FIX TRADING COMMUNITY
Nordic Trading Conference 2023

– Global Technical Committee Update –

Tuesday 23rd May 2023

Hanno Klein

FIX Technical Director

GTC EMEA Co-Chair
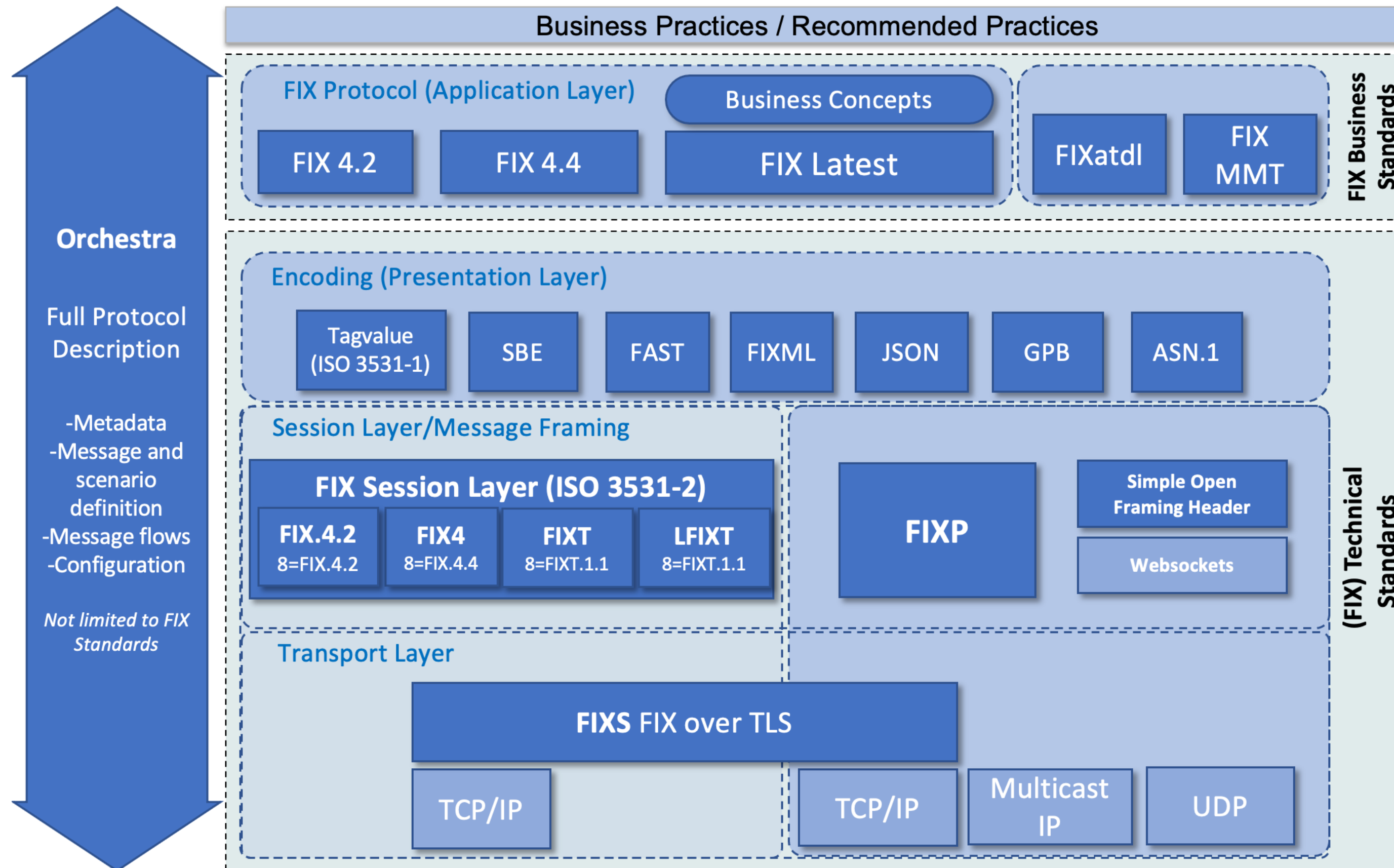
Senior Standards Advisor, FIXdom

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Agenda

- GTC Strategy
  - GTC collaboration
  - New GTC Organisation
- FIX Business Standards
  - Digital Asset Trading
  - Regulatory trade identifiers (UTI/USI)
  - Miscellaneous
- FIX Technical Standards
  - Orchestra v1.1
- FIX Tools
  - Orchestra Server
  - Playlist v1.1

FIX Standards

Orchestra

Full Protocol Description

-Metadata
-Message and scenario definition
-Message flows
-Configuration

Not limited to FIX Standards

Business Practices / Recommended Practices

FIX Protocol (Application Layer) Business Concepts

FIX 4.2 | FIX 4.4 | FIX Latest

FIXatdl | FIX MMT

FIX Business Standards

Encoding (Presentation Layer)

Tagvalue (ISO 3531-1) | SBE | FAST | FIXML | JSON | GPB | ASN.1

Session Layer/Message Framing

FIX Session Layer (ISO 3531-2)

FIX.4.2 8=FIX.4.2 | FIX4 8=FIX.4.4 | FIXT 8=FIXT.1.1 | LFIXT 8=FIXT.1.1

FIXP

Simple Open Framing Header

Websockets

(FIX) Technical Standards

Transport Layer

FIXS FIX over TLS

TCP/IP

TCP/IP | Multicast IP | UDP

TCP/IP, Multicast IP, UDP, Websockets are not FIX Technical Standards

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GTC Update 2023
GTC Strategy
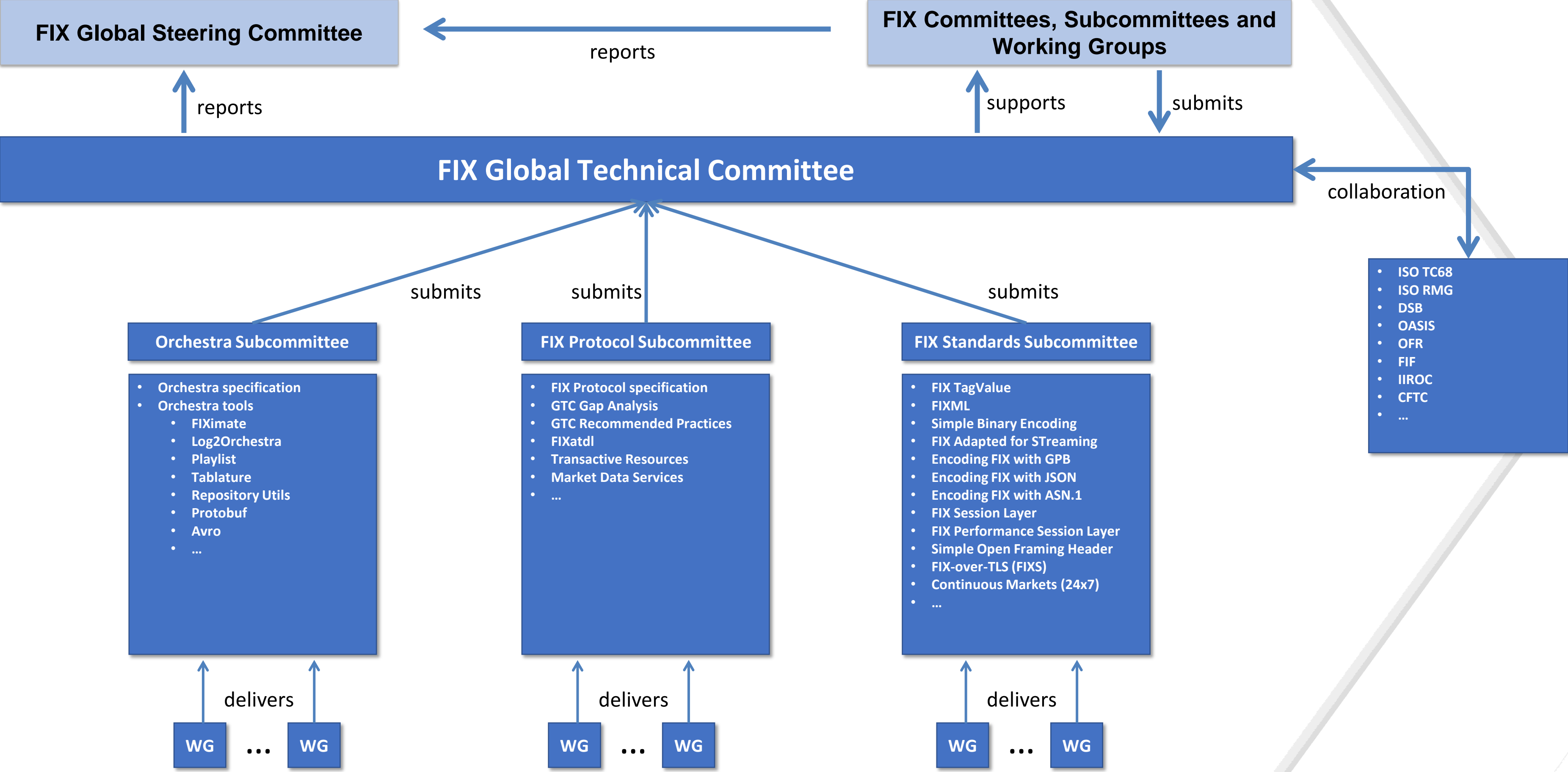
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GTC Collaboration

- FIX has contacts to a number of (standards) organizations
  - ISO TC68 Financial Services (chaired by FIX Director Jim Northey https://www.iso.org/committee/49650.html)
  - ISO RMG (Registration Management Group, https://www.iso20022.org/registration-management-group)
  - ASC X9 (Accredited Standards Committee, https://x9.org)
  - DSB (Derivatives Services Bureau, https://www.anna-dsb.com)
  - OFR (Office of Financial Research, https://www.financialresearch.gov)
  - OMG (Object Management Group, https://www.omg.org/)
  - OASIS (Organization for the Advancement of Structured Information Standards, https://www.oasis-open.org)

- Industry collaboration activities
  - FIX is a Liaison A organization to ISO TC68/SC8 and SC9 and participates in multiple working groups
  - FIX participates in selected ISO RMG (Sub)SEGs (Standards Evaluation Groups) and is the secretary of the ISO RMG Derivatives SubSEG
  - FIX is a Category A member of ASC X9
  - FIX participates in the DSB Products Committee and is a member of the Technical Advisory Committee
  - FIX is collaborating with OASIS in the Transactive Resources WG to align the upcoming Common Transactive Services (CTS) standard with FIX

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New GTC Organisation

FIX Global Steering Committee

FIX Committees, Subcommittees and Working Groups

reports

reports

supports

submits

FIX Global Technical Committee

collaboration

submits

submits

submits

Orchestra Subcommittee
- Orchestra specification
- Orchestra tools
  - FIXimate
  - Log2Orchestra
  - Playlist
  - Tablature
  - Repository Utils
  - Protobuf
  - Avro
  - ...

FIX Protocol Subcommittee
- FIX Protocol specification
- GTC Gap Analysis
- GTC Recommended Practices
- FIXatdl
- Transactive Resources
- Market Data Services
- ...

FIX Standards Subcommittee
- FIX TagValue
- FIXML
- Simple Binary Encoding
- FIX Adapted for STreaming
- Encoding FIX with GPB
- Encoding FIX with JSON
- Encoding FIX with ASN.1
- FIX Session Layer
- FIX Performance Session Layer
- Simple Open Framing Header
- FIX-over-TLS (FIXS)
- Continuous Markets (24x7)
- ...

- ISO TC68
- ISO RMG
- DSB
- OASIS
- OFR
- FIF
- IIROC
- CFTC
- ...

delivers

delivers

delivers

WG ... WG

WG ... WG

WG ... WG

GTC co-chairs manage GTC subcommittees; GTC subcommittee co-chairs monitor WGs; GTC resources drive WGs

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New GTC Organisation

- Permanent subcommittees for key areas
  - 3 subcommittees: Orchestra, FIX Protocol, FIX Standards
  - A subcommittee has one or two co-chairs and one associated GTC co-chair
  - Subcommitees maintain (temporary) working groups to produce specific deliverables for GTC submission, supported by GTC resources

- Working Groups for the extension of FIX Standards
  - Created with the objective of a specific deliverable for a new version of a FIX Technical Standard or for a related recommended practice document.
  - Report into a GTC subcommittee on a regular basis
  - Only need to exist until the deliverable has been published

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GTC Update 2023
FIX Business Standards

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FIX Business Standards

- Digital Asset Trading (EP273) – published

  - Standardisation for trading of digital assets (cryptocurrencies like Bitcoin and any kind of digital tokens).

  - Support for two different trading styles:

    - FX-style – currency pairs (e.g. BTC/USD, BTC/ETH) of fiat and/or digital currencies
    - Securities-style – for trading any digital asset, priced and/or settling in either a fiat or digital currency

  - Security identifiers for digital assets

    - New SecurityIDSource(22)=Y (Digital Token Identifier – ISO 24165)
    - Use of SecAltIDGrp to identify the currencies for FX-style trading (new field SymbolPositionNumber(2957) to reference the first or second currency or digital asset in Symbol(55))

  - Currency source schemes

    - Addition of ISO 24165 to currency datatype (previously only ISO 4217)
    - New fields, e.g. CurrencyCodeSource(2897), to identify class or source of currency

FIX Business Standards

- Regulatory Trade Identifiers (EP275) – published

  - Update to the CFTC Parts 43 and 45 reporting technical specification requirements, where both the Unique Swap Identifier (USI) and Unique Transaction Identifier (UTI) can be used for reporting purposes to the CFTC.

  - Support for UTI (ISO 23897)

    - New value 1=UTI for RegulatoryTradeIDSource(1905) to explicitly indicate that RegulatoryTradeID(1903) contains a UTI

  - Continued support for USI (CFTC standard)

    - RegulatoryTradeID(1903) for the USI transaction identifier

    - RegulatoryTradeIDSource(1905) for the namespace of the entity creating the USI

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FIX Business Standards

- Liquidity Indicator Extension(EP278) – to be published

    - Update and extension of FIX field LastLiquidityIndicator(851)

    - Clarification of value 0 = Neither removed nor added liquidity

        - May be used by venues where market rules do not define "add" or "remove" liquidity".

    - Additional values

        - 10 = Unknown – The liquidity indicator of the execution cannot be determined or was not provided upon execution.

        - 11 = Other – None of the existing liquidity indicators are applicable for the execution (e.g. due to a venue's new order type that does not fit existing values).

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FIX Business Standards

- Settlement Status Management (EP281) – public comment

  - Introduction of new messages and workflows to support settlement status communication from a broker, custodian or an outsourcer (e.g. vendor system) back to the investment manager.

  - SettlementStatusRequest(Ack) messages

    - Request a snapshot or subscribe to a continuous flow of status messages
    - Optional message to acknowledge receipt or to reject the request

  - SettlementStatusReport(Ack) messages

    - Response to a status request or unsolicited report message to convey status
    - Carry through of ISO 15022 MT548 fields 25D (Status code) and 24B (Reason code)
    - Optional message to acknowledge receipt or to reject the report

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FIX Business Standards

- Miscellaneous (already published)

  - Recommended Practices for Digital Asset Trading

    - https://www.fixtrading.org/packages/recommended-practices-for-digital-asset-trading/

    - Contains a PDF document and a machine-readable version (Orchestra XML file)

  - EP274 – Anonymous Trade Indicator

    - New field AnonymousTradeIndicator(2961) to support CFTC regulatory requirement for trade reporting of swaps into a Swaps Data Repository (SDR)

  - EP276 – Securities Reference Data Supplement

    - New field SecurityReferenceDataSupplement(2962) to support the unique identification of derivative instruments where the security identifier and core reference data attributes are not sufficient

  - See https://www.fixtrading.org/extension-packs/ for EP details

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FIX Business Standards

- Miscellaneous (to be published)

  - EP277 – MMT v4.0 Support
    - Support changes required after ESMA review of RTS 1 and RTS 2 (e.g. post-trade flags)
    - New field MultiJurisdictionReportingIndicator(2963),e.g. for reporting to ESMA and FCA

  - EP279 – Eurex Clearing Enhancements
    - Support identification of initial broker executing the order prior to one or more give-ups
    - New value PartyDetailRoleQualifier(1674)=30 (Exchange order submitter)

  - EP280 – HKEx SMP Instruction Proposal
    - Enhancement of self-match prevention to convey action to be taken when self-match would occur
    - New field SelfMatchPreventionInstruction(2964) and new values for ExecRestatementReason(378)

  - EP282 – Errors & Omissions 2022
    - Correction of miscellaneous issues for supported FIX versions
    - FIX Latest as well as Orchestra XML files for FIX 4.2 and FIX 4.4

  - See https://www.fixtrading.org/extension-packs/ for EP details

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FIX Technical Standards

- Orchestra v1.1 under development

  - Orchestra is a meta-data standard and v1.0 was published in Feb 2021

  - FIX Latest published as XML file compliant with Orchestra v1.0 since EP255

  - Comprehensive set of features provided with Orchestra v1.0

    - Messages, groups, components, fields, code sets, code values, datatypes
    - Scenarios for messages all the way down to code sets
    - Conditional rules for field presence
    - Actors, workflows and state machines

  - Enhancements for Orchestra v1.1

    - Scenarios for datatypes, e.g. "int" with scenarios for short and long integers
    - Centralize declarations of scenarios as 1st level elements with unique IDs
    - Base field to identify a related field (e.g. non-encoded field related to encoded field)
    - Annotations for top-level elements, e.g. categories and sections
    - See GitHub (https://github.com/FIXTradingCommunity/fix-orchestra) for details

Contact the FIX Program Office (fix@fixtrading.org) if you would like to join!

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GTC Update 2023
FIX Tools

FIX Tools – Orchestra Server

FIX Tools – Orchestra Server

FIX Tools – Orchestra Server

- Orchestra Server creates rules of engagement documentation (PDF) together with its Orchestra representation (XML)

  - Visualisation and maintenance of Orchestra XML files

  - Comprehensive interactive capabilities to easily define and annotate messages, repeating groups, components, fields, and values.

  - Use FIX Latest or your own Orchestra files as starting point

  - Add your user-defined elements

  - Included in the FIX membership

  - Based on the ETP S-Box service from Esprow

See https://www.fixtrading.org/packages/orchestra-factsheet/ for details.

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FIX Tools – Playlist v1.1

FIX Playlist

Creates a subset of an Orchestra file

Input

Source Orchestra file

100%

Drag file to read or

Choose File

FIX Standard

OrchestraFIXLatest.xml

Use Selector File

Clear Input File

Output

Orchestra file to create (*.xml)

myorchestra.xml

Create Orchestra file

User Guide   Terms of Service

FIX orchestra

Select Your Content

(All elements sorted alphabetically. Greyed out items are deprecated)

- [+] ☐ MESSAGES
- [+] ☐ GROUPS
- [+] ◼ COMPONENTS
- [−] FIELDS
  - [+] ◼ Tags 1-999
  - [+] ☐ Tags 1000-1999
  - [+] ☐ Tags 2000-2999
  - [+] ☐ Tags 40000-49999
- [+] ◼ CODESETS
- [+] ◼ DATATYPES

- [−] ◼ NewOrderSingle(35=D)
  - ☑ Account(1) - Type String
  - ☐ AccountType(581) - Type AccountTypeCodeSet
  - ☐ AcctIDSource(660) - Type AcctIDSourceCodeSet
  - ☐ AffiliatedFirmsTradeIndicator(2525) - Type Boolean
  - ☐ AllocID(70) - Type String
  - ☐ AuctionAllocationPct(1804) - Type Percentage
  - ☐ AuctionInstruction(1805) - Type AuctionInstructionCodeSet
  - ☐ AuctionType(1803) - Type AuctionTypeCodeSet
  - ☐ BookingType(775) - Type BookingTypeCodeSet
  - ☐ BookingUnit(590) - Type BookingUnitCodeSet
  - ☐ CancellationRights(480) - Type CancellationRightsCodeSet
  - ☐ CashMargin(544) - Type CashMarginCodeSet
  - ☑ ClOrdID(11) - Type String
  - ☐ ClOrdLinkID(583) - Type String
  - ☐ ClearingAccountType(1816) - Type ClearingAccountTypeCodeSet
  - ☐ ClearingFeeIndicator(635) - Type ClearingFeeIndicatorCodeSet
  - ☑ CommissionData - Component
  - ☐ CommissionDataGrp - Group
  - ☐ ComplianceID(376) - Type String
  - ☐ ComplianceText(2404) - Type String
  - ☐ ContraOrderOrigination(2882) - Type OrderOriginationCodeSet
  - ☐ ContraRoutingArrangmentIndicator(2884) - Type RoutingArrangmentIndicatorCodeSet
  - ☐ CopyMsgIndicator(797) - Type Boolean
  - ☐ CoveredOrUncovered(203) - Type CoveredOrUncoveredCodeSet
  - ☑ Currency(15) - Type Currency

Select FIX Standard File

- 📎 FIX44Session.xml
- 📎 FIXTSession.xml
- 📎 OrchestraFIX42.xml
- 📎 OrchestraFIX44.xml
- 📎 OrchestraFIXLatest.xml

CANCEL

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FIX Tools – Playlist

- Second release of Playlist (FIX members only)

  - Generates a base Orchestra XML file from an input Orchestra reference file loaded into your local browser

  - Web-based visualisation of input file with check boxes for selections of messages, groups, components, their fields and values of these fields

  - New version 1.1 published November 2022

    - Direct access to standard FIX Orchestra XML files from GitHub (e.g. FIX Latest)

    - Optional selector file to preselect check boxes of reference file

    - Use case: minor extensions of an existing Orchestra XML file

    - Possibility to load multiple selector files (create superset of subsets)

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