

– Test Script –  
New Warrants Market Model – Euronext Spring

Version 1.4

Written by Customer Technical Support

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This document has no contractual value and is subject to change without notice

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## HISTORY

- V1.0 First version
- V1.1 Addition of error codes
- V1.2 Change of nr 4 in test unit 1 "Ask For Quote"
- V1.3 Update of test unit 4 "One Side Only Period"  
Addition of error codes in test unit 2 "Bulk Quote message" and test unit 4 "One Side Only Period"
- V1.4 Update of information regarding partial and full executions in test unit 2 "Bulk Quote message"

## OVERVIEW

Euronext is introducing a **new market model designed for the specific characteristics of the warrants and certificates market**. Price quality delivered to the end investor will be greatly improved thanks to the novel price-driven framework built into the new model, a model that will also encourage further development of the product range in this market segment. **This new market model is being implemented on the NSC Warrants' trading platform.**

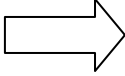
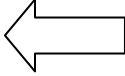
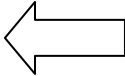
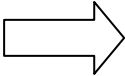
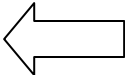
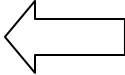
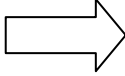

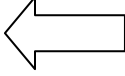
The main characteristics of the new market model are the following:

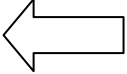
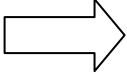
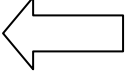
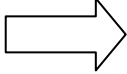

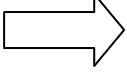
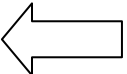

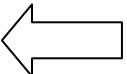
- No trade can be executed on an instrument without the presence of the LP managing the instrument
- 
- The absence of an LP triggers the reservation of the instrument concerned and the LP is immediately informed
- 
- No trade can be executed outside of the LP quotes (static thresholds are replaced by LP quotes)
- 
- No trade can be executed without confirmation of the LP quotes
- 
- A new Bulk Quote functionality is provided to the LP in order to allow him to update up to 150 instruments in one single message
- 
- Market participants are informed at which limit the LP is present in the order book
- 
- The LP can inform the market of a Bid Only and Offer Only situation

Find below an overview of the type of warrant products which the LP can use or receive the different new messages for.

Type of warrant product	Bulk Quote message	Order Entry as LP	Request for Execution	Ask for Quote
plain vanilla warrant	Yes	Yes	Yes	Yes
leverage knock out product	Yes	Yes	Yes	Yes
Investment product	Yes	Yes	No	Yes

Find following a typical scenario on the new Warrants & Certificates market model:

Nr		WAY	NSC VW system	WAY	Broker
1	LP sends Bulk Quote message 0501 (FIX U0501)		NSC VW receives 0501 (FIX U0501)		
2	LP receives message 0572 (FIX U0572)		NSC VW confirms Bulk Quote message via 0572 (FIX U0572)	-	-
3	LP receives public message 00L4 (FIX U00L4)		NSC VW sends update of Market sheet by Limit via public message 00L4 (FIX U00L4)		Broker receives public message 00L4 (FIX U00L4)
4			NSC VW receives Order Entry message		Broker sends aggressive order message 0001 (FIX 35=D)
5	LP receives Request for Execution message 0503 (FIX U0503)		NSC VW sends Request for Execution message 0503 (FIX U0503) to LP		
6			NSC VW sends Order Outcome message 0172 (FIX 35=8)		Broker receives Order Outcome message 0172 (FIX 35=8)
7	LP confirms the execution by replying to the Request for Execution message via a Bulk Quote message 0501 (FIX U0501)		NSC VW receives Bulk Quote message 0501 (FIX U0501)		
8	LP receives message 0572 (FIX U0572)		NSC VW confirms Bulk Quote message via 0572 (FIX U0572)		
9	LP receives execution notice		NSC VW sends an execution		Broker receives execution notice

	message 0105 (FIX 35=8)		notice message 0105 (FIX 35=8) to both parties involved		message 0105 (FIX 35=8)
10	LP receives public message 00L4 (FIX U00L4)		NSC VW sends update of Market sheet by Limit via public message 00L4 (FIX U00L4)		Broker receives public message 00L4 (FIX U00L4)
11	LP receives a non-solicited Instrument State Change Notice message 0106 (FIX 35=f)		NSC VW reserves instrument because the LP is no longer present on one of the sides of the order book. NSC VW sends an Instrument State Change Notice message 0106 (FIX 35=f) to all members		LP receives a non-solicited Instrument State Change Notice message 0106 (FIX 35=f)
12	LP receives a public Instrument State Change message 0005 (FIX U0005)		NSC VW sends a public Instrument State Change message 0005 (FIX U0005) to all members		LP receives a public Instrument State Change message 0005 (FIX U0005)
13	LP receives Ask For Quote message 0502 (FIX U0502)		NSC VW sends Ask For Quote message 0502 (FIX U0502) to LP. This message will be repeated every 5 minutes until the LP is present on both sides of the instrument		

**Purpose of the *Test Script*.**

The purpose of this script is to enable LPs and brokers to test their solutions, either in-house or those provided by ISVs, in order to confirm the compatibility of their software with the NSC VW system's new market model.

Euronext provides a script in order to help clients to test their software functionalities, to ensure both integrity and stability. The aim of these tests will be to check that any developments made on the client trading solutions side are consistent with the functional evolutions implemented on the private messages.

**When and how should the validation test be carried out?**

The validation tests take place on the NSC testing environment, the External User Acceptance platform (EUA).

A dedicated and specially trained team within Euronext Customer Technical Support (CTS) will provide assistance and support during the monitored test sessions with clients who have requested it.

**CTS tel: +33 (0)1 4927 5050; email: [cts@euronext.com](mailto:cts@euronext.com)**

## TEST UNIT 01: ASK FOR QUOTE MESSAGE 0502 (FIX U0502) – LP ONLY

In certain conditions the LP will receive an unsolicited Ask For Quote message 0502 (FIX U0502) informing him that there are no more quotes in the instrument.

Please note that the Ask For Quote message will be sent to the LP in case the LP uses the Bulk Quote message 0502 and if the LP sends a Quote via the Order Entry message 0001 (FIX 35=D) as a LP.

The message 0502 (FIX U0502) indicates what the reason for the sending of this message is. The conditions can be one of the following:

During pre-opening

- The LP is not present 15 minutes before the group opening
- The LP is not present 2 seconds before the group or the instrument opening

During the session (for both Investment products and Leverage knock out products)

- The LP is not present following the cancellation of a quote by the LP or by the CMO resulting in the fact that there are no longer any quotes present
- The LP is not present following the complete matching of his quotes  
(in both cases described above the instrument will reserve at the same time)

### Test UNIT preparation:

The client and Euronext select more than one instrument listed on the NSC VW EUA environment to use during this Test UNIT.

The client is the LP for the selected instruments.

CTS makes sure that the selected instruments are empty and available for trading.

### CYCLE DESCRIPTION :

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. Ask For Quote – type “M”	<ul style="list-style-type: none"> <li>- The group to which the instrument belongs is in pre-opening status</li> <li>- CTS and the LP make sure that there are no quotes in the instrument and that the instrument is not in a One Side Only period</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm receipt of the unsolicited Ask For Quote message 0502 (FIX U0502) including “Action code” type “M” (FIX tag 10065=“M”).</li> <li>- The LP will receive an “Ask for Quote” message including action code “No quote</li> </ul>	<ul style="list-style-type: none"> <li>- LP receives 0502 (FIX U0502) type” M”</li> <li>- LP receives 0502 (FIX U0502) type” R”</li> </ul>

	<ul style="list-style-type: none"> <li>- 15 minutes before the opening of the group the LP receives an Ask For Quote message including Action code "No Quote provided 15 minutes before Opening" type "M"</li> </ul>	<ul style="list-style-type: none"> <li>recall" type "R" every 5 minutes until the opening if the LP does not provide any quotes.</li> </ul>	
2. Ask For Quote – type "S"	<ul style="list-style-type: none"> <li>- The group to which the instrument belongs is in pre-opening status</li> <li>- CTS and the LP make sure that there are no quotes in the instrument and that the instrument is not in a One Side Only period.</li> <li>- 2 seconds before the opening of the group the LP receives an Ask For Quote message including Action code "No Quote provided 2 seconds before Opening" type "S"</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm receipt of the unsolicited Ask For Quote message 0502 (FIX U0502) including Action code type "S" (FIX tag 10065="S".)</li> <li>- CTS and the client confirm that the instrument remains in reserved state after the opening</li> </ul>	<ul style="list-style-type: none"> <li>- LP receives 0502 (FIX U0502) type "S"</li> </ul>
3. Reservation by CMO	<ul style="list-style-type: none"> <li>- CTS reserves the instrument manually (for a duration of 3 minutes)</li> </ul>	<ul style="list-style-type: none"> <li>- 2 seconds prior to the scheduled opening, the client confirm receipt of the unsolicited Ask For Quote message 0502 (FIX U0502) including Action code type "S" (FIX tag 10065="S".)</li> </ul>	<ul style="list-style-type: none"> <li>- LP receives 0106 (FIX 35=f)</li> <li>- LP receives public 0005 (FIX U0005)</li> <li>- LP receives 0502 (FIX U0502) type "S"</li> </ul>
4. Cancellation of quotes by LP	<ul style="list-style-type: none"> <li>- The instrument is in session status</li> <li>- The LP enters quotes in the instrument</li> <li>- The LP cancels one of the quotes</li> <li>The LP receives an Ask For Quote message including Action code "Quote Cancelled by Broker" type "A"</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm receipt of the unsolicited Ask For Quote message 0502 (FIX U0502) including Action code type "A" (FIX tag 10065="A").</li> <li>- CTS and the client confirm that the instrument changes to reserved state automatically</li> <li>- This Ask for Quote message type "R" will be sent every 5 minutes until the LP provides quotes.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0001 or 0501</li> <li>- LP receives 0172 or 0572</li> <li>- LP sends 0003 or 0501</li> <li>- LP receives 0172 or 0572</li> <li>- LP receives 0502 (FIX U0502) type "A"</li> <li>- LP receives public 0005 (FIX U0005)</li> <li>- LP receives 0106 (FIX 35=f)</li> <li>- LP receives 0502 (FIX U0502) type "R" every 5 minutes</li> </ul>
5. Cancellation of quotes by Market	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- The instrument is in session status</li> </ul>	<ul style="list-style-type: none"> <li>- Once the Quote has been cancelled by CTS, the LP will not receive a Cancellation Notice.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0001 or 0501</li> <li>- LP receives 0172 or 0572</li> </ul>

Control	<ul style="list-style-type: none"> <li>- CTS representing CMO cancels one of the quotes</li> <li>- The LP receives an Ask For Quote message including action code "Quote Cancelled by the Market Control" type "C"</li> </ul>	<p>Instead the LP receives an unsolicited Ask For Quote message 0502 (FIX U0502) including Action code "Quote Cancelled by the Market Control" type "C" (FIX tag 10065="C").</p> <ul style="list-style-type: none"> <li>- CTS and the client confirm that the instrument changes to reserved state automatically</li> <li>- This Ask for Quote message type "C" will be sent every 5 minutes until the LP provides quotes.</li> </ul>	<ul style="list-style-type: none"> <li>- LP receives 0502 (FIX U0502) Type "C"</li> </ul>
6. Quotes matched	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- CTS matches the quote on only on side</li> <li>- The LP receives an Ask For Quote message with action type "Quote Completely Matched" type "X"</li> </ul>	<ul style="list-style-type: none"> <li>- Following the execution of one the quotes of the LP, CTS and the client confirm receipt of the unsolicited Ask For Quote message 0502 (FIX U0502) including Action code type "X" (FIX tag 10065="X").</li> <li>- CTS and the client confirm that the instrument changes to reserved state automatically</li> <li>- This Ask for Quote message type "X" will be sent every 5 minutes until the LP provides quotes.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 0105 (FIX 35=8)</li> <li>- LP receives 0502 (FIX U0502) Type "X"</li> </ul>
7. Ask For Quote during One Side Only Period	<ul style="list-style-type: none"> <li>- The LP changes the status of the instrument to One Side Only Period by sending a message 0504 (FIX U0504)</li> <li>- The LP receives a Confirmation message of the One Side Only Period via the message 0505 (FIX U0505)</li> <li>- The LP receives a non-solicited message 0506 (FIX U0506) indicating the starting of the One Side Only Period</li> <li>- The LP sends a quote on the same side as the one he is indicating in the 0504 message</li> <li>- The instrument is in session status</li> <li>- CTS cancels the quote</li> <li>- The LP receives an Ask For Quote message 0502 (FIX U0502) with action type "C"</li> </ul>	<ul style="list-style-type: none"> <li>- Once the quote has been cancelled by CTS the client confirms that an Instrument State Change Notice message 0106 (35=f) is sent indicating that the instrument changes to reserved state.</li> <li>- The LP will not receive a confirmation of the cancellation of the quote. Instead the LP will receive an Ask For Quote message with action code "Quote cancelled by the Market Control" type "C" (FIX tag 10065="C").</li> <li>- This Ask for Quote message type "C" will be sent every 5 minutes until the LP provides quotes.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP receives 0506 (FIX U0506)</li> <li>- LP receives 0502 (FIX U0502) Type "C"</li> </ul>

## TEST UNIT 02: BULK QUOTE MESSAGE 0501 and 0572 (FIX U0501/U0572) – LP ONLY

### **CYCLE OBJECTIVES:**

The aim of this test cycle is to see if the LP is able to enter, modify and cancel his quotes via the new Bulk Quote message.

Furthermore, CTS will run tests with the LP to see if he's able to manage multiple instruments via a single Bulk Quote message and to make him aware that once there are quotes outstanding that have been sent via the Bulk Quote message, NSC VW rejects any quote sent via an Order Entry message as an LP.

In the meantime, the LP can decide to continue using the entry of quotes via the existing Order Entry message 0001 (FIX 35=D) in combination with the account type LP. However, if an "Order Quote" is outstanding, the Bulk Quote will be rejected in the same way as the one described above.

Please note the following information regarding the Order Outcome message and Execution Notice message:

- In case of a partial or full execution of a Quote that was sent via a Bulk Quote, an Order Outcome message 0172 (FIX 35=8) will be sent prior to the Execution Notice. This Order Outcome message will contain the same executed quantity and price as the Execution Notice.
- When the Quote has been sent via a Bulk Quote message, the field "Status of the Order" (FIX tag 150) in the Order Outcome message 0172 (FIX 35=8) does not make a distinction between a partial or full execution of the outstanding Quote. For partial executions, the "Status of the Order" (FIX tag 150) field will be filled with the value "Full execution".
- When the Quote has been sent via a Bulk Quote message and is partially executed, the "Remaining shares indicator" and "Remaining Quantity" fields in the Execution Notice message 0105 (FIX 35=8) will not be filled. The LP will have to calculate the remaining quantity if necessary.

### **Test UNIT preparation:**

The client and Euronext select more than one instrument listed on the NSC VW EUA environment to use during this Test UNIT.

The client is LP for the selected instruments.

CTS makes sure that the selected instruments are empty and available for trading.

### **CYCLE DESCRIPTION:**

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. Bulk Quote entry	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501) on the buy and sell side of an instrument</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm the entry of the quotes via message 0501 (FIX U0501)</li> <li>- The client confirms receipt of the message Confirmation of Bulk Quote 0572 (FIX U0572) without any error codes</li> <li>- The client confirms at which limit the LP is present via public message 00L4 (U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> </ul>

2. Bulk Quote modification of price	<ul style="list-style-type: none"> <li>- The LP modifies the outstanding quotes by sending a different price in the Bulk Quote message 0501 (FIX U0501). The quantity field is filled but not changed</li> </ul>	<ul style="list-style-type: none"> <li>- The client confirms receipt of the message Confirmation of Bulk Quote 0572 (FIX U0572) without any error code</li> <li>- The client confirms the price and quantity via public message 00L4 (U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> </ul>
3. Bulk Quote modification of quantity	<ul style="list-style-type: none"> <li>- The LP modifies the outstanding quotes by sending a different quantity in the Bulk Quote message 0501 (FIX U0501). The price field is filled but not changed.</li> </ul>	<ul style="list-style-type: none"> <li>- The client confirms receipt of the Confirmation of Bulk Quote message 0572 (FIX U0572) without any error code</li> <li>- The client confirms the price and quantity via public message 00L4 (U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> </ul>
4. Bulk Quote cancellation	<ul style="list-style-type: none"> <li>- The LP cancels the outstanding quotes by leaving the price and quantity field empty for the given instrument in the Bulk Quote message 0501 (FIX U0501)</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm the cancellation of the quotes</li> <li>- The client confirms receipt of the Confirmation of Bulk Quote message 0572 (FIX U0572) without any error code</li> <li>- The client confirms that the LP is no longer present in the order book via public message 00L4 (U00L4) and that the instrument is reserved</li> <li>- LP receives Ask For Quote message 0502 (FIX U0502)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP receives 0502 (FIX U0502)</li> <li>- LP receives 0106 (FIX 35=f)</li> </ul>
5. Bulk Quote entry in multiple instruments	<ul style="list-style-type: none"> <li>- The LP sends quotes on at least two instruments via one single Bulk Quote message</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm the entry of the quotes for all instruments</li> <li>- The client confirms at which limit the LP is present</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> </ul>
6. Bulk Quote modification and cancellation in multiple instruments	<ul style="list-style-type: none"> <li>- The LP sends a modification of the quotes for one instrument and a cancellation for another instrument via one single Bulk Quote message</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm the entry of the quotes for the instruments</li> <li>- The client confirms the modification and the cancellation of the outstanding quotes via the public message 00L4 (FIX U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP receives 0502 (FIX U0502)</li> <li>- LP receives 0106 (FIX 35=f)</li> </ul>
7. Bulk Quote modification rejection	<ul style="list-style-type: none"> <li>- The LP modifies the outstanding quotes by sending a different quantity in the Bulk Quote message 0501 (FIX U0501). However the LP leaves the price field empty in the message 0501 (FIX U0501).</li> </ul>	<ul style="list-style-type: none"> <li>- The client confirms receipt of the Confirmation of Bulk Quote message 0572 (FIX U0572) including the rejection of the modification.</li> <li>- The client confirms the fact that his application is able to understand the rejection</li> <li>- The client confirms that he understands that both the fields price and quantity need to be filled in case of a modification of his quotes</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> </ul>

8. Rejection of Bulk Quote entry	<ul style="list-style-type: none"> <li>- The LP sends a valid single order entry message 0001 (FIX 35=D) with account type LP</li> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501) for the same instrument while his previous quote is still present</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms the rejection of the Bulk Quote message via message 0572 (FIX U0572) including error code 3412. This Bulk Quote is rejected because the LP cannot use both messages (Order Entry as LP and Bulk Quote) in the same instrument</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0001 (FIX 35=D)</li> <li>- LP receives 0172 (FIX 35=8)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> </ul>
9. Rejection of Order Quote entry	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote</li> <li>- The LP sends a Order Quote message 0001 (FIX U0501) for the same instrument while his previous quote is still present</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms the rejection of the Order Quote message 0001 (FIX 35=D) via message 0144 (FIX 35=j) including error code 3412. This Bulk Quote is rejected because the LP cannot use both messages (Order Entry as LP and Bulk Quote) in the same instrument</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP sends 0001 (FIX 35=D)</li> <li>- LP receives 0144 (FIX 35=j)</li> </ul>
10. Normal order in combination with Bulk Quote	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501)</li> <li>- The LP sends a normal order 0001 (FIX 35=D) with an account type Client or House</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms the acceptance of the normal order while the quotes of the member are present in the book</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- Broker sends 0001 (35=D)</li> <li>- Broker receives 0172 (35=8)</li> <li>- LP receives 00L4 (FIX U00L4)</li> </ul>
11. Purge of Quotes by CMO	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501) on the buy and sell side of an instrument</li> <li>- CTS cancels the quotes</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms that no Cancellation Confirmation is sent. Instead an Ask for Quote message 0502 (FIX U0502) is sent to the LP with Action code "Quote Cancelled by the Market Control" type "C"</li> <li>- The LP confirms the reservation of the instrument</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP receives 0502 (FIX U0502)</li> <li>- LP receives 0106 (FIX 35=f)</li> <li>- LP receives public 0005 (FIX 35=U0005)</li> </ul>
12. Partial execution of a Quote sent via a Bulk Quote message	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501) on the buy and sell side of an instrument</li> <li>- Broker partially executes one of the outstanding Quotes</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms that one Order Outcome message 0172 (FIX 35=8) and one Execution Notice message 0105 (FIX 35=8) have been sent to inform of the partial execution. However, the "Status of order" field in the 0172 (FIX tag 150) has "Fully executed" status. Furthermore the field showing remaining quantity in the 0105 message is not filled and does not give the remaining quantity. The LP will need to calculate the remaining quantity following the execution notice.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP receives 0172 (FIX 35=8)</li> <li>- LP receives 0105 (FIX 35=8)</li> </ul>

<p>13. Full execution of a Quote sent via a Bulk Quote message</p>	<ul style="list-style-type: none"> <li>- The LP sends a Bulk Quote message 0501 (FIX U0501) on the buy and sell side of an instrument</li> <li>- Broker fully executes one of the outstanding Quotes</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms that one Order Outcome message 0172 (FIX 35=8) and one Execution Notice message 0105 (FIX 35=8) have been sent to inform of the partial execution. The Order Outcome message will contain the same execution price and executed quantity as the Execution Notice.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP receives 00L4 (FIX U00L4)</li> <li>- LP receives 0172 (FIX 35=8)</li> <li>- LP receives 0105 (FIX 35=8)</li> <li>- LP receives 0502 (FIX U0502)</li> <li>- LP receives 0106 (FIX 35=f)</li> <li>- LP receives public 0005 (FIX 35=U0005)</li> </ul>
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## TEST UNIT 03: REQUEST FOR EXECUTION MESSAGE 0503 (FIX U0503) LP ONLY

Each time a broker sends an order that potentially executes an order inside the threshold of the LP's quotes or one of the LP quotes on a plain vanilla warrant or leverage knock out product, a Request for Execution message will be sent to the LP. This allows the LP to avoid any execution at an outdated price. The Request for Execution message won't be sent for Investment products.

The LP will only receive a Request for Execution message if the LP sent his quotes via a Bulk Quote message. If the LP sends his quotes via an Order Entry message 0001 (FIX 35=D) no Request for Execution message will be sent. In this case, the LP will not be informed of a potential execution and will not be able to change his quotes accordingly.

The Request for Execution message does not inform the LP of the price, quantity or side of the matching order. It only informs the LP which instrument is involved.

The LP has several options following a Request For Execution message. The LP can:

- Confirm the outstanding quotes by sending a new Bulk Quote message 0501 (FIX U0501) including same price and quantity. In this case a match will occur.
- Modify his quotes by issuing a new Bulk Quote message 0501 (FIX U0501) with a different quantity and the same price. In this case a match will occur.
- Modify his quotes by issuing a new Bulk Quote message 0501 (FIX U0501) with a different price. However the price remains the best bid or best ask. In this case a match will occur depending on the price of the broker.
- Modify his quotes by issuing a new Bulk Quote message 0501 (FIX U0501) with a different quantity and price. However the price remains the best bid or best ask. In this case a match will occur depending on the price of the broker.
- Modify his quotes by issuing a new Bulk Quote message 0501 (FIX U0501) with a different price that will change the position of the LP in the order book. In this case the broker's order will enter in the book but will not be executed.
- Not answer to the Request for Execution message. In this case the trade will take place after a predetermined period defined by CMO.

Find below an overview of the type of warrant products for which the LP receives a Request For Execution message

<b>Type of warrant product</b>	<b>Request for Execution</b>	<b>Ask for Quote</b>
plain vanilla warrant	Yes	Yes
leverage knock out product	Yes	Yes
Investment product	No	Yes

**Test UNIT preparation:**

The client and Euronext select more than one instrument listed on the NSC VW EUA environment to use during this Test UNIT.  
 The client is the LP for the selected instruments.  
 CTS makes sure that the selected instruments are empty and available for trading.

**CYCLE DESCRIPTION:**

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. LP confirms Quotes	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- The broker enters an order that can cause an execution</li> <li>- The LP receives a Request for Execution message</li> <li>- The LP confirms the quotes by sending a new Bulk Quote message</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of the Request for Execution message 0503 (FIX U0503)</li> <li>- CTS and the client confirm the execution of the order via the Execution Notice message 0105 (FIX 35=8)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 00L4</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- <b>LP and Broker receive 0172 (FIX 35=8)</b></li> <li>- LP and broker receive 0105 (FIX 35=8)</li> <li>- LP and broker receive 00L4</li> </ul>
2. LP changes Quotes	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- The broker enters an order that can cause an execution</li> <li>- The LP receives an Request for Execution message</li> <li>- The LP avoids an execution by changing the price of his quotes</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of the Request for Execution message 0503 (FIX U0503)</li> <li>- CTS and the client confirm that the order was entered in the order book via the message 0172 (FIX 35=8) but was not executed</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 00L4</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- Broker receives 0172 (FIX 35=8)</li> <li>- LP and broker receive 00L4</li> </ul>
3. LP doesn't reply	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- The broker enters an order that can cause an execution</li> <li>- The LP receives a Request for Execution message</li> <li>- The LP does not react to Request for Execution message within the</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of the Request for Execution message 0503 (FIX U0503)</li> <li>- CTS and the client confirm the execution of the order via the message 0105 (FIX 35=8)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 00L4</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- <b>LP and Broker receive 0172 (FIX 35=8)</b></li> <li>- LP and broker receive 0105</li> </ul>

	delay		(FIX 35=8)
4. LP confirms Quotes of multiple instruments	<ul style="list-style-type: none"> <li>- The LP enters quotes for more than one instrument</li> <li>- The broker enters an order for each instrument that can cause an execution as fast as possible</li> <li>- The LP receives a Request for Execution message for each of the orders</li> <li>- The LP confirms the price of each instrument by sending a Bulk Quote message</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of multiple Request for Execution messages 0503 (FIX U0503)</li> <li>- CTS and the client confirm the execution of each of the orders via the message 0105 (FIX 35=8)</li> </ul>	<ul style="list-style-type: none"> <li>- LP and broker receive 00L4</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive several 00L4</li> <li>- Broker sends several 0001 (FIX 35=D)</li> <li>- LP receives several 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and Broker receive several 0172 (FIX 35=8)</li> <li>- LP and broker receive several 0105 (FIX 35=8)</li> </ul>
5. Execution between brokers	<ul style="list-style-type: none"> <li>- The LP enters quotes in the instrument</li> <li>- The broker sends an order at market price</li> <li>- Another broker enters within the limits of the LP quotes that will execute with the market order</li> <li>- The LP receives a Request for Execution message</li> <li>- The LP confirms the quotes or does not reply</li> </ul>	<ul style="list-style-type: none"> <li>- CTS and the client confirm the execution of the order via the message 0105 (FIX 35=8)</li> <li>- The client confirms that he understands that a broker can trade with a broker as long as they respect the LP quotes.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 00L4</li> <li>- CTS sends order (FIX 35=D)</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- Broker receives 0172 (FIX 35=8)</li> <li>- Broker receives 0172 (FIX 35=8)</li> <li>- Both brokers receive 0105 (FIX 35=8)</li> </ul>

## TEST UNIT 04: ONE SIDE ONLY PERIOD 0504/0505 (FIX U0504/U0505)

### CYCLE OBJECTIVES:

In certain circumstances the LP would wish to move to a Bid Only or an Offer Only situation for an instrument. The LP has the possibility to inform the market in real time when he will only be present on the buy or sell side. A new private message 0504 (FIX U0504) has been developed to offer this possibility to the LP. When the LP uses this message, the following two messages will be sent to the market:

- SLE: an unsolicited Warrant Phase Change Notice message 0506 (FIX U0506)
- SLC: a public Security Change Notice 0005 (FIX U0005).

If the LP wishes to inform the market that the One Side Only Period has ended, he places a quote on the opposite side of the order book on which he is present. The above two messages will be sent again informing the market of the end of the One Side Only Period.

If the LP decides to change the status of one of his instruments to a "One Side Only Period" there shouldn't be any outstanding quotes in this instrument

### CYCLE PREPARATION:

The client and Euronext select one instrument listed on the NSC VW EUA environment to use during this Test UNIT. The client is the LP for the selected instrument. CTS makes sure that the selected instrument is empty and available for trading.

### CYCLE DESCRIPTION:

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. Bid Side Only Period	<ul style="list-style-type: none"> <li>- LP makes sure that no quotes are outstanding in the instrument</li> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Bid side of the instrument</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of the Confirmation message 0505 (FIX U0505)</li> <li>- The LP or the broker confirm receipt of the unsolicited Warrant Phase Change Notice message 0506 (FIX U0506) with field Action set to Beginning "Y" (FIX tag 9929=Y) and the field Side set to Bid "A" (FIX tag 54=1)</li> <li>- The LP or the broker confirm receipt of the public message Stock State Change 0005 (FIX 35=U0005) informing of the start of the One Side</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>

		Only phase "Y" (FIX tag 9929) for the Bid side "A" (FIX tag 54=1).	
2. End of Bid Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Bid side of the instrument</li> <li>- LP sends a quote on the other side of the order book to inform the market of the end of the One Side Only phase</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirm receipt of unsolicited Warrant Phase Change Notice message 0506 (FIX U506) with field Action set to End "Z" (FIX tag 9929=Z) and the field Side set to Bid "A" (FIX tag 54=1)</li> <li>- The LP or the broker confirms receipt of the Stock State Change 0005 (FIX 35=U0005) informing of the End of the One Side Only phase "Z" (FIX tag 9929=Z) for the Bid side "A" (FIX tag 54=1).</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0001 or 0501 (FIX 35=D or U0501)</li> <li>- LP receives 0172 or 0572 (FIX 35=8 or U0572)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> </ul>
3. Sell Side Only Period	<ul style="list-style-type: none"> <li>- LP makes sure that no quotes are outstanding in the instrument</li> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Offer side of the instrument</li> </ul>	<ul style="list-style-type: none"> <li>- The LP confirms receipt of the Confirmation message 0505 (FIX U0505)</li> <li>- The LP or the broker confirm receipt of unsolicited Warrant Phase Change Notice message 0506 (FIX U506) with field Action set to Beginning "Y" (FIX tag 9929) and the field Side set to Offer "V" (FIX tag 54=2)</li> <li>- The LP or the broker confirms receipt of the Stock State Change 0005 (FIX 35=U0005) informing of the start of the One Side Only phase "Y" (FIX tag 9929) for the Offer side "V" (FIX tag 54=2).</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>
4. End of Sell Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Sell side of the instrument</li> <li>- LP sends a quote on the other side of the order book to inform the market of the end of the One Side Only phase</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirm receipt of the unsolicited Warrant Phase Change Notice message 0506 (FIX U506) with field Action set to End "Z" (FIX tag 9929) and the field Side set to Offer "V" (FIX tag 54=2)</li> <li>- The LP or the broker confirms receipt of the Stock State Change message 0005 (FIX 35=U0005) informing of the End of the One Side Only phase "Z" (FIX tag 9929) for the Offer side "V" (FIX tag 54=2)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0001 or 0501 (FIX 35=D or U0501)</li> <li>- LP receives 0172 or 0572 (FIX 35=8 or U0572)</li> </ul>

			<ul style="list-style-type: none"> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> </ul>
5. Execution during One Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Offer side of the instrument</li> <li>- LP sends quote on the offer side</li> <li>- Broker sends aggressive order</li> <li>- LP and broker receive execution</li> </ul>	<ul style="list-style-type: none"> <li>- LP confirms receipt of the Request for Execution message 0503 (FIX U0503)</li> <li>- LP and broker confirm receipt of the execution notice 0105 (FIX 35=8)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0501 (FIX 35=D or U0501)</li> <li>- LP receives 0572 (FIX 35=8 or U0572)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX 0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 0105 (FIX 35=8)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> </ul>
6. Rejection of "Start One Side Only Period"	<ul style="list-style-type: none"> <li>- LP sends quotes in the instrument via Bulk Quote or Order entry type LP</li> <li>- LP sends a One Side Only Period message 0504 (FIX U0504)</li> </ul>	<ul style="list-style-type: none"> <li>- LP confirms the receipt of a rejection message 0144 (FIX 35=j) including error code 3433</li> <li>- LP confirms that he understand that no quotes can be outstanding if the LP wants to start a One Side Only period.</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0501 (FIX U0572 or 0001 (35=D)</li> <li>- LP receives 0572 (FIX U0572) or 0172 (FIX 35=8)</li> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0144 (FIX 35=j)</li> </ul>
7. Ask For Quote message during One Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Offer side of the instrument</li> <li>- LP sends quote on the offer side</li> <li>- Broker sends an order executing the full quantity of the LP</li> <li>- LP confirms the quotes by sending a</li> </ul>	<ul style="list-style-type: none"> <li>- LP confirms receipt of the Request for Execution message 0503 (FIX U0503) following the aggressive order from the broker</li> <li>- LP and broker confirm that the full quote has been executed</li> <li>- LP and broker receive execution notice message 0105 (FIX 35=8)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0506 (FIX U0506)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0501 (FIX 35=D or</li> </ul>

	<p>message 0501 (U0501)</p> <ul style="list-style-type: none"> <li>- LP and broker receive execution</li> <li>- LP receives Ask For Quote message 0502 (FIX U0502)</li> </ul>	<ul style="list-style-type: none"> <li>- LP confirms receipt of the Ask for Quote message 0502 (FIX U0502)</li> </ul>	<p>U0501)</p> <ul style="list-style-type: none"> <li>- LP receives 0572 (FIX 35=8 or U0572)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> <li>- Broker sends 0001 (FIX 35=D)</li> <li>- LP receives 0503 (FIX U0503)</li> <li>- LP sends 0501 (FIX 0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 0105 (FIX 35=8)</li> <li>- LP receives 0502 (FIX U0502)</li> <li>- LP and broker receive 0106 (FIX 35=f)</li> <li>- LP and broker receive 0005 (FUX U0005)</li> <li>- LP and broker receive 00L4 (FIX U00L4)</li> </ul>
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## TEST UNIT 05: PUBLIC MESSAGE 00L4 (FIX U00L4)

### CYCLE OBJECTIVES:

On the new market model it will be possible for clients to identify at which position in the order book the LP placed its quotes. In the public 10 best limits message 00L4 (FIX U00L4), a new flag indicates if it concerns an LP quote or a client order. This new flag will not be present in the 5 best limits message 0004 (FIX U0004) as this message will be decommissioned at the end of June 2008.

It is noted that the position of the LP in the order book is only indicated in the market by limit.

### CYCLE PREPARATION:

The client and Euronext select more than one instrument listed on the NSC VW EUA environment to use during this Test UNIT.

The client is the LP for the selected instruments.

CTS makes sure that the selected instruments are empty and available for trading.

### CYCLE DESCRIPTION:

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. LP is present at the best bid and ask	<ul style="list-style-type: none"> <li>- LP enters quotes at the best bid and ask</li> <li>- The broker is positioned at the second best bid and ask</li> </ul>	<ul style="list-style-type: none"> <li>• The client confirms the position of the LP. The LP's presence is indicated via the "LP presence indicator" (FIX tag 10066 and 10067) in message 00L4 (FIX U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>• LP sends 0501 message FIX U0501</li> <li>• LP receives 0572 message (FIX U0572)</li> <li>• Broker sends 0001 (FIX 35=D)</li> <li>• Broker receives 0172 (FIX 35=8)</li> <li>• LP and broker receive 00L4 (FIX U00L4)</li> </ul>
2. LP is present at a different position as the best bid and ask	<ul style="list-style-type: none"> <li>- The broker is positioned at the best bid and ask</li> <li>- LP enters quotes at a different position</li> </ul>	<ul style="list-style-type: none"> <li>• The client confirms the position of the LP in message 00L4 (FIX U00L4)</li> <li>• If the LP is not present on one side the tag 10066 or 10067 is not present</li> </ul>	<ul style="list-style-type: none"> <li>• LP sends 0501 message FIX U0501</li> <li>• LP receives 0572 message (FIX U0572)</li> <li>• Broker sends 0001 (FIX 35=D)</li> <li>• Broker receives 0172 (FIX 35=8)</li> <li>• LP and broker receive 00L4 (FIX U00L4)</li> </ul>
3. LP is present outside the best limits	<ul style="list-style-type: none"> <li>- The broker is positioned at the 10 best bid and ask</li> <li>- LP enters quotes at the 11<sup>th</sup> limit</li> </ul>	<ul style="list-style-type: none"> <li>• The client confirms that the LP is not included in the message 00L4 (FIX U00L4)</li> <li>• If the LP is not present on one side the tag 10066 or 10067 is not present</li> </ul>	<ul style="list-style-type: none"> <li>• LP sends 0501 message FIX U0501</li> <li>• LP receives 0572 message (FIX U0572)</li> <li>• Broker sends 0001 (FIX 35=D)</li> <li>• Broker receives 0172 (FIX 35=8)</li> <li>• LP and broker receive 00L4 (FIX U00L4)</li> </ul>

<p>4. Cancellation of LP quote</p>	<ul style="list-style-type: none"> <li>- LP enters quotes at the bid and ask side</li> <li>- The broker is also present on both sides</li> <li>- CTS cancels one of the quotes</li> </ul>	<ul style="list-style-type: none"> <li>• The client confirms that the LP is no longer present in the Order Book by Limit via message 00L4 (FIX U00L4)</li> </ul>	<ul style="list-style-type: none"> <li>• LP sends 0501 message (FIX U0501)</li> <li>• LP receives 0572 message (FIX U0572)</li> <li>• Broker sends 0001 (FIX 35=D)</li> <li>• Broker receives 0172 (FIX 35=8)</li> <li>• LP and broker receive 00L4 (FIX U00L4)</li> </ul>
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## **TEST UNIT 06: PUBLIC MESSAGE 0005 (FIX U0005)**

In certain circumstances the LP would wish to move to a Bid Only or an Offer Only situation for an instrument.

The LP has the possibility to inform the market in real time when he will only be present on the buy or sell side. The status of the instrument will change to a "One Side Only Period" in this case.

Two new statuses have been added to the Instrument State message 0005 (FIX U0005) and a new field that indicates the side of the One Side Only Period.

If the LP wishes to inform the market that the One Side Only Period has ended, he places a quote on the opposite side of the order book on which he is present. The above two messages will be sent again informing the market of the end of the One Side Only Period.

### **CYCLE PREPARATION:**

The client and Euronext select one instrument listed on the NSC VW EUA environment to use during this Test UNIT.

The client is the LP for the selected instrument.

CTS makes sure that the selected instrument is empty and available for trading.

**CYCLE DESCRIPTION:**

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. Bid Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Bid side of the instrument</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirms receipt of the public message Stock State Change 0005 (FIX 35=U0005) informing of the start of the One Side Only phase "Y" (FIX tag 9929) for the Bid side "A" (FIX tag 54=1).</li> <li>- If the tag 54 is not significant it will not be present</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>
2. End of Bid Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Bid side of the instrument</li> <li>- LP sends a quote on the other side of the order book to inform the market of the end of the One Side Only phase</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirms receipt of the Stock State Change 0005 (FIX 35=U0005) informing of the end of the One Side Only phase "Z" (FIX tag 9929=Z) for the Bid side "A" (FIX tag 54=1).</li> <li>- If the tag 54 is not significant it will not be present</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>
3. Sell Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Offer side of the instrument</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirms receipt of the Stock State Change message 0005 (FIX 35=U0005) informing of the start of the One Side Only phase "Y" (FIX tag 9929) for the Offer side "V" (FIX tag 54=2).</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>
4. End of Sell Side Only Period	<ul style="list-style-type: none"> <li>- LP sends a One Side Only Period message 0504 (FIX U0504) on the Sell side of the instrument</li> <li>- LP sends a quote on the other side of the order book to inform the market of the end of the One Side Only phase</li> </ul>	<ul style="list-style-type: none"> <li>- The LP or the broker confirms receipt of the Stock State Change message 0005 (FIX 35=U0005) informing of the end of the One Side Only phase "Z" (FIX tag 9929) for the Offer side "V" (FIX tag 54=2)</li> </ul>	<ul style="list-style-type: none"> <li>- LP sends 0504 (FIX U0504)</li> <li>- LP receives 0505 (FIX U0505)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> <li>- LP sends 0501 (FIX U0501)</li> <li>- LP receives 0572 (FIX U0572)</li> <li>- LP and broker receive 0005 (FIX U0005)</li> </ul>

## TEST UNIT 07: AUCTION PERIOD

### CYCLE OBJECTIVES:

If the instrument on NSC VW is in pre-opening or reserved mode, each time an order is entered, modified or cancelled, the theoretical opening price (TOP) is calculated in exactly the same way as it currently is. The difference with the old market model is the fact that the static threshold has been replaced by the quotes of the LP. This test cycle also shows that the instrument is reserved automatically if the LP is not present in the order book.

This test-cycle will recreate the several cases that can occur at the opening of the instrument:

- The LP is not present in the order book and the instrument is reserved automatically
- The LP fulfills his obligations and the calculated TOP is between LP quotes, the instrument opens
- The LP fulfills his obligations and the calculated TOP is outside LP quotes, the instrument is automatically reserved

### CYCLE PREPARATION:

The client and Euronext select more than one instrument listed on the NSC VW EUA environment to use during this Test UNIT. The client is the LP for the selected instruments. CTS makes sure that the selected instruments are empty and available for trading.

### CYCLE DESCRIPTION:

UNIT Number	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA
1. LP is not present at opening	<ul style="list-style-type: none"> <li>- CTS reserves the instrument if the group of the instrument is not in pre-opening phase already</li> <li>- The broker enters several orders</li> <li>- CTS triggers an auction</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to the opening the client confirms the TOP</li> <li>• The client confirms that he understands that the instrument is automatically reserved because the LP is not present in the order book at the opening of the instrument</li> </ul>
2. LP is present and TOP is inside quotes	<ul style="list-style-type: none"> <li>- CTS reserves the instrument if the group of the instrument is not in pre-opening phase already</li> <li>- LP enters quotes</li> <li>- The broker enters orders at a price between the best bid and best offer of the LP</li> <li>- CTS triggers an auction</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to the opening the client confirms the TOP</li> <li>• The client confirms that he understands that the instrument is open because the LP is present and the calculated TOP is between LP quotes</li> </ul>

<p>3. LP is present and TOP is not inside quotes</p>	<ul style="list-style-type: none"> <li>- CTS reserves the instrument if the group of the instrument is not in pre-opening phase already</li> <li>- LP enters quotes</li> <li>- The broker enters orders at a price outside the TOP</li> <li>- CTS triggers an auction</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to the opening the client confirms the TOP</li> <li>• The client confirms that he understands that the instrument does not open because the TOP is outside the LP quotes</li> </ul>
<p>4. CMO cancels outstanding quotes of LP</p>	<ul style="list-style-type: none"> <li>- CTS reserves the instrument if the group of the instrument is not in pre-opening phase already</li> <li>- LP enters quotes</li> <li>- The broker enters orders at a price between the best bid and best offer of the LP</li> <li>- CTS triggers an auction</li> <li>- CTS cancels the outstanding LP quotes</li> </ul>	<ul style="list-style-type: none"> <li>• The client confirms that the instrument is reserved automatically following the cancellation of the LP quotes by CTS</li> </ul>