

Investment Roadmap

September 2010



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.

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		N/A		N/A	
Front Office	Pre-Trade					
	Trade					
Middle Office	Post-Trade	▲ ●	▲ ●	▲ ●		
	Clearing / Pre-Settlement			▲ ●		
Back Office	Asset Servicing	● ◆	N/A			● ◆
	Collateral Management	▲ ●	N/A	▲ ●	■ ●	N/A
	Settlement					
	Pricing / Risk / Reporting	■ ●	■ ●	■ ●	■ ●	■ ●
Investor Supervision	Regulatory Reporting	▲ ●	▲ ●	▲ ●		
Issuer Supervision	Regulatory Reporting		N/A		N/A	

▲	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

Goal: ISO 20022 Common Business Model (HIGH LEVEL)

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

ISO 20022 Compliant

using Domain Specific Syntaxes

	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

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

	Function	Cash Equities & Fixed Income	Forex	Listed Derivatives	OTC Derivatives	Funds
Issuer	Pre-investment decision: Filing Fundamental Data with the Regulator, Analytical Models		N/A		N/A	
Front Office	Pre-Trade: IOIs, Trade adverts, Quotes, Market data, Short Sale Locate, Reference Data					
	Trade: Order Routing, Trade Execution, Trade Date Position Reporting, Reference Data					
Middle Office	Post-Trade: Trade Capture & Validations, Allocation, Matching, Confirmation/Affirmation, Position Management, OTC Derivatives Post Trade Processing	▲ ●	▲ ●	▲ ●		
	Clearing / Pre-Settlement: Matching, Netting, Funding, Reference Data			▲ ●		
Back Office	Asset Servicing: Issuance, Corporate Actions, Proxy Voting, Securities Lending	● ◆	N/A			● ◆
	Collateral Management: Initial Margining, Margin Call, Substitution, Recall, Transfer, Interest Payment	▲ ●	N/A	▲ ●	■ ●	N/A
	Settlement: Pre-advisement, Settlement Notification, Settlement, Transaction Management, Fail and Claim Management					
	Pricing / Risk / Reporting: Tax Management, Income Collection, Risk Management, Pricing & Valuation, Reporting, Position Management	■ ●	■ ●	■ ●	■ ●	■ ●
Investor Supervision	Regulatory Reporting: Short Sale Reporting, Trade Surveillance Reporting, Position Management Reporting, Tax Lot Reporting	▲ ●	▲ ●	▲ ●		
Issuer Supervision	Regulatory Reporting: Short Interest Reporting, Financial Statement Reporting, Investment Reporting		N/A		N/A	

FIX
FpML
ISO
XBRL

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





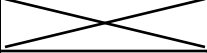
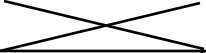
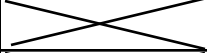
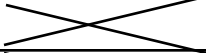
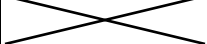
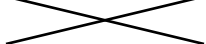
	Cash Equities	Fixed Income	Forex	Listed Derivatives	OTC Derivatives ⁽¹⁾	Funds
Pre-investment Decision						
•Filing Fundamental Data with the Regulator	XBRL	XBRL		XBRL		XBRL
•Analytical Models	XBRL	XBRL		XBRL		XBRL
Pre-Trade:						
•IOIs	FIX	FIX		FIX	FpML	
•Trade advertisements	FIX	FIX		FIX	FpML	
•Quotes	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.

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
Asset Servicing:						
•Issuance	ISO, XBRL	ISO, XBRL	 	ISO	 	ISO, XBRL
•Corporate Actions	ISO, XBRL	ISO, XBRL	 	ISO	FpML	ISO, XBRL
•Proxy Voting	ISO, XBRL	ISO, XBRL	 	ISO	 	ISO, XBRL
•Securities Lending	ISO	ISO	 	ISO	FpML	ISO
Reconciliation:						
•Portfolio Reconciliation	ISO	ISO	 	ISO	FpML,ISO	ISO
•Cash Flow Matching	ISO	ISO	 	ISO	FpML	ISO
Collateral Management:						
• Initial Margining	ISO	FIX, ISO	 	FIX, ISO	FpML,ISO	
• Margin Call	ISO	FIX, ISO	 	FIX, ISO	FpML,ISO	
• Substitution	ISO	FIX, ISO	 	FIX, ISO	FpML,ISO	
• Recall	ISO	ISO	 	ISO	FpML,ISO	
• Transfer	ISO	ISO	 	ISO	FpML,ISO	
• Interest Payment	ISO	ISO	 	ISO	ISO	

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
•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, 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
•Financial Statement Reporting	XBRL	XBRL		XBRL		XBRL
•Investment Reporting	XBRL	XBRL		XBRL		XBRL

OTC Derivatives Detail – Client Side Applications

	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: IOIs, Trade adverts, Quotes, Market data, Short Sale Locate, 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.					
	Trade: Order Routing, Trade Execution, Trade Date Positions, Reference Data						
Middle Office	Post-Trade: Trade Capture & Validations, Allocation, Matching, Confirmation/Affirmation, Position Management, Trade Surveillance, OTC Derivatives Post Trade Processing						
	Clearing / Pre-Settlement: Matching, Netting, Funding, Reference Data						
	Asset Servicing: Issuance, Corporate Actions, Proxy Voting, Securities Lending						
	Collateral Management: Initial Margining, Margin Call, Substitution, Recall, Transfer, Interest Payment	□ ●	□ ●	□ ●	□ ●	□ ●	□ ●
	Reconciliation: Cash Flow Matching, Portfolio Reconciliation	□ ●	□ ●	□ ●	□ ●	□ ●	□ ●
Back Office	Settlement: Pre-advisement, Settlement Notification, Settlement, Transaction Management, Fail and Claim Management						
	Pricing / Risk / Reporting: Tax Management, Income Collection, Risk Management, Pricing & Valuation, Accounting, Position Management	□ ●	□ ●	□ ●	□ ●	□ ●	□ ●
Investor Supervision	Regulatory Reporting: Short Sale Reporting, Trade Surveillance Reporting, Position Management Reporting, Tax Lot Reporting						
Issuer Supervision	Regulatory Reporting: Short Interest Reporting, Financial Statement Reporting, Investment Reporting	N/A	N/A	N/A	N/A	N/A	N/A

FIX
FpML
ISO
XBRL

⁽¹⁾ FpML payload over FIX business processes across all OTC Derivatives products may be used for allocation and confirmation/affirmation