

# case study

**SpectrumITech**

Electronic  
Document  
Records  
Management

## Geological Survey of Ireland



Entrance to GSI Dublin

**SpectrumITech Data Management, an operating division of Spectrum E.I.T Ltd, has been awarded a major contract from the Geological Survey of Ireland (GSI).**

The project, started in November 2001, is scheduled to take 18 months to complete. It utilizes a significant pool of resources and expertise available from both SpectrumITech Data Management and the Geological Survey itself. The EDRMS will provide a totally integrated range of information management services to the organisation, which it is planned to web enable to provide access to the general public. The GSI is a division of the Department of Public Enterprise. It is the national Earth Science agency with responsibility for acquiring and disseminating earth science information for use by public and private sector customers.

The paper and digital information records have been split into graphic and textual records. The paper records exist in printed or manuscript form, date from as early as 1845 and are unique in terms of content and use.

The paper graphic records include maps, plans, sections, diagrams and drawings. They range in size from less than A4 to A0 or larger. The records exist in all formats and presentations, black and white, greyscale, or colour including watercolour in the case of hand-painted nineteenth-century maps and illustrations.

The paper text records include catalogues, reports, publications, notebooks and notesheets. These range in size from A5 to A3 or larger in the case of nineteenth-century ledger records. The media being presented is in the form of loose sheets, books, volumes, reports and notebooks bound in many different ways from staples to perfect bound.

### Highlights

- **Document scanning bureau with large format scanners**
- **Digital capture of heritage maps**
- **Many unique manuscripts**
- **An electronic document records management system (EDRMS) comprising EDM software and server with RAID storage devices and work stations for data access and loading**
- **Web enabled intranet access**

### SpectrumITech advantages

- **Bespoke bureau implementation**
- **Rapid deployment and integration**
- **Total solution and service provision**
- **Flexible staffing**
- **Long term client commitment**

The digital graphic records have been created on packages including CorelDraw, AutoCAD and Arc/Info.

In addition, the GSI also hold a range of data and metadata, some of it structured data relating to graphic products, GIS and map production applications, in a variety of databases. These range from legacy systems in GSI – Inmagic, Headfast and Dataflex, to more modern systems including MS Access, Arc/Info and Oracle. Recently Oracle was selected as the primary corporate database. As a result, all new database information has been created within, and some core legacy data has been migrated to, Oracle. The EDRM system will be interfaced with existing Oracle databases.

A subset of the paper graphical and text records are being scanned, digitised and indexed by the SpectrumITech bureau as part of this project. On an ongoing basis GSI will also scan and digitise additional records using capture facilities provided by SpectrumITech, including customised batch scanning functionality, and operated by their own staff, trained as part of the contract.



**Original Geological Map (at 6":1 mile scale), from 1800s**



**Quaternary Map Store (Phase 2)**

In fulfilment of the contract, SpectrumITech has established a scanning bureau within the GSI premises at Beggars Bush with a staff of six dedicated data management technicians.

The bureau is undertaking an extensive range of data processing services for over 450,000 pages and maps. These services include document scanning, cataloguing and indexing, data loading and information audit services, media transcription, document management, OCR services, database population and electronic data warehousing.

In addition to the service bureau, SpectrumITech has designed and will install all components of the web-enabled electronic document management system. SpectrumITech will also be responsible for relevant components of the network environment.

Total storage requirements for the imagery being generated will amount to approximately 1.5Tb, stored on both a dedicated server and allocated parts of the GSI HSM (Hierarchical Storage Management System). The dominant method of internal access to the DMS will be via the custom built web browser interface, involving no desktop installation, but search, view and print facilities. This solution enables GSI to meet client requirements for digital copies from map sets and databanks, in real time, supplied via e-mail, disk or CD.

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