

Dumfries and Galloway Council GIS

Corporate GIS Development

Introduction

Forth Valley GIS have worked closely with Dumfries and Galloway Council to implement an integrated corporate infrastructure for GIS. The Council had been using GIS successfully for a number of years. However, a clear requirement to consolidate and modernise GIS infrastructure and processes had been identified, with the overall aim of using geographic information and technology to support and improve service delivery.

Requirements

Key business and technical requirements for GIS at the Council included:

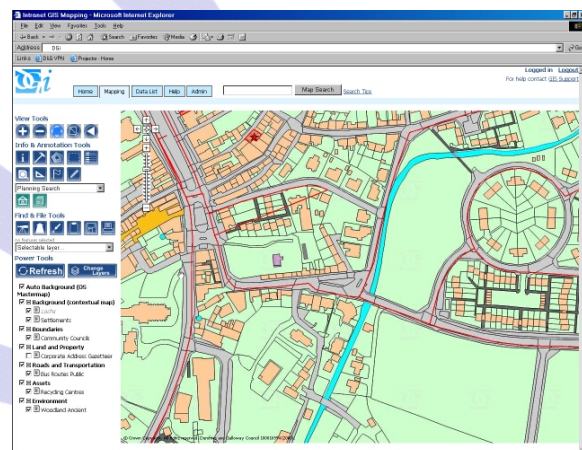
- The increasing relevance of geography in service planning and delivery decisions
- Improvement of data management systems and processes
- Response to Ordnance Survey Positional Accuracy Improvement (OS PAI)
- Modernisation of existing GIS technologies
- Achievement of efficiencies by integrating desktop GIS and existing business systems with corporate GIS resources

Solution

Forth Valley GIS applied extensive experience of GIS and the local authority environment to define a structured programme of work. Both organisations preferred the PRINCE2 methodology for project management and this was a key element in defining and agreeing a structured implementation plan within tight timescales.

The plan included a comprehensive programme of technical work, coupled with the critical aspect of process analysis and design for data management tasks. This will ensure that the Council's investment in technology will be protected by an efficient, effective and sustainable approach to geographic information management.

The most visible output of the project is a fully integrated Intranet GIS solution – "DGi".



"The Corporate GIS Infrastructure is the first of many deliverables planned for the coming years. We look forward to working with FVGIS in providing high-quality GIS solutions that improve the way we work"

- Barry Young, GIS Officer, Dumfries and Galloway Council

DGi provides all staff with comprehensive query, view, print (QVP) application as well as providing an extendible, role-based environment for access to business-specific applications. The main capabilities of DGi allow users to:

- Find, understand, and assess the relevance of GIS datasets using the fully integrated Metadata Register – ‘data list’
- View and query information using a range of map navigation, textual searching and spatial selection tools such as buffering
- Output high quality hardcopy maps using a flexible and extendible printing module
- Access data and applications that are relevant to their job role, including editing of data directly in the corporate spatial database
- Prepare task-specific maps using customised measuring, redlining and annotation tools
- Save commonly used ‘setups’ of layers and locations, specific to individual users
- Access a range of help and support information

These capabilities have been delivered by implementation of an architecture that combines best-of-breed technologies to provide an open, flexible and powerful solution. The main elements of the solution are:

- Corporate spatial database using Oracle SDO format for spatial data storage and editing
- Integrated and flexible Intranet GIS solution, built on Autodesk’s MapGuide Enterprise platform using ASP.Net, third party components and a range of reusable FVGIS components
- Extendible structure for a range of tailored business tools – Planning Search, Neighbour Notification, Roads Incidents Management, etc
- Data management tools – Snowflake GoLoader, CadCorp MapModeller, Dotted Eyes ShiftWiz
- Data management processes – documented business processes to ensure effective control of the corporate environment
- Provisions for editing in Oracle via either Intranet GIS solutions or other third party GIS systems

“Corporate GIS is one of the Council’s key business transformation projects and we are committed to using GIS to improve service delivery for the Council, partners, and the citizen. Forth Valley GIS is helping us to achieve this goal”

– Peter Bulmer, Corporate Director of Planning and Environment Services, Dumfries and Galloway Council

Benefits

Dumfries and Galloway Council have realised a range of benefits from the engagement with FVGIS:

- Rationalised, documented and implemented improvements to the data management regime
- Fundamentally modernised the core of the GIS infrastructure for current and future development
- Provided users with a ‘one-stop-shop’ for access to GIS tools, data, information and support
- Laid the foundations for information sharing within the Council, with local partner agencies and the wider public sector
- Begun to address the challenges of OS PAI
- Shortened development timescales by reuse of components from other local authorities
- Developed a relationship that supports sharing of information and skills with the wider public sector

Conclusion

By engaging FVGIS, D&G have achieved a sophisticated bespoke solution in a short period of time and have modernised key elements of the Council’s GIS infrastructure. In addition to the range of specific benefits, this has provided a solution that can be extended to meet a range of current and emerging business needs in a way that provides maximum support for the Council’s business processes for minimum marginal cost.

Project type: Corporate GIS Infrastructure, Intranet GIS, PRINCE2, Data Management, Metadata Register, Corporate Address Gazetteer

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**

Oracle is a registered trademark of Oracle Corporation and/or its affiliates

AutoDesk MapGuide® is a registered trademark of Autodesk, Inc., in the USA and/or other countries.