



FIF/FIX Regulatory Reporting Working Group & FIX Execution Venue Working Group Liquidity Indicator Extension Proposal

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Document History

Revision	Date	Author	Revision Comments
0.1	May 1, 2019	Chris Bok, FIF Hanno Klein, FIX GTC	Initial draft
0.2	May 21, 2019	Hanno Klein, FIX GTC	Minor updates
0.3	May 29, 2019	Hanno Klein, FIX GTC	Added requirements from the FIX Execution Venue Working Group for additional liquidity indicators related to orders requiring a firm order commit prior to execution.
0.4	June 19, 2019	Hanno Klein, FIX GTC	Minor changes to the wording used for orders requiring a firm order commit prior to execution.
0.5	Sep 10, 2019	Hanno Klein, FIX GTC	Disposition of public comments

1 Introduction

This extension proposal combines independent requirements related to the FIX field LastLiquidity(851) from FIX working groups in the US and Europe. They are combined in this single document for efficiency.

1.1 FIF/FIX Regulatory Reporting Working Group

During November 2018, the US Securities and Exchange Commission (SEC) adopted amendments to SEC Rule 606. Pursuant to these amendments, broker-dealers must provide additional information to customers relating to their handling and execution of customer orders. For broker-dealers to provide this information to customers, exchanges and other execution venues will need to provide additional information to their customers. More particularly, for a broker to fulfill its reporting requirements, each execution venue must provide the broker, that the venue received an order from, with information pertaining to each executed order, including whether the order provided liquidity, removed liquidity, or neither provided nor removed liquidity. Currently the FIX field LastLiquidity(851) provides values for reporting that an order provided liquidity or removed liquidity. To meet this SEC reporting requirement we are proposing to add a new value to LastLiquidity(851) to report that an order neither provided nor removed liquidity.

1.2 FIX Execution Venue Working Group

In October 2014, Turquoise (part of LSE Group) launched the Turquoise Plato Block Discovery™ service. It offers additional distinctions to indicate liquidity beyond simply adding or removing it. The business requirements were submitted to the GTC and led to the Extension Pack 198 “Indicative Execution Extension” in early 2015 (see <https://www.fixtrading.org/packages/ep198/> for details). The purpose was to identify the execution of an order that had only been indicative and required a confirmation by the submitter to become executable, often with the same quantity, but also sometimes with a greater or lower quantity.

The FIX field MatchType(574) was extended with the values 10 and 11 for this purpose, representing two flavors of existing values. The field offers different categories of execution. The term “last look” was used for the two new values to express the need for confirmation, a concept well-known for workflows related to fixed income.

The semantics of “last look” are about a confirmation of a match and not about the confirmation of an individual order to change from indicative to non-indicative aka tradeable (an attribute that FIX reserves for quotes). Turquoise had implemented their requirements with a non-standard extension of the FIX field LastLiquidity(851) and did not use MatchType(574). The working group would like to propose a standard solution with a focus on liquidity (not on the execution) that also minimises the need for a change of existing implementations.

2 Business Requirements

2.1 Neutral Liquidity Indicator

This is the link to the SEC's adopting release for the rule amendment:

<https://www.sec.gov/rules/final/2018/34-84528.pdf>.

As set forth on pages 330-332 of the SEC's adopting release, a broker-dealer must report "total shares executed." A broker-dealer also must report "total number of shares executed of orders providing liquidity" and "total number of shares executed of orders removing liquidity." The SEC staff have advised members of the Financial Information Forum that it is acceptable to classify an order as "neither providing nor removing liquidity." In this scenario, the execution must be included under "total shares executed" but not under either of the other two categories.

The SEC has issued a Technical Specifications document that includes this reporting obligation: https://www.sec.gov/files/Order_Handling_Data_Technical_Specification_20190331.pdf. In particular, please refer to pages 10-12.

The SEC staff have advised members of the Financial Information Forum that it is acceptable to classify orders as neither providing nor removing liquidity. For example, for an alternative trading system (ATS) that provides functionality where participants can negotiate trades directly with each other on a one-to-one basis, the SEC staff have advised that it would be acceptable to classify the negotiation orders as neither providing nor removing liquidity.

Accordingly, it would be desirable to provide a means whereby an execution venue could report to a routing broker for each execution whether the order provided liquidity, removed liquidity, or neither provided nor removed liquidity.

There are several FIX fields that indicate liquidity. All applicable FIX fields use the valid values defined for the FIX field LastLiquidityInd(851). There are currently two generic values 1 = Added Liquidity and 2 = Removed Liquidity and a number of values for specific use cases, e.g. 3 = Liquidity Routed Out and 4 = Auction. The existing values "3" and "4" refer to specific situations where liquidity is neither added nor removed. A generic value does not exist for the required use case without an implied reason why liquidity was neither added nor removed. We propose to add one as follows:

0TBD¹ = Neither Added nor Removed Liquidity (and no other values apply).

The reason for specifying that "no other values apply" is to address a scenario such as an auction order where the order neither provides nor removes liquidity. In this scenario, participants must report the specific value "4" for an auction unless the recipient (e.g. a regulator) does not permit specific values and wants the generic value to be used instead.

While this SEC rule refers to "providing liquidity", we consider this to be the equivalent to "adding liquidity", as used in the FIX field LastLiquidityInd(851).

¹ We propose to use a value of zero (0) as it seems to be a good fit for the intended semantics.

2.2 Liquidity from Orders Requiring a Confirmation

Orders requiring a confirmation are used as part of the regular matching process. However, they are conditional in the sense that they cannot be matched immediately. A potential match triggers a request to the order submitter to confirm the order, whereby he can also change or remove it. The confirmation means that the order now becomes a “normal” order and no longer requires a confirmation. From then on, it participates in the matching process just like any other order. In the case of the Turquoise Plato Block Discovery™ service this means that the order may or may not execute against the order that established a potential match and triggered the request for confirmation.

A potential match can occur during an auction or during continuous trading. The requirement is to distinguish the two use cases.

- An aggressive order requiring confirmation during continuous trading is similar to an IOC order removing liquidity which is covered by LastLiquidity(851) = 2 (Removed liquidity). Turquoise Block Discovery™ does not have a use case where an order requiring confirmation rests on the book after having been confirmed. A new value is proposed as follows:

TBD⁸ = Removed liquidity after firm order commitment

- An auction order requiring confirmation is similar to a normal auction order which is covered by LastLiquidity(851) = 4 (Auction). A new value is proposed as follows:

TBD⁹ = Auction execution after firm order commitment

The references to existing values were made to show a mapping to more generic values typically required by regulators.

3 Issues and Discussion Points

3.1 Field Omission

One alternative would be for broker-dealers to not provide this FIX field when an order neither provides nor removes liquidity. The concern with this approach is that a party receiving this FIX message might identify this scenario as an error where the sender failed to provide a valid last liquidity code, as opposed to interpreting this as a default value of “neither adding nor removing liquidity”. It would provide greater clarity to industry participants to include “neither adding nor removing liquidity” as an explicit value for this FIX field. It would also reduce unintended errors.

3.2 Explicit Value per Use Case

A second alternative would be to provide a distinct value for each scenario where an order neither provides nor removes liquidity. The concern with this approach is that it would be difficult to identify

² We propose to use a value of eight (8) to avoid breaking existing implementations

³ We propose to use a value of nine (9) to avoid breaking existing implementations

each scenario that involves neither providing nor removing liquidity. It might also require ongoing updates to this FIX field as new scenarios are identified.

4 Proposed Message Flow

There are no changes to existing FIX message flows.

5 FIX Message Tables

There are no changes to existing FIX message tables.

6 FIX Component Blocks

There are no changes to existing FIX component blocks.

7 Category Changes

There are no changes to existing categories.

Appendix A - Data Dictionary

Tag	FieldName	Action	Data-type	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
851	LastLiquidityInd	CHANGE	int	<p>Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity.</p> <p>Valid values: 1 = Added Liquidity 2 = Removed Liquidity 3 = Liquidity Routed Out 4 = Auction Execution ... 0TBD = Neither Added nor Removed Liquidity [Elaboration: Subject to bilateral agreement, this value can only be used if none of the specific values apply.] 8TBD = Removed liquidity after firm order commitment [Elaboration: An order that was submitted for continuous trading that required a firm order commit prior to execution. "Conditional order" is an alternate term used for such orders.] 9TBD = Auction execution after firm order commitment [Elaboration: An order that was submitted for auction trading that required a firm order commit</p>	@LastLqdyInd	

				prior to execution. "Conditional order" is an alternate term used for such orders.]		
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Appendix B - Glossary Entries

Term	Definition	Field where used

Appendix C - Abbreviations

Term	Proposed Abbreviation	Proposed Messages, Components, Fields where used

Appendix D - Usage Examples

Appendix E – Disposition of Public Comments

Public comments from Marc Tortorello, <company>:

Thank you for the opportunity to comment on the Liquidity Indicator Extension Proposal.

- I assume, in the U.S., the proposed 'Neither Added nor Removed Liquidity (and no other values apply)' value would include both executions generated from conditional orders and some executions that are not generated from conditional orders. We believe identifying conditional executions separately with a unique value provides meaningful information. Would it be possible to add a 'Conditional' FIX value solely for conditional executions? Section 3.2 states it would be difficult to identify each scenario that involves neither providing nor removing liquidity but conditionals are a very common scenario and a significant portion of activity on some venues. In addition, after looking at our data and speaking to brokers, '8' seems to be the industry standard value to report an execution generated from a conditional order in the U.S. although it is a non-standard FIX value.

Resolution: The semantic focus of LiquidityIndicator(851) is on the assessment of liquidity in general and for specific use cases. The use case where liquidity is neither added nor removed should only exist once and be agnostic of the type of order being executed or the type of execution. The distinction between conditional and other types of orders is useful when it is

about removing or adding liquidity. These use cases have been addressed with the two new values (see also the resolution of the next bullet).

Action: None

- Section 2.2 indicates '8' may be used for 'Removed liquidity after firm order commitment' but, as mentioned above, '8' is being used in a non-standard way by many brokers in the U.S. to report executions generated from conditional orders. This dual usage is further motivation to create a standard unique value for executions generated from conditional orders.

Resolution: The generic term "firm order commitment" was used for the FIX standard to express the fact that immediate matching does not occur but requires further interaction between the order submitter and the venue. This is intended to include "conditional orders", i.e. there is no difference in semantics, just wording. The purpose of the proposal was to acknowledge the existing usage of the non-standard values 8 and 9 and add them to the standard in a generic way. Implementations may differ in the way an order is confirmed, e.g. by sending in a normal order with a reference to a conditional order or resending the original order with a confirmation indicator.

Action: Add the term "conditional order" to the elaboration as an example for an alternate term for an order requiring a firm order commitment.

- We suggest using a value other than '0' for 'Neither Added nor Removed Liquidity (and no other values apply)'. In our data, '0' is one of the most-received invalid values and including a valid '0' value may lead to misreporting.

Resolution: FIX uses the value '0' for many valid value lists. Valid value lists for new FIX fields are started with '0' since quite some time now and there have never been any issued raised by the FIX community so far. '0' should not be used to indicate an empty number field. The FIX tag=value encoding foresees the omission of a field in the wire format whenever it is empty of 'null'.

Action: None