Creating an informed enterprise

WSP Group

The Challenge

• To make GIS available to all staff
• To make the data easy to use, regardless of expertise

The Benefits

• High quality output, rapidly available to engineers and clients
• Simpler, quicker, cheaper data management

The Customer

WSP Group plc is a global management and engineering consultancy. Whether designing, building or maintaining roads, bridges or civic amenities, knowledge of the built and natural environment is essential to their business and that of their clients.

The Challenge

When planning new road links, staff need to know the location of existing transport routes and centres of population; when designing new amenities, they need to know what environmental constraints might exist. The challenge was to make this information readily available to support staff in their day-to-day role.

Previously, WSP had a single data repository (including Ordnance Survey, NAVTEQ and demographic data), but used two different Esri tools for working with it: ArcIMS for around 100 non-specialist users, and ArcGIS Desktop to provide advanced functionality to around 300 specialists. WSP wanted to make data available to all 2,800 employees, irrespective of location and level of GIS expertise. Consequently, any new system had be intuitive and easy-to-use.

“We wanted to give our employees easier access to maps and enable them to obtain the geographic information they need without having to ask a GIS specialist,” says David Edem, UK GIS Manager at WSP.

The Solution

Esri’s ArcGIS Server was identified as the best solution, partly because the Flex API (Application Programming Interface) in v9.3 makes it easy to create customised mapping applications, combining web services from ArcGIS Server with other web content, for delivery over an intranet or the web.

In addition, WSP chose Google Maps API Premier to provide access to background mapping and Google AJAX Search API for location finding.

Within four months, WSP developed a corporate mashup called iGIS to deliver GIS services to its UK employees. It integrates Google base maps and location services with the WSP’s geographic data assets and the powerful geo-processing capabilities of ArcGIS Server, which makes many terabytes of data instantly accessible across the entire UK operation.

The result is a user-friendly mapping application that allows users to perform such tasks as query population statistics by area, undertake proximity searches, sketch site boundaries and print maps on demand.

Learn more at: esriuk.com/industries/private_sector
Benefits

Adoption was rapid (760 staff in the first fortnight and more than half the 2,800 UK staff within months) and the benefits too.

Data and functionality previously available to a few specialists is now available to all, taking GIS to new areas of the business. The intuitive iGIS interface, coupled with standard templates for figures and plans, has enabled GIS novices to produce high quality work for clients, including simple site location plans, analysing the demographics of an area, or undertaking complex spatial searches.

What previously took hours to pull together is now available in a fraction of the time, which is important in a business where many projects are charged on an hourly basis. iGIS allows WSP consultants to arrive on site with better knowledge of likely ground conditions and to offer a quicker, lower cost and higher quality service to clients.

ArcGIS Server has revolutionised data management: by having a central online data catalogue, WPS has saved money by eliminating unnecessary duplication and monitoring group spend more effectively to negotiate better rates.

Directors at WSP have been very impressed: “This is an exciting development of our GIS capability, which will materially improve the speed and efficiency of the delivery of a wide range of our project technical activities, calculations and presentation material,” says Mike Sheehan, Director, WSP Group. “iGIS helps to keep WSP competitive and stand out in the marketplace.”

Driven by positive feedback from staff and high demand, WSP plans to expand iGIS in the UK by adding further datasets and functionality and to roll it out globally across the entire group.

Recent improvements include adding new environmental and cultural heritage datasets and there are plans to add a geological map library catalogue showing where paper-based mapping has been purchased and where it is held.

In addition, WSP plans to use ArcGIS Server to develop value-added services for clients, who will be able to access their own data, analyse the results, drill down into layers of information and print their own maps, all via a secure login.