

FIBO Ontologies by Domain and Module

As of April 20, 2017

The EDM Council is consolidating all FIBO into a unified repository and publishing this with generated and mapped products on a new website named <https://spec.edmouncil.org/fibo/>. The unified model is being tested for both content hygiene and linked data requirements. We know there are gaps and deficiencies to be addressed. The Foundational components (Foundations, Business & Commerce, Business Entities, Indices & Indicators) have now been published as standards by OMG.

The FIBO system of record is OWL. Using the evolving Semantic Modeling for Information (SMIF) spec of OMG, the system of record is linked to diagrams to support SME validation of the ontology. We can also generate FIBO vocabulary – taxonomy) and a glossary and map to Schema.org. from the OWL.

Because of available technology, it does take some diligence on the part of users to navigate through all of this to find exactly what is relevant to a user's needs. Please bear with us as we work to implement 'easy to use' navigation between the OWL, the diagrams, the vocabulary and the glossary. We will make these available to the membership as they are developed and tested. Nevertheless, we know that we must address the fact that the learning curve for navigating FIBO must be substantially reduced. The good news here, however is that many commercial tools can ingest the OWL. The really good news is that all changes we make to FIBO are now automatically generated and integrated across the entire FIBO model.

Below is a list of the current contents of FIBO. This is my layman's synopsis so take it with a grain of salt. The current version of FIBO contains 11 core domains, 49 modules and 239 ontology files. Modules listed as **DEV** (in development) have not been reviewed/verified/adjusted by SMEs. Modules listed as **PROD** (product) have been reviewed and published. We are gearing up to re-start our validation process (continuing with the Debt domain). Even though we have some very big tasks ahead of us, we should pause for a moment and recognize that FIBO is now a fully integrated ontology covering the complexity of financial, legal and contractual obligations. There is nothing else like it anywhere. On behalf of the membership, I would like to congratulate the FIBO development team for reaching this critical milestone. This is truly a big deal.

Respectfully

Michael Atkin
Managing Director, EDM Council

FIBO Ontology Files by Module

Domain	Module	Description	Status DEV (non-verified) PROD (verified)
Business Entities	Corporations	Features of companies incorporated by the issuance of shares	PROD
Business Entities	Functional Entities	Entities defined by function (rather than form)	PROD
Business Entities	Government Entities	Government entities and jurisdictions	PROD
Business Entities	Legal Entities	Corporate bodies, business organizations, legal persons, LEI entities	PROD
Business Entities	Ownership and Control	Types of parties along with their capacities and powers (corporate control, executives, partnerships, private limited companies, sole proprietorships, trusts)	PROD
Business Process	Process	Common concepts for financial processes and business contexts	DEV
Business Process	Regulatory	Regulatory requirements and processes (i.e. reporting)	DEV
Business Process	Securities Issuance	Ontology of the securities issuance processes for mortgage-backed securities (agency and private label), debt, equities, municipal bonds, issuance process and documentation	DEV
Corporate Actions and Events	Corporate Events	Range and type of events relating to securities over their lifetime	DEV
Collective Investment Vehicles	Funds	Fund concepts and classification for tradable and non-tradeable funds	DEV
Derivatives	Asset Derivatives	Asset baskets, bond options, bond return swaps, equity forwards, equity options, equity swaps	DEV
Derivatives	Commodities Derivatives	Commodities contracts, commodity delivery, forwards, options, spots, swaps	DEV
Derivatives	Credit Derivatives	Credit default swaps	DEV

FIBO Ontology Files by Module

Domain	Module	Description	Status DEV (non-verified) PROD (verified)
Derivatives	Derivatives Contracts	Derivatives Basics, exercise conventions, forwards, options on futures, options, OTC instruments, return swaps, swaps, swaptions	DEV
Derivatives	Exchange Traded Derivatives	Exchange traded options, futures, options, exchanges	DEV
Derivatives	Fx Derivatives	Contracts, forwards, options, spots, swaps	DEV
Derivatives	OTC Miscellaneous Contracts	Contracts for difference	DEV
Derivatives	Rate Derivatives	Forward rate agreements, inflation swaps, interest rate options, interest rate swaps, OTC index options	DEV
Derivatives	Rights Instruments	Rights and warrants	DEV
Financial Business and Commerce	Debt and Equities	Concepts that are common to both debt and equity instruments	PROD
Financial Business and Commerce	Financial Instruments	Ontologies describing general purpose financial instruments	PROD
Financial Business and Commerce	Functional Entities	Entities that are defined according to their function including business registries, financial services entities, markets, registration authorities, regulatory agencies	PROD
Financial Business and Commerce	Products and Services	Extension of the products and services model in Foundations including ontologies describing clients, accounts, financial products, financial services, product catalogues	PROD
Foundations	Accounting	General accounting concepts including debt, equity, interest, currency amount, ISO4217 currency codes	PROD

FIBO Ontology Files by Module

Domain	Module	Description	Status DEV (non-verified) PROD (verified)
Foundations	Agents and People	Ontologies of concepts relating to things which are able to determine their own behavior (autonomous entities)	PROD
Foundations	Agreements	Ontologies that define agreements including fundamental properties of contracts such as contractual terms and contract parties	PROD
Foundations	Arrangements	Ontologies that define abstract concepts, structures and schemata including arrangements, classification schemes, codes, documents, identifiers, indices	PROD
Foundations	Dates and Times	Ontologies describing date and time concepts including business dates, financial dates, occurrences	PROD
Foundations	Goals and Objectives	Ontologies for describing goals, objectives and business plans	PROD
Foundations	Law	Ontologies defining legal concepts including jurisdiction as well as legal capacity such as signatory and contractual capability	PROD
Foundations	Organizations	Ontologies defining types of formal legitimate organizations (versus informal and illicit organizations)	PROD
Foundations	Ownership and Control	Meaning of ownership, asset, owner to form the basis for ownership and control	PROD
Foundations	Parties	Ontologies defining the concepts of parties and roles performed (i.e. issuer, counterparty, underwriter, guarantor)	PROD
Foundations	Places	Addresses, countries, facilities, locations, virtual places	PROD
Foundations	Products and Services	Concepts such as buyer, seller, payments, schedules, products, services	PROD
Foundations	Quantities	Concepts related to quantities, units, dimensions and quantity values	PROD

FIBO Ontology Files by Module

Domain	Module	Description	Status DEV (non-verified) PROD (verified)
Foundations	Relations	Used to define relationships among more specific FIBO concepts	PROD
Foundations	Utilities	Ontologies which provide annotations and business facing datatypes to be used in other ontologies	PROD
Indices and Indicators	Economic Indicators	Concepts relating to forms of market indices, economic indicators, economic measures and market-based interest rates	PROD
Indices and Indicators	Foreign Exchange	Foreign Exchange	PROD
Indices and Indicators	Interest Rates	Ontologies relating to concepts of interest including common interest rates, inter-bank lending and rates of debt instruments	PROD
Indices and Indicators	Market Indices	Concepts relating to basket, credit and debt indices	DEV
Loans	Loans	Ontology of loan concepts and parties including time dimensions (i.e. loan to value), types of loans, collateral, guaranties, application processes and loan regulatory concepts	DEV
Market Data	Temporal	Ontology of concepts for a range of asset classes that have a time sensitive value including prices, yields, analytics, durations, convexity	DEV
Securities	Debt	Ontologies of concepts related to tradable and OTC debt instruments including asset-backed securities, special purpose vehicles, CBOs, CDOs, CLOs, mortgage-backed securities, pool-backed securities and synthetic instruments	DEV
Securities	Bonds	Concepts relating to cash debt instruments, listings, tax treatment, debt guarantees, parity variants, participation notes and cash flow	DEV
Securities	Money Markets	REPOs, terms deposits, short term debt	DEV

FIBO Ontology Files by Module

Domain	Module	Description	Status DEV (non-verified) PROD (verified)
Securities	Equities	Equity instruments, depositary receipts, equity issuance, limited partnership equity, shareholder rights, shareholder equity	DEV
Securities	Securities	Baskets, parametric schedules, pools, securities classification, securities identification, issuance, listings, restrictions and assets	DEV