

# – Test Script – TCS UTP-Direct

Written by Customer Technical Support

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

## OVERVIEW

As part of the preparation for the availability of the UTP-Direct protocol on the TCS platform, NYSE Euronext requires that all Members that trade on this platform via this protocol install conformant TCS software, i.e. certified by an ISV or in-house development department.

The purpose of this script is to enable members to test their solutions, either in-house or via an ISV, in order to confirm the readiness of their software for the new protocol.

The *conformance test* takes place on the Euronext TCS platform available in the External User Acceptance (EUA) test platform. The *conformance test* must be completed for each application built by a member developer or ISV before any trader using this software goes live on the market.

The Universal Trading Platform (UTP) support team is available from 09:00 to 18:00 CET to provide customers with functional and technical support on investment fund issues.

Outside these hours, basic support from CTS is available from 07:00 to 21:00 CET for any other queries.

**UTP tel: +33 (0)1 4927 5090 email: [utp@nyx.com](mailto:utp@nyx.com)**

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

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## **01 - TEST CYCLE FOR FUND BROKER PROFILES**

### ***TEST CYCLE B01: FUND DECLARATION ENTRY***

#### **Test cycle objectives:**

This cycle tests the Broker's ability to enter a TCS declaration on a fund instrument using the following options:

- Fund Declaration in "**Quantity**" (Operation Type Indicator "i") with or without the Fund Agent Counterpart Member Code
- Fund Declaration in "**Cash**" (Operation Type Indicator "I") with or without the Fund Agent Counterpart Member Code
- Fund Declaration in "**Quantity or Cash**" (TCS operation type "i" or "I") with the following settlement options:
  - Settlement indicator set to **1 Settlement**
  - Settlement guarantee requested or not
  - A standard settlement delay (3 days)
  - A non-standard settlement delay (minimum 2 days and maximum 30 days)

This cycle tests the Broker's ability to check if the Fund Declaration is accepted (Pre-Matched) or refused by the Fund Agent counterpart.

This cycle tests the Broker's ability to enter Fund Declaration Cancellation request on a pending Declaration awaiting pre-matching.

This cycle tests the Broker's ability to receive a TCS Fund Matching Notice.

#### **Test cycle preparation:**

The Broker selects a fund instrument to use during this Test Cycle.

**Test cycle description:**

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
<b>1.</b> TCS Fund Declaration Entry in “Quantity” the Fund Agent Counterpart Member Code should not be filled.	Client sends a Fund Declaration in “Quantity” ( <b>OperationType indicator=i</b> ) to TCS on a fund instrument. The Fund Agent Member Code ( <b>EnteringCounterpart</b> ) should not be specified.	Client confirms receipt of the TCS Notice (n) message. The pre-matching indicator is filled with “0” ( <b>not pre-matched</b> ).	- Client sends (d) - Client receives (n)
<b>2*</b> . TCS Fund Declaration Entry in “Cash” accepted by the fund agent. TCS Fund Declaration the Fund Agent Counterpart Member Code must be filled.	Client sends a Fund Declaration in “Cash” ( <b>OperationType indicator=l</b> ) to TCS on a fund instrument. Euronext acting as a fund AgentCounterpart ( <b>EnteringCounterpart</b> ) receives the Declaration notification issued by the client and accepts it.	CTS and the Client confirm receipt of the TCS Notice (n) message. The Fund Agent Counterpart Member Code is visible and PrematchingIndicator hold one of the following values: <b>“1” (Pre-matched at D for execution at D+1)</b> <b>“2” (Pre-matched at D for execution at D+2)</b>	- Client sends (d) - CTS receives (n) - CTS sends (d) - Client receives (n)
<b>3.</b> TCS Fund Declaration in “Quantity” with Guaranteed Settlement and a standard delay Refused by the fund agent: TCS Fund Declaration Entry the Fund Agent Counterpart Member Code must be filled.	The Broker sends a Fund Declaration in “Quantity” ( <b>OperationType indicator=l</b> ) to TCS on a fund instrument. The Client requests this Declaration to be settled in the C21 system with a guaranteed indicator and a standard delay ( <b>GuaranteeFlag=1</b> ) Euronext acting as a fund AgentCounterpart ( <b>EnteringCounterpart</b> ) receives the Declaration notification issued by the client and refuses it.	CTS and the Client confirm receipt of the TCS Notice (n) message. The Fund Agent Counterpart Member Code is visible. CTS Checks that GuaranteeFlag is set to 1. The Client receives a fund declaration refusal notice.	- Client sends (d) - CTS receives (n) - CTS sends (d) - Client receives (n)
<b>4*</b> . TCS Fund Declaration in “Cash” with non- Guaranteed Settlement and a non-standard delay Cancellation request. TCS Fund Declaration Entry the Fund Agent Counterpart Member Code must be filled.	Client sends a Fund Declaration in “Cash” ( <b>OperationType indicator=i</b> ) to TCS on a fund instrument. The Client requests this Declaration to be settled in the C21 system with a non-guaranteed indicator and a non-standard delay ( <b>GuaranteeFlag=0</b> ) Euronext acting as a fund AgentCounterpart ( <b>EnteringCounterpart</b> ) receives the Declaration notification issued by the client and accepts it.	CTS and the Client confirm receipt of the TCS Notice (n) message. The Fund Agent Counterpart Member Code is visible. CTS Checks that GuaranteeFlag is set to 0.	- Client sends (d) - CTS receives (n) - CTS sends (d) - Client receives (n)

\*According to the pre-matching indicator in the Fund Declaration Notice (execution time at D+1 or D+2) received by the Broker, the result of this test unit will be available at D+1 or at D+2. It is the Broker’s responsibility to check the result of this test unit.

## TEST CYCLE B02: FUND DECLARATION REJECTIONS

### Test cycle objectives:

This cycle tests the Broker's ability to check the reason why a Fund Declaration he has issued was rejected.

### Test cycle preparation:

The Broker selects a fund instrument to use during this Test Cycle.

### Test cycle description:

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. TCS Fund Declaration rejected because invalid instrument	The Broker sends a TCS Fund Declaration in "Quantity" ( <b>OperationType indicator=I</b> ) on a non-fund instrument.	The Broker receives a TCS rejection notice with the following error message: - Error code 129: "The Instrument is not a Fund"	- Client sends (d) - Client receives (j)
2. TCS Fund Declaration rejected because invalid Fund Agent Counterpart	The Broker sends a TCS Fund Declaration in "Cash" ( <b>OperationType indicator=I</b> ) with an invalid Fund Agent counterpart code.	The Broker receives a TCS rejection notice with the following error message: - Error code 803: "The counterparty is not a Fund Agent"	- Client sends (d) - Client receives (j)
3. TCS Fund Declaration rejected because invalid cash amount	The Broker sends a TCS Fund Declaration in "Cash" with a cash amount containing decimals.	The Broker receives a TCS rejection notice with the following error message: - Error code 805: "Invalid Cash Amount "	- Client sends (d) - Client receives (j)
4*. TCS Fund Declaration in "Cash" rejected at the fixed execution moment because invalid quantity	The Broker sends a TCS Fund Declaration in "Cash" for an amount equal to €0.10. Euronext, acting as a Fund Agent counterpart, sends an NAV +/- price superior to €0.10 which will trigger the declaration rejection.	At the fixed execution moment, the Broker receives a TCS rejection notice with the following error message: - Error code 806: "Trade rejected due to invalid quantity"	- Client sends (d) - CTS sends (p) - Client receives (j)

\*According to the pre-matching indicator in the Fund Declaration Notice (execution time at D+1 or D+2) received by the Broker, the result of this test unit will be available at D+1 or at D+2. It is the Broker's responsibility to check the result of this test unit.

**TEST CYCLE B03: FUND DECLARATION ELIMINATION**

**Test cycle objectives:**

This cycle tests the Broker’s ability to check the reason why the Fund Declaration he has issued was eliminated.

**Test cycle preparation:**

The Broker and Euronext select a fund instrument and agree to use it during this Test Cycle.

**Test cycle description:**

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. TCS Fund Declaration elimination due to expiration of an unconfirmed declaration	The Broker sends a TCS Fund Declaration in “Quantity” or in “Cash” on a fund instrument (please use NL0000280279). This declaration expires after the additional order confirmation period (16:30 CET)	The Fund Agent responsible for this fund instrument will not reply to this Declaration. • The Broker receives a TCS elimination notice with the elimination reason “Expiration of a pending (unconfirmed) declaration”	- Client sends (d) - Client receives (n) - Client receives (n)
2. TCS Fund Declaration elimination due to expiration of a pre-matched order	Euronext and the Broker create a pre-match declaration on NL0000284768. A pre-matched declaration expires after the additional order confirmation period (16:30 CET) if the Fund Agent does not enter a NAV +/- before the execution time.	The Broker receives a TCS elimination notice with the elimination reason “Expiration of pre-matched declaration due the failure of matching”	- Client sends (d) - Client receives (n) - CTS sends (d) - CTS receives (n)
3. TCS Fund Elimination of a pre-matched declaration performed by Euronext Cash Market Operations	Euronext and the Broker create a pre-match declaration. Euronext, acting as Cash Market Operations, cancels it.	The Broker receives a TCS elimination notice with the elimination reason “Elimination of a pre-matched declaration by the Market Operation”	- Client sends (d) - Client receives (n)

**TEST CYCLE B04: FUND DECLARATION CANCELLATION**

**Test cycle objectives:**

This cycle tests the Broker’s ability to enter a TCS Fund Declaration Cancellation Request on a pending Declaration whilst awaiting pre-matching.

**Test cycle preparation:**

The Broker selects a fund instrument to use during this Test Cycle. The Broker enters a Fund Declaration in “Quantity” or in “Cash” and then decides to cancel it.

**Test cycle description:**

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
<p><b>1.</b> TCS Fund Declaration Entry in “Cash” Cancellation request Agent Counterpart Member Code must be filled.</p>	<p>Client sends a Fund Declaration in “Cash” (<b>OperationType indicator=I</b>) to TCS on a fund instrument. Client sends a TCS cancellation request (c) message (<b>TCSMsgType=0402</b>) on that pending Declaration.</p>	<p>CTS and the Client confirm receipt of the TCS Notice (n) message. CTS and the Client confirm receipt of the TCS Notice (n) message.</p>	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- CTS receives (n)</li> <li>- Client sends (c)</li> <li>- Client receives (n)</li> </ul>
<p><b>2.</b> TCS Fund Declaration Entry in “Cash” Cancellation request rejected. Agent Counterpart Member Code must be filled.</p>	<p>Client sends a Fund Declaration in “Cash” (<b>OperationType indicator=I</b>) to TCS on a fund instrument. Client sends a TCS cancellation request (c) message (<b>TCSMsgType=0404</b>) on that pending Declaration.</p>	<p>CTS and the Client confirm receipt of the TCS Notice (n) message. CTS and the Client confirm receipt of the Business reject message (j) message.</p>	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- CTS receives (n)</li> <li>- Client sends (c)</li> <li>- Client receives (j)</li> </ul>

## 02 - TEST CYCLES FOR FUND AGENT PROFILES

### TEST CYCLE A01: RECEPTION OF TCS FUND NOTIFICATION OF DECLARATION

#### Test cycle objectives:

This cycle tests the Fund Agent's ability to receive and interpret correctly a TCS Fund Notification of Declaration issued by a Fund Broker counterpart.

#### Test cycle preparation:

The Fund Agent and Euronext select a fund instrument and agree to use it during this Test Cycle.

#### Test cycle description:

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. TCS Fund Declaration Entry in "Cash" accepted by the fund agent. TCS Fund Declaration the Fund Agent Counterpart Member Code must be filled.	CTS send a Fund Declaration in "Cash" ( <b>OperationType indicator=i</b> ) to the fund Agent Counterpart.	The Fund Agent Counterpart confirms receipt of the TCS Notice (n) message. The Fund Agent Counterpart confirms to CTS the following information: -Operation Type -Cash amount -Settlement guarantee and delay indicators.	- CTS sends (d) - CTS receives (n) - Client receives (n)
2. Refusal of a TCS Fund Declaration in "Quantity" TCS Fund Declaration Entry the Fund Agent Counterpart Member Code must be filled.	CTS sends a Fund Declaration in "Quantity" ( <b>OperationType indicator=l</b> ) to fund Agent Counterpart. The fund agent counterpart refuses it.	The Fund Agent Counterpart confirms receipt of the TCS Notice (n) message. The Fund Agent Counterpart confirms to CTS the following information: -Operation Type -Quantity -Settlement guarantee and delay indicators. The Fund Agent Counterpart refuses the notification sending a Declaration refusal request TCS C&R(c) message. The Client receives a fund declaration refusal notice.	- CTS sends (d) - CTS receives (n) - Client receives (n) - Client sends (d) - Client receives (n)

<p><b>3.</b> Acceptance of a TCS Fund Declaration in “Cash” TCS Fund Declaration Entry the Fund Agent Counterpart Member Code must be filled.</p>	<p>CTS sends a Fund Declaration in “Cash” (<b>OperationType indicator=i</b>) to the fund Agent Counterpart. The fund agent counterpart accepts it.</p>	<p>The Fund Agent Counterpart accepts the notification sending a Fund Declaration containing the necessary matching criteria. The Fund Agent Counterpart confirms receipt of the TCS Notice (n) message with one of the following pre-matching indicators: <b>“1” (Pre-matched at D for execution at D+1)</b> <b>“2” (Pre-matched at D for execution at D+2)</b> The fund agent should acknowledge the pre-matching indicator to CTS.</p>	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- CTS receives (n)</li> <li>- CTS sends (d)</li> <li>- Client receives (n)</li> </ul>
<p><b>3.</b> Acceptance/Refusal of a set of TCS Fund Declaration in “Cash” TCS Fund Declaration Entry the Fund Agent Counterpart Member Code must be filled.</p>	<p>CTS sends several Fund Declaration in “Cash” or “Quantity” (<b>OperationType indicator=l or =l</b>) to the fund Agent Counterpart. The fund agent counterpart accepts / refuses all or some of them.</p>	<ul style="list-style-type: none"> <li>• The Fund Agent refuses them, sending a set of Declaration Refusal Requests or</li> <li>• The Fund Agent accepts them, sending a set of Fund TCS Declarations containing the necessary matching criteria.</li> <li>• The Fund Agent should acknowledge the pre-matching indicator to CTS.</li> </ul>	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- CTS receives (n)</li> <li>- CTS sends (d)</li> <li>- Client receives (n)</li> </ul>

**TEST CYCLE A02: NAV +/- PRICE AND TCS CROSS FUND DECLARATION ENTRY**

**Test cycle objectives:**

This cycle tests the Fund Agent's ability to enter a TCS NAV +/- price

**Test cycle preparation:**

The Fund Agent selects an investment fund instrument to use during this Test Cycle.

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
<b>1*</b> . Entry of a TCS NAV +/- price	The Fund Agent enters a TCS NAV +/- price.	The Fund Agent receives TCS Price ACK Acknowledgement.	- Client sends (p) - Client receives (q)
<b>2.</b> NAV +/- Price rejected because entered after the single execution time (After 10:00 CET)	The Fund Agent sends a TCS NAV +/- price entry after the single execution time.	The Fund Agent receives TCS Reject (j) message.	- Client sends (p) - Client receives (j)
<b>3*</b> . NAV +/- Price rejected because member is not a fund manager for a particular instrument.	The Fund Agent enters a TCS NAV +/- price, for an instrument that he is not a fund manager for.	The Fund Agent receives TCS Reject (j) message.	- Client sends (p) - Client receives (j)

\* The NAV +/- price must be sent after the opening of the TCS system (07:00 CET) and before 10:00 CET.

## 03 - TEST CYCLES FOR OTC PUBLICATION AND REPORTING

### TEST UNIT 01: TRADE ENTRY

The aim of this test unit is to check the client's ability to:

- Generate a trade entry via the TCS Trade entry message "T" on TCS using any of the available OTC operation types.
- Cancel an OTC trade entry acknowledged by TCS

The following types of declarations are available via the TCS Trade Entry message "T":

- OTC trade for reporting (L)
- OTC trade for publication (M)
- OTC trade for publication & reporting (N)

Find below a short overview of which fields are mandatory and which are optional or non applicable per type of declaration. (Please that this overview does not show all fields):

operation type	counterpart	price	quantity	Amount	VWAP time	other factors	quantity notation	Venue	Trading day	Trading time	Bypass control	trade id	price multiplier	deferred trade	settlement	settlement delay
OTC trade for reporting (L)	M	M	M	n/a	n/a	M	O	M	M	M	n/a	M	O	n/a	n/a	M
OTC trade for publication (M)	O	M	M	n/a	n/a	M	O	M	O	O	M	M	O	M	n/a	O
OTC trade for publication & reporting (N)	M	M	M	n/a	n/a	M	O	M	M	M	M	M	O	M	n/a	M

**Test UNIT preparation:**

The client and Euronext select **an instrument which may or may not be listed on Euronext markets** to use during this test unit. Euronext and the client agree on the MiFID characteristics of the OTC trade entry message to be entered by the client (**Price notation, Quantity notation, Venue identification, Other factors, Price multiplier, Bypass controls & Differed trade indicator**). The client is free to choose its counterpart.

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. OTC Trade Entry for trade publication	Client enters a trade with operation type indicator equal to "M".	Exchange checks that the trade entry message is correct. <ul style="list-style-type: none"> <li>Client acknowledges receipt of the trade Entry Notice (t) message.</li> </ul>	- Client sends (T) - Client receives (t)
2. OTC Trade Entry for trade reporting	Client enters a trade with operation type indicator equal to "L".	Exchange checks that the trade entry message is correct. <ul style="list-style-type: none"> <li>Client acknowledges receipt of the trade Entry Notice (t) message.</li> </ul>	- Client sends (T) - Client receives (t)
3. OTC Trade Entry for trade publication & reporting	Client enters a trade with operation type indicator equal to "N".	Exchange checks that the trade entry message is correct. <ul style="list-style-type: none"> <li>Client acknowledges receipt of the trade Entry Notice (t) message.</li> </ul>	- Client sends (T) - Client receives (t)
4. OTC Trade cancellation entry	Client enters a trade with operation type indicator equal to "M", "L" or "N". <ul style="list-style-type: none"> <li>Client cancels the OTC trade using the TCS C&amp;R (c) message (TCSMsgType=0404).</li> </ul>	Exchange checks that the trade entry message is correct. <ul style="list-style-type: none"> <li>Client acknowledges receipt of the trade Entry Notice (t) message.</li> <li>Exchange checks that the trade cancellation entry message is correct.</li> <li>Client acknowledges receipt of the TCS Notice (n) message.</li> </ul>	- Client sends (T) - Client receives (t) - Client sends (c) - Client receives (n)
5. CMO cancels reported or published trade	Client enters a trade with operation type indicator equal to "M", "L", or "N". CMO cancels the trade	Client acknowledges receipt of the unsolicited TCS Notice (n) message	Client sends (T) Client receives (t) Client receives (n)

## 04 - TEST CYCLES FOR DECLARATION ENTRY

### TEST UNIT 01: DECLARATION KINEMATICS

The aim of this test unit is to check the client's ability to:

- Generate a declaration entry message on TCS using any of the available operation types.
- Reply to a Notification of Declaration message with any of the available operation types.
- Reject a notification issued by a counterpart
- Cancel a declaration he issued to a counterpart
- Read the rejections if his declaration is not accepted
- Read the unsolicited messages related to the declaration

As the kinematics for each type of TCS declarations are the same (except for the Dutch Fund type of declaration that is tested in another test cycle) the below test unit can be used for any type of declaration. The test unit 02 aims to test each individual type of declaration.

Find below an overview of the different states the TCS declaration can have and how these can be identified on the UTP-Direct protocol:

TCS notice message (n)					TCS declaration (d)		Event
ExecType	ExecTransType	OrdStatus	ExecRestatement Reason	SLE equivalent	Declaration Status	Trade Status	
0	0	0		'0411	New	Waiting	Declaration Entry
D	0	0	4	'0412	New	Waiting	Declaration Entry
4	0	4		'0413	Cancelled	N/A	Declaration Cancelled by issuer
D	0	4	4	'0414	Refused	N/A	Declaration has been refused by the counterparty
2	0	2		'0415	Filled	Done	Declaration has been matched and TCS trade is done
C	0	C		'0416	Expired	N/A	Declaration has been automatically expired or expired due to a CE or eliminated by CMO
6	1	6	4	'0417	N/A	Pending Cancel	Trade cancellation waiting to be confirmed by counterpart
4	1	4	4	'0417	N/A	Cancelled	Trade cancellation

**Test UNIT preparation:**

The client and Euronext select **an instrument listed on Euronext markets** to use during this test unit. Euronext provides the characteristics & matching criteria of the declaration to be entered by the client. Euronext is the counterpart of the client.

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. Declaration entry and match	Client enters a declaration with any operation type except i or l Exchange matches the declaration	Exchange checks that the declaration entry message is correct. <ul style="list-style-type: none"> <li>Client acknowledges receipt of the TCS Notice (n) message (MMTP 0412) (Except type=0 / ExecTransType=0 / OrdStatus=0).</li> </ul> - Client and exchange receive match via TCS Notice (n) (MMTP 0415) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Client sends (d) - Client receives (n) Exchange receives (n) (0412) - Exchange sends (d) - Exchange receives (n) - Client and Exchange receive (n)
2. Cross	Client enters a declaration with the side set to "cross". It is important for the client to use the correct type of CustomerOrFirm	Exchange checks that the declaration entry message is correct Client acknowledges receipt of one TCS notice message (n) (MMTP 0411) (ExecType=0 / ExecTransType=0 / OrdStatus=0). For a cross declaration, the declaring member has to send just one message (d) and will receive only one reception notice (n) (MMTP 0411) (ExecType=0 / ExecTransType=0 / OrdStatus=0).	- Client sends (d) - Client receives (n)
3. Reply to a Notification of a declaration issued by a counterpart	Exchange enters a declaration with any operation type except i or l. Client matches the declaration	Exchange checks that the declaration entry message that should match with the outstanding declaration is correct. Customer confirms receipt of the message declaration issued by the counterpart. - Client and exchange receive match via TCS Notice (n) (MMTP 0415) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Exchange sends (d) - Exchange receives (n) - Client receives (n) (0412) - Client sends (d) - Client receives (n) - Exchange receives (n) (0412) - Client and Exchange receive (n)
4. Rejection of OTC trade by	Client enters a declaration with any operation	Client acknowledges the receipt of the rejection by	- Client sends (d)

Exchange	type except i or l. Exchange rejects the declaration	the counterpart via the TCS notice (n) (MMTP 0414) (ExecType=D / ExecTransType=0 / OrdStatus=4/ ExecRestatement Reason=4).	<ul style="list-style-type: none"> <li>- Client receives (n)</li> <li>- Exchange receives (n) (0412)</li> <li>- Exchange sends (c)</li> <li>- Client receives (n)</li> </ul>
5. Rejection of declaration issued by a counterpart	Exchange enters a declaration with any operation type except i or l. Client rejects the declaration	Exchange checks that the TCS C&R (c is correct. Client acknowledges receipt of the confirmation of the refusal via the TCS notice (n) (MMTP 0414) (ExecType=D / ExecTransType=0 / OrdStatus=4 / ExecRestatement Reason=4).	<ul style="list-style-type: none"> <li>- Exchange sends (d)</li> <li>- Exchange receives (n)</li> <li>- Client receives (n) (0412)</li> <li>- Client sends (c)</li> <li>- Client receives (n)</li> </ul>
6. Cancellation of declaration by client	Client enters a declaration with any operation type except i or l. Client cancels the declaration before a match or an elimination occurs	Exchange checks that the TCS C&R (c is correct. Client acknowledges receipt of the confirmation of the cancellation via the TCS notice (n) (MMTP 0413) (ExecType=4 / ExecTransType=0 / OrdStatus=4).	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> <li>- Exchange receives (n) (0412)</li> <li>- Client sends (c)</li> <li>- Client receives (n) (0413)</li> <li>- Exchange receives (n) (0413)</li> </ul>
7. Elimination of declaration	Client enters a declaration with any operation type except i or l. Exchange does not reply to the declaration for at least 15 minutes	Client acknowledges receipt of the elimination of the declaration after 15 minutes via the TCS notice (n) (MMTP 0416) (ExecType=C / ExecTransType=0 / OrdStatus=C)	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives(n)</li> <li>- Exchange receives (n) (0412)</li> <li>- Client receives (n)</li> </ul>
8. Reply to an OTC operation in units	Exchange enters a declaration with any operation type except i or l and QuantNotation=FMT. Client matches Euronext's declaration.	Client confirms receipt of the message declaration issued by the counterpart. - Client and exchange receive match via TCS Notice (n) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	<ul style="list-style-type: none"> <li>- Exchange sends (d)</li> <li>- Exchange receives (n)</li> <li>- Client receives (n) (0412)</li> <li>- Client sends (d)</li> <li>- Client receives (n)</li> <li>- Exchange receives (n) (0412)</li> <li>- Client and Exchange receive (n)</li> </ul>
9. Reply to an OTC operation	Exchange enters a declaration with any	Client confirms receipt of the message declaration	<ul style="list-style-type: none"> <li>- Exchange sends (d)</li> </ul>

with different clearing account	operation type except i or l and the SettlPeriod to x days (SettlementFlag=1, GuaranteeFlag=1 and SettlPeriod=x). Client matches the Euronext's declaration.	issued by the counterpart. - Client and exchange receive match via TCS Notice (n) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Exchange receives (n) - Client receives (n) (0412) - Client sends (d) - Client receives (n) Client and Exchange receive (n)
10. Rejection of declaration by TCS platform	Client sends a declaration with an incorrect field (for instance an incorrect price precision or to a counterpart that does not exist.	Client acknowledges receipt of the TCS rejection message (j) and confirms that the client's application is able to interpret the reason of the reject	- Client sends (d) - Client receives (j)
11. Price of 4 decimals	Exchange selects an instrument that allows a price of 4 decimals. Client sends a declaration with a price decision of 4 decimals behind the decimal for this instrument.	Client acknowledges receipt of the TCS notification message (n) Exchange matches the declaration	- Client sends (d) - Client receives (n) - Exchange receives (n) (0412) - Exchange sends (d) Exchange receives (n) Client and exchange receive (n)

## TEST UNIT 02: DIFFERENT TYPE OF DECLARATIONS

The aim of this test unit is to ensure that clients are able to send the type of declarations the client will use in production. An ISV and ASP need to verify which type of declaration they wish to offer their clients or their client expects to use. If the client wants to trade on the TCS platform via the TCS declaration (d), at least one of the declaration types needs to be used in combination with test unit 01 of this Test Cycle.

For certain types of declarations a specific test case has been added. If the client uses this type of declaration it is important that they pass these specific test units.

The following types of declarations are available on the TCS platform when using the TCS declaration message (d):

- 0** Trade outside the book
- 9** Prorogation buy
- a** Prorogation sell
- i** Fund order (quantity)
- E** VWAP transaction
- I** Fund order (cash amount)
- K** OTC trade
- R** Second.listing place trade

Please consult test cycle 01 and 02 for Dutch Funds.

Find below a short overview which fields are mandatory and which are optional or non applicable per type of declaration. (Please that this overview does not show all fields):

operation type	counterpart	price	quantity	Amount	VWAP time	other factors	quantity notation	Venue	Trading day	Trading time	Bypass control	trade id	price multiplier	deferred trade	settlement	settlement delay
OTC trade (K)	M	M	M	n/a	n/a	M	O	M	n/a	n/a	n/a	n/a	O	n/a	O	n/a
Outside working hours (0)	M	M	M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	O	O
Fund order in cash amount (i)	O	n/a	M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	O	O
Fund order in quantity (I)	O	n/a	n/a	M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	O	O
prorogation (buy and sell) (9/a)	M	M (0 is possible)	M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
VWAP	M	M	M	n/a	M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	O	O

M= mandatory  
O= optional  
n/a= not applicable

**Test UNIT preparation:**

The client and Euronext select **an instrument listed on Euronext markets** to use during this test unit. Euronext provides the characteristics & matching criteria of the declaration to be entered by the client. Euronext is the counterpart of the client.

UNIT NUMBER	ACTIONS REQUIRED	UNIT COMPLETION CRITERIA	MESSAGE(S) INVOLVED
1. OTC trade	Client enters a declaration with an operation type "K". Exchange matches the declaration	Exchange checks that the declaration entry message is correct. • Client acknowledges the reception of the TCS Notice (n) message (MMTP 0412) (Except type=0 / ExecTransType=0 / OrdStatus=0). - Client and exchange receive match via TCS Notice (n) (MMTP 0415) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Client sends (d) - Client receives (n) Exchange receives (n) (0412) - Exchange sends (d) - Exchange receives (n) - Client receives (n) (0412) - Client and Exchange receive (n)
2. Reply to a OTC operation in units	Exchange enters a declaration with an operation type "K" and QuantNotation=FMT. Client matches the declaration.	Client confirms the reception of the message declaration issued by the counterpart. - Client and exchange receive match via TCS Notice (n) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Exchange sends (d) - Exchange receives (n) - Client receives (n) (0412) - Client sends (d) - Client receives (n) - Exchange receives (n) (0412) - Client and Exchange receive (n)
3. Reply to a OTC operation with different clearing account	Exchange enters a declaration with an operation type "K" and the SettlPeriod to x days (SettlementFlag=1, GuaranteeFlag=1 and SettlPeriod=x). Client matches the declaration.	Client confirms the reception of the message declaration issued by the counterpart. - Client and exchange receive match via TCS Notice (n) (ExecType=2 / ExecTransType=0 / OrdStatus=2).	- Exchange sends (d) - Exchange receives (n) - Client receives (n) (0412) - Client sends (d) - Client receives (n) - Exchange receives (n) (0412) - Client and Exchange receive (n)
4. Outside Working hours	Client enters a declaration with an operation type "O". Exchange matches the declaration	Exchange checks that the declaration entry message is correct	- Client sends (d) - Client receives (n) Exchange receives (n) (0412) - Exchange sends (d)

			<ul style="list-style-type: none"> <li>- Exchange receives (n)</li> <li>- Client receives (n) (0412)</li> <li>- Client and Exchange receive (n)</li> </ul>
5. Prorogation buy	Client enters a declaration with an operation type "9".	Exchange checks that the declaration entry message is correct.	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> </ul>
6. Prorogation sell	Client enters a declaration with an operation type "a".	Exchange checks that the declaration entry message is correct.	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> </ul>
7. Prorogation at a price that equals 0	Client enters a declaration with an operation type "9" or "a" with a price equals 0.	Exchange checks that the declaration entry message is correct.	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> </ul>
8. VWAP	Client enters a declaration with an operation type "E".	Exchange checks that the declaration entry message is correct.	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> </ul>
9. VWAP without auction	Client enters a declaration with an operation type "E" that does not include a fixing on the primary market.	Exchange checks that the declaration entry message is correct. Client acknowledges the reception of the TCS reject and confirms it understand the rejection	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (j)</li> </ul>
10. Secondary Listing	Client enters a declaration with an operation type "R".	Exchange checks that the declaration entry message is correct.	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (n)</li> </ul>
11. Secondary Listing on a wrong market	Client enters a declaration with an operation type "R" with the field venue that is incorrect.	Exchange checks that the declaration entry message is correct. Client acknowledges the reception of the TCS reject and confirms it understand the rejection	<ul style="list-style-type: none"> <li>- Client sends (d)</li> <li>- Client receives (j)</li> </ul>