

Case Study

Pacific Hydro harnesses the power of Visual Fusion to provide enterprise-wide mapping and visualisation of business data to non-GIS users



Pacific Hydro, Victoria Australia

Business Challenge

Pacific Hydro is a leading Australian renewable energy company, producing clean power from wind and water. Pacific Hydro has over 850 MW (megawatts) of operating assets in Australia, Brazil and Chile and over 2,000 MW in its development pipeline, which also includes solar and geothermal.

In 2009, Pacific Hydro adopted Microsoft SharePoint as an enterprise document management system for existing assets and for these new initiatives. At the same time, ESRI ArcGIS, a suite of geographic information system software products, was deployed to cater for geospatial needs with enterprise data stored in ArcSDE (Spatial Database Engine).

While nearly all documents across the organisation had a geospatial reference there was no link between SharePoint and the Geographic Information System (GIS). Pacific Hydro felt that projects were at risk from irregular data updates through its centralised GIS and that additional cost could arise if staff and external consultants were working with out-of-date data.

Pacific Hydro decided that it needed an enterprise web mapping solution to bridge SharePoint and ArcGIS and to open its GIS to the broader organisation of non-GIS users.

Solution Overview

Pacific Hydro selected IDV Solutions' 'Visual Fusion' as its enterprise web mapping solution after investigating various alternative technologies. With Geomatic Technologies (GT) spatial experience and web integration expertise, Pacific Hydro was confident in GT's ability to configure Visual Fusion to bring together all relevant data into a single operational view.

The first objective of the project was to open up the GIS data stored within ArcSDE and provide a dynamic link to SharePoint and maps within Visual Fusion. The bridge or 'data connector' Visual Fusion provides between SharePoint and ArcSDE is unlike other web mapping interfaces in that any data updated within ArcSDE is immediately reflected in the mapping interface.

To enable documents to be searched spatially, geospatial data was manually added to documents as they were uploaded to SharePoint. Documents that were specific to individual assets or a particular geographic location now had a metadata field that linked them to assets stored within the GIS.

The solution demonstrated its flexibility and ease of use when data from OH&S spread sheets were spatially linked to highlight potential areas of concern on a stretch of road in Chile for the construction of a hydro-electric project.

Outcomes

The solution's success comes from empowering non-GIS users at Pacific Hydro to contribute to the spatial location of assets, documents and incidents and to retrieve or analyse that data for themselves. The Visual Fusion solution has also:

- > Provided enterprise-wide access to mapping and visualisation of business data without the need for all users to be trained in GIS.
- > Enabled analysis of occupational and health incidents by location, time and category to help prevent further incidents resulting in a safer outcome for personnel.
- > Improved efficiency, workflows and decision making.
- > Promoted the value of spatial information in decision making.

Geomatic Technologies (GT):

is a recognised leader in advanced mobile and spatial technologies and is among Australia's leading providers of IT integrated solutions and services. GT's solutions portfolio includes solutions and services for mobile workforce management, asset capture and inspection, web mapping (including address validation and geocoding services) and solutions for data access, data management and data distribution.

Images above from left to right

Wind farm. The Ord River Hydro Station supplies electricity to the Argyle Diamond Mine in Western Australia. The La Confluencia Hydro project under construction in Chile, South America. Images courtesy of Pacific Hydro.



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