FIX Protocol 101
An Introduction To the FIX Protocol

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Australia Was Early to Electronic Trading But Late to FIX

- Very early use of electronic trading

- Widespread usage of SEATS & IRESS

- Diversification driving increased demand for investing offshore

- Growing focus from non-Australian domiciled business on investment into Australia

- Increasing usage of FIX driven by international order flow

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The Benefits FIX Presents for Australia

- **A global protocol** - FIX is the pre-eminent global electronic trading protocol

- **Simple connectivity** - FIX provides easy connectivity to multiple counter-parties

- **Multi-asset class** - FIX is an open standard for multiple security classes

- **Vendor Neutral** – FIX reduces reliance on broker and vendor proprietary solutions

- **Industry-driven, not-for-profit** - The FIX Protocol is owned and maintained by FIX Protocol Limited

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FIX Is A Common Standard For Electronic Trading

- FIX is the enabling technology for electronic trading. A common global standard for transmitting trade information and data

- A specification of what and how to communicate

- The protocol is truly open, specs are freely available to the public

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FIX Is Not…

- A piece of software, network or a service – it is just a specification of a protocol

- A competitor to IRESS – IRESS uses FIX

- New to Australia – good knowledge of the protocol here

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Some Examples of FIX Messages

Home | NetAdmin | NetMonitor

CameronFIX NetMonitor >> Logs

Server Groups: default Servers: localhost.Equities

Equities.log

<<Line>>   Go to   [1]   Order   [Search]

<<Page>>   Page Size   [50]

First Last

318 2007-08-02 13:27:28,625 INFO out.AG Edwards_Schwab - >2 OrderSingle (BeginString(8)=FIX.4.2 | BodyLength(9)=106 | MsgType(35)=OrderSingle(D) | SenderCompID(49)=Schwab | TargetCompID(56)=AG Edwards | MsgSeqNum(34)=2 | SendingTime(52)=20070802-17:27:28 | Side(54)=Buy(1) | OrdType(40)=Limit(2) | HandlInst(21) =AutomatedExecutionOrderPrivateNoBrokerIntervention(1) | Symbol(55)=ATU | OrderQty(38)=10000 | Price(44)=97.75 | ClOrdID(11)=Order-0 | CheckSum(10)=115 |)

319 2007-08-02 13:27:28,625 INFO out.Barclays_Schwab - >2 OrderSingle (BeginString(8)=FIX.4.2 | BodyLength(9)=104 | MsgType(35)=OrderSingle(D) | SenderCompID(49)=Schwab | TargetCompID(56)=Barclays | MsgSeqNum(34)=2 | SendingTime(52)=20070802-17:27:28 | Side(54)=Buy(1) | OrdType(40)=Limit(2) | HandlInst(21) =AutomatedExecutionOrderPrivateNoBrokerIntervention(1) | Symbol(55)=NRI | OrderQty(38)=10000 | Price(44)=70.64 | ClOrdID(11)=Order-0 | CheckSum(10)=036 |)

320 2007-08-02 13:27:28,625 INFO out.BNP_Schwab - >2 OrderSingle (BeginString(8)=FIX.4.2 | BodyLength(9)=99 | MsgType(35)=OrderSingle(D) | SenderCompID(49)=Schwab | TargetCompID(56)=BNP | MsgSeqNum(34)=2 | SendingTime(52) =20070802-17:27:28 | Side(54)=Buy(1) | OrdType(40)=Limit(2) | HandlInst(21) =AutomatedExecutionOrderPrivateNoBrokerIntervention(1) | Symbol(55)=HZO | OrderQty(38)=10000 | Price(44)=21.64 | ClOrdID(11)=Order-0 | CheckSum(10)=180 |)

321 2007-08-02 13:27:28,640 INFO out.Cantor_Schwab - >2 OrderSingle (BeginString(8)=FIX.4.2 | BodyLength(9)=97 | MsgType(35)=OrderSingle(D) | SenderCompID(49)=Schwab | TargetCompID(56)=Cantor | MsgSeqNum(34)=2 | SendingTime(52) =20070802-17:27:28 | Side(54)=Buy(1) | OrdType(40)=Limit(2) | HandlInst(21) =AutomatedExecutionOrderPrivateNoBrokerIntervention(1) | Symbol(55)=JRC | OrderQty(38)=0 | Price(44)=6.09 | ClOrdID (11)=Order-0 | CheckSum(10)=056 |)

322 2007-08-02 13:27:28,640 INFO out.Cazenove_Schwab - >2 OrderSingle (BeginString(8)=FIX.4.2 | BodyLength(9)=104 | MsgType(35)=OrderSingle(D) | SenderCompID(49)=Schwab | TargetCompID(56)=Cazenove | MsgSeqNum(34)=2 | SendingTime(52)=20070802-17:27:28 | Side(54)=Buy(1) | OrdType(40)=Limit(2) | HandlInst(21)

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Example: FIX Order Flow – Asset Manager to Broker
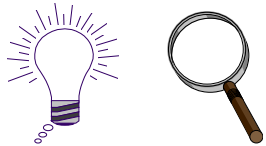
Asset Manager   Broker

IOIs & Advertisements

Order

Order Confirm
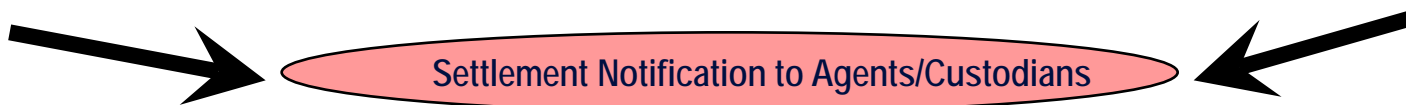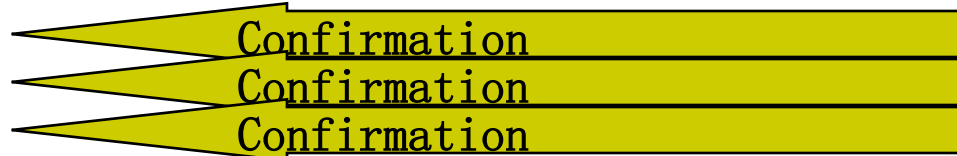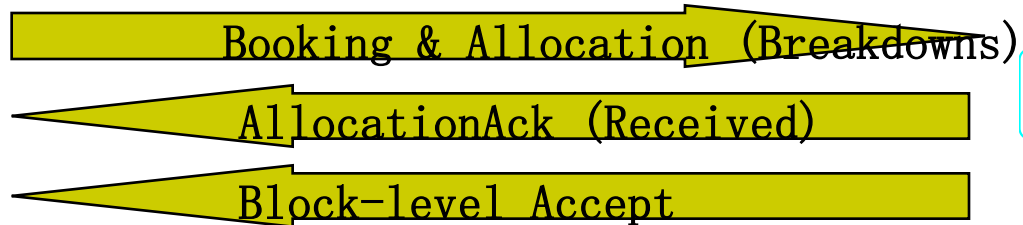
Don't Know Trade

Execution Rpt (Partials)
Execution Rpt (Partials)
Execution Rpt (Partials)

Done for the Day

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10,000+ Firms Use FIX Globally

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Australia Has Significant Usage Of FIX Today

Exchanges/ECN's - Australian Stock Exchange, Sydney Futures Exchange, Liquidnet, Chi-X, AXE

Investment Banks/Brokers – Citigroup, Macquarie, UBS, Goldman/JBWere, Commonwealth Securities, Merrill Lynch, Credit Suisse, ABN, Deutsche, JP Morgan, Morgan Stanley + most tier 2 brokers

Many Asset Managers / Hedge Funds

Nearly all software vendors/technology providers – IRESS, Charles River, Latent Zero, Macgregor, Bloomberg, Tora, Orc, Ullink, ITG, Nyfix, Instinet etc

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FIX Protocol Limited

'To improve the global trading process by defining, managing, and promoting an open protocol for real-time, electronic communication between industry participants, while complementing industry standards'.

Fix Protocol Ltd Mission Statement

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Summary

- FIX Protocol…

    - is the global electronic trading standard used by 10,000+ organizations

    - connects Australia to the world

    - is a computer protocol only

    - has significant usage in Australia today

    - changed our industry