

FPL Global Technical Committee Update



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The GTC, as many of you will know (as many of you have been involved), has been busy preparing the new release of FIX. This has been called FIX.5.0. "What happened to FIX.4.5?" asks a brave man in the back of the room.

FIX.5.0 could easily have been called FIX.4.5 but for one aspect, transport independence. We wanted to send a clear signal that something new is afoot with FIX. Transport independence decouples the FIX business conversations - "Buy me this stock." , "OK I'm going to buy it for you... OK I've bought it for you at this price." - from the method of delivering those messages. It's more than expanded functional support in a myriad of areas (which of course provides substantial value in its own right).

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FIX 5.0 is about complete flexibility in combining the best aspects of the protocol. We've dubbed this the 'Transport Independence Framework' and it allows the FIX Application Layer to be sent over any means of transport. It is no

longer tied to the FIX Session Layer. From a very practical standpoint, it gives the user community something they've been requesting for quite some time; a prescribed method for mixing message versions together in a single session. FPL believes that this aspect is so significant that it moves FIX to the next level.

The inclusion of the Transport Independence Framework in FIX 5.0 has a number of advantages:

1) It allows you to choose the most appropriate technology for delivering your conversation, therefore providing the user community with greater flexibility. Much like people use English to have conversations over many different mediums (phones, radios, email, pagers, radio etc), the financial markets can now use FIX to have conversations over many different delivery mechanisms (FAST SCP, Traditional FIX session, Web Services, Multicast, Internal Message Buses). Some of the alternate delivery mechanisms envisaged include FAST SCP for those users with Ultra low latency requirements, the FIX delivery mechanism for those wishing to maximize the use of their existing systems, Web Services for those seeking greater scalability and ease of deployment.

2) The revised versions of the FIX delivery mechanism is now independent of the application version of FIX and allows people to mix and match FIX versions within a single FIX conversation. For instance you may now use FIX.4.1 orders and executions but then allocate the trade using the FIX.4.4 allocation process. The ability to send newer messages down a single FIX session, allows people to maximize the benefit of upgrading to functionality included in newer versions of FIX without spending to upgrade their existing process that works fine.

“Was Transport Independence the only change that you added in FIX.5.0?” our hero asks.

No, Transport Independence is simply one of the most important aspects of this release. The integration of the FIX

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Repository, which we started in FIX.4.4, was further developed with this release. In this release, all documentation describing the construction of messages, the XML Schemes, the Word message tables and our online documentation, FIXimate, is generated from the Repository. FIX engine vendors are able to download the repository and use this as their data dictionary that tell their FIX engines about the messages included in a version and the fields in those messages.

Integration of the Repository into our Specification Maintenance Program has also allowed us to overhaul the process by which the GTC includes new functionality into the specification. The new process is as follows; business users, from either the business practices committees or the technical committees prepare a plain English description of the required functionality. A gap analysis is then performed against the current FIX specification and the plain English description. The gaps identified are then closed by generating a set of files that update the repository with the information needed to support the new functionality. This set of documents, the English description, the Gap Analysis and the files that update the Repository then form the extension pack that can be applied to a base version of FIX to extend it to cover the next functionality.

Once approved by the GTC, users can code against this EP safe in the knowledge that the next release of the specification will contain exactly the information they are using, e.g. Tag numbers, Field Names and enumerations. The extension packs are applied cumulatively on top of

the base version and collectively are bundled together as a Service Pack when the GTC chooses to issue one. In compiling a service pack the GTC also incorporates parts of the EP documentation into the FIX Word Documents and issues an updated set of those.

Whilst talking about things generated from the Repository, FIXimate continues to be a core part of the specification suite as a reference tool. It has been updated to contain the new fields, component blocks and messages. The format of FIXimate has changed to make it easier to use. Message categories can now be collapsed and expanded to suit the users' needs and allows more information to be displayed in the window. The DTD syntax, no longer relevant, has been removed to make space for more helpful information and the a “where used” cross-reference for component blocks has been added. For FIXML users, the XML attribute name has been added to the lower frame and is useful in providing quick lookups for FIXML syntax.

The new GTC approval process changes the role of the GTC from the originators of the FIX specification into a control point that ensure consistency and direction. This is an important change as FIX has grown, in terms of both product / lifecycle coverage and adoption to the point where the GTC could not have the right skills in all the areas to ensure a detailed reflection of the different communities who use FIX's needs. This process

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makes the whole protocol much more democratic and user driven, it could be argued that there were around 1000 people involved in this release of FIX.

FIX 5.0 also provides a tidy framework for releasing functional extensions known as service packs. A user will be able to seamlessly integrate an extension and reference the corresponding service pack without performing an all-out migration, which was the case with prior FIX releases. Now, new functionality can be viewed as incremental extensions that can be leveraged simply by changing the Application Version reference in a particular message. It provides a mechanism for an improved and expedient release process that can be better controlled by the GTC.

“So it's just a load of tech stuff with nothing for the business users?” our intrepid hero cries.

Actually no, there are also, of course, business functionality and the major drivers in this release have really been 4 factors. Derivatives, Foreign Exchange, Regulatory changes and a focus from Exchanges. In each of these areas we've seen specific new functionality.

■ FX

The FX Phase 1 Extension covers Spot, Forwards, FX Swaps and vanilla FX OTC Spot Options. The functionality for each of the instruments covers, Streaming prices for spots and outright forwards, Quotes for spots, outright forwards and FX swaps, Orders, Executions and Trade Capture (FX OTC Spot Options only).

■ Derivatives

Better support for the derivatives industry includes, extended Trade and Allocation Reporting in a 3-party model where a central counter party acts as an intermediary and enhanced equity options clearing support. Support has also been added for the risk-based margining model, commonly used in this sector.

■ Regulatory

The enhancements to the regulatory capabilities of FIX include enhancements to support MiFID, RegNMS, OATS Phase 3, and external order routing.

■ Exchanges

The Market Data Optimization Extension introduces changes to support book management best practices. OMX and others have worked hard to add functionality for Exchange based Order Routing and Trade Capture. The changes are captured in the OMX Order Routing and OMX Trade Capture extensions. FPL has also worked

with the Chinese exchange community to include additional functionality to allow FIX to be used as the native gateway for the local exchanges and this is covered in the Chinese STEP extension pack

Finally, and not fitting into any of the previous categories, are: errata items from the previous version of FIX; better support for Algorithmic Trading which provides a more complete and flexible way of specifying and identifying strategies for order execution; and explicitly acknowledge, (from the Initiator/buy-side), an execution report message.

There are other EP's included in this release and for full details you should see the FIX.5.0 release notes; if you want more details on a specific piece of functionality see the specific EP documentation.

So to conclude, FIX.5.0 introduces transport independence, a more democratic and inclusive approach to extending FIX and significant new business functionality. I can only recommend adopting it.

Finally it only remains to thank all the volunteers who contributed to this release and all those FIX users who will support it by using it. Thank you.

Obviously the thing we'd value most is input from anyone with an interest in any of the areas covered. If you can help, please contact us via e-mail; Kevin Houston, kevinh@altkb.com, or Matt Simpson, Msimpson@cme.com **FIX**

Any thoughts on this or other articles?
Please send any comments, referring to this article as Vol 1 Issue 12 GL3, direct to Edward at edward@fixglobal.com

