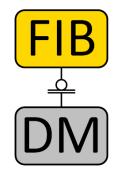


https://codt.net © 2021 Jayzed Data Models Inc.

FIBO and FIB-DM are the Industry Standard



The Financial Industry Business Ontology is the blueprint for Enterprise Ontologies and the Knowledge Graph.



Twelve hundred users downloaded the ontology-derived Financial Industry Business Data Model.

ATLANTIC CODT



The patent-pending technology that created the FIBO Data Model is available for licensing.





Financial Institution's Semantic Center of Excellence tasked to build enterprise and operational ontologies.



Ontologist with FIBO expertise, responsible for designing the enterprise ontology.



Data Architect experienced in Enterprise Reference models. You know FIB-DM, existing databases, and models.



Finance / Business / Management. You want to accelerate Semantic Enterprise Information Architecture.



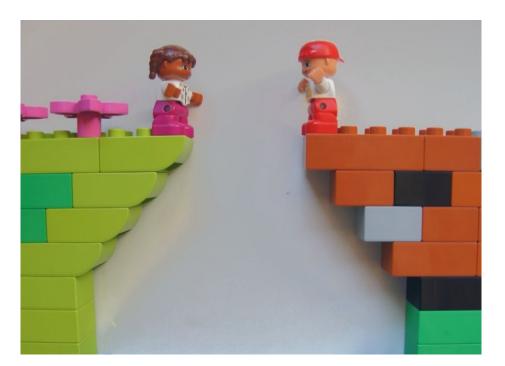
The chasm between semantic and conventional data management impedes FIBO customization.

The ontologist has an extensive reference domain ontology.

The Data Architect has models of existing databases

Maybe even an Enterprise Data Model based on FIB-DM.

The organization has metadata for new OKG modules, classes, and properties.



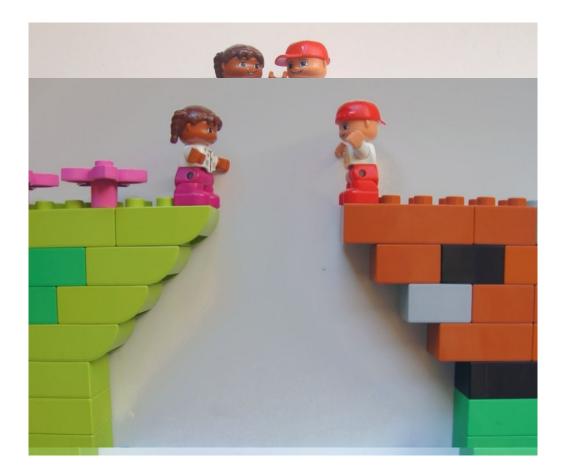
The Financial Institution must still customize the FIBO.

The ontologist cannot leverage conventional Information assets in data modeling tools.

The ontologist must still manually type-in hundreds of classes, copy and paste documentation.



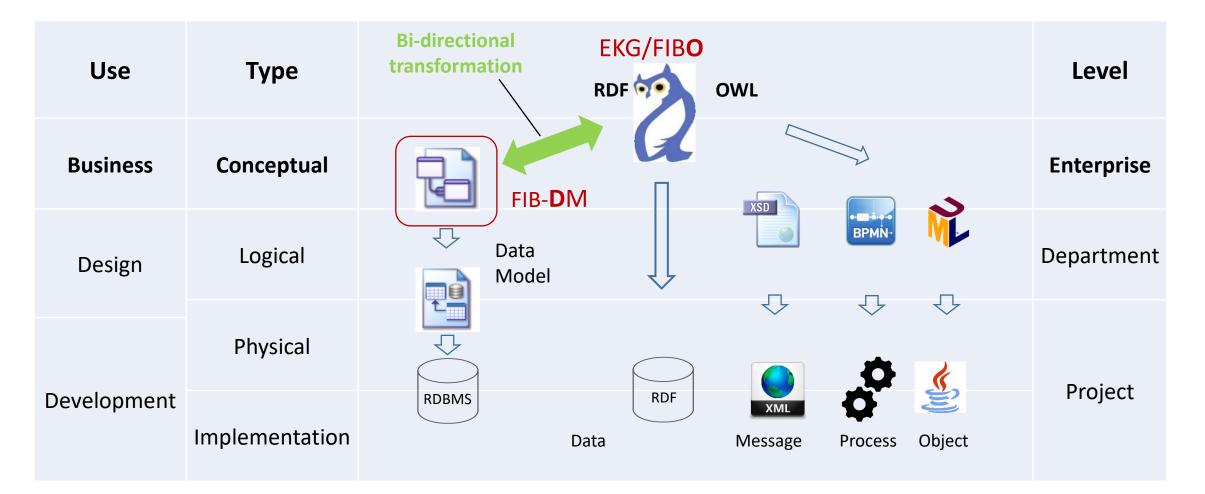
CODT in Reverse is the bridge across the chasm.





The Vision:

Semantic Enterprise Information Architecture (SEIA)





Bi-directional model transformation enables SEIA

FIBO

EKG

Operational

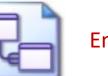
We **generate** data models from industry/domain and our proprietary ontologies. Design conceptual models in RDF/OWL.

ATLANTIC CODT



We **reverse-engineer** our data models to extend the enterprise and project ontologies.

FIB-**D**M



Enterprise

Project



Path for midsize banks

You are here

2020, adopt the Industry Standard, FIBO data and concept model

2021, train data architects in OWL. **Customize FIBO** to become your Enterprise Ontology / Knowledge Graph

2022, Semantic Enterprise Information Architecture



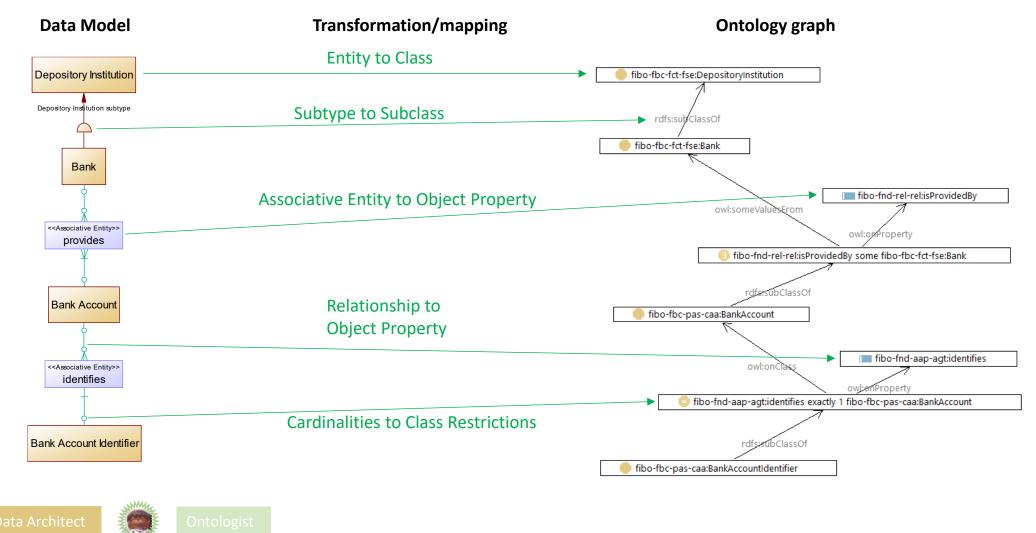
Easy to learn a new language, OWL and tooling; if you already know the content and design.



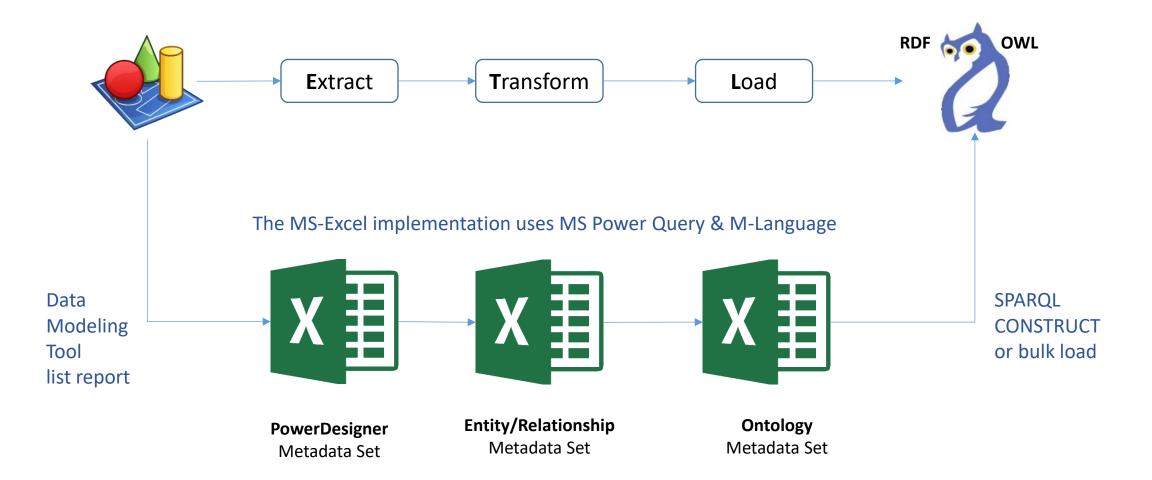
Easy to build FIBO ontologies if you have FIB-DM data models.



What: Data Model to Ontology mapping



How: Bi-directional CODT Metadata Sets







Reverse example: Extract from PowerDesigner

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Object Browser Image: Constraint of the second	OpenMDM_LDM Result List Output Auction Order Book Quote Auction Order Book Quote Referential Security Status Trade E List Report Properties - PowerDesigner MDS (POWERDESIGNER X General Column Filter Row Filter Content Result Sets Definition Code Name Content Represents the state of the order book. QUOTE Auction Data disseminated during the auction period, i.e. th 2 ORDER_BOO
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Ready	

Our example is the Logical Data Model created from the New York Stock Exchange's OpenMAMA message API.

The PowerDesigner Entity list report has Code, Name, and Comment. The PowerDesigner MDS sources the list report

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1	Code 🔽	Name 💌	Comment	Queries & Connections	* X
2	AUCTION	Auction	Data disseminated during the	Queries Connections	
3	ORDER_BOOK	Order Book	Represents the state of the or	Queries Connections	
4	QUOTE	Quote	The most current bid or ask pri	2 queries	
5	REFERENTIAL	Referential	Represents standing data such		
6	SECURITY_STATUS	Security Status	Data that indicates the current	CODT_HOME (4) (D:\Local Do	
7	TRADE	Trade	Information that belongs to a t	Connection only.	
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Transform in the Entity-Relationship MDS

The Metadata Set populates from the PowerDesigner Entity MDS

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5	REFEREN	NTIAL	R	eferential	Represents star	nding data su	ch as symbo	l fib-omds	R	eferential	https://	/fib-dm.com/Ope	nMDS/Referer	tial	fib-om	ds:Refere	ntial
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Prefix and URI are configuration settings matching the designated prefix and namespace of the ontology

The Entity Name transforms to Localname with a Camel Code string function The Resource Name is a concatenation of Prefix, delimiter, and Localname



Load into ontology

A query populates the Class metadata set from the Entity MDS

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Triple, "T_" metadata sets break down the class record into subject, predicate, and object.



The triples match the SPARQL SELECT joins

subject	predicate	object
fib-omds:Auction	rdf:type	owl:Class
fib-omds:OrderBook	rdf:type	owl:Class
fib-omds:Quote	rdf:type	owl:Class
fib-omds:Referential	rdf:type	owl:Class
fib-omds:SecurityStatus	rdf:type	owl:Class
fib-omds:Trade	rdf:type	owl:Class
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# Owl Classes.rq
SELECT ?class ?qname ?namespace
?skos_definition
WHERE {
     ?class a owl:Class .
```

OPTIONAL {

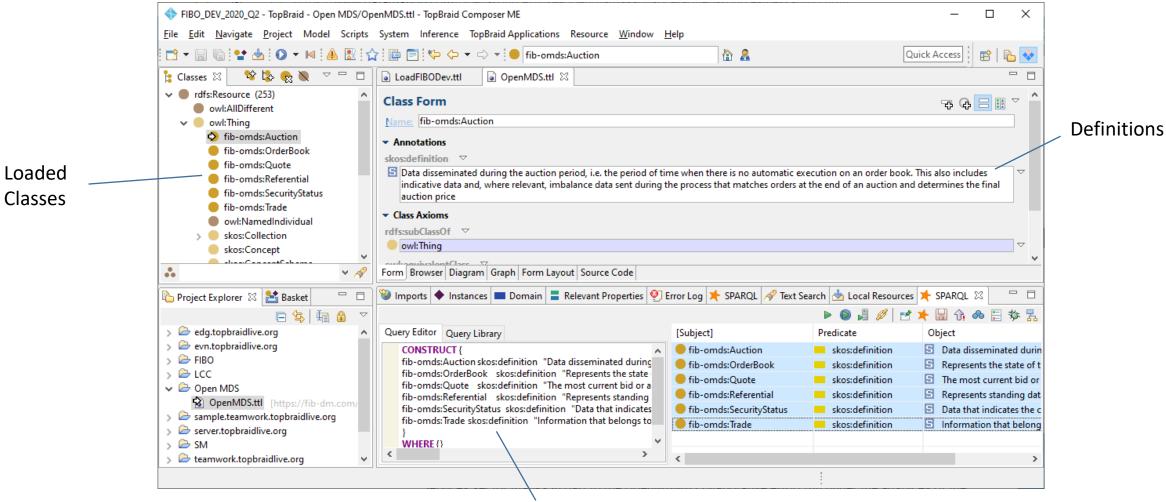
```
?class skos:definition ?skos_definition}
```

subject	predicate	object
fib-omds:Auction	skos:definition	Data disseminated during the auction period, i.e. the period of time when there is no automatic execution on an order book. This also includes indicative data and, where relevant, imbalance data sent during the process that matches orders at the end of an auction and determines the final auction price
fib-omds:OrderBook	skos:definition	Represents the state of the order book.
	skos:definition	The most current bid or ask prices and quantities at which the instruments can be bought or sold. The bid quote shows the price and quantity at which a current buyer is willing to purchase the instruments, while the ask shows what a current participant is willing to sell the instruments for.
fib-omds:Referential		Represents standing data such as symbol, commodity, and exchange information and any pertinent information about the contract terms. Prior trading period closing/settlement prices can also be disseminated in this event type. Typically this represents static data
fib- omds:SecurityStatus		Data that indicates the current market trading condition of an individual security, for example, if trading in the security is suspended. This identifies phase transitions in the venue's market model.
omus.secuntystatus	SKUS.UEIIIIIIIIIIIIIIII	Information that belongs to a transaction that involves the selling
fib-omds:Trade	skos:definition	and purchasing of a tradable instrument



}

Assert the triple in the Ontology Platform



SPARQL CONSTRUCT



Next step: Discuss a CODT POC



Send an email to jziemer@jayzed.com, "CODT POC," to have an overview and discussion with your Q&A.

Find further resources on the FIB-DM website, the YouTube Education Channel, and follow the LinkedIn showcase for news, updates, and discussion.



https://fib-dm.com/



https://www.youtube.com/c/fibdm



https://www.linkedin.com/showcase/fib-dm/

