

Dumfries and Galloway Council GIS

GIS Tools for Service Delivery and Improvement

Introduction

Geography is a vital factor in the demand and supply of local authority services. The range of opportunities to use geographic information in support of service improvement is almost limitless. However, there are also many challenges in managing large volumes of complex geographic information in order to realise the benefits. Dumfries and Galloway Council have adopted an approach that efficiently and effectively meets these challenges (see D&G Corporate GIS Development case study) and provides a basis for cost effective development of tools to enable service managers to improve the efficiency, effectiveness and quality of service planning and delivery.

Requirements

A number of business areas were identified as being in need of GIS-based tools. Those that have already been addressed include :

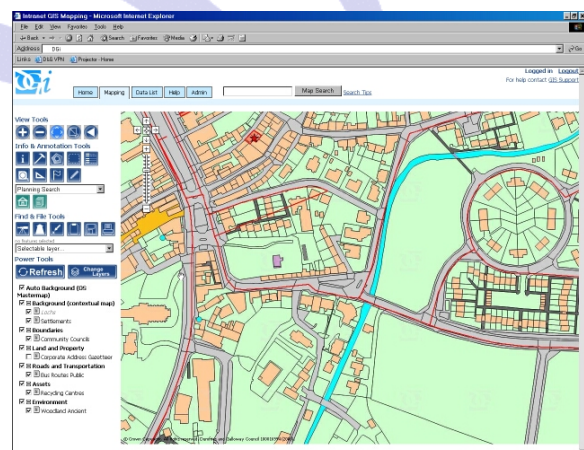
- Neighbour notification for planning and licensing applications
- Road and transportation incident management.
- Planning constraints searching and reporting
- Recording of road infrastructure improvement
- Asset Management
- Measurement and annotation (redlining) of mapped information for general users

Solutions

Forth Valley GIS have worked closely with Dumfries and Galloway Council corporate GIS staff and service teams to define and deliver a range of new business

tools and/or provide new versions of legacy tools, including:

- Neighbour Notification Tool (NNT). To support the process of identifying and notifying parties of proposed licensing and/or planning applications
- Transport & Roads Incident Management (TRIM). To allow engineers to record details of impact on the road network
- Planning Search. Configurable constraints checking
- Key Schemes. For the recording and notification of infrastructure improvement works
- Asset Management (ADAM). To provide a geographic view of the Council's assets
- Measurement and Annotation (redlining). To enable all users to create task-specific maps for use on-screen or in high quality printed output



All tools are integrated with the central corporate geographic database and are available to named users from within the Council's corporate intranet GIS - DGi. This means that all tools benefit by sourcing data from the Council's 'single source' of geographic information. However, a number of the applications also allow users to create new information within the

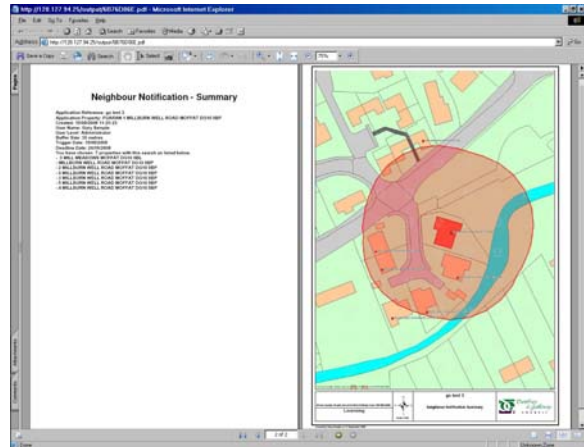
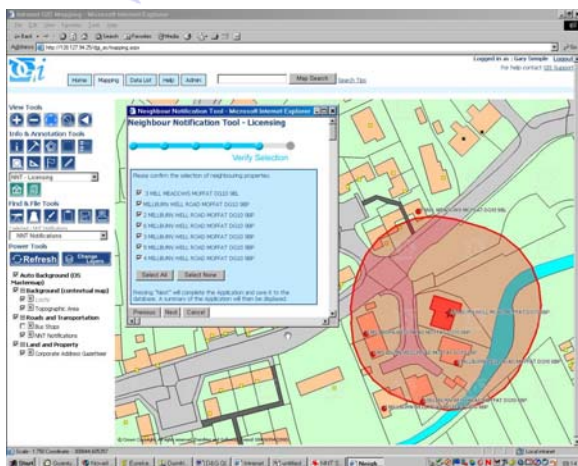
corporate database so that the new details are then immediately available to all other authorised users.

Neighbour Notification Tool

The Neighbour Notification Tool (NNT) integrates key elements of the corporate GIS infrastructure such as the Council's own Corporate Address Gazetteer (CAG) and Ordnance Survey MasterMap (OSMM) and provides XML export files in an agreed format for use within the Anite GLAMS system. The tool provides a user-friendly approach that guides the user through the use of advanced GIS functionality to:

- Identify properties from the CAG that are the subject of applications
- Trace OSMM polygons or define freehand areas to represent the application area
- Buffer the application area to identify adjacent properties to be notified
- Extend or reduce the list of relevant properties by further geographic selection
- Produce auditable outputs for use in Anite GLAMS (XML) or more general use in the department (PDF report with combined audit report and map view)

All relevant details are saved to the corporate geographic database for future reference. Users also have the option of editing previous notification sets if required.



The tool has been developed in response to licensing legislation (Licensing Scotland Act 2005) and demonstrates how the corporate infrastructure can be extended to meet the needs of service teams in a way that reduces the manual overhead of processing multiple applications and, critically, provides an audit trail of the officer's actions. Significant efficiencies are expected to be achieved by using the tool. A parallel, but tailored, version of the NNT has also been developed to meet the specific requirements of emerging planning legislation (Planning etc Act 2006) which increases and changes the Council's responsibilities for notifying neighbours about planning applications.

"The Neighbour Notification Tool is an excellent example of cross service collaboration delivering a tool that meets a number of shared needs for both licensing and planning teams"

- Barry Young, GIS Officer, Dumfries and Galloway Council

Benefits

The neighbour notification tool and the wider set of business applications provide a number of benefits to Dumfries and Galloway Council:

- Business tools are developed in close consultation with business users, to meet the needs of their specific working practices
- Tools that integrate with and extend the capabilities of the corporate GIS infrastructure to

gain additional benefit and return from the original investment in the core infrastructure

- Access to business tools and business data is controlled by user privileges, aligning with good practice in information management
- The content and quality of information being created and used within the Council can be more effectively monitored and controlled
- Shortened development timescales by reuse of components from other local authorities

Conclusion

The business tools described in this case study support the overall implementation of service improvement activities in a way that achieves increased return from the original investment in GIS. The tools also provide a core of common functionality that has been developed in such a way to allow efficient and accelerated development of further business tools in response to emerging business needs and changing working practices.

Project type:	Corporate GIS Infrastructure, Intranet GIS, PRINCE2, Data Management, Metadata Register, Corporate Address Gazetteer, Business Process Improvement
Software:	Oracle, AutoDesk MapGuide Enterprise, Snowflake GoLoader, Dotted Eyes ShiftWiz, CADCorp MapModeller, Flash, ASP.Net
Customers:	Dumfries & Galloway Council

For further information, visit our web site where you can fill in an on-line request for further information:

www.forthvalleygis.co.uk

or contact us:

**Forth Valley GIS
Drummond House
Wellgreen Place
Stirling
FK8 2DY**

Telephone: **01786 443939**

Fax: **01786 443987**

Email: **fvinfo@forthvalleygis.co.uk**

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