



Vertical Industry Data Models

ADRM

Predictable

Cost-effective

Now

< Industry Data Models >

The key to a successful data strategy for applications, data warehouses and data marts is a comprehensive design.

In the same way that architects use blueprints to build their structures, IT designers use data models to plan, design and construct systems that will meet the stated requirements.

With a proven method for architecting data IT designers are guaranteeing that the resulting design will meet expectations and be flexible.

The challenge is how to move forward quickly with a complete best-practices industry design without committing to a lengthy, costly and unpredictable design effort.

The application of comprehensive vertical industry data models provides the answer in a way that predictable, cost-effective and immediately applicable.

The Opportunity

Organizations planning and building applications, data warehouses, data marts or reporting information consistently from many sources are faced with the requirement to develop or ultimately work within a comprehensive corporate data architecture.

The commitment to developing a corporate architecture has many dimensions in terms of costs, time, immediate needs vs. long-term requirements, impact to current activities and a potentially unpredictable and costly outcome.

The single way to apply predictability is to start with a set of proven industry-specific data models to begin the design and planning activities.

ADRM products provide this capability – predictably, cost-effectively, now.

Enterprise Models

- comprehensive
- top-down architecture
- industry-specific content
- best-of-breed design

Business Area Models

- derived from enterprise model
- business area focus
- industry content
- integrated with other BA, data mart and data warehouse models

Data Warehouse Models

- derived from enterprise model
- incorporates BA data/content
- flexible
- modular

Data Mart Models

- specific info objectives
- derived from BA models
- extendable
- integrated with DW model

Solution Models

- based on industry models
- solution-focused
- ready to implement



Costs to Build Enterprise Data Models

- > The enterprise data model is the most important model to be constructed. It establishes the scope, strategic direction and design philosophy that will be reflected in the other models developed. Most large companies find that it takes a team of analysts and data modelers 12 to 18 months to analyze and construct an enterprise data model alone.

Assuming an average fully-burdened rate of \$1600/day for each team member and a small team of three members completing the effort in an optimistic 12 months equates to a cost of \$1.3 million in personal costs alone for the single enterprise model.

This number provides a compelling reason to start with an industry model whose design, content and direction can be immediately assessed for match and completeness.

- > The data warehouse model is derived from the associated enterprise model with additional content and detailed data provided by business area models. BA models are derived from the enterprise model with additional functionality, content and data to support that business area (Marketing, Order, Customer).

The integrated nature of data requires a comprehensive architecture in which each level contributes or receives and integrates data from other levels.

The products speak for themselves in terms of completeness and applicability – 30 data models (36"x225") designed with a common philosophy, consistent look-and-feel, common entities and attributes with complete supporting definitions. You can easily determine the fit, where modifications and extensions might be made and the application of specific business rules and internal standards – which can then be propagated throughout the integrated models.

Now turn those 600 feet of integrated designs over and consider the task of duplicating that work from scratch. That is the scope of the task that is involved.

There is no way to know whether an in-house enterprise modeling effort will produce the desired results until well into the project.

It is a compelling case both financially and in time-to-completion to apply industry data models both strategically and tactically.

ADRM industry models can be immediately reviewed to determine the degree of fit and customization required which translates into a modeling effort with a predictable cost and outcome.

ADRM provides a complete suite of models to meet the needs of each phase of enterprise architecture development.

Vertical Industries

Communications and Media

- > Cables Services
- > Internet & Data Services
- > LEC & Long Distance
- > Wireless
- > 3G Wireless

Financial Services

- > Brokerage
- > Commercial Banking
- > Corporate & Investment Banking
- > Credit & Payment Card Services
- > Credit Union
- > Mutual Funds & Fund Management
- > Mortgage Services
- > Retail Banking

High Tech

- > Computers
- > Medical Systems
- > High Tech Components
- > Networking Equipment
- > Semiconductor
- > Software

Insurance

- > Life Insurance
- > Healthcare Insurance
- > Property & Casualty Insurance

Manufactured Products

- > Agricultural Chemical
- > Automobile Products
- > Aviation Products
- > Consumer Packaged Goods
- > Durable Medical Equipment
- > Industrial Chemicals
- > Luxury Goods
- > Pharmaceutical

Retail

- > Grocery
- > Retail Products
- > Food Services

Transportation

- > Airline Industry
- > Freight and Logistics
- > National Postal Services
- > Parcel and Mail Delivery

Utilities

- > Water Utility
- > Gas and Electric Utility



The data models provided for each specific industry include an Enterprise Data Model, Business Area Models, Data Warehouse Model and Data Mart Models. These logical data models have been developed from client engagements and in-depth analysis of the respective industry's common functions, business areas, terminology, data relationships, and business rules. They typically cover 90% of the industry's information requirements. The models are fully attributed, and each entity and attribute is documented with clear industry-specific terms and definitions.

The models are constructed using the CA Erwin CASE tool.

The Data Warehouse and Data Mart models can be used to quickly and efficiently construct 3NF and star schema data models for the data warehouse and integrated data marts. This will provide the DW project team the capability and flexibility of expanding and scaling the DW according to their company's future business analysis requirements. More importantly, these models are dynamic and are continually enhanced to reflect the best practices in the respective industry.

The following points highlight the models' capabilities:

[Enterprise Data Model](#)

The Enterprise Model incorporates the integrated data requirements of a best-of-breed organization in a specific industry based upon in-depth analysis of that industry's common functions, business areas, data relationships, terminology and business rules.

It is the primary data design tool for:

- Strategic planning
- Requirements definition
- Systems and data integration planning
- Communicating information requirements
- Planning data for BA, DW and Data Mart models

ADRM enterprise models typically contain over 600 entities and 2000+ fully-defined attributes. The Enterprise Model is plotted on a single-sheet 3 by 20 feet in size and color-coded by business area.

[Business Area Data Models](#)

Business Area Models describe functional business areas found in common across many industries. Business Area Models provide the extended data content required by data warehouse, data marts and applications development.

Each Business Area Model is constructed from a core of entities from the associated industry Enterprise Model, which insures common keys, attributes and definitions throughout the data architecture.

Business Area Data Models contain the greatest level of detail and provide the lowest level of data granularity in the model hierarchy - while maintaining definitions consistent across the entire model suite. This insures a consistent and extendable data foundation

Each Business Area model typically contains between 100 and 200 entities and over 1000 attributes. Depending on the industry line of business, there are between 15 and 25 Business Area Data Models.

- > Advertising
- > Bookings / Billings / Backlog
- > Budget

- > Business Metrics
- > Channel
- > Contract
- > Credit & Collections
- > Customer – Individual & Legal Entity
- > Customer Service
- > Financial Reporting
- > Geography
- > Human Resources
- > Inventory
- > Marketing
- > Mfg. / Shop Floor Control
- > Order / Transaction
- > Product
- > Property & Equipment
- > Purchasing
- > Training & Education

[Data Warehouse Models](#)

The Data Warehouse Model defines the integrated data requirements of the enterprise to support analysis, reporting and decision support needs of the entire organization. Data warehouse models are derived from the associated Enterprise Model with additional detailed data integrated from industry Business Area Models. The Data Warehouse establishes a 'reporting blueprint' for the entire organization designed top-down in a flexible, modular architecture. The Data Warehouse Model typically contains about 400 entities and 2400 attributes.

[Data Mart Models](#)

Data Mart Models are derived from the Business Area models to address specific organizational data requirements such as Product Profitability, Customer Marketing & Analysis, Customer Analysis.

Implementing data marts within the larger framework of an overall data architecture established by either the Enterprise or Data Warehouse models insures that information in the data marts will be consistent, can be integrated between other data marts ("conforming dimensions") and will be consistent with enterprise and data warehouse data.

[Comprehensive Data Architecture](#)

A comprehensive data architecture consisting of detailed, industry-specific data models at each level provides the flexibility to implement either a 'top-down' approach or work tactically implementing lower-level components into an overall integrated framework.

The ability to work within an established data architecture enables you to have points-of-reference for each subject area – Customer, Order, Product – immediately without lengthy analysis. The models can be readily customized by propagating new data throughout to reflect additional requirements and business rules.



Benefits

Licensing ADRM's Vertical Industry Data Models will enable you to realize the following benefits for your strategic and tactical data initiatives:



- > Industry best-of-breed design
- > Predictable costs, time-to-delivery and ROI
- > Industry standard content and IP transfer
- > Consistent design and look-and-feel
- > Strategic or tactical approach
- > Ability to work concurrently at each architectural level
- > Fully-defined entities and attributes
- > Immediate availability
- > Accelerated functional analysis activities
- > Reduced disruption to the organization
- > Initiate multiple projects concurrently with same data design

Training & Education

- > Detailed instruction of the licensed data models, discussion of conventions used and the fundamental assumptions of the specific data model design.
- > Knowledge transfer and requirements mapping in areas of the data models that are part of your company's initial implementation initiative.

About ADRM Software

ADRM Software Ltd. specializes in clearly defining the information requirements of world-class organizations in a variety of industries and architecting intellectual property based products to help organizations in those industries more effectively capitalize upon their information assets and opportunities.

More information about ADRM can be found on the web at www.adrm.com.