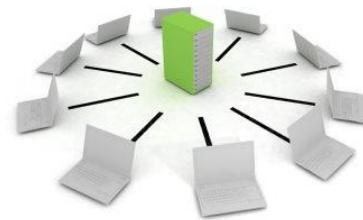


Build Better Models, Faster With an Analytical Database

Insights derived from advanced analytics enable companies across industries to drive improvements through more targeted, data driven processes. In customer focused industries predictive models enable messaging that is targeted at the right customer, via the right channel, at the right time. Forecasting models for utilities enable better utilisation of resources and less waste. Fraud detection in finance cuts down on fraud faster and more efficiently than rule based approaches. The possibilities and applications are endless.

However, there is no such thing as a free lunch! Good predictive models take the time and experience of skilled analysts to develop. In a fast changing business environment models need to be constantly reassessed and redeveloped in the light of changing circumstances.

How do we succeed in this fast changing environment? Analytically driven organisations start with a key piece of foundational infrastructure on which they can build their analytical solutions.



The Analytical Database

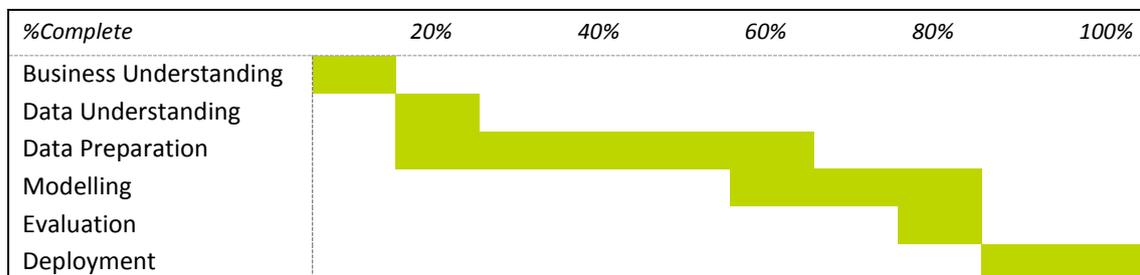
An Analytical Database is a common set of base tables that can be used across multiple analytical projects. Think of it as a central repository of your key enterprise data restructured to enable predictive modelling. Analytical databases are used by smart analytically driven enterprises to get the best results from their investment in analytics.

Here are 5 reasons that building an analytical database makes building better models, faster possible:

1. Spend Less Time on Data Preparation

It is often said that any innovative project is a result of 80% perspiration, 20% inspiration. Predictive analytics projects are no different. A large proportion of the time on any predictive analytics project is spent on data preparation. Cleaning, aggregating, restructuring and merging data are key steps that analysts repeat again and again.

The following figure presents timelines attached to a typical predictive analytics project:



Building an Analytical Database reduces repetitive data preparation time on predictive analytics projects by creating a pre prepared set of tables that can be reused on multiple projects.

This allows analysts to concentrate on creating value by developing more models rather than spending time on repetitive data preparation tasks.

2. Foster Collaboration

Starting with a common set of base analytical tables means that analysts can be more collaborative. Common functions and techniques can be shared easily based on the understanding that the underlying format of source data is common across applications and analysts.

Collaborative teams who share expertise improve all team members' outputs. Analysts can stop worrying about tasks that others have already solved and focus on solving new problems together. What were nice to haves now become new developments implemented with the time and effort saved by having to redo tedious data preparation work. New analysts to the team can be brought up to speed on one common set of data structures instead of multiple siloed ways of doing things.

The collaborative possibilities opened up by building a CAR will change the way that your team does analytics.



3. Validate Data at Source



People make mistakes. Source tables do not load. Data is garbled. This is an inevitable part of doing business. By taking the time to develop a Customer Analytical Record you can cut down on this margin of error by building testing into the loading of the Analytical Database. Sure, there is always space for people to make errors further downstream but by doing the heavily lifting and implementing good testing and validation practices at the source then you reduce the potential for costly and invisible errors.

4. Reduce Data Warehouse Load

When analysts work in silos to develop models they tend to place a strain on data warehouse resources. Multiple tables are created with similar formats. Multiple loading jobs are run by multiple analysts each month. By centralising this common workload into a core set of tables load on database assets can be reduced freeing up space and increasing speed for analysts.

5. Build Production Ready Models at Source

There is no point in developing predictive models if you cannot use the model outputs in the real world. To do this you need to score models on a regular basis to reflect the latest state of your business. An analytical database is a central repository of enterprise data that is regularly refreshed. This allows you to rescore your models to take account of your changing business conditions closer to real time. Models that are developed based on an analytical database can then be regularly rescored and refreshed as the data in the Analytical Database is refreshed.

What's next?

The case for building an Analytical Database is compelling. It is a key piece of infrastructure for any analytically driven organisation.

At this point you might be saying “This sounds like my database tables.” Unfortunately it’s not as simple as that. The requirements driving analytical database design differ from simple archival, transactional or reporting functions.

Engaging with an experienced internal or external partner will help you to get the most value from your analytical database and to avoid some of the common pitfalls in executing this key piece of analytical infrastructure.

About Presidion

Presidion have operated for over 20 years and have been the pioneers in implementing cutting edge predictive analytics solutions with top UK and Irish organisations. We specialise in helping organisations leverage their data to deliver tangible practical returns on investment, aligned with their strategies.

We have built Analytical Databases for our customers in Banking, Utilities, Healthcare, Retail and Managed Services to help them to mainstream analytics within their organisation and deliver a return on investment.

Presidion works with both government and commercial clients, currently partnering with hundreds of organisations enabling them to understand what has happened in the past, anticipate what may happen next to take appropriate and timely strategic decisions for their organisation.