

# **Metadata Model**

Technical Overview - Model Development and Usage

EWSolutions has developed the industry's only metadata model for traditional and big data environments. Complete models, database platform - neutral, suitable for any size organization to implement metadata management successfully.

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### Introduction

Organizations often do not understand how to manage metadata, either the technical form or the business / user information. Technical metadata can be a challenge to identify and capture due to the variety of formats, data types, databases, and other system requirements found in every organization's information platform. Business metadata management presents its own issues, since many organizations do not document data requirements and terms consistently.

With the emergence of extremely large collections of data, commonly called "big data," and the need for analysis of the content of the content of their often highly varied content, formal metadata management has become increasingly valuable.

Since its inception in 1997, EWSolutions has created and maintained metadata management environments in almost every industry, for organizations of every size. All of these efforts began with the development of a series of data models that represent the business and technical requirements of the organization's metadata needs.

Based on the efforts of numerous senior consultants in metadata management, data architecture and data modeling, database management, and with the support of many client partners, EWSolutions offers the industry's only fully attributed metadata model that addresses traditional and big data metadata to the public, at a price far below any competition.

The model set contains the following components:

- Subject Area Model
- Conceptual Data Model
- Logical Data Model (3rd normal form)

### Additionally, the model includes:

- Industry and Common Vocabulary document Business Glossary and Data Dictionary
- Modeling Standards document

These models can form the basis for a robust, scalable metadata management environment for the organization, saving many hours in discovery, design, and implementation. The models is extensible, and the organization can customize the model to suit its needs.

## **Benefits of Using EWSolutions' Metadata Model**

There are numerous benefits to implementing the EWSolutions' metadata model, including:

- EWSolutions uses industry standards (ISO 11179 and others) for naming standards and definitions in all models
- Model leverages many hours experience from complex client situations along with superior practitioner skills in data architecture, data modeling, metadata management
- Model's use improves opportunities for proper reuse of data objects and analysis
- Model provides a framework for industry knowledge, to allow organizations to compare their data and practices against standards and proven practices in their industry
- Model's use allows for development of robust entities with appropriate attributes, defined according to a combination of industry standards and company practices
- Model serves as basis for improving model development within the organization, demonstrating best practices and iterative model development
- Model is flexible, scalable, and extensible allowing for extensions and customizations while retaining best practices

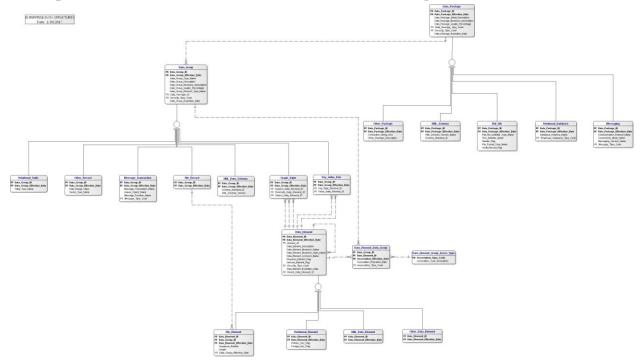
# **EWSolutions' Data Model Development Approach**

EWSolutions recognizes that data modeling is an iterative process, so the company follows a proven modeling paradigm of developing multiple levels of data models to align a managed metadata environment with business requirements.

This paradigm enables more rapid adaptation for client requirements because of the business emphasis of the models.

All data models are database-platform independent, so an organization can elect to implement the models through its chosen database management system. Complete DDL (data definition language) and diagrams are provided for each model.

# **Example of Models Contained in EWSolutions' Big Data Metadata Models**



## Notable Points for the Subject Area Model

- Common Subject Area Model applicable to almost every industry
- Decomposes the enterprise by key subject areas for modeling organization, modeling prioritization and for data governance
- Subject orientation, versus process orientation, is a critical component of best practice data modeling, allowing for normalization and reuse, improved data quality and metadata management

## Best Practices Used in EWSolutions' Data Warehouse Data Models

- Data rationalization
- Normalization
- Consistent de-normalization
- International and industry standards (ISO 11179), HL7, NEIM, GJXDM, etc..
- Appropriate meta-tags (traceability, load/update, confidence, etc..)
- Platform-adoptable Data Definition Language (DDL)

## **Conclusion**

Acquiring and implementing the EWSolutions' big data metadata model can save an organization numerous hours in discovery and data model development for a managed metadata initiative. Using these models can improve the performance of the development team, the data governance team and data stewards, and metadata management professionals. Through the use of a complete, documented model set, any organization can improve its data architecture and metadata management capabilities.

Contact EWSolutions at <a href="mailto:info@ewsolutions.com">info@ewsolutions.com</a> for more information and to purchase this model.