

# Fractals Breach Array

# Input Data

## Live streaming data from MetaTrader5 Trading Platform

- Cell **A2** is the Close price
- Cell **A3** is the time stamp of A2
- **B7:B24** is the timeframe of the chart
- **C7:C24** are the last Swing High prices from its corresponding timeframe chart in column B (also known as Fractals High)
- **D7:D24** are the last Swing Low prices from its corresponding timeframe chart in column B (also known as Fractals Low)

	A	B	C	D
1	Close			
2	1.36198			
3	2021-08-20 19:35:07.911			
4				
5				
6		TimeFrame ▼	Fr Hi ▼	Fr Lo ▼
7		M1	1.36240	1.36168
8		M2	1.36240	1.36171
9		M3	1.36240	1.36115
10		M4	1.36278	1.36115
11		M5	1.36278	1.36115
12		M6	1.36240	1.36115
13		M10	1.36278	1.36017
14		M12	1.36278	1.36017
15		M15	1.36356	1.36017
16		M30	1.36356	1.37853
17		H1	1.36409	1.36089
18		H2	1.37853	1.37444
19		H3	1.37853	1.37298
20		H4	1.37853	1.37192
21		H6	1.36348	1.37192
22		H8	1.36115	1.37192
23		D1	1.38780	1.37902
24		W1	1.39829	1.35714
25				

# Expected Final Output

- Output 1 in Columns N:O
- Output 2 in Columns Q:T

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Close																			
2	1.36198																			
3	2021-08-20 19:35:07.911																			
4																				
5																				
6		TimeFrame ▾	Fr Hi ▾	Fr Lo ▾																
7		M1	1.36240	1.36168																
8		M2	1.36240	1.36171																
9		M3	1.36240	1.36115																
10		M4	1.36278	1.36115																
11		M5	1.36278	1.36115																
12		M6	1.36240	1.36115																
13		M10	1.36278	1.36017																
14		M12	1.36278	1.36017																
15		M15	1.36356	1.36017																
16		M30	1.36356	1.37853																
17		H1	1.36409	1.36089																
18		H2	1.37853	1.37444																
19		H3	1.37853	1.37298																
20		H4	1.37853	1.37192																
21		H6	1.36348	1.37192																
22		H8	1.36115	1.37192																
23		D1	1.38780	1.37902																
24		W1	1.39829	1.35714																
25																				
26																				

Consolidated Fr Hi's & TimeFrame	
1.39829	W1
1.38780	D1
1.37853	H2 H3 H4
1.36409	H1
1.36356	M15 M30
1.36348	H6

Consolidated Fr Lo's & TimeFrame	
1.36168	M1
1.36115	M3 M4 M5 M6
1.36089	H1
1.36017	M10 M12 M15
1.35714	W1

Breach Time stamp	Breach Price	Breach Direction	Breach Timeframe
20-Aug-2021 19:37:05	1.36278	Hi	M4 M5 M10 M12
20-Aug-2021 19:37:05	1.36240	Hi	M1 M2 M3 M6
20-Aug-2021 21:50:05	1.36171	Lo	M2

# Transform Data

G	H	I
Fr Hi's		
1.39829	W1	=G2>\$G\$12
1.3878	D1	=G3>\$G\$12
1.37853	H2 H3 H4	=G4>\$G\$12
1.36409	H1	=G5>\$G\$12
1.36356	M15 M30	=G6>\$G\$12
1.36348	H6	=G7>\$G\$12
1.36278	M4 M5 M10 M12	=G8>\$G\$12
1.3624	M1 M2 M3 M6	=G9>\$G\$12
1.36115	H8	=G10>\$G\$12
1.36198		
Fr Lo's		
1.37902	D1	=G15<\$G\$12
1.37853	M30	=G16<\$G\$12
1.37444	H2	=G17<\$G\$12
1.37298	H3	=G18<\$G\$12
1.37192	H4 H6 H8	=G19<\$G\$12
1.36171	M2	=G20<\$G\$12
1.36168	M1	=G21<\$G\$12
1.36115	M3 M4 M5 M6	=G22<\$G\$12
1.36089	H1	=G23<\$G\$12
1.36017	M10 M12 M15	=G24<\$G\$12
1.35714	W1	=G25<\$G\$12

- Fr Hi's / Fr Lo's **unique** prices list with corresponding Timeframes
- Data sorted descending
- Close Price (G12)
- Column I contains formulas to determine if price is higher or lower than close price

G	H	I
Fr Hi's		
1.39829	W1	TRUE
1.38780	D1	TRUE
1.37853	H2 H3 H4	TRUE
1.36409	H1	TRUE
1.36356	M15 M30	TRUE
1.36348	H6	TRUE
1.36278	M4 M5 M10 M12	TRUE
1.36240	M1 M2 M3 M6	TRUE
1.36115	H8	FALSE
1.36198		
Fr Lo's		
1.37902	D1	FALSE
1.37853	M30	FALSE
1.37444	H2	FALSE
1.37298	H3	FALSE
1.37192	H4 H6 H8	FALSE
1.36171	M2	TRUE
1.36168	M1	TRUE
1.36115	M3 M4 M5 M6	TRUE
1.36089	H1	TRUE
1.36017	M10 M12 M15	TRUE
1.35714	W1	TRUE

# Output 1

On Calculate event  
consolidation of Hi's and Lo's  
list using the below logic

- **Fr Hi** list only has prices **higher** than Close Price
- **Fr Lo** list only has prices **lower** than Close Price

Consolidated Fr Hi's & TimeFrame	
1.39829	W1
1.38780	D1
1.37853	H2 H3 H4
1.36409	H1
1.36356	M15 M30
1.36348	H6
1.36278	M4 M5 M10 M12
1.36240	M1 M2 M3 M6

Consolidated Fr Lo's & TimeFrame	
1.36171	M2
1.36168	M1
1.36115	M3 M4 M5 M6
1.36089	H1
1.36017	M10 M12 M15
1.35714	W1

# Output 2

Build an Array of **Breached Prices** from the Fr Hi's and Fr Lo's Output1

For each **price** in **Fr Hi / Lo Output 1 list**

If (**Close** > any price from **Fr Hi Output 1 list**) or (**Close** < any price from **Fr Lo Output 1 list**) then

**Add** price /prices to the Breached Price array

**Add** the time stamp from Input Cell A3 to the breached price / prices array

**Add** the “**Hi**” – or – “**Lo**” String to the Breached price / prices array

**Remove** the breached price/prices from Output 1 List

**End if**

Next **price**

Breach Time stamp	Breach Price	Breach Direction	Breach Timeframe
20-Aug-2021 19:37:05	1.36278	Hi	M4 M5 M10 M12
20-Aug-2021 19:37:05	1.36240	Hi	M1 M2 M3 M6
20-Aug-2021 21:50:05	1.36171	Lo	M2

# Output 1 Updated

1. Breached Prices Array populated from Output 1
2. Output 1 updated by removing breached prices from the list

