



The ISO 2022 Investment Roadmap

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London Market Systems



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Aim



- Examination of the new Investment Roadmap
 - Changes since last announcement
- An explanation of ISO 2022
 - To provide context



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Standards Coordination Group (“SCG”)



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Key Points



- Six of the key industry associations are collaborating and committed to the maintenance of the roadmap
- All agree to the ISO 20022 concept, and
 - that it provides a framework for co-existence
- ISO (via SWIFT, the RA for ISO 20022) has formally recognised the roadmap, by agreeing to publish it on the 20022 website
- Q1 2011: To agree timeline for completion of the ISO business model



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What does the roadmap provide?



- It serves as a snapshot of the coverage provided by the currently existing standards/syntaxes
- There is an appreciation that there are some areas of overlap

Co-existence of multiple syntaxes is inevitable



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Key addition in new release



- XBRL
 - provides the container (the “Can”), whilst
- ISO 20022 the authoritative content (the “Coke”)
- XBRL US developed a Corporate Actions taxonomy, or data dictionary in conjunction with DTCC and SWIFT



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XBRL's Coverage

- Introduced to cover:
 - Corporate regulatory reporting
 - Corporate issuers are already tagging regulatory and compliance documents
 - XBRL US, Citi, along with other issuers, piloting a new Corporate Actions taxonomy.
 - Pre-investment
 - Example taxonomies:
 - Mutual fund prospectus and risk-return
 - Credit rating agency (NSRSO) reporting



Executive Summary

- Within the financial services industry, there are multiple messaging standards being used, and the purpose of the Standards Coordination Group has been to come up with an approach that leverages and includes these standards into a broader framework without reinventing and creating redundant messages that increase implementation costs and cause confusion for the industry.
- This investment roadmap affirms the commitment of each organization (FIX, FpML, SWIFT, XBRL, ISITC and FISD) to the ISO 20022 business model by laying the groundwork for defining a common underlying financial model and ensuring some level of interoperability by producing a consistent direction for utilization of messaging standards and communicating that direction clearly to the industry.
- The respective business processes included in the roadmap are or will be incorporated within the ISO 20022 business model and the model allows for ISO 20022 XML based messages to be created to support the business processes, while at the same time provides in certain circumstances for existing domain specific syntaxes and protocols to be maintained in order to protect the investments of market participants.
- The organizations are committed to meeting on a consistent basis to ensure the roadmap continues to accurately depict the standards environment.

Source: <http://www.iso20022.org/documents/general/InvestmentRoadmap.pdf>

Investment Roadmap – FIX, ISO, FpML, XBRL syntax (HIGH LEVEL)



	Function	Cash Equities & Fixed Income	Forex ⁽²⁾	Listed Derivatives	OTC Derivatives ⁽²⁾	Funds
Issuer	Pre-investment decision	XBRL	N/A	XBRL	N/A	XBRL
Front Office	Pre-Trade	FIX	FIX	FIX	FpML	ISO
	Trade	FIX	FIX	FIX	FpML	ISO
Middle Office	Post-Trade	▲ ●	▲ ●	▲ ●	FpML	ISO
	Clearing / Pre-Settlement	ISO	ISO	▲ ●	FpML	ISO
Back Office	Asset Servicing	● ◆	N/A	ISO	FpML	● ◆
	Collateral Management	▲ ●	N/A	▲ ●	■ ●	N/A
	Settlement	ISO	ISO	ISO	ISO	ISO
	Pricing / Risk / Reporting	■ ●	■ ●	■ ●	■ ●	■ ●
Investor Supervision	Regulatory Reporting	▲ ●	▲ ●	▲ ●	FpML	ISO
Issuer Supervision	Regulatory Reporting	XBRL	N/A	XBRL	N/A	XBRL

▲	FIX	●	ISO (1)
■	FpML	◆	XBRL

(1) Represents ISO 20022, ISO 15022 and MT messages
 (2) See OTC Derivatives breakout for details:
 - Syndicated Loans, Privately Negotiated FX, and OTC Equity, Interest Rate, Credit, and Commodity Derivatives
 - FpML payload may be used in combination with FIX business processes in dealer to buy side communication



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Investment roadmap – FIX, ISO, FpML, XBRL syntax (DETAIL LEVEL)



	Cash Equities	Fixed Income	Forex	Listed Derivatives	OTC Derivatives ⁽¹⁾	Funds
Pre-investment Decision						
+Filing Fundamental Data with the Regulator	XBRL	XBRL		XBRL		XBRL
+Analytical Models	XBRL	XBRL		XBRL		XBRL
Pre-Trade:						
+IOIs	FIX	FIX		FIX	FpML	
+Trade advertisements	FIX	FIX		FIX	FpML	
+Quotes	FIX	FIX	FIX	FIX	FpML	
+Market Data	FIX	FIX	FIX	FIX	FpML	ISO
+Short Sale Locate	FIX			FIX		
+Reference Data	FIX	FIX	FIX	FIX	FpML	ISO
Trade:						
+Order Routing	FIX	FIX	FIX	FIX		ISO
+Trade Execution	FIX	FIX	FIX	FIX	FpML	ISO
+Trade Date Position Reporting	FIX	FIX	FIX	FIX	FpML	ISO
+Reference Data	FIX	FIX	FIX	FIX	FpML	ISO
Post-Trade:						
+Trade Capture & Validations	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML	ISO
+Allocation	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML	ISO
+Matching	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML	ISO
+Confirmation/Affirmation	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML	ISO
+Position Management	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML	ISO
+Novation/Assignment (OTC Derivatives)					FpML	
+Amendments / Modifications (OTC Derivatives)					FpML	
+Termination (OTC Derivatives)					FpML	
+Increases (OTC Derivatives)					FpML	
+Affirmations (OTC Derivatives)					FpML	
+Exercise (OTC Derivatives)					FpML	

⁽¹⁾FpML payload may be used in combination with FIX business processes in dealer to buy side communication.



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Investment roadmap – FIX, ISO, FpML, XBRL syntax (DETAIL LEVEL)



	Cash Equities	Fixed Income	Forex	Listed Derivatives	OTC Derivatives	Funds
Clearing / Pre-Settlement:						
•Matching	ISO	ISO	ISO	FIX, ISO	FpML	ISO
•Netting	ISO	ISO	ISO	FIX, ISO	FpML	ISO
•Funding	ISO	ISO	ISO	FIX, ISO	FpML	ISO
•Reference Data	ISO	ISO	ISO	FIX, ISO	ISO	ISO
Asset Servicing:						
•Issuance	ISO, XBRL	ISO, XBRL	ISO	ISO	ISO	ISO, XBRL
•Corporate Actions	ISO, XBRL	ISO, XBRL	ISO	ISO	FpML	ISO, XBRL
•Proxy Voting	ISO, XBRL	ISO, XBRL	ISO	ISO	ISO	ISO, XBRL
•Securities Lending	ISO	ISO	ISO	ISO	FpML	ISO
Reconciliation:						
•Portfolio Reconciliation	ISO	ISO	ISO	ISO	FpML,ISO	ISO
•Cash Flow Matching	ISO	ISO	ISO	ISO	FpML	ISO
Collateral Management:						
•Initial Margining	ISO	FIX, ISO	ISO	FIX, ISO	FpML,ISO	ISO
•Margin Call	ISO	FIX, ISO	ISO	FIX, ISO	FpML,ISO	ISO
•Substitution	ISO	FIX, ISO	ISO	FIX, ISO	FpML,ISO	ISO
•Recall	ISO	ISO	ISO	ISO	FpML,ISO	ISO
•Transfer	ISO	ISO	ISO	ISO	FpML,ISO	ISO
•Interest Payment	ISO	ISO	ISO	ISO	ISO	ISO



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Investment roadmap – FIX, ISO, FpML, XBRL syntax (DETAIL LEVEL)



	Cash Equities	Fixed Income	Forex	Listed Derivatives	OTC Derivatives	Funds
Settlement:						
•Pre-advisement	ISO	ISO	ISO	ISO	FpML	ISO
•Settlement Notification	ISO	ISO	ISO	ISO	FpML	ISO
•Settlement	ISO	ISO	ISO	ISO	ISO	ISO
•Transaction Management	ISO	ISO	ISO	ISO	ISO	ISO
•Fail and Claim Management	ISO	ISO	ISO	ISO	ISO	ISO
Pricing / Risk / Reporting						
•Tax Management	ISO	ISO	ISO	ISO	ISO	ISO
•Income Collection	ISO	ISO	ISO	ISO	ISO	ISO
•Risk Management	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO
•Pricing & Valuation	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO
•Reporting	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO
•Position Management	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO	FpML,ISO
Regulatory Reporting - Investor						
•Short Sale Reporting	FIX, ISO	FIX, ISO	FIX	FIX, ISO	ISO	ISO
•Trade Surveillance Reporting	FIX, ISO	FIX, ISO	FIX	FIX, ISO	FpML	ISO
•Position Management Reporting	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML,ISO	ISO
•Tax Lot Reporting	FIX, ISO	FIX, ISO	FIX, ISO	FIX, ISO	FpML,ISO	ISO
Regulatory Reporting - Issuer						
•Short Interest Reporting	XBRL	XBRL	XBRL	XBRL	XBRL	XBRL
•Financial Statement Reporting	XBRL	XBRL	XBRL	XBRL	XBRL	XBRL
•Investment Reporting	XBRL	XBRL	XBRL	XBRL	XBRL	XBRL



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OTC Derivatives Detail – Client Side Applications								ILMS
	Function	Syndicated Loans	FX Derivatives	Equity Derivatives	Interest Rate Derivatives	Credit Derivatives	Commodity Derivatives	
Issuer	Pre-investment Decision:	N/A	N/A	N/A	N/A	N/A	N/A	
Front Office	Pre-Trade: OIs, Trade adverts, Quotes, Market data, Short Sale Locate, Reference Data Trade: Order Routing, Trade Execution, Trade Date Positions, Reference Data	Communication between clients and brokers of OTC Derivative Process and Product representations for Pre-Trade and Trade Processes will continue to be discussed. A Gap Analysis to be performed by ISDA and FPL has been proposed to determine requirements for and feasibility of FIX Protocol Support in these areas.						
Middle Office	Post-Trade: Trade Capture & Validations, Allocation, Matching, Confirmation/Affirmation, Position Management, Trade Surveillance, OTC Derivatives Post Trade Processing	FpML	FpML	FpML	FpML	FpML	FpML	
	Clearing / Pre-Settlement: Matching, Netting, Funding, Reference Data	FpML	FpML	FpML	FpML	FpML	FpML	
Back Office	Asset Servicing: Issuance, Corporate Actions, Proxy Voting, Securities Lending	FpML	FpML	FpML	FpML	FpML	FpML	
	Collateral Management: Initial Margining, Margin Call, Substitution, Recall, Transfer, Interest Payment	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
	Reconciliation: Cash Flow Matching, Portfolio Reconciliation	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
	Settlement: Pre-advisement, Settlement Notification, Settlement, Transaction Management, Fail and Claim Management	ISO	ISO	ISO	ISO	ISO	ISO	ISO
Investor Supervision	Pricing / Risk / Reporting: Tax Management, Income Collection, Risk Management, Pricing & Valuation, Accounting, Position Management	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●	■ ●
	Regulatory Reporting: Short Sale Reporting, Trade Surveillance Reporting, Position Management Reporting, Tax Lot Reporting	FpML	FpML	FpML	FpML	FpML	FpML	FpML
Issuer Supervision	Regulatory Reporting: Short Interest Reporting, Financial Statement Reporting, Investment Reporting	N/A	N/A	N/A	N/A	N/A	N/A	

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What is ISO 20022?

An International standard, comprising:

1. A UML modelling methodology for the definition/generation of (XML) Messages

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graph TD
    subgraph UML_Models [UML Models]
        BM[Business Model]
        MFCM[Message Flow (Choreography) Model]
        MM[Message Model]
        BM --> MFCM
        BM --> MM
    end
    MM --> XM[XML Message Model (XSD Schema)]
    
```

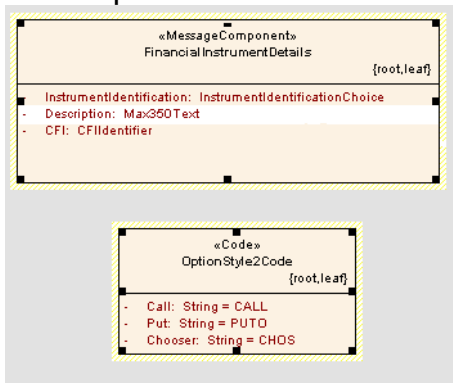
Also known as a meta-modelling framework

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What is ISO 20022?

2. A Repository of financial definitions, comprising:

- Business Components/Elements
- Message Components/Elements
- Relationships between them



What is ISO 20022?

3. Ultimately to define the data formats to facilitate interchange to financial data

- Initially “ISO 20022 abbreviated tag name” XML message syntax
- Extended to be multi-syntax
 - i.e. ASN.1



Further Reading



- ISO 20022:
 - www.iso20022.org
- Investment Roadmap – September 2010
 - www.iso20022.org/documents/general/InvestmentRoadmap.pdf
- Investment Roadmap FAQs
 - www.iso20022.org/documents/general/InvestmentRoadmapFAQ.pdf



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Questions



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