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CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Central Data Administration (CDA) Standard Data Modeling Tool Use

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Document Control

Document Purpose

This document describes the Computer Associates All Fusion ERwin data modeling standards that should be applied to all ERwin generated Logical and Physical data models (E/R diagrams) for projects within the Center of Medicare & Medicaid Services (CMS).

Control Version

The control version of this document is stored on the Central Data Administration's ACE website as well as the Central Data Administration's website. The file name is **ToolUse_v2.doc.**

Summary of Changes

Revision	Date	Author/Editor	Pages Affected
V 1.0	Baseline		N/A
V 2.0	07/01/2008		**Revised entire document to include reference to NEW User Defined Properties**

Table of Contents

Table of Exhibits

1. Tool Use

Introduction:
Key points about use of the standard modeling tool are:

- All-Fusion ERwin Data Modeler is used on individual workstations.
- Agency standard ERwin UDP data model templates (.er1 files) are required starting points for new Logical\Physical, Logical, and Physical models. These templates include the standard UDPs which are required components of all new models.
- Built-in features of All-Fusion ERwin Data Modeler include extensive documentation and help facilities. More tips are available at the vendor's Internet website.
- All-Fusion ERwin Data Modeler is software designed for use by professional data analysts. An appropriate level of product experience plus understanding of data architecture principles and methods are required to produce efficient and effective data model products.
- IDEF1X notation is the required standard to be used within CMS.
- Data Administration provides modeling tool software licenses and registration information.

Contact Data Administration (DataAdmin@cms.hhs.gov) for assistance with activities, standard data modeling and modeling software tools.

NOTE: There are references within this section that refer the reader to the Operating Procedures and Guidelines section. Please download the Operating Procedures and Guidelines section to view these references.

The topics for data modeling tool use are:

1.1 Data Modeling tool standard for using User Defined Properties Data

1.2 Modeling tool standard for Creating Conceptual Data Models Data

1.3 Modeling tool standard for Creating Project Logical Data Models

1.4 Data Modeling tool standard for Creating Project Physical Data Models

1.1. Data Modeling Tool Standard for using User Defined Properties

Introduction

The standard User Defined Properties (UDPs) offer a range of improved information for and about the logical and physical data models. Beyond what is recommended in this document, a project may identify additional UDPs to support project requirements. At the minimum the UDPs should provide:

1) Better linkage between attributes and project business requirements
2) A clearer connection between columns and their primary data source
3) Specification of an entity's security classification
4) Improved linkage between logical model entities and physical model tables.
5) Document the data flows from database to database at the column level.

The application of the UDPs can easily be broken into two broad categories:

- New systems being developed
- Legacy systems already in production that are being revised.

New Systems Being Developed

After October 1, 2005, any new application being developed for operation within CMS's data center is required to incorporate the standard UDPs in both the logical and physical data models. In addition projects are strongly encouraged to use the ERwin logical\physical model type for new data models with the exception of Conceptual models. Refer to DM G-020 Guideline for Using ERwin Complete Compare to Create a Brand New Data Model.

Legacy Systems

Applications in operation prior to October 1, 2005 are not expected to retroactively incorporate the standard UDPs. However, as these applications are revised the new releases should incorporate the UDPs into the data models whenever any one of the following criteria is met:

- A major application release occurs. Major release is defined as a revision that causes the application's version number to increase as follows.
  Example: Application version 1.2 becomes Application version 2.0

- The application revision causes a new subject area to be added to the application's data models

- The application revision causes the addition of three or more new entities/tables to one or more subject areas in the application's data models

Use of the standard UDPs only applies to the new data objects (entities, attributes, tables columns, etc.) being placed in the legacy applications' data models. Modelers are encouraged to supply the model level UDPs as well when significant maintenance is being performed. But as the new UDPs are added, modelers must also

preserve any UDPs already defined in those previous models.

Current copies of the templates containing the standard User Defined Properties (UDPs) are located on the homepage of Data Administration website. There are three standard templates, one for Logical data models and one for Physical data models and one for Logical/Physical data models. Utilize the template appropriate for your ERwin model type.

Refer to Appendix 1.2 for a list of the required UDPs for each ERwin Model Type and the entry format for each UDP.

Viewing the UDPs in a Model
The UDPs become visible when you go to the ERwin toolbar and select "Model" and then "UDP Dictionary" from the menu below.
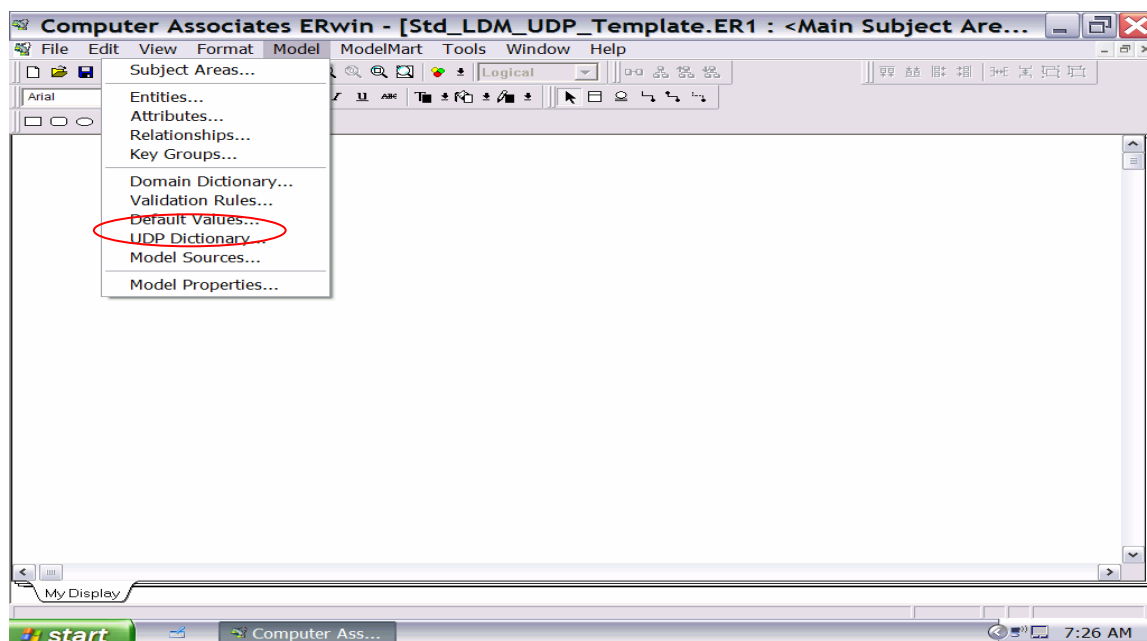
In the subsequent popup screen you will immediately be shown the standard set of UDPs, the ones for the overall data "Model".
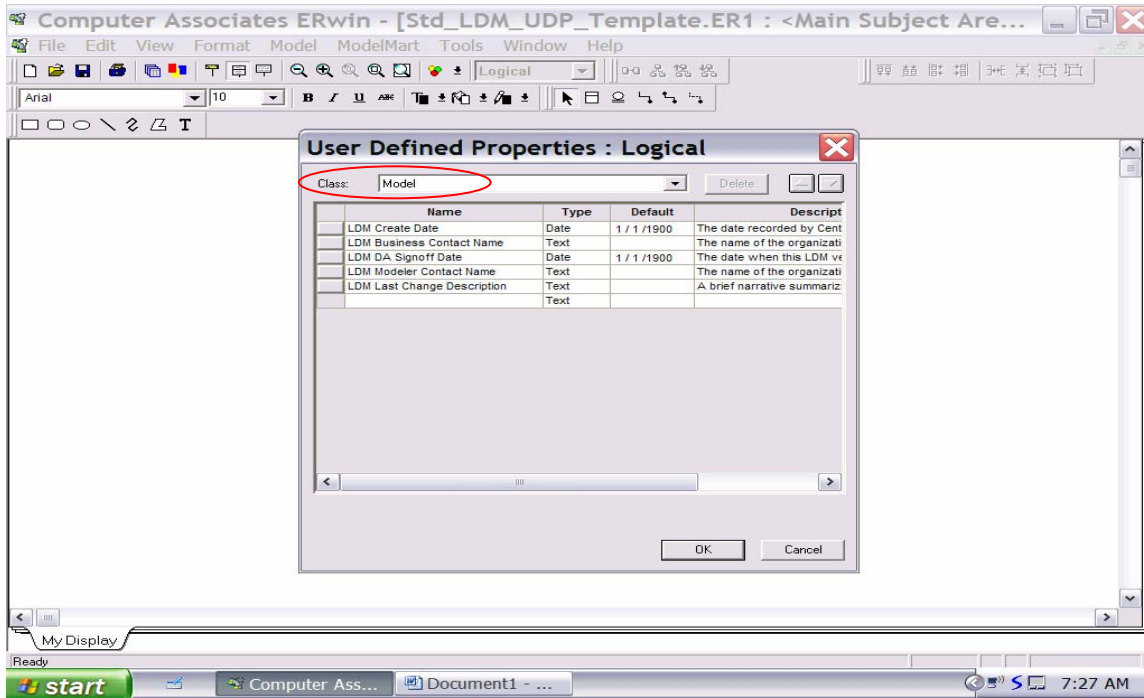
In order to see the other UDPs, go to the dropdown list next to the "Class" area and select another class type (table, entity, attribute, column, etc.)
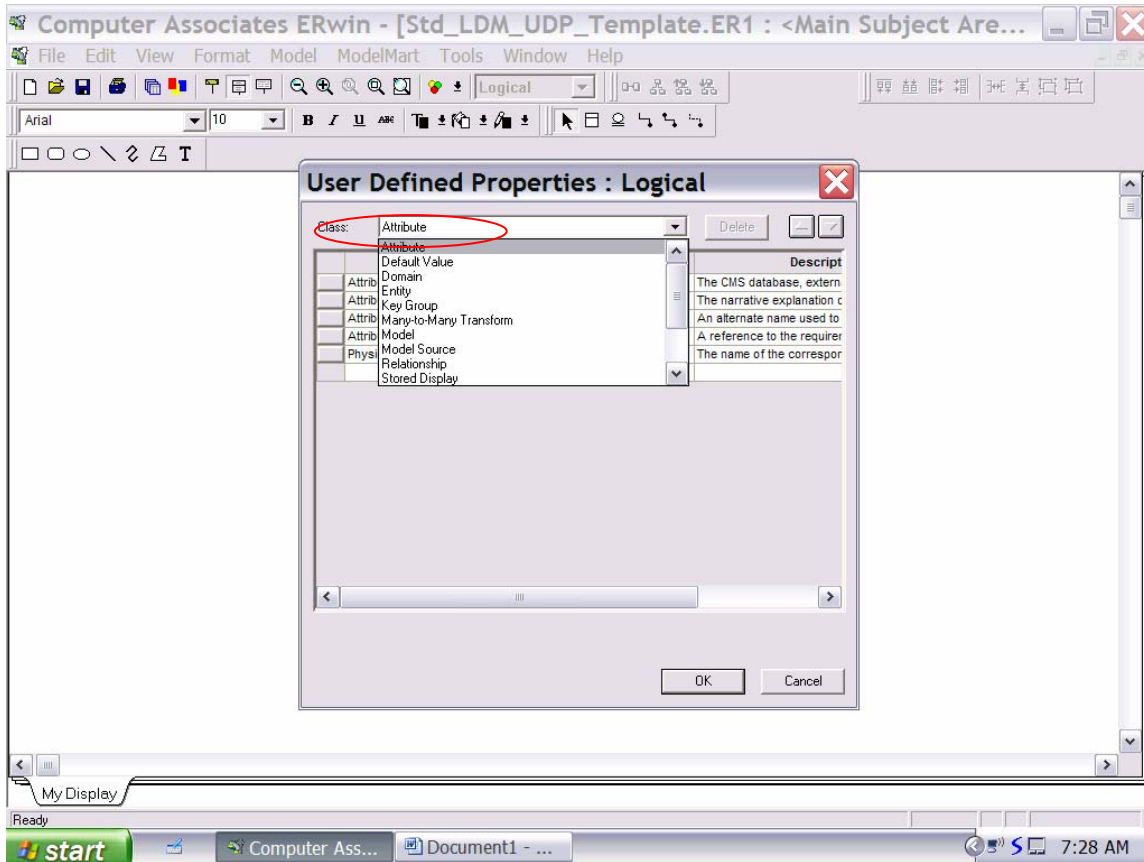
The templates will often be used as a means of adding the standard UDPs into the numerous <u>data models</u> <u>that are already in existence</u> in various projects and systems. Considering this let us anticipate some possible concerns that may exist:

<u>Concern #1:</u> Suppose a model that pre-dates the new standard UDPs already has some UDPs of its own?

<u>Answer to Concern #1:</u> There should be no problem. The new standard UDPs will simply be imported so that they exist alongside the UDPs already in place in the model. The pre-existing UDPs will not be overlaid.

<u>Concern #2:</u> Suppose a model already has a UDP with a name *identical to* that of a standard UDP that is to be imported?

<u>Answer to Concern #2:</u> In that case the modeler will have the opportunity to deliberately select the identically named standard UDP and *not* import that UDP in the procedure described in DM G-021 Guideline for Using ERwin Complete Compare to Import Standard Logical Model UDPs.

Concern #3: Suppose a model already has a UDP that is differently named from a standard UDP, but identical in purpose? For instance, a logical model might have a "Business Need" UDP that stores the business requirements that have caused that attribute to be placed into the logical data model. This is the same purpose intended for the new attribute-level standard UDP named "Attribute Requirement ID".

Answer to Concern #3: As in "Concern #2" above, following the procedure described in DM G-021 Guideline for Using ERwin Complete Compare to Import Standard Logical Model UDPs, the modeler will deliberately avoid importing the same-purpose standard UDP. Then the modeler can change the name of the old UDP so that it has the same name as the new standard UDP. In this case, the old "Business Need" UDP would be renamed as "Attribute Requirement ID".

1.2. Data Modeling Tool Standard for Creating Conceptual Data Models

Introduction
All-Fusion ERwin Data Modeler is the standard data-modeling tool at CMS. Use of any other software tool for the purpose of developing data models is prohibited. This section describes creation of a project's *Data Models,* which has the purpose of showing the "big picture" perspective of project entities.

Responsibilities
The *Project/Local Data Analyst* creates the *Conceptual Data Model.*

Data Relationships

Type *Verb Phrases* in lower case. Refer to DM OP-015 Operating Procedure for Defining Relationships, Cardinality and Optionality.

Display Level Options
Display the model at the *Entity* level i.e. only entities and their relationships are to be shown on the Conceptual Data Model diagram.

Data Model UDP Template File
The standard ERwin logical data model UDP template file is Std_LDM_UDP_Template.ER1. For databases in production or development before October 1, 2005, use the old standard naming convention file CMS_OLD_STD_TERM_yyyymmdd.nsm. For all databases being developed after October 1, 2005 use the new standard naming convention file CMS_NEW_STD_TERM_yyyymmdd.nsm. These files are available from the DA Standard Tools page, which is accessible from the main **Data Administration web page** **or** submit a request to the Glossary Administrator (**DataAdmin@cms.hhs.gov**) to obtain the latest naming standard files. The template file contains the CMS standard User Defined Properties (UDPs) format. The standard naming convention files enable the automatic naming features in the ERwin tool.

Refer to the *HELP* in the data modeling tool for information on how to implement and use the naming file.

The use of the standard logical model UDP template is required for *Project Conceptual* or *Logical Data Models* being developed on or after October 1, 2005, which supports all new development projects. For guidelines on when and how to apply the standard UDPs in data models for systems that existed before October 1, 2005, see the "Legacy" Systems" subsection in Section 1.1. The new UDPs themselves can be added by using the ERwin compare utility to update the project LDM. Refer to DM G-021 Guideline for Using ERwin Complete Compare to Import Standard Logical Model UDPs. Then they can be populated using the UDP tab of the regular entity, attribute and model property update dialogues.

When you open either template up in ERwin all you will see is a blank screen. These templates contain absolutely no entitles, tables, or any other diagram objects. The templates exist solely to offer a set of standard UDPs that can be used in any data model. Refer to Section 1.1 Viewing the UDPs in a Model.

The ERwin model properties for a Conceptual Data Model are to be specified according to the table which follows.

Table 1.1 ERwin Model Properties for a Conceptual Data Model

Model Property	Format / Description	Reqd	UDP
Model Name	A Conceptual Data Model is to be named in the following manner: *system acronym + ("relational "/"dimensional ") + model type (EDM/CDM/LDM/PDM) + approval date (or the save date for models in development) in yyyymmdd form at.* *Example:* **TUS relational CDM 20080619.** See: DM OP- 028 Operating Procedure for Naming and Defining Data Model	●	
Model Author	Specify the first and last name of the Local or Central Data Architect as well as the company name of the person responsible for creating and/or maintaining the data model. *Example:* **Bob Smith, XYZ Company**	●	
Logical Notation	Select IDEF1X.	●	
Model Type	For a Conceptual Data Model, the ERwin model type must be "LOGICAL".	●	
Model Definition	Provide a brief description of the business project whose high-level data requirements are represented by the entities and relationships to be diagramed in the Conceptual Data Model. The model definition describes the purpose and status of the model in a few sentences of text. *Example:* **Conceptual data model for the initial phase of the TUS system.** See: DM OP- 028 Operating Procedure for Naming and Defining Data Models	●	
Model History Options	Select all of these options.	●	
Standard Model-Level UDPs	Refer to Appendix 1.2 for a list of the standard Model-level User-Defined Properties for a Logical ERwin Model Type	●	●

Business Entities
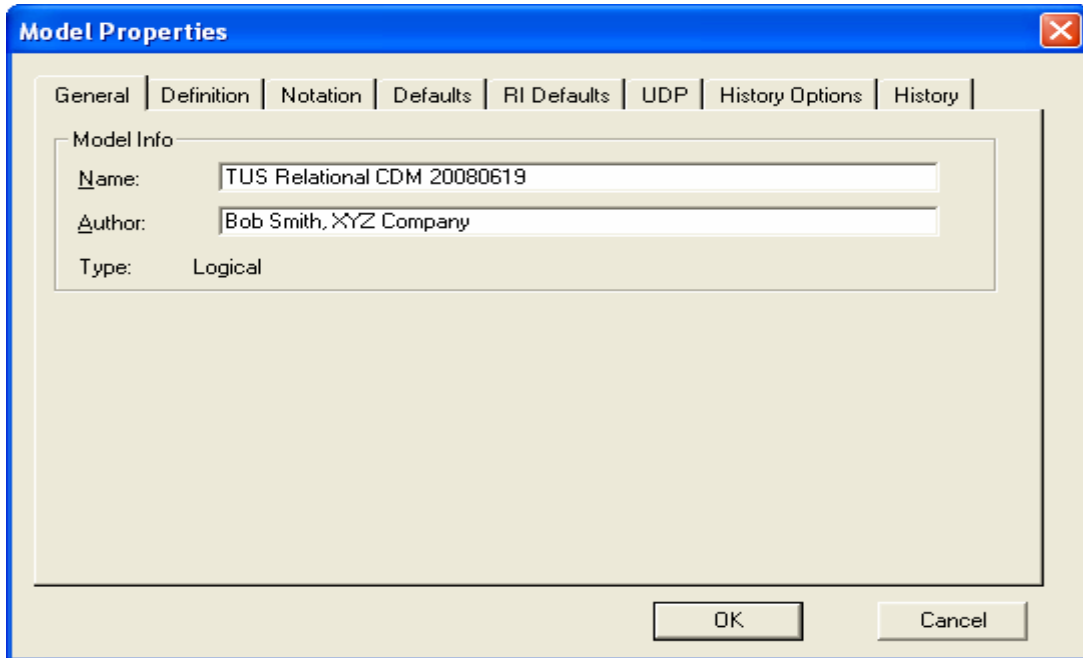
The ERwin properties for each business entity in a Conceptual Data Model are to be specified according to the table which follows.

Table 1.2 ERwin Entity Properties for a Conceptual Data Model

Entity Property	Format / Description	Reqd	UDP
Entity Definition	The narrative explanation of the meaning of an instance of the Entity. *Example:* **Provider Service - A business licensed to dispense prescription drugs.** See: DM OP-008 Operating Procedure for Defining Data Entities	●	
Entity Logical Only Switch	A check box located in the lower-left hand corner of the Entity Dialog Option tab that indicates that the logical entity does not correspond to a table in any logical/physical or physical ERwin model type. Note, ERwin is capable of generating a report that selectively shows entities marked as "Logical only" This check box should be checked for ALL business entities in a Conceptual Data Model.	●	
Entity Name	The user assigned symbolic identifier of the Entity. Type *Entity Names* in title case (the first letter of each term is in uppercase, the remaining letters in the term are in lowercase) throughout the model. Entity names must conform to the CMS approved naming standard. See: DM OP-009 Operating Procedure for Naming Data Entities	●	
Standard Business Entity UDPs	Refer to Appendix 1.2 for a list of the standard entity-level User-Defined Properties for a Logical ERwin Model Type	●	●

1.2.1 Sample ERwin Screen Snapshots for Creating Conceptual Data Models

Exhibit 1: General Model Properties for a Conceptual Logical Data Model
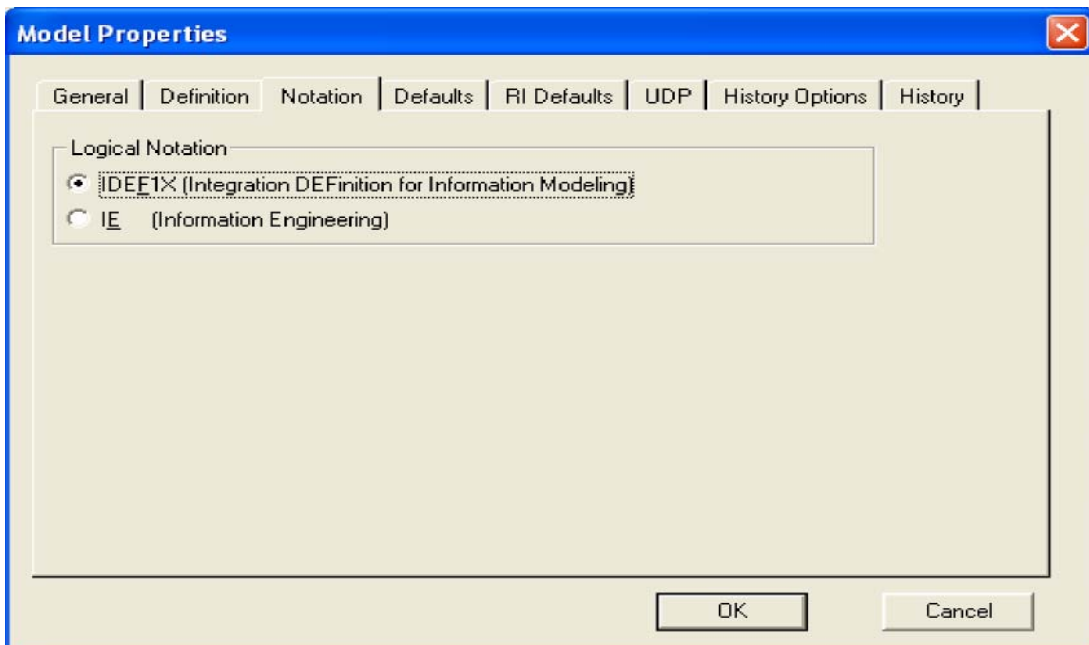
Model Properties

General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History

Model Info

Name: TUS Relational CDM 20080619

Author: Bob Smith, XYZ Company

Type: Logical

OK   Cancel

Exhibit 2: Notation Model Properties for a Conceptual Logical Data Model

Model Properties

General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History

Logical Notation

◉ IDEF1X (Integration DEFinition for Information Modeling)

○ IE   (Information Engineering)

OK   Cancel

Exhibit 3: UDP Model Properties for a Logical Data Model

Model Properties

General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History

User Defined Properties:

Property	Value
LDM DA Signoff Date	6 /19/2008
Model Create Date	4 /21/2008
Model Business Contact Name	Irving Belltower
Model Central DA Name	Halley Jones

OK   Cancel
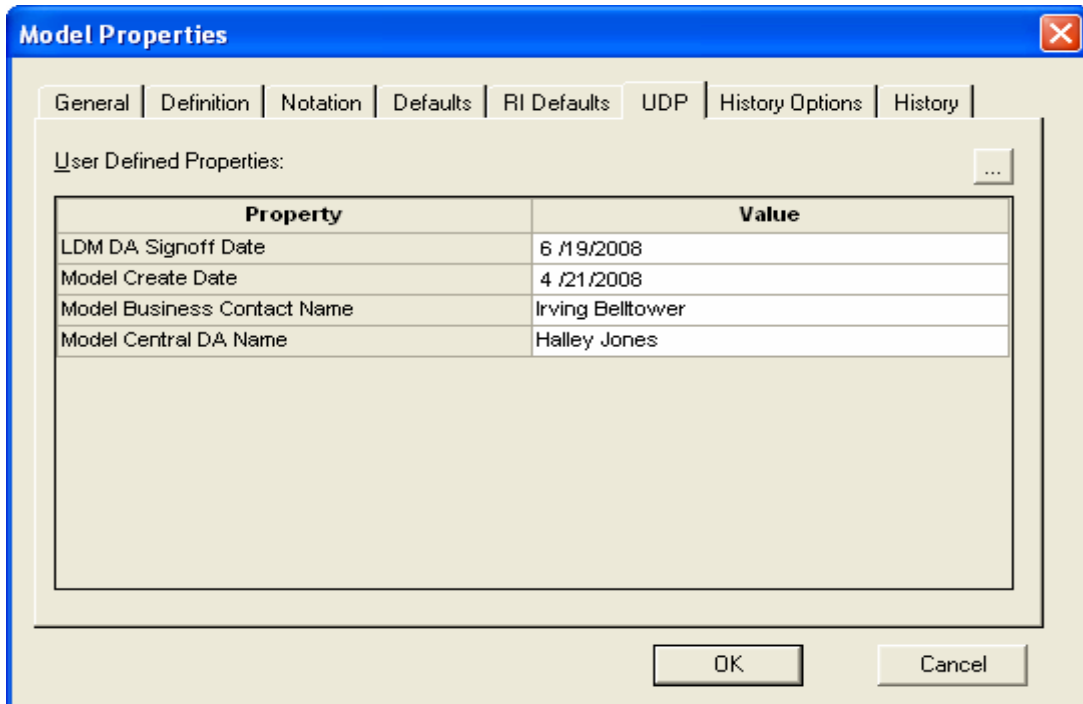
Exhibit 4: Model History Options for Conceptual Logical Data Model

Model Properties

General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History

Save History For:
- ☑ Model
- ☑ Entities and Tables
- ☑ Attributes and Columns

Save History When an Object Is:
- ☑ Created in the model
- ☑ Created from a model source
- ☑ Linked to a model source
- ☑ Transformed
- ☑ Migrated from a foreign key (FK)
- ☑ Reverse engineered from a database

OK   Cancel
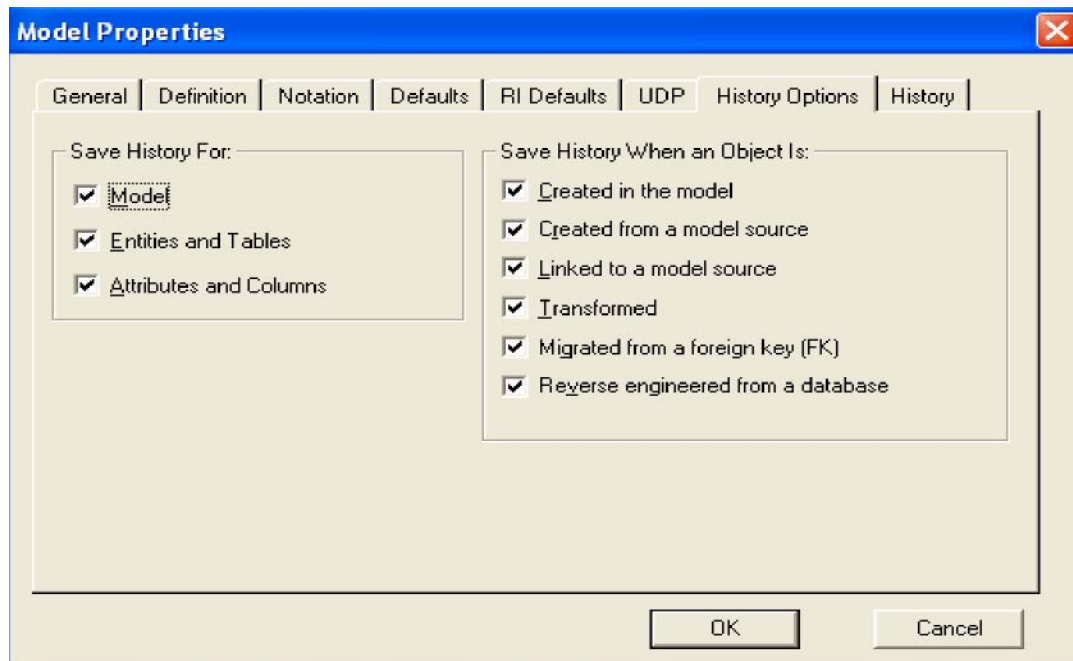
Exhibit 5: Entity and Relationship Names for a Conceptual Data Model
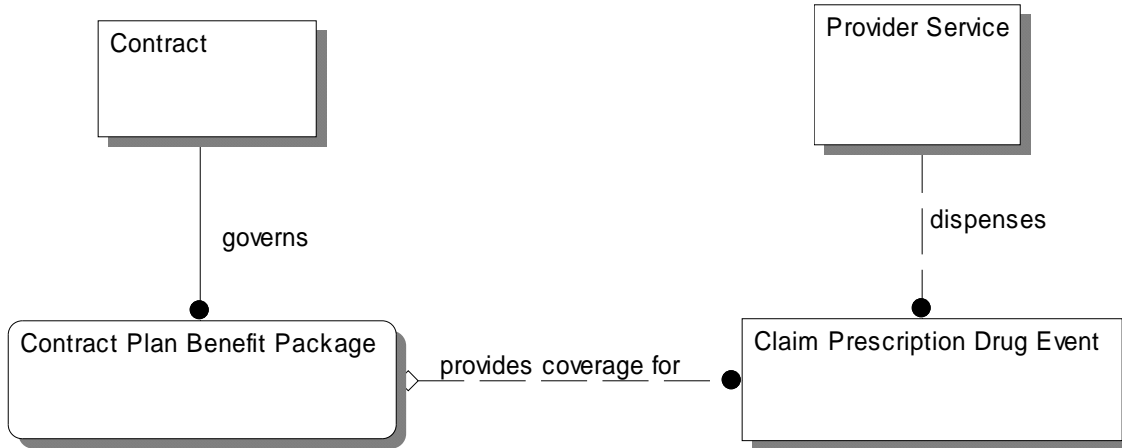
Exhibit 6: Entity Definition for Conceptual Data Model

Exhibit 7: Entity UDPs for Conceptual Data Model
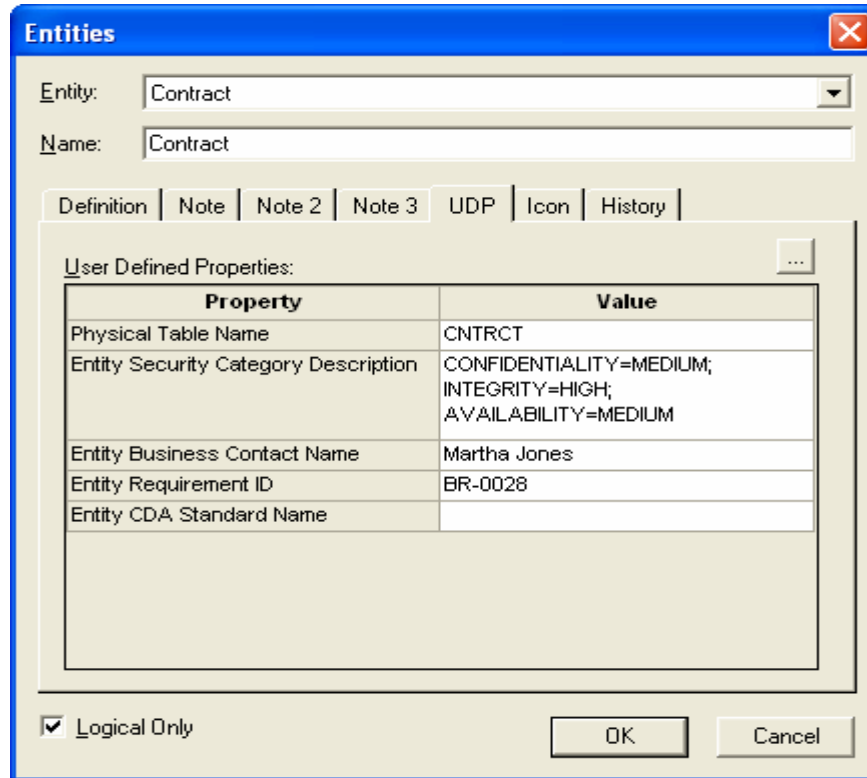
Exhibit 8: Model History Options for a Logical or Physical Data Model
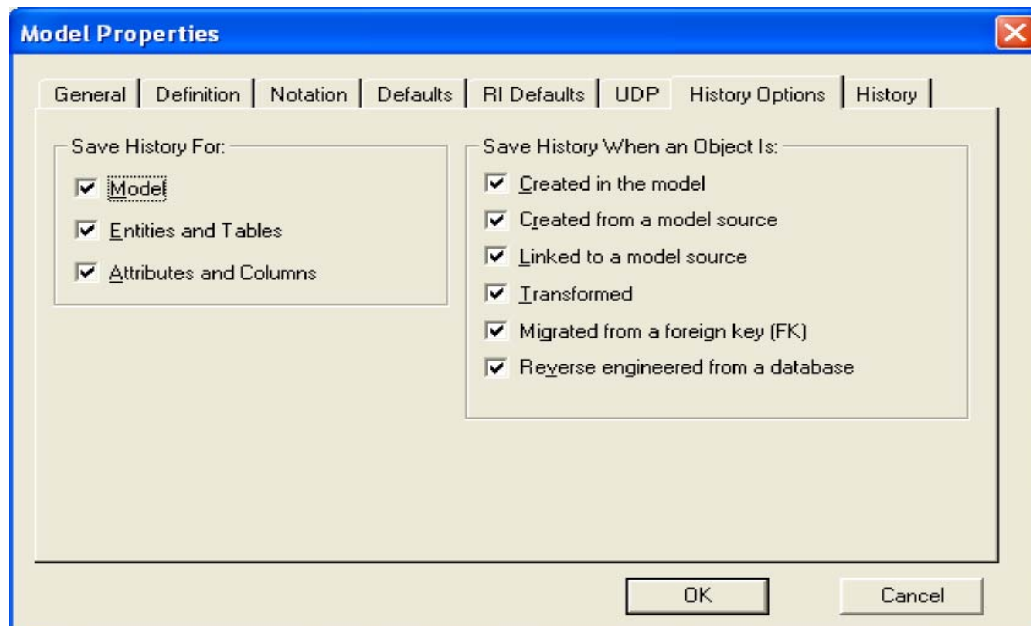
Exhibit 9: Model Properties for a Project Logical Data Model

Model Properties

General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History

Model Info

Name: TUS Relational LDM 20080725

Author: Bob Smith, XYZ Company

Type: Logical

OK   Cancel

1.3. Data Modeling tool standard for Creating Project Logical Data Models

Introduction
All-Fusion ERwin Data Modeler is the standard data-modeling tool at CMS. Use of any other software tool for the purpose of developing Logical Data Models is prohibited.

Responsibilities
All entries in the data modeling tool to create the Project Logical Data Model are performed by the *Project/Local Data Analyst.*

Data Relationships
- Verb phrase in all lower case
- Relationship type
- Specify identifying or non-identifying relationship.
- Logical Only Indicator: Specify *Logical Only* if applicable.
- Specify cardinality.

Refer to DM OP-015 Operating Procedure for Defining Relationships, Cardinality and Optionality

Display Level/Entity Display Options/Relationship Display
Display the model at the *Attribute* level. Entities, attributes and their relationships are to be shown on the Project Logical Data Model diagram. For the Entity Display level, display the Primary Key Designator (PK), Foreign Key Designator (FK) and any Migrated Attributes. For the Relationship Display level, display the Verb Phrase

Data Model UDP Template File
The standard ERwin logical data model UDP template file is Std_LDM_UDP_Template.ER1. For databases in production or development before October 1, 2005, use the old standard naming convention file CMS_OLD_STD_TERM_yyyymmdd.nsm. For all databases being developed after October 1, 2005 use the new standard naming convention file CMS_NEW_STD_TERM_yyyymmdd.nsm. These files are available from the DA Standard Tools page, which is accessible from the main **Data Administration web page** or submit a request to the Glossary Administrator (**DataAdmin@cms.hhs.gov**) to obtain the latest naming standard files. The template file contains the CMS standard User Defined Properties (UDPs) format. The standard naming convention files enable the automatic naming features in the ERwin tool.

Refer to the *HELP* in the data modeling tool for information on how to implement and use the naming file.

The use of the standard data model UDP template is required for *Logical Data Models* being developed on or after October 1, 2005, which supports all new development projects. For guidelines on when and how to apply the standard UDPs in data models for systems that existed before October 1, 2005, see the "Legacy" Systems" subsection in Section 1.1. The new UDPs themselves can be added by using the ERwin compare utility to

update the project LDM. Refer to DM G-021 Guideline for Using ERwin Complete Compare to Import Standard Logical Model UDPs. Then they can be populated using the UDP tab of the regular entity, attribute and model property update dialogues.

When you open either template up in ERwin all you will see is the text box that identifies the models. The templates exist solely to offer a set of standard UDPs that can be used in any data model. Refer to Section 1.1Viewing the UDPs in a Model.

The ERwin model properties for a project Logical Data Model are to be specified according to the table which follows.

Table 1.3 ERwin Model Properties for a Project Logical Data Model

Model Property	Format / Description	Reqd	UDP
Model Name	A Conceptual Data Model is to be named in the following manner: *system acronym + ("relational "/"dimensional ") + model type (EDM/CDM/LDM/PDM) + approval date (or the save date for models in development) in yyyymmdd form at.* *Example:* **TUS relational LDM 20080725.** See: DM OP- 028 Operating Procedure for Naming and Defining Data Model	●	
Model Author	Specify the first and last name of the Local or Central Data Architect as well as the company name of the person responsible for creating and/or maintaining the data model. *Example:* **Bob Smith, XYZ Company**	●	
Logical Notation	Select IDEF1X.	●	
Model Type	Designate the ERwin model type as a Logical/Physical (Logical View) or as a Logical. See: DM OP-029 Operating Procedure for Selecting Model Type.	●	
Model Definition	Provide a brief description of the business project whose high-level data requirements are represented by the entities and relationships to be diagramed in the Logical Data Model. The model definition describes the purpose and status of the model in a few sentences of text. Typically, the model definition can be obtained from the project requirement document. See: DM OP- 028 Operating Procedure for Naming and Defining Data Model	●	
Model History Options	Select all of these options.	●	
Standard Model-Level UDPs	Refer to Appendix 1.2 for a list of the standard Model-level User-Defined properties for a Logical/Physical (Logical View) ERwin model type, or a Logical ERwin model type.	●	●

Data Entity Properties

The ERwin properties for each data entity in a Project Logical Data Model are to be specified according to the table which follows.

Table 1.4 ERwin Entity Properties for a Project Logical Data Model

Entity Property	Format / Description	Reqd	UDP
Entity Definition	The narrative explanation of the meaning of an instance of the Entity. *Example:* **Provider Service- A business licensed to dispense prescription drugs.** See: DM OP-008 Operating Procedure for Defining Data Entities	●	
Entity Logical Only Switch	A check box located in the lower-left hand corner of the Entity Dialog Option tab that indicates that the logical entity does not correspond to a table in any logical/physical or physical ERwin model type. Note, ERwin is capable of generating a report that selectively shows entities marked as "Logical only" This property is optional and only applies if the entity is in fact a logical only entity.		
Entity Name	The user assigned symbolic identifier of the Entity. Type *Entity Names* in title case (the first letter of each term is in uppercase, the remaining letters in the term are in lowercase) throughout the model. Entity names must conform to the CMS approved naming standard. See: DM OP-009 Operating Procedure for Naming Data Entities	●	
Standard Business Entity UDPs	Refer to Appendix 1.2 for a list of the standard entity-level User-Defined Properties for a Logical/Physical (Logical View) ERwin model type, or a pure Logical ERwin model type	●	●

Data Attribute Properties

The ERwin properties for each data attribute in a Project Logical Data Model are to be specified according to the table which follows.

Table 1.5 ERwin Attribute Properties for a Project Logical Data Model

Attribute Property	Format / Description	Reqd	UDP
Attribute Name	The user assigned symbolic identifier of the Entity. Type *Attribute Names* in title case (the first letter of each word is in uppercase, the remaining letters in the word are in lowercase) throughout the model. If the attribute is serving as a foreign key, assign a role name where necessary. See: DM OP-012 Operating Procedure for Naming Data Attributes	●	
Attribute Definition	The narrative explanation of the meaning of an instance of the attribute. *Example:* **Provider Service - A business licensed to dispense prescription drugs.** See**:** DM OP-010 Operating Procedure for Defining Data Attribute	●	
Attribute Domain Name	The name of the domain which defines the data type, default value and valid values of the attribute. In the Attribute General Tab, choose from one of the standard ERwin domains - Blob, Datetime, Number, or String or create a User-Defined Domain if applicable.	●	

Attribute Property	Format / Description	Reqd	UDP
Attribute Logical Only Switch	The indication of whether or not the Attribute has a corresponding column in a Logical/Physical (Physical View) or a Physical ERwin data model type. This property is optional and only applies if the attribute is in fact a logical only attribute. Check the checkbox "Logical Only" in the lower right-hand corner to the Attribute property window.		
Attribute Overriding Data type Name	The name of the data type which overrides the one specified in the Domain which governs the Attribute. **(Required if no Domain is specified.)**		
Attribute Overriding Default Value Name	The name of the Default Value which overrides the one specified in the Domain which governs the Attribute.		
Attribute Overriding Validation Rule Name	The name of the Validation Rule which overrides the one specified in the Domain which governs the Attribute.		
Attribute Required Switch	An indication of whether or not the Attribute must assume a non-null value when an entity instance is created.	●	
Primary Identifier Switch	An indication of whether or not the attribute is part of the entity's primary identifier.	●	
Standard Attribute-Level UDPs	Refer to Appendix 1.2 for a list of the standard Attribute-level User Defined Properties for a Logical/Physical (Logical View) ERwin model type, or a Logical ERwin model type.	●	●

1.3.1 ERwin Screen Snapshots for Creating Logical Data Models

Exhibit 10: Entity, Attribute and Relationship Names for a Project Logical Data Model

Contract
| Contract Number |
| Contract Owner Identifier |

Provider Service
| Provider Service Identifier |
| Provider Service Qualifier Code |
| Provider Service Legal Business Name |

governs

dispenses

Contract Plan Benefit Package
| Contract Number |
| Contract Plan Benefit Package Number |
| Contract Plan Benefit Package Effective Date |
| Contract Plan Benefit Package Name |

provides coverage for

Claim Prescription Drug Event
| Claim Prescription Drug Event Identifier |
| Contract Number |
| Provider Service Identifier |
| Contract Plan Benefit Package Number |
| Contract Plan Benefit Package Effective Date |
| Claim Prescription Service Date |

Exhibit 11: Attribute Definition for a Project Logical Data Model

Attributes

Entity: Contract

General | Datatype | Definition | Note

Attribute
- Contract Number
- Contract Owner Identifier

Definition:
Unique identifier enabling an entity to provide coverage to eligible Medicare Beneficiaries.

New... | Rename... | Delete

Reset...

OK | Cancel
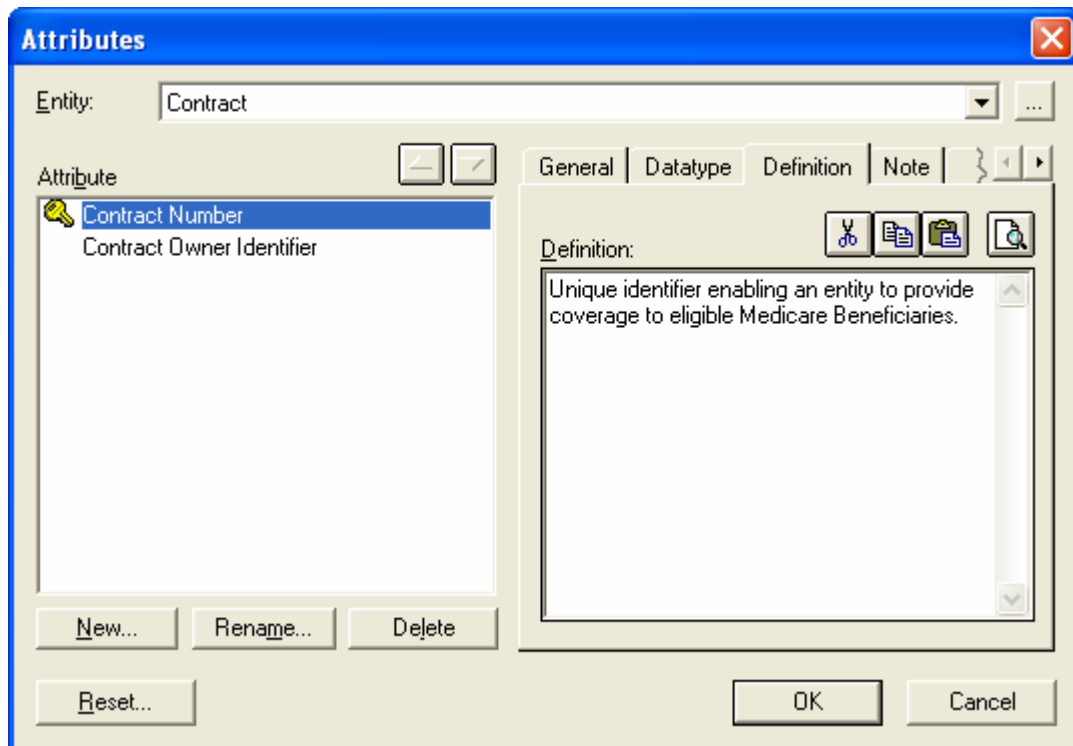
Exhibit 12: Attribute Domain Override for a Project Logical Data Model
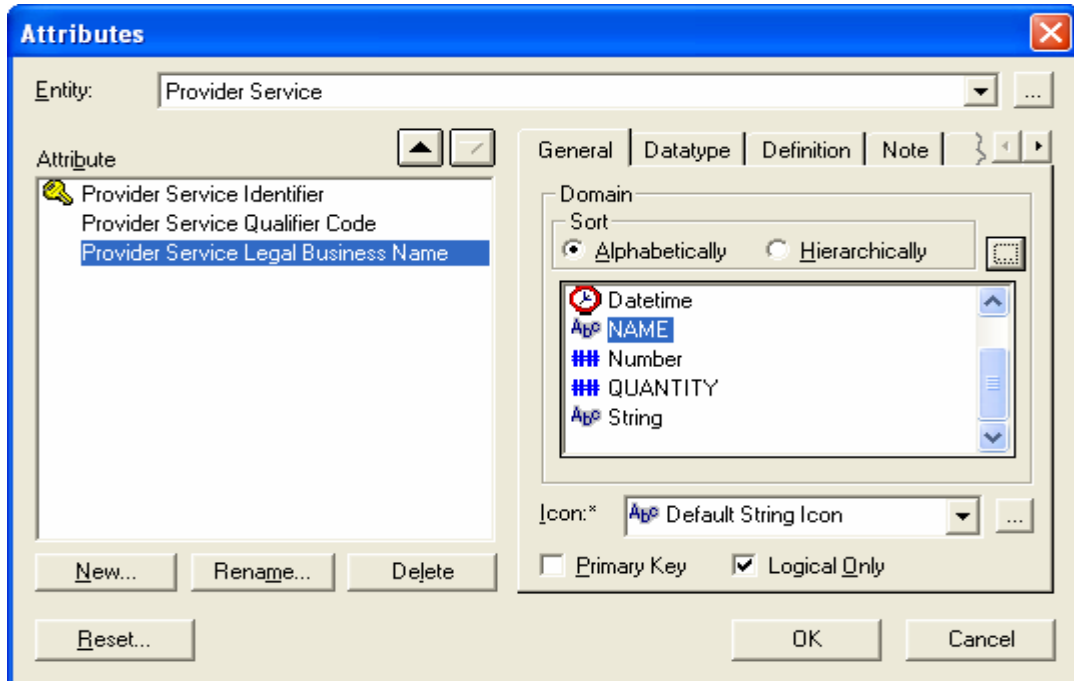
Exhibit 13: Attribute Validation Rule Override for a Project Logical Data Model
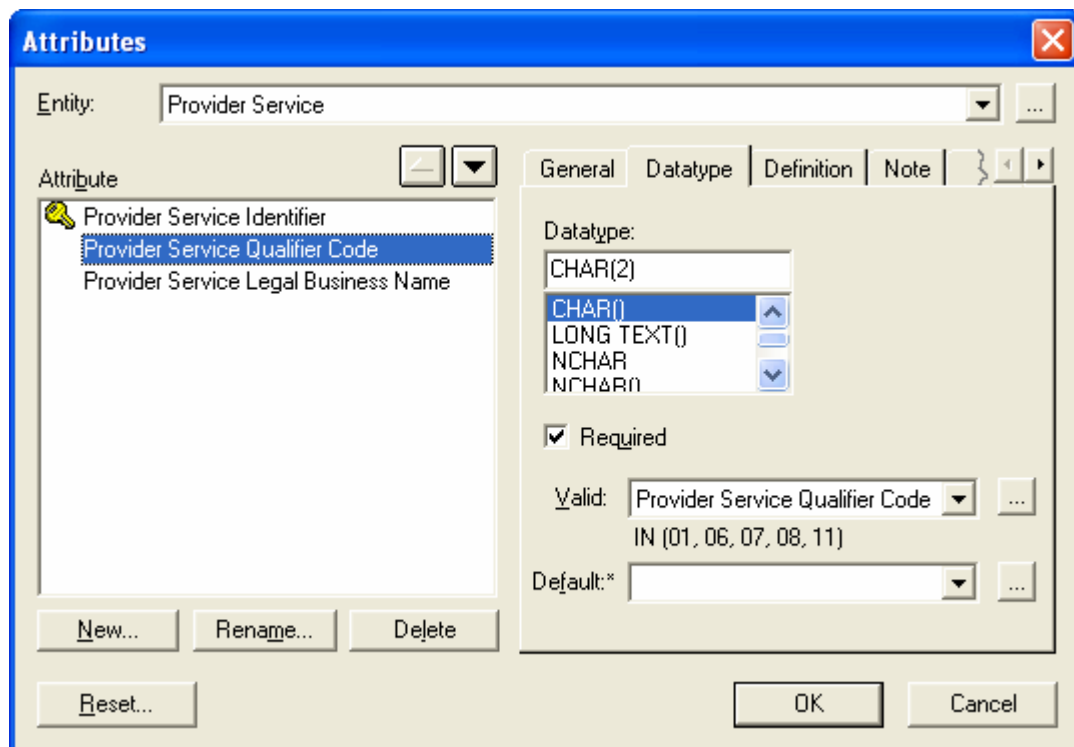
Exhibit 14: Attribute UDPs for a Project Logical Data Model
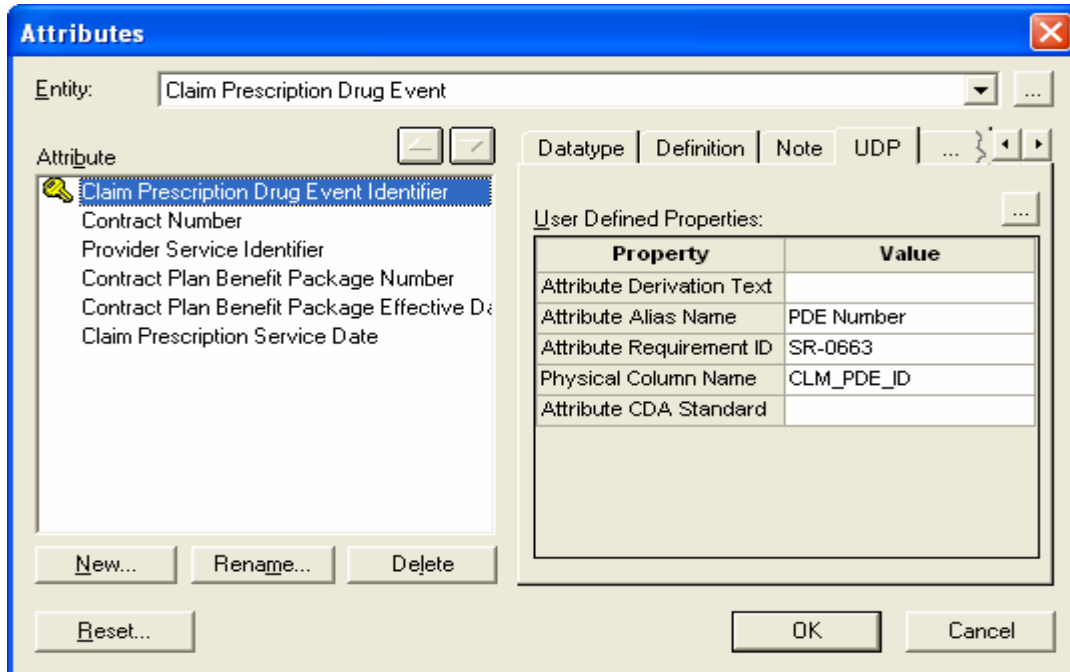
Attributes

Entity: Claim Prescription Drug Event

Attribute

🔑 Claim Prescription Drug Event Identifier
Contract Number
Provider Service Identifier
Contract Plan Benefit Package Number
Contract Plan Benefit Package Effective Da
Claim Prescription Service Date

[Datatype | Definition | Note | UDP | ...]

User Defined Properties:

Property	Value
Attribute Derivation Text	
Attribute Alias Name	PDE Number
Attribute Requirement ID	SR-0663
Physical Column Name	CLM_PDE_ID
Attribute CDA Standard	

New...   Rename...   Delete

Reset...   OK   Cancel

1.4. Data Modeling tool standard for Creating Project Physical Data Models

Introduction
All-Fusion ERwin Data Modeler is the standard data-modeling tool at CMS. Use of any other software tool for the purpose of developing Physical Data Models is prohibited.

Responsibilities
All entries in the data modeling tool to create the *first cut* Project Physical Data Model are performed by the *Project/**Local** Data Analyst.*

Data Relationships
- Verb phrase in all lower case
- Relationship type
- Specify identifying or non-identifying relationship.
- Physical Only Indicator: Specify *Physical Only*, if applicable,
- Specify cardinality.

Refer to DM OP-015 Operating Procedure for Defining Relationships, Cardinality and Optionality.

Data Model UDP Template File
The standard ERwin data model UDP template file is Std_PDM_UDP_Template.ER1. For databases in production or development before October 1, 2005, use the old standard naming convention file CMS_OLD_STD_TERM_yyyymmdd.nsm. For all databases being developed after October 1, 2005 use the new standard naming convention file CMS_NEW_STD_TERM_yyyymmdd.nsm. These files are available from the DA Standard Tools page, which is accessible from the main **Data Administration web page or** submit a request to the Glossary Administrator (**DataAdmin@cms.hhs.gov**) to obtain the latest naming standard files. The template file contains the CMS standard User Defined Properties (UDPs) format. The standard naming convention files enable the automatic naming features in the ERwin tool.

Refer to the *HELP* in the data modeling tool for information on how to implement and use the naming file.

The use of the standard data model UDP template is required for *Project Physical Data Models* being developed on or after October 1, 2005, which supports all new development projects. For guidelines on when and how to apply the standard UDPs in data models for systems that existed before October 1, 2005, see the "Legacy" Systems" subsection in Section 1.1. The new UDPs themselves can be added by using the ERwin compare utility to update the project PDM. Refer to DM G-022 Guideline for Using ERwin Complete Compare to Import Standard Physical Model UDPs. Then they can be populated using the UDP tab of the regular table, column and model property dialogues.

When you open either template up in ERwin all you will see is the text box that identifies the model. The templates exist solely to offer a set of standard UDPs that can be used in any data model. Refer to Section 1.1Viewing the UDPs in a Model.

The ERwin model properties for a Project Physical Data Model are to be specified according to the table which follows.

Table 1.6 Erwin Model Properties for a Project Physical Data Model

Model Property	Format / Description	Reqd	UDP
Model Name	A Physical Data Model is to be named in the following manner: *system acronym + ("relational "/"dimensional ") + model type (EDM/CDM/LDM/PDM) + approval date (or the save date for models in development) in yyyymmdd format.* Example: **TUS Relational PDM 20080918.** See: DM OP- 028 Operating Procedure for Naming and Defining Data Model	●	
Model Author	Specify the first and last name of the Local or Central Data Architect as well as the company name of the person responsible for creating and/or maintaining the data model. *Example:* **Bob Smith, XYZ Company**	●	
Physical Notation	Select IDEF1X.	●	
Model Type	Designate the model as a Logical/Physical (Physical View) model type or Physical ERwin model type. See: DM OP-029 Operating Procedure for Selecting Model Type.	●	
Model Definition	Provide a brief description of the business project whose high-level data requirements are represented by the tables, columns and relationships to be diagramed in the Physical Data Model. The model definition describes the purpose and status of the model in a few sentences of text. *Example*: **Physical data model for the initial phase of the TUS system.** See: DM OP- 028 Operating Procedure for Naming and Defining Data Model	●	
Model History Options	Select all of these options.	●	
Standard Model-Level UDPs	Refer to Appendix 1.2 for a list of the standard Model-level User-Defined properties for a Logical/Physical (Physical View) ERwin Model Type, or a Physical ERwin Model Type.	●	●

Table Properties

The ERwin properties for each table in a Physical Data Model are to be specified according to the following description.

Table 1.7 Erwin Table Properties for a Project Physical Data Model

Table Property	Format / Description	Reqd	UDP
Table Name	The user assigned symbolic identifier for the Table. Type Table Names in uppercase with words separated by an underscore character throughout the model. See: DM G-010 Guideline for Construction First Cut Physical Table or File Names from the Logical Data Model	●	
Table Comment	The narrative explanation of the meaning of a row in the Table. *Example:* **TUS_CNTRCT - A binding agreement between CMS and an Organization that enables eligible Medicare beneficiaries to obtain medical services from the organization in exchange for monthly payments. Both current and historical information is retained.**	●	
Table Physical Only Switch	A check box located in the lower-left hand corner of the Table Dialog Option tab that indicates that Table does not correspond to a logical entity in a Logical/Physical (Logical View) or pure Logical only ERwin model type. Note, ERwin is capable of generating a report that selectively shows entities marked as "Physical Only". This property is optional and only applies if the table is in fact a physical only table.		
Standard Table UDPs	Refer to Appendix 1.2 for a list of standard table-level User Defined Properties for a Logical/Physical (Physical View) ERwin model type, or a Physical ERwin model type.	●	●

Column Properties

The ERwin properties for each data attribute in a Physical Data Model are to be specified according to the table which follows.

Table 1.8 Erwin Column Properties for a Project Physical Data Model

Column Property	Format / Description	Reqd	UDP
Column Name	The user assigned symbolic identifier of the Table. Type *Column Names* in uppercase with words separated by an underscore character throughout the model. If the column is serving as a foreign key, assign a role name where necessary. See: DM G-011 Guideline for Constructing Physical Column or Element Names	●	
Column Comment	The narrative explanation of the meaning of an instance of the column. *Example:* **CNTRCT_PBP_NAME – The name assigned by the contractor to the Plan Benefit Package.**	●	
Column Domain Name	The name of the domain which defines the data type, default value and valid values of the column. In the Column General Tab, choose from one the standard ERwin domains – Blob, Datetime, Number, String or create a User-Defined Domain, if applicable.	●	
Column Null Option	An indication of whether or not the Column must assume a non-null value when a row is created.	●	
Column Overriding Data Type Name	The name of the data type which overrides the one specified in the Domain which governs the Column. **(Required if no Domain is specified.)**		
Column Overriding Default Value Name	The name of the Default Value which overrides the one specified in the Domain which governs the Attribute.		
Column Overriding Validation Rule Name	The name of the Validation Rule which overrides the one specified in the Domain which governs the Attribute.		

Column Property	Format / Description	Reqd	UDP
Column Physical Only Switch	The indication of whether or not the Column has a corresponding Attribute in a Logical/Physical (Logical View) ERwin data model type or a Logical ERwin data model type. This property is optional and only applies if the column is in fact a physical only column (e.g. derived, system related, etc.). Check the checkbox "Physical Only" in the lower right-hand corner in the Column Properties window. This property is required for all columns in a physical only table.		
Primary Key Switch	An indication of whether or not the Column is part of the Table's primary key.	●	

1.4.1 ERwin Screen Snapshots for Creating Physical Data Models

Exhibit 15: Model Properties for a Project Logical Data Model
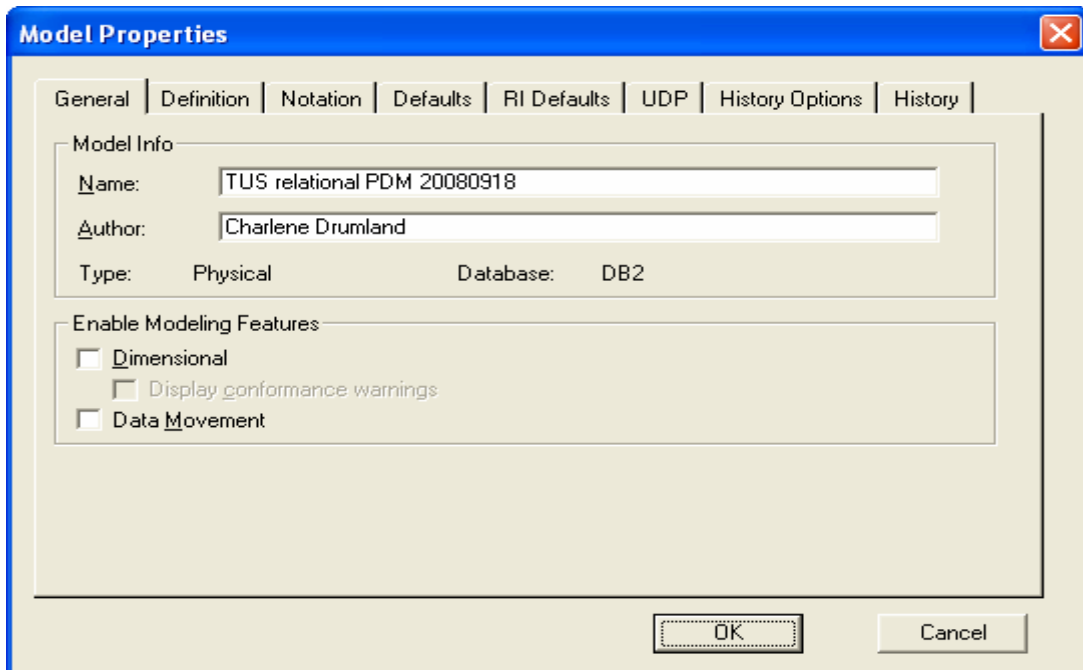

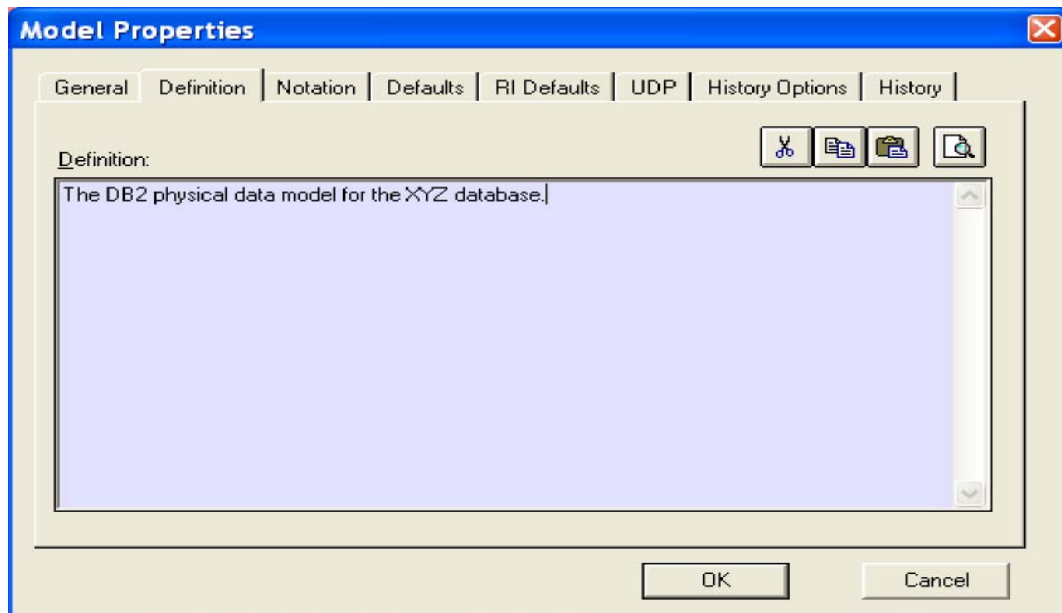**Exhibit 16: Example Model Definition for a Project Physical Data Model**

Exhibit 17: Example Model Notation Option for a Project Physical Data Model
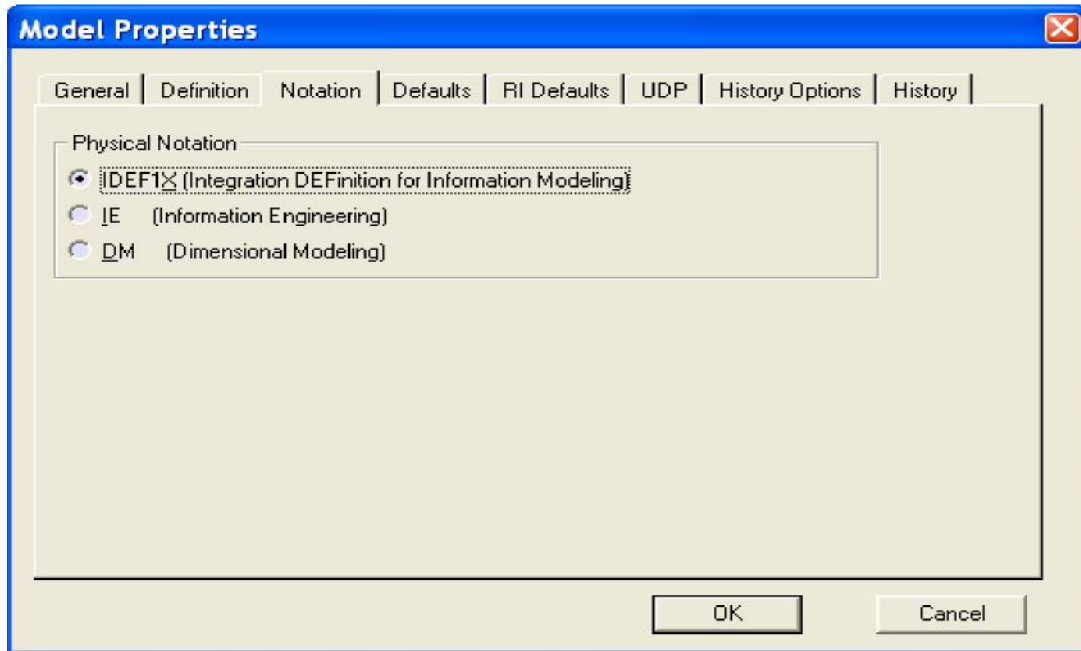
Exhibit 18: Model UDPs for a Project Physical Data Model
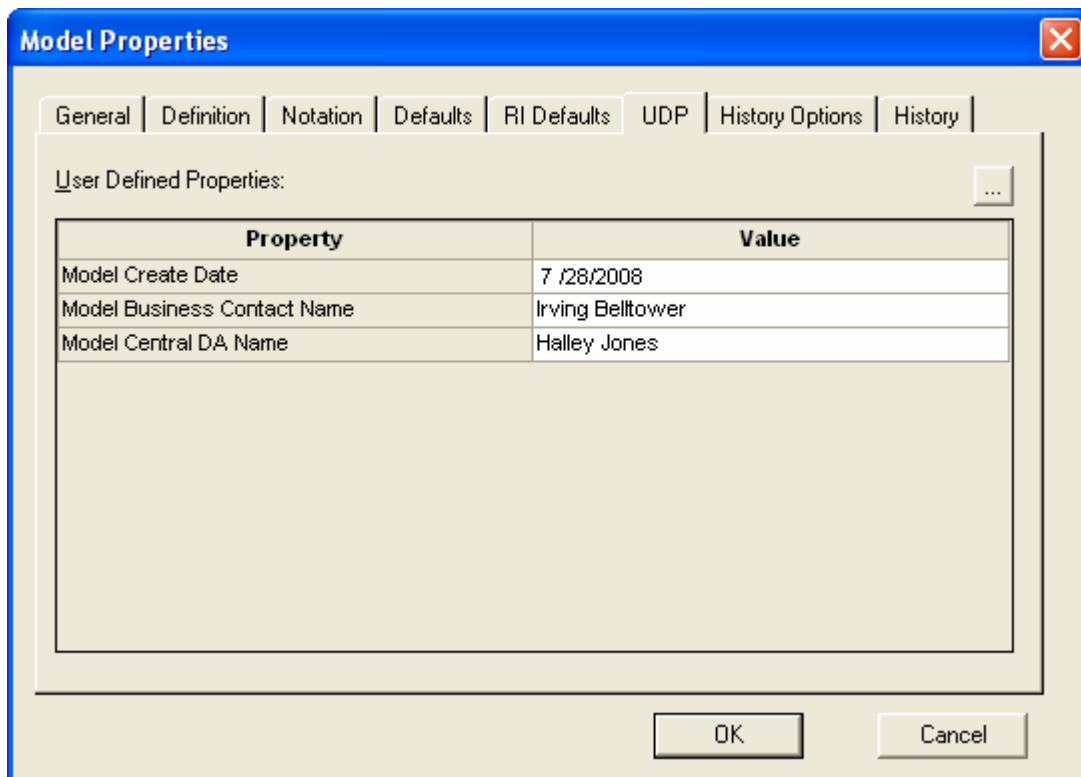
Exhibit 19: Entity Relationship Diagram for a Project Physical Data Model

TUS_CNTRCT
CNTRCT_NUM: CHAR(5)
CNTRCT_OWNR_ID: CHAR(5) REC_UPDT_TS: TIMESTAMP

TUS_PRVDR_SRVC
PRVDR_SRVC_ID: INTEGER
PRVDR_SRVC_QLFYR_CD: CHAR(2) REC_UPDT_TS: TIMESTAMP

governs

dispenses

TUS_CLM_PDE
CLM_PDE_ID: INTEGER
CNTRCT_NUM: CHAR(5) PRVDR_SRVC_ID: INTEGER CNTRCT_PBP_NUM: CHAR(3) CNTRCT_PBP_EFCTV_DT: DATE CLM_RX_SRVC_DT: DATE REC_UPDT_DT: TIMESTAMP SYS_RCPT_CNTL_ID: INTEGER

TUS_CNTRCT_PBP
CNTRCT_NUM: CHAR(5) CNTRCT_PBP_NUM: CHAR(3) PBP_EFCTV_DT: DATE
CNTRCT_PBP_NAME: CHAR(55) REC_UPDT_TS: TIMESTAMP

provides_coverage_for

audits

TUS_SYS_FIL_RCPT_CNTL
FIL_RCPT_CNTL_ID: INTEGER
FIL_RCPT_STRT_TS: TIMESTAMP FIL_RCPT_END_TS: TIMESTAMP

Exhibit 20: Model UDPs for a Project Physical Data Model

DB2 Tables

Table: TUS_CNTRCT

Name: TUS_CNTRCT   Owner: DBA$TUS

Comment | Volumetrics | Physical Props | UDP | History | Validation | Alias & Synonym

Comment:*

A binding agreement between CMS and an organization that enables eligible Medicare beneficiaries to obtain medical services from the organization in exchange for monthly payments. Both current and historical information is retained.

☐ Physical Only   ☑ Generate   DB Sync...   OK   Cancel

Exhibit 21: Table UDPs Project Physical Data Model

DB2 Tables

Table: TUS_CNTRCT_PBP

Name: TUS_CNTRCT_PBP   Owner: DBA$TUS

Comment | Volumetrics | Physical Props | UDP | History | Validation | Alias & Synonym

User Defined Properties: ...

Property	Value
Logical Entity Equivalent Name	
Logical Entity Name	Contract Plan Benefit Package
Table Requirement ID	BR-0097
Table Security Category Description	CONFIDENTIALITY=LOW; INTEGRITY=MEDIUM; AVAILABILITY=LOW

☐ Physical Only   ☑ Generate   DB Sync...   OK   Cancel

Exhibit 22: Column Comment for a Project Physical Data Model
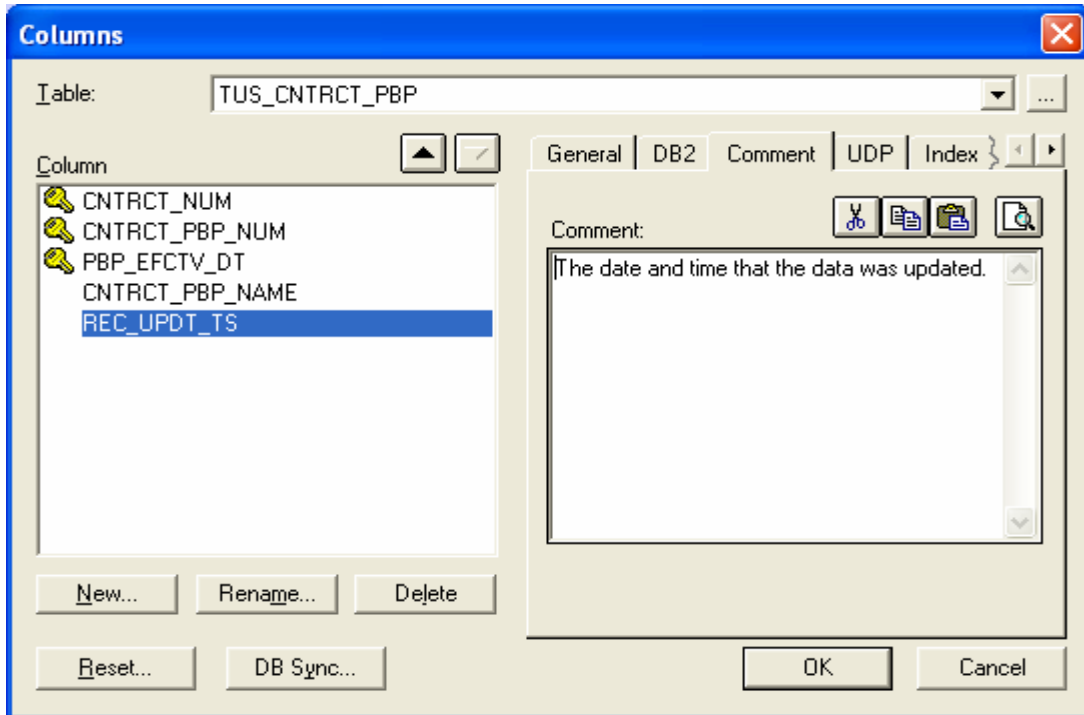
Exhibit 23: Column Properties for a Project Physical Data Model
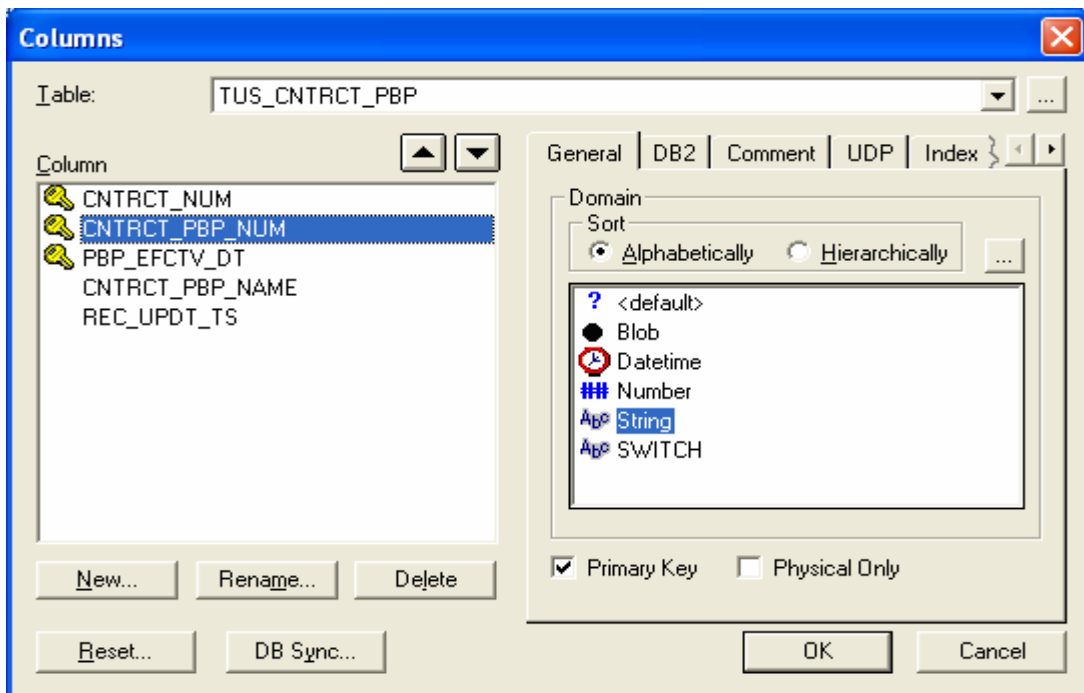
Exhibit 24: Database Specific Properties for a Project Physical Data Model

Exhibit 25: Column UDPs for a Project Physical Data Model

Project Logical/Physical Data Model

Screen shots shown are when the logical or physical view is different in a Logical Physical model than in the Logical Model or Physical Model.
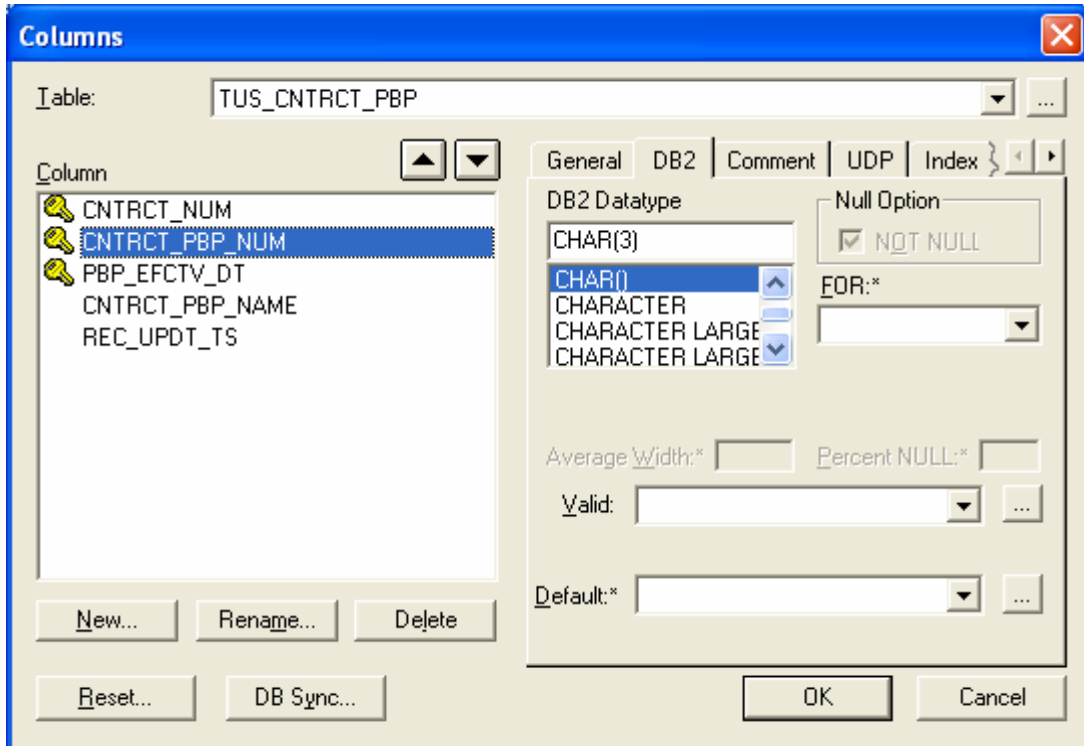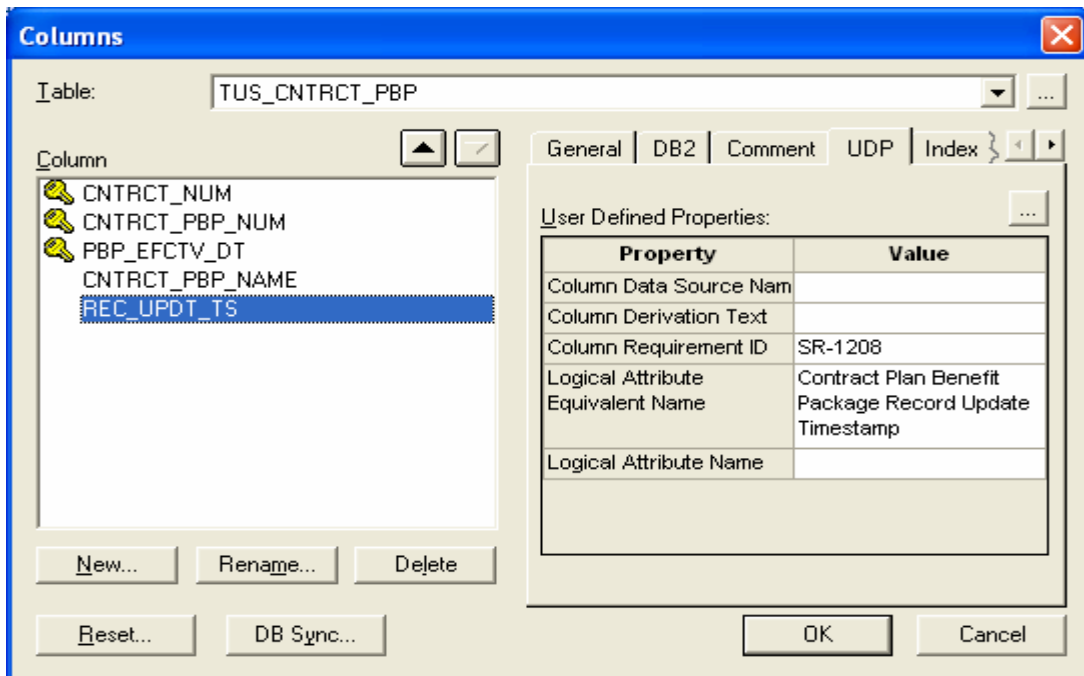
Logical View of a Logical Physical Data Model

Exhibit 26: Model Properties for a Project Logical/Physical Data Model
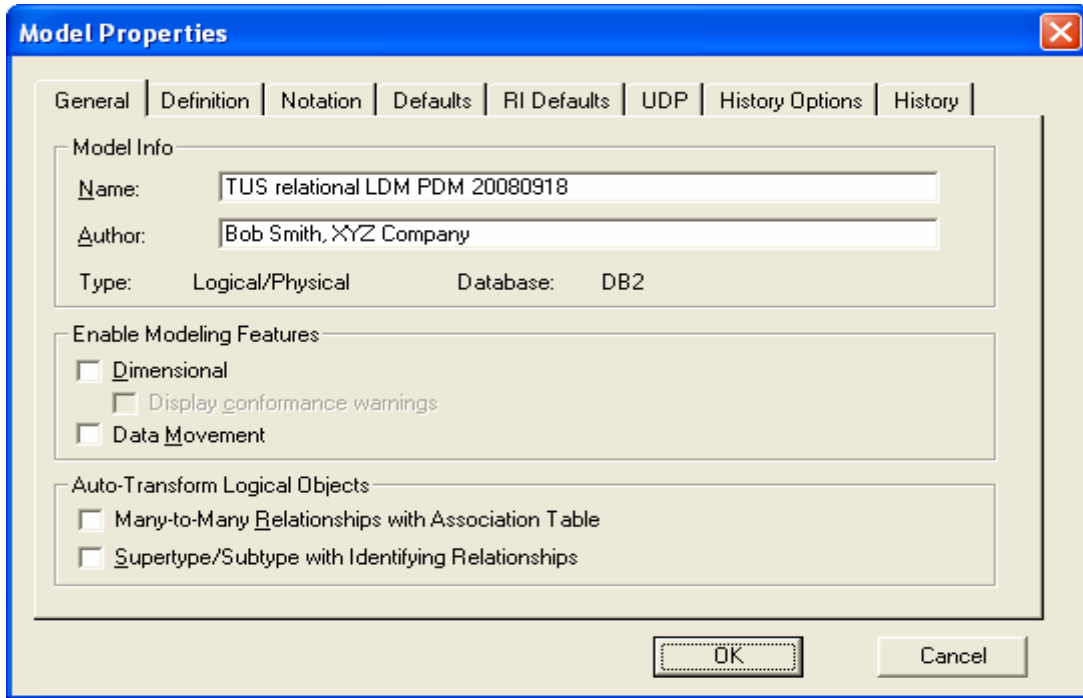
Exhibit 27: Model UDPs for a Project Logical/Physical Data Model

Model Properties

| General | Definition | Notation | Defaults | RI Defaults | UDP | History Options | History |

User Defined Properties:

Property	Value
LDM DA Signoff Date	7 /25/2008
Model Create Date	6 /20/2008
Model Business Contact Name	Irving Belltower
Model Central DA Name	Halley Jones

OK   Cancel

Exhibit 28: Entity Relationship Diagram for a Project Logical/Physical Data Model (Logical View)

Contract
Contract Number: CHAR(5)
Contract Owner Identifier: CHAR(5)

governs

Contract Plan Benefit Package
Contract Number: CHAR(5) (FK)
Contract Plan Benefit Package Number: CHAR(3)
Contract Plan Benefit Package Effective Date: DATE
Contract Plan Benefit Package Name: CHAR(55)

provides coverage for

Provider Service
Provider Service Identifier: INTEGER
Provider Service Qualifier Code: CHAR(2)
Provider Service Legal Business Name: CHAR(60)

dispenses

Claim Prescription Drug Event
Claim Prescription Drug Event Identifier: INTEGER
Contract Number: CHAR(5) (FK)
Provider Service Identifier: INTEGER (FK)
Contract Plan Benefit Package Number: CHAR(3) (FK)
Contract Plan Benefit Package Effective Date: DATE (FK)
Claim Prescription Service Date: DATE

Exhibit 29: Entity UDPs for a Project Logical/Physical Data Model

Exhibit 30: Attribute UDPs for a Project Logical/Physical Data Model
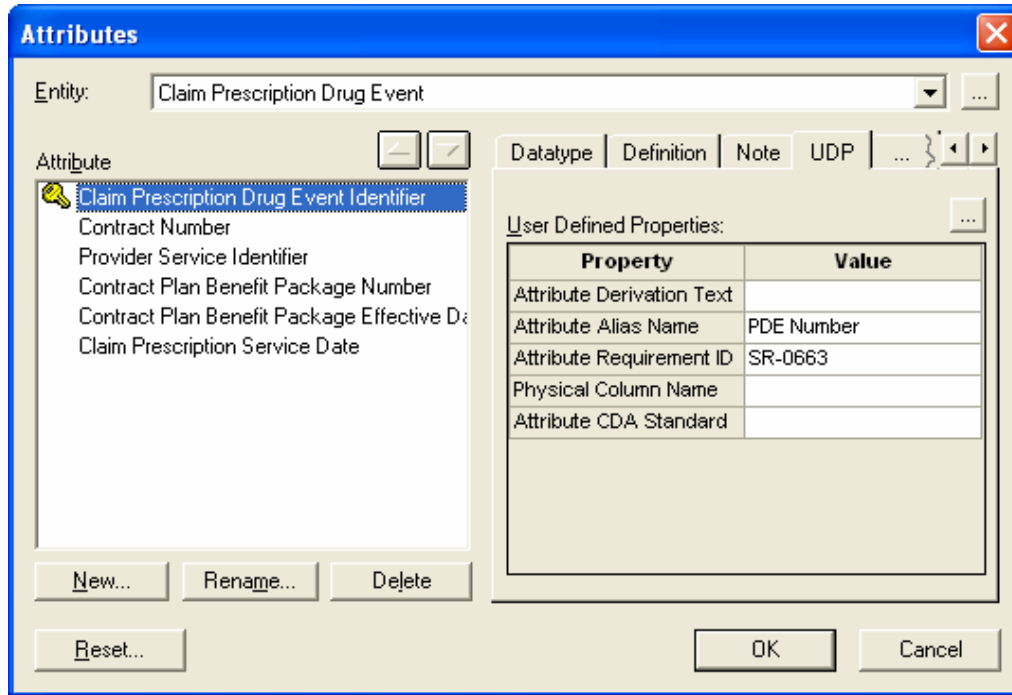
Physical View of a Logical Physical Model

Exhibit 31: Entity Relationship Diagram for a Project Logical/Physical Data Model (Physical View)

TUS_CNTRCT
| CNTRCT_NUM: CHAR(5) |
| CNTRCT_OWNR_ID: CHAR(5)
REC_UPDT_TS: TIMESTAMP |

governs

TUS_CNTRCT_PBP
| CNTRCT_NUM: CHAR(5)
CNTRCT_PBP_NUM: CHAR(3)
PBP_EFCTV_DT: DATE |
| CNTRCT_PBP_NAME: CHAR(55)
REC_UPDT_TS: TIMESTAMP |

provides_coverage_for

TUS_PRVDR_SRVC
| PRVDR_SRVC_ID: INTEGER |
| PRVDR_SRVC_QLFYR_CD: CHAR(2)
REC_UPDT_TS: TIMESTAMP |

dispenses

TUS_CLM_PDE
| CLM_PDE_ID: INTEGER |
| CNTRCT_NUM: CHAR(5)
PRVDR_SRVC_ID: INTEGER
CNTRCT_PBP_NUM: CHAR(3)
CNTRCT_PBP_EFCTV_DT: DATE
CLM_RX_SRVC_DT: DATE
REC_UPDT_DT: TIMESTAMP
SYS_RCPT_CNTL_ID: INTEGER |

audits

TUS_SYS_FIL_RCPT_CNTL
| FIL_RCPT_CNTL_ID: INTEGER |
| FIL_RCPT_STRT_TS: TIMESTAMP
FIL_RCPT_END_TS: TIMESTAMP |

Exhibit 32a: Table Definition for a Project Logical/Physical Data Model

DB2 Tables

Table: TUS_CNTRCT_PBP

Name: TUS_CNTRCT_PBP   Owner: DBA$TUS

Comment | Volumetrics | Physical Props | UDP | History | Validation | Alias & Synonym

Comment:*

A customized service option within an organization under which a beneficiary may elect to enroll.

☑ Update Entity Definition To Match

☐ Physical Only   ☑ Generate   DB Sync...   OK   Cancel
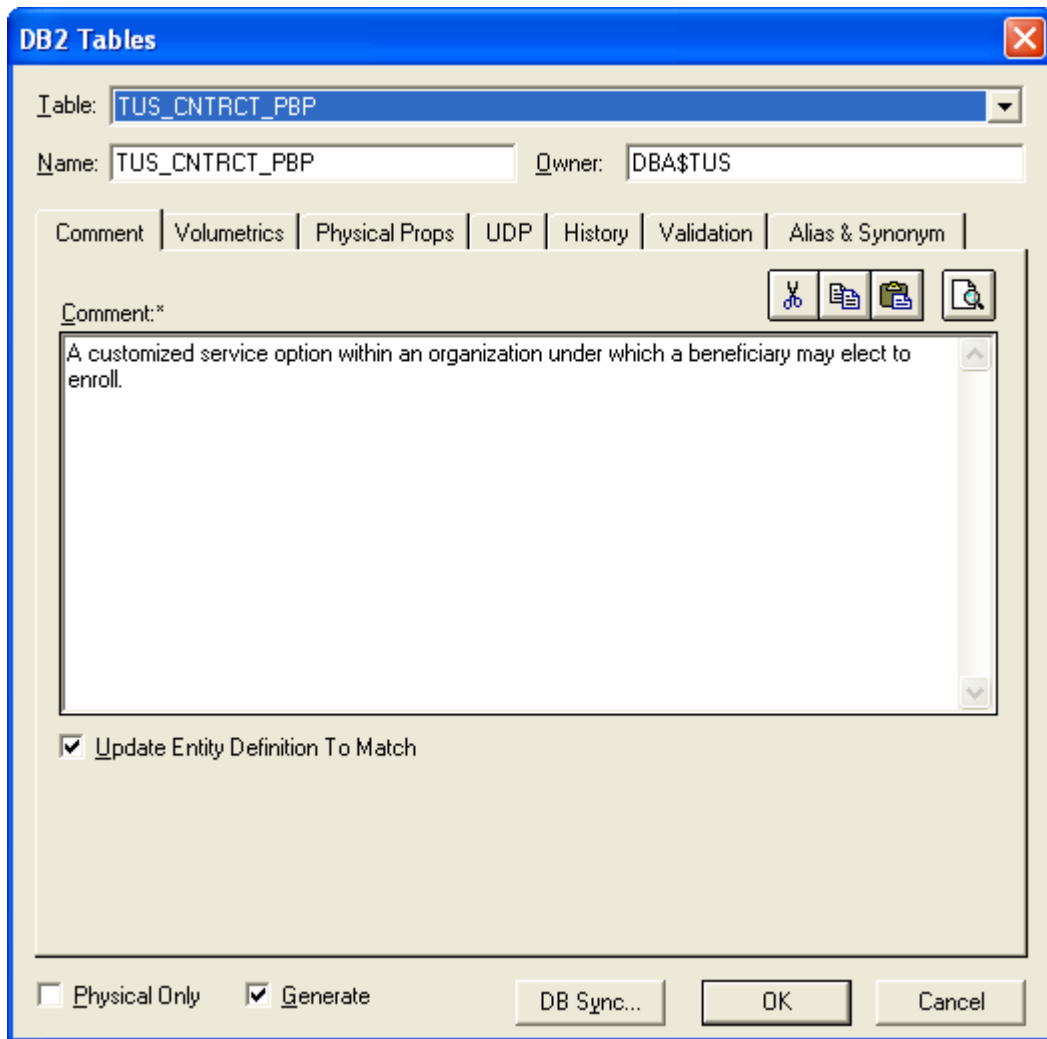
Exhibit 32b: Physical-only Table Comment for a Project Logical/Physical Data Model

DB2 Tables

Table: TUS_SYS_FIL_RCPT_CNTL

Name: TUS_SYS_FIL_RCPT_CNTL   Owner: DBA$TUS

Comment | Volumetrics | Physical Props | UDP | History | Validation | Alias & Synonym

Comment:*

A process load audit.

☑ Update Entity Definition To Match

☑ Physical Only   ☑ Generate   DB Sync...   OK   Cancel

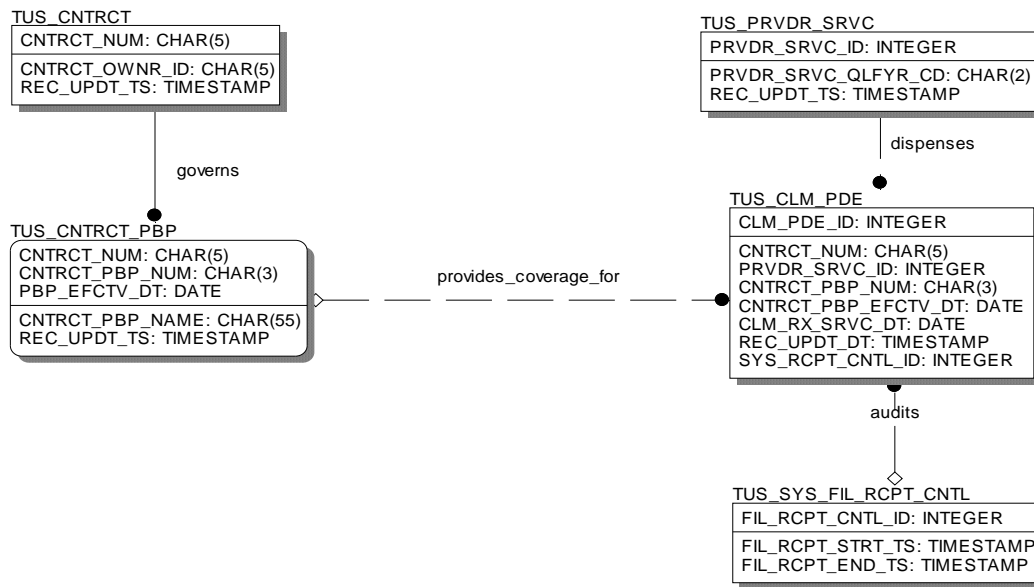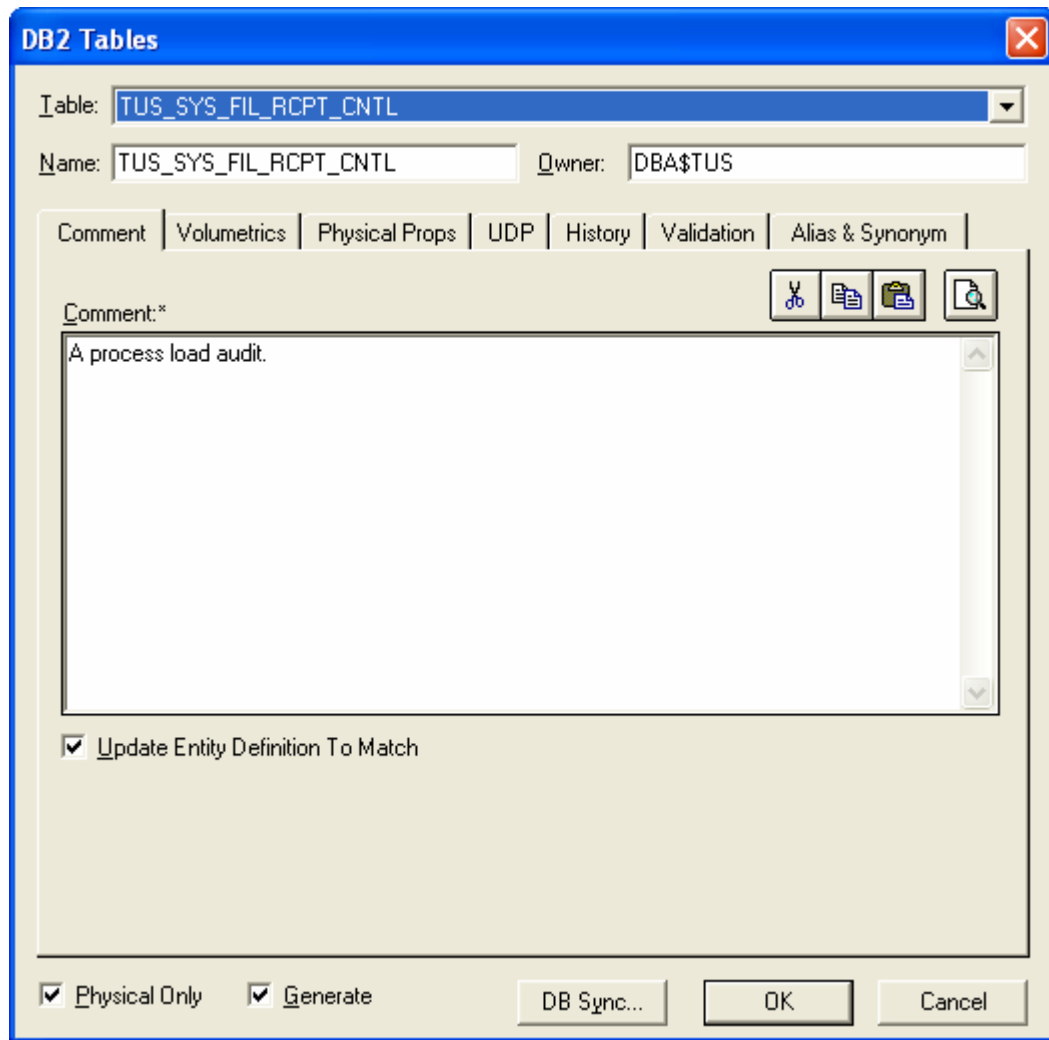**Exhibit 33a: Table UDPs for a Project Logical/Physical Data Model**

Exhibit 33b: Physical-only Table UDPs for a Project Logical/Physical Data Model

DB2 Tables

Table: SYS_FIL_RCPT_CNTL

Name: SYS_FIL_RCPT_CNTL   Owner: DBA$TUS

Comment | Volumetrics | Physical Props | UDP | History | Validation | Alias & Synonym

User Defined Properties:

Property	Value
Table Requirement ID	SR-3001
Logical Entity Equivalent Name	System File Control Receipt
Table Security Category Description	CONFIDENTIALITY=LOW; INTEGRITY=MEDIUM; AVAILABILITY=LOW

☑ Physical Only   ☑ Generate   DB Sync...   OK   Cancel

Exhibit 34: Column UDPs for a Project Logical/Physical Data Model
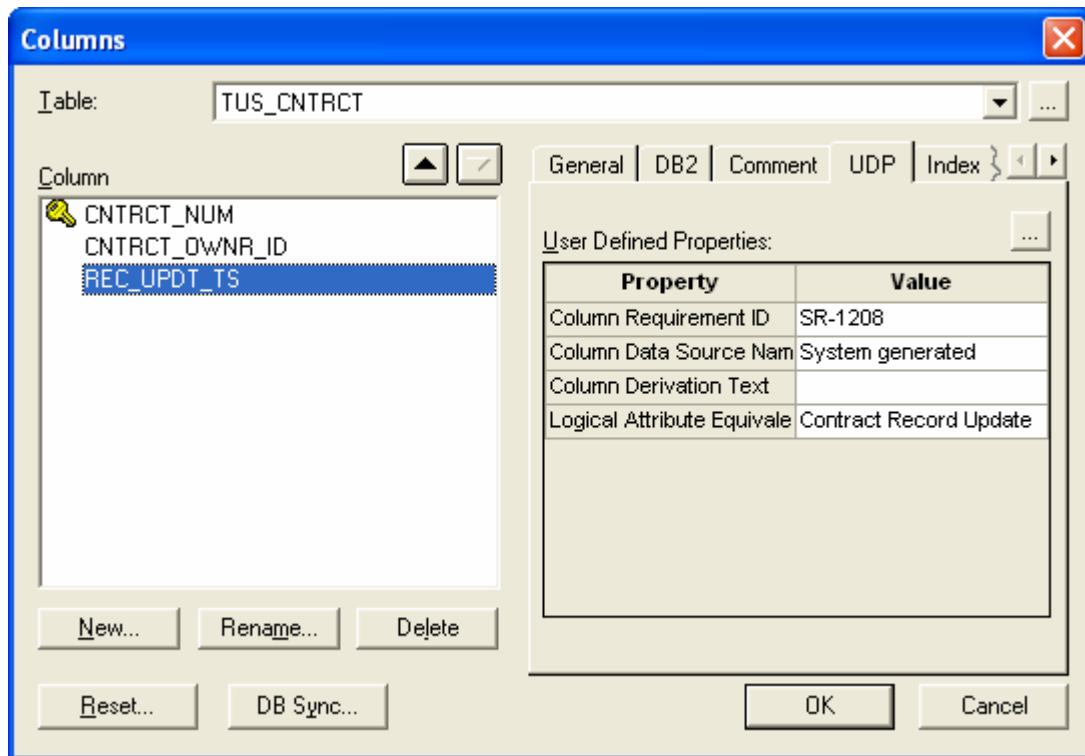
Appendix 1.1 – ERWIN Model Type Definitions

ERwin Data Model Type	Definition of the Type of ERwin Data Model
Logical	A type of ERwin data model that exists for the express purpose of representing business information and defining business rules.
Physical	A type of ERwin data model that exists for the express purpose of focusing on the physical implementation of the logical data model in a database.
Logical\Physical (Logical View)	A type of ERwin data model that automatically includes both a logical and a physical model. This is made possible by the user being able to switch between a "Logical View" and a "Physical View" of the same data model. The "Logical View" exists primarily for the purpose of representing business information and defining business rules. The "Logical View" however also typically serves as the starting point for the "Physical View".
Logical\Physical (Physical View)	A type of ERwin data model that automatically includes both a logical and a physical model. This is made possible by the user being able to switch between a "Logical View" and a "Physical View" of the same data model. The "Physical View" exists primarily for the purpose of depicting the physical implementation of the "Logical View" of the data model in a database.

Appendix 1.2 – Standard User Defined Properties (UDP) Matrix by Model Type

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	Logical/Physical (Physical View)	Format/Description
		ERwin Model Types			Required = UDP must be defined and populated in the specified Data Model Type Conditional = Under certain conditions, the UDP must be defined and populated in the specified Data Model Type N/A = UDP does not need to be defined or populated in the specified Data Model Type.
Model-Level					
LDM DA Signoff Date	Required	N/A	Required		The date when this version of the logical data model received its Central DA sign-off.
Model Business Contact Name	Required	Required	Required		The name of the organization and person who is responsible for approving the definitions in the model. *Example: R. R Kirk (CMS/CMM)*
Model Central DA Name	Required	Required	Required		The name of the person who is responsible for certifying the compliance of the model components with the applicable CMS Data Administration Standards.
Model Create Date	Required	Required	Required		The date recorded by Local DA for the original Model. (This date will determine the standards that apply to the Model.)
Entity-Level					
Entity Business Contact Name	Conditional	N/A	Conditional	N/A	Only required if the contact is different from the Model Business Contact Name. The name of the organization and person who is responsible for approving the definitions of the Entity and its contained Attributes. *Example: R. R Kirk (CMS/CMM)*
Entity CDA Standard Name	Conditional	N/A	Conditional	N/A	The CDA-approved name of the entity, if different from the entity's name in the model. This standard logical name must be used when creating a new data entity to represent the identical concept in a new or existing model.
Entity Requirement ID	Required	N/A	Required	N/A	A reference to the requirement(s) or change request identifier(s) that justify the existence of the entity in the model. Valid entry formats are as follows: (1) For DOORS or requirement document Tracking ID, use BR-#### for business requirement, FR-##### for functional requirement, SR-#### for system requirements. (2) For Change requests, use CR-####. (3) For Data change requests, use DR-#####. (4) For Remedy Tickets, use RT_######. (5) For MAPD, use MAPD_####.

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	(Physical View)	Format/Description
					Multiple requirements are separated by semicolons. *Example: BR-768;FR-567*

Entity Security Category Description	Required	N/A	Required	N/A	A reference to the FISMA category scheme which describes the risk of unauthorized access, unauthorized modification or unavailability of the data represented by the Entity. The format of this UDP contains three values, separated by semicolons. E.g., CONFIDENTIALITY= <impact>; INTEGRITY= <impact>; AVAILABILITY= <impact>, Where <impact> has a value from the list: Low, Moderate, High, NA. Refer to http://csrc.nist.gov/publications/fips/fips 1 99/FIPS-PUB- 1 99-final.pdf.
					
					See: DM OP-021 Operating Procedure for Assigning Information Security Categories
					
					Example: CONFIDENTIALITY=HIGH;
					        INTEGRITY = MEDIUM;
					        AVAILABILITY = LOW

Physical Table Name	Required	N/A	Conditional	N/A	The CDA or DBA approved name(s) of the table(s) which corresponds to the entity. In Logical models, this UDP is required. In Logical/Physical models, this UDP is only required when there is <u>not</u> a one-to-one correspondence between entities and tables. If the physical model has not been created, this is the table name as formed in accordance with the CMS standard naming conventions for the applicable DBMS. Multiple table names are separated by semicolons. If the entity is marked as "Logical Only", this UDP value must be specified as "None". Valid entry formats are as follows: (1) table name (2) table name1;table name2; etc. (3) Explicitly specify "None", if entity is marked as "Logical Only" *Example 1: UDP Physical Table Name = CME_BENE for an entity named "Beneficiary".* *Example 2: UDP Physical Table Name = PED_PTC_PRM_WTHLDNG; PED_PTD_PRM_WTHLDNG if the entity Beneficiary Premium Withholding has been implemented as multiple tables in the physical data model.*

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	Logical/Physical (Physical View)	Format/Description
Attribute-Level					
Attribute Alias Name	Conditional	N/A	Conditional	N/A	Any applicable alternate business name used to refer to the attribute. Multiple aliases are separated by semicolons.
Attribute CDA Standard Name	Conditional	N/A	Conditional	N/A	The CDA-approved name of the attribute, if different from the attribute's name in the model. This standard logical name must be used when creating a new data attribute to represent the identical concept in a new or existing model.
Attribute Derivation Text	Conditional	N/A	Conditional	N/A	The narrative explanation of any non-trivial logic used to transform information from one or more other attributes into the value for this attribute.
Attribute Requirement ID	Conditional	N/A	Conditional	N/A	A reference to the requirement(s) or change request identifier(s) that justify the existence of the attribute in the model or changes to the attribute. Entry is needed only when the attribute has been added as a result of a requirement that is different from the requirement entered in the "Entity Requirement ID" UDP of the entity that the attribute belongs to. If the requirement for the attribute is the same as that of the entity, then the "Attribute Requirement ID" UDP is left blank. Valid entry formats are as follows: (1) For DOORS or requirement document Tracking ID, use BR-#### for business requirement, FR-##### for functional requirement, SR-#### for system requirements. (2) For Change Requests, use CR-####. (3) For Data change requests, use DR-#####. (4) For Remedy Tickets, use RT_######. (5) For MAPD, use MAPD_####. Multiple requirements are separated by semicolons. When a type of change request prompts a change to the attribute, modify the UDP value by appending successive change request identifiers to the list for the attribute. *Example: BR-768;FR-567*
Physical Column Name	Required	N/A	Conditional	N/A	The CDA/DBA approved name(s) of the column(s) which corresponds to the attribute. In Logical models, this UDP is required. In Logical/Physical ERwin model types, this UDP is only required when there is not a one-to-one correspondence between attributes and columns. If the physical model has not been created, this is the column name as formed in accordance with the CMS standard naming conventions for the applicable DBMS. Multiple column names are separated by semicolons. If the attribute is marked as "Logical Only", this UDP value must be specified as "None". Valid entry formats are as follows: (1) Table name.column name (2) Table name1.column name1;Table name2.column name2 (3) Explicitly specify "None", if attribute is marked as "Logical Only"

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	Logical/Physical (Physical View)	Format/Description
					Example 1: UDP Physical Column Name = CME_BENE.BENE_LINK_KEY if the logical attribute name is Beneficiary Link Key Example 2: UDP Physical Column Name = PED_PTC_PRM_WTHLDNG.BENE_PTC_PRM_AMT; PED_PTD_PRM_WTHLDNG.BENE_PTC_PRM_AMT if the attribute Beneficiary Part C Withholding Amount has been implemented as multiple columns in the physical data model.
Table–Level					
Logical Entity Equivalent Name	N/A	Conditional	N/A	Conditional	Required tables marked as "Physical Only". Specify the CDA approved logical entity name that is equivalent to the table's physical name. Derive the entity name by translating each abbreviated term in the physical name to its corresponding un-abbreviated logical term. If the Object Class term was dropped in the physical naming translation, also include the appropriate logical Object Class term. *Example: If the physical only table name is SYS_USR_AUTH then the UDP Logical Entity Equivalent Name should be" System User Authority".*
Logical Entity Name	N/A	Required	N/A	N/A	The name of the corresponding entity or entities defined in the LDM which corresponds to this PDM.
Table Requirement ID	N/A	Required	N/A	Conditional	Required for ERwin Physical models and for tables marked as "Physical Only" in Logical/Physical models. A reference to the requirement(s) or change request identifier(s) that justify the existence of the Table in the model. Valid entry formats are as follows: (1) For DOORS or requirement document Tracking ID use BR-#### for business requirement, FR-##### for functional requirement, SR-#### for system requirements. (2) For Change requests use CR-#### (3) For Data change requests use DR-#####. (4) For Remedy Tickets, use RT_######. (5) For MAPD, use MAPD_####. Multiple requirements are separated by semicolons. *Example: BR-768;FR-567*
Table Security Category Description	N/A	Required	N/A	Conditional	A reference to the FISMA category scheme which describes the risk of unauthorized access, unauthorized modification or unavailability of the data stored in the table. This UDP value is required only for physical-only tables in Logical/Physical models. The format of this UDP contains three values, separated by semicolons. E.g., CONFIDENTIALITY= <impact>; INTEGRITY= <impact>; AVAILABILITY= <impact>, Where <impact> has a value from the list: Low, Moderate, High, NA.

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	Logical/Physical (Physical View)	Format/Description
					Refer to http://csrc.nist.gov/publications/fips/fips 1 99/FIPS-PUB- 1 99-final.pdf. See: DM OP-021 Operating Procedure for Assigning Information Security Categories *Example: CONFIDENTIALITY=HIGH;* *INTEGRITY = MEDIUM;* *AVAILABILITY = LOW*
Column-Level					
Column Data Source Name	N/A	Required	N/A	Required	The CMS database, external data feed, manual data entry process or software process from which the column takes its value. Valid entry formats are as follows: (1) For CMS sources is database.table.column or filename.recordtype.field. (2) For External sources is org.specification.pubdate.record.subpart.field. Subpart is used where there are multiple record formats or levels of element structure, and may be omitted if there is only one flat format for the record specification. Example: This example shows a column data source field which is located three levels deep within an XML document "HealthLevelSeven.CDAL1R1.20061219.<levelone_1.0.xsd>.<clinical_document_header>.<provider>.<type_cd>". (3) For Software processes is application name, service name, or "System Generated". (4) For Manual data entry processes is application.formname.fieldname , or "User-Supplied" Multiple requirements are separated by semicolons. If this level of detail is not available, indicate the source in terms of a user role, type of stakeholder, organization, business process, system, program, database, file or data exchange standard.
Column Derivation Text	N/A	Conditional	N/A	Conditional	The narrative explanation of any non-trivial logic used to transform information from one or more other columns or fields into the value for this column.
Column Requirement ID	N/A	Conditional	N/A	Conditional	A reference to the requirement or change request identifier(s) that justify the existence of the column in the model or changes to the column.. Entry is needed only when the column has been added as a result of a requirement that is different from the requirement entered in the "Table Requirement ID" UDP of the table that the column belongs to. If the requirement for the column is the same as that of the table, then the "Column Requirement ID" UDP is left blank. Note also that in ERwin Logical/Physical models, this UDP is only ever entered for columns marked as "Physical Only".

User Defined Properties (Level)	Logical	Physical	Logical/Physical (Logical View)	(Physical View)	Format/Description
					Valid entry formats are as follows: (1) For DOORS or requirement document Tracking ID use BR-#### for business requirement, FR-##### for functional requirement, SR-#### for system requirements. (2) For Change requests use CR-#### (3) For Data change requests use DR-#####. (4) For Remedy Tickets, use RT_######. (5) For MAPD, use MAPD_####. Multiple requirements are separated by semicolons. When a type of change request prompts a change to the column, modify the UDP value by appending successive change request identifiers to the list for the column. *Example: BR-768;FR-567*
Logical Attribute Equivalent Name	N/A	Conditional	N/A	Conditional	Required for columns marked as "Physical Only". Specify the CDA approved logical attribute name that is equivalent to the column's physical name. Derive the attribute name by translating each abbreviated term in the physical name to its corresponding un-abbreviated logical term. If the Object Class term was dropped in the physical naming translation, include the appropriate logical Object Class term. *Example: If the physical only column name is REC_USER_ID in the physical table SYS_USR_AUTH then the UDP Logical Attribute Equivalent Name should be "System Record User Identifier"*
Logical Attribute Name	N/A	Required	N/A	N/A	The name of the corresponding attribute, defined in the corresponding CDA approved Logical model or the Logical View of a Logical/Physical model, upon which this column's design was based.