Nordic FIX 2.0 Delta Specification
INET Nordic
Nordic Equities Markets

REVISION 1.0
27 OCT 2021
APPROVED
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## Document History

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<th>Revision</th>
<th>Published</th>
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<th>Summary of Changes</th>
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<tr>
<td>1.0</td>
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<td>Nasdaq</td>
<td>Initial version of the document</td>
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1 Overview

Nasdaq Nordic\(^1\) plans to implement mandatory changes and enhancements to the INET Nordic trading system.

The plan is to enhance the INET Nordic trading system to meet client needs when it comes to additional functionalities to be offered over OUCH, and to achieve lower latency for FIX users.

INET Nordic will provide a full and complete FIX access comparable to the current FIX services. The protocol version will however be upgraded to FIX 5.0 SP2.

The new INET Nordic architecture will provide clients with new **FIX 2.0 order entry ports** to achieve lower latency than what the current FIX Engine provides.

New FIX 2.0 DROP ports and FIX 2.0 DROP for OUCH5 ports providing additional data will also be made available as part of this enhancement. The FIX 2.0 DROP for OUCH5 will also support for the new order types introduced in OUCH5.

1.1 Purpose of document

The purpose of this document is to present the changes and to give further guidance for all current FIX users.

1.2 Protocol specifications

New Draft protocol specifications related to this upcoming change are available at the Nasdaq Nordic Technical Information website, under [INET Nordic Protocol Specifications](#).

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\(^1\) For the purpose of this document Nasdaq Nordic refers to, either each individually or all together, Nasdaq Copenhagen A/S, Nasdaq Helsinki Ltd, Nasdaq Iceland hf. and Nasdaq Stockholm AB. Nasdaq Nordic may also include Nasdaq Baltic that respectively refers to Nasdaq Riga AS, Nasdaq Tallinn AS and AB Nasdaq Vilnius. Nasdaq Copenhagen, Nasdaq Helsinki, Nasdaq Iceland, Nasdaq Riga, Nasdaq Stockholm, Nasdaq Tallinn and Nasdaq Vilnius are respectively brand names for Nasdaq Copenhagen A/S, Nasdaq Helsinki Ltd, Nasdaq Iceland hf., Nasdaq Riga AS, Nasdaq Stockholm AB, Nasdaq Tallinn AS and AB Nasdaq Vilnius.
1.3 Implementation schedule

Nasdaq Nordic aims to give access to the new FIX 5.0 service according to the following timeline:

- INET Test (NTF): Q1-Q2 2022
- INET Production: TBD

1.4 Support

For technical questions, please contact Nasdaq Cash Equity Operations:

Nasdaq Cash Equity Operations
Tel: +46 8 405 6410
E-mail: operator@nasdaq.com
2 FIX 2.0 changes

2.1 Overview
With the FIX 2.0 enhancement a number of changes in the Nasdaq Nordic FIX services are introduced.

Common FIX changes
- FIX Transport Layer FIXT 1.1 is introduced for the session level messaging
- Nanosecond granularity timestamps are introduced in the transport layer
- Additional tags are introduced in execution reports for Good-Till-Cancel carryovers, for consistency with OUCH5.

FIX Order Entry
- The maximum allowed length for tag 11 ClOrdId is changed from 20 to 14 characters.
- Imbalance order functionality will be discontinued in FIX 5.0.

FIX DROP
- The new shared FIX DROP 2.0 specification will be applicable going forward for both FIX DROP for FIX and FIX DROP for OUCH5.
- New tag 20109 OrderCondition.

2.2 Transport Layer FIXT 1.1
As part of the FIX 5.0 major update, session level information has been standardized to refer to the existing FIXT 1.1 Transport Layer specification.

FIX tag 8 BeginString will need to state the new session level protocol version FIXT.1.1.

FIX tag 373 SessionRejectReason adds the new reject reason 99 (Other).
2.3 Nanosecond granularity timestamps

The enhancement additionally introduces the possibility to send nanosecond granularity for timestamps in transport layer FIX tags 52 SendingTime and 122 OrigSendingTime. A client will therefore need to be able to handle also the nanoseconds parts of these timestamp tags which will be sent outbound from Nasdaq Nordic.

<table>
<thead>
<tr>
<th>Transport layer timestamps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tag</strong></td>
</tr>
<tr>
<td>52</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>122</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

2.4 Good-Till-Cancel carryovers

Execution Report restatements for carryover Good-Till-Cancel orders sent at the beginning of the trading day have been extended to supply the following FIX tags:

<table>
<thead>
<tr>
<th>Execution Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tag</strong></td>
</tr>
<tr>
<td>20107</td>
</tr>
<tr>
<td>20108</td>
</tr>
</tbody>
</table>
2.5 **Shorter maximum length for tag 11 ClOrdId**

The new native FIX 2.0 Order Entry port will require clients to adhere to a shorter maximum length for tag 11 ClOrdId. The client-provided tag representing the unique identifier of the order on a specific connector per day has historically allowed up to 20 characters. For FIX 2.0, the length has been updated to 14 characters or less.

<table>
<thead>
<tr>
<th>Tag</th>
<th>Length</th>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>14</td>
<td>ClOrdId</td>
<td>Unique identifier</td>
</tr>
<tr>
<td>41</td>
<td>14</td>
<td>OrigClOrdId</td>
<td>ClOrdId of the previous order</td>
</tr>
</tbody>
</table>

2.6 **Imbalance only order functionality is discontinued**

The Imbalance only order functionality currently available in FIX 4.2 via tag 9140 DisplayInst=I will be discontinued in FIX 2.0. Other values that can be set via tag 9140 DisplayInst are unchanged.

<table>
<thead>
<tr>
<th>Tag</th>
<th>Name</th>
<th>FIX 4.2</th>
<th>FIX 5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>9140</td>
<td>DisplayInst</td>
<td>I – Imbalance only</td>
<td>Not available</td>
</tr>
</tbody>
</table>

2.7 **Shared specification for FIX DROP for FIX and FIX DROP for OUCH5**

With the introduction of FIX 2.0, the FIX DROP of activity entered over OUCH5 and FIX 2.0 will both be described by the new shared FIX DROP 1.40 specification.

To allow for this, some tags serve different purposes for orders entered through OUCH5 and orders entered through FIX 2.0:

<table>
<thead>
<tr>
<th>Tag</th>
<th>Name</th>
<th>OUCH5</th>
<th>FIX 5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>ClOrdId</td>
<td>UserRefNum</td>
<td>Tag 11 - ClOrdId</td>
</tr>
<tr>
<td>41</td>
<td>OrigClOrdId</td>
<td>OrigUserRefNum</td>
<td>Tag 41 - OrigClOrdId</td>
</tr>
</tbody>
</table>

Orders and trades from FIX 5.0 and OUCH5 will not be consolidated over one single FIX DROP port. OUCH5 clients wishing to have a FIX DROP copy session still need to have a separate port for this purpose.
2.8 New tag 20109 OrderCondition

The FIX DROP 2.0 specification introduces the new tag 20109 which describes conditions that in some way change the behavior of an order. A number of values that in current DROP are communicated in tag 9140 DisplayInst are moved to the new tag 20109 OrderCondition and there is also an addition of a new Dark-lit Sweep value.

<table>
<thead>
<tr>
<th>Tag</th>
<th>Name</th>
<th>Conditions that in some way change the behavior of the order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20109</td>
<td>OrderCondition</td>
<td>“W” = MarketMaker Order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“U” = MarketMaker Order Refresh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“P” = Top-of-Book</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Q” = Dark-lit Sweep</td>
</tr>
</tbody>
</table>

Execution Report