Developing Successful Data Warehouses

Building a successful data warehouse requires the commitment of significant time and financial resources. To ensure that this commitment is justified, Advanced DataTools has developed a unique approach based on years of designing and implementing successful data warehouses.

A data warehouse is specifically designed for your reporting and analysis. It is designed to track your program and financial information, and to provide ad hoc query and reporting capabilities to your staff. A data warehouse becomes more valuable over time as the information stored in the warehouse reflects the business process over a number of years. Data in a data warehouse is structured to permit static reporting, ad hoc reporting, or data analysis, and is accessible by anyone with authorization.

Data warehouses:

- Provide the information you need to make better business decisions
- Increase the ease, frequency, and accuracy of reporting
- Increase the ease, speed, and accuracy of analysis
- Replace your existing hard copy reports with on-line, web-based reporting tools

Our Proven Approach

Advanced DataTools' approach enables you to verify early and often in a project that the effort is on track and that the end result will meet your stated objectives. This proven approach is based on two key factors:

- Results are quickly demonstrated in a prototype to facilitate refinement of the project plan and keep motivation high throughout the project.
- All perspectives on the project are explicitly included, from your executives' requirements to your end-users' needs and computing environment, as well as your data processing staff's knowledge of the systems environment and maintenance challenges.

The pivotal first step is designed so that within two months of the start of the project a prototype is developed that you can effectively evaluate and use to make an informed decision on how to proceed. The significant benefit of this approach is that within eight weeks you will have a team of staff (including end users who will serve as ambassadors) who have verified that the proposed data warehouse will meet the business requirements, have been involved in its design, and are excited and committed to its success.

Advanced DataTools' approach to data warehouse development provides you with three advantages:

- It minimizes the time needed for development of the data warehouse.
- It maximizes the involvement and ownership of your key personnel.
- It provides an opportunity early in the process to make corrections to the design to ensure the

final product will meet your business needs.

Advanced DataTools' Six-Step Data Warehouse Development Process

Phase	Tasks	Results	Time
1	Workshops and Develop Prototype Data Warehouse	Data Warehouse Prototype	8 Weeks
2	Procure the Data Warehouse Equipment and Consulting Services	Hardware, Software, and Implementation Plan	1 Month
3	Develop the Data Warehouse Software and Convert the Initial Data	Operational Software, Initial Queries, Reports, and Data	4 Months
4	Install the Data Warehouse Hardware, Software, and Converted Data	Data Warehouse Goes Live	1 Month
5	Train the Data Warehouse Users and Operational Staff	Software Docs and User Manuals	1 Month
6	Refine the Data Warehouse Data, Queries, and Reports	Revised Queries, Reports, and Dashboards	3 Months

Step 1 – Requirements Gathering and Building a Prototype Data Warehouse

The most important part of the design process is implementing Step 1 – rapidly collecting requirements and delivering a prototype.

The prototype contains a limited amount of data (typically one year) structured in the proposed data warehouse dimensional model. The prototype provides management and users with an early preview of the data warehouse, and serves as a foundation upon which to build the full production data warehouse.

This process begins with a one-week design workshop that includes your management, end users, and technical staff. At the end of the process, this team is invited back to validate the data warehouse design, to develop several key reports against the data warehouse, and to make recommendations regarding the development of a fully deployed data warehouse.

Week	Task	Objective
1	*Vision Workshop* Data Warehouse Analysis	Review data warehouse objectives, define vision and goals, outline scope, identify facilitators and barriers to success
2	*Design Workshop* Data Warehouse Design	Design logical dimensional data model, identify data sources, develop initial data extraction procedures
3-4	Data Extraction	Collect, extract, and review data; convert all data to ASCII format, create database and tables
5-6	Data Loading and Configuration	Load data, cleanse and verify; configure Web Query Tool
7	Web Query Training Workshop	Develop sample queries; train prototype users
8	Executive Presentation and Full Data Warehouse Planning	Prepare and conduct presentation to Executive Team. Summarize the prototype; document recommendations and next steps.

Benefits

There are significant key benefits to this step of our approach:

- Delivers initial results to your key users quickly and builds anticipation for the final product
- Demonstrates the potential advantages of the data warehouse to management and end users
- Provides the project with the visibility needed to gain the support required to be successful

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