



The Expedio Data Management Solution



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This brochure describes the components that are incorporated in the Expedio 'Standard Model' and explains, in simple terms, what Expedio will provide and what we will require from you.

SQL Server Data Model

What we provide

A SQL Server based data model populated with the tables, views, functions and stored procedures required to run the Expedio Advanced Resource Data Management solution. Tables contain the base fields, relationships, indices and triggers which are then customised to suit your specific requirements.

What we need from you

We require your geological templates to allow us to build a system that suits your particular requirements. We have a base model that has been proven to work in many geological terrains and can provide this for you if required.

What you will get

A database ready to store your data – including legacy data from any existing systems you may have. This data model works in conjunction with the features listed below to provide you with a comprehensive data management solution. In addition to tables you may be familiar with Expedio have included the ability to record additional data to ensure a complete understanding of the status of your exploration work. You can record information such as downhole obstructions, downhole horizon (event) data, daily drilling record, links to photographs or documents and additional metadata pertaining to individual sampling sites.

Coordinate Management

What we provide

Ability to record multiple sets of coordinates against different Grids or survey methods and to rank these coordinates accordingly. Our system auto calculates both UTM and Local coordinates from original data and stores these derived coordinates.

What we need from you

We require the transformation parameters of any local grids you may use - either as an origin and rotation or two end points in both coordinate systems. As we can apply grids at

both 'Project' and 'Prospect' levels we require a list of nominated grids at these levels if applicable.

What you will get

Auto calculation of coordinates relative to UTM and Local grids plus auto rotation of any Downhole Survey and structural data.

Outline Management

What we provide

Ability to record spatial and temporal extents of any polygonal data including: Tenements (lease), Projects, Prospects, Pits, Local Grid extents etc. We can record multiple outlines over time and attach other metadata such as expenditure commitments, JV partners, reporting dates etc. to each outline.

What we need from you

We require a list of all polygonal data you want stored in the database. This data can be in GIS or CSV format and should specify what Grid applies. Additional metadata can be added as required.

What you will get

Ability to auto populate fields such as Original Lease, Current Lease, Prospect, Project etc. in the Header table. Our system can be used to spatially validate any data sent from the field and ensures that all data is correctly flagged against Leases which typically forms a very important component in Data Reporting.

Drilling Specifications

What we provide

A sub-system that records daily drilling progress by drill type, diameter, shift etc. Within this system is the additional ability to record the consumption of items/materials associated with drilling and the time taken to complete the drilling.

What we need from you

We require a list of drilling companies and, optionally, drilling rigs. If you want to extend the functionality of this system to manage costs we will also require a list of items used during drilling and the charge for each of these items.

What you will get

The ability to accurately report drilling progress and associated costs - plus extra summary statistics reporting directly from the database. Validation of any downhole tables against recorded drilling depths to ensure no data extends beyond the bottom of hole.

Data Validation

What we provide

A multi-level validation system with checks to ensure that no invalid data can be loaded to the database. Once data is in the database there is the ability to perform post-import checks for data integrity issues such as missing or overlapping intervals. Validation covers: code compliance, spatial flagging, depth checks, interval checks, 3D positional checks and 3D directional checks.

What we need from you

In order for us to validate your data we require a complete list of library codes used in the company legend.

What you will get

Clean data! The validation routines will ensure that no matter how data is entered into the database it will be as clean as possible. The post-import integrity checking will also provide an opportunity to check and fix any 3D issues, sort multiple collar surveys, sort multiple downhole surveys, check status of sample despatches and receipts etc.

Session-based Data Import

What we provide

An entire sub-system dedicated to ensuring data is imported into the database as cleanly and efficiently as possible. We take supplied data, load it to buffer tables in the database, run extensive validation over the buffers and load all valid data to the production tables. Any data that does not pass inspection will be trapped in the buffer where it can be fixed and sent through again once corrected.

What we need from you

We will pretty much have everything by now as we utilise the same library codes used during validation. The import system will be built around your database structure and logging template.

What you will get

Full validation and session reporting statistics that records the total number of rows loaded and the number and type of errors in the data (if any). You also get an interface to run imports and then check for and fix any rows with errors trapped in the buffers.

Using this import system allows data to be streamed into the database from one or more sources. The session statistics allow for checking whether the field personnel are providing valid data and if there are improvements in data quality over time.

Assay Management

What we provide

We have taken the standard Micromine GBIS Sample Tracker system and improved it whilst retaining the wizard-based interfaces for despatching samples and receipting assays. The Sample Tracker system is based on the despatches you send to the Labs - it allows you to see exactly how many samples are in the process chain and when the Lab jobs are received. Sample Tracker checks that what you get is what you asked for.

We have also developed queries and stored procedures that will bring the data out of the results tables into a format ready for use in dataviews, GIS and 3D mining packages.

What we need from you

We require a list of Laboratories you have used or are going to use in the future along with the analysis methods and elements to be analysed for. From this list we compile the metadata required by the system to correctly load assay data from the labs. This data is generally recorded on a laboratory Sample submission sheet, and will be used to create 'Sample Despatch' entries in the database.

What you will get

A very efficient way to manage Sample Despatching and Assay Receipting that has built-in checks and balances to ensure you are getting the correct data from the Labs. We have streamlined the despatching process in line with how we manage our samples. You can check both field and lab sourced QA/QC data on receipt of an assay job and choose to stop the import process if the results indicate that the job is not up to specification.

If you want to perform more comprehensive studies of the QA/QC samples load the assay jobs in and run the charts over a longer period of time - should the results prove to be unfavourable simply delete the offending jobs from the database.

Our pivot functions mean you can view and use data in real-time - as soon as a job is loaded it is available for interrogation.

Data Interaction – GBIS Configuration

What we provide

A series of GBIS User Profiles (GUPS) with objects designed to give you an out of the box 'data Interaction Interface'. We have developed a series of queries, dataviews, graphical reports and exports that allow you to browse, query and extract the data as required. The interface has been designed to be an intuitive front-end to the underlying data without you necessarily having an in-depth knowledge of the database structure.

What we need from you

We have all the information we require from you by this stage. We have customised the database to suit your geological requirements; we have your library lists, your Laboratory metadata, and your logging templates so the only thing we will require is feedback on how you want the Graphical Reports to look. The Graphical Reports are completely customisable so if you want a specific look and feel we can get that for you with your assistance – you design it, we can build it.

What you will get

A fully functioning interface built around the GBIS data management software. All objects required to query, browse, export and report from the underlying database. Support if you require assistance to run GBIS or require modifications or additions to our supplied system. The system handles many 'real world' situations such as one sample being split into size or magnetic recovery fractions with Iron Ore analysis.

Intercept Calculation – Toolbox Feature (optional)

What we provide

A sub-system that allows for the calculation of downhole intercepts directly from the database. The Intercept Calculator writes the data back into tables in the database and generates an Excel report. The intercepts are calculated directly from the result tables using parameters defined by an administrator and can be configured to report multiple runs based on different cut off grades and waste parameters. The system scans up and down a hole optimising the reported intercept ensuring all relevant data is included.

What we need from you

In order for us to configure your Intercept Calculator we require the parameters you use including: elements, lower cut off, upper cut off, minimum intercept width, minimum intercept grade, maximum total waste and maximum consecutive waste.

What you will get

Accurate and timely intercepts calculated directly from the database soon after assay jobs have been loaded. Reports can either be Excel spreadsheets or Graphical Reports side by side with lithology, mineralisation and other relevant geology. These reports can be on a manager's desk minutes after an assay job has been loaded.

Data Auditing – Toolbox Feature (optional)

What we provide

A system that records all changes made to the database and data contained therein. The changed data items are written into a separate database and used to record data history, which is rapidly becoming a requirement for reserve calculations and reporting.

What we need from you

Nothing, the audit system simply records database activities and requires nothing from you to function correctly.

What you will get

A full history of changes made to the database which allows you to demonstrate your confidence in the data contained therein. It is an ever increasing requirement that people are accountable for data and without this system it is impossible to demonstrate this.

Database Distribution – Toolbox Feature (optional)

What we provide

A system that allows one or more remote databases to be kept in sync with a master database. Changes made in the Master are sent out on a real-time or scheduled basis to remote databases which are then updated.

What we need from you

A list of remote database that require updating and the ability to login to those databases via a network to allow the update process to take place.

What you will get

Up to date data contained in a replica of the head office data model. The remote database could be updated in real time but perhaps more realistically your workers could be accessing current data within 12 hours of it hitting the master database. Having a database on-site means that workers have access to all the reporting and extraction tools available to the database administrator and can therefore generate these reports themselves.



About Expedio

Forged in the often turbulent world of the mining industry, Expedio is a dynamic, resilient, client-focused group dedicated to providing clear, precise and innovative IT solutions and support to a wide range of industries.

Formed in 1999 (as St. Arnaud Data Management) Expedio was established to provide data management solutions to mining and exploration companies and since formation, Expedio has continued to grow and expand the range of products and services it offers whilst staying true to its core values.

Based in Perth, Western Australia, Expedio employs a team of IT and Geo-scientific professionals and has a client base covering all corners of the world.

True to our positioning statement, Expedio has throughout the years provided innovative product solutions, precision in data-management and clarity in the delivery of our clients' needs.

Beyond the mining industry Expedio now provides data-management services, IT solutions and personnel across a broad range of industries.

It is through constant market analysis, listening to industry requirements and maintaining a clear focus as a team that Expedio continues to excel as a world-wide choice in integrated data management.

Expedio offer a wide range of database, data management, GIS and technology services, across a range of industries.

The Expedio product range includes OCRIS for data logging, Blank-IT for in-vehicle display management and the Expedio toolbox (in development).

We also have a sales and rental service, specialising in rugged hardware and UPS equipment.

Contact Expedio

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