



Whitemarsh
Information Systems Corporation

*Whitemarsh Metabase
Metadata Management System
Modules and Descriptions*

*Whitemarsh Information Systems Corporation
2008 Althea Lane
Bowie, Maryland 20716
Tele: 301-249-1142
Email: Whitemarsh@wiscorp.com
Web: www.wiscorp.com*

Whitemarsh Metabase Metadata Management System Modules and Descriptions

Metabase Module	Description
Administrative Module	The Administrative module of the metabase system supports the creation of new metadata databases. Part of the creation of a new metabase database, is the loading of default values. Included as well are the creation of users with names and passwords. These new users are mapped to metabase modules and metabase databases. This enables a level of security. The metabase administrator can terminate a user's access to a given metabase database, and can delete a metabase user.
Business Information Systems	Business Information Systems are the necessary computer software systems triggered by enterprise business events instigated by functions. Business information systems are directly related to mission, organization, function, and databases. Business information systems are interrelated to each other including their calendar and business event execution schedules? Collectively, business information systems are the mechanisms that carry out the automation aspects of enterprise policy.
Data Element	Data elements are the enterprise facts that are employed as the semantic foundations for attributes of entities within data models of concepts (Specified Data Models), columns of tables within database models (Implemented Data Models) that support the requirements of business and are implemented through database management systems (Operational Data Models), that, in turn, are employed by business information systems (View Data Models) that materialize the database objects necessary for within the resources of the enterprise that support the fulfillment of enterprise missions. Data elements are derived through the specification of concepts, conceptual value domains, data element concepts, and value domains. Additionally, the data element model supports the definition of a full complement of semantic and data use modifiers that can be allocated to data element concepts, data elements, attributes, and columns. Because of these allocations, naming and definitions can be fully automatic.
Database Objects	Database Object Classes represent the identification of 1) the critical data structures, 2) the processes that ensure high quality and integrity data within these data structures, 3) the value-based states represented by these data structures, and 4) the database object centric information systems that value and transform database objects from one state to the next. Database Objects are transformed from one valid state to another in support of fulfilling the information needs of business information systems as they operation within the business functions of organizations. Database objects are encapsulated within database management systems (DBMS) so that they can be independent of any end-user environment or programming language.
Documents and Forms	Documents and Forms enable the structuring of both documents and forms into documents/forms, their sub-sections, and cells. Documents and Forms can be interrelated with network data structures. Both Document and Form section cells can be mapped to mission-organization-functions, and also to view columns.



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Implemented Data Model	<p>Implemented Data Models, are the data models of databases that are independent of DBMSs. These models, which are comprised of data structure components: schema, tables, columns, and inter-table relationships. Relationships are restricted to tables within a single schema. While each implemented database data model can address multiple concept data models from the collection of concept data models, each implemented data model should address only one broad subject. Every table column should map to a parent Attribute. Every column can be allocated both semantic and data use modifiers. There is a many-to-many relationship between the Specified Data Model and the Implemented Data Model.</p>
Information Needs Analysis	<p>Information Needs Analysis represents the identification, definition, and interrelationship of the information needed by various organizations in their functional accomplishment of missions and what databases and information systems provide this information?</p>
Mission, Organization, Function, and Position Assignments	<p>The Mission, Organization, Function, and Position Assignment module represents the identification, definition, and interrelationships among the persons who, through their positions, perform functions within their organizations that accomplish enterprise missions. Missions define the very existence of the enterprise, and that are the ultimate goals and objectives that measure enterprise accomplishment from within different business functions and organizations? Functions represent the procedures performed by enterprise organization groups as they achieve the various missions of the enterprise from within different enterprise organizations? Organizations represent the bureaucratic units created to perform through their functions the mission of the enterprise. Position Assignments represent the identification of both persons and position titles that are both interrelated and allocated to the various functions performed by organizations that achieve enterprise missions.</p>
Operational Data Model	<p>Operational Data Models, are the data models of databases that have been bound to a specific DBMSs. These models, which are comprised of data structure components: DBMS schema, DBMS tables, DBMS columns, and inter-table DBMS relationships. DBMS Relationships are restricted to DBMS tables within a single DBMS schema. While each operational database data model can address multiple implemented data models. Every DBMS Column should map to a parent Column. There is a many-to-many relationship between the Implemented Data Model and the Operational Data Model.</p>
Requirements Management	<p>The purpose of this Metabase System module, Requirements Management, is to provide:</p> <ul style="list-style-type: none"> ● Identification and description of requirements. ● Interrelationship among different requirements. ● Relationship between requirements and other metadata



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	<p>artifacts.</p> <ul style="list-style-type: none"> ◆ Mapping to Business Events ◆ Mapping to Business Information Systems ◆ Mapping to DBMS Columns ◆ Mapping to User Acceptance Test Steps ◆ Mapping to Database Objects ◆ Mapping to User Cases ◆ Mapping to Data Integrity Rules ◆ Mapping to Resource Life Cycle Nodes ◆ Mapping to Mission Organization Functions <p>The Requirements Management module permits recording of the characteristics of the requirements associated with the enterprise. Each requirement can be described and interrelated with other requirements. Once requirements are identified and described, they can be allocated to any of the “mapping” items above. This permits enterprises to know the requirements needed by whom within the different organizations in the performance enterprise missions.</p>
Resource Life Cycle Analysis	<p>Resource Life Cycle of Analysis identifies, defines, and sets out the resources of the enterprises, the life cycles that represent their accomplishments, and the interrelationships among the different enterprise resource life cycles. Resource life cycle nodes represent the end-state data resulting from the execution of business information systems. The end-state data is represented through database object classes.</p>
Specified Data Model	<p>Specified Data Models are the data models of concepts. These models, which are comprised of data structure components: subjects, entities, attributes, and inter-entity relationships. Relationships can span interrelate entities within multiple subjects. Each data model should address only one concept such as a person’s name, or an address, etc. These concept data models can then be templates for use in developing database models (Implemented or Operational). Every entity attribute should map to its parent Data Element. Every attribute can be allocated both semantic and data use modifiers.</p>
Use Cases	<p>The use case module enables the creation, updating, and interrelationships of detailed function model specifications. The use cases contain use case networks structures, use case events, pre conditions, post conditions, special conditions, use case facts, and use case actors. These use case components are able to be interrelated with business information systems, database table columns, and mission organization functions, and persons functioning with</p>



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View Data Model	The View data model represents the interfacing between operational data models and business information systems. View and their view columns can be characterized as Input and/or Output. Additionally, these views can be mapped one to the other on a view column basis and processes can be specified to define any appropriate data value transformation.

