

Implied  
FAQ

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## 1 What is Implied?

New functionality designed to connect the strategy and outright order books, the primary objective of the Implied is to enhance market liquidity. The new functionality will disseminate orders in the strategy book based on outright orders (Implied In)

## 2 What will be the 1st phase delivered by B3?

The first phase of the project will cover the DI and DAP market, according to the details below:

- DI1 books generate orders in the DII books (DV01 Neutral of DI1) and
- DAP books generate orders in the DAI books (DV01 Neutral of DAP)

## 3 What are the benefits of Implied for the market?

- It avoids liquidity segregation, once the market can interact with related product orders without necessarily having to place an order in their book
- More liquidity and depth for the order books due to trades generated from orders in other books (higher probability of execution, resulting in more trades and higher quality for books)
- Lower execution costs since there will be more orders and, consequently, a larger number of clients with orders on screen, interacting and trading
- More pricing efficiency combined with greater liquidity, once clients can benefit from the best costs that EDS have compared to executing strategies via DI and DAP, while still accessing the best spreads available in individual contracts.

### TRADING

## 4 Is it possible to create Implied orders only for bid or only for ask?

No. There will be either a bid or ask, following the rules below:

- If Bid in Nearby Maturity + Ask in the Deferred Maturity = Ask Implied in the strategy book
- If Ask in Nearby Maturity + Bid in the Deferred Maturity = Bid Implied in the strategy book

## 5 How many Implied orders could be generated with one outright order?

"N" Implied orders could be generated in different books. If price and quantity rules are respected, an outright order can be part of the creation of several Implied orders in different books

## 6 In what situation could an Implied order be modified?

When there is a price change or a change in the accumulated quantity at the top of any of the books participating in the Implied, the Implied order will be canceled and reinserted according to the updated parameters

## 7 In what situation could an Implied order be canceled?

When the structure or the legs move to a state other than "Open phase" or if there are no longer any orders in any of the books that make up the Implied order.

Besides that, the Implied orders will be canceled when:

- partially executed;
- totally executed;
- there is a partial execution in the outright maturity that originates the Implied order;
- there is a total execution in the outright maturity that originates the Implied order;
- due to an execution, reopening of order lot with an apparent quantity at maturity that originates the Implied order;
- *Stop offer* is triggered for the maturity that originates the Implied order.

After any of these events described above, the Implied order won't be updated instantly. The order will be recreated only if there is a new order event (new order, modification or cancellation) in any outright or EDS contract that is enabled for Implied functionality

## 8 In what status must the strategies and outrights be to generate an Implied order?

Always in an "Open" status

## 9 How will the priority of order addition works?

Implied orders have lower priority among the original orders in the book that are at the same price, regardless of "time priority"

## 10 Is it possible to generate an Implied order from the insertion of just one order in outright books (if there is no existing order in books)?

No, there will be no generation of an Implied order. For the dissemination of an Implied order, there must be at least 2 orders that match the criteria for creating the order in the strategy (orders on opposite sides in the outright books with sufficient prices and quantities)

## 11 Does the client need to indicate anything when entering a new order for it to be eligible for Implied order generation?

No. All the orders on DIs and DAPs books with Implied functionality on will be eligible for Implied order generation

## 12 How will the quantity of Implied orders be calculated?

Calculation for DV01 Neutral EDS of DI1 (DII) AND DAP (DAI):

$$Qty_{strategy(I)} = \min\left(\frac{Qty_{NearbyMonth}}{Ratio}; Qty_{DeferredMonth}\right)$$

Where:

**$Qty_{strategy(I)}$**  = implied order quantity to be disseminated in the strategy book, rounded down by the multiple of the round-lot of the strategy (5, currently);

**$Qty_{NearbyMonth}$**  = quantity of the real order in the nearby maturity;

**$Ratio$**  = characteristic of the strategy instrument that defines the ratio between nearby maturity quantity and deferred maturity quantity;

**$Qty_{DeferredMonth}$**  = quantity of real orders in the deferred maturity

## 13 How will the price of the Implied order be calculated?

Calculation for DV01 Neutral EDS of DI1 (DII) AND DAP (DAI):

$$Price_{strategy(I)} = Price_{DeferredMonth} - Price_{NearbyMonth}$$

Where:

*Price<sub>strategy(I)</sub>* = implied order price to be disseminated in the strategy book;

*Price<sub>DeferredLeg</sub>* = price of the real order in the deferred maturity;

*Price<sub>NearbyLeg</sub>* = price of the real book of the nearby maturity

## 14 How is the Ratio, used to calculation of quantity of legs generated in the EDS trade, defined?

The Ratio is an instrument characteristic of the strategy, calculated and published by B3. It's published via Market Data, B3's website and UP2DATA daily at the beginning of the day

## 15 What does change in Execution Report?

**FIX:**

### Changes to the Execution Report message (35=8)

Inclusion of the domain in the 1115-OrderCategory tag to designate a transaction involving Implied.

Inclusion of the domain "7" (Implied Order) in the tag 1115-OrderCategory to designate a transaction involving Implied.

Inclusion of an optional tag that lists all the Execution Reports involved in an event with Implied.

Tag	Name	Description
35540	ImpliedEventID	Unique ID for all matches that occur as a result of an implied event - string(14)

**Binary EntryPoint:**

### Changes to the ExecutionReport\_Trade (template id=203) messages

Inclusion of the domain "7" (Implied Order) in the 1115-orderCategory tag to designate a transaction involving Implied.

Inclusion of an optional tag that lists every ExecutionReport\_Trade involved in an event with Implied.

Tag	Name	Description
35540	ImpliedEventID	Unique ID for all matches that occur as a result of an implied event

Format of the ImpliedEventID type:

Name	Type	Size	Offset	Description
eventID	uint32	4	0	Unique ID for all matches that occur as a result of an implied event.
messageCount	uint16	2	4	Number of messages related to the same implied event.

## 16 What does change in the Market Data?

### FIX/FAST UMDF and Conflated UMDF

#### Change to the SecurityList (35=y):

Domain included in tag 1144 (ImpliedMarketIndicator) to designate whether the instrument is eligible for Implied order generation.

Domain	Description
1	Implied

#### Change to the Incremental (35=X) and Snapshot (35=W) messages:

Inclusion of the new Domain in tag 277 – TradeCondition to designate a transaction involving Implied.

Domain	Description
IM	Designation of Implied transaction

### Binary UMDF



**Change to the SecurityDefinition (35=d) message:**

Tag included to designate whether the instrument is eligible for Implied order generation

Tag	Name	Description
1144	ImpliedMarketIndicator	Designates that an Implied order may be created for the instrument

**Change to the Order\_MBO [35=X, 269=0(Bid) or 1(offer), 279=0(New) or 1(Change), 290=(Position)] Message**

Implied signaling defined in the matchEventIndicator field, in the Order\_MBO message, to show if the order book entry is generated synthetically by the Implied mechanism.

**Change to the Trade message (35=X, 269=2, 167!=FORWARD):**

Implied designation defined in the matchEventIndicator field, in the Trade message, to state whether the transaction results from a match that involves an Implied order.

**Change to the SnapshotFullRefresh\_Orders\_MBO (35=W, 268=N, 269=0 or 1, 290=position) message:**

Inclusion of the matchEventIndicator field to state whether the entry to the order book in snapshot was generated synthetically by the Implied mechanism.

**17 What template files of Market Data are updated for Implied?**

Updates to the Binary UMDF – Message Reference v1.9.0, Binary UMDF – Messaging Specification Guidelines v1.9.0 and b3-market-data-messages v1.9.0 documents are available for consultation at [www.b3.com.br/en\\_us](http://www.b3.com.br/en_us), Solutions, Platforms, PUMA Trading System, Binary UMDF. The update to the new templates file version will not be mandatory, as it is retroactively compatible with the previous version, but will be mandatory for using the new functionality

**18 After the Implied launch, what will be the impact on the Execution Report after sending a DI order?**

It does not impact on the Execution Report when sending DI orders. Only if the DI order matches a trade with the Implied order, the Execution Report will include the new domain in tag 1115-OrderCategory = 7 (Implied) and the inclusion of tag 35540-ImpliedEventID

## 19 How are out of tick prices handled for Implieds? If not, how are they rounded?

The strategy price for Implied IN is calculated as following:  $Price_{DeferredMonth} - Price_{NearbyMonth}$ . If the strategy price result is out of tick, the implied order will not be created. So, it is not possible to negotiate implied with a rounded price because it will never be created.

## 20 How many Implied levels can we have? How many Implied orders per level?

The implied order will be created only on the first level of the book.

## 21 Will Implied orders always appear at the back of a level?

Yes, the implied order always has the lower priority at the first level.

## 22 Where are new Implieds added relative to resting Implieds?

There is only one implied order in the first level of book.

### POST-TRADING

## 23 What is the impact on allocation?

There will be no changes in the capture process of Implied trades. The identification will occur through "Trade Subtype" tag that will have "8" as the value in the bvmf.012 message (trade capture message) and bvmf.019 (give up message).

No changes to rules, timetable and messages used by allocation and take up process.

The allocation conciliation trade files will not have any changes. The tag "Trade Sub type" will exhibit the value "8" to distinguish an implied trade

## 24 What changes in the position control?

Update position will happen normally, the same as strategy breakdown that will follow the existing rule. Messages and position control files have no changes

## FEE SCHEDULE

### **25** What is the impact of the fee schedule?

Clients who trade via outright books will be charged in this product and that one who trades via strategy books will be charged in the strategy, then there are no impacts

## RISK

### **26** How will the pre-trading risk be realized?

DI (DII) and DAP (DAI) EDS already have Execution Reports, so, the consumption limits will happen in each strategy leg (no impact)

### **27** And the treatment for post-negotiation risk?

The post-trade risk already considers each strategy leg and will remain the same

**[B]<sup>3</sup>**