NASDAQ OMX | NFX

Rule Self-Certification

January 23, 2015

VIA ELECTRONIC PORTAL

Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Center
1155 21st Street, N.W.

Re: **Regulation §40.6 Submission Certification**
Reference Guide
Reference File: SR-NFX-2015-02

Dear Mr. Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended ("Act"), and Section 40.6(a) of the regulations promulgated by the Commodity Futures Trading Commission under the Act, NASDAQ Futures, Inc. ("NFX" or "Exchange") adopts a new Reference Guide entitled "Tailor Made Combinations." The new Reference Guide will be implemented on May 1, 2015. The text of the Reference Guide is set forth in Exhibit A.[1]

The Exchange recently filed amendments to its Trading Rules which will be implemented on April 1, 2014.[2] Among other things, the rule change adopted revised and new trading rules in Chapter IV entitled "Trading System." The Exchange is adopting a Tailor Made Combinations Reference Guide to provide further guidance to market participants with respect to entering Combination Orders into the Trading System. The Tailor Made Combinations Reference Guide will be posted on the Exchange's website to provide market participants additional information with respect to entering Combination Orders on the Exchange.

With respect to the designated contract market core principles ("Core Principles") as set forth in the Act:

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[1] Exhibit B reflects amendments to the Exchange's Rulebook as filed in SR-NFX-2014-02, SR-NFX-2014-05 and SR-NFX-2015-01.

[2] See SR-NFX-2014-02, SR-NFX-2014-05 and SR-NFX-2015-01.

• *Compliance with Rules*: Today the Exchange has in place Rules which describe the manner in which Futures Participants may access and trade on NFX. Chapter II, Section I provides for the qualifications and rules of participation applicable to Futures Participants as well as Authorized Traders. This Rule states that Futures Participants must utilize the Exchange's services in a responsible manner, comply with Rules, cooperate with Exchange investigations and inquiries and observe high standards of integrity. In addition the Rule provides clear and transparent access criteria and requirements for Futures Participants and Authorized Traders. Chapter V, Section 18 describes prohibited activities with respect to the Trading System.

Trading will be subject to the Rules at Chapter III of the Exchange's Rulebook, which include prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading is subject to the trading procedures and standards in Chapter V of the Rulebook. Trading activity is subject to extensive monitoring and surveillance by NFX's regulatory group in conjunction with the National Futures Association pursuant to the provisions of a Regulatory Services Agreement. Additionally, the Exchange has the authority to exercise its investigatory and enforcement power where potential rule violations are identified. The Exchange's disciplinary Rules are contained in Chapter VI of the Rulebook, which permit the Exchange to discipline, suspend or expel Futures Participants or market participants that violate the Rules. Pursuant to Chapter V, Section 5, the Exchange may cancel or adjust trades when necessary to mitigate market disrupting events caused by the improper or erroneous use of the Trading System or system defects or malfunctions. The Exchange may review a trade based on its independent analysis of market conditions or upon request from a Futures Participant.

• *Prevention of Market Disruption*: The Exchange's Regulatory Department, which handles real-time surveillance, monitors trading activity on the Exchange with a SMARTS Surveillance Application through which the Exchange can track activity of specific Authorized Traders, monitor price and volume information and receive alerts regarding market messages. The Exchange's Regulatory Department, which handles real-time surveillance in conjunction with staff that handles T+1 surveillance, utilizes data collected by the SMARTS Surveillance Application to monitor price movements, as well as market conditions and volumes to detect suspicious activity such as manipulation, disruptive trading and other abnormal market activity. The Exchange has established comprehensive audit trail processes that capture trading information to facilitate the

surveillance activities described herein. Futures Participants that access the Exchange electronically are responsible for maintaining audit trail information for all electronic orders pursuant to Chapter V, Section 1. The Exchange has in place risk controls, including the imposition of trading pauses or halts, to address risks posed by potential market disruptions pursuant to Chapter V, Section 16. The Exchange has the ability to reconstruct all Orders transacted on the Trading System.

• *Availability of Contract Information.* The Exchange has indicated within its trading Rules where specific information relates to a particular Contract. The Exchange will provide detailed information within the contract specifications for that particular Contract. The Exchange will post the terms and conditions of Exchange Contracts in its Rulebook along with trading Rules. The specifications for its Trading System will appear on the Exchange's website.

• *Publication of Information.* The Exchange will publish daily information on settlement prices, volume, open interest and opening and closing ranges for actively traded Contracts on its website. The Exchange's volume information will include information on the volume of Block Trades.

• *Execution of Transactions.* The Exchange operates an electronic trading facility that provides Futures Participants with the ability to execute Orders within the Exchange's Order Book and offers within a predetermined automated trade matching and execution algorithm. Orders submitted into the Trading System will continue to be matched in either Price-Time priority or Size Pro-Rata priority order, as specified by the Exchange. The Exchange specifies the types of Orders that will be accepted by the Trading System in recently filed Chapter IV, Section 4. Finally, the Exchange separately describes its Rules for executing transactions outside of the Order Book, such as Block Trades and exchange for related positions (EFRPs), in recently filed Chapter IV, Sections 10 and 11 respectively. The Exchange recently added new Options Rules at Chapter VIII in order that both futures and options on futures may be traded on NFX.

• *Trade Information.* As previously described, the Exchange has established audit trail processes that capture trading information to facilitate the Exchange's trade practice and market surveillance activities. The audit trail program is based on original source documents that are unalterable, sequentially identified records. The audit trail contains a history of all Orders as well as other identifying information. All data gathered as part of the audit trail is maintained in accordance with the Commission's recordkeeping

requirements and in a manner that does not allow for unauthorized alteration, erasure or other potential loss.

• *Financial Integrity of Transactions.* The Exchange's Rules provide that all matched trades generated by the Trading System, after the application of pre-trade risk parameters, will be automatically submitted to the Clearing Corporation as described in Chapter V, Section 2. Chapter II, Section 1 of the Exchange's Rules requires that all Futures Participants must be members of the Clearing Corporation either directly or indirectly. Futures commission merchants (FCMs) must maintain an account directly with the Clearing Corporation. Clearing Futures Participants are required to guarantee all trades transacted on NFX on behalf of itself, its Customers and Non-Clearing Futures Participants. Clearing Futures Participants must guarantee and assume financial responsibility for all Exchange Contracts of each Futures Participant guaranteed by it, and will be liable for all trades made by that Futures Participant. The Exchange requires a similar guarantee for Authorized Customers submitting trades into the Trading System via Direct Access pursuant to Chapter V, Section 4. The Exchange's Rules governing minimum financial requirements and protection of Customer funds are set forth in Chapter III.

• *Protection of market participants.* Chapter III of the Exchange's Rulebook contains prohibitions precluding intermediaries from disadvantaging their customers. These rules apply to trading in all Contracts.

There were no opposing views among the Exchange's Board of Directors, members or market participants. The Exchange hereby certifies that the Reference Guide complies with the Commodity Exchange Act and regulations thereunder. The Exchange also certifies that a notice of pending certification with the Commission and a copy of this submission have been concurrently posted on the Exchange's website.

If you require any additional information regarding the submission, please contact Angela S. Dunn at +1 215 496 5692 or via e-mail at angela.dunn@nasdaq.com. Please reference SR-NFX-2015-02 in any related correspondence.

Regards,

Daniel R. Carrigan
President

cc: National Futures Association

Exhibit A

Tailor Made Combinations

Reference Guide

Version 1.00 | 2015-05-01

Nasdaq

CONFIDENTIALITY/DISCLAIMER

This Tailor Made Combinations Reference Guide ("Reference Guide") is being forwarded to you strictly for informational purposes and solely for the purpose of developing or operating systems for your use that interact with systems of NASDAQ Futures, Inc. (NFX[SM]) and its affiliates (collectively, NFX). This specification is proprietary to NFX.

NFX reserves the right to withdraw, modify, or replace this Reference Guide at any time, without prior notice. No obligation is made by NFX regarding the level, scope or timing of NFX's implementation of the functions or features discussed in this specification. The Reference Guide is provided "AS IS," "WITH ALL FAULTS". NFX makes no warranties to this Reference Guide or its accuracy, and disclaims all warranties, whether express, implied, or statutory related to the Reference Guide or its accuracy. This document is not intended to represent an offer of any terms by NFX. While reasonable care has been taken to ensure that the details contained herein are true and not misleading at the time of publication, no liability whatsoever is assumed by NFX for any incompleteness or inaccuracies. By using this Reference Guide you agree that you will not, without prior written permission from NFX, copy or reproduce the information in this Reference Guide except for the purposes noted above. You further agree that you will not, without prior written permission from NFX, store the information contained in this Reference Guide in a retrieval system, or transmit it in any form or by any means, whether electronic, mechanical, or otherwise except for the purposes noted above. In addition you agree that you will not, without prior written permission from NFX, permit access to the information contained herein except to those with a need-to-know for the purposes noted above.

NFX[SM] is a servicemark of Nasdaq Futures, Inc.

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1 INTRODUCTION

The Trading System supports the trading of Strategies also referred to as Combination Orders, which will trade in a separate Combination Order Book. The Exchange may list Futures and/or Options combinations for trading, and users may create their own custom or tailor made combination (TMC) for Futures and/or Options combinations not already defined in the Trading System. Market participants may submit Day Order Combination Orders that, if matched, will simultaneously trade the referenced single leg Instruments according to the specified strategy without execution risk. Once created intraday, the TMC Orders will be visible in the Combination Order Book to the entire market and lives throughout the trading day.

1.1 FACTS

Instruments	A TMC Order may be comprised of a minimum of two, but not exceed four Instruments within the same or from different underlying Instruments. It is possible to have a relative ratio of up to 4:1 between the included Instruments. Inter-Commodity Spreads may be formed with a minimum of two Instruments but may not exceed four Instruments.
No Execution	Strategies that are TMC or pre-defined Combination Orders all Instruments will be simultaneously executed at a net price without execution risk, for each Instrument respectively including underlying legs.
Price	The price for an Order shall be stated as a common net price, i.e. the premium times the ratio for the Instrument to be bought minus the premium times the ratio for the Instrument to be sold.
Combination Order Book	When the TMC Order is created, it will appear in a Combination Order Book which is visible to the entire market.
Easy to Use	Users create the TMC Order by defining the Instruments, Expiry and Contract. A User would then identify the ratio between the Instruments as well as the number of contracts and the net price.
Implied-In Orders	Implied-in Order prices are automatically calculated by the Trading System but are not published. When a TMC Order is entered, the Order will be matched in the Order Book utilizing Implied-In Order prices from the respective leg Order Book.
Implied-Out Orders	Implied-out Orders are automatically generated by the Trading System. When a TMC Order is entered into the Trading System, it will match against existing Orders for that combination as well as against the respective leg Order Book. For each respective leg Order Book, where possible, the Trading System utilized the market prices of all other included instruments to calculate the TMC Order with a theoretical price needed to trade at in order to execute the entire Combination Order at the net price. This TMC Order will be placed into the Order Book as an Implied-Out Order. If the Implied-Out Order is traded, the Trading System will simultaneously trade against Orders in all other instruments., Implied-out Orders are calculated by the Trading System, but will only be published for Instruments where the ratio is 1 (excluding Inter-Commodity Spreads).

2CREATING A TMC

The creation of a TMC Order Book is initiated by the Authorized Trader (User) who submits a request with the Expiry, Contract and Instrument. The Order must also specify the ratios relative to the Combination Order quantity and, for each leg, its relative side to the Combination Order (as defined or opposite). A TMC Order Book is allowed to have up to four legs and each leg is allowed a ratio relative to the order quantity, which may be from one to four. It is possible to combine different Contract Instruments (which may have different underlying contract specifications) as long as the Orders meet the former criteria. An example of a TMC Order would be an Order to buy Options on NFX WTI Crude Oil Financial Futures (CLQ), sell Options on NFX Brent Crude Financial Futures (BFQ).

2.1 FIX MESSAGE REFERENCE

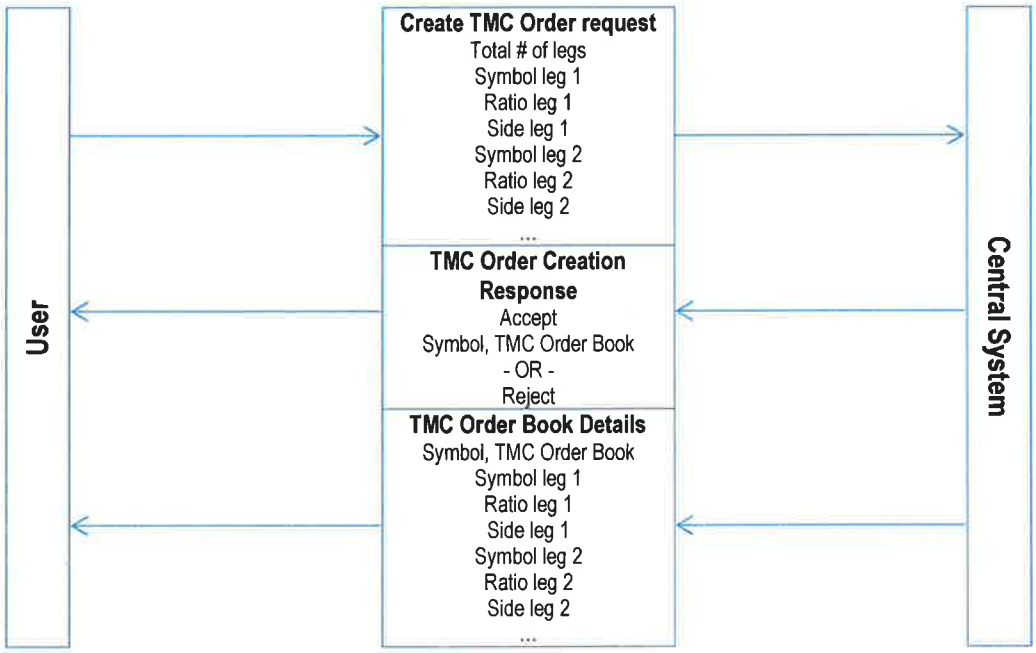
Operation	FIX
Create TMC Request	Security definition request (in), MsgType=c
TMC Creation Response	Security definition – registration response (out), MsgType=d
TMC Order Book Details	Security definition update report (out), MsgType=BP

2.2 WORKFLOW

Requests to create a new TMC Order Book shall be submitted via the FIX interfaces during the Open Session. The Trading System evaluates such requests and either: (i) creates the TMC Order Book according to the market standard with re-sorted legs; or (ii) the Trading System would y communicate that an Order Book exists, pre-defined or user-defined, meeting the submitted criteria. The Trading System will always sort legs for new TMC Order books in the following order:

1. Product type: Future before call Option before put Option;
2. Expiry: longer maturity before shorter; and
3. Price call: lower strike before higher, put: higher strike before lower.

Also, the Trading System will always create the first leg's side in the above order A Combination Order may be displayed in a different order by the Trading System when compared to the submitted request.



2.2.1 Examples

Example 1 – Order Book created as defined using NFX WTI Crude Oil Futures – CLQ

User requests a new TMC Order Book (Options call spread) to be created.

1. CLQ December 2015 80 calls – ratio 1, side as defined
2. CLQ December 2015 85 calls – ratio 1, opposite side

The Trading System accepts the requests, creates the TMC Order Book accordingly and communicates the new Order Book and leg details.

Example 2 – TMC Order Book created with respective legs re-sorted

User requests a new TMC Order Book (Calendar Options Spread) to be created. If buying the combination:

1. CLQ December 2015 80 calls – ratio 1, side as defined
2. CLQ March 2016 80 calls – ratio 1, opposite side

The Trading System accepts the requests but creates the TMC Order Book according to market standard, and communicates the new TMC Order Book with re-sorted leg details:

1. CLQ March 2016 80 calls – ratio 1, side as defined
2. CLQ December 2015 80 calls – ratio 1, opposite side

Example 3 – TMC Order Book created reversed and with legs re-sorted

User requests a new TMC Order Book (Butterfly Options Spread) to be created.

1. CLQ December 2015 80 calls – ratio 1, opposite side
2. CLQ December 2015 90 calls – ratio 1, opposite side
3. CLQ December 2015 85 calls – ratio 2, side as defined

The Trading System accepts the requests but creates the TMC Order Book according to market standard and reverses the Orders such that the Combination Order will buy the first leg. The Trading System communicates the new reversed TMC Order Book with re-sorted leg details:

1. CLQ December 2015 80 calls – ratio 1, side as defined
2. CLQ December 2015 85 calls – ratio 2, opposite side
3. CLQ December 2015 90 calls – ratio 1, side as defined

Example 4 – TMC Order Book requested and rejected

User requests a new TMC Order Book (Futures Time Spread) to be created.

1. CLQ December 2015 futures – ratio 1, side as defined
2. CLQ November 2015 futures – ratio 1, opposite side

The Trading System accepts the requests but does not create the Order Book; instead it communicates the identical pre-defined Futures Time Spread Order Book.

3TRADING A TMC

Once a TMC Order Book has been created, working Day Orders can be entered, modified, and deleted using the standard order entry messages via FIX. Such Orders can either be matched against opposing Orders in the TMC Order Book, or with outright Orders and Quotes in the respective leg instruments Order Books. All legs of the respective Order will be matched according to the defined ratios.

3.1 FIX MESSAGE REFERENCE

Operation	FIX
Add TMC Order	New Order single (in), MsgType=D
Modify TMC Order	Order cancel replace request (in), MsgType=G
Delete TMC Order	Order cancel request (in), MsgType=F
TMC Order & execution info	Execution report (out), MsgType=8

3.2 ORDER MANAGEMENT

Orders in TMC Order Books are placed and modified with the standard Order entry messages. The Order price shall be given using the net price method meaning the sum of price multiplied by ratio for all legs. For Combination Orders (bid/ask), the price of a leg (buy) shall be added, and the price of a sold leg (sell) is subtracted.

$$Combo\ Bid = \sum_{b} Qty_b \times Ratio_b - \sum_{s} Qty_s \times Ratio_s$$

$$Combo\ Ask = \sum_{s} Qty_s \times Ratio_s - \sum_{b} Qty_b \times Ratio_b$$

Where 'b' is each leg the Order is buying, and 's' is each leg the Order is selling.
That is, the Order price of a TMC Order is a **positive value** when

- The user is placing a bid and is willing to pay or;
- The user is placing an offer and wants to be paid.

The Order price of a TMC Order is a **negative value** when

- The user is placing an offer and is willing to pay or;
- The user is placing a bid and wants to be paid.

The quantity of a TMC Order will reflect the number of units at which the Combination Order will trade. One unit of a Combination Order trades one times the ratio of each leg. For example, if the TMC Order "A/2B" has been created as 1 "A" as defined, and 2 "B" opposite, then a bid Order with quantity 10 lots will if fully matched buy 10 "A", and sell 20 "B".

Only Limit Orders can be placed in TMC Order Books, and only with the time validity designated as a Day Order since the Order Books are removed end of the trading day.

Unlike for outright Instruments, 0.00 (zero) is a valid price on TMC Orders. Users may place Orders in TMC Order Books with an Order price of 0.00. User may not modify an existing Order to a price of 0.00. When such modification is desired, the User must cancel the existing Order and then enter the modified order with a price of 0.00.

Orders in TMC Order Books are removed with the standard order entry messages. For example, when a User submits a request to the Trading System to remove all of its existing Orders with underlying "CLQ," those Orders in TMC Order Books with CLQ as an underlying Instrument will also be removed. Where the TMC Order Book combines two different underlying Instruments (e.g. CLQ and HOQ Options), the TMC Order Book will be connected to the first ranked leg's

underlying Instrument (in this case CLQ) and include that symbol in mass-cancellations for Orders. For example, Orders with the underlying CLQ would be canceled, but not HOQ Orders.

User-designated Order and execution info messages reference the TMC Order Book symbol and/or binary code when confirming the new combination net price and/or quantity. For execution info messages, the traded leg instruments are also referenced confirming the outright prices and quantities. Trade drop copies are never sent for the TMC Order Book itself, but only for the traded legs. For reconciliation purposes, the MatchID in execution/trade info will be the same for the TMC Order and the outright symbols.

3.3 RANKING & MATCHING

Existing Day TMC Orders are ranked and matched pursuant to the Price-Time execution algorithm in the TMC Order Book, unless otherwise stated. The Trading System will create Implied-Out Orders in the Order Books for the respective leg and rank the Orders together with outright Orders according to price and then time in the respective leg Order Books. Implied-Out Orders are published for legs with a ratio of one, but the Trading System also supports Implied-Out matching of legs with ratios larger than one, and Implied-In matching, although no Implied Orders are published. Implied-In matching will be prioritized before matching within the TMC Order Book if the Implied-In best bid, best offer (BBO) equals the actual.

3.3.1 Implied-Out Orders

The NFX Trading System calculates and ranks Implied-Out Orders resulting from t of TMC Orders s into outright Order Books, if there is outright volume available on the best price level(s) on the relevant side in the other leg(s) to validate it.

Example 4 – Ranking Implied Out Orders
Given the TMC Order 'A/B' trading leg 'A' (side as defined) and 'B' (opposite side)

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B	Bid 24 @ 6.50 Bid 100 @ 6.25		Sell 1 A Buy 1 B

A		B	
	Ask 40 @ 12.00 ***Ask 10 @ 12.00*** Ask 50 @ 12.25		**Ask 24 @ 5.50** **Ask 26 @ 5.75**

The existing bid Orders in 'A/B' creates **Implied-Out offers** in 'B' using the best outright offer level of 50 lots in 'A'. Note that since only 50 lots are available on the best level it's only possible to create an Implied-Out offer of 26 lots for the second ranked TMC Order.

When an Implied-Out Order is matched, the Trading System simultaneously trades the TMC Order against the base volume(s) in the other respective leg(s) and re-calculates the Implied-Out Order (if any volume is left) before accepting new Orders operations from other Users.

Example 5 – Matching Implied Out Orders
Given the output of example 4, entering an outright bid of 20 @ 5.50 in 'B' would match in full creating the below trades.

Market Data
A/B, 20 @ 6.50
A, 20 @ 12.00
B, 20 @ 5.50

Leaving the resulting Order Books

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B	***Bid 4 @ 6.50*** Bid 100 @ 6.25		Sell 1 A Buy 1 B

A		B	
	Ask 20 @ 12.00 Ask 10 @ 12.00 Ask 50 @ 12.25		**Ask 4 @ 5.50** **Ask 26 @ 5.75**

Although not published on market data, the Trading System calculates and ranks non-disclosed Implied-Out Orders for legs with a ratio larger than one. Such Implied-Out Orders have a quantity condition attach to them allowing matching against them only in multiples of two, three or four.

Example 6 – Implied-Out Orders with quantity conditions

Given the TMC Order 'A/2B' trading leg 'A' (side as defined) and 2 'B' (opposite side)

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 2 B	Bid 24 @ 6.50 Bid 100 @ 6.25		Sell 1 A Buy 2 B

A		B	
	Ask 40 @ 12.00 ***Ask 10 @ 12.00*** Ask 50 @ 12.25		**(Ask 48 @ 5.50)** **(Ask 52 @ 5.75)**

The working bid Orders in 'A/B' creates non-disclosed Implied-Out offers in 'B' using the best outright offer level of 50 lots in 'A'.

Since matching against the Implied-Out offers in 'B' can only be done in multiplies of two, entering an outright bid of 3 @ 5.50 in 'B' would be partially matched of 2, leaving 1 lot resting on the bid.

3.3.2 Implied-In Matching

Although the Trading System does not publish Implied-In Orders coming out of respective leg Order Books into the TMC Order's, Implied-In matching is supported and will be prioritized ahead of matching combination Orders within the TMC Order Book.

Example 7 – Implied-In matching

Given the TMC Order 'A/B' trading leg 'A' (side as defined) and 'B' (opposite side)

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B		**(Ask 50 @ 7.50)** Ask 100 @ 8.50	Sell 1 A Buy 1 B

A		B	
Bid 50 @ 10.00	***Ask 50 @ 12.50*** ***Ask 50 @ 13.75***	Bid 50 @ 5.00 **(Bid 50 @ 2.50)**[1]	Ask 50 @ 6.25

The existing offer in 'A' and bid in 'B' creates a non-disclosed Implied-In offer of 50 @ 7.50 in 'A/B'.
Since Implied-In matching will be prioritized, entering a bid in 'A/B of 10 @ 7.50 would simultaneously be traded against the outright Orders in 'A' and 'B' creating the below trades

Market Data
A/B, 10 @ 7.50
A, 10 @ 12.50
B, 10 @ 5.00

Leaving the resulting Order Books

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B		***(Ask 40 @ 7.50)*** Ask 100 @ 7.50	Sell 1 A Buy 1 B

A		B	
Bid 50 @ 10.00	***Ask 40 @ 12.50*** **Ask 50 @ 13.75**	***Bid 40 @ 5.00*** **(Bid 50 @ 2.50)**	Ask 50 @ 6.25

[1] Not published since outside allowed price deviation range

3.3.3 Matching Within TMC Order Book

When matching Orders against each other within the TMC Order Book, the Trading System calculates the individual trade prices in the leg using among others the outright BBO as reference.

Example 8 – Implied-In matching

Given the TMC Order 'A/B' trading leg 'A' (side as defined) and 'B' (opposite side)

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B		Ask 100 @ 5.00 **(Ask 50 @ 7.50)**	Sell 1 A Buy 1 B

A		B	
Bid 50 @ 10.00	**Ask 50 @ 11.50** Ask 50 @ 12.50	Bid 50 @ 5.00 **(Bid 50 @ 5.00)**	Ask 50 @ 6.25

Entering a bid in 'A/B of 25 @ 5.00 would be traded against the existing TMC Order in 'A/B' creating the below trades

Market Data
A/B, 25 @ 5.00
A, 25 @ 10.75
B, 25 @ 5.75

Leaving the resulting Order Books

Combo Bid	A/B		Combo Ask
Buy 1 A Sell 1 B		Ask 75 @ 5.00 ***(Ask 50 @ 7.50)***	Sell 1 A Buy 1 B

A		B	
Bid 50 @ 10.00	**Ask 50 @ 11.25** Ask 50 @ 12.50	***Bid 50 @ 5.00*** **Bid 50 @ 5.00**	Ask 50 @ 6.25

3.4 ORDER ENTRY USING "PAY/RECEIVE PRINCIPLE"

To make the TMC Order functionality efficient to use in trading front-ends, NFX recommends implementing a TMC Order entry feature/window separate from normal Order entry. Combining the creation of TMC Orders with Order entry enables the possibility for end-users to enter Orders according to the "pay/receive principle." The Pay/receive principles specifies: the respective legs to be included in the TMC Order; whether each respective leg is a buy or sell Order; and whether the User should pay or receive the net premium. The front-end determines whether a Combination Order bid or ask should be entered and also whether the net price should be positive or negative.

In practice, these results can be achieved by letting the end-User select outright Contract symbols to include in the TMC Order from a drop-down menu, adding a symbol by pressing 'buy' or 'sell'. Regardless of the Order, the User adds trading symbols, the front-end sorts the trading symbols to be included in the strategy according to the market standard. Here it should also be possible to set the ratio per respective leg as a number between one and four. It shall be possible to specify a net premium, equal to or larger than zero, and quantity for the Combination Order and the Order is then finally initiated by the User pressing either 'send pay' or 'send receive'.

The trading front-end shall submit the TMC Order to the Trading System which then creates the TMC- Order-request-message upon a user initiated 'send pay' or 'send receive' message, and awaits the TMC Order creation response and TMC Order book details messages. The TMC-Order-request-message shall contain the respective leg trading symbols sorted as outlined above with a side specified as:

Leg Side	FIX
Buy	LegSide(624)=B
Sell	LegSide(624)=D

The TMC Order shall then be added in the Order Book. The symbol is communicated with the TMC Order creation response (user- or pre-defined) dependent on the TMC Order Book details message. If the respective leg info communicated back is identical to what was submitted, then:

- If user pressed 'send pay', enter bid with order price = premium
- If user pressed 'send receive', enter bid with order price = -1 × premium

Or else, if a reversed Combination Order Book has been created or is communicated, i.e. all buy legs have been switched to sell and vice versa (Trading System always creates first leg as defined), then:

- If user pressed 'send pay', enter ask with order price = -1 × premium
- If user pressed 'send receive', enter ask with order price = premium

4REFERENCE & MARKET DATA

Public reference and market data for TMC Order Books are available with the ITCH multicast feed. Once a new TMC Order Book has been created, the market is notified by reference data updates. Existing Orders will be immediately available on the market data feed.

Empty TMC Order Books may be de-listed intra-day by an Exchange Official. In such a scenario, an Order Book details message is disseminated via FIX informing market participants about the update. New Orders will be rejected.

4.1 MESSAGE REFERENCE

Operation	ITCH
Order Book details	Combination Order book directory, Message Type=M
TMC Order leg details	
Other (tick sizes, etc.)	Tick size table entry, Message Type=L
Market-by-level data	N/A
Market-by-order data	Add Order, Message Type=A Order executed, Message Type=E Order executed with price, Message Type=C Order replace, Message Type=U Order delete, Message Type=D
Trades	Trade, Message Type=P

On ITCH, published Implied-Out Orders are identified by having the Order attribute=8192 in add Order messages for the outright Order Books. When a TMC Order is executed, trades are published both for the TMC Order symbol and the leg symbols.

Match within TMC Order Book

- Orders executed with price messages for the TMC Order symbol, with the printable flag set to N (to avoid double counting)
- Trade messages in the outright Order Books

Communication of TMC Order vs. outrights

- Orders executed, and/or Orders executed with price messages for the outright symbols
- Trade message for the TMC Order symbol , with the printable flag set to N (to avoid double counting)

With the market data, market-by-level, published Implied-Out Orders are not identified, but are included in the aggregated quantities if the Orders contribute to one of the best five price levels in an outright trading symbol. When a TMC Order is executed, trades are published with the trading ticker message both for the TMC Order symbol and the respective leg symbols.

5FURTHER READING

Please find protocol specifications and other technical documentation at: new NFX website.