



KEEPING IT SIMPLE WITH WEB MAP LAYERS

THE LATEST POINT RELEASE OF CADCORP'S SIS DESKTOP PRODUCT, REVIEWED IN OUR MAY 2011 ISSUE, WAS THE FIRST OF A NUMBER OF DEVELOPMENTS FROM THE UK-BASED COMPANY. RICHARD SPOONER NOW TAKES A TOUR AROUND ITS RECENTLY-LAUNCHED WEB MAPPING APPLICATION

Web Map Layers is an off-the-shelf but extensible web mapping product designed for map viewing and interrogation. The product is perfect for users without direct experience of GIS, such as members of the public and the vast majority of office workers who interact with spatial data but lay no claim to be GIS specialists.

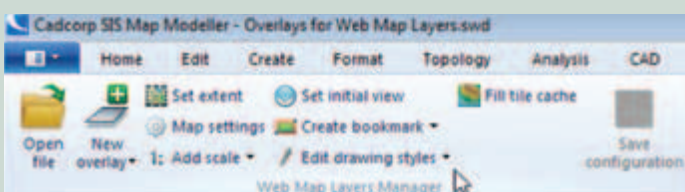
Web Map Layers manages spatial data as individual map layers, each of which is served as an Open Geospatial Consortium, Inc.® (OGC) Web Map Service (WMS). The product is agnostic about where its data layers originate: some of the layers may be created by an organisation, as its own business data; other layers may originate elsewhere. A local authority, for example, could overlay its own data with that of other

authorities and agencies – including national mapping agencies. Unlike some hosted products, Web Map Layers divorces the application software from dependency on any particular map data supplier, data service or product.

Intuitive map controls

In the same way that Microsoft® Office Fluent™ user interface is becoming a de facto standard for desktop office applications, so-called 'slippy' maps – often built using the OpenLayers JavaScript library – are becoming a standard for web-browser-based user interfaces for mapping. Cadcorp has adopted this standard for Web Map Layers giving the application the familiar look and feel that everyone has come to expect of web mapping: notably zooming and panning by clicking and dragging – hence 'slippy' maps.

Organisations can deploy this Google Maps-style interface without any programming knowledge. The interface has all the controls one would expect of a web map application designed for the non-expert user - out of the box. These include map navigation and map window controls, comprehensive red lining and mark-up, printing, and a generic search or gazetteer interface.



Web mapping configuration tools are included for as standard for administrators

Maps as pictures and maps as database

There is often a distinction made between web mapping, which is seen to focus on 'maps as pictures', and GIS proper, which manages 'maps as databases'. A characteristic which differentiates GIS proper is its ability to recognise geographic features as objects, having location and attributes. Web Map Layers combines the best elements of both: pictorial representations of geography, optimised for display; and the interrogation and spatial analysis of geographic features, through web services.

At the initial release, Cadcorp is offering three web services which Web Map Layers can hook into: "About Property", "Find My Nearest" and "Spatial Query". Organisations are free to add additional functionality to Web Map Layers by writing their own web services. Cadcorp views Web Map Layers not as a tool box, but as an off-the-shelf supported product that will be subject to on-going development and enhancements by Cadcorp. Additional web services are already being developed.

GeognoSIS

Web Map Layers' advanced geospatial capabilities are provided by Cadcorp's geospatial web services engine – GeognoSIS. This is capable of supporting both web mapping and more complex web GIS. In its web mapping role GeognoSIS acts as a standalone OGC WMS and Web Feature Service (WFS). It also provides Web Map Layers with tile-based services.

In its web GIS role GeognoSIS acts as a shared service to advanced geospatial methods which would otherwise be replicated on standalone and desktop GIS platforms. As well as providing geo-processing capabilities, GeognoSIS is also responsible for aggregating an organisation's spatial data resources, prior to sharing the data with Web Map Layers. It can do this either by reading from the original source of the data, without translation and irrespective of the native data format, or by reading directly from a central spatial database. Cadcorp and others build web services based on GeognoSIS to provide geospatial functionality to the Web Map Layers generic interface.

Administration

Cadcorp's market research for Web Map Layers revealed a strong demand from both public and private sector organisations to have a single web mapping application which could be used for both intranet and internet, but delivering different spatial data in each case.

Organisations want powerful but user-friendly ways of loading and manipulating that data, controlling the way it is displayed in the browser, and controlling access to that data. Cadcorp has created the Web Map Layers Configuration Manager to meet these needs. The Configuration Manager is the administrative tool for creating and managing a shared "project" file, which in turn allows users to define the data, styling and cartography that will be used by Web Map Layers.

Another powerful function included as standard is the ability to easily create user-defined tile caches to optimise performance. The Configuration Manager has a graphical and geographical user interface and many administrative tasks are supported using wizards. Administrators are presented with a WYSIWYG view of the data, giving them confidence in the appearance of the map and data within client browsers prior to deployment. They can also configure the colours, images and styles of the web page template to conform to organisational standards.

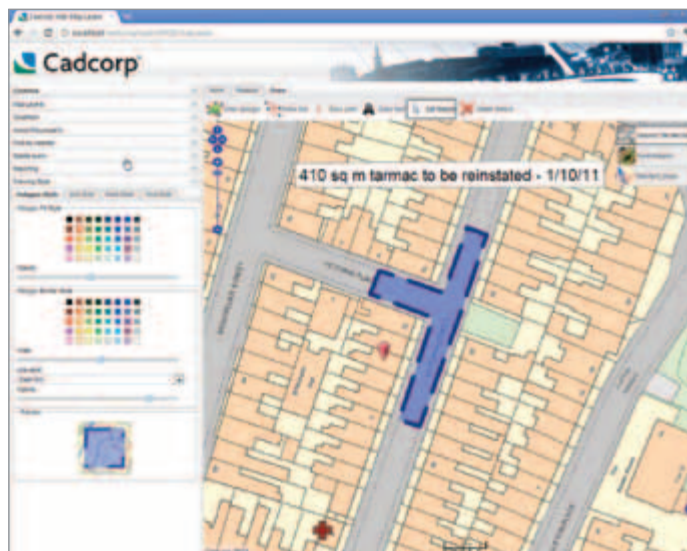
Off-the-shelf and extensible

Cadcorp set out to offer an intuitive and generic web mapping product which would meet the vast majority of customer requirements out of the box but which nevertheless would be open and extensible. The way Cadcorp has gone about meeting these apparently conflicting goals can be seen to reflect the company's long-standing belief in the value of open technologies and standards-based products.

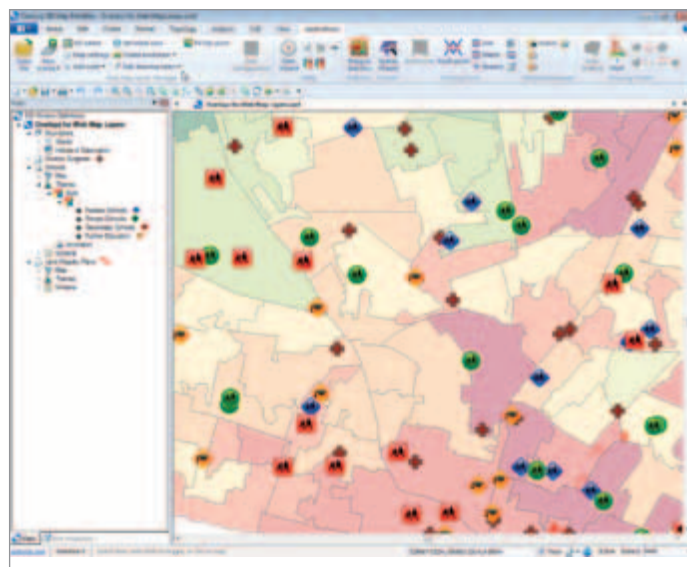
Richard Spooner is Marketing Manager of Cadcorp in Stevenage, Hertfordshire, England (www.cadcorp.com)



Many users will already be familiar with the style of the Web Map Layers interface. Here 'Quick Search' is being used to locate an address



Redlining, mark-up and measurement options are provided as standard. The user is free to determine the drawing styles



Administrators can be confident of the WYSIWYG view of their data prior to deployment in a client browser