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GIS Compatability of Digitally Reported Exploration Data.

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The Open File Exploration Data system in Australia is one of the most valuable resources of the exploration industry. Technology has advanced to a stage where the archiving of hardcopy reports in a library represents poor usage of the resource. The optimum usage is in digital form where modern GIS and Database systems can help assimilate and analyse far larger datasets than has previously been possible. Terra Search has been collating data from the hard copy open file reports for the past 12 years. In recent years compilation rates have been up to 300 000 samples a year. Even at this rate the current backlog of exploration data will take many years to compile. During this time more and more data is being produced by the ongoing exploration efforts of companies. If we can make the gathering of the new data more straightforward, it is a realistic goal to see all open file exploration data in digital form in the future.

Various government departments around the country are currently tackling the problems of digital submittal of data. This is a major step forward. Most Companies collect their data digitally and have been doing so for years, yet very little digital data is submitted directly to the departments. Digital submittal should allow rapid assimilation into GIS and Data Management systems.

Several of the key issues for government in the collection of exploration data in digital form are:

- It must be of more use than the current hard copy system.
- There needs to be careful verification of files to ensure the data is complete
- The storage of digital files on a server is of little advantage. Access to files will be similar to getting books from a library.
- There is little advantage in digital data if it is not self explanatory i.e. you still need a Hard Copy report to interpret the data.
- Detection Limits, analytical tecniques and geological codes must be detailed to ensure geochemical data is complete.

Compilation of the data into a standard format will allow explorers rapid and effective access to the data. Data stored as separate files within a larger system will be an improvement on the current system. However, it will still require the costly and time consuming process of evaluating a series of reports/files to ascertain what information is stored within the files. These searches would still need to be based on broad spatial searches such as tenement areas.

A single database would allow interrogation of individual samples based on any criteria. These samples can have the same impact on exploration decisions as samples collected by the company, at a fraction of the cost. The database does not need to be a particular format. It must have the following basic criteria:

- must be able to store all available attributes for a sample
- should be able to store the parameters of a particular survey.
- must be able to locate data spatially for GIS use – either as a point or region.
- must be able to store metadata on regions.
- must store all tenement, bibliographic, sampling and analytical criteria.
- should be easy to extract the information into GIS, database or flat file formats.
- should be in a format easily accessible to a GIS system