Decoding Market Dynamic: Understanding the Order Book Utilizing Bookmap[™] and Level 2



Presented by: Thor Young

Thor Young

History Prior to Trading:

- IT Industry
- Worked on options Trading Platform Server's

Trading History:

- 5+ Years Trading
- 3+ Years Consistently Profitable
- Full time Day Trader

Trading Edges:

- Reading Market Movement & Order Flow
- VPA & Pivots
- Where, When, and How Trading Methodology

Hobbies:

- NFL Jaguars
- Taking Family to the Beach
- Touring the NYSE and hitting Broadway

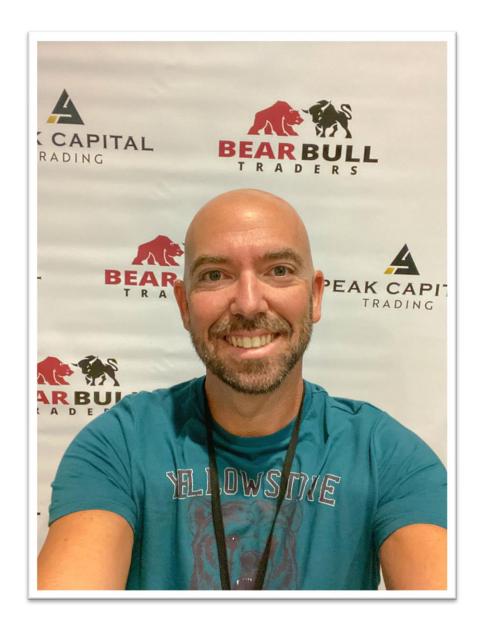


Table of Contents

1. Introduction

- Meet the Author
- Table of Contents
- Introduction of Topic "Advanced Order Flow and Optimal Market Liquidity Visualization"

2. Reading Market Balance

- Institutional Orders (State/ Gov Pensions, ETC.)
- Real Estate Analogy
- Jigging Analogy
- Market Phases

3. A little VPA

- Volume = Participation
- Basic Volume Levels
- Stopping Volume "Climatic"
- Struggling Volume "Topping/Bottoming"
- Advancing Volume "Igniting"
- Volume Anomalies

4. Balance on the Books

- What is an Order Book (L2)
- Example of Trade on \$AMZN
- Bullish Book verses Bearish Books
- Example using DAS Order Book
- The two Order Books
- Relative Ladder + Relative Volume = Movement
- Example of two Books in Bookmap on \$AMZN
- Example of two Books in Bookmap on \$TSLA

6. Why Use a Heatmap?

- What is a Heatmap (Book Map, Sierra Charts)
- Advantage of having a Historical L2

7. Reading a Heatmap

- What are Dots?
- Example of Buying
- Example of Selling
- Volume Delta
- Volume Pressure
- Example of Volume Pressure on \$META from July 10th Live Trade
- Cumulative Volume Delta

8. Using the Book for Better Trades

- How news events effect the Book
- Buying the Book
- Using the book for Entries
- Using the book for Exits
- Book Flips
- Order Voids

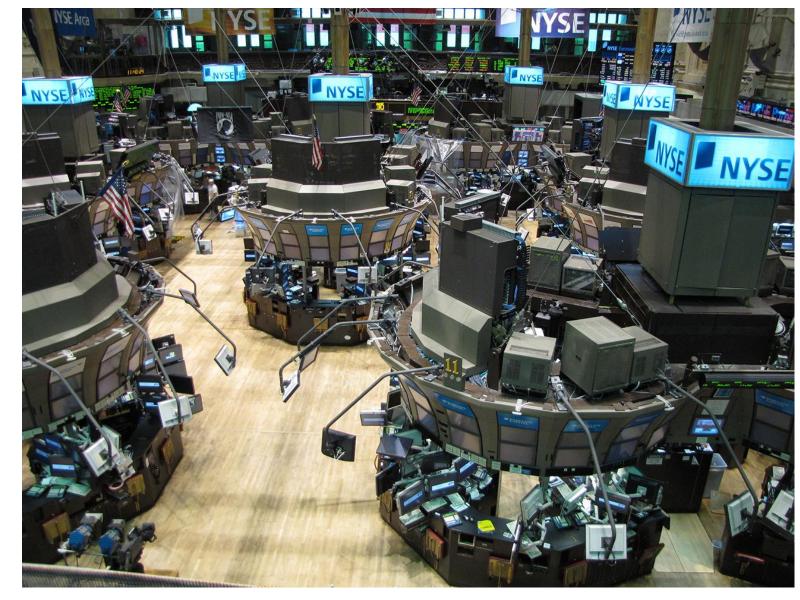
9. Conclusion and Q&A

- Q&A if permitted
- Conclusion
- Honorable Mentions

Introduction of Concept

In the 1990's, larger spreads forced tape readers to abandon simple tickers and focus attention on market depth screens, most commonly referred to as "Level 2". In the 1990's the world changed. Complex Algorithms took over the market. Order volume began coming in a way that had never seen before.

Through this revolution in Market Structure. Utilizing the book, Tape Readers found an obvious edge over other participants. This market skill allows proponents to measure the emotional intensity of participants while the judge if the market makers have been properly incentivized to move.



Introduction of Concept

Over Promise and Under Deliver



Who are they?

Institutional Orders (State/Gov Pensions, ETC)



Algorithms Control Everything



Real Estate Analogy





Jigging Analogy

25ft	
50ft	
75ft	
100ft	•
125ft	
150ft	
175ft	
200ft	
225ft	
250ft	
275ft	



Jigging Analogy

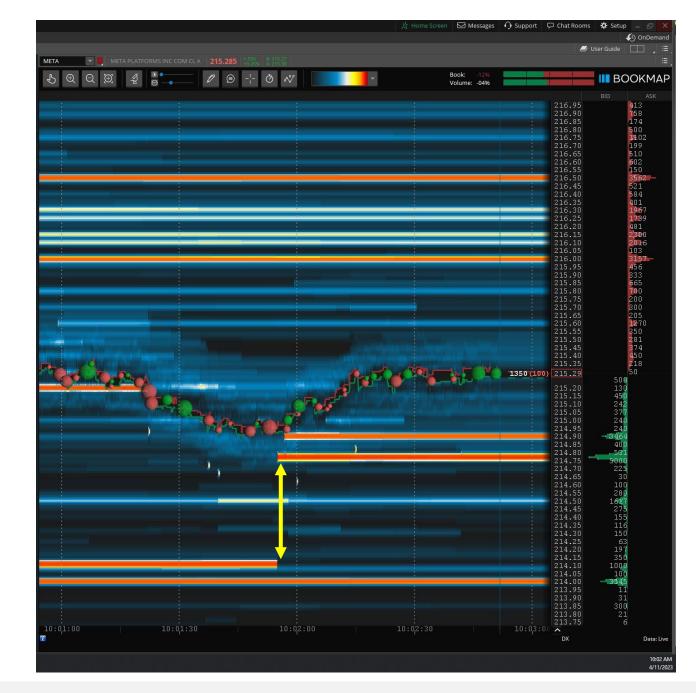
Jiggin' Analogy:

Per usual my level of country cannot be contained in a simple presentation. Since I think in pictures and metaphor, I often find my best examples are stories related to things unlike trading at all.

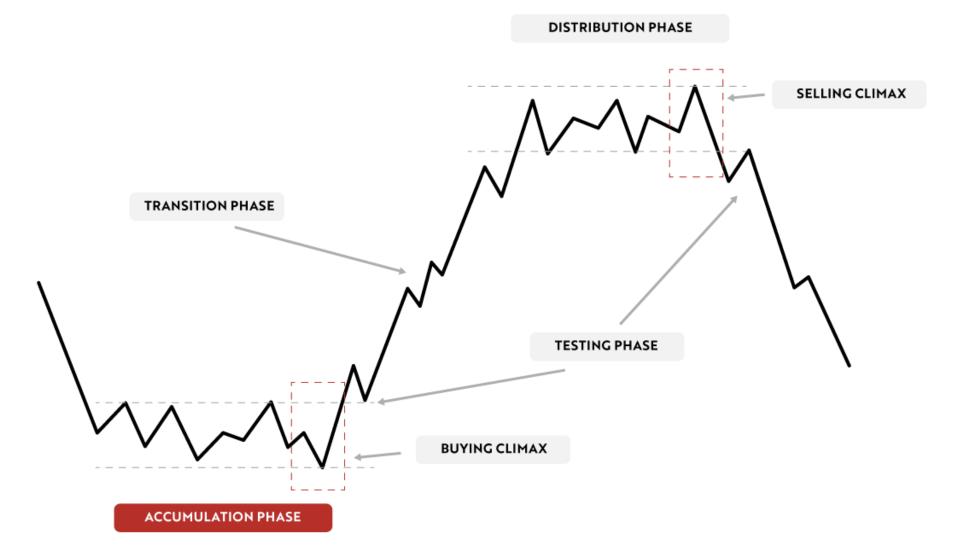
In this example I'm going to talk about how the market maker entices participation but constantly teasing the bid trying to get them to chase.

Like the way you get a fish to come of the bottom of a lake if you are using a Jig Lure. You keep teasing the fish by lowering the lure lower and lower until it comes off the bottom. When it does you reel as fast as you can and try and get the fish to chase. In similar fashion the Market Makers will lower the price attempting to find the bid or raise the price until they find that seller. And when they do they run as fast as possible.

On the image to the right notice how the bid closes the position and then moves it up to a higher price at almost the exact same time.

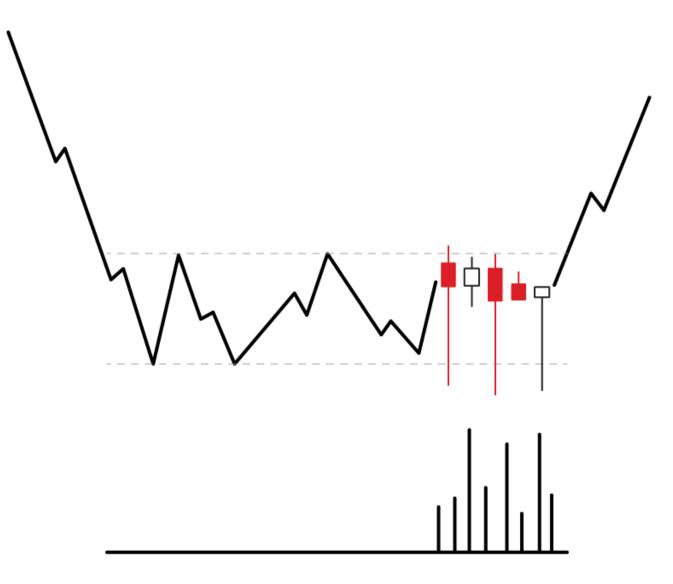


The Accumulation Phase

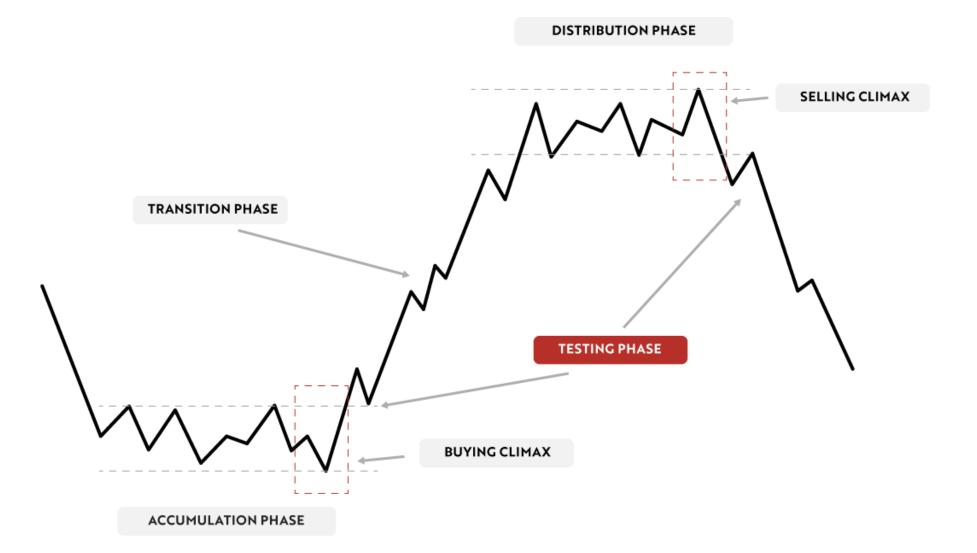




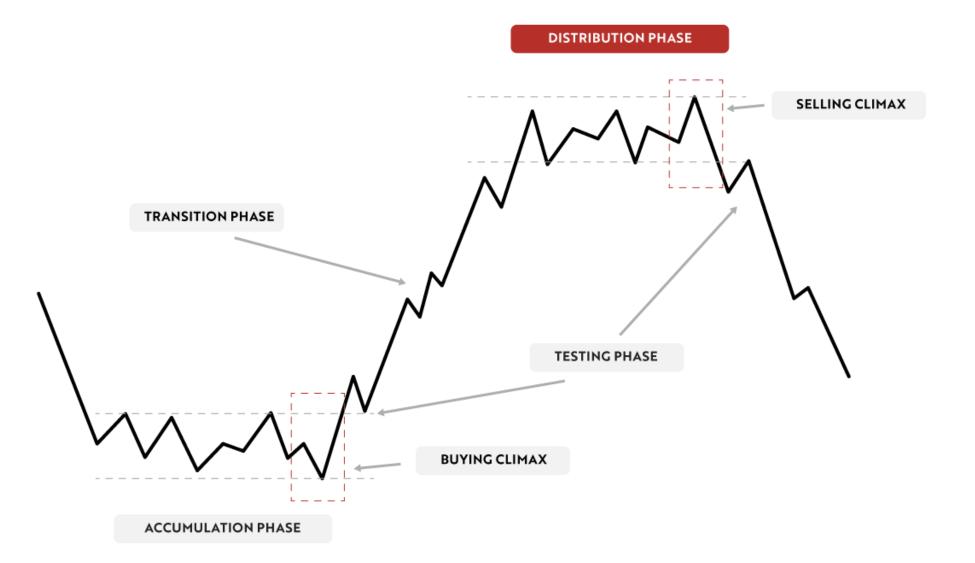
The Buying Climax



The Testing Phase

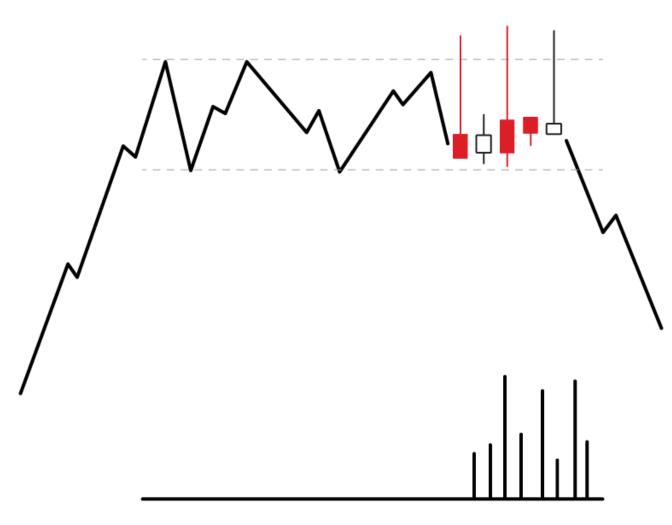


The Distribution Phase



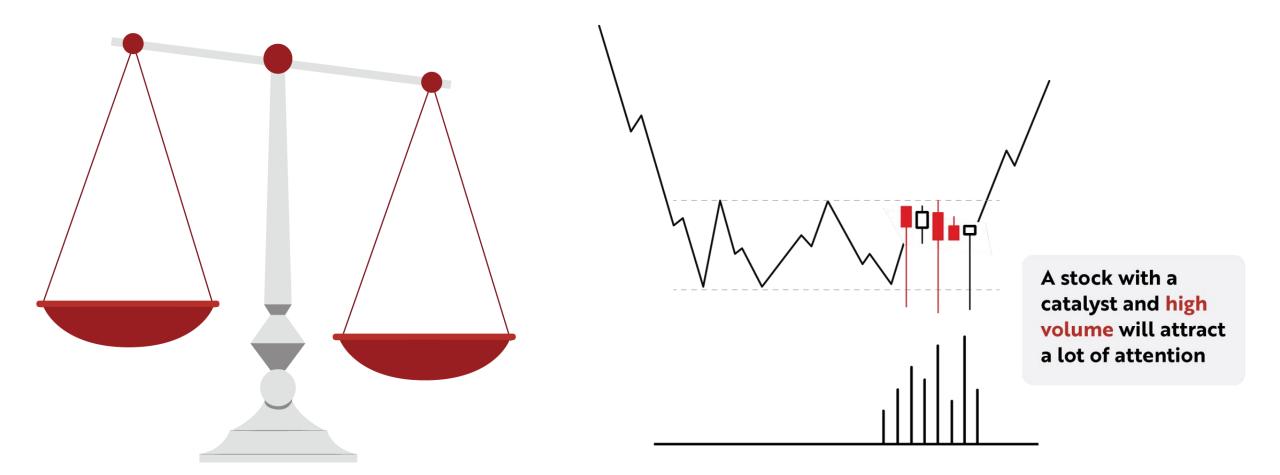


The Selling Climax "The Big Trap"

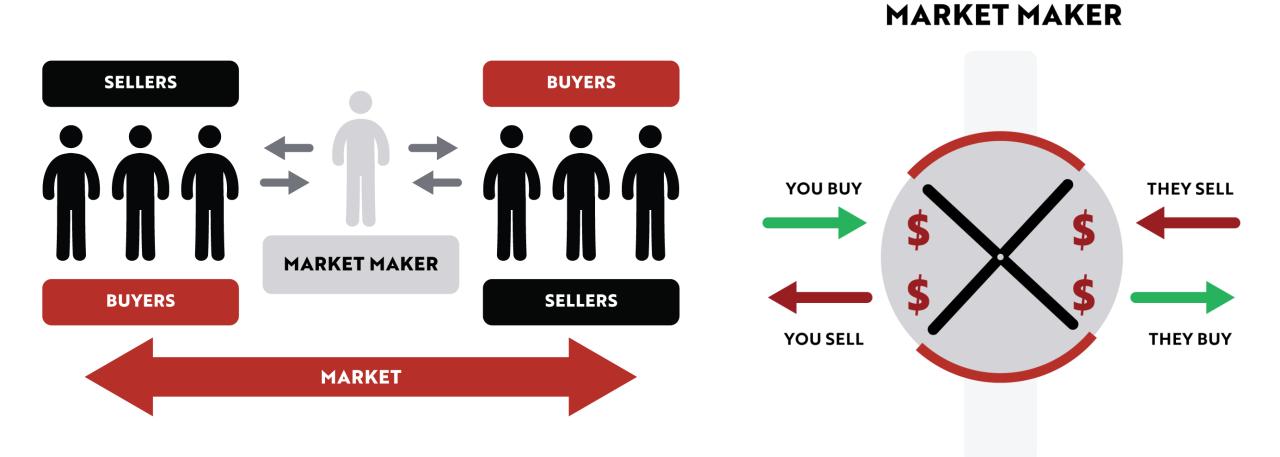




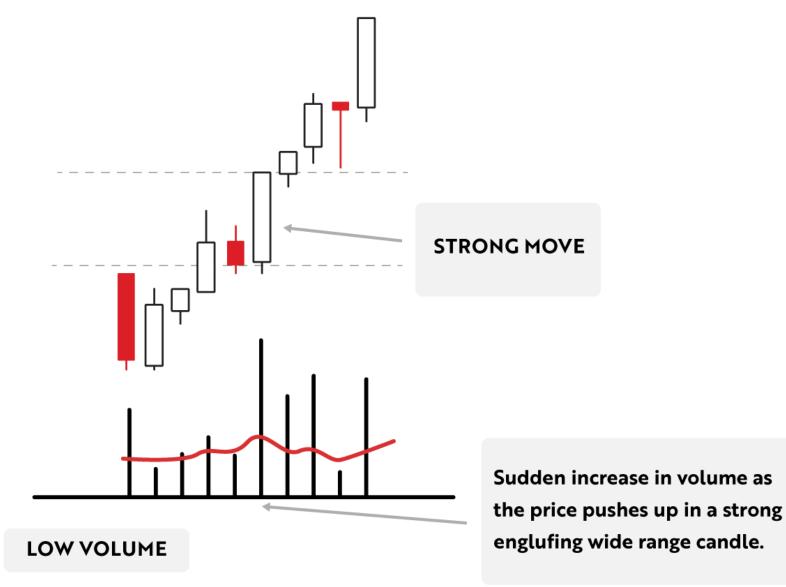
So, Why Volume?



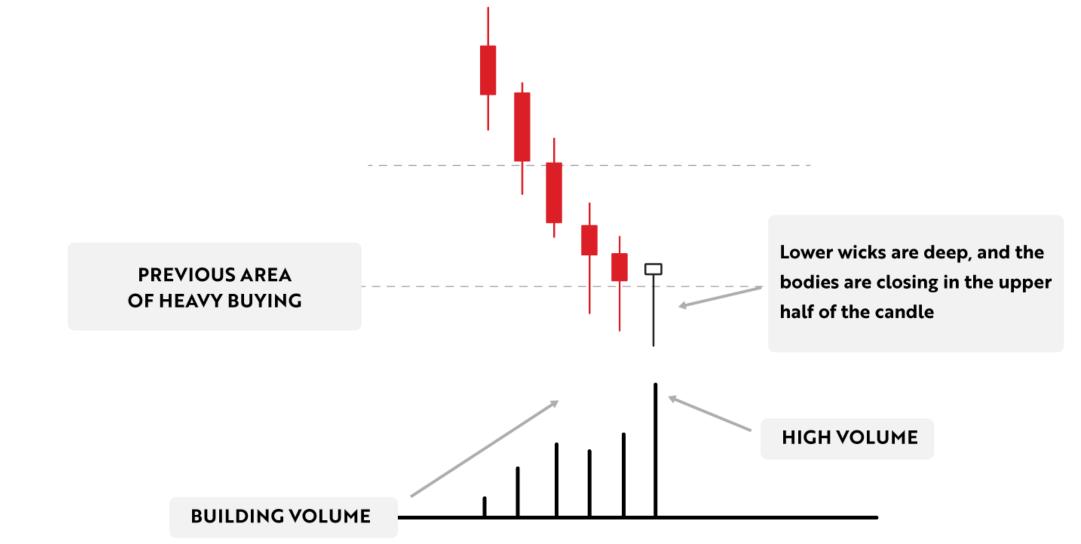
How the Market Maker get's Paid



Advancing Volume

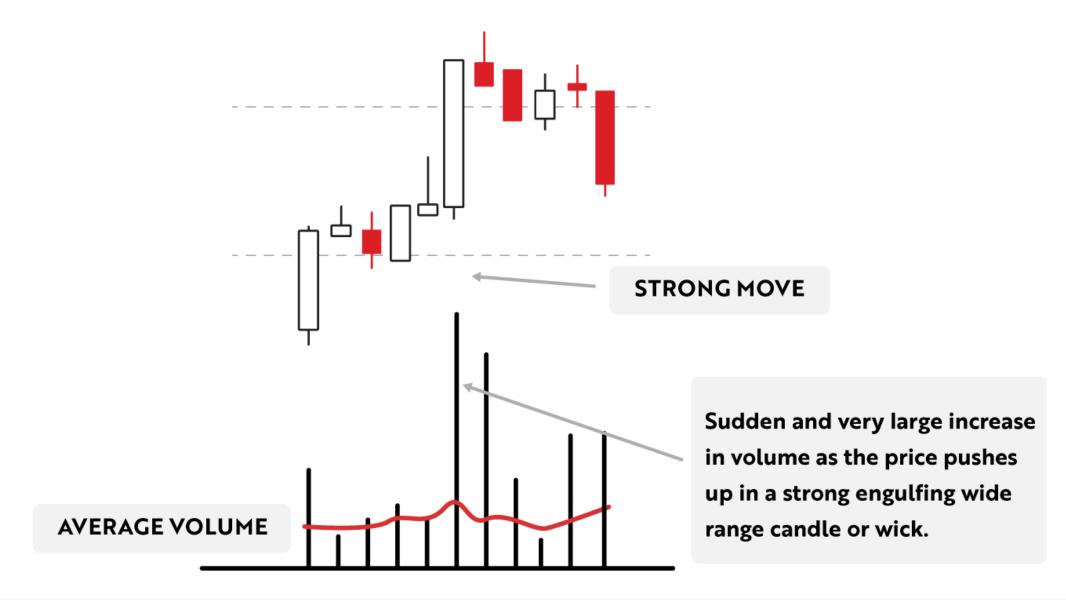


Stopping Volume - AKA Fireworks, Tails, Tweezers

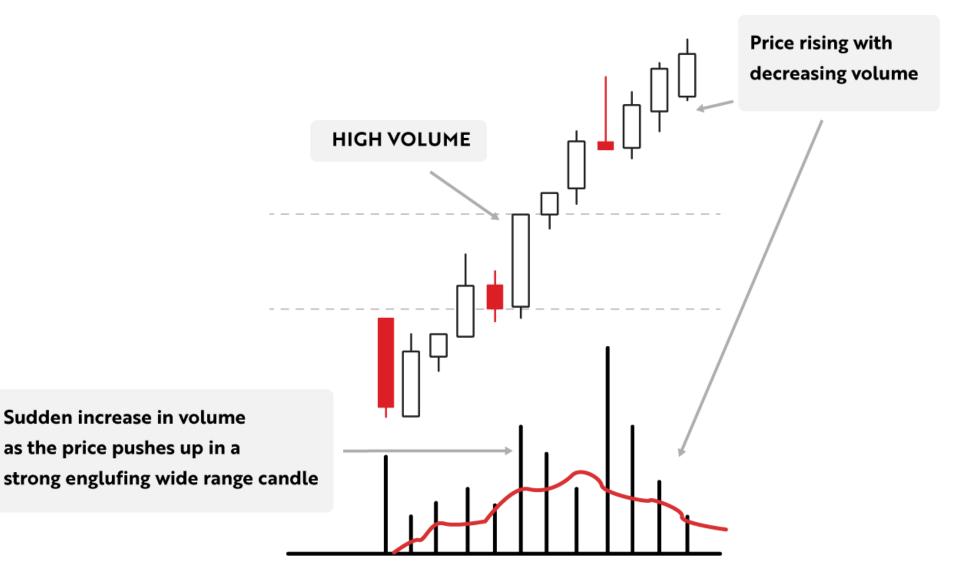




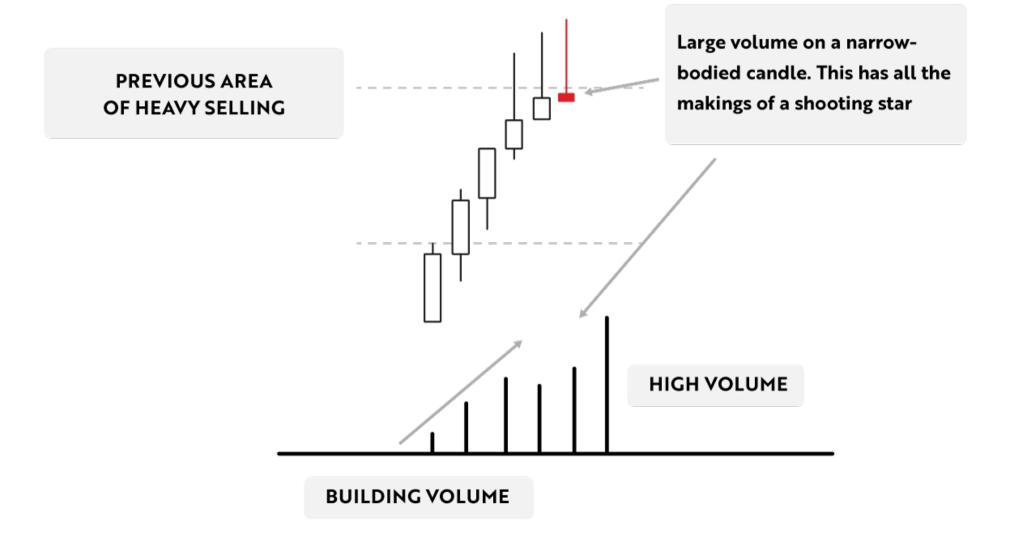
Stopping Volume – Climatic Volume



Struggling Volume



Volume Anomaly



What is an Order Book?

- The term order book refers to an electronic list of buy and sell orders for a specific security or financial instrument organized by price tier "Level".
- An order book lists the number of shares being bid on or offered at each price point, or market depth. Often referred to as a Level 2, or DOM (Depth of Market). It also identifies the market participants behind the buy and sell orders, though some choose to remain anonymous. These lists help us traders, the market maker algos, and improve market transparency. Providing us extremely valuable trading information.

D PLTR	15.22 15.23 P	alantir Tachnolo	ogies Inc. Class A	Common Stock	_		-	- • ×
	15.22 15.25 P			Common Stock	- DOI 167	51	٨	
		15.75 -			PCL 16.0		А	
Last	15.225	-0.785	(-4.9%)	Vol	31,779,16	67	Ĵ	
Lv1	15.22	15.23		Bid-Ask S	Spread: 0.	01	S	
MMID		SIZE	С	MMID	ASK		SIZE	C •
ACB	15.15	7		ACB	15.30	58		
NSDQ ACB	15.14 15.14	8 4		NSDQ IEXG	15.30 15.30	37 1		
ACB	15.13	3		NSDQ	15.31	13		
NSDQ	15.13	3		ACB	15.31	9		
ACB NSDQ	15.12 15.12	2		IEXG NSDQ	15.31 15.32	1 10		_
ACB	15.12	10		ACB	15.32	8		
NSDQ	15.11	1		NSDQ	15.33	10		
NSDQ ACB	15.10 15.10	169 42		ACB NSDQ	15.33 15.34	7 13		_
ACB	15.09	14		ACB	15.34	4		
NSDQ	15.09	6		NSDQ	15.35	4	_	
NSDQ	15.08 15.08	21 13		ACB	15.35	2 8		
ACB ACB	15.08	13		ACB NSDQ	15.36 15.36	8 1		
NSDQ	15.07	7		ACB	15.37	8		
ACB	15.06	15		NSDQ	15.38	1		
NSDQ NSDQ	15.06 15.05	2		NSDQ NSDQ	15.39 15.40	5 17		_
ACB	15.05	14		ACB	15.41	2		
ACB	15.04	2		NSDQ	15.41	1		_
NSDQ NSDQ	15.04 15.03	1 31		NSDQ NSDQ	15.46 15.47	0		
ACB	15.03	3		ACB	15.47	0		
IEXG	15.03	0		NSDQ	15.48	0		
NSDQ ACB	15.02 15.02	20 3		ACB NSDQ	15.49 15.50	0 24		_
NSDQ	15.02	16		ACB	15.50	7		
ACB	15.01	11		IEXG	15.50	2		
ACB NSDQ	15.00 15.00	1347 522		NSDQ NSDQ	15.52 15.53	2 16		_
IEXG	15.00	1		NSDQ	15.54	22		_
NSDQ	14.99	7		GSCO	15.54	44		
ACB	14.99	5		ACB	15.54	1		_
IEXG NSDQ	14.99 14.98	2		NSDQ NSDQ	15.55 15.57	2		_
ACB	14.98	1		ACB	15.60	2		
NSDQ	14.97	3		NSDQ	15.60	0		
ACB NSDQ	14.97 14.96	1		NSDQ NSDQ	15.61 15.62	5 1		
ACB	14.96	0		NSDQ	15.63	0	_	
NSDQ	14.95	5		NSDQ	15.64	0		
ACB NSDQ	14.95 14.94	4		ACB NSDQ	15.65 15.65	0		
ACB	14.94	0		NSDQ	15.67	3		
ACB	14.93	0		GSCO	15.67	44		
NSDQ	14.92 14.92	10 1		ACB	15.67	0		
ACB NSDQ	14.92	5		ACB NSDQ	15.68 15.69	2		
GSCO	14.91	44		ACB	15.69	1		
ACB	14.91	3 98		NSDQ	15.70	10		
NSDQ ACB	14.90 14.90	98 46		ACB ACB	15.70 15.71	0		
IEXG	14.90	1		NSDQ	15.72	3		
NSDQ	14.89	3		ACB	15.72	2		
ACB NSDQ	14.89 14.88	2 10		ACB XGWD	15.73 15.73	1 1		
		2		NEDO	15.73	2		_
wontage	INET/ARCA/IEX/							

Balanced Book Example in DAS

Orders evenly placed throughout the book



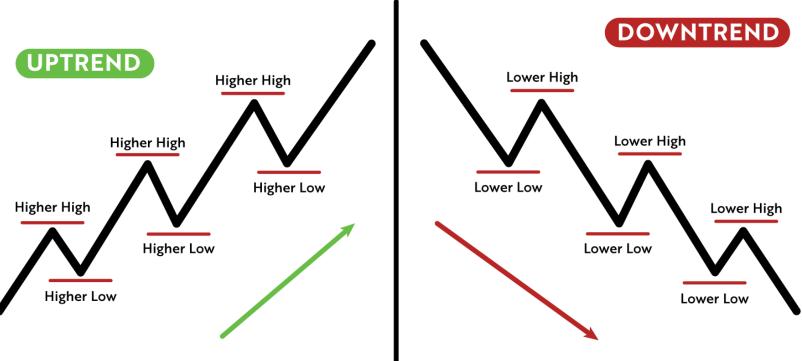
PLTR ID 15 / 75 - 15 : ID 1000 POL 16 / 01 N Last 15 16 0.05 (19 3%) Vol 29 490 582 ID ID ID ID ID <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									-								
Acts 15.13 Dot PCL PCL <t< th=""><th></th><th></th><th></th><th></th><th>A Common Stock</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>ock</th><th></th><th>18</th><th>0</th><th></th></t<>					A Common Stock								ock		18	0	
Lv1 15.15 15.16 Did-Ask Spread 0.01 S MM00 Sate C MM00 16.05 9.39 Bid-Ask Spread 0.04 S MM00 Sate C MM00 16.06 9.39 21 R Acces 9.39 16.0 9.40 17 R MERD 15.16 20 R M00 16.0 64.0 R M00 9.39 21 R Acces 9.39 16.0 9.40 10.0 R MERD 15.16 20 R Acces 15.16 20 R Acces 9.33 R M000 9.40 10.0 R Acces 9.33 R M000 9.44 7.7 R Acces 15.16 9 R REX 15.16 9 R Acces 9.33 8 M000 9.44 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7										0.95							
MMD BD S2E C MMD ASK S2E C MMD ASK S2E C ED0X 15.16 22 R MBDO 15.16 64 R ED0X 15.16 22 R MBDO 15.16 64 R MED 15.16 22 R MBDO 15.16 24 R MED 15.16 23 R MBDO 15.16 11 R ARRA 9.38 17 R ARRA 9.38 17 R ARRA 9.38 17 R ARRA 9.40 10 R ARRA 15.16 10 R ARRA 15.16 8 R ARSD 9.33 8 ACRB 9.35 14 ACRB 9.34 14 ACRB 9.35 14 ACRB				(-5.3%)								-1.2%)					
NAME 15.5 No. 10 15.6 14.40 15.8 14.40 R ACB 9.35 21 ACB 9.30 27 R MABD 15.15 20 R ACB 9.35 21 R ACB 9.36 27 R ACB 9.36 10 R P ACB 9.36 10 R ACB 9.35 14 ACB 14 ACB 14 ACB 14	Lv1	15.15	15.16		Bid-Ask	Spread: 0.	01 S										
EBEX 15:15 22 R NBC0 15:16 64 ABCA 9.36 21 R ABCA 9.36 77 R MEDA 15:15 11 R ABCA 15:16 24 R ABCA 9.33 100 9.34 100 R ABCA 9.36 100 R ABCA 9.36 100 R ABCA 9.34 100 ABCA 9.34 100 ABCA 9.34 110 R ABCA 9.34 110 ABCA 9.34 110 ABCA 9.34 110 ABCA 9.34 110 ABCA 100 ABCA 100 ABCA 100 ABCA 100		15 15	35 35	C								C				E	С
NARD 15:15 20 R ACB 15:16 24 R MARD 9:36 17 R MASD 9:40 R MARD 15:15 11 R ACB 15:16 11 R ACB 14:18 No 9:36 10 No 9:40 10 R MARD 15:15 11 R ACB 16:16 8 R ACB 9:31 10 NSDO 9:42 10 ACB 15:15 0 R BARS 15:16 8 R ACB 9:31 0 NSDO 9:44 7/3 ACB 15:15 9 R EXX 15:16 0 R ACB 9:7 7/3 7/3 MAX 15:16 1 R MAX 15:16 2 R ACB 9:2 0 R NSDO 9:44 7/3 MAX 15:16 2 R ACB 9:7 4 ACB 9:20 1 R 1 1 1 1	EDGX			R					ARCA	9.35	21	R	ARCA	9.39	27	R	
MEAR 15:15 11 R ABCA 15:16 24 R NSDC 9.33 800 NSDC 9.40 10 EXX 15:15 11 R ABCA 15:16 83.3 80 ABCB 9.42 9.33 80 ABCB 9.42 9.43 9.43 9.44 7.9 EXX 15:15 9 R PCX 15:16 8 R ACB 9.33 80 ACB 9.44 7.9 ARECA 15:15 9 R PCX 15:16 6 R ACB 9.31 0 ACB 9.44 7.9 AREX 15:15 9 R PCX 15:16 1 R ACB 9.27 0 NCDA 9.47 12 AREX 15:18 1 R ACB 9.27 0 NCDA 9.40 1 1 1 R ACB 9.27 1 1 1 1 <td></td> <td></td> <td></td> <td>R</td> <td>ACB</td> <td>15.16</td> <td>29</td> <td>R</td> <td></td> <td></td> <td></td> <td>R</td> <td></td> <td></td> <td></td> <td>R</td> <td></td>				R	ACB	15.16	29	R				R				R	
EXG 15:15 11 MEAX 15:16 8 R ACB 32.2 0 NSDQ 9.42 0 ARD 15:15 10 R BATS 15:16 8 R ACB 9.31 0 NSDQ 9.43 14 ARD 15:15 9 R PEX 15:16 8 R ACB 9.30 14 ACB 9.44 17 MIAX 15:16 9 R ICK 15:16 6 R ACB 9.30 1 R ACB 9.44 16:17 10 ACB 9.45 16:16 10 TO ACB 9.45 16:17 10 ACB 9.27 0 ACB 9.51 77.00 10 ACB 9.51 77.00 10 ACB 9.51 77.00 10	MEMX	15.15	11	R	EDGX	15.16	24		NSDQ	9.33	100		NSDQ	9.40	10		
BARS 15.15 10 R BARS 15.16 8 R NSDQ 9.31 100 NSDQ 9.43 14 ARD 15.15 9 R IEX 15.16 8 R ARD 9.31 00 NSDQ 9.43 14 ARD 15.15 9 R IEX 15.16 8 R ARD 9.31 0 NSDQ 9.43 14 ARD 15.15 9 R IEX 15.16 8 R ARD 9.31 0 ARD 9.43 14 0 MMEX 15.16 8 R MIC 15.16 2 R ARD 9.30 1 R ARD 9.30 1 ACD 9.43 1 1 1 R ACD 9.21 1 ACD 9.21				R													
ARCA 15:15 9 R IEX 15:16 6 R ACB 9.30 14 ACB 9.44 0 MAX 15:15 5 R MIAX 15:16 6 R EDGX 9.30 1 R REDQ 9.46 177 MIAX 15:15 7 R ACB 9.30 1 R REDQ 9.46 177 MIAX 15:16 8 R MIAX 15:17 1 R ACB 9.27 0 ACB 9.46 9.45 7.76 NEDG 15:14 33 BYX 15:17 1 R ACB 9.25 2.8 ACB 9.51 10 10 14 14 2.5 10 <td>BATS</td> <td>15.15</td> <td>10</td> <td>R</td> <td>BATS</td> <td>15.16</td> <td></td> <td>R</td> <td>NSDQ</td> <td>9.31</td> <td>100</td> <td></td> <td>NSDQ</td> <td>9.43</td> <td>14</td> <td></td> <td></td>	BATS	15.15	10	R	BATS	15.16		R	NSDQ	9.31	100		NSDQ	9.43	14		
PSX 15.15 9 R HZG 15.16 6 NSDQ 3.3 ACB 9.45 HZG AMEX 15.15 5 5 R AMEX 15.16 4 R ACB 9.30 3 ACB 9.47 12 AMEX 15.15 4 R AMEX 15.17 7 7 ACB 9.20 0 ACB 9.47 12 AMEX 15.16 1 R AACB 9.22 0 ACB 9.47 12 EDGA 15.17 1 R ACB 9.22 28 ACB 9.26 1 ACB 9.25 1 ACB 9.24 3 ACB 9.51 10 1 10	ACB			п			•										
AMEX 15:15 4 R AMEX 15:16 2 R ACB 9.23 0 ACB 9.47 12 M0EX 15:15 1 R ACB 15:17 13 ACB 9.28 4 ACB 9.40 NSDQ 5:17 13 M0EX 15:14 22 EDGA 15:17 1 R ACB 9.27 0 NSDQ 9.50 5 ACB 15:14 22 EDGA 15:17 1 R ACB 9.24 3 NSDQ 9.52 1 ACB 15:14 3 NSDQ 15:17 1 R ACB 9.23 2 Y NSDQ 9.55 4 NSDQ 15:16 16 <th< td=""><td>PSX</td><td></td><td>-</td><td></td><td></td><td></td><td>-</td><td>ĸ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	PSX		-				-	ĸ									
BYX 15 2 R NSDQ 15.17 7.17 53 ACB 9.28 4 ACB 9.49 1 DBGA 15.15 1 R IEXG 15.17 4 ACB 9.28 0 NSDQ 9.51 778 DBGA 15.15 1 R IEXG 15.17 4 ACB 9.28 0 NSDQ 9.51 778 DBGA 15.14 3 EXX 15.17 1 R ACB 9.23 2 NSDQ 9.55 1 DBGA 15.14 3 NDEX 15.18 16 NSDQ 9.23 2 VISSS 9.56 1 LEGG 15.18 16 NSDQ 9.23 1 Y NSDQ 9.58 1 LEGG 15.18 16 NSDQ 9.22 10 NSDQ 9.68 778 LEGG 15.18 14 NSDQ 9.20 123 NSDQ 9.63 788 LEGG 15.18 2 ACB 9.20 <td>MIAX</td> <td>15.15</td> <td></td> <td></td> <td>MIAX</td> <td>15.16</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td>	MIAX	15.15			MIAX	15.16					1	R					
NBBK 15 1 R ACB 15.7 13 ACB 9.27 0 NSDQ 9.50 5 NSDQ 15.14 33 BYX 15.17 2 R ACB 9.27 0 NSDQ 9.50 5 NSDQ 15.14 23 BYX 15.17 2 R ACB 9.27 0 NSDQ 9.51 77.8 NSDQ 15.14 23 BYX 15.17 2 R ACB 9.27 2 ACB 9.51 77.8 NSDQ 15.14 2 BYX 15.17 1 R ACB 9.27 0 NSDQ 9.51 77.8 NSDQ 15.17 1 R ACB 9.25 1 NSDQ 9.51 1 NSDQ 15.17 1 NSDQ 1 <								R									
NNDQ 15.14 33 BYX 15.17 1 R ACB 9.26 28 ACB 9.51 1 1 LEXG 15.14 2 DEGA 15.17 1 R ACB 9.24 3 NSDQ 9.52 1 LEXG 15.14 3 NQDU 15.18 46 NSDQ 9.23 24 NSDQ 9.52 1 LEXG 15.18 46 15.18 1 R ACB 9.23 2 NSDQ 9.52 1 LEXG 15.18 1 R ACB 9.23 2 100 9.58 1 LEXG 15.19 1 NSDQ 9.21 28 NSDQ 9.59 5 NSDQ 15.11 1 R NSDQ 9.21 220 0 NSDQ 9.68 81 NSDQ 15.11 1 R NSDQ 12.1 1 NSDQ 9.21 220 0 NSDQ 9.68 1 NSDQ 15.11 1 R </td <td>NQBX</td> <td>15.15</td> <td>ī</td> <td>R</td> <td>ACB</td> <td>15.17</td> <td></td> <td></td> <td>ACB</td> <td>9.27</td> <td>0</td> <td></td> <td>NSDQ</td> <td>9.50</td> <td>5</td> <td></td> <td></td>	NQBX	15.15	ī	R	ACB	15.17			ACB	9.27	0		NSDQ	9.50	5		
ACB 15 14 22 EDGA 15 17 1 R ACB 9.24 3 NSDQ 9.52 1 NNDD 15 13 7 ACB 9.23 54 MSDQ 9.55 1 NNDD 15 14 ACB 9.23 54 MSDQ 9.56 1 NNDD 15 12 49 MSDQ 15.19 1 ACB 9.23 12 NSDQ 9.56 1 NSDQ 15.12 2 ACB 15.19 1 ACB 9.21 25 ACB 9.50 5 NSDQ 15.12 2 EKG 15.19 1 NSDQ 9.21 25 ACB 9.20 NSDQ 9.63 20 NSDQ 15.11 15 NSDQ 15.20 19 USS 9.21 25 ACB 9.20 12.37 NSDQ 9.65 708 NSDQ 15.20 1 NSDQ 15.20 1 NSDQ 9.21 25 ACB 9.21 <t< td=""><td></td><td></td><td></td><td>R</td><td></td><td></td><td></td><td>D</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				R				D									
NSDQ 15 13 NSDQ 15 18 46 NSDQ 9 23 2 USSS 9 55 1 LEXG 15 13 2 LEXG 15 18 16 BATS 9 23 1 Y NSDQ 9 56 1 LEXG 15 12 49 NSDQ 15 19 1 NSDQ 9 22 17 ACB 9 58 1 NSDQ 15 12 28 ACB 15 19 11 NSDQ 9 22 10 R NSDQ 9 58 1 NSDQ 15 11 25 ACB 15 19 1 NSDQ 9 21 289 NSDQ 9 63 20 NSDQ 15 11 25 ACB 15 20 19 USSS 9 20 9 20 NSDQ 9 68 76 80 NSDQ 15 10 1 R NSDQ 15 22 1 USSS 9 19 10 NSDQ 9 68 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td>ACB</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ACB</td> <td>9.24</td> <td></td> <td></td> <td>NSDQ</td> <td>9.52</td> <td></td> <td></td> <td></td>	ACB								ACB	9.24			NSDQ	9.52			
ACB 67:3 7 ACB 15.18 16 BATS 9.23 1 Y NSDQ 9.56 1 AD6 15.12 49 NSDQ 15.18 1 AC6 9.22 117 AC6 9.58 77.6 NSDQ 15.12 28 ACB 15.19 11 NSDQ 9.21 120 ACB 9.58 77.6 NSDQ 15.12 2 IEXG 15.19 11 NSDQ 9.21 220 NSDQ 9.58 7.6 NSDQ 15.12 2 IEXG 15.19 1 NSDQ 9.26 ACB 8.6 20 3.6 ACB 15.10 9.65 7.6 0.6 1.6 1.6 ACB 1.5 1.6 ACB 1.5 1.6 ACB 1.5 1.6 1.6 ACB 1.5 1.7 1.6 <	IEXG							R							4		
IEXG 15.13 2 IEXG 15.19 1 ACB 9.22 120 NSDQ 9.58 776 NSDQ 15.12 26 ACB 15.19 14 NSDQ 9.22 117 ACB 9.58 1 NSDQ 15.12 26 ACB 15.19 1 NSDQ 9.21 280 NSDQ 9.63 20 NSDQ 15.11 25 ACB 15.20 21 UBSS 9.21 25 ACB 9.63 20 NSDQ 15.11 1 R IS20 12.01 NSDQ 9.65 798 NSDQ 15.10 1 R ACB 15.22 1 NSDQ 9.63 7 ACB 15.10 1 R ACB 15.22 1 NSDQ 9.19 14 NSDQ 9.68 7 NSDQ 15.09 17 IEXG 15.22 1 NSDQ 9.19 14 NSDQ 9.68 7 NSDQ 15.09 1 NSDQ 15.22	ACB											Y			1		
NSDQ 15 26 ACB 15 11 NSE 922 16 R NSDQ 9.59 5 NSDQ 15 12 2 16X6 15 19 1 NSDQ 9.21 25 ACB 9.63 20 NSDQ 15 11 25 ACB 9.21 25 ACB 9.63 20 16X6 15 11 1 1 1 1 NSDQ 9.21 237 NSDQ 9.65 7.98 NSX 15 1 1 NSDQ 15 21 23 ACB 9.20 24 ACB 9.65 8.00 NSDQ 15 1 NSDQ 15 1 NSDQ 9.68 4 4 IEX6 15.0 1 NSDQ 15.22 1 ACB 9.19 10 NSDQ 9.68 4 4 IEX6 15.09 17 IEX6 15.22	IEXG	15.13			IEXG	15.18		_	ACB				NSDQ				
IEXG 15.19 1 NSDQ 9.21 289 NSDQ 9.60 81 NSDQ 15.11 2 ACB 15.20 21 ACB 9.21 25 ACB 9.63 20 NSDQ 15.11 1 NSDQ 15.20 19 USS 9.21 0 NSDQ 9.65 788 NSX 15.11 1 R NSDQ 15.21 23 ACB 9.20 24 ACB 9.65 788 NSDQ 15.10 34 ACB 15.21 14 USS 9.20 9.2 NSDQ 9.65 80 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 17 17 16 16 16 16 17 16 16 16 16 16 17 17 17 16 16 16 17 16 16 16 16 17 10 17 16 16												R					
ACC 15 NSDQ 15.20 19 UBSS 9.21 0 NSDQ 9.64 1 NSX 15.11 1 R NSDQ 15.21 23 ACB 9.20 227 NSDQ 9.65 80 NSX 15.10 21 ACB 15.21 23 ACB 9.20 24 NSDQ 9.65 80 ACB 15.10 1 ACB 15.21 1 NSDQ 9.19 147 NSDQ 9.68 4 NSDQ 15.09 17 IEXG 15.22 11 NSDQ 9.19 10 XSDQ 9.69 30 NSDQ 15.09 17 IEXG 15.22 1 R UBSS 9.19 10 NSDQ 9.70 3 NSDQ 15.8 15 NSDQ 15.23 8 NSDQ 9.18 0 NSDQ 9.72 3 NSDQ 15.07 11 NSDQ	IEXG	15.12	2		IEXG	15.19	1		NSDQ	9.21	289		NSDQ	9.60	81		
IEXG 15.11 I IEXG 15.20 1 NSDQ 9.20 1237 NSDQ 9.65 796 NSX 15.10 54 I ACB 19 14 UBSS 9.20 24 ACB 9.65 796 0 NSDQ 15.10 54 IEXG 15.22 27 UBSS 9.19 10 NSDQ 9.66 7 IEXG 15.09 1 NSDQ 15.22 27 UBSS 9.19 10 NSDQ 9.66 7 NSDQ 15.09 1 NSDQ 15.22 1 NSDQ 9.18 10 NSDQ 9.69 1 NSDQ 15.09 1 NSDQ 15.22 1 R NSDQ 9.18 10 NSDQ 9.70 17 NSDQ 15.08 15 NSDQ 15.23 10 R ACB 9.17 83 NSDQ 9.72 0 16 NSDQ 15.05 1 NSDQ 15.25 20 UBSS 9.17 11 <															20		
NSDQ 15 10 521 ACB 15 10 14 UBSS 9 20 9 NSDQ 975 0 IEXG 15 10 54 IEXG 15 22 27 UBSS 9 19 10 XGWUD 9.88 7 NSDQ 15 09 20 ACB 15 22 21 UBSS 9 19 10 NSDQ 9.88 7 NSDQ 15 09 17 NEG 15 22 1 NSDQ 9.18 500 NSDQ 9.70 3 ACB 15 09 1 NSDQ 15 22 1 NSDQ 9.18 500 NSDQ 9.70 3 ACB 15 08 15 NSDQ 15 23 10 ACB 9.18 500 NSDQ 9.72 3 NSDQ 15 08 15 NSDQ 15 23 8 NSDQ 9.17 83 NSDQ 9.72 3 NSDQ 15 07 12 ACB 15 24 11 NSDQ 9.17 83 NSDQ 9.72 3 3 3	IEXG		15				1					•			798		
ACB 15.10 54 IEXG 15.21 1 NSDQ 9.19 147 NSDQ 9.68 4 NSDQ 15.09 1 NSDQ 15.22 27 UBSS 9.19 10 NSDQ 9.68 4 NSDQ 15.09 17 IEXG 15.22 11 NSDQ 9.19 1 NSDQ 9.69 30 IEXG 15.09 17 IEXG 15.22 1 R UBSS 9.19 1 NSDQ 9.69 30 IEXG 15.09 17 IEXG 15.22 1 R UBSS 9.18 0 NSDQ 9.70 3 IEXG 15.08 15 NSDQ 15.23 8 NSDQ 9.17 83 NSDQ 9.72 0 IEXG 15.07 12 ACB 15.24 11 ACB 9.16 25 3 12 14 14 NSDQ 9.73 12 ACB 15.07 11 NSDQ 15.26 13 NSDQ 9.15	NSX			R													
IEXG 15.10 1 NSDQ 15.22 27 UBSS 9.19 10 KGWD 9.69 1 NSDQ 15.09 20 ACB 15.22 1 ACB 9.19 1 NSDQ 9.69 1 ACB 15.09 17 IEXG 15.22 1 R UBSS 9.18 500 NSDQ 9.70 17 IEXG 15.08 26 ACB 15.23 1 R UBSS 9.18 0 NSDQ 9.71 40 ACB 15.08 15 NSDQ 15.23 8 NSDQ 9.17 83 NSDQ 9.72 3 NSDQ 15.07 12 ACB 15.24 6 NSDQ 9.16 1 NSDQ 9.73 12 NSDQ 15.06 18 ACB 15.25 6 NSDQ 9.16 1 NSDQ 9.73 12 NSDQ 15.06 16 NSDQ 15.26 13 NSDQ 9.16 1 NSDQ 9.75 13 <															4		
ACB 15 09 17 IEXG 15 22 1 NSDQ 9.18 500 NSDQ 9.70 17 NSDQ 15 08 26 ACB 15 22 1 R UBSS 9.18 0 NSDQ 9.70 3 NSDQ 15 08 26 ACB 15 23 10 R UBSS 9.18 0 NSDQ 9.72 3 ACB 15 08 15 NSDQ 15 24 11 ACB 9.17 10 UBSS 9.72 0 NSDQ 15 07 12 ACB 15 25 20 UBSS 9.16 1 NSDQ 9.73 12 NSDQ 15 06 18 ACB 15 25 6 NSDQ 9.15 569 NSDQ 9.73 12 NSDQ 15 06 18 ACB 15 26 13 UBSS 9.15 0 NSDQ 9.73 12 NSDQ 15 06 18 ACB 15 27 13 UBSS 9.15 0 NSDQ 9.77 4	IEXG	15.10	1		NSDQ	15.22			UBSS	9.19	10		XGWD	9.69			
IEXG 15.09 1 NSX 15.22 1 R UBSS 9.18 11 UBSS 9.70 3 ACB 15.08 26 ACB 15.23 10 ACB 9.18 0 NSDQ 9.71 40 ACB 15.08 1 NSDQ 15.23 8 NSDQ 9.17 83 NSDQ 9.72 0 IEXG 15.07 12 ACB 15.24 1 ACB NSDQ 9.17 11 UBSS 9.72 0 ACB 15.07 12 ACB 15.24 6 NSDQ 9.16 1 NSDQ 9.73 12 ACB 15.06 18 ACB 15.25 20 UBSS 9.16 1 NSDQ 9.75 13 NSDQ 15.06 18 ACB 15.25 0 NSDQ 9.15 569 NSDQ 9.75 13 NSDQ 15.05 22 ACB 15.27 8 NSDQ 9.15 569 NSDQ 9.77 4																	
ACB 15.08 15 NSDQ 15.23 8 NSDQ 9.17 83 NSDQ 9.72 3 NSDQ 15.08 1 NSDQ 15.24 11 ACB 9.17 11 UBSS 9.72 0 NSDQ 15.07 12 ACB 15.25 20 UBSS 9.16 1 NSDQ 9.72 71 ACB 15.06 16 NSDQ 15.25 20 UBSS 9.16 0 NSDQ 9.73 12 NSDQ 15.06 16 NSDQ 15.25 6 ACB 9.16 0 NSDQ 9.73 12 NSDQ 15.06 16 NSDQ 15.26 13 NSDQ 9.15 569 NSDQ 9.74 4 ACB 15.05 9 ACB 15.27 16 ACB 9.15 25 SCO 9.74 4 NSDQ 15.04 10 NSDQ 15.27 8 NSDQ 9.14 264 NSDQ 9.77 4 NSDQ	IEXG	15.09	1		NSX	15.22	1	R	UBSS	9.18	11		UBSS	9.70	3		
IEXG 15.08 1 ACB 11 ACB 9.17 11 UBSS 9.72 0 NSDQ 15.07 12 ACB 15.24 6 NSDQ 9.16 271 SSCO 9.72 71 ACB 15.07 11 NSDQ 15.24 6 NSDQ 9.16 1 NSDQ 9.73 12 NSDQ 15.06 18 ACB 15.25 6 ACB 9.16 1 NSDQ 9.74 4 ACB 15.06 16 NSDQ 15.26 10 UBSS 9.15 569 NSDQ 9.74 4 NSDQ 15.04 10 NSDQ 15.27 16 ACB 9.15 0 NSDQ 9.76 71 ACB 15.04 10 NSDQ 15.28 8 NSDQ 9.14 264 NSDQ 9.77 4 ACB 15.03 14 ACB 15.28 7 ACB 9.13 3 ACB 9.80 0 NSDQ 15.03																	-
NSDQ 15 07 12 ACB 15.24 6 NSDQ 9 16 271 SSCO 9.72 71 ACB 15.07 11 NSDQ 15.25 20 UBSS 9.16 1 NSDQ 9.73 12 ACB 15.06 16 NSDQ 15.25 6 ACB 9.16 0 NSDQ 9.73 12 ACB 15.06 16 NSDQ 15.26 13 NSDQ 9.15 569 NSDQ 9.76 71 NSDQ 15.05 22 ACB 15.26 10 UBSS 9.15 50 SSCO 9.76 71 NSDQ 15.04 10 NSDQ 15.27 8 NSDQ 9.14 264 NSDQ 9.76 71 NSDQ 15.04 8 NSDQ 15.28 8 NSDQ 9.14 1 NSDQ 9.76 71 400 NSDQ 15.03 31 ACB 15.28 7 NSDQ 9.13 3 ACB 9.80 15 <t< td=""><td>IEXG</td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6</td><td></td></t<>	IEXG							_								6	
NSDQ 15.06 18 ACB 15.25 6 ACB 9.16 0 NSDQ 9.74 4 ACB 15.06 16 NSDQ 15.26 13 NSDQ 9.15 569 NSDQ 9.74 4 ACB 15.06 16 NSDQ 15.26 13 NSDQ 9.15 569 NSDQ 9.75 13 ACB 15.05 9 ACB 15.27 16 ACB 9.15 0 NSDQ 9.77 4 ACB 15.04 10 NSDQ 15.27 16 ACB 9.15 0 NSDQ 9.77 4 ACB 15.04 8 NSDQ 15.28 8 ACB 9.14 264 NSDQ 9.77 4 ACB 15.03 31 ACB 15.28 7 ACB 9.13 3 ACB 9.80 50 IEXG 15.03 0 ACB 15.30 51 ACB NSDQ 9.13 3 ACB 9.80 1 IEX	NSDQ																
ACB 15.06 16 NSDQ 15.26 13 NSDQ 9.15 569 NSDQ 9.75 13 NSDQ 15.05 22 ACB 15.26 10 UBSS 9.15 25 GSCO 9.76 71 71 ACB 15.05 9 ACB 15.27 16 ACB 9.15 0 NSDQ 9.77 4 NSDQ 15.04 10 NSDQ 15.27 8 NSDQ 9.14 264 NSDQ 9.77 4 ACB 15.04 8 NSDQ 15.28 8 NSDQ 9.14 1 NSDQ 9.79 0 NSDQ 15.03 14 NSDQ 15.28 7 NSDQ 9.13 3 ACB 9.80 15 NSDQ 15.03 14 NSDQ 15.29 4 ACB 9.13 2 NSDQ 9.80 15 NSDQ 15.02 24 NSDQ 15.30 51 NSDQ 9.11 1 UBSS 9.80 1																	
ACB 15.05 9 ACB 15.27 16 ACB 9.15 0 NSDQ 9.77 4 NSDQ 15.04 10 NSDQ 15.27 8 NSDQ 9.14 264 NSDQ 9.78 40 ACB 15.04 8 NSDQ 15.28 8 ACB 9.14 1 NSDQ 9.78 40 NSDQ 15.03 31 ACB 15.28 7 NSDQ 9.13 3 ACB 9.80 50 ACB 15.03 14 NSDQ 15.29 4 ACB 9.13 2 NSDQ 9.80 15 IEXG 15.03 0 ACB 15.30 51 NSDQ 9.13 2 NSDQ 9.80 15 NSDQ 15.02 24 NSDQ 15.30 3 ACB 9.12 0 NSDQ 9.81 22 NSDQ 15.01 16 NSDQ 15.33 1 NSDQ 9.911 1 NSDQ 9.84 5 NSDQ <t< td=""><td>ACB</td><td>15.06</td><td>16</td><td></td><td>NSDQ</td><td>15.26</td><td>13</td><td></td><td>NSDQ</td><td>9.15</td><td>569</td><td></td><td>NSDQ</td><td>9.75</td><td>13</td><td></td><td></td></t<>	ACB	15.06	16		NSDQ	15.26	13		NSDQ	9.15	569		NSDQ	9.75	13		
NSDQ 15.04 10 NSDQ 15.27 8 NSDQ 9.14 264 NSDQ 9.78 40 ACB 15.04 8 NSDQ 15.28 8 ACB 9.14 1 NSDQ 9.78 40 ACB 15.04 8 NSDQ 15.28 7 NSDQ 9.13 3 ACB 9.80 50 ACB 15.03 14 NSDQ 15.29 4 ACB 9.13 2 NSDQ 9.80 15 IEXG 15.03 0 ACB 15.30 51 NSDQ 9.13 2 NSDQ 9.80 15 NSDQ 15.02 24 NSDQ 15.30 3 ACB 9.12 0 NSDQ 9.80 1 NSDQ 15.02 6 NSDQ 15.31 2 NSDQ 9.11 1 UBSS 9.81 0 NSDQ 15.01 11 NSDQ 15.33 1 NSDQ 9.10 10 NSDQ 9.83 0 ACB <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td></td<>																	_
NSDQ 15.03 31 ACB 15.28 7 NSDQ 9.13 3 ACB 9.80 50 ACB 15.03 14 NSDQ 15.29 4 ACB 9.13 2 NSDQ 9.80 15 IEKG 15.03 0 ACB 15.29 4 ACB 9.13 2 NSDQ 9.80 15 NSDQ 15.03 0 ACB 15.03 51 NSDQ 9.13 2 NSDQ 9.80 15 NSDQ 15.02 24 NSDQ 15.30 3 ACB 9.12 0 NSDQ 9.81 22 ACB 15.02 6 NSDQ 15.31 2 NSDQ 9.11 1 UBSS 9.81 0 NSDQ 15.01 16 NSDQ 15.33 1 NSDQ 9.11 1 NSDQ 9.83 0 ACB 15.00 1347 ACB 15.33 1 NSDQ 9.910 10 NSDQ 9.84 5 NSDQ <td< td=""><td>NSDQ</td><td></td><td></td><td></td><td>NSDQ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	NSDQ				NSDQ												
ACB 15.03 14 NSDQ 15.29 4 ACB 9.13 2 NSDQ 9.80 15 IEXG 15.03 0 ACB 15.30 51 NSDQ 9.13 2 NSDQ 9.80 15 NSDQ 15.02 6 NSDQ 15.30 3 ACB 9.12 0 NSDQ 9.81 22 ACB 15.02 6 NSDQ 15.31 2 NSDQ 9.11 1 UBSS 9.81 0 NSDQ 15.01 16 NSDQ 15.33 1 NSDQ 9.11 1 UBSS 9.81 0 ACB 15.01 11 NSDQ 15.33 1 NSDQ 9.11 1 NSDQ 9.82 4 ACB 15.00 1347 ACB 15.33 1 NSDQ 9.10 10 NSDQ 9.83 0 NSDQ 15.00 1347 ACB 15.39 5 ACB 9.10 10 NSDQ 9.85 7 IEXG <t< td=""><td>ACB</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	ACB																
IEXG 15.03 0 ACB 15.30 51 NSDQ 9.12 1 UBSS 9.80 1 NSDQ 15.02 24 NSDQ 15.30 3 ACB 9.12 0 NSDQ 9.81 22 ACB 15.02 6 NSDQ 15.31 2 NSDQ 9.11 1 UBSS 9.81 0 NSDQ 15.01 16 NSDQ 15.33 1 NSDQ 9.11 1 UBSS 9.82 4 ACB 15.01 11 NSDQ 15.33 1 NSDQ 9.10 190 NSDQ 9.83 0 ACB 15.00 1347 ACB 15.39 5 ACB 9.10 0 NSDQ 9.83 0 NSDQ 15.00 1 NSDQ 15.39 5 ACB 9.10 0 NSDQ 9.85 7 IEXG 15.00 1 NSDQ 15.46 1 UBSS 9.09 67 VIRT 9.85 1 NSDQ	ACB																
ACB 15.02 6 NSDQ 15.31 2 NSDQ 9.11 1 UBSS 9.81 0 NSDQ 15.01 16 NSDQ 15.32 4 ACB 9.11 1 NSDQ 9.83 0 ACB 15.01 11 NSDQ 15.32 4 ACB 9.11 1 NSDQ 9.82 4 ACB 15.01 11 NSDQ 15.33 1 NSDQ 9.09 190 NSDQ 9.83 0 ACB 15.00 1347 ACB 15.36 8 UBSS 9.10 10 NSDQ 9.83 0 NSDQ 15.00 13 NSDQ 15.39 5 ACB 9.10 0 NSDQ 9.85 7 IEXG 15.00 1 NSDQ 15.46 1 UBSS 9.09 67 VIRT 9.85 1 NSDQ 14.99 7 ACB 15.46 1 UBSS 9.09 0 NSDQ 9.88 2 ACB 14	IEXG				ACB				NSDQ	9.12	1		UBSS	9.80	1		
NSDQ 15.01 16 NSDQ 15.32 4 ACB 9.11 1 NSDQ 9.82 4 ACB 15.01 11 NSDQ 15.33 1 NSDQ 9.10 190 NSDQ 9.82 4 ACB 15.01 11 NSDQ 15.33 1 NSDQ 9.10 190 NSDQ 9.83 0 ACB 15.00 1347 ACB 15.38 8 UBSS 9.10 10 NSDQ 9.84 5 NSDQ 15.00 5 ACB 9.10 0 NSDQ 9.85 7 IEXG 15.00 1 NSDQ 15.40 17 NSDQ 9.09 67 VIRT 9.85 1 NSDQ 14.99 7 ACB 15.47 2 ACB 9.09 0 NSDQ 9.85 2								_			•						
ACB 15.00 1347 ACB 15.36 8 UBSS 9.10 10 NSDQ 9.84 5 NSDQ 15.00 519 NSDQ 15.39 5 ACB 9.10 0 NSDQ 9.85 7 IEXG 15.00 1 NSDQ 15.40 17 NSDQ 9.09 67 VIRT 9.85 1 NSDQ 14.99 7 ACB 15.46 1 UBSS 9.09 5 UBSS 9.85 2 ACB 14.99 5 ACB 15.47 2 ACB 9.09 0 NSDQ 9.88 106	NSDQ	15.01	16		NSDQ	15.32	4		ACB	9.11	1		NSDQ	9.82	4		
NSDQ 15.00 519 NSDQ 15.39 5 ACB 9.10 0 NSDQ 9.85 7 IEXG 15.00 1 NSDQ 15.40 17 NSDQ 9.09 67 VIRT 9.85 1 NSDQ 14.99 7 ACB 15.46 1 UBSS 9.09 5 UBSS 9.85 2 ACB 14.99 5 ACB 15.47 2 ACB 9.09 0 NSDQ 9.88 106																	
IEXG 15.00 1 NSDQ 15.40 17 NSDQ 9.09 67 VIRT 9.85 1 NSDQ 14.99 7 ACB 15.46 1 UBSS 9.09 5 UBSS 9.85 2 ACB 14.99 5 ACB 15.47 2 ACB 9.09 0 NSDQ 9.88 106	NSDQ	15.00			NSDQ	15.39									7		
ACB 14.99 5 ACB 15.47 2 ACB 9.09 0 NSDQ 9.88 106	IEXG		1						NSDQ	9.09			VIRT	9.85	1		
	ACB		5						ACB		-				-		
			_	_									NEDO	0.00	52		



No Orders at any price or so many orders you see no imbalance

Bullish Book Example in DAS

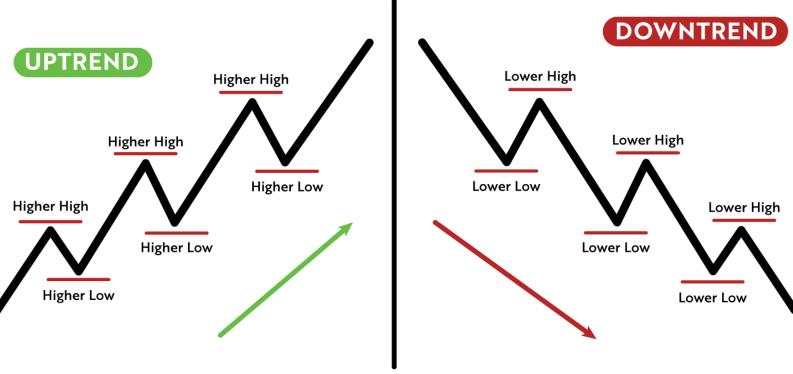




	146.46 146.47	Apple Inc Common Stock	_		_	
AAPL		146.5 - 143.63		PCL 144.5	Q	
Last	146.48	1.98 (1.4%)	Vol	17,204,841	÷	
Lv1	146.47	146.48	Bid-Ask S	pread: 0.01	S	
MN	AID E	BID SIZE	MMI	D ASK		SIZE
NSDQ	146.47	2	NSDQ	146.48	3	
NASD ARCA	146.47 146.47	2 1	NASD ACB	146.48 146.48	3	
ARCA	146.47	1	EDGX	146.48	1	
IEX	146.46	5	BYX	146.48	1	
IEXG	146.46	5	BATS	146,48	1	
NSDQ	146.46	4	NYSE	146.48	1	
ACB	146.46	4	ARCA	146.48	1	
EDGX	146.46	4	MEMX	146.48	1	
BATS NSDQ	146.46 146.45	2 4	NSDQ ACB	146.49 146.49	4 2	
ACB	146.45	2	NSDQ	146.50	251	
NYSE	146.45	2	ACB	146.50	62	
IEXG	146.45	0	IEXG	146.50	0	
NSDQ	146.44	9	NSDQ	146.51	23	
ACB	146.44	5	ACB	146.51	2	
MEMX IEXG	146.44 146.44	1 0	NSDQ ACB	146.52 146.52	24 2	
NSDQ	146.43	4	NSDQ	146.53	2	
ACB	146.43	3	ACB	146.53	0	
IEXG	146.43	0	NSDQ	146.54	3	
NSDQ	146.42	4	ACB	146.54	1	
ACB	146.42 146.41	2 7	NSDQ ACB	146.55 146.55	62 4	
ACB NSDQ	146.41	3	NSDQ	146.56	4	
NSDQ	146.40	19	ACB	146.56	0	
ACB	146.40	2	NSDQ	146.57	4	
NSDQ	146.39	15	ACB	146.57	1	
ACB	146.39	4	NSDQ	146.58	5	
NSDQ ACB	146.38 146.38	18 4	ACB NSDQ	146.58 146.59	0 8	
NSDQ	146.37	8	PSX	146.59	4	
ACB	146.37	3	ACB	146.59	ò	
NSDQ	146.36	8	NSDQ	146.60	31	
ACB	146.36	2 0	ACB	146.60	7	
IEXG NSDQ	146.36 146.35	4	NSDQ ACB	146.61 146.61	13 4	
ACB	146.35	2	NSDQ	146.62	9	
NSDQ	146.34	20	ACB	146.62	1	
ACB	146.34	1	NSDQ	146.63	6	
IEXG	146.34	0	ACB	146.63	0	
NSDQ ACB	146.33 146.33	6 4	NSDQ ACB	146.64 146.64	2 0	
ACB	146.32	7	NSDQ	146.65	2	
NSDQ	146.32	6	NSDQ	146.66	18	
IEXG	146.32	1	NSDQ	146.67	3	
NSDQ	146.31	3	ACB	146.67	1	
ACB	146.31	1 0	NSDQ	146.68	15 6	
IEXG NSDQ	146.31 146.30	25	ACB NQBX	146.68 146.68	6 1	
ACB	146.30	13	NSDQ	146.69	10	
IEXG	146.30	0	ACB	146.69	0	
NSDQ	146.29	3	NSDQ	146.70	29	
ACB	146.29	1	ACB	146.70	5	
BYX NSDQ	146.29 146.28	1	NSDQ ACB	146.71 146.71	0	
ACB	146.28	3 1	NSDQ	146.72	53	
NSDQ	146.27	6	ACB	146.72	3	
ACB	146.27	1	NSDQ	146.73	0	
ACB	146.26	10	NSDQ	146.74	121	
NSDQ NSDQ	146.26 146.25	4	ACB NSDQ	146.74 146.75	1 35	
ACB	146.25	3	ACB	146.75	35	
PSX	146.24	4	ACB	146.76	1	
NSDQ	146.24	3	NSDQ	146.76	0	
NQBX	146.24	1	NSDQ	146.77	4	
NSDQ ACB	146.23 146.23	4	ACB NSDO	146.77 146.78	0	
AL A	14h 73	0	MIST ICT	14h 7A	4	

Bearish Book Example in DAS





D PLTR	15.22 15.23 P	Palantir Technologies Inc. Class A	Common Stock		
PLTR	↓	15.75 - 15.1		PCL 16.01	А
Last	15.225	-0.785 (-4.9%)	Vol	31,779,167	÷
Lv1	15.22	15.23	Bid-Ask S	Spread: 0.01	S
MMID		SIZE C	MMID	ASK	SIZE C
ACB NSDQ	15.15 15.14	7 8	ACB NSDQ	15.30 5 15.30 3	
ACB	15.14	4	IEXG	15.30 1	
ACB	15.13	3 3	NSDQ	15.31 1	
NSDQ ACB	15.13 15.12	3	ACB IEXG	15.31 9 15.31 1	
NSDQ	15.12	2	NSDQ	15.32 1	
ACB	15.11	10	ACB	15.32 8	
NSDQ NSDQ	15.11 15.10	1 169	NSDQ ACB	15.33 1 15.33 7	
ACB	15.10	42	NSDQ	15.34 1	
ACB	15.09	14	ACB	15.34 4	
NSDQ	15.09	6	NSDQ	15.35 4	
NSDQ ACB	15.08 15.08	21 13	ACB ACB	15.35 2 15.36 8	
ACB	15.07	12	NSDQ	15.36 1	
NSDQ	15.07	7	ACB	15.37 8	
ACB	15.06	15	NSDQ	15.38 1	
NSDQ NSDQ	15.06 15.05	2 15	NSDQ NSDQ	15.39 5 15.40 1	
ACB	15.05	14	ACB	15.40 1	
ACB	15.04	2	NSDQ	15.41 1	
NSDQ	15.04	1	NSDQ	15.46 0	
NSDQ ACB	15.03 15.03	31 3	NSDQ ACB	15.47 1 15.47 0	
IEXG	15.03	0	NSDQ	15.47 0	
NSDQ	15.02	20	ACB	15.49 0	l.
ACB	15.02	3	NSDQ	15.50 2	
NSDQ ACB	15.01 15.01	16 11	ACB IEXG	15.50 7 15.50 2	
ACB	15.00	1347	NSDQ	15.50 2	
NSDQ	15.00	522	NSDQ	15.53 1	
IEXG	15.00	1	NSDQ	15.54 2	
NSDQ ACB	14.99 14.99	7 5	GSCO ACB	15.54 4 15.54 1	
IEXG	14.99	2	NSDQ	15.55 2	
NSDQ	14.98	8	NSDQ	15.57 1	
ACB	14.98	1	ACB	15.60 2	
NSDQ ACB	14.97 14.97	3 1	NSDQ NSDQ	15.60 0 15.61 5	
NSDQ	14.96	0	NSDQ	15.62 1	
ACB	14.96	0	NSDQ	15.63 0	
NSDQ	14.95	5	NSDQ	15.64 0	
ACB NSDQ	14.95 14.94	4 0	ACB NSDQ	15.65 0 15.65 0	
ACB	14.94	0	NSDQ	15.67 3	
ACB	14.93	0	GSCO	15.67 4	4
NSDQ	14.92	10	ACB	15.67 0	
ACB NSDQ	14.92 14.91	1 5	ACB NSDQ	15.68 0 15.69 2	
GSCO	14.91	44	ACB	15.69 1	
ACB	14.91	3	NSDQ	15.70 1	
NSDQ	14.90	98	ACB	15.70 0	
ACB IEXG	14.90 14.90	46 1	ACB NSDQ	15.71 0 15.72 3	
NSDQ	14.89	3	ACB	15.72 2	
ACB	14.89	2	ACB	15.73 1	
NSDQ	14.88	10	XGWD	15.73 1	
Montage					

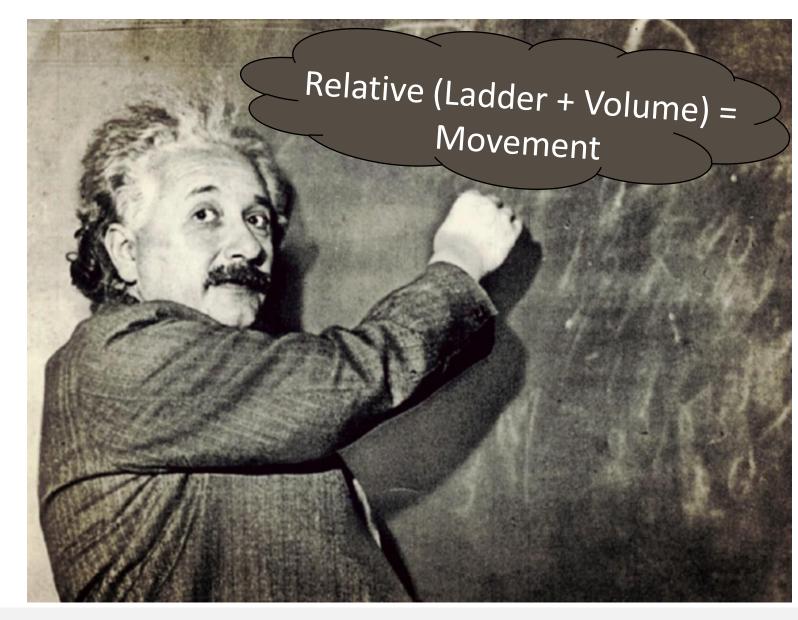
The 2 Order Books

- The Order Book is not a single book rather 2 books that we view at the same time.
- A Price Ladder showing limit demand on the bid
- A Price Ladder showing limit demand on the ask
- Both Ladders must be considered when trading

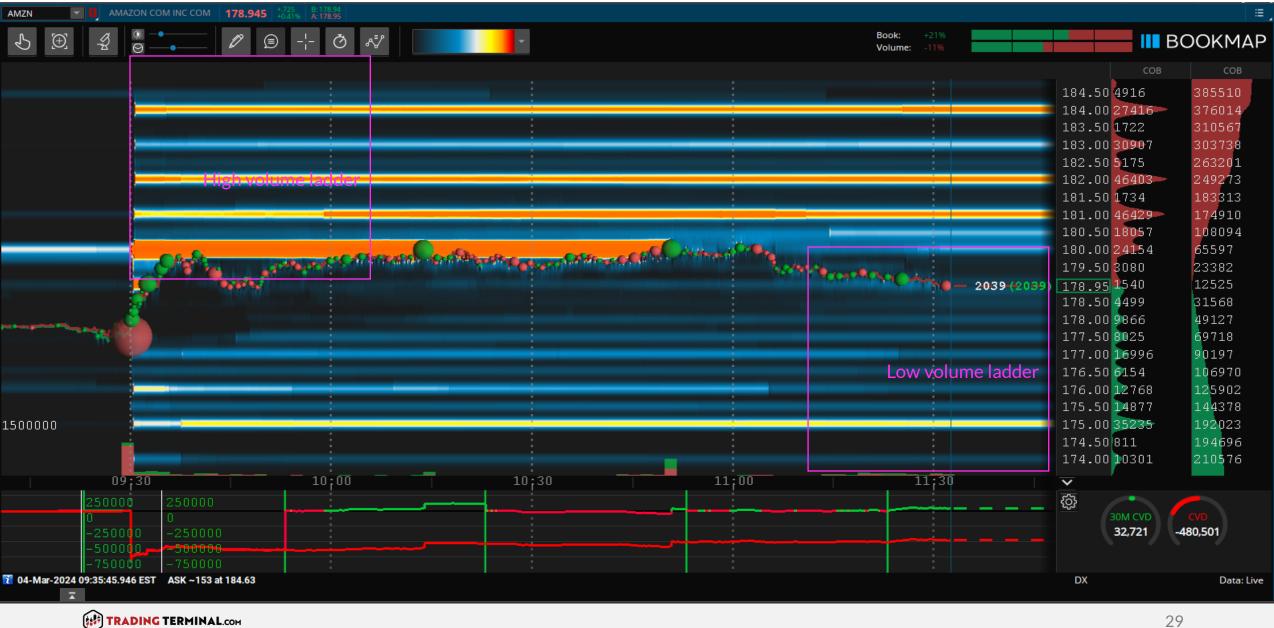
PLTR	× *	15.75 - 15.1		PCL 16.			ASK
	15.225	-0.785 (-4.9%)	Vol	31,779,1			
Lv1	15.22	15.23		Spread: 0	.01 S		🕌 LADDE
ACB	BID 15.15	SIZE C	ACB	ASK 15.30	SIZE 58	C ·	
NSDQ	15.14	8	NSDQ	15.30	37		
ACB	15.14	4	IEXG NSDQ	15.30 15.31	1	_	0.
ACB NSDQ	15.13 15.13	3 3	ACB	15.31	13 9		
ACB	15.12	2	IEXG	15.31	1		
NSDQ ACB	15.12 15.11	2 10	NSDQ ACB	15.32 15.32	10 8		
NSDQ	15.11	1	NSDQ	15.33	10	_	
NSDQ	15.10	169	ACB	15.33	7		
ACB ACB	15.10 15.09	42 14	NSDQ ACB	15.34 15.34	13 4		3
NSDQ	15.09	6	NSDQ	15.34	4		
NSDQ	15.08	21	ACB	15.35	2		1 man and the
ACB ACB	15.08	13	ACB NSDQ	15.36 15.36	8 1		
NSDQ	15.07 15.07	12 7	ACB	15.30	8		
ACB	15.06	15	NSDQ	15.38	1		
NSDQ NSDQ	15.06 15.05	2 15	NSDQ NSDQ	15.39 15.40	5 17		
ACB	15.05	15	ACB	15.40	2		
ACB	15.04	2	NSDQ	15.41	1		
NSDQ	15.04	1	NSDQ	15.46	0		
NSDQ ACB	15.03 15.03	31 3	NSDQ ACB	15.47 15.47	1 0		
IEXG	15.03	0	NSDQ	15.48	0		
NSDQ	15.02	20	ACB	15.49	0		A
ACB NSDQ	15.02 15.01	3 16	NSDQ ACB	15.50 15.50	24 7	<u>p</u>	
ACB	15.01	11	IEXG	15.50	2		
ACB	15.00	1347	NSDQ	15.52	2		
NSDQ IEXG	15.00 15.00	522 1	NSDQ NSDQ	15.53 15.54	16 22		
NSDQ	14.99	7	GSCO	15.54	44		
ACB	14.99	5	ACB	15.54	1		
IEXG NSDQ	14.99 14.98	2 8	NSDQ NSDQ	15.55 15.57	2 1		
ACB	14.98	1	ACB	15.60	2		
NSDQ	14.97	3	NSDQ	15.60	0		
ACB NSDQ	14.97 14.96	1 0	NSDQ NSDQ	15.61 15.62	5 1		
ACB	14.96	0	NSDQ	15.63	0		
NSDQ	14.95	5	NSDQ	15.64	0		
ACB NSDQ	14.95 14.94	4 0	ACB NSDQ	15.65 15.65	0 0		
ACB	14.94	0	NSDQ	15.67	3		
ACB NSDQ	14.93	0	GSCO	15.67	44		
ACB	14.92 14.92	10 1	ACB ACB	15.67 15.68	0		
NSDQ	14.91	5	NSDQ	15.69	2	(E	
GSCO	14.91	44	ACB NSDQ	15.69 15.70	1 10		
ACB NSDQ	14.91 14.90	3 98	ACB	15.70	0		
ACB	14.90	46	ACB	15.71	0		
IEXG	14.90	1	NSDQ	15.72	3		
NSDQ ACB	14.89 14.89	3 2	ACB ACB	15.72 15.73	2 1		
NSDQ	14.88	10	XGWD	15.73	1		
Montage		/ 2	NSDO	15 74	2		

The Relative Ladder

- The word ladder means there are orders tiered with areas of higher value spread out with areas of lower value in between.
- There is no distinction made for the number of shares it takes to create that ladder. Only recognizing the amount of volume it will require to do so.
- One ladder often requires higher volume then the other ladder. This is why pull backs are always on low volume.
- RVOL can be a clue



The Relative Ladder in \$AMZN

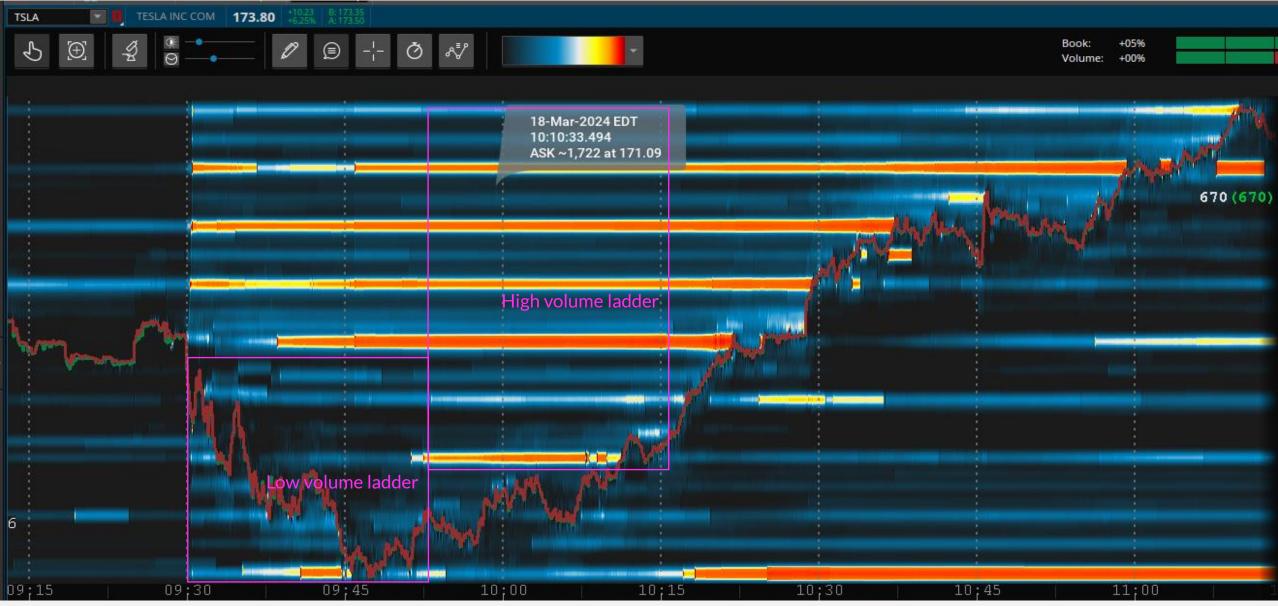


The Trade on \$AMZN





The Relative Ladder in \$TSLA





The Trade on \$TSLA



Watch for Iceburgs

What is an Iceberg?

Earlier we talked about Liquidity and Supply and referenced how important it is for large accounts to have enough of it to perform their transactions.

What do they do if there isn't enough?

To do this, they use an Iceberg order. An Iceberg order is a large order that is intentionally having its display hidden electronically on the Level 2. This is actually something that we can do in DAS although most of us don't take position sizes large enough to use it.

The reason they do this is because of the lack of available supply or demand. As you recall you can lose a lot of money if you get a lot of slippage. Imagine trying to sell off 40000 shares. Once everyone spots your order, they are going to start taking profit in front you. This will often cause your target to get missed.

When using an Iceberg like the example below you can choose to only display 1000 shares at a time. On the level 2 other traders will only see a small 10 lot even though there's 40,000 shares there.

Icebergs have a very characteristic look on the L2. You will see the lots recycle. You'll see a 50 lot for instance as the price goes to it ,the quantity drops to 10. The as the price moves away the quantity suddenly moves back up to 50. You'll see it happen over and over again until the Iceberg melts or the other participants exhaust themselves.

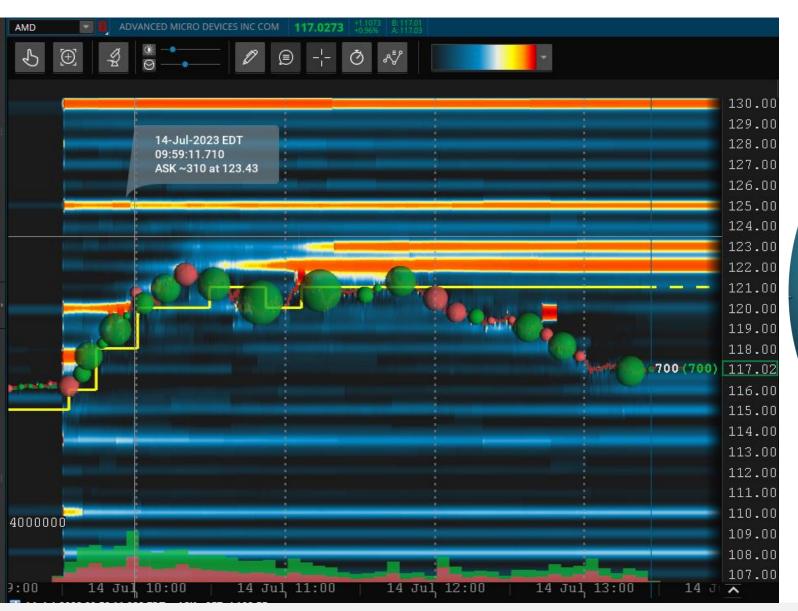
So, like an Iceberg the majority of the orders are not visible. When trading if you are struggling to move to a new price but can't figure out what's in the way. Start looking for the signs of an Iceberg. If it's to big and the Market Maker exhausts themselves trying to fill the order. Imbalance can set in very quickly causing an extreme move in the opposite direction that will provide amazing RVR.

40000	Ρ	1000	39.83		? 🔐 =PO
SMRTL	Pref	DAY+	ANY	*****	Trigger





Watch for Ice burgs

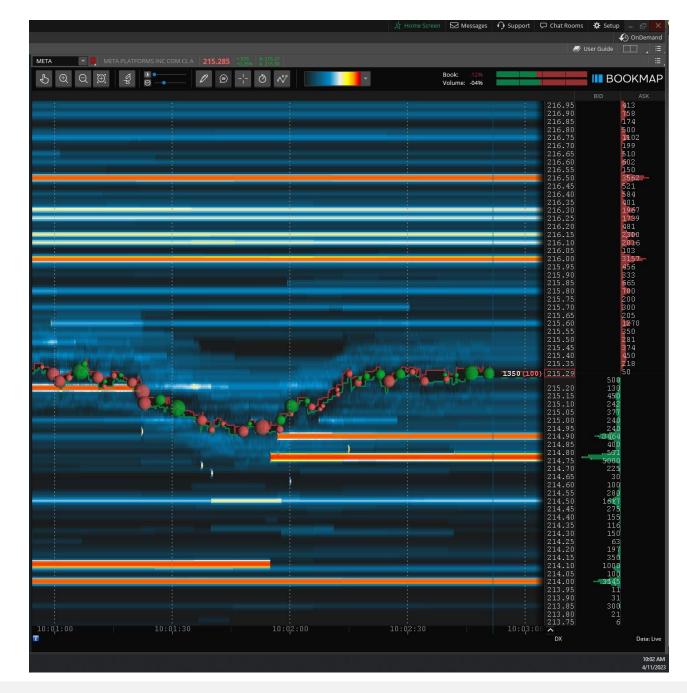






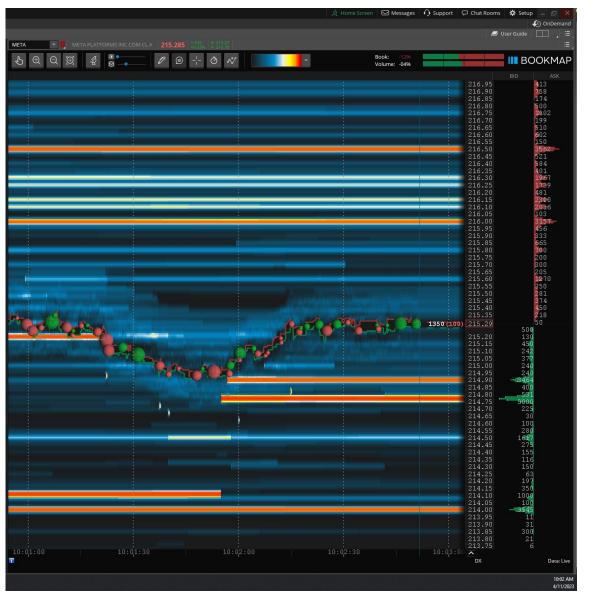
What is a Heatmap?

- A heatmap is a DOM that has been organized into a visual representation.
- This allows for an easier visualization of price levels as participants enter and exit the market. And has orders are requested and transacted.

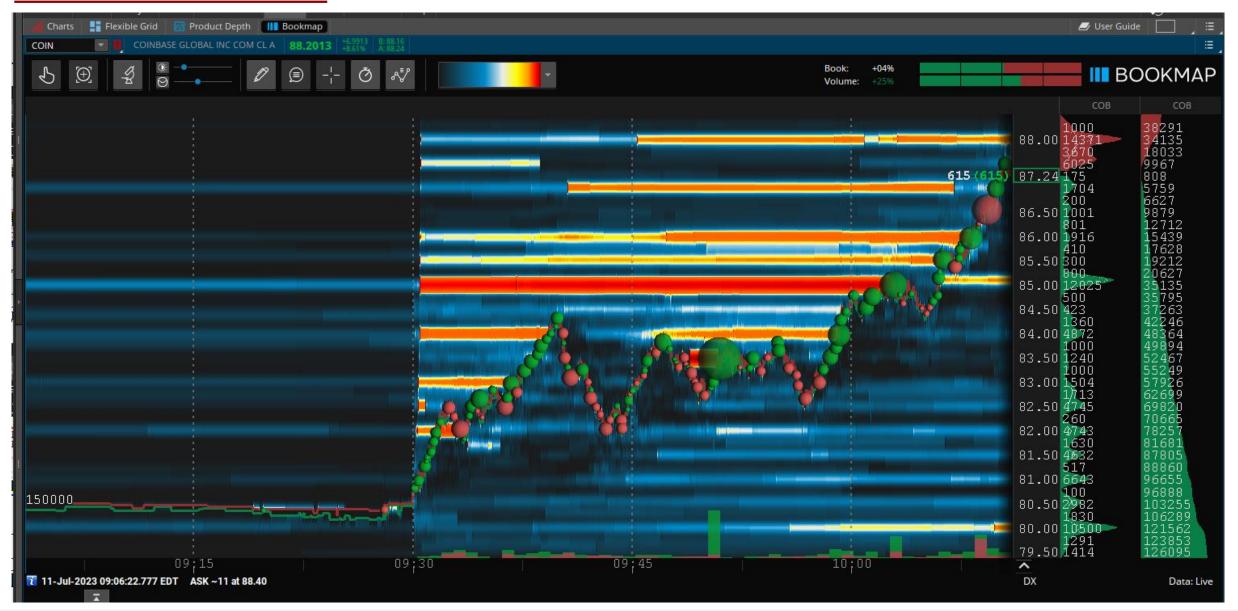


Advantages of using a Heatmap

- Historical Information
- Easily identify areas of high supply and liquidity.
- Easily identify areas of low supply and liquidity
- See Participant decisions being made in "Real-Time".
- Easily read Market Bias

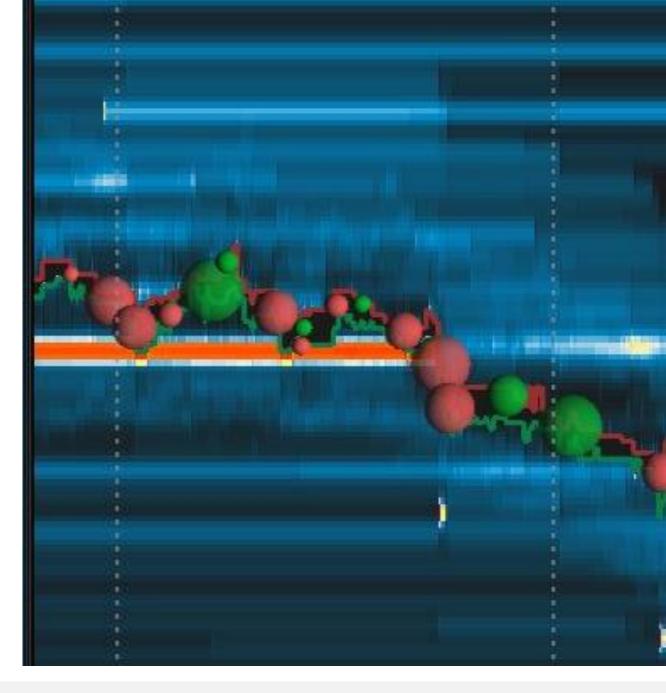


Advantages of using a Heatmap



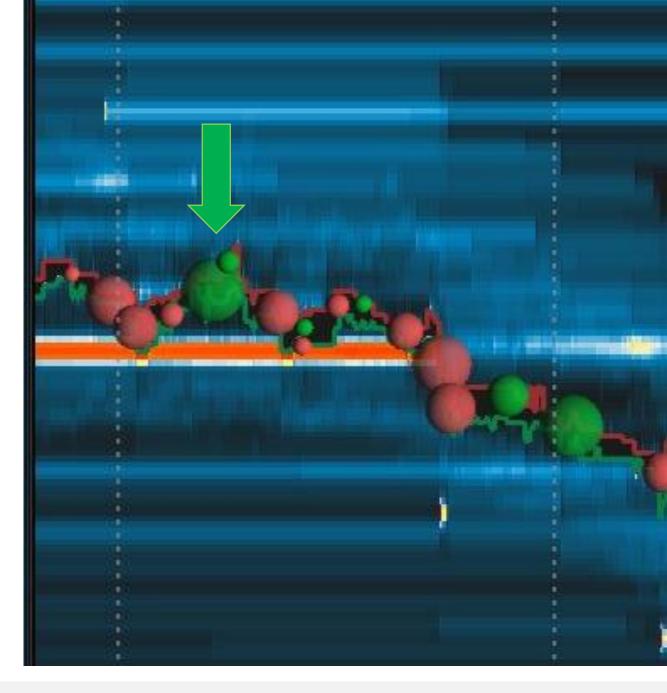
What are Dots?

- Dots in a heat map represent Market Order transactions.
- You must have markets to fill limits
- The Bigger the Transaction the bigger the dot.
- The dot can only be as large as the number of shares transacted at the price level. A large transaction can be split into multiple dots at multiple levels.



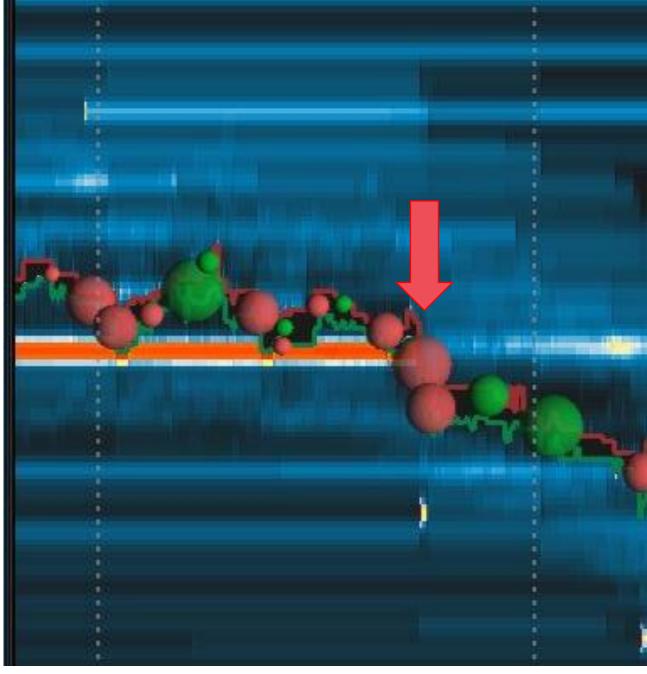
Example of Buying

- Buying shows as Green Dots.
- Just because you see buying that doesn't mean the price is going up afterwards. It just means there's buying. It could be a short covering in front of a large order. It could be an eager bull going long. Without a ladder the price has no where to go to. A buyer without a seller. So we continue down.



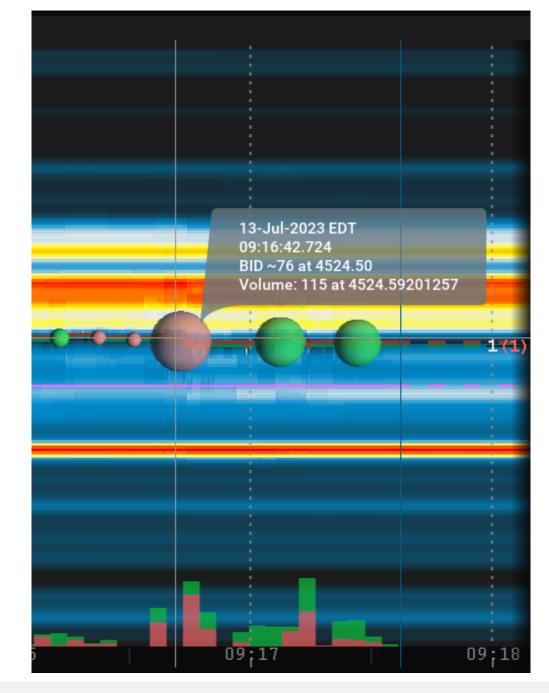
Example of Selling

- Selling shows as red dots.
- Just because you see selling that doesn't mean the price is going down afterwards. It just means there's selling. It could be a long selling in front of a large order. It could be an eager bear going short.
- In this example we can see we sell into a large buyer. As the price moves lower a large amount of market orders cause the price to drop quickly.



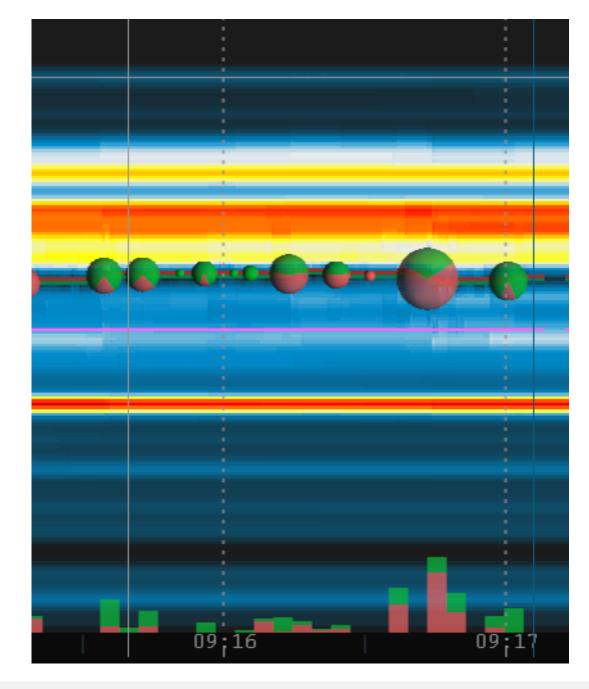
Volume Delta

- Takes the number of buy transactions minus the numbers of sell transactions to return a positive or negative share value.
- Example if 3000 shares are purchased at the same time 5000 shares are sold then the value of the dot will be returned as 2000 shares sold.
- Larger time frames group transactions more making volume delta very helpful.



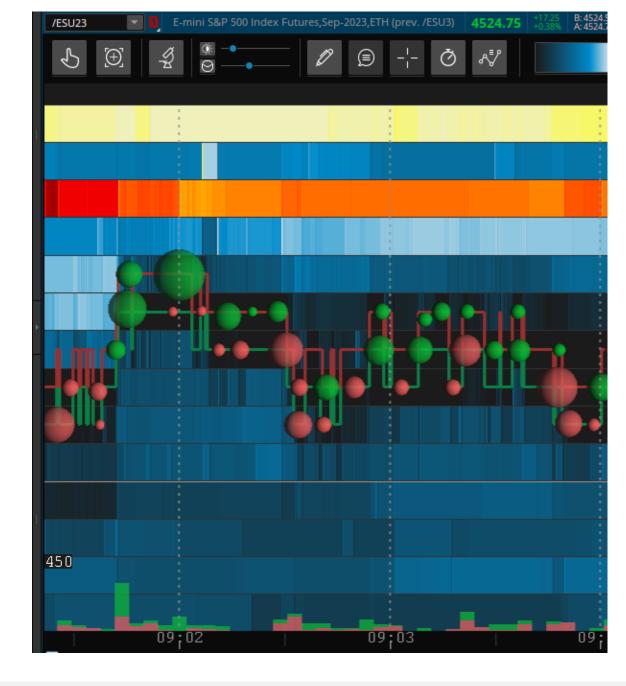
Total Volume

- Takes the number of buy transactions minus the numbers of sell transactions to return a positive or negative share value.
- Example if 3000 shares are purchased at the same time 5000 shares are sold then the value of the dot will be returned as 2000 shares sold.
- Larger time frames group transactions more making volume delta very helpful.



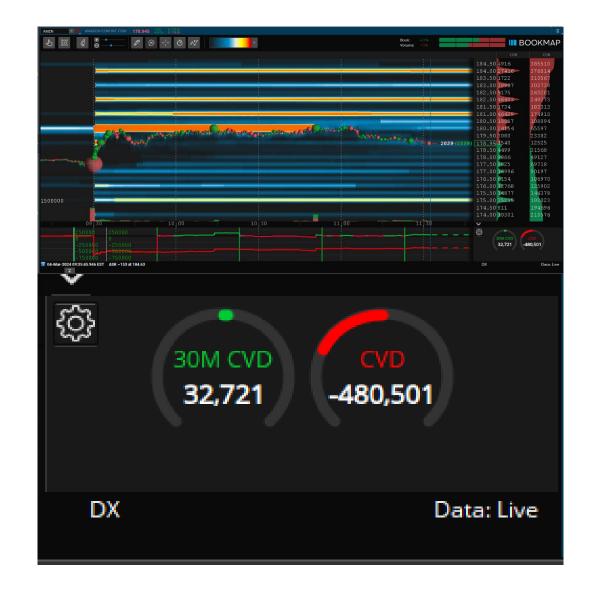
Volume Pressure

- The price is stuck between the best bid and best ask. Market orders to buy are applied to the limit ask. Market orders to sell are applied to the limit bid. To move the price, you need more market orders to one side.
- This is "Volume Pressure"
- You can see using the book how many shares are available and then watch the tape to see if enough orders hit to move the price.



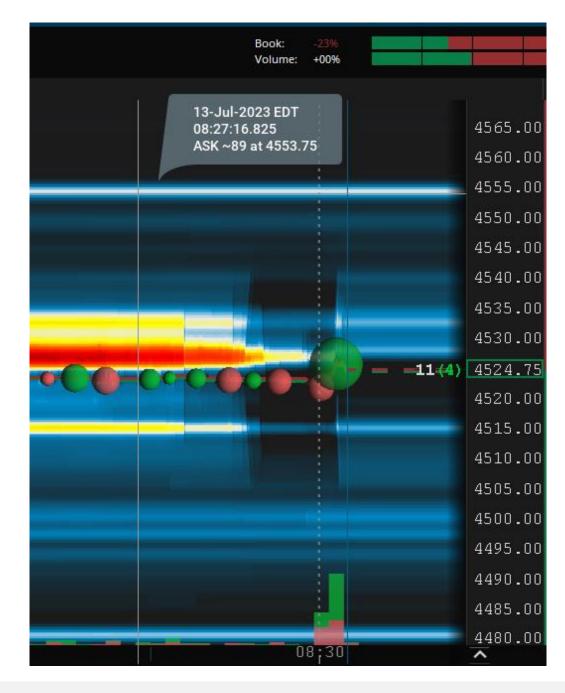
CVD

- Cumulative Volume Delta is the answer to. Is it Buying? Or Is it Selling?
- Stocks can move down on buying
- Stocks can move up on selling
- CVD = Buy + Sells
- If CVD is 200,000 then 200,000 more shares have been bought, then sold.
- Use CVD on multiple Time Frames to see buying on the day verses buying over a short period.



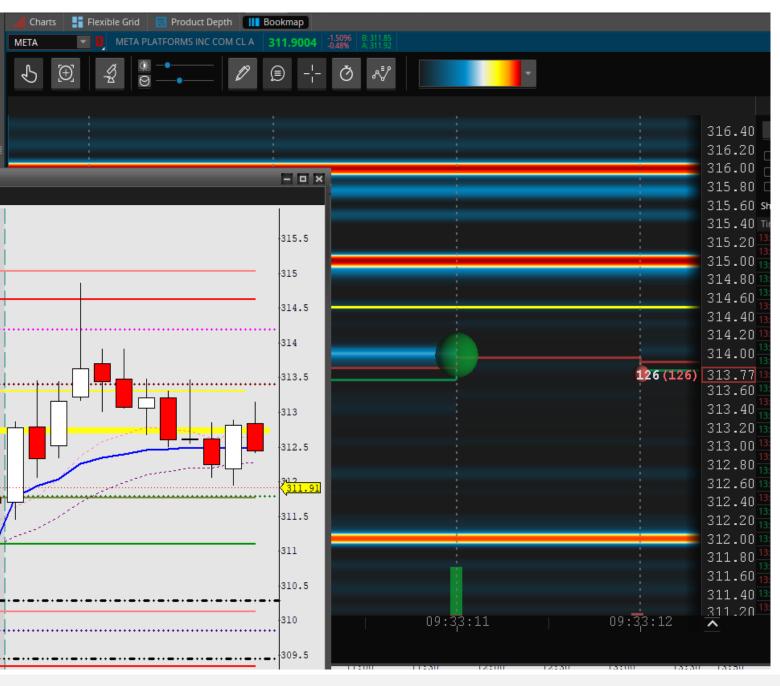
How News Effects the Book

- Buy the Rumor Sell the News
- News Algo make very fast decisions.
- Anticipation of news events can clear the book. This creates low volume, high volatility opportunities.



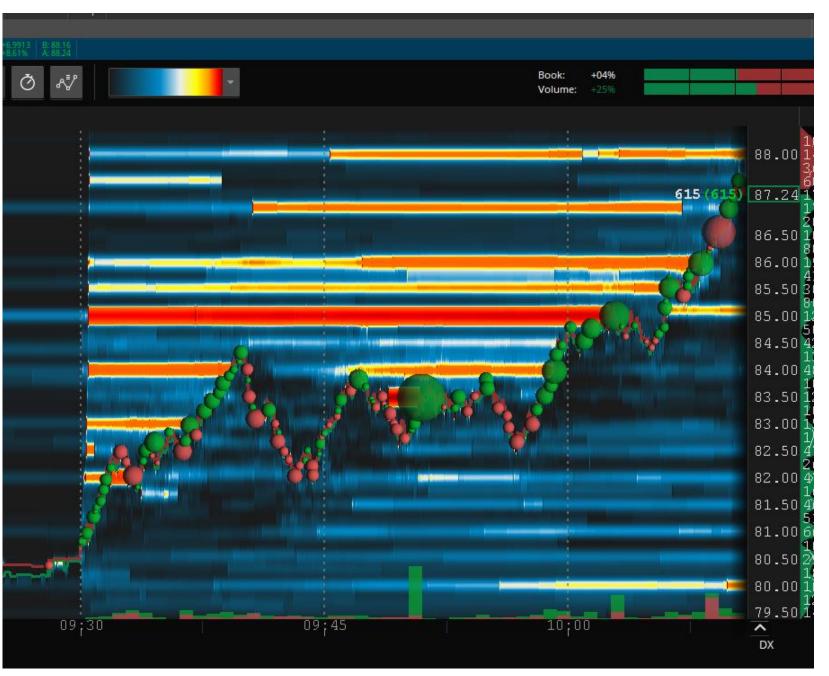
Buying the Book

- Occurs when a larger number of transactions occur then are available on a large portion of the order book.
- Causes massive price movement in a very quick period of time.
- The reason low floats are so dangerous. Because of the frequently low price and low number of shares available to transact. Anyone with a significant bank roll can move the price easily buy throwing a lot of market orders into the book.



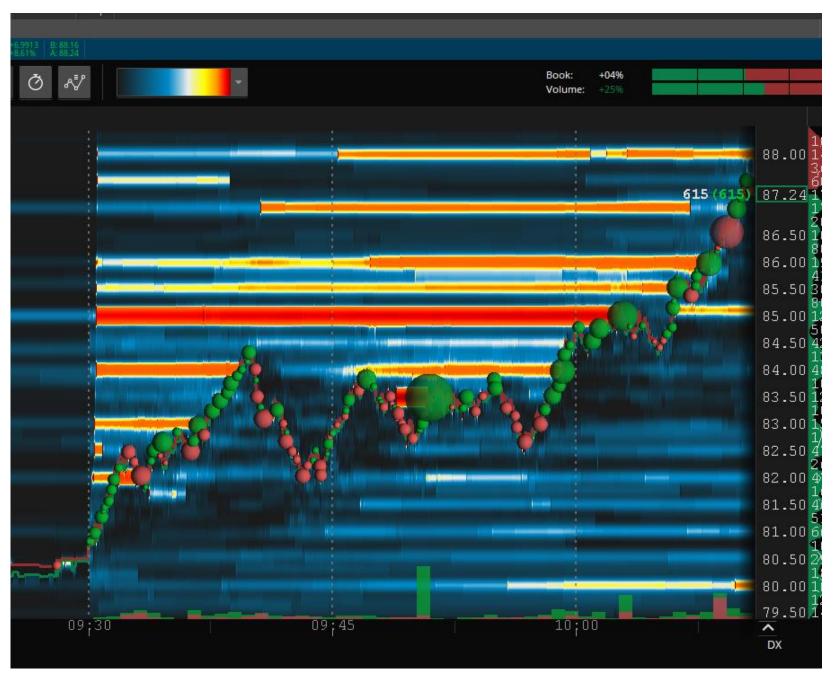
Better Entries

- Since you can see where the institutions are targeting price levels you can determine where to take action.
- Use this to plan your entry and risk management
- Don't trip over dollars to pick up dimes.



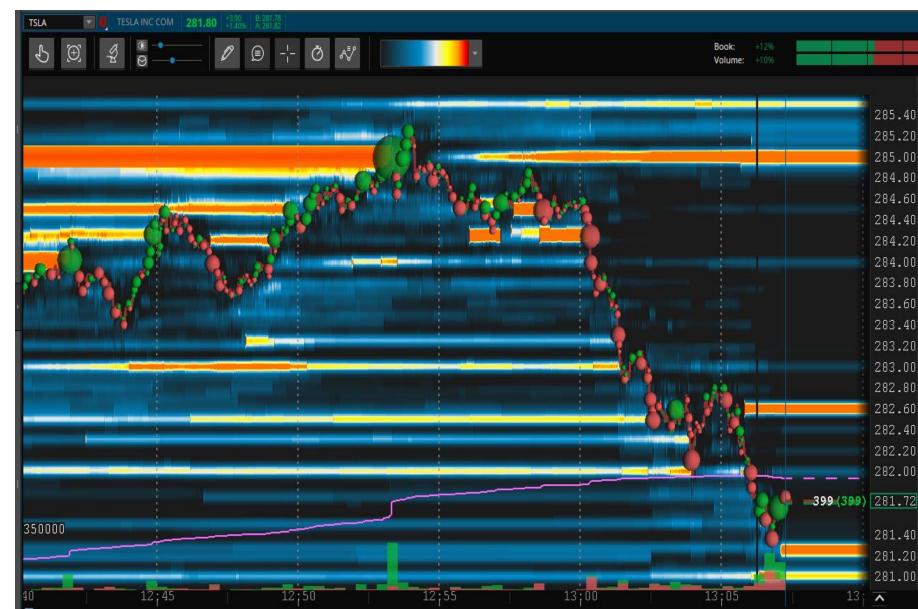
Better Exits

- Institutional orders are most often grouped at large round numbers.
- Place profit targets slightly in front of large institutional orders to get fill priority as the price moves to fill them.
- Go all out when there are no more institutional orders



Book Flips

- A book flip occurs when the market shifts its bias from Bullish to Bearish and vice versa.
- Book Flips can happen slowly
- Book Flips can happen suddenly
- Remember the two ladders
- Bid ladder requires less volume



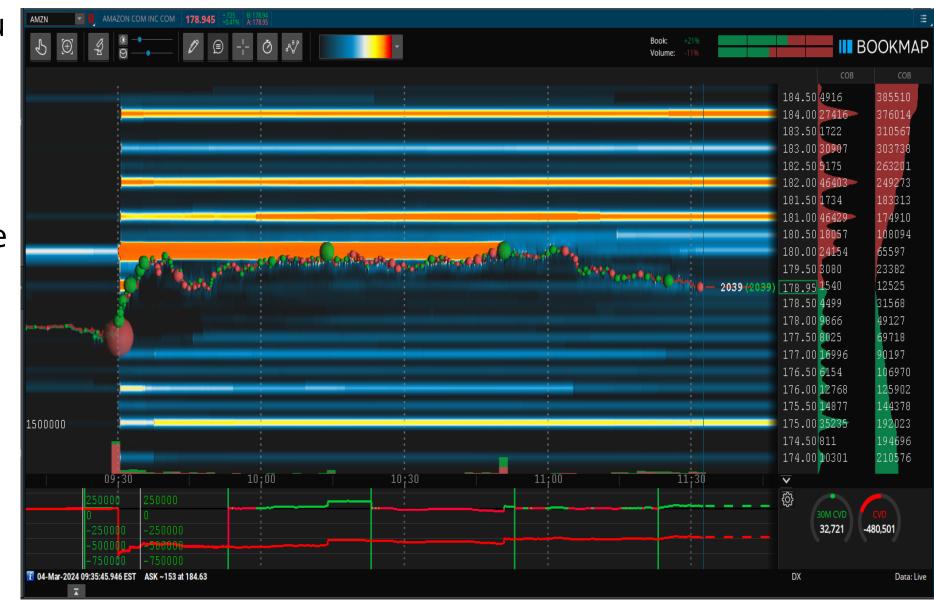
Order-Voids

- In order to move you need orders like rungs on a ladder
- An Order-Void show that no one is participating in the opposite direction.
- Without limit orders the market CANNOT move in that direction.
- Never trade into an order-void. There is no incentive to move the price there.
- This is my secret weapon for holding trades, and spotting reversals. I don't need to partial if the stock price can't bounce. I can confidently hold until I see buying on the tape and the order book fill in.
- Great for continuation trades.



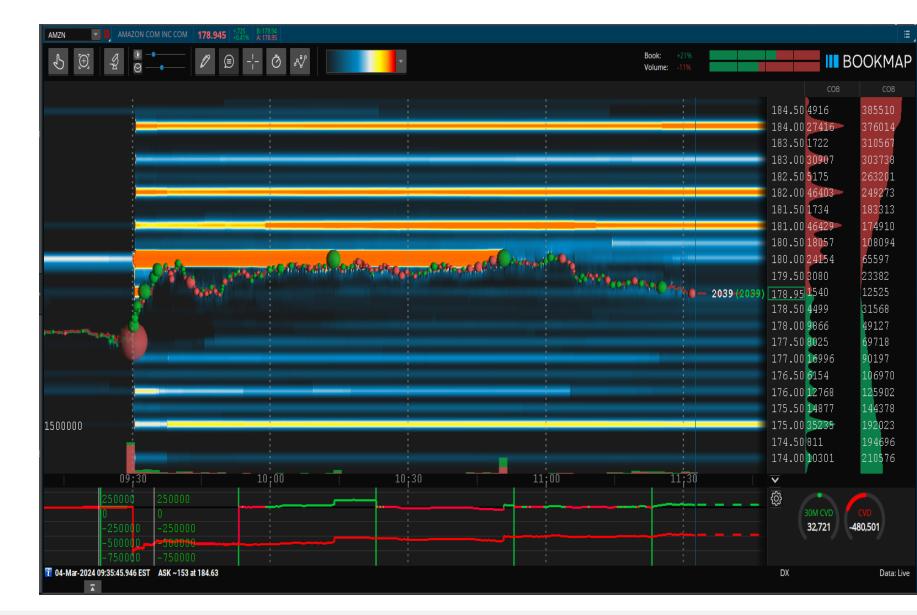
Order-Wall

- Again To move you need orders like rungs on a ladder.
- Because they are limit orders every single Rung Must be touched.
- To many rungs, to close together, with low RVOL
- Order Wall



Order-Wall

- Again To move you need orders like rungs on a ladder.
- Because they are limit orders every single Rung Must be touched.
- To many rungs, to close together, with low RVOL
- Order Wall



Special Mentions - Bookmap

BOOKMAP why bookmap features connectivity pricing education crypto More A 🕣 log in 📃 🗸

A trading platform that displays market liquidity

Check what candlesticks are hiding

START FOR FREE

PROMO Code: BearBull20 to save 20%

