

# DATA STANDARDS CONSULTANTS



**The financial data standards  
integration and software consultancy.  
Capital Markets, Payments.  
CDM, FpML, FIX, ISO 20022.**

[www.tradeheader.com](http://www.tradeheader.com)

# YOUR BUSINESS, OUR PRIORITY

At TradeHeader, we pride ourselves on delivering valuable consulting, development, and training services to companies that incorporate financial standards into their operations.

Our expertise in data standards used in today's global market and extensive experience in financial products enable us to provide our clients with unparalleled added value.

With our range of comprehensive services that can be personalised, tailoring specific requirements, we are committed to helping our clients achieve their objectives and build sustainable businesses.

## 03 About TradeHeader

We are dedicated to creating value for our customers through our in-depth knowledge of data standards, payments, and complex financial products.

## 05 Our Services

We understand that our clients' success depends on staying up-to-date with the latest changes in data standards and industry practices, and that's why we offer a comprehensive range of services to help them stay ahead of the curve.

## 07 Consulting Services analysing

We have extensive experience in analyzing, mapping, enriching, and validating financial data. We have a deep understanding of current challenges, and can provide expert guidance and support to help our clients navigate these complex issues.

## 09 Software Development

We are experts in parsing and transformation of formats, with several powerful tools at our disposal. We can help transform, classify, validate and generate standard financial messages.

## 11 Training

Doubts about financial messaging standards? Our training courses are modular and adaptable, allowing clients to choose only those training areas that interest them, from FpML and FIX to CDM and ISO20022.

# ABOUT TRADEHEADER



TradeHeader is a leading Global Consulting Boutique firm that specializes in the use of messaging for the financial industry. For the past 13 years, we have focused on capital and payment market integration projects, where technical skills and extensive knowledge of complex financial products and processes are paramount.

TradeHeader's origins are closely linked to the International Swaps and Derivatives Association (ISDA), giving us unparalleled expertise in modelling over-the-counter (OTC) and listed products, as well as all the processes and events involved.

What sets TradeHeader apart from its competitors is our unique ability to provide clients with not only **the best technical solutions, but also a deep understanding of derivatives and complex financial products and processes.** This double aspect is key to our success and allows us to deliver exceptional value to our clients.



**We create value for our customers through a perfect combination of messaging knowledge and complex financial products.**

# OUR SERVICES

**OUR SERVICE CATALOG IS DIVIDED INTO THREE MAIN AREAS**

CONSULTANCY



SOFTWARE



TRAINING



At TradeHeader we specialize in using messaging standards such as FpML, FIX, CDM and ISO20022 for financial industry integration projects. Our team of experts has extensive experience in analyzing, mapping, and validating financial messaging, making us a leading consulting firm in this field.

We are proud and active members of the working groups that lead the development of these messaging standards, giving us unparalleled insights into the latest changes and updates. Our constant knowledge of these standards allows us to provide direct value to all our clients.

With our expertise in these standards and complex financial products, we develop customized solutions that meet the specific needs of our clients.

Whether it's customizations of Front-Office systems to standard model, or from standard to target systems, we deliver the best solutions that enrich our client's projects.



**We have an in-depth understanding of the latest changes and developments, helping you stay ahead of the curve.**

# SOME PROJECT EXAMPLES:

## Data Mapping of Front-Office and Back-Office Systems

Data Analysis from source or destination systems and their mapping to standard messaging such as FpML, FIX / FIXML or ISO20022. Systems like: Murex, Calypso, Scrittura, Summit, Sophis, Bloomberg AIM /TOMS, FrontArena, Wall Street Systems, Kondor +, Opics, among others.

## Internal Messaging Development, these types of projects can be divided into:

Analysis of source and destination systems, allows us to create internal messaging based on standards such as FpML, FIX / FIXML or ISO20022 to perform communication between them. These types of projects can be divided.

- Data source Analysis coverage in standard model**  
 Data Analysis in order to propagate between source and destination system, choice of messaging standard used (FpML, FIX / FIXML or ISO20022) according to project needs, and data mapping.
- Creating extensions for additional internal data**  
 Development of XML schemas to cover additional information that can not be covered by standard messaging but which you want to propagate internally between systems.
- Development of examples for model validation**  
 Not only extensions are made, but sample messages are also created to test and validate that all data to be transmitted is well modeled and propagated properly between systems.
- Validation rules Development for internal messaging**  
 Based on the internal data model (standard + extensions) we develop validation rules that can be specific to a project, for a business use such as risk calculations, or to satisfy regulatory reports, such as MIFID II.



**Don't say consulting, say excellence.**

TradeHeader's consulting value lies in its expertise in complex financial products and processes and translating that information into data.

In particular, we are highly specialized in understanding the data that defines these products and processes and how to model them using various messaging formats including standard formats like FpML, FIX/FIXML or ISO20022, or proprietary formats like Calypso, Murex or Wall Street among others.



# CONSULTING SERVICES



## We are specialists in parsers and transformation of formats.

As a result of our extensive consulting experience in data mapping between systems, we have developed several software tools that allow us to map and transform data between different formats.

These tools allow us to transform data from any input format (eg. Murex) to a standard messaging format (FpML, FIX, CDM or ISO20022), allowing the client to standardize their messaging very quickly and economically, and by means of a deployment which can be both local and in the cloud.

All these conversion tools are characterized by their high efficiency, flexibility and scalability, allowing to make modifications to the tool without having to recompile the code.

### Repository Architecture

We perform database design services for the storage of transactions and events related to these transactions, trades and post-trade events such as amendments and terminations.

### Classification and categorization of products

Structural analysis based on the transaction of messages to determine the type of product that is being sent in the message, with the purpose of either assigning a product typology or to make the messaging routing.

### Analysis, mapping and validation for ESMA Regulatory Reporting, (FIX, FpML)

Data Analysis and messaging development required for the European regulation MIFID II / EMIR, covering the different products and processes reportable to ESMA. Our services also include the mapping, analysis and validation of data between different formats used in financial institutions (FIX, FpML, etc.) and the ESMA format based on the ISO20022 standard.

### Data integration with DTCC and MarkitSERV

We have experience in the use, conversion and validation of data formats for integration with DTCC and MarkitSERV covering the different products and processes supported by such platforms.



## OUR CLIENTS, OUR BEST GUARANTEE



BBVA  
Global Bank



Credit Agricole  
Global Bank



Deutsche Bank  
Global Bank



Nordea  
Global Bank



ISDA  
Trade Association



Bloomberg  
IT Business



droit  
Fintech



kantox  
Fintech



Legal & General  
Asset Managers



Columbia Threadneedle  
Investments  
Asset Managers



BME Clearing  
Clearing House



HONG KONG INTERBANK  
CLEARING LIMITED  
香港銀行同業結算有限公司  
Clearing House

**Our clients are a combination of global banks, technology companies, asset managers, fintechs, and clearing houses among others.**

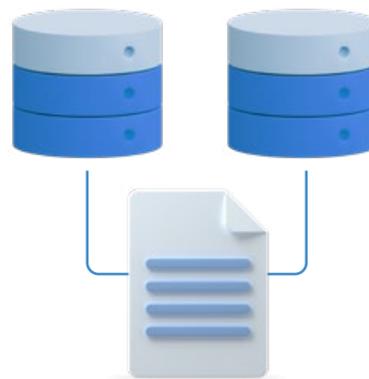
# SOFTWARE DEVELOPMENT

## Some Software Examples:

### Data converter to standard messaging

This software generates the conversion to financial standards like FpML, FIX/ FIXML or ISO20022 using external XQuery scripts. All input files such as CSV, JSON, MxML, Bloomberg TOMS are processed simultaneously, and compiled in XQuery to save the results.

- Conversions are based on XQuery, which implies that there is no need to recompile the Java code in order to support other financial XML standards.
- The software includes the validation of the output format, using XML schemas and business rules.
- Converters use the Apache Camel. Framework, which supports multiple transport mechanisms, such as AMQP, SFTP, email and both local and cloud deployment.



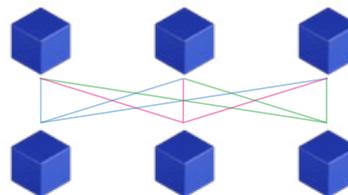
### Validation engine (data quality)

We have a validation engine that is being used by a multitude of clients and in many projects that allows implementing validation rules for internal messaging. These validation rules can be both standard business rules and rules based on regulatory issues. A specific application is to validate that the internal messaging contains all the information necessary to satisfy the reports of MIFID II/ EMIR.



### Matching Engine

The comparison engine based on FpML messaging allows you to find symmetric transactions within large volumes of messages. The engine uses the Hungarian Matrix algorithm, which determines the similarities between all the nodes of the message.



### Defaulting Service

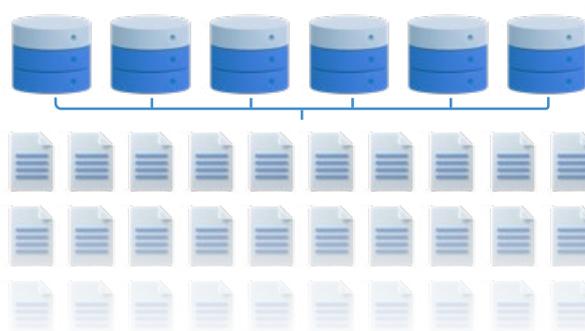
This service is responsible of analyzing FpML transaction messages using default ISDA values and market conventions, depending on the product type. The tool parses the input document and assigns default values to those fields that are not sent in the message.





### Automatic FpML Sample Generator

This Automatic transaction generation tool is used primarily for testing large volumes of data. A typical case of application is a company that requires a large volume of operations to take performance measures of its database. Our transaction generator generates these examples automatically, ensuring that the resulting messages are valid from a business point of view, and therefore, the performance parameters obtained in the tests are significant.



### ISDA Taxonomy Classifier

This tool is responsible for the processing of FpML messages, analyzing their content and classifying the products represented according to their message structure. Once classified, the tool enriches the product structure with an ISDA Taxonomy field, which is usually used by customers for regulatory or routing purposes.



### Report generator for regulatory purposes

Reporting tool for regulatory purposes, such as the Minimum Economic Terms required for Dodd Frank in the United States. This type of software has been developed after having carried out several projects for clients using architectures with binding frameworks, where it was detected that in many occasions these tools were too rigid. Our report generator proposes a much more flexible regulatory reporting solution, using XSLT and configuration files to be able to customize the different reports without having to recompile the code every time a change occurs.



# STANDARDS TRAINING



## Doubts about the financial standards?

TradeHeader's training courses are modular and adaptable, allowing you to choose from CDM/DRR, ISO 20022, FpML and FIX depending on the area of interest.

# Transferring knowledge, creating value.

## CDM/DRR Training Course



### Common Domain Model (CDM) - Digital Regulatory Reporting (DRR) Training

A hands-on introductory training course that goes through the key model components of the CDM to enable a standardized representation of financial derivative transactions. Learn how to codify regulatory rules into DRR functional expression for the purposes of generating regulatory reports. In addition, it covers how to test and validate DRR functional logic with the DRR test pack with the project tool.

## ISO20022 Training Courses



ISO 20022  
Universal financial industry message scheme

### Introduction to ISO20022

Introductory course on ISO20022 standard, for internal messaging use. The course can be focused on payments, actions or both.

### Extending ISO20022

Practical course focused on extending the ISO20022 standard, for internal messaging use. The course can be focused on payments, actions or both.

## FIX-FIXML Training Courses



### Introduction to FIX-FIXML

Introductory course covering a wide range of topics such as FIX-FIXML fundamentals, session and application layer, messaging and tools, XML schema fundamentals, and FIXML organization and extension principles.

### Extending FIXML

Practical course focused on extending the FIXML standard. Participants learn how to extend FIXML to cover reference data, prices and custom fields.

## FpML Training Courses



### Introduction to FpML

Course that covers a wide range of topics related to FpML, such as product representation, technical fundamentals, messaging, business processes and events, validation and recommendations on how to extend FpML.

### Extending FpML

Practical course focused on extending the FpML standard. Participants learn how to extend the standard to cover complex products, actions, and customized messages.

### Validating FpML

Advanced course focused on developing a validation engine. Participants learn how to run and extend an open source validation engine and how to extend it with new business rules and custom schemas.

### Specific training by product area

Course that extends the content of the Introduction to FpML course covering additional product areas tailored to the needs of the client.



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