

Fidessa 

Intelligent Liquidity Access



Easy when you know how

Overview

The combined impact of MiFID and the emergence of new Multi-lateral Trading Facilities (MTFs) and Dark Pools has radically changed the face of electronic trading and created an increasingly fragmented equity marketplace in Europe.

Fidessa's Intelligent Liquidity Access (ILA) strategy provides solutions that meet the challenges of trading in this new liquidity landscape. From front to back office, ILA provides firms with the ability to truly optimise execution across a range of liquidity venues.

Key features include:

- Integrated Smart Workflow
- Market leading Smart Order Router
- Virtual Markets Display
- Consolidated market data embedded across relevant displays
- Market access to both traditional and new liquidity venues, including Chi-X, Turquoise, Equiduct, BATS and NASDAQ OMX Europe

Key benefits include:

- Low-latency Smart Order Router automatically seeks out liquidity and trades optimally to ensure best execution
- Consolidated market data across fragmented liquidity ensures intuitive awareness of market activity
- Full audit capability enables proof of compliance with execution policies
- Seamless integration with the Fidessa EPOCH Compliance Suite

Smart Workflow

The Fidessa ILA service encompasses full workflow support. Smart Workflow incorporates full multi-market integration from front to back office, allowing firms to offer clients true multi-market straight through processing.

- Seamlessly integrated with Fidessa's leading OMS
- Consolidated position management
- Venue of execution field for middle & back office processing
- Full support for ISIN / currency / OPOL linking with manual override for fungible instruments
- Cross market execution allocation
- Choice of trade reporting venue

New Orders										Working Orders				
House #	Broker #	Cross..	Market	Compl etc	details	VWAP	trading	Client #						
Vol	ord	Inst.	Limit price	Ccy	Cpty									
B	+	30,000	BA..L	Market	GBX	PRUDEILITY								
S	+	1,000	VOD.L	Market	GBX	PRUDEILITY								
S	+	60,000	ABF.L	Market	GBX	PRUDEILITY								
B	+	54,258	AC.VX	Market	EUR	PRUDEILITY								

Book Position Details					Trading Positions in Book									
Today's Trades					Position History					All Positions in ABF.L				
Book	Inst.	Net position	Average price	Position cost										
E6OMR	RBS.L			0										
E6OMR	TSCO.L			0										
E6OMR	BLND.L			0										
E6OMR	ABF.L	60,000	453.598417	272,159										
E6OMR	AZN.L			0										
E6OMR	CBRY.L			0										

Notifications										All Market Orders				
Amend	Pull	Hold	Release	Tick Up	Tick Down	Resweep								
TimeInst.	Market id	Vol	ord											
15:11:51	EMIS.L	LSE-SETS	50,000											
15:11:51	ABF.L	LSE-SETS	60,000											
15:11:47	ABF.L.CX	CIX-MAIN	18,449											
15:11:46	ABF.L	LSE-SETS	22,921											
15:11:46	ABF.L.TO	TRQ-MAIN	18,630											
15:11:51	DMGT.L	LSE-STMM	50,000											
15:11:50	CMA.L	LSE-SETS	60,000											

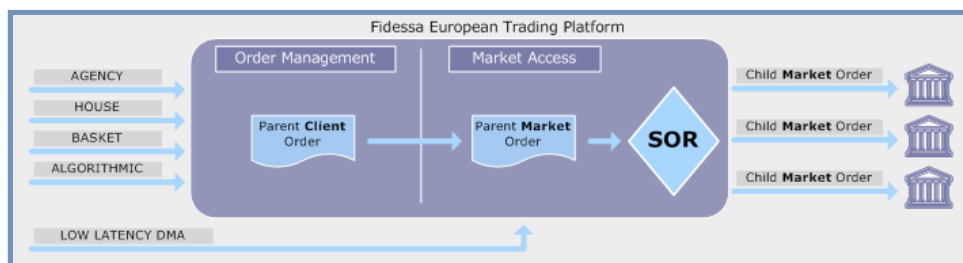
Trade History						
Status	Exec	Venue	Book	Inst.	Traded against	Agreed price
Amend	XLON	S	E1OMR	ABF.L	LCH	610
Amend	XLON	S	E1OMR	ABF.L	TRQCCP	704.5
Entered	XLON	S	E6OMR	ABF.L	CIXCCP	704.5

Smart Order Router

Fidessa has leveraged its Multi-Market Access technology to rapidly consume fragmented market data in order to make intelligent decisions to trade optimally on multiple venues.

Key features include:

- Intelligent SOR decides on the optimal venue on which to aggress and passively distribute liquidity across multiple venues
- Embedded market data consumption ensures decisions are accompanied by exceptionally low latency
- Venue prioritisation options can account for variable cost structures
- Automatically manages market nuances for each order independently of the parent such as varied tick, lot sizes and trading capacities of individual markets
- Synthetic order types which price monitor and slice orders dynamically based on new market activity
- Smart Order Workflow and order routing supports third party SORs
- Clear and concise audit trail presenting where and why executions occurred
- Integration with Fidessa's suite of Advanced Trading Tools

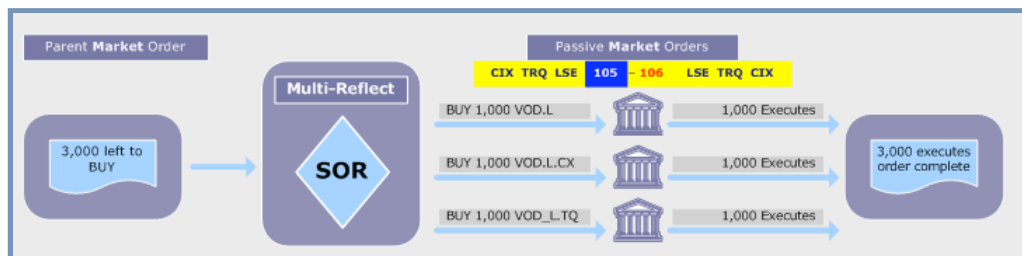


The SOR Algorithm

There are two stages to the Fidessa SOR algorithm. First, the Multi-Sweep which aggressively sweeps all available venues to take executable visible liquidity. It sweeps venues again to take advantage of any fresh quantity that may have appeared, such as an iceberg order. It then calculates the executable volume and evenly distributes any surplus unexecuted volume over the child orders it is sending.



The second, Multi-Reflect stage of the algorithm follows the Multi-Sweep and distributes resting liquidity visibly across available liquidity venues. It also allows you to define your reflection strategy by selecting which liquidity venues to reflect on.



Viewing & Trading a Consolidated Market

Fidessa's Virtual Market Display presents book price depth from the liquidity venues accessible by the SOR, allowing you to:

- View consolidated depth for accessible liquidity venues for a defined set of fungible instruments
- Create and send orders directly to the SOR from the consolidated depth
- View consolidated headline data
- Highlight resting orders in the consolidated depth
- Consolidate tradable multi-market views
- View consolidated VWAP Monitor, Trade Tickers and Time & Sales

Fidessa - Virtual Market [VOD.L]									
Virtual Market		LSE	BATS	Nasdaq OMX	Plus	Equiduct	Turquoise		
VOD.L	VODAFONE GRP. ORD USD0.11 3/7								GBX
VWAP	124.6785	Trades	354	13:29	125.15	UT 145t	LSE		
Total Vol	3,512,020	Hi	250	VTX	13:26	132 AT 5,000	CIX		
Prev Vol	3,265,892	Lo	9.5	LSE	13:25	132 AT 1,000	CIX		
					13:22	138 AT 1,000	LSE		
		LSE		127 - 136		LSE			
LSE	129	129	127	136	1,000	1,000	LSE		
LSE	56,559	56,430	126	137	200,000	201t	CIX		
CIX	67,559	11,000	126	139	200,000	401t	CIX		
LSE	126t	58,446	125.95	140	2m	2,401m	CIX		
LSE	175.1t	49,095	125.9	140	1,000	2,402m	LSE		
CIX	187.4t	12,333	125.9	142.5	1,000	2,403m	LSE		
LSE	326.6t	139,155	125.85	143	200,000	2,603m	CIX		
LSE	459.8t	133,208	125.8	147	760,000	3,363m	CIX		
LSE	497t	37,154	125.75	151	760,000	4,123m	CIX		
LSE	498t	1,000	125.1	151	1,295	4,124m	LSE		
Exch	BidVol	Bid	Ask	AskVol	Trade	TrdSz	VM min t	VM trd pref	
PLS	0	125.375	126.025	0	125.8	14,885		1000	
LSE	129	127	136	1,000	151	260		1000	
CIX	11,000	126	137	200,000	132	5,000		1000	
VTX	0	0	0	0	0	0		1000	
VOD.L									

<input type="checkbox"/>	Hit Bid	H
<input type="checkbox"/>	Join Bid	
<input type="checkbox"/>	Pull Multiple Orders	
<input checked="" type="checkbox"/>	By Price and Exchange	
<input type="checkbox"/>	By Price	
<input type="checkbox"/>	Track	
<input type="checkbox"/>	Market Data	▶
<input type="checkbox"/>	Enquiries	▶
<input type="checkbox"/>	Trading	▶
<input type="checkbox"/>	Exchange Specific	▶
<input type="checkbox"/>	Window	▶

Best Execution Compliance

All SOR trading decisions and actions are logged, along with the relevant market price data, to an easily accessible audit log enabling:

- Straightforward proof of compliance with execution policies
- Integration with the Fidessa EPOCH Best Execution compliance tool

News timestamp	Entity Id	Inst.	Headline
13-Nov 15:16	00000524080XOLO1	AV..L	SOR-algo: smart order audit for order to B 50000@0.0 AV..L
13-Nov 15:16	00000524079XOLO1	ANTO.L	SOR-algo: smart order audit for order to B 50000@0.0 ANTO.L
13-Nov 15:16	00000524078XOLO1	AL..L	SOR-algo: smart order audit for order to S 60000@0.0 AL..L
13-Nov 15:16	00000524075XOLO1	ABF.L	SOR-algo: smart order audit for order to S 60000@0.0 ABF.L
13-Nov 15:16			SOR-multisweep: No further child orders. Reflect 30140@0.0 in ABF.L
13-Nov 15:16			SOR-virtualdepth: 549@704.0 ABF.L, 111@687.0 ABF.L
13-Nov 15:16			SOR-candidates: ABF.L ABF.L.CX ABFGBX.EQ ABF.L.TQ
13-Nov 15:16			SOR-candidates: rejecting ABF.PL - market route DIRECT not available.
13-Nov 15:16			SOR-candidates: rejecting ABF.XLON-GBX.BT - child order instructions not available.
13-Nov 15:16			SOR-candidates: linking criteria - SOR=GB0006731235-GBX-XLON
13-Nov 15:16			SOR-multisweep: execute sweep 2, resweeping remaining quantity of 30140.
13-Nov 15:16			SOR-multisweep: sweep complete 30140 remains, resweeping after 150ms
13-Nov 15:16			SOR-child: Created order to S 29860@687.0 IOC as AG for ABF.L
13-Nov 15:16			SOR-child: Created order to S 30140@610.0 IOC as AG for ABF.L.TQ
13-Nov 15:16			SOR-surplus: distributing surplus - 29340 to ABF.L.TQ - 29340 to ABF.L
13-Nov 15:16			SOR-virtualdepth: 409@704.0 ABF.L, 111@687.0 ABF.L, 800@610.0 ABF.L.TQ
13-Nov 15:16			SOR-virtualdepth: ending ABF.L at price level 662.0 - outside market tolerance.
13-Nov 15:16			SOR-candidates: ABF.L ABF.L.CX ABFGBX.EQ ABF.L.TQ
13-Nov 15:16			SOR-candidates: rejecting ABF.PL - market route DIRECT not available.
13-Nov 15:16			SOR-candidates: rejecting ABF.XLON-GBX.BT - child order instructions not available.
13-Nov 15:16			SOR-candidates: linking criteria - SOR=GB0006731235-GBX-XLON
13-Nov 15:16			SOR-algo: Sweep smart MKT order to S 60000@0.0 IOC ABF.L
13-Nov 15:16	00000524074XOLO1	AB..L	SOR-algo: smart order audit for order to B 50000@0.0 AB..L
13-Nov 15:16	00000524073XOLO1	AAL.L	SOR-algo: smart order audit for order to B 50000@0.0 AAL.L
13-Nov 15:11	00000524031XOLO1	YELL.L	SOR-algo: smart order audit for order to S 60000@0.0 YELL.L
13-Nov 15:11	00000524030XOLO1	XTA.L	SOR-algo: smart order audit for order to B 50000@0.0 XTA.L
13-Nov 15:11	00000524029XOLO1	WTB.L	SOR-algo: smart order audit for order to S 60000@0.0 WTB.L
13-Nov 15:11	00000524028XOLO1	WPP.L	SOR-algo: smart order audit for order to B 50000@0.0 WPP.L
13-Nov 15:11	00000524027XOLO1	WOS.L	SOR-algo: smart order audit for order to S 60000@0.0 WOS.L



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