

Welcome ...

to this Summer edition of forthvalleygisnews.

The newsletter has been going for a year now and we have been delighted with the positive response we have had from our users.

The Summer holidays have by no means slowed the progress - inside you will find the usual mix of news about FVGIS staff, customer projects and updates on important data and technology changes.

What's inside?

- News:
 - Business
 - Data & Technology
 - Staff & Training
- Going Forth
- Meet the Team!
- Tips & Tricks
- GIS Tutor
- ... and much more

Training News

Over the last six months, GIS Support Officer David France has been busy reviewing the FVGIS Training Policy. Four courses are now fully developed and available through the partner Councils short course programme. Dates for 2004 are listed below ...



Introduction to GIS (1 hour) 16/9; 7/10; 12/11; 7/12

What is GIS? Is it just maps on a computer screen? Can it help me in my work? This course demonstrates how GIS is increasingly being used in diverse and exciting ways, using both council and international examples.

Who should attend? Anyone who is interested in using GIS, or is just curious to find out more about how GIS can help in the workplace.

Getting the Most out of Intranet GIS (GeoLink) (half day) 27/8; 16/9; 7/10; 12/11; 7/12

This course demonstrates how to use and gain benefits from GeoLink, the new Intranet GIS Portal launched by FVGIS. GeoLink is a straightforward tool with diverse functionality. This course will allow you to take a closer look at the available options so that you can get the most out of GeoLink back at your workplace.

Who should attend? Anyone who has access to the council's Intranet and wants to learn more about Intranet GIS.

Starting Out in Arcview 8 (1 day) 12/8; 17/9; 22/10; 15/11; 2/12

Arcview 8 is the main Desktop GIS software used by the partner Councils. This course introduces new users to the software by means of tutor led teaching and hands-on exercises. You will learn how to load and change the appearance of map data, design maps for printing, perform simple geographical analysis and much more.

Who should attend? Any potential desktop GIS users who may be required to map and analyse geographic data.

Data Capture in Arcview 8 (1 day) 24/9; 25/10; 29/10; 22/11; 26/11

This one day course builds on 'Starting Out in Arcview 8' and introduces the concepts and methods of creating and editing geographic data in GIS.

Who should attend? Any potential desktop GIS users who have already attended 'Starting Out in Arcview 8' and who may be required to create or edit their own geographical data.

More information about these courses is available on GeoLink.
Or contact Forth Valley GIS directly on 01786 442976;
fvtraining@www.forthvalleygis.gov.uk



News ...

Headlines

Dear Colleague

It's been a busy three months for the team. GeoLink, the new web GIS portal has been further improved and fully rolled out across Clackmannanshire and Stirling Councils ... and will soon be available across Falkirk Council. GeoStore, the data warehouse, is being continuously updated with an increasingly diverse range of datasets. New training events are getting off the ground to make sure everyone gets the most out of the new GIS solutions and the first user forums have been initiated.

Looking beyond the Summer holidays, there's a busy time ahead with desktop GIS migration, advanced web GIS application developments, the integration of corporate address gazetteers and improvements to customer support services. In addition we are continuing to provide high quality GIS services to a growing range of other public sector organisations. You'll find more examples of this work inside the newsletter.

This newsletter continues to grow in success. Many thanks to all those involved!

Alan

EXTERNAL

- The Corporate Address Gazetteers at Falkirk, Stirling and Clackmannanshire Councils are now in the final stages of Quality Assurance. One of the early benefits of the CAGs is the spatial referencing of valuation and electoral data held by Central Scotland Valuation Joint Board (the Assessors). FVGIS have started working with the Central Assessors to create a GIS interface to their information systems
- At a national level, the Assessors are working collectively to develop a Scottish Internet Portal to their information and services. FVGIS have been working with this project, facilitating a business process mapping exercise focused on address data management.

- The Perth and Kinross based E-Care team have commissioned FVGIS to develop a web-based GIS data sharing application that will inform and assist collaboration between the Council and NHS Tayside to plan and deploy care provision
- Work is ongoing with East Dunbartonshire Council to centralise the council's spatial data in an Oracle 9i database. This work includes migration of all Landline holdings to OS Mastermap. This follows recent spatial database migration work at Angus Council (Oracle) and Scottish Enterprise (SQL Server/ArcSDE).

The GIS training courses outlined in 'Training News' are available to our external clients – please contact External Services Manager Richard Teed on 01786 442761 for more information.

INTERNAL

It's been a busy few months with progress being made in all of our key Development Projects, many of which are highlighted elsewhere in the newsletter:

- 'GeoStore' our GIS data warehouse, continues to serve data to the intranet site quickly, efficiently and reliably. Further tests are now underway to assess data provision to ArcView 8 users.
- With the Third Party Data Management Plan now in "care and maintenance" mode, we are starting to scope the Internal Data Management Project – looking at the management of internal business data layers across the three Councils.
- We are examining various options for replacing ArcView 3 across the three Councils. A detailed migration timetable will be available soon.
- Our customer support strategy is under review. We are investigating the options for a new improved helpdesk system and developing improved customer support procedures.
- Work with the Corporate Address Gazetteers is now focusing on their implementation and maintenance. We are working with Services to see how the maintenance regimes can be established, and how the completed gazetteers can be imported into the Uniform Planning system.



Meet the team ...

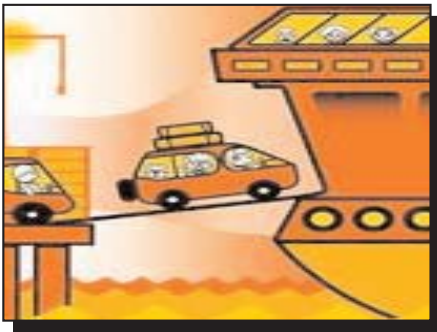
Staff News

New start

Mandy Johnstone has recently joined the team as Administrative Assistant. Mandy has a wealth of local government experience from her previous posts with Central Regional, Clackmannanshire and Stirling Councils. Welcome to the team!

Bon Voyage

Since the last edition we have had to wave goodbye to **Tom Moore**, Gazetteer Custodian and member of Forth Valley GIS for the last 5 years. Tom and girlfriend Louise have just embarked on a journey through Europe and into Africa in their recently purchased VW campervan! We wish them all the best for their future adventure!



Congratulations

... to **Gary Semple** who has recently been appointed to take over where Tom left off.

... Well done to **Fiona Thomas** who has recently gained accreditation as an OS Data Consultant. This status was awarded to Fiona after successfully completing a three day intensive training course (and exam!) but more importantly reflects the years of experience she has dealing with geographic data. Fiona is interviewed in this edition's 'Meet the Team' feature!



Fiona Thomas joined the team last year as GIS Data Co-ordinator. Simon Hope finds out more.

What do you do at FVGIS?

Well it's my first full year at FVGIS and I've worked on all sorts of projects. Some major ones have included a third party data audit and data management plan, PAI scoping study, and of course – migration to MasterMap! It's a very demanding but rewarding position and keeps me very very busy!

How did you get into GIS?

Accidentally! I started my working career as an Interior Designer in London. I got into maps in 1990 when I was offered a position at Mason Land Surveys. From there I went on to work at Scottish Water, where I really got to grips with GIS.

Career highlights?

Mastering MasterMap Migration with monthly change only update – geeky or what! Other things would be producing maps for the oil industry and compiling maps for holiday travel guides (you might even have used one!).

What are the best things about working at FVGIS?

Every day is different and presents new challenges.

Any plans for the summer?

Been there and done it I'm afraid, we've just come back from 3 weeks in Malaysia, which was fabulous. But my highlight of the holiday year has to be the country and western weekend in Millport, yeeeeee haaaaaa! It's an experience!

Where are we most likely to find you ... the pub or the pool?

If my recent holiday is anything to go by then I'll say the pub by the pool!

What do you get up to in your spare time?

I like drawing and painting: landscapes (watercolours/pencil) and architectural work (pen and ink/pencil).

In a world without GIS, what would you do?!

Difficult one – who knows, but probably something to do with art and design.



Forth Valley Substance Action Team (SAT) is a partnership made up of members from **Community Groups, Health Organisations, Local Authorities, Police, and the Voluntary Sector.**

It is responsible for implementing a national strategy on drugs, alcohol and other substances. Forth Valley SAT having been working with Forth Valley GIS since 2001.

GIS is ideal because it helps partner members to share information more effectively. The success of such a partnership relies on the quality of this shared information and any

decisions that are based on this. In this situation, GIS makes it possible to identify trends and patterns in behaviour without compromising an individual's right to confidentiality.

With this information in hand, it is much easier to make more effective decisions on where priorities lie and how to allocate resources.

For one project, FVGIS developed a database to help service providers to record information about contact with clients. This means that different services are now collecting data in a consistent fashion making it much simpler to analyse.

SAT co-ordinator Marion Logan says:

"Using GIS has helped the Substance Action Team to both develop services and target resources in an effective and justifiable manner. For example, by mapping 'service user' information, 'service providers' are now better able to identify and develop appropriate access points."

Unravelling the Jargon!

Orthorectification

Orthorectification. Sounds vaguely medical and a little bit painful don't you think? If you've ever used aerial photography as a background in your GIS, then chances are you were working with an orthorectified image – or an 'orthophoto'.



Any photograph taken from the air is subject to a number of 'distortions'. These come from the camera and its view of the undulating terrain that is being photographed. A combination of 'georectification' and 'orthorectification' can be used to correct an image for these distortions. Once complete, you can accurately overlay other GIS data in a meaningful and useful way.

Sounds simple? ... It's not!



Georectification software uses mathematical translations, which 'warp' the raw image to fit the ground. This produces an image which is considered 'correct' in the x and y dimensions. Orthorectification then corrects for distortions in the z dimension (the vertical). There isn't space here to go into the mystical process that is orthorectification. And thankfully you are unlikely to ever have to ... leave it to those shadowy men on the shadowy planets of Photogrammetry and Remote Sensing! If you are foolhardy enough to want to find out more then check-out the excellent in-depth article in our Technical Library in the Support area of GeoLink!

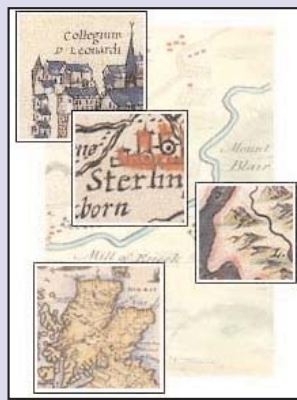
Web Watch: Calling all map enthusiasts!

If you are the kind of person that chooses a map rather than a book to read in bed at night then this edition's Web Watch is definitely for you!

www.nls.uk/maps

This site provides access to the National Library of Scotland's digital map archive of hundreds of zoomable maps of Scotland. The map library is one of the ten largest in the world and contains maps of Scotland dating back to the 16th Century! Visit the site to browse historic town plans and detailed Military maps from the 18th Century ... and check out the archives' greatest treasures - the earliest surviving detailed maps of Scotland, made by Timothy Pont over 400 years ago and the Blaeu Atlas of Scotland from 1654 - the very first Atlas of Scotland.

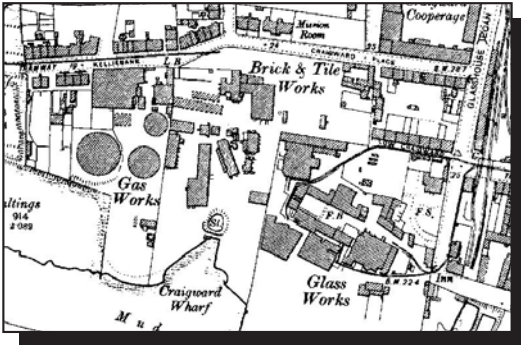
The National Library of Scotland have also recognised the opportunities GIS would provide to help web users search and retrieve their resources. Working in partnership with Forth Valley GIS, a pilot web-mapping framework has been developed that will form the basis for future developments. The application is currently being piloted to provide access to Bathymetrical Survey charts of freshwater lochs throughout Scotland. <http://geo.nls.uk/bathymetric/>





Going FORTH ...

Getting the full historical picture



Clackmannanshire Council have recently bought Historical Mapping from the Landmark Information Group for use within their contaminated land GIS package. Michael McNaughton, Contaminated Land Officer says:

“Historic maps are not only a clear representation of changing land use; they are also a visual tool in identifying details such as individual buildings and industrial features. An example of this has been an old gas works. After doing a thorough investigation into the contamination issues it was found that underground sludge tanks usually lie beneath gasometers. Looking at the historical maps within the GIS can identify these gasometers. We are then able to better direct intrusive investigations – saving both money and time. Particular areas or ‘hotspots’ can be detected more easily when the visual evidence is in front of you”.

Forth Valley GIS has been involved with each of the partner councils to help them gain access to this valuable data within their Contaminated Land GIS systems. Simon Hope, Forth Valley GIS Support Officer says:

“The data provided by Landmark is clearly a valuable resource to the contaminated land projects across the three councils – however, since the mapping is being processed and managed within GeoStore, the benefits of the data are available to a much wider audience.”

Update:

UNI-form 7 Spatial implementation in Falkirk Council

In a previous edition of forthvalleygisnews, we announced that Falkirk Council had chosen CAPS Solutions' 'UNI-form 7 Spatial' product to help them move towards electronic service delivery. The product has now been successfully installed and the project team have now met with CAPS Consultants to discuss the next phases – the transfer of the Corporate Address Gazetteer and the existing Building Control and Planning System data into a UNI-form 7 “test” environment. Falkirk Council anticipate going live with UNI-form Spatial in December 2004/January 2005.

Stirling Council uses GIS to raise Asbestos awareness



Stirling Council Corporate Asset Management (CAM) is developing

an asbestos management plan to fulfil their statutory requirements under the Asbestos at Work regulations (2002).

As part of the plan, CAM are in the process of carrying out asbestos surveys in partnership with the Institute of Occupational Medicine (IOM) to build a comprehensive picture of the instances of asbestos within council owned properties.

FVGIS have developed an online asbestos register which integrates with the new GeoLINK web based GIS. Asbestos survey information can be accessed through council property enquiries made within GeoLINK. Users can then add the survey location data to their maps and make detailed interrogations.

Summary and detailed reports are produced, together with associated photos and plans of the buildings. One important function of the system is that users of buildings (or those that have responsibility for the building – a head teacher for example) can enter brief asbestos assessments online. This information is fed directly to the CAM team who are then able to record and prioritise the information before it making it available to all users of the asbestos register. The information provided will allow users to clearly identify the instances of asbestos and evaluate the associated risks involved.

Data News & Technology Update...



Fiona Thomas, Forth Valley GIS Data Co-ordinator brings you all the latest information ...

New Datasets ...

We have recently introduced some new datasets to the "GeoStore".

1:25K: This Ordnance Survey colour raster product will compliment the other scales of background mapping licensed by the partner Councils. Tri-Council coverage is available.

Aerial photography: Falkirk Council have recently licensed 25cm aerial photography from GeoSense & Getmapping. Flown in 2001/2002, the data will be used in a number of important environmental projects, including contaminated land studies (see GOING FORTH!). There are many other areas where the data could be adopted – these include: to further validate school safe routes (eg tree-lines and other hazards), to assist with community/emergency planning, asset management.

Radar data: Full tri-Council coverage is now available. Provided by Intermap Technologies & Getmapping, the key feature of the radar imagery is that it provides a means of viewing the earth's surface in a way that accentuates features far more than is possible with aerial photography. The data can be used to extract cultural features such as road networks, rivers and urban areas, etc. There is a wide range of potential applications relating to development, planning, community, geology, geomorphology, agriculture, forest management, hydrology, natural hazards as well as the mapping element.

Falkirk Council licenses Point X



PointX is a new and highly valuable data product on the market. A bit like the spatial version of Yellow Pages, it identifies and locates 750 different classes of information under the following headings:

- Accommodation, Eating and Drinking
- Commercial Services
- Attractions
- Sport and Entertainment
- Education and Health
- Public Infrastructure
- Manufacturing and Production
- Wholesale
- Retail
- Transport

Information is sourced from a number of suppliers including Ordnance Survey, Thomson Directories, Experian and more. Records contain the OS Topographic Object Identifier (TOID) and Version making it possible to integrate the data with other sources of map information. Falkirk Council have now licensed the data and will be using it to help realise their contaminated lands responsibilities. However, potential applications of the PointX dataset are many and varied. The product is a joint venture between Landmark Information Group and Ordnance Survey. A full product description is available on GeoLink.

Interested in sourcing some additional geographic data? Requests for quotes can be submitted via GeoLink.

GeoLINK Metadata Register: Understanding your data ...

What is metadata? Simply information about the data you use! (see issue 1 – unravelling the jargon). Our metadata register - available through GeoLink - is getting fuller by the day.

There are now about 50 third-party datasets available in the GeoStore as well as approximately 160 Council datasets. Each dataset is supported by its own record in the Metadata Register. The metadata identifies and provides contact details for the data custodian. It documents when data was last updated, the information stored in its attribute table, its source, scale of capture, spatial extent, and much more. For some of the more complex datasets, there are also links to information sheets (compiled by the FVGIS data custodian) to help you to understand and get the most out of the data. An on-line form is available on GeoLINK to allow data custodians to submit data and metadata for publishing.

If you have any queries on this subject then please contact Fiona Thomas (GIS data co-ordinator) on 01786 442632.

Data Updates ...

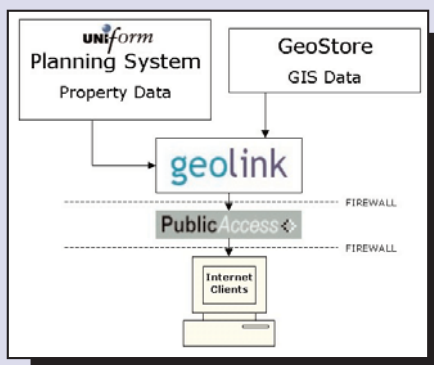
As well as these exciting new products, work is ongoing with keeping the 'old favourites' up to date. The following 3rd party datasets were updated across the councils since April 2004: Ordnance Survey; Mastermap topography (monthly change-only updates); OSCAR; Land-Line; Address Point; 1:10k raster.

Technology Update

Stirling Councils' Public Access for Planning is now connected to GeoStore through GeoLink!

GeoLink brings together data from the UNIFORM Planning System and GeoStore to provide a single Map Service. This benefits from the most-up-to-date GIS data available including council boundary information, OS MasterMap, various background datasets and of course properties from the UNIFORM Planning System.

The Public Access site is available at: www.stirling.gov.uk



GIS User Forums

In June, inaugural meetings were held for the first three GIS User Forums:

- Planning and Environment
- Roads and Transportation
- Housing, Property & Estates

It is hoped that these forums will act as a key interface between FVGIS and the user community. A number of consistent and positive ideas were expressed in each forum. The full minutes of the meeting can be found under the Work Plan section of GeoLink.

The meetings are to be held quarterly (the next being at the end of August) and there will be a formal review of the success of the forums in December of this year.

We would encourage anyone who has an interest in these forums to come along!

GIS Tutor ...

DEMs – a journey into the z dimension!

Most of you are probably fairly familiar with the representation of height data on conventional paper maps – contours, spot heights, relief shading etc are all commonly used methods. One of the most exciting benefits of working with GIS is the potential to create and use this height information in more innovative ways.

First, lets clear up some basics ...

Height is a continuous phenomenon. No matter where you stand on the earth's surface, that point will always have a height!! The height at this point in 'xy' space is often referred to as its 'z' value (usually in metres above sea level). Whilst a GIS might use the contour model, height is more commonly represented by a Digital Elevation Model (DEM) or Digital Terrain Model (DTM). Many people use these terms interchangeably. In actual fact, a DTM is a measure of the height of the earth's surface whilst a DEM includes the height of all objects that sit on the surface. Height data can be produced by a number of techniques. However, whether the height data is produced from imagery captured from the air or by surveys on the ground will largely determine whether it is a DEM or DTM that is created!

So how can we use height data?

Using a DEM as a third dimension in your GIS can bring about stunning visual effects. Map data can be 'draped' over the terrain to present an instantly recognisable impression of the land.

Whilst the value of using DEMs as a backdrop shouldn't be undervalued, the ability of a GIS to operate in 3 dimensions has many more scientific applications. These include:

- Line of sight analysis – e.g. where to locate a wind farm
- Hydrological modelling – e.g. catchment management and flood risk analysis
- Telecommunications analysis based on radio wave propagation
- The 'orthorectification' of aerial photography (see Unravelling the Jargon)

Future editions of GIS Tutor will consider some of the methods use to capture height information as well as other types of geographic data.



Mapping Service Agreement: negotiations continue

Negotiations are still underway to establish the details of the new Mapping Service Agreement. Ordnance Survey has extended the existing Local Authority SLA until the end of September to permit the continued use of those OS products in the interim period. Further details will be posted on GeoLink as the situation evolves.



Back Bit ...

Seminars

OS Local Authority GIS Conference

8-9 September at York University
14-15 September at Brunel University
28-29 September at Bath University

GeoSolutions

29-30 September at Birmingham NEC

AGI '04

12-14 October, Chelsea Village, London

AGI Scotland

Taking GI Seriously

16 September, Edinburgh

Location 2004!:

THINK GIS for Local Government

14 September, London
16 September, Bristol
22 September, Manchester

THINK for the Public Sector

28 September, Edinburgh

Quotes

"Anybody who believes that the way to a man's heart is through his stomach flunked geography."

Robert Byrne

"Maps encourage boldness. They're like cryptic love letters. They make anything seem possible." Mark Jenkins, "To Timbuktu"

For further information please contact:

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Tips and Tricks

Making maps easier to understand by Changing Symbols

Point features (eg houses, bridges, schools) may not first appear exactly as you would like. The following techniques show you how to change your symbols to make your data easier to understand.



In DMS/Arcview 3

- 1 Double click on the theme name in the Table of Contents to open the Legend Editor
- 2 Double click on the Symbol to open the Marker Palette
- 3 Choose a different symbol, size and angle as required
- 4 For a different colour, click on paint brush symbol, and choose a foreground colour
- 5 You can then save this new style for future use

You can add more symbol sets by selecting the artists palette symbol from the Marker Palette, clicking load and navigating to the installations /symbol directory. Contact FVGIS support for help with this.

In Arcview 8

- 1 Click on the point symbol displayed in the data frame
- 2 Select another symbol from the list
- 3 Change its colour and size

Click on More Symbols to reveal extra suites of symbols (eg Forestry, Public Signs, etc) available for use.



The Geolink intranet site experienced 63,115 hits in July - very encouraging at the peak of the holiday season!

The site has recently had a bit of a face-lift, and is now looking better than ever! The new site has already been introduced to users in Clackmannanshire and Stirling, and after successful performance testing it is now ready to be rolled out in Falkirk. If you haven't visited the site recently, give it a try! You can find it by following the link on the "COIN" links page (Clackmannanshire) or the GIS link on "The Source" (Stirling).

Haggis visits Falkirk!

In the last edition of forthvalleygisnews we announced our Have A Go at GIS competition. Congratulations to everyone who took part - we hope you enjoyed it! The lucky winners are: **Clackmannanshire** Andrew Young; **Stirling** Laura Coutts; **Falkirk**: competition closes 1 October. They each receive £50 worth of shopping vouchers.

