When Surrey Heath Borough Council began to experience difficulties with its existing land and property-related GIS facilities, it turned to Cadcorp business partner Plantech Ltd. for a solution.

Located in the south of England, the Borough of Surrey Heath covers 36.5 square miles. With Camberley as its main town and several villages set amongst wild areas of open heath and pine and birch woodlands, it is home to over 80,000 people. Surrey Heath is renowned for nursery and market gardening. However, the area is also popular with new technology firms and has strong commercial and industrial centres providing a vibrant economy. It also has strong military connections, with the British Army’s Staff College being in Camberley, the famous Royal Military Academy being at Sandhurst and the Royal Logistics Corps headquarters located at Deepcut.

In 2005, council members and the senior management team at Surrey Heath Borough Council made the decision to implement a corporate-wide GIS across the authority. Underpinning this decision was the recognition that GIS would be a core part of the infrastructure required to take the council forward, both in terms of its e-government objectives and of the quality of service it offers the public.

The GIS they selected was Cadcorp SIS® - Spatial Information System®. This is an integrated and complete family of desktop, web, developer and mobile GIS software products with a common GIS ‘engine’ at the core. As a result, all Cadcorp SIS products work in the same way, sharing functionality and benefiting from a number of advanced and in some instances, unique capabilities. These include the ability to read and/or write to over 150 native GIS, CAD, graphics and database data formats on-the-fly without translation, no requirement for middleware to access databases and the inclusion of Open Geospatial Consortium, Inc.® (OGC®) compliant interfaces as standard.

We selected Cadcorp’s desktop and web-based software for a number of reasons”, says James Rutter, GIS manager, Surrey Heath Borough Council. “First, it’s easy to use and it’s fast at handling tasks such as digitizing vector data and handling large image files. Second, it has the ability, at no extra cost, to directly read and/or write to over 150 native file formats and databases, including Oracle. This means that we could build a central repository in Oracle for all of our spatial data for everyone to access. Third, the web-based GeognoSIS.NET software provides many of the facilities found in the desktop products and makes them available to a wider community over our internal intranet or the Internet.”

Back-office and GIS applications linked

In parallel with its decision to implement a corporate GIS, the council was keen to get the full benefits to be gained from linking back-office applications, such as planning, building control and land charges etc., all of which have geospatial content, with its GIS facilities. Initial attempts to
do this had thrown up some problems, such as geospatial searches initiated from back-office applications not properly identifying all the ‘boundaries of interest’ within a specified search area. Something was clearly amiss.

It was at this stage that Plantech was invited by the council’s GIS development team to help solve the problem and provide a working solution.

After examining the problem, Plantech was convinced that it was not due to any failings or shortcomings in the Cadcorp SIS software but rather, was more a system development resources problem. They therefore decided to develop the system using the Cadcorp SIS Software Developer Kit (SDK) to embed GIS capabilities within their ACOLAID system. This provided full integration between the various ACOLAID modules and the council’s existing Cadcorp SIS-based corporate GIS.

Plantech had earlier won a contract to provide Surrey Heath Borough Council with its ACOLAID software for planning, building control and land charges, along with the corporate land and property gazetteer. These modules are now in daily use by the council, along with the recently implemented ACOLAID system for environmental health and have largely replaced the council’s existing systems from other suppliers.

The link with Cadcorp SIS provides ACOLAID users in planning, building control, land charges and environmental health with direct access, from within the ACOLAID environment, to powerful digitising tools. These enable users to effectively and accurately capture basic land parcel units (BLPUs) along with case data and automatically link the captured data to the various ACOLAID modules. This provides users with a more efficient way of creating GIS data relating to, for example, planning applications or land charges.

This alone makes the different processes simpler for users as it significantly reduces the need to have ACOLAID and Cadcorp SIS open separately. Furthermore, it is a dynamic, two-way link. Data can be retrieved both spatially from the digital maps and also via the back-office systems provided by Plantech. As a result, in most cases all the work can be done from within one application.

Having successfully implemented this dynamic, two-way link between the GIS and back-office systems at the desktop level, Plantech’s next task was to make both the spatial and associated textual data relating to land and property activities available to users via the council’s corporate intranet, using a standard web browser user interface.

This was achieved with Cadcorp GeognoSIS.NET™, which extends the dynamic functionality of Cadcorp SIS for use over the Internet or a company-wide intranet. Rather than simply publishing data, GeognoSIS is a dynamic, web-based GIS application that can access all of the functionality of Cadcorp SIS to deliver everything from simple data access applications right up to complex, desktop-like GIS analysis capabilities over the Internet.

Benefits all round
The development and implementation of the integrated ACOLAID/Cadcorp SIS system at Surrey Heath Borough Council is enabling the council to more readily meet its ambitious e-government targets and has already been extended beyond the original application areas.

The GeognoSIS-based web capability has made mapping and associated textual data available to staff throughout the council and by providing ready access to both data and applications via an easy-to-use user interface, has helped to speed up the council’s land and property-related activities.

Plantech has also been able to provide a number of customer-facing Internet applications, including the Planning Portal, NLIS Level 3, Building Control Online and Planning Web Pages, all of which have helped the council improve its customer service levels.

The benefits of using Cadcorp SIS and GeognoSIS also extend to Plantech itself.

As Rob Anderson, managing director, Plantech Ltd., states, “There are several benefits to Plantech — and to our customers - from using Cadcorp SIS as the GIS component of our solutions, the most notable being its open nature and ability to work with data in many different GIS and graphics formats. As a result, working with Cadcorp and providing an embedded link with Cadcorp SIS within our software reinforces the openness and interoperability of ACOLAID, making it an even more attractive proposition to our potential customers.”

Richard Rollins is marketing manager, Cadcorp.