a particular street or within a date range and retrieve information such as the plans and details of proposed developments. As such, the service is expected to significantly increase public access to planning information.

## Planning for the 21st Century in Falkirk

2004 will bring major changes to the delivery of Planning and Building Control services within Falkirk Council.

Procedures are set up within all local authority planning departments to ensure that decisions are made consistently, that the latest legal requirements are met, and that consultations are carried out with the right people, at the right time. Various 'technology' solutions exist which can make these processes more cost-effective and manageable.

Following an extensive evaluation of options, Falkirk Council has chosen CAPS Solutions' 'UNiform 7 Spatial' product to help them move towards electronic service delivery by 2005. This modern integrated software solution allows the streamlining of all functions associated with a service, from plan deposits, decisions, visits and inspections, through to fee processing, commencements, and completions. Embedded GIS functionality is fully integrated in every module of the product.

The software for hosting the Corporate Address Gazetteer will also be purchased as part of this exercise. The new system will allow greater access to management information and will ultimately provide a Public Access Portal to allow members of the public to access the full range of services on-line. Sheila Terry, Head of Planning and Transportation said:

"The new system will allow us to provide a more efficient service to the people of Falkirk, allowing access to Planning, Building Control and Development Plan information both at home and in our offices with a few clicks of a mouse."

The new system will be installed in Falkirk during the first months of 2004. It is hoped that the system will be 'live' before the end of the year.



# Back Bit ...

## Diary Dates

### 19 February

GeoData 2004  
Celtic Football Club, Glasgow

### 16 March

GeoNorth – Conference and  
Exhibition (GIS and  
e-government)  
New Century House,  
Manchester

## Funny?



**Q** What do you call a guide map to Alcatraz?

**A** A con-tour map.

**Q** What is smarter, longitude or latitude?

**A** Longitude, because it has 360 degrees

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## KMap Broadband Application

**K-map**

Scottish Enterprise

Over the last six months, the Scottish Enterprise KMap Team have been developing a comprehensive web mapping application to support the Scottish Executive's Broadband Access Programme. The project aims to support the market intervention activities of both Scottish Enterprise and Highlands and Islands Enterprise. Forth Valley GIS have been actively involved with the analysis - providing estimates of coverage and availability. The application pulls together data from a variety of sources in order to provide an up-to-date picture of:

- market demand
- current and future availability
- population coverage
- infrastructure
- business activity

Project Facilitator John Rowland, said:

"So far, the application has been very successful in helping staff to support, quantify and justify a number of different intervention measures".

The application is now being upgraded in order that it can be made available to a wider audience with additional content.

## Tips and Tricks

### See through your layers



Being able to make specific layers 'transparent' is a useful cartographic technique. This allows you to 'see through' your data to other information (for example OS mapping) which may lie beneath.

#### In DMS/Arcview 3

- 1 Double click on theme name to open legend editor.
- 2 Double click on "Symbol" to open palette.
- 3 Choose a shading (fill); note the solid black is never transparent.
- 4 Click on paintbrush and choose a foreground shading colour.
- 5 Change foreground to background, and choose.
- 6 Apply these changes and return to your view.

Note: If your new 'transparent' map still prints with solid fills then a specially formatted colour palette can be used. Contact fvsupport@forthvalleygis.gov.uk for more details.

#### In Arcview 8

- 1 In ArcMap go to View > Toolbars and load the Effects toolbar.
- 2 From toolbar choose layer you wish to be transparent.
- 3 Click on jug symbol and use slide to change transparency between 0 and 100%.

