



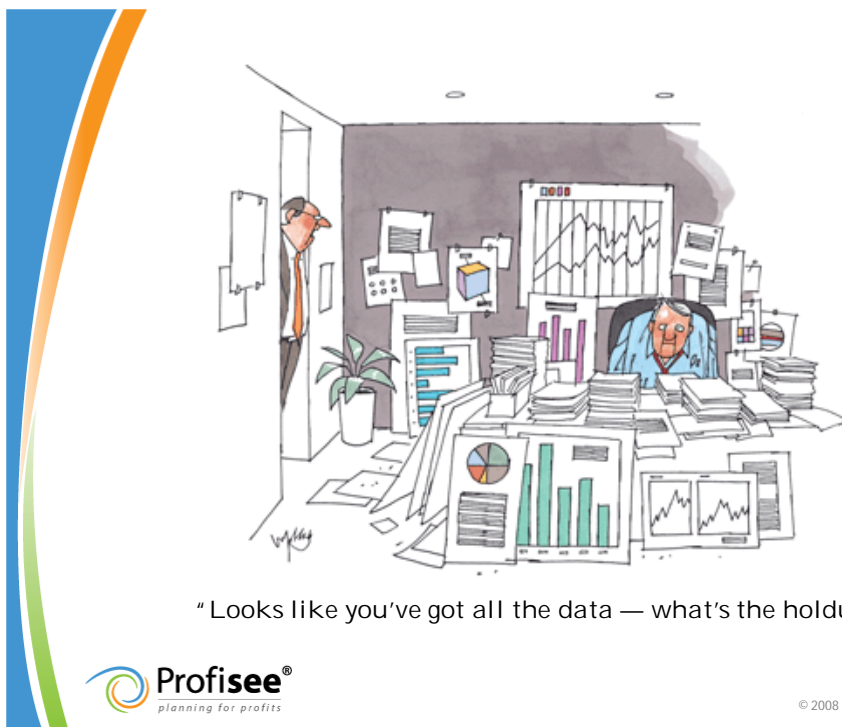
Financial Analytics ▶ Operational Analytics ▶ Master Data Management

# Master Data Management

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March 10, 2008

 //atlanta.mdf  
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“Looks like you’ve got all the data — what’s the holdup?”



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## Presentation Agenda

- MDM Overview
- Microsoft MDM Overview & Concepts
- Product Demonstration
- Microsoft MDM Roadmap & Resources
- Questions



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## Master Data

- Key organizational business entities and relationships shared across an enterprise
  - Products
  - Customers
  - Employees
  - Accounts
- Data that helps define a business
- Slowly changing



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## Master Data

- Enterprise data that had been:
    - Cleansed
    - Verified
    - Integrated
    - “Rationalized”
- } Organizational Rules and Policies
- Referenceable (shared reference data)
  - Agreed upon view across the organization (system-of-record)



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## Example, Sales Transaction



### Transaction Data

Records the value associated with the transaction (sales amount)

### Master (Reference) Data

Business entities associated with the transaction (employee, customer, product)

*Transactional vs. Reference Data*



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## Master Data Management

- The people, processes, and systems that enable the effective management of master data
- Business and technology collaboration
  - Governance
  - Stewardship
  - Cross-functional coordination



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## Why Now?

- Governance and compliance concerns
- System and data proliferation
- Mergers, acquisitions, restructurings
- Data and businesses processes not truly defined and integrated; partner demands
- Desire to become more cost-effective, efficient, competitive, and agile



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## Governance & Compliance

- International and domestic standards and legislation are demanding more visibility, transparency and auditability of systems
  - Can you track master data and hierarchy changes?
  - Do you know who made the changes?
  - Do you know when changes occurred?
  - Can you produce a snapshot from Q2 last year?



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## Key Benefits

- Make, sell, and analyze products faster
- Connect more effectively with suppliers and customers
- Improve business process efficiency
- Improve data quality and consistency
- Develop applications more efficiently
- Eliminate costs related to poorly managed data



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## Customer Scenarios

- Documented case studies
- Duplicate data across systems (e.g., same telephone number for different individuals)
- Inconsistent hierarchies across analytical applications → dubious reporting
- Desire to associate, or link, common data across ERP systems after an acquisition



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## Complementary Framework

- Complements existing systems
- However, MDM is not:
  - a data warehouse
  - an operational or transactional data store
  - a CRM, ERP, or SCM system
  - a metadata repository
- MDM “specializations”: CDI, PIM



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## Key MDM Requirements

- Data stewardship support
- Data browsing and editing
- Hierarchy management
- Change management
- Data rules engine
- Security



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## MDM Requirements, cont.

- Synchronization
- Merge/match
- Support analytical and operational systems
- Integration – federation, SOA, third parties (e.g., D&B, GS1)
- “Data as a Service”



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## Caveats

- Product overview addresses functionality currently available in the TP (technology preview) release
- Product demonstration is the TP release
- Product functionality is subject to change between now and the GA release



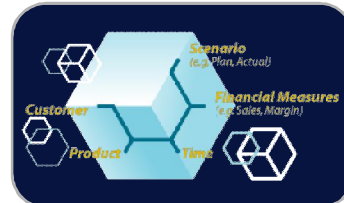
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## Key Concepts

- Dimension Models define the structure for analysis and entities

- Products
- Customers
- Centers -- Revenue and Cost
- Chart of Accounts



- Hierarchies define consolidation and drill-down along dimensions
- Collections assortments of elements and hierarchies as in sub-sets



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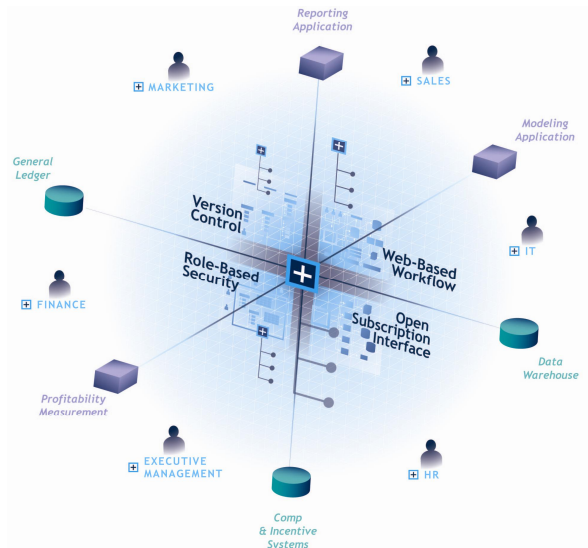
## Other Terminology

- Model
  - Version
  - Validation
- Explicit Hierarchy, Derived Hierarchy
- Member
- Attribute
- Transaction
- Staging, Subscribing



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# Key Features



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# Key Benefits

- + INCREASED ACCURACY**
  - Single Dimensional Repository
  - Web-based Deployment
  - No Redundant or Conflicting Data
- + FASTER RESULTS**
  - Collaborative, Web-based Workflow
  - No Manual Reconciliation
  - Process Efficiency
- + REGULATORY COMPLIANCE**
  - Audit and Transparency
  - Consistency
  - Process Controls & Security

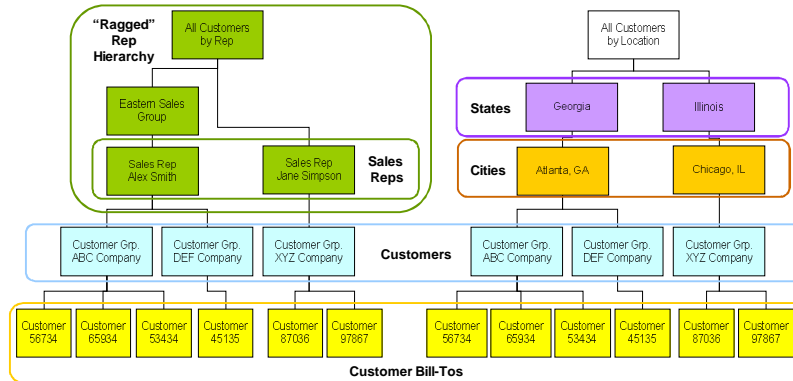


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# Dimensional Modeling

## – Define It Once –

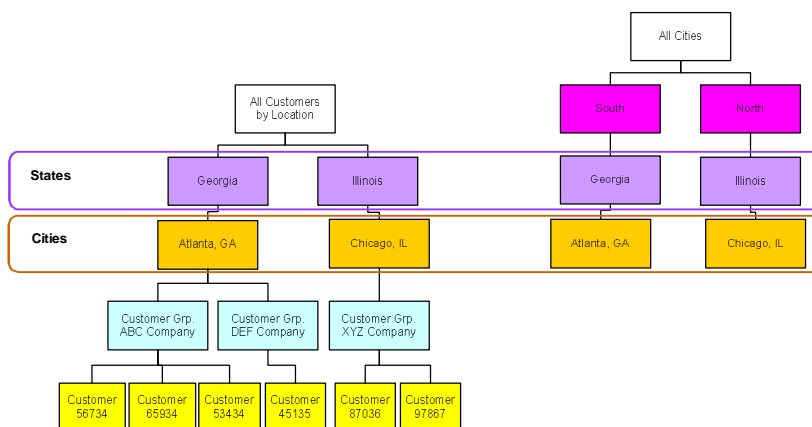
Components of each hierarchy represent specific entities / relationships  
 Component parts can be defined once and reused in multiple hierarchies



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# Dimensional Modeling

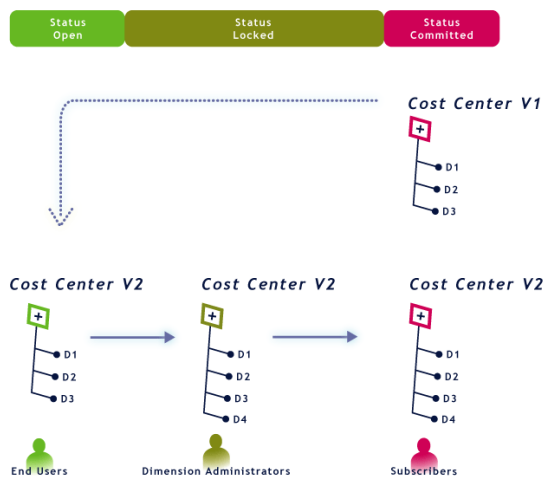
## – Reuse –



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# Version Management

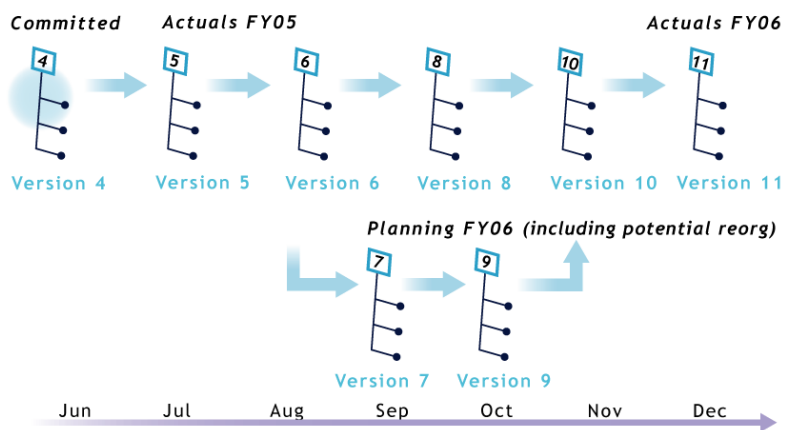
## - Version Control -



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# Version Management

## - Straight Line and Branching -



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# Business Rules

- Proactive data quality
- Serve requirements of subscribing systems

**IF**

Conditions

---

**THEN**

Actions

must be between

---

**Edit Action**

Code

must be between




Attribute value

Attribute  → select attribute

and

Attribute value

Attribute  → select attribute

- Restrict ranges
- Generate and default values
- Concatenate or decompose fields
- Conditional logic
- Automatic mapping
- Drive attributes for rules
- Drive hierarchies automatically



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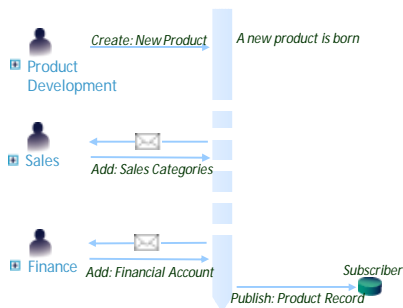
# Business Rules

- Drive workflow and notifications
- Enforce data integrity

EDM Notification

From: edm@newman  
 Date: Friday, April 21, 2006 10:17 AM  
 To: anedtor@newman  
 Subject: +EDM Notification

ID	Model	Version	Entity	Member Code	Message	Issued
886	Product	Version 4	Product	AB-X00	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
887	Product	Version 4	Product	BK-M189-52	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
888	Product	Version 4	Product	BK-M389-42	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
889	Product	Version 4	Product	BK-M478-44	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
890	Product	Version 4	Product	BK-M688-42	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
892	Product	Version 4	Product	HL-US10-B	<a href="#">Class ID is mandatory</a>	Apr 21 2006 10:16AM
894	Product	Version 4	Product	HL-US10-B	<a href="#">Color ID is mandatory</a>	Apr 21 2006 10:16AM



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## Resources

- <http://www.microsoft.com/mdm>
  - Product roadmap
  - Articles
  - Case studies
- [mdmvibe@microsoft.com](mailto:mdmvibe@microsoft.com)
  - TP signup
- [MSDN Forums](#) » [Master Data Management](#)



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## Roadmap

- Schedule (“Bulldog”)
  - TP Review (November, 2007)
  - TAP (projected first half of 2008)
  - CTP releases (first projected late 2008)
  - GA to coincide with the next version of Office
- Delivery Vehicle
  - Microsoft Office SharePoint Server



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## MDM Foundation

- Built upon solid foundations of:
  - SQL Server,
  - Microsoft Office SharePoint Server,
  - Windows Communication Foundation,
  - ADO.Net Entity Data Model (EDM),
  - Integration Services,
  - BizTalk Server, and
  - other prominent Microsoft technologies



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## MDM Integration

- Integrated with core Microsoft Office Business Platform
  - PerformancePoint,
  - Dynamics,
  - Microsoft Office Excel, and
  - Microsoft Office SharePoint Server
- Plus key third party applications



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# Questions



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# Contact

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- [www.profisee.com/mdm.html](http://www.profisee.com/mdm.html) (more content forthcoming)



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