

PROJECT SHEET

Eureka_ArcGIS.doc

Eureka! ArcGIS

Client: Earth Resources Division (ERD), DPI, Victoria

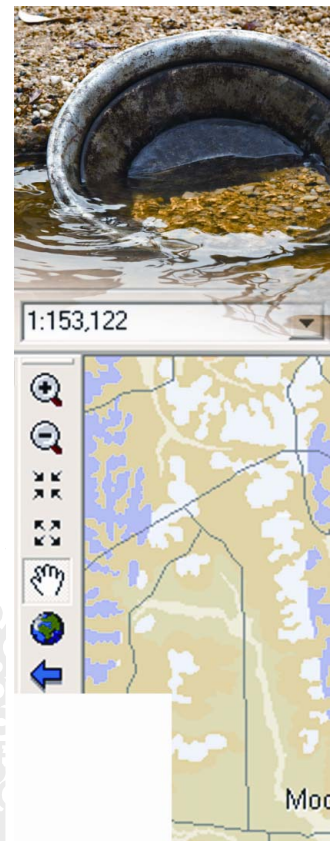
The responsibilities of the Earth and Resources Division (ERD) of the Victorian Department of Primary Industries (DPI) include the promotion and regulation of the extractive oil and gas, pipelines, geothermal energy, minerals exploration and mining industries within Victoria. ERD also maintains efficient licensing and permitting systems to provide secure title for exploration, production and pipeline activities while also ensuring environmental management standards meet community standards.

Eight years ago ERD, contracted Spatial Vision to develop a customized ArcView 3.3 application called Eureka! . This application contains a number of tools for searching spatial features and importantly integrated with an internal business application, OpenRoad. OpenRoad is used for managing geological textual data on boreholes, tenements and geochemistry. While Eureka! has become an integral part of the business over the last eight years, ERD was concerned that it's technology base was aging and as a result went to tender for a replacement application to be built in ArcGIS Desktop.

Spatial Vision was awarded the tender and subsequently built and deployed Eureka! ArcGIS - a suite of tools for ArcGIS Desktop in the .NET environment using C# and ArcObjects. The tools include the ability for users to:

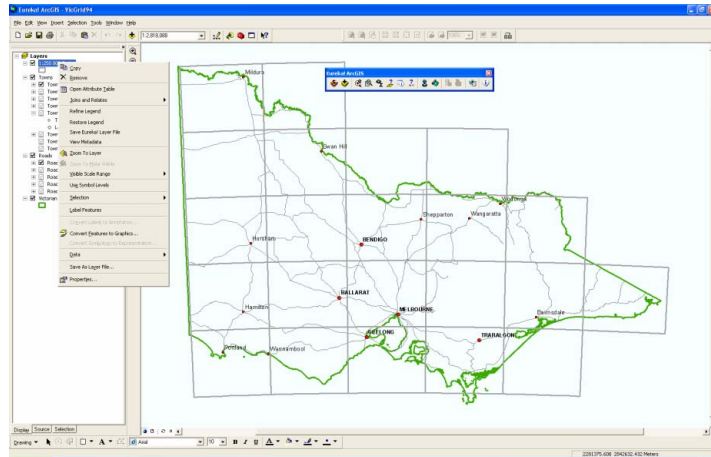
- Initiate display of 300 or more pre-defined layers
- Add their own data to the pre-defined layers
- Change the symbology of the pre-defined layers, and to save them for their own future use
- Produce plots with appropriate grids and projection.
- View data with editing capability
- Perform spatial searches of data layers. (eg point, line, polygon, overlapping selections etc)
- Use a custom drill down tool on data layers
- Perform ad hoc queries on data layers
- Integrate with OpenRoad via a push/pull operation
- Restrict the legend of selected layer files to the current map extent both in the Table of Contents and the legend on a map layout
- View metadata for business layers accessible on an external web site

Spatial Vision automated the creation of the 300+ layer files by sourcing symbology definitions from ArcView 3.3 legend files and other layer properties from a configuration file used in Eureka!.



Demonstrated Capabilities

- Comprehensive experience in the ArcGIS Development Environment, ie the ArcObjects libraries
- An in-depth understanding of the .NET framework
- Interoperating with COM
- Automating layer file creation
- Working with data from multiple ArcSDE sources
- Creation of custom map templates
- Insight on limiting legends to the current map extent
- Dynamic C# code compilation and execution



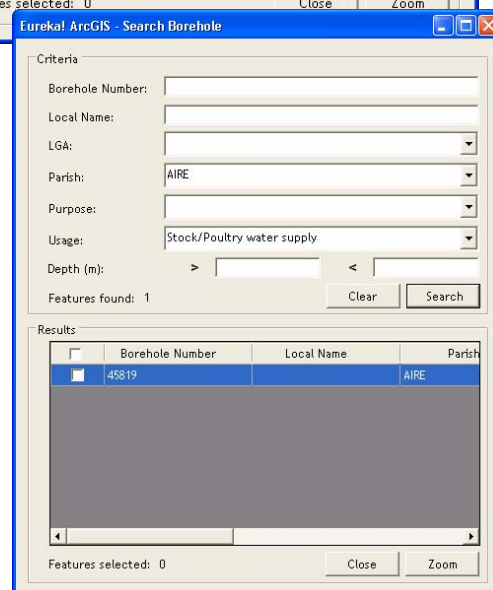
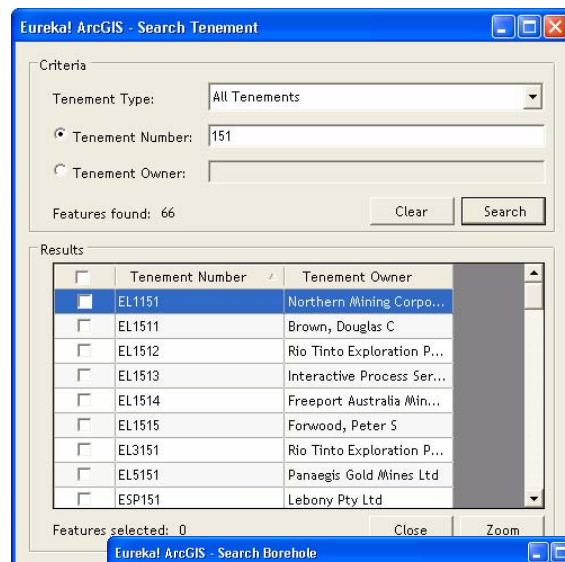
Resources

Ishara Kotiah was responsible for managing the project.

Girish Madan and Yi Lik Tsang were the key GIS developers in the project.

Technologies Applied

- ArcObjects
- C# in .NET framework
- ArcSDE on ORACLE
- IEEE 12207-08 Software Development Life Cycle



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