⬜ INTRODUCTION ⬜

High-Frequency Trading (HFT) is a form of algorithmic trading that involves the implementation of sophisticated strategies using powerful software and computer hardware to transmit a large number of stock orders at very high speeds.

Among these strategies, the use of FADE logic is particularly effective, working over 70% of the time. In this document, we will explore four distinct HFT signals based on this FADE logic and examine how these signals can be used to increase the efficiency of scalping strategies.

We will also highlight the importance of High-Frequency Traders (HFT) and market making manipulations.

⬜ SUMMARY ⬜

I. **HFT Signal 1 (S1): FADE Logic in the direction of Market Making**
1.1 HFT Buy Signal 1
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⬜ DETAILS ⬜

HFT SIGNAL 1 (S1): (FADE logic in the direction of market making)

⬜ HFT BUY SIGNAL 1:

-The side of the TRADE event is a sell.
-The price has decreased.
-The size of the TRADE event is greater than X.
-The Market Making is positive (bullish).

⬜HFT SELL SIGNAL 1:

-The side of the TRADE event is a buy.
-The price has increased.
-The size of the TRADE event is greater than X.
-The Market Making is negative (bearish).

HFT SIGNAL 2 (S2): (FADE logic and post ICEBERG rejection)

 HFT BUY SIGNAL 2: (BUY ICEBERG)

-The side of the TRADE event is a sell.
-The price has decreased.
-The size of the TRADE event is greater than X.
-The size of the TRADE event is greater than the size of the best bid in the order book.
-The Market Making is positive or equal to zero.

HFT SELL SIGNAL 2: (SELL ICEBERG)

-The side of the TRADE event is a buy.
-The price has increased.
-The size of the TRADE event is greater than X.
-The size of the TRADE event is greater than the size of the best ask in the order book.
-The Market Making is negative or equal to zero.

HFT SIGNAL 3 (S3): (FADE logic with Execution Manipulation)

 HFT BUY SIGNAL 3:

-The side of the TRADE event is a sell.
-The size of the TRADE event is greater than X.
-The price impact of the TRADE event is positive.

HFT SELL SIGNAL 3:

-The side of the TRADE event is a buy.
-The size of the TRADE event is greater than X.
-The price impact of the TRADE event is negative.

HFT SIGNAL 4 (S4): (FADE logic with 3D Divergences)

 HFT BUY SIGNAL 4:

-The side of the TRADE event is a sell.
-The Market Making is negative or equal to zero.
-The price has decreased.
-The slope of the 3D price line has increased.

HFT SELL SIGNAL 4:

-The side of the TRADE event is a buy.
-The Market Making is positive or equal to zero.
-The price has increased.
-The slope of the 3D price line has decreased.

🅔 EXPLANATIONS🅔🅔

I will describe each signal in detail, explaining why they could be effective and how they could be used in high-frequency trading (HFT).

HFT SIGNAL 1 (S1): FADE Logic in the direction of Market Making

"Fading" is a trading strategy that involves betting against the current market trend. In the context of high-frequency trading, this strategy can be used to exploit temporary and/or minimal price discrepancies. The details of this signal are as follows:

🅔 🅔HFT BUY SIGNAL 1:

-The side of the TRADE event is a sell.
-The price has decreased.
-The size of the TRADE event is greater than X.
-The Market Making is positive (bullish).

🅔 🅔n this scenario, a large sell order has caused the price to drop. However, the market making is positive, indicating that the overall market is bullish. This suggests that the significant sell may have created a temporary price discrepancy that is likely to correct itself. As a result, an HFT trader may seek to buy at this lower price and sell when the price returns to its bullish trend.

🅔🅔HFT SELL SIGNAL 1:

-The side of the TRADE event is a buy.
-The price has increased.
-The size of the TRADE event is greater than X.
-The Market Making is negative (bearish).

🅔 🅔ere, a large buy order has caused the price to rise, but the market making is negative, suggesting that the overall market is bearish. This could mean that the significant purchase has created a temporary price discrepancy that is likely to correct itself. An HFT trader may seek to sell at this higher price and buy when the price returns to its bearish trend.

HFT SIGNAL 2 (S2): FADE Logic and post Iceberg Rejection

An Iceberg order is a trading method that allows a trader to place a large order in the market while revealing only a small portion of the total order at a time. The goal is to hide the total size of the order to avoid influencing the market.

🅔 🅔HFT BUY SIGNAL 2 (BUY ICEBERG):

-The side of the TRADE event is a sell.
-The price has decreased.
-The size of the TRADE event is greater than X.
-The size of the TRADE event is greater than the size of the best bid in the order book.
-The Market Making is positive or equal to zero.

🅔 🅔his indicates an iceberg sell order: a large sell (larger than the best bid price in the market) has caused the price to decrease. However, the market making is positive or neutral, suggesting that the overall market is not bearish. This could suggest that the sell order has temporarily saturated the

market, creating a price discrepancy that could correct itself. An HFT trader may seek to buy at this lower price and sell when the price rebounds.

 HFT SELL SIGNAL 2 (SELL ICEBERG):

-The side of the TRADE event is a buy.
-The price has increased.
-The size of the TRADE event is greater than X.
-The size of the TRADE event is greater than the size of the best ask in the order book.
-The Market Making is negative or equal to zero.

 This indicates an iceberg buy order: a large buy order (larger than the best ask price in the market) has caused the price to increase. However, the market making is negative or neutral, suggesting that the overall market is not bullish. This could mean that the buy order has temporarily saturated the market, creating a price discrepancy that could correct itself. An HFT trader may seek to sell at this higher price and buy when the price comes back down.

HFT SIGNAL 3 (S3): FADE Logic with Execution Manipulation

This signal appears to be based on observing the effects of market making and potential market manipulation. It seeks to exploit price discrepancies caused by large orders that impact the market.

  HFT BUY SIGNAL 3:

-The side of the TRADE event is a sell.
-The size of the TRADE event is greater than X.
-The price impact of the TRADE event is positive.

 In this scenario, a large sell order has been executed, but despite that, the price impact has been positive. This may indicate manipulation, where large sell orders are used to push the price down to allow others to buy at a lower price. An HFT trader could use this information to follow the trend and also buy at a lower price.

 HFT SELL SIGNAL 3:

-The side of the TRADE event is a buy.
-The size of the TRADE event is greater than X.
-The price impact of the TRADE event is negative.

 Conversely, if a large buy order is executed but the price impact is negative, this may indicate manipulation to the upside. Large buyers could push the price up to sell at a higher price. An HFT trader could use this information to follow the trend and also sell at a higher price.

HFT SIGNAL 4 (S4): FADE Logic with 3D Divergences

This strategy appears to rely on observing price divergences in a three-dimensional (3D) context, likely using volume and price analysis to identify divergences.

 HFT BUY SIGNAL 4:

-The side of the TRADE event is a sell.
-The Market Making is negative or equal to zero.
-The price has decreased.
-The slope of the 3D price line has increased.

 Here, a large sell has caused the price to decrease, and the Market Making is negative or neutral. However, the slope of the 3D price line has increased, which could indicate a positive divergence - the price is decreasing, but volume and price analysis suggest that the price should increase. An HFT trader could seek to buy in this scenario, anticipating that the price will return to its bullish trend.

 HFT SELL SIGNAL 4:

-The side of the TRADE event is a buy.
-The Market Making is positive or equal to zero.
-The price has increased.
-The slope of the 3D price line has decreased.

 Conversely, a large buy order has caused the price to increase, and the Market Making is positive or neutral. However, the slope of the 3D price line has decreased, which could indicate a negative divergence - the price is increasing, but volume and price analysis suggest that the price should decrease. An HFT trader could seek to sell in this scenario, anticipating that the price will return to its bearish trend.

 In summary, these four HFT signals are based on observing price movements and significant trading orders, as well as identifying price divergences. These signals can be useful for high-frequency traders seeking to exploit temporary and minimal price discrepancies in the market. However, it is crucial to note that high-frequency trading is a complex and high-risk field that requires a deep understanding of financial markets and advanced trading strategies.

⬚ ⬚USAGE⬚ ⬚

STEP 1: Opening the HFT Signals TAPE

1.1 Log in to META_quant. The main screen will appear.
1.2 Locate the MT5 button at the bottom of the screen. It is in green.
1.3 Click on this button. The MT5 trading module launches, and the HFT Signals TAPE appears in the top-left corner of the screen.

STEP 2: Activation/Deactivation of an HFT signal

2.1 Locate the checkboxes corresponding to the HFT signals. There are four of them.
2.2 To activate a signal, check the corresponding checkbox.
2.3 To deactivate a signal, uncheck the corresponding checkbox.

STEP 3: Filtering the HFT Signals

3.1 Use the TRIGGER X filter to set a value.
3.2 This value helps filter the occurrence and triggering of the HFT signals.
3.3 The TRIGGER X value is calculated by considering the average volume over a given period with the current volume.
3.4 This triggers the HFT signals only when the size of the TRADES event is greater than this TRIGGER X value.
3.5 Adjust this filter with precision.

STEP 4: Exporting the HFT Signals Data

4.1 Locate the EXPORT button in the HFT Signals TAPE.
4.2 Click on this button to create a .CSV file that lists all the triggered HFT signals.

STEP 5: Resetting the HFT Signals TAPE

5.1 Locate the "reset" button in the HFT Signals TAPE.
5.2 Click on this button to clear all the triggered HFT signals.
5.3 Note that this button should not be confused with the RESET button on the right tape, which resets the market making and the states of the original tape.

STEP 6: Setting Money Management Parameters

6.1 In the MT5 trading module, you can adjust several parameters.
6.2 Choose the instrument (e.g., FUTESM23) and the size of your trade (e.g., 1).
6.3 Set your take profit (TP) and stop loss (SL) levels.

STEP 7: Activating Auto Trading

7.1 Auto trading is enabled when the corresponding checkbox is checked.
7.2 When an HFT signal appears in the HFT Signals TAPE, a trade is automatically sent to MT5.
7.3 If an HFT buy signal appears, a buy trade is sent to MT5. If an HFT sell signal appears, a sell trade is sent, closing the existing buy trade if it was still open.

STEP 8: Using Auto Exit

8.1 To avoid excessive scalping frequency and/or excessive trading, check the "auto exit" button.
8.2 When this button is checked, the automated trading algorithm ignores any HFT signals that are opposite to the current open trade in MT5.
8.3 The current trade is only forced to exit based on the TP or SL price set beforehand in the MT5 trading module.

I would like to remind you that high-frequency trading is a risky activity that requires a good understanding of financial markets and careful risk management. Always use the tools at your disposal responsibly and within the framework of a well-defined trading strategy.

STEP 9: Using the "MAX" Functionality

9.1 This functionality is essential for effective risk control and prudent account management. Access the "MAX" functionality in the MT5 trading module.
9.2 The "MAX" function allows you to set a maximum value for the number of trades that can be open simultaneously within a single trade on MT5.
9.3 For example, if you set "MAX" to 5, then a maximum of five trades can be open at the same time within a single trade. This helps you manage your risk efficiently and prevent overtrading.
9.4 To use this functionality, simply enter the maximum number of trades you want to open simultaneously in the "MAX" field. Once this number is reached, no further trades will be opened until one of the open trades is closed.
9.5 The prudent use of the "MAX" function is a key component of a successful money management strategy. It helps you maintain control over your overall market exposure and avoid excessive risks.

🙵 CONCLUSION🙵 🙵

The high-frequency trading strategies we have examined are based on a FADE approach. These strategies, although complex, have demonstrated notable effectiveness, producing positive results over 70% of the time.

However, it should be noted that high-frequency trading, due to its complex and fast-paced nature, is a high-risk field that requires a deep understanding of financial markets and algorithmic trading.

Additionally, market-making manipulations by HFTs underscore the crucial importance of regulation in this field to ensure a fair market for all participants.

Lastly, it is important to remember that while these signals can be used to maximize profits, they should be used with caution and always within the framework of a risk management strategy.