# **Tradetron Keyword Documentation**

# **Candle Patterns**

# DRAGONFLY DOJI:

This keyword is used to check if a particular candle was a Dragonfly Doji. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below: https://www.ta-lib.org/function.html



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was a Dragonfly Doji.

# **ENGULFING:**

This keyword is used to check if a particular candle was an Engulfing candle. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below: <a href="https://www.ta-lib.org/function.html">https://www.ta-lib.org/function.html</a>

| ( <b>+</b> )  | 8  | <b>—</b> | 8 | <b>_</b> | R |
|---|----|----------|---|----------|---|
| Position  | Υ. |          | Ť | Number   | Ť |
| ENGULFING ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) ) , -1 |    |          |   | 1        |   |
|   |    |          |   |          | _ |

The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an Engulfing candle.

# **GRAVESTONE DOJI:**

This keyword is used to check if a particular candle was a Gravestone Doji. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below: <u>https://www.ta-lib.org/function.html</u>

| ( <b>+</b> )  | 8  | <b>_</b> | 8  | <b>_</b> | 6 |
|---|----|----------|----|----------|---|
| Position  | Υ. |          | Υ. | Number   |   |
| GRAVESTONE DOJI ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) ) , -1 |    |          |    | 1        |   |

The above example will check if the previous (-1) 5 minute candle of Nifty 50 was a Gravestone Doji.

# HAMMER:

This keyword is used to check if a particular candle was an inverted hammer. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an inverted hammer.

#### HANGINGMAN:

This keyword is used to check if a particular candle was a Hangingman. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

https://www.ta-lib.org/function.html



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was a Hangingman .

#### HARAMI:

This keyword is used to check if a particular candle was a Harami. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

https://www.ta-lib.org/function.html



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was a Harami

# **INVERTED HAMMER:**

This keyword is used to check if a particular candle was an inverted hammer. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below: <a href="https://www.ta-lib.org/function.html">https://www.ta-lib.org/function.html</a>

| Position  INVERTED HAMMER ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) ) , -1 | 8 | - | 8 | +<br>Number | 3 |
|---|---|---|---|-------------|---|
|   |   |   |   |             | ) |

The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an inverted hammer.

### MORNINGDOJISTAR:

This keyword is used to check if a particular candle was a Morningstar Doji candle. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html

| Position     MORNINGDOJISTAR ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) ) , -1 | 8 | - | 8 | +<br>Number | 8 |
|--|---|---|---|-------------|---|
|--|---|---|---|-------------|---|

The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an Morningstar Doji candle

#### **MORNINGSTAR:**

This keyword is used to check if a particular candle was a Morningstar candle. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an Morningstar candle

#### SHOOTINGSTAR:

This keyword is used to check if a particular candle was a Shootingstar candle. It is supposed to be used under the position keyword. This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html



The above example will check if the previous (-1) 5 minute candle of Nifty 50 was an Shootingstar candle

# Date Time

#### Date:

This keyword will fetch a particular date. It can be used to build a logic where you are comparing two different dates. This keyword will return the date in YYYY-MM-DD format.



In the example shared above, we are comparing today with a specific date in future. This keyword is specially useful when you want to take positions on a specific date.

### Day:

Day keyword returns the current day of the current month. Please make sure not to use 25.00 or something. It should be a positive integer only.

The below example is checking whether today is the 21st day of the month



# Days Difference (D2-D1):

This keyword is used to calculate the difference between days and the output is an integer

Days Difference has 2 inputs. Please note that keywords that return DD-MM-YYYY formats can only be used as inputs.

In this keyword, DI is subtracted from D2, so always D2 should be the bigger one



In the above condition, we are checking if the difference between the Current month expiry and today is greater than 15 days.

It considers all calendar days including holidays and non-trading days. You can find more detail on this keyword in the video link shared below:

#### https://www.youtube.com/watch?v=IF8aHcaGmCA

#### Hour:

This keyword returns the current Hour of the day in 24-hour format. Please make sure not to use 17:00 or something. It should be a positive integer only without any special characters



In the above example, we are checking if the current hour is greater than 1 PM, if it is strategy will enter

#### Minute:

This keyword Returns current minutes as an integer



The above example is checking whether the current minute is greater than 30, suppose time is 11:45, condition will be true Please note, the range is 1 - 59

#### Month:

This keyword returns the current month as an integer from 1 to 12. January Is Month Number 1, February is 2 and naturally, December is 12. Please make sure not to use 1.00 or something. It should be a positive integer only.

The below example is checking whether the current month is November



#### Now:



#### Sec:

Sec returns current seconds as an integer



The above condition is checking whether the current seconds is greater than 30, suppose if the time is 11:45:32, the condition will be true. Please note, the range is 1 - 59

### Time:

This keyword will return the current time as HHMM, do not use any special characters



The above condition will be true if the time is 09:20 AM. Time keyword is widely used to control the entry and exits



The above condition can be used in the entry block if you don't want to take new positions after 3:00 PM.



The above condition can be used in universal exit to exit the strategy at 15:15

Please note- Use only integers and not any special characters

#### Today:

Today returns the current day's date in string format. It cannot be equated with any number. The opposite end should also return a string only

Today will return the current date as a string in format YYYY-MM-DD

You can use the Today keyword in a no. of ways, to compare if today is the current week expiry, only trade if today is monthly expiry and so on.



The above condition will be true only if Today is the current week expiry

Similarly, if you want to trade on other days apart from weekly expiry, use the condition below



#### Tomorrow:

This keyword returns the next date as a string in format YYYY-MM-DD.

This keyword should not be equated to a number. It should always be compared with keyword that returns a string in same format



The above condition will be true if tomorrow is the current week expiry

#### Week:

This keyword returns current week number of the year



The above condition will be satisfied if the current week is the 32nd week of the current year

#### Week Day:

Week Day returns Day of the week as an integer as 1 for Monday, 2 for Tuesday and so on till 5 as Friday



The above condition will be satisfied if today is Monday

The weekday keyword is very useful for users who want to trade only on particular days of the week. You can create multiple sets such that each set is active only on that particular day



The above condition will be satisfied on all the days except Monday

Number range is from 1-5

#### Year:

This keyword returns the current year



#### Year Day:

Year day returns the current day number from the beginning of the year as an integer



The above condition will be satisfied if today is the 205th day of the year



# Current Month Expiry:

This keyword returns the current month expiry date of the instrument as a string in the format YYYY-MM-DD

This keyword can be used in condition builder as well as in expiry FX of the position builder



The above example can be used in condition builder to check if the current day is the monthly expiry



The above condition can be used in the expiry FX of the position builder to trade next month expiry

# **Current Week Expiry:**

This keyword returns the current weekly expiry date of the instrument as a string in the format YYYY-MM-DD

Please make sure not to use stocks in this as they don't have weekly expiries.

This keyword can be used in condition builder as well as expiry FX in position builder



The above example can be used in condition builder to check if current day is weekly expiry



The above condition can be used in the expiry FX of the position builder to trade next week expiry

# MCX Fut Expiry:

This keyword returns the monthly futures expiry date of the instrument as a string in the format YYYY-MM-DD

This keyword can be used in condition builder as well as in expiry FX of the position builder



The above example can be used in condition builder to check if the current day is the monthly expiry of the MCX instrument



The above condition can be used in the expiry FX of the position builder to trade next month expiry

# MCX Option Expiry:

This keyword returns the current weekly expiry date of the instrument as a string in the format YYYY-MM-DD

Please make sure to only use instruments in this that are traded in option derivatives.

This keyword can be used in condition builder as well as expiry FX in position builder



The above example can be used in condition builder to check if current day is MCX option expiry day

# Instrument Formula

### **Futures:**

This keyword returns the name of Futures Instrument of selected underlying / list Example: FUTIDX\_NIFTY\_24SEP2020\_XX\_0



#### Instrument Name:

This keyword will fetch a particular instrument. It is generally found within another keyword and is one of the most versatile keywords of Tradetron. If this keyword is not entered correctly or is left blank, the strategy may not be able to execute. This keyword has five distinct inputs a user can make:

- 1. Exchange 2. Underlying 3. Expiry
- 4. Option type
- 5. Strike Price

| Keyword Paramters |        |        | ×         |
|-------------------|--------|--------|-----------|
| Instrument        |        |        |           |
| Choose Choose     | Choose | Choose | Choose    |
|                   |        |        |           |
| FX                |        |        |           |
| MCX               |        |        |           |
| NASDAQ-<br>EQ     |        |        |           |
| NFO               |        |        |           |
| NSE               |        |        |           |
| NEE IDY           |        |        |           |
|                   |        |        | Ok Cancel |

#### Exchange:

This is the first level of segregation when you can choose what instrument you need. Tradetron offers NSE, NFO, MCX and CDS for Indian stock markets. We also offer BITBNS for crypto, FX for forex and NASDAQ-eq. One thumb rule to follow here is that, if you need to do anything related to cash market or stock equity, you can select NSE. If you list needs to take entries based on cash segment you can select NSE too. NFO can be selected if you need to do anything related to futures and options.

| Keyword Parar | nters          |        |        |        | × |
|---------------|----------------|--------|--------|--------|---|
| Instrument    |                |        |        |        |   |
| NSE × *       | Choose         | Choose | Choose | Choose | • |
|               |                |        |        |        |   |
|               | NSE - ASHOKA   | •      |        |        |   |
|               | NSE - ASHOKLEY |        |        |        |   |



#### Underlying:

Once you select an exchange you get the flexibility to select an instrument for the same too. Here you can either select one instrument or a list of instruments. If you are selecting an equity instrument, these are the only two field that need to be filled and the other fields will automatically get disabled for you. If you are selecting an Index like Nifty 50 or Nifty Bank you can do so by selecting NFO, and then the respective index. This will fetch the spot price of that index.

| Keyword Paramters      |                         | × |
|------------------------|-------------------------|---|
| Instrument             |                         |   |
| NFO × NFO - NIFTY 50 × | Current × Choose Choose |   |
| + nth Expiry           |                         |   |
| 0                      | 2024-12-26              |   |
|                        | 2025-06-26              |   |
|                        | 2025-12-24              |   |
|                        | 2026-06-25              |   |
|                        | Current Month           |   |
|                        | Current Week            |   |
|                        | Ok Cancel               |   |

#### Expiry:

For derivative instruments, like futures and options which have expiries, selecting these field will enable the Tradetron engine to check conditions in the relevant expiry. When selecting Nifty 50 and Nifty Bank, when you select 'Current month expiry' you will fetch the futures of the same. The same is true for MCX and CDX. In order to streamline the selection of expiry, one has the option of selecting the current week or current month expiry. Upon clicking on the same the +n th expiry dialog box opens where 0 is the current week/ month expiry, 1 is the next week/ month, 2 is the week/ month after that.

| Keyword Paramters  | ×  |
|--|----|
| Instrument   NFO × NFO - NIFTY 50 × Current × CE × Choose   + nth Expiry   0     CE   PE |    |
| Ok Cano  | el |

#### Option type:

This has two inputs, CE or PE which you can select according to what is needed.

| Keyword Paramters  |         | × |
|--|---------|---|
| Instrument       NFO ×      NFO - NIFTY 50 ×      Current ×      CE       + nth Expiry | × ATM × |   |



#### Strike Price:

This is used to fetch the strike price of the instrument required. One can directly select a strike price or allow the same to be based on a variable, in this case ATM. When you select ATM, the at the money strike is always selected based on the current month futures of the instrument. Upon clicking on ATM, you get the option to select +/- n Steps from ATM. Here you can select a positive or negative integer to shift a strike x steps from the ATM strike. Thus +2 will fetch ATM +2 strike and so on.

# Math

### Absolute:

This keyword returns the positive value of the inputs.



The above condition will return the absolute (positive) value of the math operation, even if LTP is smaller than the entry price, it will still return a positive number

# Math Operation:

This keyword is used to perform a mathematical operation on two inputs/keywords. The output of math operation keyword is a float.

It can also be used under the round keyword to get a rounded output rather than a decimal value.

| ( <b>+</b> )                     | • |
|----------------------------------|---|
| Math Operation                   | Υ |
| Number ( 5 ) , Number ( 15 ) , + |   |

In the example shared above, we are adding 5 and 15, so the output will be 20

# Math Series Operation:

This keyword is used to perform a mathematical operation on two series data types. Since we are performing a mathematical operation on two series values, you need to use Position keyword here and select math series operation in the same.



In the example shared above, we are taking the difference between the 20 period EMA of daily Nifty 50 spot candles and the 25 period SMA of daily Nifty 50 spot candles.

#### Max:

This keyword returns the maximum value of the two inputs.



The above condition will return the maximum value, in this case, 1500

You can also input different series like CLOSE, EMA and find the maximum of the two. Make sure to use the position keyword while selecting series as input

#### Min:

This keyword returns the minimum value of the two inputs.

Min Number (500), Number (50)

The above condition will return the minimum value, in this case 50

You can also input different series like close, EMA and find the minimum of the two. Make sure to use position keyword while selecting series as input

#### Number:

This keyword is the simplest of all and just returns the number that is input by the user.

This keyword can be used to define or compare with a value output of an existing keyword



In the above condition, the number keyword is used to check if the PNL keyword is more than 500.

# Random Number(0.00-1.00):

This keyword will return a random number that can be used for complex mathematical operations as a part of a formula that requires a randomly changing number. It will only return absolute decimal numbers from 0 to 1.00



### Round:

This keyword will round off the values to the base you select.



In the above example, we have rounded off the spot value to Nifty 50 to the nearest 50 rupees.

# **Option Greeks**

Atmiv:

This keyword will return the Implied Volatility of the ATM option for the selected underlying instrument.

Pls note - ATM is selected based on futures chart and not Spot chart



#### Delta:

Delta keyword returns the delta value of that particular option Usually, Delta keyword is used to get the delta values of traded instruments

The above example will return the delta value of the instrument traded in entry set 1, leg 1

#### **Delta Neutral:**

This keyword returns the quantity of selected instrument required to make the net Delta of all positions in the strategy of selected underlying to zero. Returns quantity in multiples of the lot size of Instrument as float

This keyword is usually used in QTY FX in position builder



#### Gamma:

Gamma keyword returns you the gamma value of that particular option



The above example will return the gamma value of the instrument traded in 1st leg of Set 1 Entry

#### Gamma Neutral:

This keyword returns the Quantity of the selected instrument required to make the net gamma of all positions in the strategy of selected underlying to zero. Returns quantity in multiples of the lot size of Instrument as float



Usually used in QTY FX of position builder

#### lv:

IV returns the Implied volatility of a particular instrument for the selected underlying instrument.



The above example will return the implied volatility of the option traded in leg 1 of Set 1 Entry

#### Net Delta:

This keyword will return Net Delta of open positions of the selected underlying for the strategy



If a position is long CE = Delta will be positive If a position is short CE = Delta will be negative If a position is long PE = Delta will be positive

If a position is short PE = Delta will be negative

Net delta will give the summation of all open positions (quantity) multiplied by their respective delta for that underlying

 $Net \ Delta \ = \ \sum xy, \ where \ x = Delta \ and \ y = open \ quantity$ 

#### Net Gamma:

This keyword will return Net Gamma of open positions of the selected underlying for the strategy



# $\overline{Net \ Gamma} = \sum xy, \ where \ x = Gamma \ and \ y = open \ quantity$

#### Net Theta:

This keyword returns the Net Theta of open positions in selected underlying for strategy.

Eg. Net Theta('NIFTY 50') as float



# Net Theta = $\sum xy$ , where x = Theta and y = open quantity

#### Net Vega:

This keyword will return Net Vega of open positions of the selected underlying for the strategy



 $Net \ Vega \ = \ \sum xy, \ where \ x = Vega \ and \ y = open \ quantity$ 

Rho:

Rho keyword returns the Rho value of the particular option



# Theta:

Theta keyword returns you the Theta value of that particular option



The above example will return the Theta value of the instrument traded in 1st leg of Set 1 Entry

# Theta Neutral:

Quantity of selected instrument required to make net Theta of all positions in the strategy of selected underlying to zero. Returns quantity in multiple of lot size of Instrument as float

Usually used in QTY FX of position builder

| Theta Neutral                | Υ |
|------------------------------|---|
| NIFTY 50, Futures (NIFTY 50) |   |
|                              |   |

The above example will return the quantity of NIFTY 50 futures required to make the positions of the underlying Theta neutral in the strategy

#### Vega:

Vega keyword returns you the vega value of that particular option.



The above example will return the Vega value of the instrument traded in 1st leg of 2nd Repair once of Set 1

Vega Neutral:

This keyword returns the quantity of selected instrument required to make net vega of all positions in the strategy of selected underlying to zero. Returns quantity in multiple of the lot size of Instrument as float

This keyword is usually used in QTY FX in position builder



# **Options**

# Max OI Instrument:

This keyword will return the instrument with the maximum open interest at that instant. You can input the underlying instrument, expiry and option type. Your request will be processed and a response will be fetched. At the moment it is only available for indices.



The above image shows how to fetch the max OI strike for Nifty Bank, current month put options.

# Max OI Strike:

This keyword will return a numerical value of the strike of the instrument with the maximum open interest at that instant. You can input the underlying instrument, expiry and option type. Your request will be processed and a numeric response will be fetched. At the moment it is only available for indices. This keyword can also be used in the strike fx of the position builder.



The above image shows how to fetch the maximum OI strike for Nifty 50, current week call options.

# PCR:

This keyword will return a numerical value of the PUT-CALL ratio based on open interest at that instant. You can input the underlying instrument and expiry. Your request will be processed and a numeric response will be fetched. At the moment it is only available for indices.



The above image shows how to

build a condition to check the PCR Nifty 50, current week options and take a trade if the same is greater than or equal to 1.25.

This keyword will return a numerical value of the total open interest of an option type at that instant. You can input the underlying instrument and expiry and the option type here. Your request will be processed and a numeric response will be fetched. At the moment it is only available for indices.



The above image shows how to fetch the Total OI for Nifty bank, current month put options.

# Price Data

### Ask Price:

It returns the Best Ask Price of the selected Instrument



Note- Ask price is returned only if it is changed from last tick, else returns LTP only

# Avg Price:

This keyword will return the average traded price of the selected instrument in that strategy.



# Bid Ask Diff:

It returns the difference between the Best Bid and the best Ask Price of the selected Instrument



Note - Bid/Ask Difference is returned only if there is a change in the bid and the ask in the last tick, else returns 0.

#### **Bid Price**:

It returns the Best Bid Price of the selected Instrument

+**Bid Price** Instrument Name (NFO,NIFTY 50,

Note - Bid price is returned only if it is changed from last tick, else it returns LTP only

# Change:

Change returns the change in the price of the instrument as compared to the Previous Day Close.





# Change%:

This keyword gives you the difference between the Last Traded Price of an instrument and the previous day's close price of that instrument in percentage.



Here, 2 implies 2%, -2 implies -2% and so on Note- No need to add % sign at end of the number

# Lot Size:

This keyword will fetch the current lot size of an instrument and return an integer number of the same. Lot size can be used in combination with other keywords to make comprehensive formulae to achieve a specific mathematical operation. Its specially useful when using lists and will only work on futures and option instruments.



The above image is of the keyword to find the lot size of Nifty 50 current month futures.



CE.

# LTP:

This Keyword returns the Last Traded Price of the selected Instrument. You can use it under condition builder to check the LTP of that particular instrument

|                                    | Y  |
|------------------------------------|----|
|                                    |    |
| Instrument Name (NFO,NIFTY 50,,,,, | ,) |
|                                    |    |

Note - To check the Spot index price, just select NFO, NIFTY 50. If you want to check futures price, select NFO, NIFTY 50, Current month expiry. Selecting current month expiry will return its future price

Refer to the below links for more clarity

Spot price -https://qna.tradetron.tech/t/how-to-select-nifty-bank-spot/622

Future price- https://qna.tradetron.tech/t/how-to-select-nifty-futures/810/2

# **Previous Close:**

This will return the close price of the previous day of that selected instrument.



# **Synthetic Futures:**

This keyword will calculate the put call parity and fetch the synthetic futures of the current week based on the same. This can be used to calculate weekly futures and trade based on the same to spot arbitrage opportunities.



The above image shows how can you use synthetic futures as a standalone keyword for other mathematical operations.



The above image shows how can you use synthetic futures to calculate the ATM strike based on the same.

### **Tick Size:**

This keyword will fetch the minimum tick size of an instrument and return a number for the same. Tick size can be used in combination with other keywords to make comprehensive formulae to achieve a specific mathematical operation. Its specially useful when using lists with multiple instruments.



The keyword shared above will find the minimum tick size for all the instruments within the Nifty 50 stocks list as prescribed by the exchange.

# Traded Value:

This keyword returns the total turnover of that instrument at the exchange.



Traded Value = 
$$\sum_{9:15}^{t} xy$$
, where  $x = ticks$ ,  $y = Volume$  of those ticks and  $t = current$  time

#### Volume:

This keyword returns the Current Volume traded of the selected Instrument for that particular day till the time when the condition is checked. So at any point in time if this keyword is used then it will return total traded volume in that particular instrument up to that instance of time.



Like in the above example you can check whether volume traded for nifty futures is > 1.5 Lakh for the current day. If suppose condition is checked at 2 pm, it will return the total volume traded from 9:15 am till 2:00 pm

#### VWAP:

This is a price action keyword which will calculate the instantaneous VWAP of the instrument under consideration. VWAP needs to be used for an instrument which has volume data. As an example, VWAP for Nifty 50 spot does not exist as the same does not have volume. VWAP need not be used under position keyword.



The keyword shared above will return the VWAP for the current tick of NIFTY futures.



In the example share above, one can check the if the LTP of Nifty 50 futures is greater than the VWAP of the same



In the example share above, one can check the if the LTP of Nifty 50 current week ATM CE is greater than the VWAP of Nifty 50 current week ATM CE

# **Runtime Variables**

### EntryDate:

This keyword will return the latest date on which the entry legs of the selected underlying executed

The output will be a string in the format YYYY-MM-DD



**EntryPrice:** 

This keyword will return the latest entry price of the instrument selected.

This keyword is generally used in the set exit when using a list of stocks in the strategy



The above keyword will return the respective entry prices of the stocks entered from the list

You can compare this keyword with LTP and create SL /Target conditions

# **EntryTime:**

This keyword will return the time of entry of the selected underlying

It will return an Integer of format HHMM



Eg- If entry happened at 2 PM it will return 1400

### EntryUnderlyingPrice:

This keyword will return the latest Underlying spot price at the time of entry.

Generally used if the user wants to place stop loss based on Index movement rather than option prices

|          | 8 |
|----------|---|
| NIFTY 50 |   |

Suppose NIFTY 17500 CE option entered at 9:20 AM, EntryUnderlyingPrice will give the spot price at the time of this option entry, let's assume spot price was 17354 at 9:20, so in this case, EntryUnderlyingPrice will return 17354

Note - For NSE equity trades, EntryUnderlyingPrice and ENTRY PRICE keywords will return the same

#### Get Runtime:

This keyword is used to fetch the value of a runtime variable generated using python or from Tradetron API. The inputs you use here will be case and space sensitive.



In the example shared above, the keyword will look for the variable called 'tradetron' and find the number or string value associated with it.

This keyword can also be used within other keywords when the variable is fetching a particular string value. Thus if a user creates a variable called 'tradetron' and then associated an instrument name with the same, based on the example share below, the Tradetron engine will now be able to fetch the LTP of the instrument associated with the mentioned variable.





### Get Runtime Number:

This keyword is used to fetch the numeric value of a runtime variable generated using python or from Tradetron API. The inputs you use here will be case and space sensitive.



In the example shared above, the keyword will look for the variable called 'TRADETRON' and find the number associated with it.

Get runtime number was primarily introduced to allow the get runtime feature to be used at places where it would be illogical to have a string value. In the example shared below, we can use find strike to fetch the premium of a particular number which is a runtime variable called 'TRADETRON'.



# Init Var:

This keyword is used to generate a variable and assign a name and number to the same. Thus Init var is a keyword that runs only once. Thus any change made to the value of Init Var after the deployment of the strategy will only take effect after the run counter of the strategy has changed. Init var is very useful when you are using python or condition action based coding in Tradetron. Please note the values entered in Init var are case and space sensitive.



In the above example, upon deployment, the keyword will generate a runtime variable called "india" and assign a number to the same as "1"

The value can be retrieved using the get runtime keyword

# LastRepairedDate:

This keyword will return the latest date on which the repair legs of the selected underlying executed

The output will be a string in the format YYYY-MM-DD



### LastRepairedPrice:

It will return you the price when the instrument was last repaired. It captures the last repaired price of the instrument you are trading and not the underlying. It gets updated whenever there is a repair or an exit triggered in any set.

| ( <b>+</b> )      |                                |
|-------------------|--------------------------------|
| LastRepairedPrice |                                |
| NIFTY 50          |                                |
|                   | LastRepairedPrice     NIFTY 50 |

# LastRepairedTime:

This keyword will return the time of repair of the selected underlying

It will return an Integer of format HHMM



Eg- If Repair happened at 2 PM it will return 1400

# LastRepairedUnderlyingPrice:

It will return you the underlying price of the instrument which got repaired recently. It will thus capture the spot value of nifty in this case. It will also constantly update the value of the same whenever a repair or exit trade of any set gets triggered.



# Series Ops

# Add Array:

This keyword is used to add a value to the entire series /array of the selected instrument. This keyword is used under the position keyword



The above example will add 10 to all the close values of the NIFTY 50 series

This keyword can be used under other indicators too, check the example below



# **Divide Array:**

This keyword is used to divide the entire series /array of the selected instrument by a value. This keyword is used under the position keyword



The above example will divide all the close values of the NIFTY 50 series by 10

# Multiply Array:

This keyword is used to multiply a value to the entire series /array of the selected instrument. This keyword is used under the position keyword



The above example will multiply 10 to all the close values of the NIFTY 50 series

# Power:

This keyword is used to take the power of the entire series /array of the selected instrument by a value. This keyword is to be used under the position keyword



The above example will take the close values of the NIFTY 50 series and raise it by a power of 2 and output the -1 value

```
series^x, where x = value
```

### Sqrt:

This keyword is used to take a square root of the entire series /array of the selected instrument. This keyword is to be used under the position keyword



 $\sqrt{series}$ 

The above example will take the square root of all the close values of the NIFTY 50 series and output the -1 value

# Subtract Array:

This keyword is used to subtract a value from the entire series /array of the selected instrument. This keyword is used under the position keyword



The above example will subtract 10 from all the close values of the NIFTY 50 series.

Suppose Nifty yesterday's close value is 17000, it will return 17000-10= 16950

# **Statistics**

#### correl:

This keyword will return the correlation coefficient of the two series selected. Users can input 2 series of their choice and the period i.e How many previous data to consider

| Correr   |  |
|--|--|
| CLOSE (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All)), CLOSE (Symbol (Instrument Name (NFO,HDFC,,,,,), day, All)), 20 |  |

The above condition will give the correlation coefficient of NIFTY 50 and HDFC based on the past 20 days of data

#### Harmonic Mean:

This keyword returns the Harmonic mean of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the Harmonic mean on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# Log:

This keyword will return the log of the selected series of the particular instrument. Log keyword is generally used under the position keyword



Log keyword used in Tradetron is part of Numpy library -<u>https://numpy.org/doc/stable/reference/generated/numpy.log.html</u>

### Log Return:

This keyword will return the log Returns of the selected series of the particular instrument. Log Return keyword is generally used under the position keyword

$$\ln \left( rac{P}{P_{-1}} 
ight), \ where \ P = \ current \ value \ and \ P_{-1} \ = \ Previous \ value$$

Log return can be used on any series like OPEN,EMA etc.

The above condition will return log return of previous day's NIFTY 50 close price

#### Mean:

This keyword will return the rolling mean of the series selected of the particular instrument.

Mean is generally used under the position keyword

This keyword has 2 inputs, one is to select the series, other is to select the period which is the no. of previous values to consider or the sample



The above condition will return the mean of the NIFTY 50 close series, considering the sample data of the past 20 candles

#### Median:

This keyword will return the rolling median of the series selected of the particular instrument.

Median is generally used under position keyword

This keyword has 2 inputs, one is to select the series, other is to select the period which is the no. of previous values to consider or the sample



The above condition will return the median of the NIFTY 50 close series, considering the sample data of the past 20 candles

# Percentile Rank:

This keyword will return the Percentile value of the selected value from series of the particular instrument. Percentile Rank keyword need not be used under the position keyword

This keyword has 3 inputs, one is to select the series, another one to select the period which is the no. of previous values to consider or the sample and the final to input the value whose percentile needs to be found



The above condition will return the Percentile Rank of 250 value of the ITC close series, considering the sample data of the past 20 candles

Eg- Suppose 250 is the highest close value of ITC in past 20 candles, then it will return 100, as it is 100 percentile

#### Ratio:

÷

The ratio keyword as the name suggests will output the ratio of 2 inputs in a series. It is generally under the position keyword.

#### Position

×

Ratio (OPEN (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All)), CLOSE (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All))), -1

The above condition will return the Ratio of open and close for the previous day.

#### Stdev:

This keyword will return the rolling standard deviation of the series selected of the particular instrument.

STDEV is generally used under position keyword

This keyword has 2 inputs, one is to select the series, other is to select the period which is the no. of previous values to consider or the sample



The above condition will return the standard deviation of the NIFTY 50 close series, considering the sample data of past 20 candles

#### Sum:

This keyword will return the sum of the series selected of the particular instrument.

SUM is generally used under the position keyword

This keyword has 2 inputs, one is to select the series, other is to select the period which is the no. of previous values to consider to add



The above condition will return the sum of the previous 3 close prices of NIFTY 50

#### **Zscore:**

This keyword will return the Zscore of the selected series of the particular instrument.

Zscore is generally used under the position keyword

This keyword has 2 inputs, one is to select the series, other is to select the period which is the no. of previous values to consider or the sample



The above condition will return the Zscore of the NIFTY 50 close series, considering the sample data of the past 20 candles

Zscore keyword used in Tradetron is part of SCIPY library -<u>https://docs.scipy.org/doc/scipy/reference/generated/scipy.stats.zscore.html</u>

# Strategy Info

#### **Max Profit:**

This keyword will fetch the maximum profit achieved by the strategy during one run counter of the same. Max profit is a strategy level keyword and will take into account the total realized and unrealized profit of all positions taken. It is suggested to use Max profit to define a custom trailing stop loss on a strategy. Max profit should ideally be multiplied with the multiplier as shown in the image below in the Universal exit of a strategy.



Another utility for this keyword is to build a custom trailing stoploss logic. This is very similar to the TSL feature in the advance settings however certain customizations in the same are not possible. Using the Max profit keyword one can customize the levels at which TSL gets triggered.



In the example share above, the condition on line one checks if the max profit of the strategy is greater than 2500. This is the activation price of the TSL mechanism. One can thus select any number at which he wants his TSL to get activated.

Line number two checks the difference between the values of the max profit and the PNL of the strategy. If the difference between the two is greater than 1000, the universal exit will be activated. This number can also be modified based on the logic of a strategy. Thus if you need the TSL to be very sensitive the number can be a smaller number like 200 or 500. If you need the TSL to be more accommodative, you can select a larger number.

We are multiplying the two by multiplier to scale the same up or down as per the position sizing selected.

# **Multiplier:**

Multiplier is the keyword used when we want to multiply any value in the strategy as per the multiplier selected during that deployment.

Useful, if the user wants to deploy using different multiplier like 2X,5X etc If deployment is under 2X, multiplier will return 2



# Net Quantity:

It returns the Net quantity/Open Quantity of that particular instrument in that strategy.



The above example will return the net quantity of ADANIENT in the strategy.



The above example will return the net quantity of the instrument traded in leg 1 of set 1 in the entry which has NIFTY50 as underlying Suppose 1 lot NIFTY 17000CE is sold in entry leg 1, it will return -50 If the same traded instrument is squared off it in some other condition, it will return 0

# **Open positions:**

÷

This keyword will look at all the open positions within the strategy that you have defined and return an absolute integer number. The values it will fetch here will be Boolean values. Thus this keyword can only check if there is an open position for an instrument. If there is an open position then it will fetch 1, else 0.

Assume you trade one lot of RELIANCE futures. When you enter into RELIANCE, the Open Positions keyword will return number 1 as you have 1 open position. Assume you square off the position in RELIANCE futures, the Open Positions keyword will return number 0.



Through the above keywords, one can check if there are no Open Positions for RELIANCE

8



×

Through the above keywords, one can check if there are Open Positions for RELIANCE

The Open Positions keyword should **not** be used restrict the number of positions taken in a strategy as shown below.



To understand the rationale behind the same, take this example:

A strategy took an entry in RELIANCE futures and then exited from the same. Post that it takes a re entry in RELIANCE futures. In this case logically speaking, the number of open positions returned should be 1. However the Tradetron engine will not consider the open positions as 1 and will return 3 as it detects three unique entries.

#### PNL:

This keyword will return profit/loss of the strategy for that counter

Generally used when the user wants to exit the strategy when the target/stop loss amount reached for that particular strategy as a whole if we keep the condition in the **universal exit**.

PNL is a strategy level keyword, generally kept in universal exit, even if kept in set exit, it will still return the overall profit/loss combining all the sets.

This keyword will reset only after universal exit.

Please click on this link for more and examples - <u>https://qna.tradetron.tech/t/how-to-use-pnl-keyword/635</u>



The above code if put in universal exit, will exit the strategy if it makes 500 Rs + profit

### **PNL Underlying:**

This keyword will return profit/loss of the strategy for that counter for only the instrument that has been selected here.

Generally used when the user wants to exit the strategy when the target/stop loss amount reached for that particular strategy as a whole if we keep the condition in the **set exit**.

PNL is a strategy level keyword, generally kept in set exit, to exit all open positions of the underlying instrument while keeping all other positions untouched.

This keyword will reset only after universal exit.



In the example share above, the system will trigger and exit when the PNL of all HDFCBANK instruments are greater than or equal to 500.

# **Positions Detail:**

The position detail keyword is one of the most important and versatile keywords of Tradetron. The same keyword can be used in various ways to control what your strategy does in a very precise ways. This keyword is a strategy level keyword which means that is is independent of sets and will take into consideration, all the positions within a strategy. In most keywords, a users is typically adds an input and hence receives an output in the form of the result. However while using position detail, one must first think of what is the output that the user wants to achieve and then built and input in position detail for the same.

Position detail has 4 inputs namely *Condition type, Transaction Type, Instrument type* and *Underlying* and 3 outputs *Value, Quantity* and *Count* of which anyone can be selected at a time



| value     | × |
|-----------|---|
| nderlying |   |
| Choose    | , |

In order to explain the same consider the following cases: Assume you buy one lot of **Nifty 50 Monthly CE** that has a lot size of 50.

Now if you use the position detail keyword with these settings, it will fetch number +50 as the system is looking at all the conditions in the strategy, all transactions and all instrument types.



However if I modify the filter to check for only entries and sell type transactions, the position detail keyword will return 0. This is because even though there is an entry here, there is no Sell in the strategy thus fetching 0.

Similarly if I modify the same keyword to look for entries of Buy transactions but the instrument is selected as PE, it will again return 0. This is because no PE has been currently traded in the strategy.

Positions Detail
Entry, B, PE, quantity, NIFTY 50

Now assume that the same Nifty 50 Monthly CE has been squared off by the repair once condition.

Now if I add the same keyword, with the settings shown above, it will fetch 0. This is because we are looking for the positions of 'all' condition types in the strategy. Thus the entry condition will fetch number +50(since we went long) and the repair condition will fetch -50(since we went short). When we look for the summation of all the condition types, we get (+50) + (-50) thus returning 0



If I select repair once as the condition type and keep the transaction and instrument type as all, the

same keyword will return -50 and there was a short position taken in the repair once trade.



Using the above cases we are trying to point to the fact that position detail can be used effectively to check if certain positions are taken or not taken. Based on the same you get granular logical control over the positions being taken by your strategy at every point.

Position detail in a strategy level keyword and not a set level keyword. No matter which set you use it in, it will return the output based on all the sets ie. the strategy.

Let us understand the use of position detail with an example

#### #Example 1

Suppose you have 2 sets in a NIFTY 50 straddle strategy where each set is selling a straddle and you want that only 1 set must be active at a time, then you can use the below position detail configuration in the entry of both the sets



In the above configuration, we are basically checking the net quantity of the strategy whether it is 0 or not. If it is 0, that means no set is active and anyone set can be active.

Suppose set 2 enters then position detail will return -100 as it is CE and PE sell each 1 lot so net quantity is -100. Now after some time set exit happens and positions are squared off then the net quantity becomes 0.

#### #Example 2

Suppose you have a 1 set strategy where you are building a long straddle. Now you wish that set 1 enters only once per day.

So in set 1 since it is buying CE and PE, we will use the below configuration in set 1 entry conditions



In this arrangement, we are selecting Entry and B because when buy legs are traded for the first time, Position detail keyword will return 0 as no trades have occurred and thus it will allow first entry. Now as soon as set 1 entry happens the position detail keyword will return 100 as ENTRY, B, ALL, Quantity = 100, thus condition will not be satisfied for the second entry, preventing re-entry for set 1

The above keyword will scan only the Entry blocks of both sets and return the Buy quantity

#### #Example 3

Suppose you are trading a list of stocks and want to limit the number of entries by 5 for the day/counter. You can use the count function of position detail. It is generally used when using a list of stocks.



The above keyword will limit the entries to 5. Count function will give the output of no. of times unique instruments have been traded.

For simplicity Position detail count will return the no. of rows in the deployed page, consider the image below.

| Instrument Symbol   | Qty | LTP₹     | Val₹ | P&L₹                  |
|---------------------|-----|----------|------|-----------------------|
| 1. <u>LT</u>        | 0   | 1,764.00 | 0    | -130                  |
| 2. <u>CANBK</u>     | 0   | 157.50   | 0    | -256                  |
| 3. <u>NTPC</u>      | 0   | 123.95   | 0    | -103                  |
| 4. <u>ICICIBANK</u> | 0   | 722.00   | 0    | -126                  |
| 5. <u>GAIL</u>      | 0   | 152.60   | 0    | -264                  |
| Total               | 0   |          | 0    | <b>-878</b><br>-0.18% |

In the above image, 5 rows are visible. Position detail count will return 5 as 5 unique instruments (stocks) have been traded. Even if LT from that list entered, exited 3 times, Position detail Count will still return 5 as unique instruments are only 5.

*Note*: Suppose 6 stocks satisfy at an instant, position detail count will allow entry for all 6 stocks instead of 5 and next condition check it won't allow entry. To have a foolproof method of limiting entry, you need to decrease the size of the list such that the probability of multiple stocks satisfying conditions at the same instance is reduced or can go for custom coding.

You can use the same logic for restricting entry in option strategy. But note that Option instruments are unique if strike, expiry option type is different.

### **Traded Instrument:**

This keyword can return 3 values pertaining to the Traded instrument ie. (PRICE, QUANTITY, STRIKE).

Traded Instrument keyword is mainly used to retrieve the entry price of instruments traded in the strategy in the condition builder and to retreive the strike price in position builder.

This keyword can be used in condition builder as well as position builder



The above are the parameters for Traded Instrument. It will return the price of the instrument traded in leg 1 of set 1. We can also change the field value to quantity and it will return the quantity of the traded instrument.

| (+)                             | -X |
|---------------------------------|----|
| Traded Instrument               |    |
| Entry, price, NIFTY 50, 1, 1, 1 |    |



The above example can be used to check SL/T conditions in the condition builder

#### How to reference legs?

Set no- Select the set no 1,2,3 etc where the instrument is traded

Condition no- Select condition like 1,2,3 where the instrument is traded, if it is entry leg condition no will always be 1, suppose it is the first repair once then condition no. will be 1 and if traded in the second repair once, condition number will be 2 and so on, suppose it is first repair continuous, condition no will be 1.

Leg 1- Select the leg no. based on the order of the position builder positions. If it is the first leg select 1, if want to reference the 5th leg select 5

Watch this video for an example -<u>https://youtu.be/UI7q6Rn6ZqM</u>

Watch this video to better understand referencing the legs --<u>https://youtu.be/yHAbw3gGqyc</u>

#### **Traded Instrument Name:**

This keyword as the name suggests returns the Traded instrument name. Traded Instrument name can be selected in many keywords like LTP, EMA, or any indicator to apply that keyword on the traded instrument.

#### **Condition Type**

| Entry            | × |
|------------------|---|
| Field            |   |
| instrument       | × |
| Underlying       |   |
| NIFTY 50         | × |
| Set Number       |   |
| 1                |   |
| Condition Number |   |
| 1                |   |
| Leg Number       |   |
| 1                |   |

The above are the parameters for Traded Instrument Name. It wil return the name of the instrument traded in leg 1 of set 1.



When used under LTP keyword it will return the LTP of the instrument traded in leg 1 of set 1

The difference between Traded instrument and Traded instrument name is that Traded instrument Name is usually used under different keywords whereas Traded Instrument can be used as a standalone keyword.

#### How to reference legs?

Set no- Select the set no 1,2,3 etc where the instrument is traded

**Condition no**- Select condition like 1,2,3 where the instrument is traded, if it is entry leg condition no will always be 1, suppose it is the first repair once then condition no. will be 1, if traded in second repair condition number will be 2 and so on, suppose it is first repair continuous, condition no will be 1 and so on

Leg 1- Select the leg no. based on the order of the position builder positions. If it is the first leg select 1, if want to reference the 5th leg select 5

Watch this video for an example -<u>https://youtu.be/UI7q6Rn6ZqM</u>

Watch this video to learn referencing the legs --https://youtu.be/yHAbw3gGqyc

# Strike Formula

# ATM:

ATM keyword returns the ATM strike of the instrument. Please note that, ATM keyword returns the ATM strike based on the Futures chart

ATM keyword is generally used in Strike FX in Position Builder



In the above image, Suppose Nifty futures is 17480, ATM strike will return 17500.



In the above image, +2 indicates 2 strikes away from ATM, suppose ATM is 17500, ATM,+2 will return 17600

# Find Strike:

Find strike keyword returns the strike based on certain parameters and values.

Find strike keyword is used under Strike FX of position builder



The above keyword will select the NIFTY 50 Weekly CE strike which has an LTP nearest to 150 Rs

FInd strike has a filter for results where we can select which strike to select based on the output value: GREATER, LESSER , ANY

Based on the above example since we selected ANY, it will give the output of the nearest strike whose LTP is nearest to 150rs

If we select lesser, and suppose 17000CE is 152rs and 17650 CE is 145rs, it will return 17650 as the value 145 is lesser than the defined 150 Rs

Pls check the links below to learn more

https://qna.tradetron.tech/t/how-to-use-find-strike-to-choose-strike-on-the-basis-of-delta/188/2

https://qna.tradetron.tech/t/how-to-select-strike-as-per-options-premium-value/639

#### Get Strike:

Get strike keyword returns the strike based on the value/condition set in it.

It is generally used in Strike FX of position builder.



Suppose LTP of NIFTY 50 is 17330, then the above get strike function will return 17350 as it is the nearest strike.

# <u>Technical</u>

#### ADX:

This keyword returns the Average DIrectional Index (ADX) indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword

#### Position

ADX (Symbol (Instrument Name (NFO,ABFRL,,,,,), day, All), 15), -1

The above keyword will return the previous day ADX value of ABFRL

# ADX Smooth:

This keyword returns the value of the smooth Average Directional Index of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the smooth Average Directional Index on any candle of an instrument, like in the above example, you can fetch the smooth Average Directional Index of previous (-1) day candle of Nifty 50 spot

### **AROONDOWN:**

This keyword returns the AROON DOWN indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above keyword will return the previous day AROON DOWN value of ABFRL

#### **AROONUP:**

This keyword returns the AROON UP indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above keyword will return the previous day AROON UP value of ABFRL

#### ATR:

This keyword gives the ATR value in series of the selected Instrument. This keyword is to be used in the Position keyword



The above condition will output the ATR period 14 of NIFTY 50 futures in 15min timeframe

#### Awesome Oscillator:

This keyword returns the value of the Awesome Oscillator of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the value of the Awesome Oscillator on any candle of an instrument, like in the above example, you can fetch the Choppiness Index of previous (-1) day candle of Nifty 50 spot

#### **Bolinger Band width:**

This keyword returns the width of the Bollinger band of any period of any series of the selected Instrument. This keyword is to be used under the position keyword





# Position Bolinger Band width ( CLOSE ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ), 15m, All ) ), 20, 2 ), -1

You can fetch the Bollinger Band width on any series, like close in the above example, you can also plot the same on RSI, OPEN etc

#### CCI:

This keyword returns the Commodity Channel Index (CCI) indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above keyword will return the previous day CCI value of ABFRL

### **Choppiness Index:**

This keyword returns the value of the Choppiness Index of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the Choppiness Index on any candle of an instrument, like in the above example, you can fetch the Choppiness Index of previous (-1) 5 min candle of Nifty 50 spot

#### **CLOSE:**

This keyword returns the Close value of the selected Instrument. This keyword is to be used under the position keyword



The above keyword will return the previous day Close price of ABFRL

#### CMO:

This keyword returns the Chande momentum oscillator of any period of any series of the selected Instrument. This keyword is to be used under the position keyword

| ( <b>+</b> )  | × |
|---|---|
| Position  | Γ |
| CMO ( CLOSE ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) ) , 20 ) , -1 |   |

You can plot Chande momentum oscillator on any series, like close in the above example, you can also plot CMO of RSI, OPEN etc

#### Cross:

Cross keyword is used to find if there has been a crossover in the previous candles. Cross keyword is to be used under position keyword.

Cross takes 2 input series

If a crossover is taken place it returns True, if not, it returns False



In the above example, we are checking if close price has given a crossover above EMA 20 in previous daily candle. If it has crossover, keyword will return true and strategy will execute

#### DEMA:

This keyword returns the Double Exponential Moving Average value of the instrument. This keyword like all technical indicators are to be used under the Position keyword



The above condition is checking if the Previous 5 minute (-1) DEMA value is greater than previous to previous 5 minute (-2) DEMA value of Nifty Bank spot.

# DI-:

This keyword returns the value of the negative directional movement indicator line. This keyword like all technical indicators are to be used under the Position keyword

| Choose                         |   | • |  | 0 |
|--------------------------------|---|---|--|---|
| DI- ( Symbol ( Instrument Name | Position<br>(NFO,NIFTY BANK,,,,,), day, All ), 15 ), -1 |   | Position DI- ( Symbol ( Instrument Name ( NFO,NIFTY BANK,,,,, ) , day, All ) , 15 ) , -2 |   |

The above condition is checking if the Previous day(-1) DMI negative value is lesser than the previous to previous day value (-2) for Nifty bank spot.

### DI+:

This keyword returns the value of the positive directional movement indicator line. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔻                                 | 0                                     |  | 0 |
|--|---------------------------------------|--|---|
| DI+ ( Symbol ( Instrument Name ( NFO,NIF | TY 50,,,,, ) , day, All ) , 15 ) , -1 | Position DI+ ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) , 15 ) , -2 | 0 |

The above condition is checking if the Previous day(-1) DMI positive value is greater than the previous to previous day value (-2) for Nifty 50

#### Donchain Ch Lower:

This keyword returns the Donchain Lower channel value. This keyword like all technical indicators are to be used under the Position keyword

| Cinoose V   |   |    |  |   |  |
|---|---|----|--|---|--|
| Position  |   | >= |  | Position  |  |
| Donchain Ch Middle ( Symbol ( Instrument Name ( NSE,3MINDIA,,,,, ) , day, All ) , 20 ) , -1 | J |    |  | Donchain Ch Middle ( Symbol ( Instrument Name ( NSE,3MINDIA,,,,, ) , day, All ) , 20 ) , -2 |  |

The above condition is checking if the Previous day(-1) Donchain Lower Channel value is greater than the previous to previous day value (-2)

# Donchain Ch Middle:

This keyword returns the Donchain Middle channel value. This keyword like all technical indicators are to be used under the Position keyword

| Choose V  |    |   |  |
|---|----|---|--|
| Position  | >= | Position  |  |
| Donchain Ch Middle ( Symbol ( Instrument Name ( NSE,3MINDIA,,,,, ) , day, All ) , 20 ) , -1 |    | Donchain Ch Middle ( Symbol ( Instrument Name ( NSE,3MINDIA,,,,, ) , day, All ) , 20 ) , -2 |  |

The above condition is checking if the Previous day(-1) Don chain Middle value is greater than the previous to previous day value (-2)

# Donchain Ch Upper:

This keyword returns the Donchain Upper channel value. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔻   |    |  |
|--|----|--|
| Position   | >= | Position   |
| Donchain Ch Upper ( Symbol ( Instrument Name ( NSE,AFFLE,,,,, ) , day, All ) , 20 ) , -1 |    | Donchain Ch Upper ( Symbol ( Instrument Name ( NSE,AFFLE,,,,, ) , day, All ) , 20 ) , -2 |

The above condition is checking if Previous day(-1) Don chain upper value is greater than the previous to previous day value (-2)

# Donchain Ch Width:

This keyword returns the DonChain Width of the selected Instrument. Like all indicators, this keyword is supposed to be used under the position keyword



The above condition is checking if Donchain channel width of Nifty 50 spot is greater than 50

$$DW = DC_{upper} - DC_{lower}$$

#### EMA:

This keyword returns the exponential moving average of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot EMA on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# Fisher Transform:

This keyword returns the Fisher Transform indicator value of any period of the selected Instrument. This keyword is to be used under the position keyword



The above keyword will return the previous day Fisher transform value of ACC

#### Heikin Ashi:

Tradetron supports various different candle types and Heiken Ashi is one such candle type. Thus you can use any indicator, instrument or keyword and convert the candle into a Heiken Ashi candle. You can find more detail on the same candle in the lik shared below: <a href="https://www.investopedia.com/trading/heikin-ashi-better-candlestick/">https://www.investopedia.com/trading/heikin-ashi-better-candlestick/</a>

Since Heiken Ashi is an independent candle type, it can be accessed by clicking on the name of the indicator (used under position keyword) and selecting the candle type as Heiken Ashi.



In the example share above, we will fetch the High on the previous (-1) Heiken Ashi 15 mins candle for Nifty 50 spot.

#### HIGH:

This keyword returns the High value of the selected Instrument. This keyword is to be used under the position keyword



The above keyword will return the previous day High price of ABFRL

# **Highest High Value:**

This keyword returns the Highest High value of all the values in the series of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the Highest High on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc.

It is important to note that the highest high value here will not include the high of the current candle (0). It will look at the maximum value of the last hundred day candles from the previous candle (-1).

#### Hull MA:

This keyword returns the Hull Moving average of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot Hull Moving average on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# HV:

This keyword returns the Historical Volatility, the output ranges from 0 to 1.

If you want to compare with Implied volatility, make sure to multiply by 100 to get in percentage terms



# Indicator Value (Time):

This keyword will fetch the instantaneous value of any particular indicator in series at a particular time for an instrument. Since we are looking at instruments in series here, this keyword is used as a standalone keyword (not under position keyword).



According to the example shared above, the Tradetron engine will check the value of the Upper Bollinger band at 10.00 AM for Nifty Bank 5 min candle. It is important to note that this keyword should only be processed after the time mentioned (has already passed). To ensure that one must use it in group with 'AND' condition as shown below:

| AN | D OR   | +  | Condition | Group | × |
|----|--------|--|-----------|-------|---|
|    | Choose | Indicator Value (Time) Upper Bolinger ( CLOSE ( Symbol ( Instrument Name ( NFO,NIFTY BANK,, ), 5m, All ) ), 20, 2 ), 10:00 |           | Paste | × |
|    | Choose | ▼ Time > + ★ ★ ★ ★ ★ Number 1000   |           | Paste | × |

# Kaufman Adaptive MA:

This keyword returns the Kaufman Adaptive Moving Average of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot the Kaufman Adaptive Moving Average on any series, like open in the above example, you can also plot EMA of RSI, High etc

# Kaufman Efficiency indicator:

This keyword returns the Kaufman's Efficiency indicator of any period of any series of the selected Instrument. This keyword is to be used under the position keyword

| 1 | ( <b>+</b> )   | 8 |
|---|--|---|
|   | Position   | T |
|   | Kaufman Efficiency indicator ( CLOSE ( Symbol ( Futures ( NIFTY 50 ) , 5m, All ) ) , 20 ) , -1 |   |

You can plot Kaufman's Efficiency indicator on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# Keltner Channels:

This keyword returns the Keltner Channel value. Since there are three different Keltner channels, this keyword gives you an option to select the channel you would like to fetch. This keyword like all technical indicators are to be used under the Position keyword

| AND | R Condition  | Group   | × |
|-----|--|---------|---|
|     |  | Paste : | × |
| _   | LTP<br>Instrument Name (NFO,NIFTY BANK,,,,,) Keitner Channels (Symbol (Instrument Name (NFO,NIFTY BANK,,,,,), day, All ), 20, 10, 2, middle ), -1  | 8       |   |
|     |  | Paste 3 | × |
|     | NOOSE     Image: Second state stat | 8       |   |

The above condition is checking if the LTP of Nifty Bank is between the Previous day(-1) upper and middle Keltner Channels.

| AND OR | + Condition  | Group | × |
|--------|--|-------|---|
| Choose | Position     Keltner Channels ( Symbol ( Instrument Name ( NFO,NIFTY BANK,,,,, ) , day, All ) , 20, 10, 2, middle ) , -1 | Paste | × |
| Choose | Position     Keltner Channels ( Symbol ( Instrument Name ( NFO,NIFTY BANK,, ) , day, All ) , 20, 10, 2, lower ) , -1     | Paste | × |

The above condition is checking if the LTP of Nifty Bank is between the Previous day(-1) middle and lower Keltner Channels.

#### Keltner Close:

This keyword returns the value of the Keltner Close of the selected Instrument. This keyword is to be used under the position keyword



You can plot Keltner Close on any candle of an instrument, like in the above example, you can also plot Choppiness Index of previous(-1) day candle of Nifty 50 futures

#### LINEARREG:

This keyword returns the Linear Regression of any period of any series of the selected Instrument. This keyword is to be used under the position keyword.

This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html



You can fetch the Linear regression on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

### LINEARREG SLOPE:

This keyword returns the Linear Regression Slope of any period of any series of the selected Instrument. This keyword is to be used under the position keyword.

This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

https://www.ta-lib.org/function.html



You can fetch the Linear Regression Slope on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# LINEARREG\_ANGLE:

This keyword returns the Linear Regression Angle of any period of any series of the selected Instrument. This keyword is to be used under the position keyword.

This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html



You can fetch the Linear Regression Angle on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

#### LINEARREG\_INTERCEPT:

This keyword returns the Linear Regression Intercept of any period of any series of the selected Instrument. This keyword is to be used under the position keyword.

This keyword has been used as a part of TA lib. You can find more details on the same from the link shared below:

#### https://www.ta-lib.org/function.html



You can fetch the Linear Regression Intercept on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

#### LOW:

This keyword returns the Low value of the selected Instrument. This keyword is to be used under the position keyword



The above keyword will return the previous day Low of ABFRL

#### Lower Bolinger:

This keyword returns the Lower Bollinger value of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot Lower Bollinger on any series, like close in the above example, you can also plot Lower Bollinger of RSI, OPEN etc

#### Lowest Low Value:

This keyword returns the Lowest Low value of all the values in the series of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the Lowest Low on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc.

It is important to note that the lowest low value here will not include the low of the current candle (0). It will look at the minimum value of the last hundred day candles from the previous candle (-1).

#### LSMA:

This keyword returns the Least Square Moving Average of any period of any series of the selected Instrument. This keyword is to be used under the position keyword

Position LSMA (HIGH (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All)), 20), -1 You can plot LSMA on any series, like High in the above example, you can also plot LSMA of RSI, OPEN etc

#### MACD:

This keyword returns the MACD line value of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot MACD line on any series, like close in the above example, you can also plot MACD line based on series of RSI, OPEN etc

#### Macdhist:

This keyword returns the MACD Histogram value of any period of any series of the selected Instrument. This keyword is to be used under the position keyword

| Position   | Γ    |
|--|------|
| Macdhist ( CLOSE ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) ) , 12, 26, 9 ) | , -1 |

You can plot MACD Histogram on any series, like close in the above example, you can also plot MACD Histogram based on series of RSI, OPEN etc

#### Macdsignal:

This keyword returns the MACD Signal Line value of any series of the selected Instrument in any timeframe. This keyword is to be used under the position keyword

| ( <b>+</b> ) |  | x |
|--------------|--|---|
|              | Position   | Γ |
| Macdsig      | nal(CLOSE(Symbol(Instrument Name(NSE,ITC,,,,,), day, All)), 12, 26, 9), -1 |   |

You can plot MACD Signal line on any series, like close in the above example, you can also plot MACD Signal line based on series of RSI, OPEN etc

#### MFI:

This keyword returns the Money Flow Index value of the instrument. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔻                          |  |   | 0 |        |   |
|-----------------------------------|--|---|---|--------|---|
|                                   | Position   | > |   | Number |   |
| MFI ( ohlcv ( Instrument Name ( N | FO,NIFTY 50,Current Month,,,, ) , day, All ) , 15 ) , -1 |   |   | 80     | J |

The above condition is checking if the Previous day(-1) MFI value is greater than 80 for Nifty 50 futures.

#### **OBV**:

This keyword returns the value of the On Balance Volume of the selected Instrument. This keyword is to be used under the position keyword



# Position

#### OBV ( ohlcv ( Instrument Name ( NFO,NIFTY 50,Current Month,,,, ) , day, All ) ) , -1

You can plot Choppiness Index on any candle of an instrument, like in the above example, you can also plot OBV of previous (-1) day candle of Nifty 50 futures

#### **OHLC Spread:**

This keyword can be used for all series based technical indicator's. It will fetch the value of a particular candle in series for two independent instruments and find the difference of the same values. You can thus check the difference in premium of two strikes. This difference could be either positive or negative.

This keyword is nested within most series or technical indicators. In order to OHLC spread, you need to select position keyword and then select the series/indictor for which you need to find the spread between the two instruments. Post that click on the indicator to select keyword 'OHLC Spread'.

| Position     OPEN ( Symbol ( Instrument Name ( ) , day, All ) | )),-1       |  |
|---|-------------|--|
| Keyword Paramters   | 36          |  |
| Dhlc  |             |  |
| Symbol × ^  |             |  |
|   |             |  |
|   |             |  |
| OHLC Sum  |             |  |
| Renko   |             |  |
| Renko - closed candle   |             |  |
| Renko dynamic bricks  | •           |  |
|   | Ok Cancel   |  |
|   |             |  |
| oose 🔻  |             |  |
|   | <b>B</b> 10 |  |

As shown in the above example, you can find the previous 5 minute open of the current week ATM CE and PE for the weekly option for Nifty Bank and find the difference in the same values.

#### **OHLC Sum:**

This keyword can be used for all series based technical indicator's. It will fetch the value of a particular candle in series for two different instruments and sum it up. You can thus check the combined premium of two strikes.

This keyword is nested within most series or technical indicators. In order to OHLC sum, you need to select position keyword and then select the series/indictor for which you need to find the spread between the two instruments. Post that click on the indicator to select keyword 'OHLC Sum'.

| • · · · · · · · · · · · · · · · · · · · | Position                  | 8            |   |
|---|---------------------------|--------------|---|
| OPEN ( Symbol ( Inst                    | trument Name ( ) , day, / | All ) ) , -1 |   |
| Keyword Paramters                       |                           |              | × |
|   |                           | •            |   |
| Ohlc                                    |                           |              |   |
| Symbol                                  | ×                         |              |   |
|   |                           |              |   |
| OHLC Spread                             | <b>^</b>                  |              |   |



| Choose   | • |
|--|---|
| Position   |   |
| CLOSE ( OHLC Sum ( Instrument Name ( NFO,NIFTY 50,Current Week,CE,ATM,0,0 ) , Instrument Name ( NFO,NIFTY 50,Current |   |
| Week,PE,ATM,0,0), 5m)), -1   |   |

As shown in the above example, you can find the previous 5 minute close of the current week ATM CE and PE for the weekly option for Nifty 50 and sum it up.

#### **OPEN:**

This keyword returns the Open value of the selected Instrument. This keyword is to be used under the position keyword



The above keyword will return previous day Open price of ABFRL

#### **ORB:**

This keyword will help you fetch the Open, High, Low, Close or Volume of any particular timeframe. It is important to execute the ORB keyword only after the mentioned time has passed. Thus it is suggested to add a time condition along with the ORB condition as an AND.



In the example share above, we are looking for the condition where the LTP of Nifty 50 spot is greater than the high between 915 AM and 930AM. We are also looking for the same to execute only if its 930AM.

You can have a look at this video for more details. <u>https://www.youtube.com/watch?v=-TVjzmh9NpQ</u>

# Percentage Price Oscillator:

This keyword returns the Percentage Price Oscillator of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot Percentage Price Oscillator on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc

# Pivot Point:

This keyword returns the Pivot Points value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword

In this keyword, you can select from 3 types of pivot points

1. Standard

2. Fibonacci

3. Camarilla



The above keyword will return the Fibonacci pivot value of NIFTY 50 based on yesterdays daily candle

The general rule of thumb is to calculate pivots based on the previous day daily timeframe for the current day

For eg, If you are trading in 15min timeframe, you will still use pivots based on the daily timeframe

### **Position:**

Position keyword one of the most fundamental and most used keyword in Tradetron

Position keyword is used to pinpoint and get the data of a particular position from a series

Most technical indicators, OHLCV data is retrieved using this position keyword

Position keyword has 2 inputs, one is to select the data series like close, EMA, SMA etc and the next is to pinpoint the position to retrieve the data

**Keyword Paramters** 

Series

| CLOSE × | • |
|---------|---|
|---------|---|

Position

-1

Selecting -1 indicates the previous candle. -2 indicates previous to the previous candle and so on.

Selecting 0 indicates the current candle, so basically, position( close)0 is the same as LTP

Please note position input cannot be positive, it has to be 0 or a negative number



In the above example, the position keyword is used to get the previous day close value of the Nifty 50 futures chart

Pls read this blog for more clarity - https://blog.tradetron.tech/node/21

#### **Renko:**

Tradetron supports various different candle types and Renko is one such candle type. Thus you can use any indicator, instrument or keyword and convert the candle into a Renko candle. You can find more detail on the same candle in the link shared below: <u>https://www.investopedia.com/terms/r/renkochart.asp#:~:text=A%20Renko%20chart%20is%20a,like%20a%20series%20of%20bricks.</u>

Since Renko is an independent candle type, it can be accessed by clicking on the name of the indicator (used under position keyword) and selecting the candle type as Renko. To fetch the latest Renko brick, it is suggested to use it with Position (0).



In the example share above, we will fetch the current (0) Renko brick for Nifty 50 spot.

This keyword will allow the brick size to be maintained as a fixed value. In order to modify the same value, click on 'Renko' and select the number which you need to keep a the brick size.

|   | Position  |
|---|---|
|   | CLOSE ( Renko ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) , 15 ) ) , 0 |
| ľ | Kouward Baramtara   |



# Renko - closed candle:

Tradetron supports various different candle types and Renko is one such candle type. Thus you can use any indicator, instrument or keyword and convert the candle into a Renko candle. You can find more detail on the same candle in the link shared below: <u>https://www.investopedia.com/terms/r/renkochart.asp#:~:text=A%20Renko%20chart%20is%20a,like%20a%20series%20of%20bricks.</u>

Since Renko is an independent candle type, it can be accessed by clicking on the name of the indicator (used under position keyword) and selecting the candle type as Renko. Renko closed keyword skips ongoing candle for Renko OHLC formation thus the same can be used to avoid the repainting issue on Renko bricks.

| + Position   |       |
|--|-------|
| CLOSE ( Renko - closed candle ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , 5m, All ) , Number ( 25 | ))),0 |

In the example share above, we will fetch the the current (0) Renko closed brick for Nifty 50 spot.

This keyword will allow the brick size to be maintained as a variable. In order to modify the same, click on 'Renko- Closed bricks' and select the number/ series which you need to keep as the brick size.

| Keyword Paramters |    |
|-------------------|----|
| Ohic              |    |
| Symbol ×          | ▼_ |
| Brick Size        |    |
| Number ×          | •  |
|                   |    |
|                   |    |
|                   |    |

# Renko dynamic bricks:

Tradetron supports various different candle types and Renko is one such candle type. Thus you can use any indicator, instrument or keyword and convert the candle into a Renko candle. You can find more detail on the same candle in the link shared below: <u>https://www.investopedia.com/terms/r/renkochart.asp#:~:text=A%20Renko%20chart%20is%20a,like%20a%20series%20of%20bricks.</u>

Since Renko is an independent candle type, it can be accessed by clicking on the name of the indicator (used under position keyword) and selecting the candle type as Renko. Brick size in 'Renko dynamic bricks' can be configured to be based on custom formula instead of a fixed number.

| hoose  |   |
|--|---|
| Position   |   |
| CLOSE (Renko dynamic bricks (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), 5m, All), Position (ATR (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), 5m, All), 14), 0))), ( | ) |

In the example shared above, we will fetch the the current (0) Renko closed brick for Nifty 50 spot. Here the brick size will be a variable fetched from the value of ATR of the current (0) candle of Nifty 50 spot on 5 min timeframe.

This keyword will allow the brick size to be maintained as a variable. In order to modify the same, click on 'Renko Dynamic bricks' and select the formula which you need to keep as the brick size.

| CLOSE ( Renko dynamic bricks ( Symb | Position<br>ol ( Instrument Name ( NFO,NIFTY 50,, ) , 5m, All ) , Position ( ATR ( Sy | mbol ( Instrument Name ( | NFO,NIFTY 50,), 5m, All), 14), 0))), 0 |
|-------------------------------------|---|--------------------------|--|
|                                     | Keyword Paramters   | ×                        |  |

| Ohic                |           |  |
|---------------------|-----------|--|
| Symbol × Brick Size |           |  |
| Position × *        |           |  |
|                     |           |  |
|                     |           |  |
|                     | Ok Cancel |  |

ROC:

This keyword returns the Rate of change of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



ROC = ((price/prevPrice)-1)\*100

This keyword function is a part of TA LIB - <u>https://www.ta-lib.org/function.html</u>

You can plot ROC on any series, like close in the above example, you can also select ROCP of RSI, OPEN etc

#### **ROCP:**

This keyword returns the Rate of change Percentage of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



#### ROCP = (price-prevPrice)/prevPrice

This keyword function is a part of TA LIB - https://www.ta-lib.org/function.html

You can plot ROCP on any series, like close in the above example, you can also select ROCP of RSI, OPEN etc

#### **RSI**:

This keyword returns the RSI of any period of the selected Instrument. This keyword is to be used under the position keyword.



The above keyword will return the previous day RSI 14 value of ACC.

RSI keyword needs at least 2 as an input in period, RSI with period 1 won't work.

#### **RSI Series:**

This keyword returns the RSI series of any period of any selected Instrument. This keyword is to be used under the position keyword



The major difference between the RSI keyword and the RSI series keyword is that in the **RSI series** we can take RSI of different series like OPEN, HIGH ,EMA, while the **RSI** keyword just takes the Close values as default.

#### SAR:

This keyword returns the Parabolic SAR indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above keyword will return the previous day SAR value of ABFRL

#### SMA:

This keyword returns the simple moving average of any period of any selected Instrument. This keyword is to be used under the position keyword

You can plot SMA on any series, like close in the above example, you can also plot SMA of RSI, OPEN etc

# StochD:

This keyword returns the Stochastic Oscillator value of the D line. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔻  |  |
|---|--|
| Position<br>StochK ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) , 5, | Position           ,3), -1         StochD (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All ), 5, 3, 3), -1 |

The above condition is checking if Previous day(-1) Stochastic Oscillator value of the D line is greater than Previous day(-1) Stochastic Oscillator value of the K line

# StochK:

This keyword returns the Stochastic Oscillator value of the K line. This keyword like all technical indicators are to be used under the Position keyword

| Choose                          | ]   | • |   | 0 |
|---------------------------------|---|---|---|---|
| StochK ( Symbol ( Instrument Na | Position<br>me(NFO,NIFTY 50,,,,,), day, All), 5, 3), -1 |   | Position<br>StochD ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) , 5, 3, 3 ) , -1 | 0 |

The above condition is checking if Previous day(-1) Stochastic Oscillator value of the K line is greater than Previous day(-1) Stochastic Oscillator value of the D line

# StochRsiD:

This keyword returns the Stochastic Oscillator value of the D line plotted on RSI. This keyword like all technical indicators are to be used under the Position keyword



The above condition is checking if Previous day(-1) Stochastic Oscillator value of the K line is greater than Previous day(-1) Stochastic Oscillator value of the D line both plotted on RSI.

# StochRsiK:

This keyword returns the Stochastic Oscillator value of the K line plotted on RSI. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔹                         |  | 0 | <b>A</b>  |  |
|----------------------------------|--|---|-----------|--|
|                                  | Position   | ۳ |           | Position   |
| StochRsiD ( CLOSE ( Symbol ( Ins | trument Name ( NFO,NIFTY 50,, ) , day, All ) ) , 14, 5, 3 ) , -1 |   | $\square$ | StochRsiK ( CLOSE ( Symbol ( Instrument Name ( NFO,NIFTY 50, ) , day, All ) ) , 14, 5, 3 |

The above condition is checking if Previous day(-1) Stochastic Oscillator value of the D line is greater than Previous day(-1) Stochastic Oscillator value of the K line both plotted on RSI.

#### SUPERTREND:

This keyword returns the Supertrend value of the instrument selected. Like, most technical indicators this has to be used under the Position keyword



The above keyword is checking whether the previous day close of the NIFTY 50 spot is greater than its Supertrend value

#### Symbol:

This keyword is used in order to fetch the data for a particular time frame based on the selected instrument(Instrument name, traded instrument name, futures).

Generally, symbol will be used inside the other keywords to select the instrument of choice.

The symbol keyword will be a default keyword under most keywords. It will be available by default wherever instrument needs to be selected.



In the above condition, symbol keyword is used to select the timeframe and the instrument name.

### TEMA:

This keyword returns the Triple Exponential Moving Average value of the instrument. This keyword like all technical indicators are to be used under the Position keyword

| Choose      | *                    | )  | • |   |  | 0 |
|-------------|----------------------|--|---|---|--|---|
| TEMA ( CLOS | E ( Symbol ( Instrun | Position<br>nent Name ( MCX, Gold, Current Month,, ) , 5m, All ) ) , 20 ) , -1 |   | > | TEMA ( CLOSE ( Symbol ( Instrument Name ( MCX,Gold,Current Month,, ) , 5m, All ) ) , 20 ) , -2 |   |

The above condition is checking if the Previous 5 minute (-1) TEMA value is greater than previous to previous 5 minute (-2) TEMA value of Gold futures

### TR:

This keyword returns the True Range(TR) value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword

| )  |   |  |  |  |
|--|---|--|--|--|
| Position   | ٣ |  |  |  |
| TR ( Symbol ( Instrument Name ( NSE,ABFRL,,,,, ) , day, All ) ) , -1 |   |  |  |  |

The above keyword will return the previous day TR value of ABFRL

#### **TRIMA:**

This keyword returns the Triangular Moving Average value of the instrument. This keyword like all technical indicators are to be used under the Position keyword



The above condition is checking if the Previous day (-1) TRIMA value is greater than previous to previous day (-2) TRIMA value of Nifty 50 spot

#### TRIX:

This keyword returns the Triple Exponential Average Indicator value of the instrument. This keyword like all technical indicators are to be used under the Position keyword

| Choose 🔹  |  | 0 | <u> </u> | 0        |  | 0 |
|---|--|---|----------|----------|--|---|
| Position  |  | • | >        | <b>•</b> | Position   | • |
| TRIX ( CLOSE ( Symbol ( Instrument Name ( NSE,HDFCBANK,, ) , 15m, All ) ) , 20 ) , -1 |  | J |          |          | TRIX ( CLOSE ( Symbol ( Instrument Name ( NSE,HDFCBANK,, ), 15m, All ) ), 20 ), -2 |   |

The above condition is checking if the Previous 15 minute (-1) TRIX value is greater than previous to previous 15 minute (-2) TRIX value of HDFC Bank (eq)

# **Typical Price:**

This keyword returns the value of the indicator called Typical Price. This keyword like all technical indicators are to be used under the Position keyword



The above condition is checking if the LTP of Nifty futures is greater than the previous Typical Price of the Nifty 50 futures day candle (-1)

#### Ultimate Oscillator:

This keyword returns the value of the Ultimate Oscillator of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the value of the Ultimate Oscillator on any candle of an instrument, like in the above example, you can fetch the Ultimate Oscillator of previous (-1) 5 min candle of Nifty Bank futures.

### **Upper Bolinger:**

This keyword returns the upper Bollinger value of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot Upper Bollinger on any series, like close in the above example, you can also plot Upper Bollinger of RSI, OPEN etc

#### Value When:

This keyword will fetch the instantaneous value of a particular indicator or series when a crossover happens between two separate indicators. Since we are looking at instruments in series here, this keyword is used as a standalone keyword (not under position keyword).

|   | Choose 🔹                       |                        |  |  |  |  |
|---|--------------------------------|------------------------|--|--|--|--|
| CLOSE (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All)), crossed above, SUPERTREND (Symbol (Instrument Name (NFO,NIFTY 50,,,,,), day, All), 10, 3), HIGH (Symbol |                                |                        |  |  |  |  |
|   | Instrument Name (NFO,NIFTY 50, | ,,,, ), day, All )), 0 |  |  |  |  |

The keyword shared above will check for a condition when the close crosses above the Supertrend of Nifty 50 on the daily candle. When this crossover happens on the upside, the Tradetron engine will check for the high value of the candle during which the same crossover happened. Since the high value is captured for the signal candle, you can now compare it with any other values using logical operations.



In the example above, we are comparing the LTP with the high of the signal candle to take an entry on the breakout of the same. The same can be done for low, ema, sma etc.

| Keyword Paramters           |     |    | ×      |
|-----------------------------|-----|----|--------|
| Series1                     |     |    |        |
| CLOSE                       | ×   |    |        |
| Operator                    |     |    |        |
| crossed above               | × Ÿ |    |        |
| Series2                     |     |    |        |
| SUPERTREND                  | × × |    |        |
| Series Result               |     |    |        |
| HIGH                        | × * |    |        |
| -n From Last (last=0)<br> ମ |     |    |        |
|                             |     | Ok | Cancel |

While adding the indicator, you will also see '-n from Last' as a input. This field is used to input which crossover are you referring to. Thus if you need the latest crossover, you can use number '0'. The the crossover before the latest crossover you use number '-1' and so on.

### Volume Price Trend:

This keyword returns the value of the Volume Price Trend of the selected Instrument. This keyword is to be used under the position keyword.



You can plot Volume Price Trend on any candle of an instrument, like in the above example, you can also plot Volume Price Trend of previous (-1) day candle of Nifty Financial Services futures.

#### Volume series:

This keyword returns the Volume of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above conditon will return the previous 15min candle Volume of NIFTY 50 current month futures chart.

Please note that, Volume series cannot be used on spot as spot indexes dont have volumes, need to select futures chart

#### Vortex VI-:

This keyword returns the value of the negative line Vortex Indicator of the of the selected Instrument. This keyword is to be used under the position keyword

| Position   |  |  |  |  |  |
|--|--|--|--|--|--|
| Vortex VI- ( Symbol ( Instrument Name ( NFO,NIFTY 50,,,,, ) , day, All ) , 20 ) , -1 |  |  |  |  |  |

You can fetch the Vortex Vi- on any candle of an instrument, like in the above example, you can fetch the Vortex Vi+ line of previous (-1) day candle of Nifty 50 spot

#### Vortex VI+:

This keyword returns the value of the positive line Vortex Indicator of the of the selected Instrument. This keyword is to be used under the position keyword



You can fetch the Vortex Vi+ on any candle of an instrument, like in the above example, you can fetch the Vortex Vi+ line of previous (-1) day candle of Nifty 50 spot

#### **VWAP Series**:

This keyword returns the VWAP value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



Please note that, VWAP series cannot be used on the spot chart as spot indexes don't have volumes, need to select futures chart

# WILLR:

This keyword returns the WIIliams%R indicator value of the selected Instrument for the selected timeframe. This keyword is to be used under the position keyword



The above keyword will return the previous day Williams %R value of ABFRL

WMA:

This keyword returns the weighted moving average of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot WMA on any series, like close in the above example, you can also plot WMA of RSI, OPEN etc

# Zero Lag EMA:

This keyword returns the Zero Lag EMA of any period of any series of the selected Instrument. This keyword is to be used under the position keyword



You can plot the Zero Lag EMA on any series, like close in the above example, you can also plot EMA of RSI, OPEN etc