FIX in Arbor Portfolio Manager

FIX processing extends the functionality offered by Arbor to provide the most up to date transaction and position processing capability. This document details how FIX messages are processed in Arbor Portfolio Manager.

What is FIX?

FIX stands for Financial Information eXchange and is an industry standard protocol for the transmission of transaction information between parties, typically brokers.

See http://www.fixtradingcommunity.org/ for more information.

The transaction information processed in FIX is for both inbound and outbound information. Typical examples of each type include:

Outbound: Used for sending order requests, for the outward transmission of orders to brokers for execution. Provision of these messages occurs through Arbor's Order Manager (OM) component.

Inbound: Used for receiving execution information from brokers. This is typically information at the fill level known as 'Execution Reports' or 'Drop Copies'. For further information, see 'Reporting Fills' below.

Why do I need FIX?

FIX capabilities enable the automated and secure processing of transactions.

If a user wishes to automate the transmission of orders out to the market in a controlled workflow, then a FIX network is essential. Orders can be input via Order Manager and if approved are then down streamed to the network.

The user can automate the import of executions whether the orders have been sent to the broker from Order Manager, voice, DMA, API or any other Order Management System. This is particularly useful for users who want to execute large numbers of orders or who would like to reduce their risk of error.

Reporting Fills

The inbound data arrives at the fill level. This means the individual execution performed by the broker is reported back incrementally. The fills continue until the order is filled or the unfilled remaining amount of the order is cancelled or times out.

To illustrate a basic example:

- An order goes in for 10000 BMW to the broker.
- The broker places this in the market and gets an execution against it of 1500.
- This fill/execution is reported by the broker.
- In APM the position is now 15% partially filled.
- A few minutes later another fill for 3500 comes in.
- This fill/execution is reported by the broker.
- In APM the position is now 50% partially filled.

This process would continue until 100% of the order is filled or the order times out. Each fill is likely to have a different price, which is reported at the fill level, but at the order level the price is reported as a weighted average.

A completed order will then become a trade in APM and this will flow into the existing transaction/position lifecycle.

Real Time Reporting

It is possible to configure APM to report partially filled orders on our Position Reporting page as positions. This can be linked with real time market prices and will show your portfolio in real time as the order is in the process of completion.

Partial fills will be reflected as new positions or realised positions. Using the BMW example illustrated above:

If we were flat before entering the order, then at the 50% point described, the position reported would be of 5000 BMW with a cost based on the fill price and a value (and P&L) based on the current market price.

If the original position of the fund was short 20000 BMW at the start of the process, then the new position would now report a short position of 15000.

Cash will also be adjusted as fills are reported, so in this given example the cash balance would reduce as each (buy) fill is entered. The cash movement is also based on the product type being traded.

Order / Execution Management Systems that Arbor currently can integrate with are:

- Bloomberg EMSX
- Fidessa Workstation
- Passport
- REDI
- Tradingscreen
- TT
- Ullink

Connections for FIX traffic within APM can be made via direct broker connections through traditional leased lines or VPN. For a more scalable alternative, connections to a FIX hub or service bureau are also available.