



## FIXML ready for launch

By Jim Northey, Jordan & Jordan

Several US clearinghouses plan to release FIXML interfaces this year. Since June 2002, the Futures Industry Association (FIA) has been working with all US futures exchanges to encourage them to co-ordinate on the next generation of messaging using FIXML. FIXML is the representation of FIX Messages and fields (tags) using eXtensible Markup Language (XML). XML is a ubiquitous information technology standard used to define information in a self-describing manner.

### The standards process

The use of FIXML for listed derivatives clearing was initiated by the **Chicago Mercantile Exchange (CME)**. The CME was looking to develop a new interface for clearing. Using XML internally, CME was impressed with its flexibility. XML messages are stored in plain text, making them easy to process. XML is now an information technology standard supported by all major computer software and system providers – making it very much a commodity. From a clearing perspective, the highly nested complex messages required for trade reporting, position reporting, and give-up processing are simplified using XML. XML is extensible – meaning message formats can be readily expanded as needed unlike traditional fixed record formats.

XML is a generic way to describe information content as elements and attributes. By itself it does not provide definitions for what is provided within an XML message. This is similar to using a database that has no tables or columns defined. FIXML is a version of the FIX message specification implemented using XML. FIXML provides via XML the same

application level functionality as provided by the FIX tag=value format.

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In June 2002, the CME met with representatives from the FIX Global Derivatives Committee to discuss the use of FIX for derivatives clearing. Missing from FIX at that time were position management messages. FIXML was selected because of success using XML technology within CME and the fact that there was no installed base of FIX tag=value messaging in the back office space. The CME agreed to assist in developing those messages for FIX.

At the same time, the FIA began meeting with firms and exchanges to respond to requests for more standardization of protocols for the futures industry. The FIA formed a Standards

Working Group, which consists of representatives from all domestic exchanges and clearinghouses and member firms. They began meeting regularly to review the progress on the CME initiative and to involve other exchanges and clearing organizations in the process. One message was clear: firms were concerned about change. The firms insisted on three things, commitment from all US futures exchanges, continued use of MQ Series as the message transport, and the need for added business value in terms of improved processing efficiencies to be the basis for introduction of the new standard. MQ Series is a guaranteed delivery software product sold by IBM. MQ Series is used extensively in the derivatives back office space. An important distinction must be made here: the FIXML messages are defined independently from the underlying mechanism used to transmit them. While the derivatives clearing industry is standardizing the use of MQ Series as a transport, FPL is maintaining its protocol independent and vendor-neutral stance. MQ Series is just one of a number of technologies, including the FIX session layer, that can be used to transmit FIXML.

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### Implementing FIXML

The FIA Standards Working Group began to look at ways to ease implementation. In concert with the FIX Protocol Global Technical and Global Derivatives Committees, a definition of an optimized version of FIXML was created. The optimized version of FIXML was defined using an XML standard definition language (itself written in XML) called XML Schema. An XML Schema can be thought of as a dictionary that can be used to define a particular usage of XML. The FPL Global Technical Committee approved and published the FIXML Schema as developed by the three organizations in January 2004.

To the clearinghouses involved, this introduction of FIXML is not just a modernization in message formats; each of these offerings will provide firms with automation opportunities to improve their back office work flows. A consistent message heard in FIA Standards Working Group meetings was that innovation had to be driven from a business value perspective, as opposed to a technological one.

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In a workshop held in New York hosted by the **New York Mercantile Exchange (NYMEX)** on 22 April this year, the five major clearing houses in the US announced their commitment to FIXML for derivatives clearing.

The CME currently provides support for FIXML in the following services: Position Change Submission, Position Maintenance Requests, Request for Positions (with or without trade detail) and future spreads trade reporting. Planned in the near future is the ability to input block and exchange for physical (EFP) trades via FIXML.

The **Options Clearing Corporation (OCC)** will deploy this year a version of their data distribution service that includes position reporting, settlement price and real time distribution of new contracts and contract adjustments due to corporate actions.

The **New York Board of Trade (NYBOT)** plans to introduce FIXML as a follow-on project to their release of their new clearing system.

The NYMEX has committed to using FIXML for post-trade processing. The exact time frames are being worked out within NYMEX and with their firms – but will likely occur within the next eight to 12 months.

**The Clearing Corporation** was heavily involved in the definition of the business processes underlying the FIXML

messaging standard and publicly announced plans to support FIXML sometime in the beginning of 2005.

## Next steps

One of the plans being discussed by the FIA and FPL is the creation of an open source implementation of FIXML for clearing for use over MQ Series. The purpose of the open source is not to replace vendor products, but to provide an initial implementation that can be used by vendors and users alike to ease adoption of FIXML over MQ Series. This technology sharing is seen as the next step following the successful cooperation that was achieved among industry participants.

The FPL Global Derivatives Committee in conjunction with the FIA will be hosting a second seminar in London on July First to introduce European and Asian clearing houses and exchanges to FIXML.

## Unprecedented industry co-operation

One of the exciting results that came from this process was the co-operation between the Futures Industry Association and FIX Protocol Ltd. The two organizations issued a statement of understanding in July 2003 that defined how the FIA and the FPL Global Derivatives Committee would work together to propose and develop standards.

More interesting than the organizations' alliance to support the development of a standard for back-office messaging was the co-operation and level of support provided by various industry participants, including vendors, firms and clearing houses. Each futures and options clearing house provided resources to help define the business processing work flows that were standardized as a part of the FIX 4.4 Protocol. Special recognition was given to the contributions of John Munro, chair of the FIA Standard Working Group and Angela Krug of Deutsche Bank, vice-chair. Mary Ann Burns, of the FIA, provided significant support in recruiting the right participants for the meetings. Matt Simpson and Ed Gogol, of the CME, and Mark Baumgardner, of the **OCC**, are recognized for their evangelism and openness with all industry participants as the specification was developed.

The best example of this co-operation was the CME's willingness to share and adjust their FIXML usage to help promote consistent usage with **The Options Clearing**

**Corporation**. We could not have achieved this standard without the support of the FIA and the CME.

This approach to co-operation further fueled cross-asset class co-operation. The FIX allocation and trade reporting business models and messages were enhanced to provide a common framework across equities, fixed income and derivatives. **FIX**

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## The players

The FIX Protocol Ltd is a non-profit, UK-based company maintains the FIX Protocol and will be the standards organization which houses and maintains the official FIX standard. As part of the statement of understanding between FIA and FPL, a representative from the FIA Standards Working Group will co-chair the FIX Global Derivatives Committee.

The FIA Standards Working Group will play an active role in providing education and encouraging the adoption of the FIXML standard. The FIA Standards Working Group will play a key role in guiding the adoption and usage of FIX within the listed derivatives markets.

FIX Standards Review Committee. FPL releases a new version of the FIX specification about every 18 months. New requirements that are identified by users of the FIX Protocol within derivatives will present these new requirements to the FIX Standards Review Committee, which will in turn work to gain consensus across users and then develop a proposal for inclusion of the new requirements into the next version of FIX. The FIX Standards Review Committee will maintain a set of industry-wide approved extensions to the current version of FIX in what are known as the FIA Extensions to FIXML. The FIA Extensions will serve as the basis for FIXML usage that are currently underway.