IDERA | New Functionality Overview

ER/STUDIO TEAM SERVER 19.0

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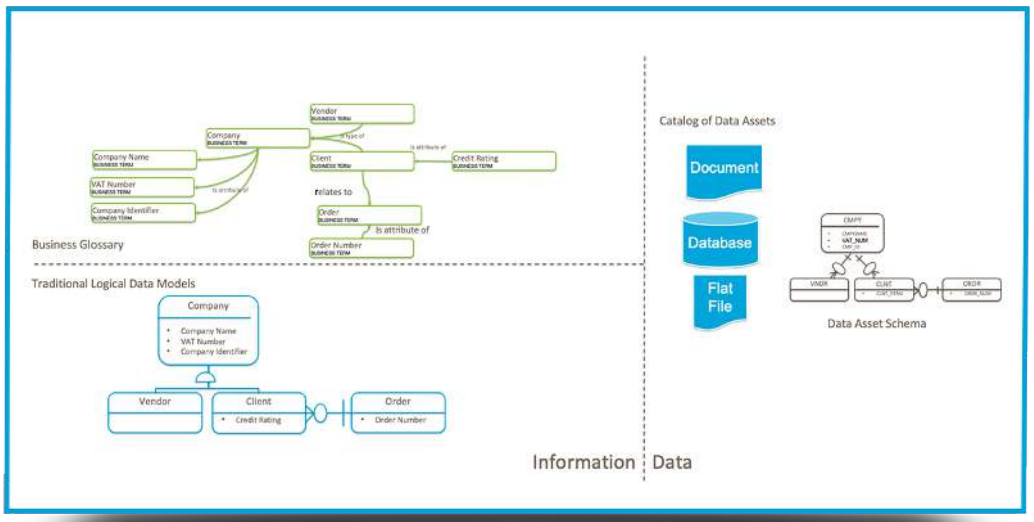
OVERVIEW

As you know, modeling the physical structure of data assets is useful, but it is best coupled with models of the information. As data architects, we traditionally do this with logical data models.

Nowadays, we see Data Governance teams taking the lead on providing company wide definitions of information within the Business Glossary. Mapped to a Data Dictionary this forms the Data Catalog of the organization and provides a valuable asset..

Our goal with ER/Studio is to connect the Data Architect with the Data Governance initiative to pool knowledge and maintain a united data ecosystem.



With ER/Studio v19.0 we have done a lot of work with our Business Glossary where organizations wish to use Team Server to manage and publish their Business Terms and map them to data models. You'll see much more on this ecosystem in the future.

The Business Glossary of ER/Studio Team Server v19.0 has the following goals:

Extend the capabilities of ER/Studio Business Glossary such that it will:

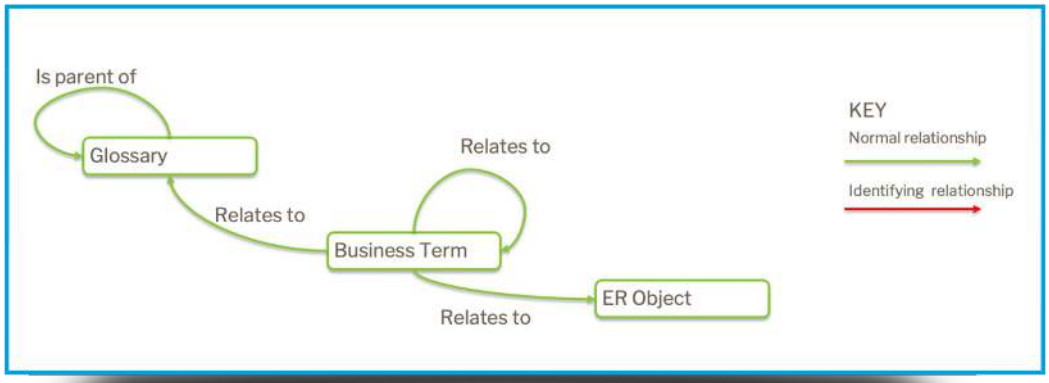
- Satisfy the needs of modelling the information of large organizations
- Provide the ability to model an ontology with taxonomies
- Allow exchange of Business Terms with other modelling tools

To maximise the value of Business Glossaries by:

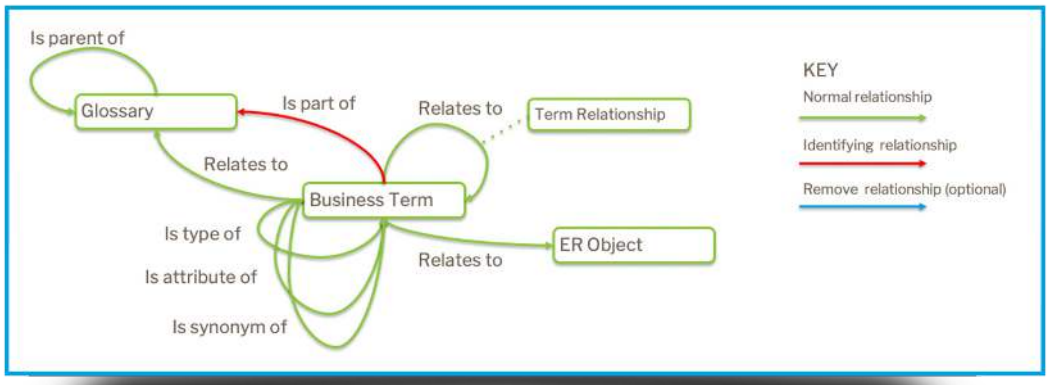
- Allowing analysis through attractive visualization
- Allowing users of Data Architect to map Business Terms to ER objects
- Providing a new wizard to bulk harvest Business Terms from valuable logical models

MODIFY THE UNDERLYING TOOL METAMODEL FOR BUSINESS GLOSSARY

The current metamodel in v18.5 and previous for Business Terms is as follows:



In v19.0, we have added new relationships for Business Terms to allow the definition of a formal ontology.



Key improvements include:

01- Namespacing of Business Terms to Glossaries

02- New relationships between Business Terms

03- Ability to switch off the older “Term Entity Type” property

04- Ability to switch off OOTB properties of Business Terms

NAMESPACING OF BUSINESS TERMS TO GLOSSARIES

Now Business Terms are identified by:

- Name
- Term Entity Type (can now be switched off)
- Parent Glossary

Business Terms must be unique to a Glossary as they can be homonymous. For instance Business Term "Policy" in Glossary "Internal Operations" <> "Policy" in "Insurance".

Thus the Glossary provides context. This allows different departments, organizations and topics to reuse the same term name and provide a different definition.

E.g.
Policy [Internal Operations]
Policy [Insurance]

Whenever a Business Term is shown anywhere in ER/Studio, its owning Glossary is also shown in square brackets.

NEW RELATIONSHIPS BETWEEN BUSINESS TERMS

For every Business Term you can now create ontological relationships between them.

These Related Terms include:

Types

These are subtypes and supertypes as we know them in data modeling. This allows the creation of taxonomies to be able to categorize types of terms into groups.

Attributes

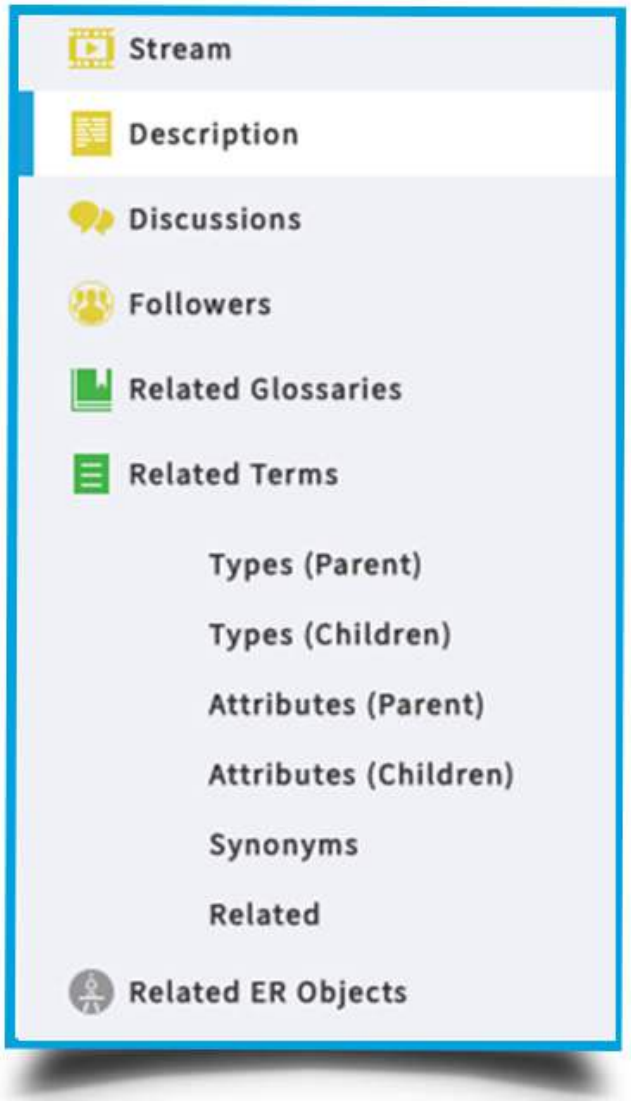
Some Business Terms represent concepts and some attributes of concepts such as “Person” and “Social Security Number”. The attribute relationship allows you to connect these terms to show this relationship.

Synonyms

Often we will find terms that are synonyms of the same concept. This relationship allows you to connect terms together into synonym rings.

Related

This relationship already exists in Team Server and is a generic relationship between Terms. We have added extra properties to the relationship to be able to show how a term relates to the other term. You can include forward, reverse and cardinality properties similar to how we do in logical data models.



ABILITY TO SWITCH OFF THE OLDER "TERM ENTITY TYPE" PROPERTY

Every term in Team Server is also identified by its Term Entity Type. You can add your own Term Entity Types.

Many clients have asked for the Term Entity Type property to be removed and keep just the Name and Parent Glossary as identifying properties.

We have provided an admin setting to remove this. During the process of removing the Term Entity Type, Team Server allows you to create Glossary Objects for each older Term Entity Type and set that Glossary as the Parent Glossary for the terms.

ABILITY TO SWITCH OFF OOTB PROPERTIES OF BUSINESS TERMS

Many clients have asked to be able to switch off the standard properties of a Business Term so they can create their own.

These properties include:

- Status
- Abbreviations
- Aliases/Synonyms
- Additional Notes

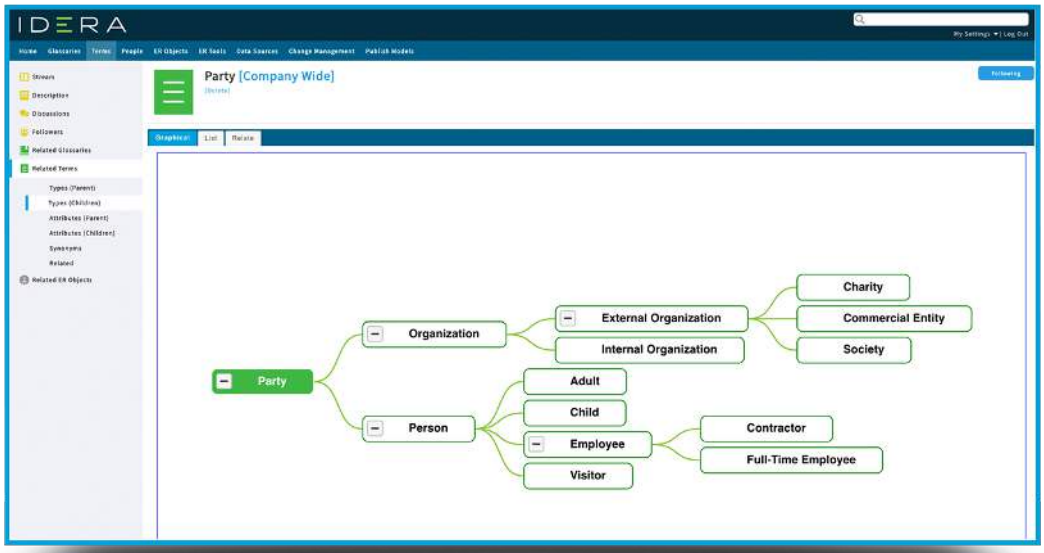
There are now admin settings to remove these properties and allow you to create your own. You can even recreate these properties with different data types such as making Status an enumerated list.

NEW GRAPHICAL VISUALIZATIONS

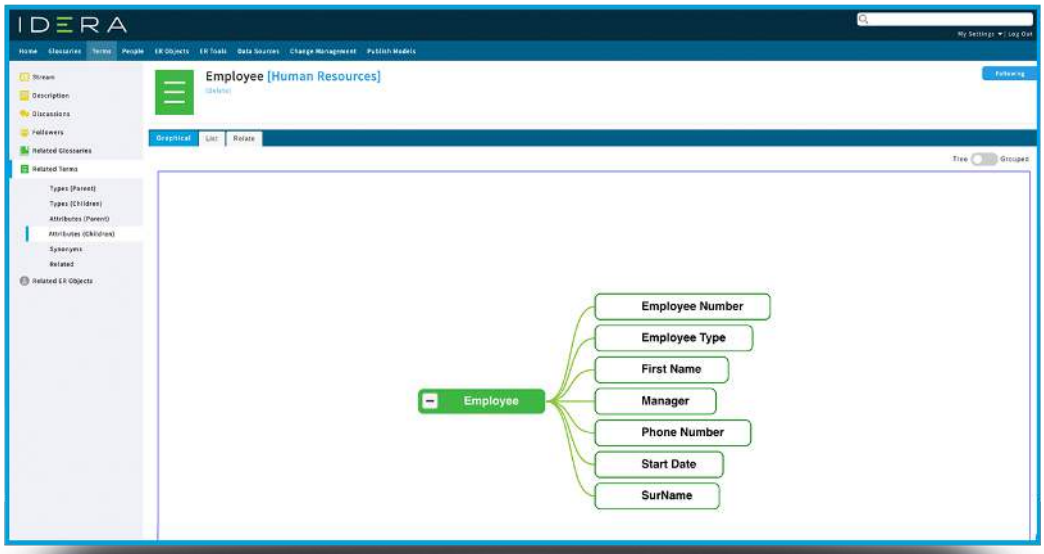
We want to make the tool more intuitive to business users. We have started on a program to include more graphical elements.

You can now visualize the relationships between Terms through the new ontology relationships:

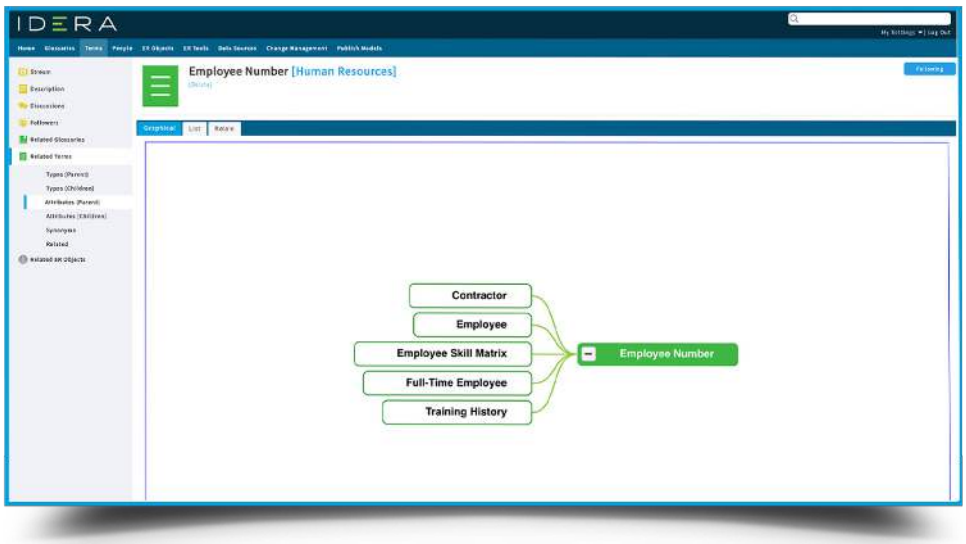
Type (Taxonomy)



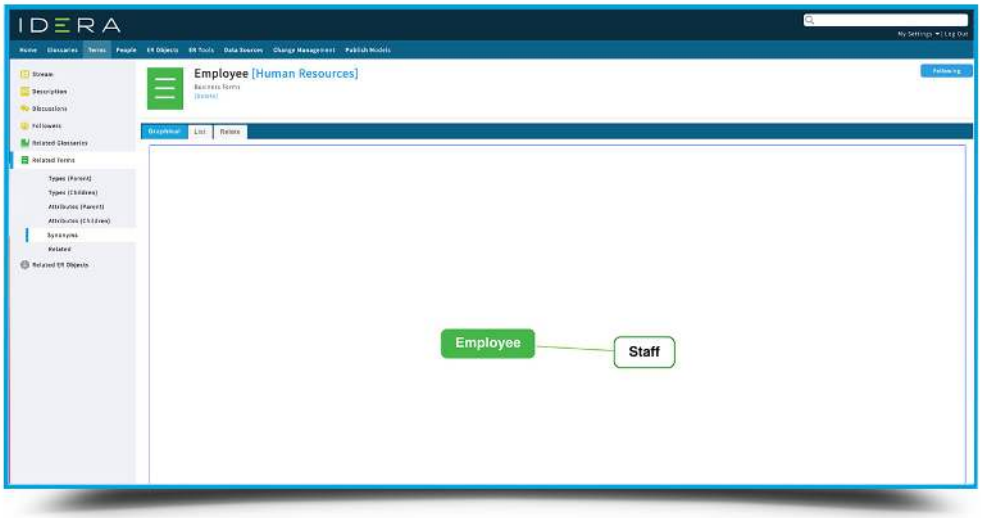
Attributes



You can see from both directions so previously we wanted to see what attributes a concept had. Here you can see which other concepts use this term as an attribute. This is useful for impact analysis.

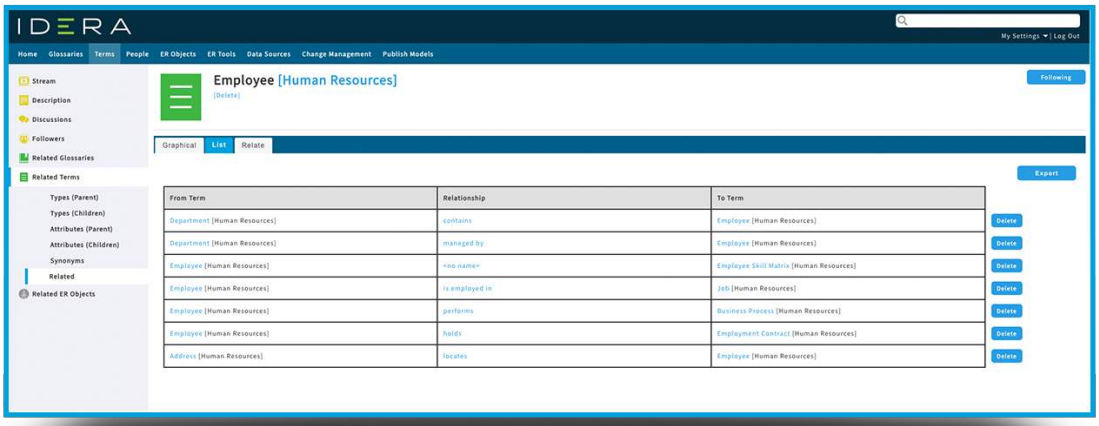


Type (Taxonomy)



Relationships

With a tabular view:

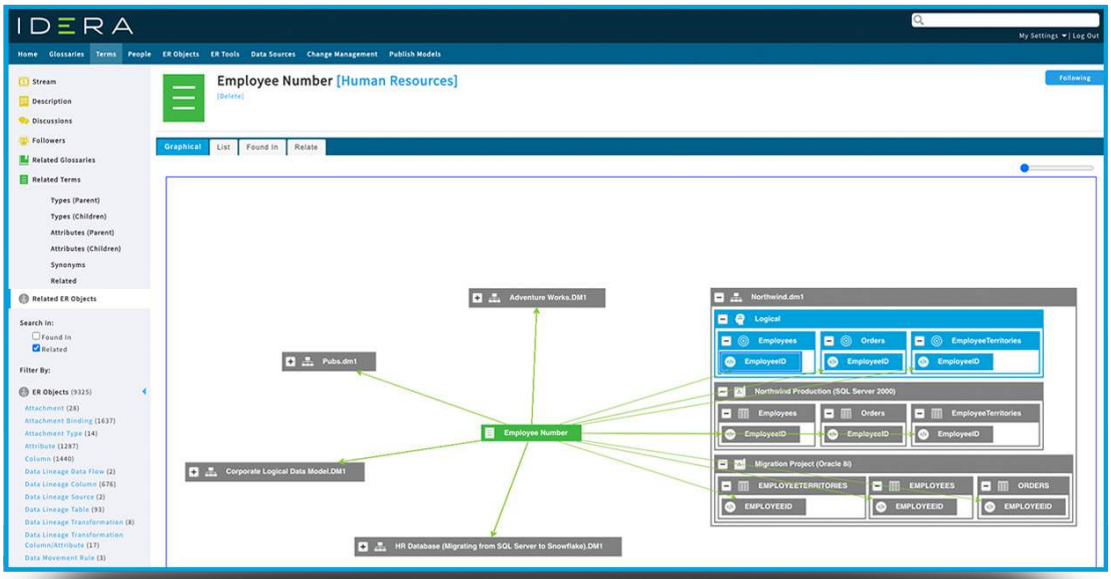


Where is this information used?

This shows the relationship between Business Terms and the ER Objects which can currently be created in Team Server and now also through the new functionality in Data Architect.

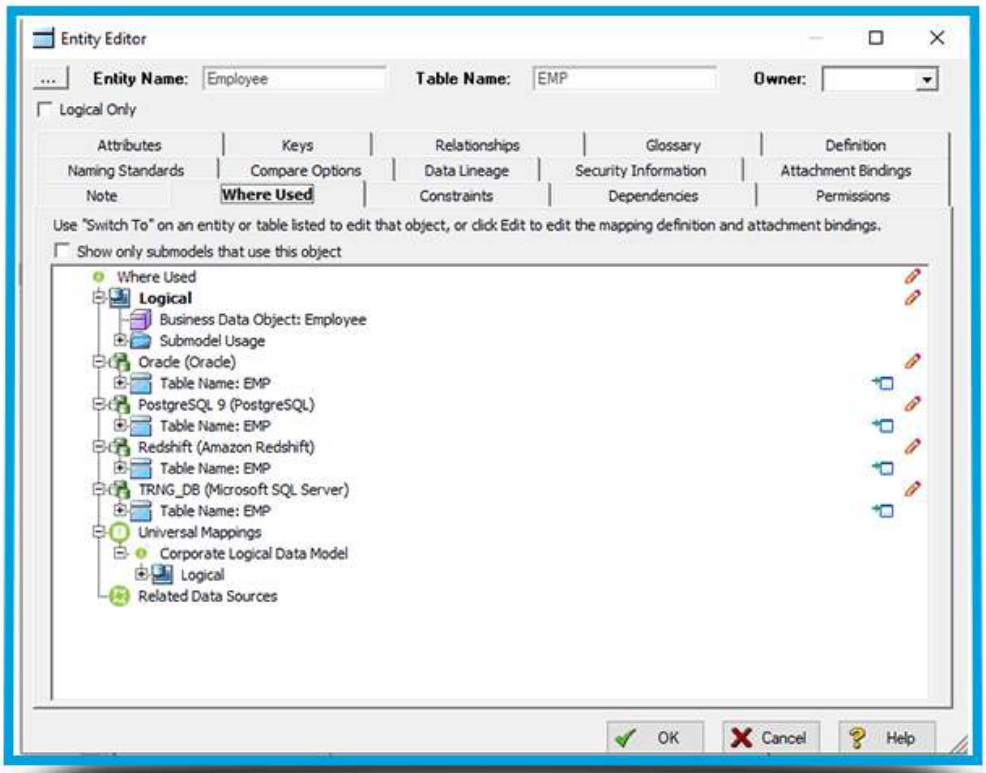
This shows the instances of a piece of information.

A slide bar allows you to expand or contract the levels in the ER Models.

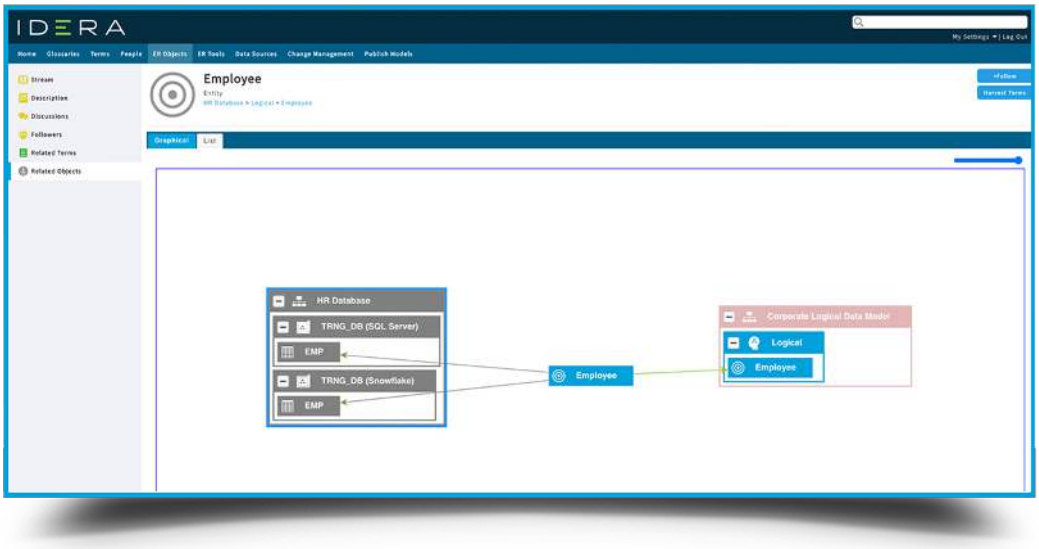


Team Server's 'Where Used' tab

In Data Architect the 'Where Used' tab allows you to visualize the relationships between the logical and physical models in a model and also the Universal Mappings between models in the Team Server repository.

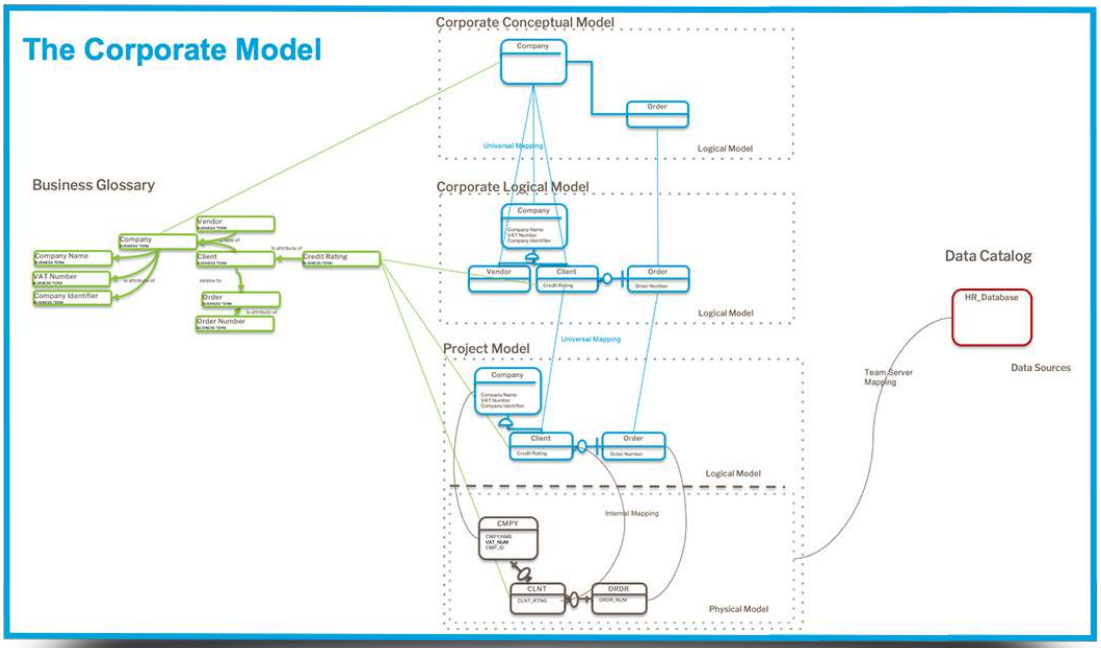


These are now more accessible in Team Server with a new graphical visualization.



Here, the gray lines from the logical entity "Employee" show the physical tables that were generated from or to the entity. The green line represents a Universal Mapping to an external model.

These visualizations will really help show enterprise models with corporate conceptual and logical models to the project models, using Universal Mappings in the type of model below.



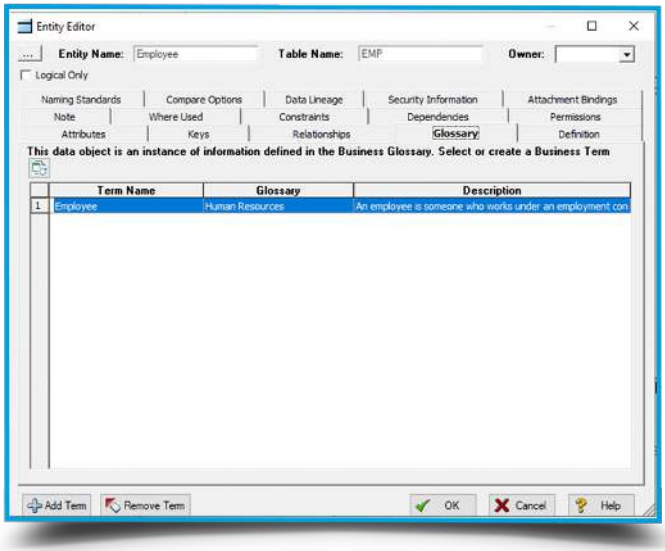
USING DATA ARCHITECT TO CONNECT TERMS TO ER OBJECTS

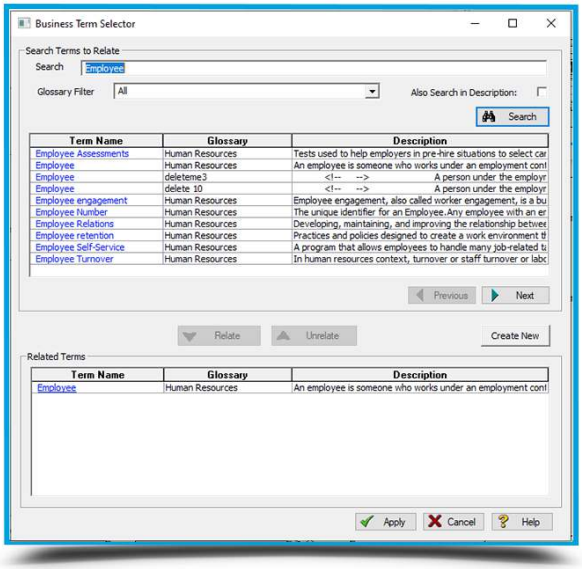
The process of mapping Business Terms to models of Data Assets is a core exercise in Data Governance. Although AI/ML tools are becoming more available, they are not always reliable and still require human intervention.

Usually it will be human beings who do this mapping based on knowledge of the data assets. The Data Architects are usually the most intimate with the data assets because they design them. Thus it makes sense for them to assist in this mapping process.

Previously the relationship between Business Terms and ER Objects could only be made in Team Server. Now you can relate them together inside ER/Studio Data Architect, the tool of choice for Data Architects.

Now every Entity, Attribute, Table and Column editor has a Glossary tab to be able to find the appropriate Business Term and connect it to the object.





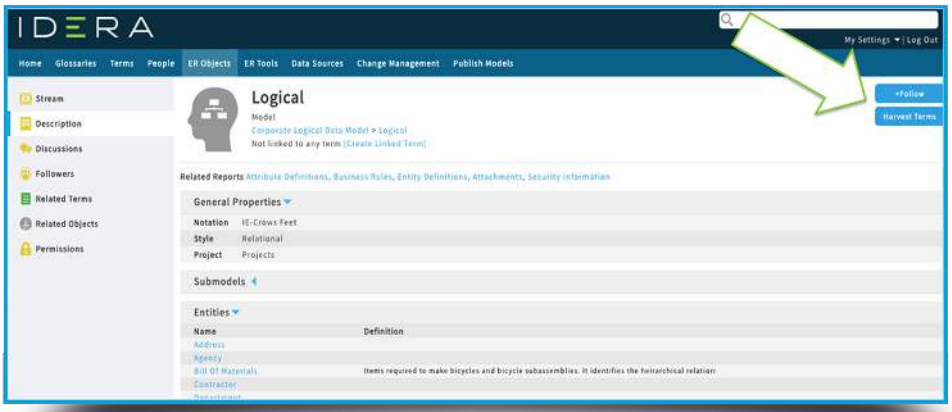
The “Add Term” button allows the user to browse the glossaries and find the right term or even create a new one.

HARVESTING BUSINESS TERMS

Data Governance projects centre around a Business Glossary. But how do you start creating a brand new Business Glossary?

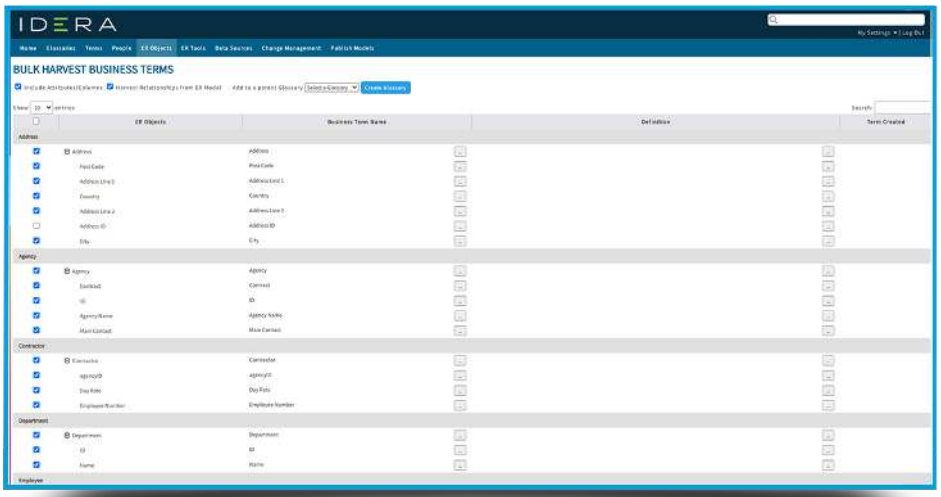
Most users of ER/Studio have excellent logical data models used to model the information of the organization, maybe even a single corporate logical data model. We have provided a tool enabling the harvesting of Business Terms from parts or the whole of a sub model.

You'll see a new button marked "Harvest Terms."



This brings up a screen to allow the user to:

- Select a target parent Glossary
- Decide which ER Objects generate Business Terms
- Select the names for the new Terms
- Edit the Description of the new terms
- Add relationships between the terms based on the relationships in the model



The wizard will find existing terms and map to those terms while also enhancing them with relationships found in the source model.