



***Metadata
Management for Data
Stewards***

***by Dave Wells, Mike Brackett, and
Arkady Maydanchik***



Module 0. About the Course (9 min)

Module 1. Understanding Data (15 min)

- *Views of Data*
- *Project Flow*
- *Describing the Data Meaning*
- *Describing the Data Constraints*
- *Describing the Data Relationships*
- *Describing the Data*

Module 2. Introduction to Metadata Management (42 min)

- *Metadata Defined*
- *Metadata Purpose: Classify*
- *Metadata Purpose: Describe*
- *Metadata Purpose: Guide*
- *Metadata Purpose: Control*
- *Metadata Dependencies*
- *Metadata Classification*
- *Metadata Kinds*
- *Metadata Management Processes*
- *Metadata and IT Projects*
- *Metadata and People*
- *Metadata Organizations*
- *Metadata Skills and Competencies*
- *Metadata Architecture*
- *Using Metadata*
- *Metadata Standards*
- *Metadata Tools and Technologies*
- *Summary*

Module 3. Introduction to Data Modeling (69 min)

- *Data Modeling Defined*
- *Data Modeling Purpose*
- *Data Modeling and People*
- *Kinds of Data Models*
- *Data Modeling Processes*
- *The “Things” in Data Models*
- *Entity-Relationship Modeling*
 - *E-R Modeling Overview*
 - *Modeling Entities*
 - *Modeling Attributes*
 - *Modeling Relationships - Parts 1-2*
 - *Modeling Attributes...Again*
 - *Normalization*
 - *Verifying the Logical Model*
 - *Many-to-Many Relationships*
 - *Data Element Properties*
 - *Keys and Access Paths*



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- Optimization
- *Supplemental Models and Additional E-R Concepts*
 - Subject Area Models
 - Adapting Subject Area Models
 - State Transition Models
 - Building State Transition Models
 - Entity Subtypes - Parts 1-2
 - Entity Abstraction
- *Dimensional Data Modeling*
 - Meter and Measures
 - Dimensions
 - Dimension Hierarchies
 - Dimension and Meter Association
 - Dimension Attributes
 - Star Schema Modeling

Module 4. Data Names, Definitions, and Structures (39 min)

- *Bad Habits*
- *Good Practices*
- *Data Names*
 - Problem
 - Bad Habits
 - Solution
- *Data Definitions*
 - Problem
 - Bad Habits
 - Solution
 - Good Practices
 - Fundamental Data Definitions
 - Basic Principles
- *Data Structures*
 - Problem
 - Bad Habits
 - Solution
 - Data Structure Components
 - Basic Principles
- *Review*

Module 5. Introduction to Data Profiling (68 min)

- *What is Data Profiling*
- *Myth and Reality of Data Profiling*
- *Data Profiling Techniques*
- *Column Profiling*
 - *What is Column Profile*
 - *The Objective of Column Profiling*
 - *Types of Columns*
 - *Elements of Column Profile*
 - *Column Profiling Technology*
 - *Overall Summary Report*
 - *Automating Result Analysis*



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- *Basic Column Summary Report*
- *Basic Drill-downs*
- *What are Value Frequency Charts*
- *Why Gather Value Frequencies*
- *Uses of Frequency Charts*
- *What are Value Distribution Charts*
- *Review*
- *Other Profiling Techniques*
 - Profiling Relational Data Models
 - What are Time-dependent Data
 - Why Special Profiling Techniques
 - Time-dependent Data Profiling
 - Subject Profiling
 - Profiling State Transition Models
 - Attribute Dependency Profiling
 - Dynamic Data Profiling
- *Profiling Challenges*
 - What to Profile
 - How to Profile
 - How to Organize the Results
 - How to Analyze the Results
- *Role of Profiling*
 - Profiling and Data Quality Management
 - Profiling and Master Data Management
 - Profiling and Data Migration
 - Profiling and Data Consolidation
 - Profiling and Data Integration Interfaces
 - Profiling and Data Warehouses
- *People and Technology*
 - Tools and Technology
 - Role of Business
 - Data Profiling Profession