

1. Overview

<This section has been intentionally left blank >

2. Getting Started

❖ Click on the Start Menu → Programs → Hold Brothers → Analytics Client

My Do) cumenti	RM 36.1.0						
My Co	mputer	RM5etuplocal						
My N Pk	ietwork sces	Shortcut to BackOffice						
Recy	💋 rde Bin	Test Environm	Accessories	er b				
/ Inte Exp	ernet slorer	URLs	Games Google Talk Mozila Firefox					
Gra	₩ ayBox	Work Done	Startup Symantec Endpoint Protection VideoLAN Addate Bracker 7.0	*				
x 5	S) be	5E420EA76	Internet Explorer MSN Outlook Express Bemple Assistance					
A	tmin	car	Windows Media Player Windows Messenger Windows Movie Maker					
	v Northernet Northernet	Windows Catalog Windows Update	Hold Brothers WinRAR Microsoft Office DameWare Mini Remote Contre	GrayBox Trader Analytics Client				
1		rograms	Microsoft SQL Server 7.0 Administrative Tools	•				
land I	3 c	Documents F						
Professi)⊃ s @ ⊦	iearch + Help and Support						
Vindows X	בי יי בי יי סוי	og Off kyeleswarapu						
-	stari	Veleswarapu, Kames	Analytics	Existing_Analytics Us	Wh Draft Analytics User	Wh Document1 - Microsof	prathap Venkatarama	MA 10:9 M 10:0

- ✤ Login Screen appears
- Enter the Server Name: analytics1.hold.com
- Port is defaulted to 35009
- ✤ Enter the login Name: <Login Id>
- ✤ The login screen is shown below

Note: Graybox Login/Trader ID and password are required



👬 Analy	tics Versi	on v8.5.6 Be	ta	_ 🗆 🗙
Action L	ayout File	Help		
Server	analytics1	.hold.com 💌	Port 3	5009
	Password:	*****		
	<u>C</u> onn	ect	<u>S</u> how Sta	atus

- ✤ After entering the <password>, hit "Connect"
- Notice the traffic light turning to Sector denoting that the login is successful
- Now the login screen looks like the one below:

🔐 Analy	tics Versio	on v8.5.6 E	Beta	
Action L	ayout File	Help		
Server	analytics1.	hold.com	- Port	35009
	Login:	spanda		
	Password:	XXXXXXXXX		
	Disconr	nect	<u>S</u> how S	tatus

Note: If logon fails, please check the IP address and port number are correct and try again

3. Analytic Views

- ✤ Go to Action → Open
- The following screen shows the various Analytic Views that are available for the user





3.1 Types of Analytic Views

Analytic Client provides 26 types of analytic views. For each view, user can select different markets, like NYSE, NASDAQ and AMEX, except for Firm Executions view. User also can use set filters to set minimum volume, minimum price, symbols and ECNs (Firm Executions only). Each of the Analytic Views is described below along with screen shots.

3.1.1. Cross Locked Display

This view shows the current Crossed / Locked symbols and history list. On Crossed / Locked Symbols list, it shows the time at which the symbol started Crossed / Locked, current "Bid" and "Ask" price and Crossed / Locked values. On the history list, it shows the last Crossed / Locked symbols and the time they left Crossed / Locked status.



E Crossed/Lock	ed Market	s - Nasda	aq	-		
TIME SYM 15:44:20 TECD 14:42:13 VIGN 10:47:50 ALSC 10:40:21 ERMS 10:45:25 HERB 10:50:59 KOPN 10:46:14 OAKT 15:01:09 VITR	BID 47.05 3.83 11.75 0.73 A 14.20 9.85 14.03 14.39 5.29	ASK 47.00 3.82 11.75 0.73 14.20 9.85 14.03 14.39 5.29	CROSS 0.05 0.01 0.00 0.00 0.00 0.00 0.00 0.00	EMLX ONIS MSCC TECD PFGC RARE AMZN ALTR EMLX MSFT CSCO RSTN CSCO CCMP FMER NYFX CSCO	HISTORY 15:44:20 15:44:20 15:44:19 15:44:19 15:44:17 15:44:17 15:44:16 15:44:16 15:44:16 15:44:15 15:44:15 15:44:12 15:44:12 15:44:12 15:44:12 15:44:12 15:44:11 15:44:11	•

3.1.2 Highs

This view shows new intra day highs for all stocks. This view displays the stock symbol, number of times it hits highs and the price that creates the new highs. New highs are displayed in green.

III Highs -						
HIGH						
CPEX	22	+1.24	16.95			
MRNA	1	+0.02	1.07			
CPSS	2	+0.03	1.86			
RECN	31	+0.50	17.62			
VETS	2	+0.09	0.3998			
KOOL	2	+0.02	0.6355			
ZVZZT	10	+94001	.2500501.			
ZVZZT	11	+94001	.5000502.			
LHCG	13	+0.25	33.22			
SYNO	10	+0.20	15.85			
CINF	16	+0.27	29.27			
TSPT	4	+0.15	8.09			

3.1.3 Lows

This view shows new intra day lows for all stocks. This view displays the stock symbol, number of times it hits lows and the price that creates the new lows. New lows are displayed in red.

Confidential



🎟 Lows - Nasdaq						
LOW						
3	-0.32	23.39				
26	-0.57	22.71				
10	-0.17	18.435				
4	-0.08	15.58				
16	-0.41	22.31				
4	-0.08	10.45				
34	-0.32	12.00				
8	-0.16	16.58				
17	-0.44	48.63				
20	-0.29	6.25				
21	-0.30	6.24				
22	-0.31	6.23				
	as dax 3 26 10 4 16 4 34 8 17 20 21 21 22	LOW 3 -0.32 26 -0.57 10 -0.17 4 -0.08 16 -0.41 4 -0.08 34 -0.32 8 -0.16 17 -0.44 20 -0.29 21 -0.30 22 -0.31				

3.1.4 Highs & Lows

This view shows new intra day highs and lows for all stocks. This view displays the stock symbol, number of times it hits highs and lows and the price that creates the new highs and lows. New highs are displayed in green. New lows are displayed in red.

🎟 Highs and Lows - Nasdaq 📃 🗖 🔀							
	1	HIGH			L	LOW	
LAWS	4	+0.13	16.17	PTTER	1	-0.57	13,85
ACTU	4	+0.06	5.90		64	-0.70	16.37
GNCMA	8	+0.10	5.97	PWLT	32	-0.36	27.01
ZVZZT	38	+94017	2.0000517.0	Hell		-0.24	11.33
ZVZZT	37	+94016	17600517.0	Hell		-0.21	11.36
SAFT	4	+0.14	38.22	ULTI		-0.41	34.21
SAFT	з	+0.12	38.21	ATML		-0.08	5.15
ZVZZT	36	+94016	1.5000517.0	PLAS	47	-0.54	23.63
ZVZZT	35	+94016	.2600516.0			-0.11	13.67
ZVZZT	34	+94016		11212		-0.30	31.5201
AMAG	31	+0.89	36.22	DTSL	22	-0.45	35.24
PDII	5	+0.09	5.68	OTSL	21	-0.44	35.27
PDII	6	+0.12	5.71	UREN		-0.01	35.97
VSCP	1	+0.02	1.19			-0.85	36.60
VSCP	2	+0.03	1.20	QCLN		-0.08	15.31
PDH	7	+0.14	5.73	STLD	11	-0.13	17.82
ZVZZT	32	+94015	.3000516.0	12213		-0.08	53.17
ZVZZT	33	+94015	.7600516.0	ISIL.	11	-0.14	15.451
RECN	35	+0.54	17.66	SOHN		-1.23	49.861
PDII	8	+0.15	5.74	WEEL.		-0.13	20.225

3.1.5 Inside Market Alerts



This view shows the real time inside market alerts. They are the inside market price of the "Bid" or "Ask" of a stock. This view displays the following information:

- Stock Symbol
- Bid
- Ask
- Price Change

The "Bid" and "Ask" are green in color if the inside market price change is a High Bid/Lift Offer (price increase) or red in color if the inside market price change is Drop Bid/Low Offer (price decrease). The Symbol and Price change are highlighted when a stock's price change reaches user's alert level (\$2.50 for gain and -\$2.50 for loss), green is for gain and red is for loss

III Insid	🏢 Inside Market Alerts - Nasdaq 📃 🗐 🗙						
Symbol	Bid	Ask	Last - Close				
INZST	363.18	8000.00	543.90				
MJZST	30.84	8000.00	50.60				
BIDU	563.81	564.09	2.86				
ATLS	33.70	33.72	0.85				
QNST	16.21	16.67	0.79				
SASR	14.10	14.14	0.77				
AEPI	32.30	32.47	0.57				
HMNA	2.92	2.94	0.44				
RDWR	20.29	20.30	0.35				
RLRN	15.36	15.54	0.33				
FBNC	15.09	15.22	0.24				
MSSR	9.64	9.75	0.18				
IBOC	24.51	24.55	0.13				
RBCAA	17.36	17.52	0.13				
PURE	2.13	2.14	0.12				
REXI	5.21	5.27	0.11				
DCTH	6.27	6.29	0.09				
SYMM	6.24	6.30	0.09				
DRIV	30.29	30.35	0.06				
BMRN	22.68	22.70	0.01				

3.1.6 Top Volume

This view shows the real time data of the most heavily traded stocks. The Symbol and the Current Volume of the stocks are displayed



IIII Top Volum	ie - Nasdag	
Symbol	Volume	e
DPTR	32,343,062	
SIRI	25,380,640	
QQQQ	14,467,725	
INTC	14,454,894	
ETFC	11,167,492	
QCOM	10,148,169	
HBAN	9,764,779	
MSFT	8,571,058	
PALM	7,183,757	
ORCL	6,555,970	
ATVI	6,498,654	
TEVA	6,495,748	
MU	6,346,169	
DELL	6,093,180	
csco	5,503,548	
AMAT	5,345,702	
NVDA	4,132,236	
FNSR	3,736,075	
LVLT	3,728,961	
AAPL	3,/11,2/8	

3.1.7 Sales

This view shows the real time stocks that are trading the most in the market right now. This view displays symbol and print bar.

Prints are cumulated over the last 12 seconds. The number of prints over the last 12 seconds determines the length of the bar and the speed of the prints determines the intensity of the color of the bar

IIII Top Sales	- Nasdaq _ 🗆 🗙
Symbol	Sales
EGLE	
SQNM	
USATW	
WERN	
ARIA	
CY	
RIMM	
CMCSK	
LAMR	
MU	
GILD	
JBLU	
BRCM	
DELL	
QCOM	
BUCY	
COST	
CTXS	
ORCL	
EXPD	



This view shows the real time stocks that are having the biggest trading price change during the day in the market right now. The daily range is the price difference between the intra day's highest and lowest trade prices. This view displays symbol and intra day price range

🌐 Top Range – Na	sdaq×
Symbol	Range
ZVZZT	100399.00
ZXZZT	1999.50
MYLNP	8.19
BIDU	7.69
CME	5.18
ATRI	5.175
GOOG	5.04
ISRG	4.80
CRAI	4.67
STRA	4.6399
MITSY	3.38
PCLN	3.28
HSII	2.97
DECK	2.9099
MDTH	2.789
GMCR	2.50
FCNCA	2.44
ROST	2.40
UHAL	2.38
AAPL	2.21

3.1.9 Top Close Change

This view shows the real time stocks that are having the biggest close change in the market right now. This view includes 2 parts (top gain and top loss). It displays symbol and change (last trade price – close price). The gains are displayed in green and the losses are displayed in red.



IIII Top Close C	hange - Nasdaq		
Symbol	Last - Close	Symbol	Close - Last
GULF	14.21	MIL	105.52
HBANP	9.40	NYF	104.96
PHMD	9.27	SNP	82.27
ULCM	7.20	TM	79.30
DSCI	5.08	IOC	67.71
LTRX	3.24	SLG	57.60
BFLY	2.45	VHT	56.50
DJCO	2.19	PVH	54.18
ASUR	2.10	FpS	50.05
TEVA	1.90	TWC	49.02
STRA	1.84	CFL	42.09
BIDU	1.77	GG	39.80
GOOG	1.74	SNE	37.80
SPMD	1.67	KF	36.84
SCVL	1.53	SZK	36.48
OVRL	1.50	CZI	36.44
MDTH	1.45	XES	31.09
APOL	1.38	TDS.S	30.49
LBIX	1.29	GAT	30.16
CAGC	1.25	DRU	27.86

3.1.10 Top Open Change

This view shows the real time stocks that are having the biggest open change in the market right now. This view includes top positive change and top negative change. It displays symbol and change (last trade price – open price). The positive changes are displayed in green and the negative changes are displayed in red

🏢 Top Open	🏢 Top Open Change - Nasdaq 📃 🗐 🗙							
Symbol	Last - Open	Symbol	Open - Last					
BIDU	3.26	CME	4.74					
GOOG	3.13	ISRG	1.90					
HSII	2.41	PLCM	1.51					
CAGC	1.75	SXCI	1.49					
APOL	1.19	GMCR	1.45					
LECO	1.11	AEPI	1.33					
CLNE	1.08	VLTR	1.29					
DMND	1.04	IBKC	1.16					
CTXS	1.01	HITK	0.87					
STBA	0.94	KONG	0.78					
CAAS	0.80	ITRI	0.77					
WTFC	0.75	CRAI	0.75					
AVAV	0.72	VRTX	0.71					
CHRW	0.71	TEVA	0.71					
FAST	0.69	GRMN	0.68					
RGLD	0.69	NILE	0.60					
AMZN	0.68	SMCI	0.59					
TSCO	0.67	NVDA	0.57					
ESLT	0.65	JST	0.55					
QCOM	0.63	OTEX	0.55					



3.1.11 Top Present Change

This view shows the real time stocks that are having the biggest changes in percentage based on close prices in the market right now. This view includes 2 parts (top gain and top loss). It displays symbol and change in percentage (last trade price – close price then divided by close change). The gains are displayed in green and the losses are displayed in red

🌐 Top Change - Nasdaq							
Symbol	Gainer	Symbol	Loser				
DPTR	33.09%	RAE	100.00%				
QUOT	26.20%	RCC	100.00%				
CABLW	23.33%	SDD	100.00%				
PRWT	21.62%	SDM	100.00%				
GTIM	16.50%	SJL	100.00%				
TXCC	15.14%	SLG	100.00%				
MDTH	15.10%	SNE	100.00%				
CIGX	15.00%	SNP	100.00%				
MBHI	14.51%	SSN	100.00%				
PCBC	14.07%	SZK	100.00%				
VYFC	13.58%	TDA	100.00%				
FOOD	12.86%	TDS.S	100.00%				
GFLB	12.36%	TLI	100.00%				
COBK	12.24%	TM	100.00%				
APPA	12.17%	TWC	100.00%				
FFBH	11.87%	VHT	100.00%				
FFNM	11.48%	WGO	100.00%				
FSNM	11.34%	XES	100.00%				
DENN	10.94%	XFN	100.00%				
СТВК	10.68%	XNN	100.00%				

3.1.12 Bid and Ask Scan

This view catches large size best bids and asks. The minimum size is 5000 shares. It displays Symbol, Shares (in 100s), Bid/Ask price and market maker. The bid is in green and ask is in red. If the current market is locked or crossed, the line will be highlighted (green for bid or red for ask). A Bid and Ask scan filter dialog can be invoked to set minimum volume, minimum price, minimum spread, minimum size, symbols and ECNs. The filter is discussed in Customize Views section



🎟 Bid	and As	k Scan -	Nasdaq	
Symbol	Share	Bid/Ask	MM	Time
AMGN		57.88	ARCX	12:16:03
ATPG	35	18.50	ARCX	12:16:03
BHI		49.90	BAT	12:16:03
BHI	3	49.92	BAT	12:16:03
CTEL		11.71	ARCX	12:16:03
EQT		42.67	BAT	12:16:03
EQT	1	42.69	BAT	12:16:03
HNDT	1	13.42	ARCX	12:16:03
	14	19.52	ARCX	12:16:03
COOC C	-	FEE CA	ADCH	12:10:03
LANKS	1	15 75	ADCX	12:16:03
		44.37	RAT	12:16:03
NUE	3	44.40	RAT	17:16:03
ORIT	1	16.79	ARCY	12:16:03
PERX	1	15.60	ARCX	12:16:03
PTEN	17	13.63	ARCX	12:16:03
RDEN	8	18.23	ARCX	12:16:03
WAVX	1	3.73	ARCX	12:16:03
WEDC	1	5.43	ARCK	12:16:03

3.1.13 Price Alerts

User can use this view to set the below and above thresholds for stocks. If price is greater than/equal to the above price, the symbol and price are highlighted in green. If price is less than/equal to the below price, the symbol and price are highlighted in red. By default when a new Price Alerts view is open. It picks 20 default symbols and set the below and above based on the current price (minus 0.2 for the below and plus 0.2 for the above). User can use the Filter dialog to add/delete symbols, set/modify the below and above

🎟 Price Alerts - Nasdag 🛛 🗖 🔀							
Symbol	Tick	Below	Above	Price			
LFUS	-	38.13	38.53	38.31			
RCII		23.07	23.47	23.26			
EVEP		31.3294	31.7294	31.44			
EVEP	-	31.3294	31.7294	31.44			
PSID	-	1.2801	1.6801	1.50			
PRWT		0.5584	0.9584	0.76			
SEIC		20.64	21.04	20.83			
SEIC	-	20.64	21.04	20.83			
LOGM		19.701	20.101	19.97			
LOGM	-	19.701	20.101	19.97			
SSRI		17.67	18.07	17.88			
SSRI	- •	17.67	18.07	17.88			
үноо		16.222	16.622	16.43			
CAMT		2.63	3.03	2.83			
CΥ		11.6893	12.0893	11.89			
үноо		16.222	16.622	16.425			
SOMX		6.73	7.13	6.65			
SOMX		6.73	7.13	6.67			
SOMX		6.73	7.13	6.655			
TRST		6.08	6.48	6.28			



This view shows the real time firm wide executions in Hold Brothers, Inc. The buy executions are displayed in green and the sale executions are displayed in red. The executions are highlighted if they are short sales. This view displays the information about Symbol, Quantity, Price, Side, Contractor and Time.

III Firm Exe	ecutions				<u>-0×</u>
Symbol	Qty	Price	Side	Contra	Time
LINE	500	27,00	8	BATS	11:46:31
NEX	200	51.75	В	NSDQ	11:46:30
NFX GS	100	51.75	B	NSDQ HBES	11:46:30 11:46:30
PVG.	100	20.47	6	ARCA	11:46.31
ETR	100	79.61			11:46.30
ETR	100	79.61		XBOS	11:46.30
ETR	100	79.61			11:46.30
ETR	100	79.61			11:46.30
VXX	200	22.20		ARĆA	11:46.30
ETR	100	79,61			11:46.30
ETR	100	79,61		XBOS	11:46.30
ETR	100	79,61			11:46.30
ETR	100	79.61			11:46.30
ETR	100	79.61			11:46.30
ETR	100	79.61		XBOS	11:46.30
MI	100	8.00	В	HBES	11:46:30
CVBF	100	9.93	В	BATS	11:46:30
ETR	100	79.61		XBOS	11:46.30
ALL	200	31.40		EDGA	11:46.30
TSFG	700	0.71	B	XBOS	11:46:30
ETR	100	79.61		XBOS	11.46.30

Note: Special quote entitlements are required to view this feature.

3.1.15 Imbalances

In financial market, imbalances there are too many "Sell" orders or "Buy" orders due to some major announcement for that company stock. This Imbalance view shows the market imbalance data for daily basic with opening (before market opens) and closing (after 3:40 PM till market closes) messages. There are 3 columns Symbol, Volume and Status available in this view.

Symbol: Stock equity symbol for which imbalance occurs.

Volume: Imbalances quantity in shares

Status: displays the percentage imbalances or status with M (Market Imbalances) and MOC (Market On Close).



If it is a buying imbalance then it is shown in green color data and if it is a selling imbalance it is shown in red color. (Need correction)

Imbalances						
Symbol	Volume	Status				
GCH	0	M				
BOE	0	M				
HTH	0	M				
BAC\$B	0	M				
SGF	0	M				
ASP	0	M				
TCB\$A	0	M				
HE	0	M				
VIT	0	M				
AGD	0	M				
DPO	0	M				
BAC\$C	0	M				
UGP	1,300	M				
TKS	36,900	M				
SPG\$1	1,500	M				
HCP	33,300	M				
AOD	73,800	M				
ASA	9,000	M				
PC	0	M				
BAC\$W	Ō	M				
AMO		M				

3.1.16 Crossed Prints

- This feature helps the user to access the cross display data to manipulate in any other application developed in different language like Java, VB, and MFC etc. or in MS Excel, after connecting to the Analytic Client application.
- Following are the steps how to use the added feature:
 - Open the Analytic Client main dialog (login dialog)
 - Go to Action menu. Select Setting menu and click as in figure below.



🏪 Analytics Ver:	sion v8.5.1 📃	
Action Layout File	e <u>H</u> elp	
Open	📩 d.com 💌 Port 3500	9
<u>S</u> ettings	hearth	
E <u>×</u> it Alt+F∙	t psepri	
Passwor	d:	
	nect Show Status	5

The following Settings dialog appears.

Settings	×
Imbalance Settings	
Create NYSE Imbalance for GB	
Send NYSE Imbalance Notificattion	
Show With Market Imbalance ("M")	
Cross Display Send settings	7
IP Multicast 127.0.0.1 Port 37501	
Send Cross Display Print Data Default	
OK Cancel	

- In order to send cross display print data to third party application, the user must check the check box option "Send Cross Display Print Data" and then press OK button. The default IP and Port is 127.0.0.1 (local host) and "37501" respectively.
- In order to get cross display print data in the 3rd party application, the user must open at least one Cross Display window with Select Market All option with caption "Cross Prints" as shown in figure.



III Cros	🏢 Crossed Prints (Filter) - Nasdaq 📃 🗾 🗙							
Symbol	Qty	Price	Bid	Ask	Delta	Time		
MU	5	10.11	10.10	10.11	0.01	12:10:35		
TESL	1		13.36	13,37	0,01	12:10:35		
CECO	1	32.28	32.29	32,30	0.01	12:10:35		
AMLN	1	22.48	22.46	22,47	0.01	12:10:35		
AMSC	1	26,12	26.11	26.11	0.01	12:10:34		
BMRN	1	22.76	22.77	22,78	0.01	12:10:34		
AUXL	1		31.80	31.81	0.01	12:10:34		
FOSL	- 1	38.87	38,88	38,89	0.01	12:10:33		
SOMX	1	7.15	7.03	7.04	0.11	12:10:33		
CROX	3	7.85	7.86	7.87	0.01	12:10:33		
NIHD	2	40.72	40.73	40,74	0.01	12:10:33		
JOYG	1		55.98	56,00	0.01	12:10:33		
YRCW	6		0.45	0.45	0.00	12:10:32		
CSIQ	1	21,63	21.64	21,65	0,01	12:10:32		
ARIA	1	3.36	3,35	3.35	0.01	12:10:32		
CBRL	- 1	47.16	47,17	47,19	0.01	12:10:31		
BBBY	3	43.39	43.40	43,41	0.01	12:10:31		
ORCL	2	25,42	25,42	25,43	0.01	12:10:30		
GRMN	1	36.28	36.26	36.27	0.00	12:10:29		
DROOY	2	4.98	4,94	4.97	0.01	12:10:29		

✤ A sample MFC based test application which displays the Cross Display data is shown below:

UdpTestApp							
Symbol	Quantity	Price	Bid	Ask	Delta	Time	Status
BKC	1	18.44	18.35	18.40	0.04	17:03:59	UP
FAS	3	76.32	76.09	76.28	0.04	17:05:32	UP
SPY	40	103.19	103.16	103.18	0.01	17:11:30	UP
BBY	2	29.37	29.38	29.44	0.01	17:13:14	UP
SDS	1	43.04	43.05	43.06	0.01	17:13:22	UP
IND	3	2.16	2.10	2.15	0.01	17:08:25	UP
ZVZZT	1	0.01	0.00	0.00	0.01	17:09:41	UP
NVAX	1	5.22	5.24	5.22	0.02	17:09:41	UP
HMY	1	9.32	9.28	9.31	0.01	17:11:20	UP
SLV	15	14.05	14.05	14.04	0.01	17:06:33	UP
FRE	2	1.99	1.99	2.00	0.00	17:06:33	UP
FAZ	5	23.90	23.92	23.97	0.02	17:13:50	UP
RBS	2	17.50	17.51	17.56	0.01	17:14:50	UP
JEC	3	47.07	47.08	65.00	0.01	17:15:59	UP
IP : 127 . 1 Port : 37501		Set IP & Port	I⊻ Filtered Da			C	ancel OK

In the test application, user can insert IP as 127.0.0.1 and port no as 37501 and press "Set IP & Port" button.

Confidential



There is a check box (Raw Data), if unchecked; user can see any update to the same symbol data in a different row. If checked (Filtered Data) the user can see the updated value to the symbol in the same row.

3.1.17 Pre/Post Market Print

This feature is added from Version 8.5.2 onwards. This feature helps the user to access the Pre and Post market print data. The pre market data comes before market opens (morning 8:00 AM to market opening time 9:30 AM) and the post market data comes after the market closes.

III Pre/Pos	III Pre/Post Market Print							
Symbol	Qty	Price	Bid	Ask	MarketType	PrintTime		
EWZ	13	58.66	58.66	58.69	AMEX	09:21:58		
USO	1	36.52	36.51	36.52	AMEX	09:21:58		
BJS	1	17.13	17.12	17.13	NYSE	09:21:58		
FNM	1	1.91	1.90	1.91	NYSE	09:21:58		
BHI	1	36.60	36.60	36.65	NYSE	09:21:58		
QLD	5	46.12	46.12	46.13	AMEX	09:21:57		
FAZ	2	23.92	23.93	23.94	AMEX	09:21:57		
MGM	10	8.50	8.50	8.54	NYSE	09:21:57		
EMC	4	15.83	15.83	15.84	NYSE	09:21:56		
CVX	2	69.90	69.89	69.92	NYSE	09:21:56		
С	5	5.04	5.04	5.05	NYSE	09:21:56		
FAS	1	76.56	76.56	76.61	AMEX	09:21:56		
WFC	1	27.01	27.00	27.01	NYSE	09:21:56		
VG	5	1.56	1.56	1.56	NYSE	09:21:55		
IWM	1	57.52	57.52	57.53	AMEX	09:21:55		
ETFC	10	1.72	1.72	1.73	NASDAQ	09:21:54		
BAC	3	17.63	17.62	17.63	NYSE	09:21:54		
EWT	100	10.86	10.82	10.84	AMEX	09:21:54		
ATVI	- 38	12.00	11.96	12.00	NASDAQ	09:21:53		
AIG	1	45.26	45.24	45.26	NYSE	09:21:53		

3.1.18 Bid/Ask Spread

This feature helps the user to access the Bid/Ask Spread market data in market time. Currently it displays top 20 spreads in descending order from top to bottom. There were 7 columns named Symbol, Bid, Ask, Spread, Time, #Prints and Last Print showing the respective data.

Symbol: Displays the stock security symbol.



- Bid: Displays the price at which someone will buy current day trading position.
- **Ask:** Displays the price at which someone will sell the position required.
- Spread: The gap between Bid and Ask. (Spread = (Ask price Bid Price))
- Time: time at which a new spread happens. This field is updated with the time at which a new spread value comes.
- **#Prints:** The no of prints comes since the last spread arrives. Reset to 0 if spread time changes or a new spread arrives.
- Last Print: Displays the last traded value or last execution price. Reset to 0.00 if a new spread arrives.

🎟 Bid/Ask Spread - Nasdaq 📃 🗖 🔀								
Symbol	Bid	Ask	Spread	Time	DTVol	LstPnt-#N		
SIG	0.01	30.20	30.19	09:23:42	100	0.00-0		
RY	58.58	69.99	11.41	09:13:15	700	0.00-0		
TCO	39.99	49.96	9.97	09:15:03	140	0.00-0		
HRPN	15.75	23.62	7.87	09:21:00	5000	0.00-0		
NGSX	1.00	8.60	7.60	09:23:28	1050	0.00-0		
PJE	22.90	29.67	6.77	09:23:48	1000	28.68-0		
SCOK	33.01	34.98	1.97	09:21:57	5812	0.00-0		
MDTH	11.57	13.50	1.93	09:19:32	4500	0.00-0		
BIDU	573.30	574.64	1.34	09:23:50	83644	573.26-0		
TLK	35.14	35.85	0.71	09:21:00	150100	0.00-0		
GYMB	51.76	52.27	0.51	09:19:08	10000	52.20-0		
GSL	2.01	2.49	0.48	09:20:19	30000	0.00-0		
VIP	16.74	17.20	0.46	09:10:30	179909	0.00-0		

<u>NOTE:</u> This feature works only with newer version of Analytic Server (v8.6.6)

3.1.19 Regulatory Imbalance

This feature helps the user to access the Regulatory imbalances in the market time between 3:40 PM to 4:00 PM. Only regulatory imbalances are sent to Gray Box board view window after creating the files by the client. There were 3 columns named Symbol, Volume and Status showing the respective data.

Symbol: Displays the stock security symbol

Volume: Displays the Imbalance volume

Status: Displays the percentage (%) imbalance



III Regulatory Imbalances		
Symbol	Volume	Status

NOTE: This feature works only with newer version of Analytic Server (v8.6.6)

4. Settings

- Open the Analytic Client Main Dialog (Login Dialog)
- ✤ Go to Action → Settings
- Click on Settings

📅 Analytics Version	v8.5.1
Action Layout File H	elp
Open •	d.com 💌 Port 35009
<u>S</u> ettings	handh
E <u>x</u> it Alt+F4	psepn
Password:	
<u>Connect</u>	Show Status

The following "Settings" dialog/screen appears

mbalance Setti	ngs	
Create NY:	SE Imbalance for GB	
Send NYS	E Imbalance Notificattion	
Cross Display S	end settings	
IP Multicast	127.0.0.1	Port 37501
Send Cross	s Display Print Data	Default



- Under Settings dialog, there are two setting groups
 - Imbalance Settings: This setting is required for the "Regulatory Imbalance" view in order to set the value for creating file and sending notification. There are two check box options available under these settings
 - Create NYSE Imbalance for GB: If this is checked, the NYSE imbalance text files (around 24 text files) will be created in the same directory, where the application is running. By default, this check box is checked. The text file contains the symbols of the securities for which imbalance is published according to different combinations like, top 10, 20 & 30 with "only sell", "only buy", "both sell & buy" etc. For example, a sample text file is shown. These files are created according to the date suffixed with the name.

<u>File Edit</u>	Format	⊻iew	Help	
С				
FNM				-
FRE				
AMD				
MON				
SAY				
VALE				
NLY				
MMC				
SLE				
M				1
EP				
TYC				
HST				
PEG				
тэх				
POM				
CTL				
COP				
CNP				1

- Send NYSE Imbalance Notification: if this option is checked, then a notification is send to the Gray Box client application, to load the imbalance on Board view, for the corresponding symbols in the generated text files. By default, this check box is checked.
- Cross Display Send settings: This setting is required to send the cross display data to the 3rd party applications via UDP multicast. Further explanation is given in the section under "Cross Prints"



Analytic client saves previous analytic view layouts in layout files. The view layouts can be restored from loading the layout files later on. Loading can be done automatically or manually

者 Onli	Analytics	
Action	Layout File Help)
	Load	
Sei	Save Save As	15 Port 35007
		nnect Show Status

- ★ Layout File →Load →Open Dialog
- When Load menu item is clicked, An Open File Dialog pops up and user can select the layout file name to load the analytic view layouts. That file is set as default layout file

JUK In. 1 🖵 spanda		
Application Data Desktop Favorites Local Settings My Documents My Recent Document	NetHood PrintHood SendTo Start Menu System System	Contraction Templates Contraction UserData ContiAnalytic888.lts ContiAnalytic.lts ContiAnalytic_old.lts
		Open

When Analytic Client is open, and logon to Analytic Server, it loads Analytic View layouts from the default layout file automatically, if the default layout file exists



- When Analytic Client is closed, it saves analytic view layouts to the default layout file automatically (It creates the default layout file if it is not specified)
- ✤ Layout File → Save
- When the Save menu item is clicked. The analytic view layouts are saved to the default layout file. If no default layout file exists, a Save File Dialog pops up and user can specify the layout file name to save the analytic view layouts. That file is set as default layout file
- ❖ Layout File → Save As → Save As Dialog
- When the Save As menu item is clicked, Save File Dialog pops up and user can specify the layout file name to save the analytic view layouts. That file is set as default layout file.

Save As		? ×
Savejn: 🔁 Iyang		- 🗈 📸 📰
🚞 .java	🚞 Local Settings	🚞 Start Menu
🧰 .jbuilder5	🚞 NetHood	🚞 Templates
🔁 Application Data	🚞 Personal	🚞 Temporary Internet Fil
🚞 Cookies	🚞 PrintHood	🛋 IsIdExec.Its
🚞 Desktop	🚞 Recent	🛋 OnLiAnalytic.Its
🚞 Favorites	🚞 SendTo	🛋 OnLiQuote.Its
•)
File <u>n</u> ame: OnLiAna	ytic	Save
Save as type: LTS file (*.lts)	Cancel

♦ Help → About Dialog

About Or	liAnalytics	x
	OnliAnalytics Version	
A LIANI METANA	Application Version 8.3.8	
	OnliAnalytic.dll v8.5.6 Beta 02-22-2010 02:34:16	
	On-Line Investment Services, Inc.Copyright (C) 2006	
	<u> </u>	

♦ Help → Release Document





6. Customizing Views

- In Analytic Client application, user can use the popup menu of each view to customize the background color, select market, set fonts, set always on top and set filters for incoming data
- The popup menu for each and every view is more or less the same with one or two additional options. For example, Analytic Views like Crossed Locked Display, Highs, Lows, Highs & Lows, Top Volume, Bid and Ask Scan, Price Alerts, Firm Execution, Imbalance, Cross Prints, Bid/Ask Spread, and Regulatory Imbalances have the special type of filter as follows



III H	igh	s and	Lows	: - Nas	sda	q 📒			
	1	HIGH				LOW			
HOWG	4	+0.07	8.811	ZOLT	14	-0.21	9.701		
DISCA	2	+0.05	32.50	CADX		-0.11	8.79		
CSCO	11	+0.19	26.10	SQQQ		-0.99	39.77		
SVM	-	+0.72	20.36	MIRCOV		-0.07	1.70		
ASRC	ģ	+0.17	13.81	PWER		-0.04	3 49		
MYGN	12	+0.31	25.155	WENT		-0.11	35.23		
IFSIA		+0.22	10.86	AONE		-0.30			
STX	25	+0.25	19.04						
IFSIA	10	+0.22	10.85			Col Ec	und .		
ASPS		+0.61	24.97			SECFU	лю		
DNDN	21	+0.39	35.30	INAP		Select	Market		- F
DNDN	20	+0.39	35.29	INAP		C	1 = 1 =		
CECO	2	+0.11	31,81	CLIDIN		SYMDO	ol Filcer		
CMCD	19	+0.3/	03.51	CODE		Set Mi	nimum Hits	:/Change	
CONN	1	+0.10	6 175	CADK			~ ~	,	·
CTWS	1	+0.09	24.355	ATSG	<u>۲</u>	Alway	s On Top		
STST		+0.12	26.19		5	-0.03	11.62		
ZVZZT		+3500.	05500.00						
								-	

For all Analytic Views, user can change their display fonts to either auto fonts or custom fonts. If Auto Size is set, the font size is adjusted automatically to let the display fit the size of the view. When the size of the view changes, its font also changes

ШН	igh	s and	Lows	- Na	sda	q 💶				
		HIGH				LOW				
1999	14	+1.01	107.18	1112	10	-0.28	17.4			
ISSC		+0.05	5.04			-0.15				
UAUA	49	+0.60	19.07	CTW5		-0.10	24.18			
EZPW		+0.13	20.37	P000		-0.05	14.89			
EZPW	4	+0.12	20.36	WMCO		-0.01	7.855			
UAUA	48	+0.58	19.06	CHNG		-0.49	10.01			
FEIC	2	+0.12	21.74	CHNG	12	-0.48	10.02			
STX	41	+0.41	19.20			-0.07	9.65			
BHQ	2	+0.11	12.26	ALC: NO.		-0.05	746.01			
HHBC	9	+0.19	18.56	AC AM		-0.12	14.16			
PPEK.	8	+0.17	18.54			-0.25	19.86			
NIKL	4	+0.12	10.8774	GUID		-0.05	3.03			
LIAL IA	47	+0.10	10.05	DOTV		-0.32	Cok Ex	under		. A Auto Sizo
TOME		+0.17	24.00	DIFCL V		-0.51	Bech	лн		V AULU DIZE
OPLY	31	+0.50	47 47	MENT		-0.14	Select	Market	• F [
WYNN	30	+1.07	71.91	7109		-0.05		l eth		Custom
WYNN	38	+0.99	71.89	DRIV		-0.79	Symbo	ol Hilter	L	
WYNN	37	+0.98	71.88	BANR		-0.12	Set M	nimum Hits/Change		
WATG	2	+0.03	10.28	ANDE		-0.25	Decim	ninan nicychargen.		
							🖌 🗸 Alway	s On Top		

If the user clicks Custom menu item, a Fonts Dialog will be opened to let user choose the fonts for the view. The changed fonts on a view apply to all displaying views



Font		? ×	
Eont: Aria Arial Black Arial Black Arial Black Arial Narrow Book Antigua Bookman Old Style Centuy Gothic The Comic Sans MS	Font style: Regular Regular Italic Bold Bold Italic	Size: 8 OK 9 ▲ 10 11 12 14 16 ▼	
	Sample AaBbYyZz Soript: Western	z	

For all views except Firm Executions, user can choose select market to display the data for All / NASDAQ / NYSE / AMEX market. The default market is NASDAQ when a view is open

Highs and Lows - Nasdaq High Biso Low WDN 47 +0.29 9150 Low WDN 47 +0.21 35.62 SWN 1 -0.03 278 SWN 47 +0.21 35.62 SWN 1 -0.03 15.59 PC 6 +0.22 24.07 ARP 8 -0.22 41.99 WDN 47 +0.03 16.51 1986 2.21 -3.81 342.19 XX 11 +0.02 16.51 1986 2.21 -3.81 342.19 DWC 11 +0.02 16.51 1986 2.21 -3.81 342.19 DWC 11 +0.02 16.50 1986 1.9 -3.73 342.29 WRT 6 +0.14 15.56 1986 2.21 -3.81 342.19 SWN 6 1 +0.02 16.50 1986 1.9 -3.73 342.29 SET 4 +0.12 16.90 1986 1.9 -3.73 342.29 Set Font Set Font Set Font Set Font Set Font Set Market All Set Font Set Market All Set Market All Set Market All Set Minimu	Highs and Lows - Nasdag Image: Comparison of the second secon												
High LOW BB 26 +1159 9150 KVH1 1 +102 12263 DHC 7 +1021 3524 SUPX 1 -113 276 DHC 7 +1022 2404 UHLA 3 -003 1559 DHC 7 +1022 2404 UHLA 3 -003 1559 DHC 1 +022 4109 10.88 14.99 10.99 DHC 11 +0.91 11.91 11.91 13.94 27.91 DHC 11 +0.91 11.91 13.94 27.21 PAL 15 +0.91 15.91 15.86 21 -3.33 342.23 PAL 15 +0.07 8.58 1586 1586 13.93 342.23 PAL 14 -0.13 8.30 262.33 342.23 PAL 14 14.90 14.90 10 -0.32 Set Font Alll	High LOW BB 26 +1.39 91.50 KWH 1 -0.03 12.065 DHC 7 +1.24 24.04 LMLA 3 -0.03 15.59 DHC 6 +0.22 24.04 LMLA 3 -0.03 15.59 DHC 6 +0.22 24.02 ARLP 8 -0.26 41.99 DHC 16 +0.03 3.01 HOFT 1 -0.18 14.94 DHC 11 +0.19 11.99 19.96 20.27 342.27 IVNL 15 +0.21 15.66 21 -3.23 342.26 IVNL 15 16.36 198 -3.63 342.30 IVNL 14 -0.19 19.06 -0.02 830 SSC 7 +0.12 13.74 80.00 6 -0.02 SWT 4 -0.12 3.74 80.00 6 -0.02 SWD		Highs	and	Lows	-	Nas	dac	4 💽				
BB 26 40.39 91.50 K/M1 1 -0.02 12.665 CHC 7 +0.21 35.62 SMX 1 -0.03 2.78 CHC 7 +0.24 24.04 LMLA 3 -0.03 15.59 CHC 6 +0.22 24.02 ARLP 8 -0.06 11.59 CHC 6 +0.03 10.11 HOFT -0.18 1494 CTIV 10 +0.03 16.15 158.66 20 -3.73 342.27 CNC 11 +0.19 158.66 20 -3.74 342.27 VRN 6 +0.14 15.56 158.66 197.66 342.23 CNC 1 +0.07 8.59 158.66 177.350 342.26 VRN 6 +0.17 8.58 158.66 177.350 342.30 CSC 7 +0.15 8.57 14 -0.07 8.33 Set Kont 13 +0.24 13.04 ASR 1 -0.05 RNO <th>BB 26 40.59 91.50 KVM 1 -0.02 122665 CHC 7 +0.21 356.2 S80% 1 -0.03 15.59 CHC 6 +0.22 24.02 A4.04 B -0.03 15.59 CHC 6 +0.22 24.02 A4.04 B -0.13 2.78 CHC 6 +0.02 24.02 A4.04 B -0.13 15.99 CHC 6 +0.03 10.515 159.66 21 -3.81 342.19 CHC 11 41.09 11.91 155.66 22.33 342.28 VEX 14 +0.19 15.67 158.66 18 -36.03 303.28 VEX 14 +0.07 8.99 10.02 63.03 303.28 VEX 14 +0.19 13.02 10.02 63.03 303.28 VEX 14 +0.12 13.44 8657 2 40.02 Set Font × Set Minimum Hits/Change Ni -0.012 Set Min</th> <th></th> <th>Н</th> <th>IGH</th> <th></th> <th></th> <th></th> <th>L</th> <th>.0W</th> <th></th> <th></th> <th></th> <th></th>	BB 26 40.59 91.50 KVM 1 -0.02 122665 CHC 7 +0.21 356.2 S80% 1 -0.03 15.59 CHC 6 +0.22 24.02 A4.04 B -0.03 15.59 CHC 6 +0.22 24.02 A4.04 B -0.13 2.78 CHC 6 +0.02 24.02 A4.04 B -0.13 15.99 CHC 6 +0.03 10.515 159.66 21 -3.81 342.19 CHC 11 41.09 11.91 155.66 22.33 342.28 VEX 14 +0.19 15.67 158.66 18 -36.03 303.28 VEX 14 +0.07 8.99 10.02 63.03 303.28 VEX 14 +0.19 13.02 10.02 63.03 303.28 VEX 14 +0.12 13.44 8657 2 40.02 Set Font × Set Minimum Hits/Change Ni -0.012 Set Min		Н	IGH				L	.0W				
NNN 47 40.71 3562 5498 1 -0.13 2.76 5767 7 +0.24 24.04 UNA 3 -0.03 1559 5770 6 +0.22 24.02 ANUP 8 -0.25 41.99 5770 3 +0.03 3.01 HOFT 1 -0.18 14.94 5781 6 +0.14 15.36 1586 21 -3.81 342.219 5781 4 +0.12 16.169 1586 18 -3.68 342.33 577 4 +0.12 16.09 1586 19 -3.73 372.20 587 4 +0.12 14.09 XATA 1 -0.01 3.0978 587 4 +0.12 13.74 8557 2 -0.02 587 4 +0.22 13.74 8557 2 -0.02 587 4 +0.23 38.09 ONSA 1 -0.01 587 5 -0.33 +1.37 3521 ASTE 5 -0.12 587 8 +0.25 59.95 AM32N 13 -0.14 ✓ Always On Top Amex	MAN 4// 4///4 3.662 50% 1 -0.13 15.59 DFC 6 +0.22 2.402 ARLP 8 -0.03 15.59 DFC 6 +0.23 1.19% 2.74 342.19 DFC 11 +0.19 15.876 19 -3.73 342.39 DFNC 1 +0.21 16.90 198 -3.03 342.33 SCON 1 +0.19 16.871 19 -3.03 342.33 SET 4 +0.19 16.771 FND 10 -0.02 SQC 7 +0.12 14.09 XATA 1 -0.01 3.050 SQC 7 +0.12 13.04 85.87 2 -0.02 Set Font ×	188	26	+0.59	91.50	.14		1	-0.02	12.665			
PHC / +11.4 240.4 240.4 240.4 3 -10.3 15.59 DHC 6 1022 240.2 ARLP 8 -0.26 41.99 DHC 1 1022 240.2 ARLP 8 -0.26 41.99 DHC 1 10.21 15.15 158.6 20 -3.74 342.19 DLC 11 +0.19 15.198.6 20 -3.74 342.27 PML 15 +0.21 16.50 158.6 19 -3.73 342.23 CONC 1 +0.19 16.5771 FLML 1 -0.02 8.33 CONS 1 +0.01 5.977 FLMD 1 -0.01 300.28 SCT 7 +0.15 29.77 MEND 10 -0.32 Set Font ▶ SQNX 1 +0.02 8.39 1 -0.012 Set Market ▶ SQNX 1 +0.24 13.09 NNA 1 -0.015 Set Minimum Hits/Change All	CPC 7 +12.8 24.04 DMLA 3 +10.03 32.54 DRC 6 +0.02 24.02 AMP 6 -0.26 41.99 DRC 11 +0.02 10.15 15.86 21 -3.81 342.19 DRU 11 +0.19 11.99 15.86 21 -3.74 342.27 PML 15 +0.21 16.90 1586 21 -3.73 342.27 PML 15 +0.21 16.90 1586 19 -3.73 342.27 PML 15 +0.21 16.90 1586 19 -3.63 342.30 KONG 1 +0.01 8.29 1586 17 -3.02 8.33 SKT 4 +0.12 16.877 HML 1 -0.02 Set Font ▲ SKT 4 -1.37 485T 2 -0.02 Set Font ▲ RNO 12 +0.22 38.09 OHSM 1 -0.01 Symbol Filter All V <	DNDN	47	+0.71	35.62	SAP			-0.13	2.78			
The set of t	Sector 0 +122 2402 0403 0 +123 1434 VTTV 10 +403 301 190FT -143 34249 VTTV 10 +403 301 190G 21 -381 34219 VTV 11 +4019 1119 1956 22 -373 34228 VPXL 15 +4019 115 1986 19 -373 34228 VPXL 14 +4019 1119 156771 RVL 11 -002 833 VSST 4 +4019 14857 2 4028 833 VSST 4 4129 149 907 833 30220 SCSC 7 +402 1309 AUR 1<-001 30220 SCSC 7 +402 1309 AUR 1<-001 S0220 Set Font ▶ 9080 33 +137 3521 Set Font ▶ Set Minimum Hits/Change Y Nasdaq Nasdaq Nasdaq Nase		1	+0.24	24.04				-0.03	15.59			
30 0 3 1 1000 301 1 1000 1000 1000 111 +0.00 16.15 1986 21 -321 322.19 1000 111 +0.01 16.15 1986 20 -324 322.29 1000 111 +0.01 16.15 1986 19 -323 322.20 MRRT 6 +0.14 1536 1586 18 -3.63 342.23 MRRT 6 +0.14 1536 1586 18 -3.63 342.23 MRRT 6 +0.14 15.26 1586 18 -3.63 342.33 MRRT 6 +0.14 15.29 FRMG 17 -3.03 342.33 SGX 1 +0.02 14.09 XATA 1 -0.01 30022 CSC 7 +0.15 29.77 MRND 10 -0.02 Set Font All K0X 13 +0.24 340 ASIR 1 -0.05 Symbol Filter All K0X 14 +0.01 4	AND 3 1.1020 3.01 11 1.9	OVIDO	3	+0.03	3.01				-0.19	14 94			
ZINC 11 +0.19 11.19 1586 20 -3.74 342.27 PAL 15 +0.14 15.650 1586 18 -3.68 342.23 VMRT 6 +0.14 15.650 1586 19 -3.73 342.26 VMRT 6 +0.14 15.65 1586 18 -3.68 342.23 VMRT 6 +0.07 8.59 1586 17 -3.00 342.26 VMRT 6 +0.07 8.59 1586 17 -3.00 342.26 VMRT 1 +0.01 16.9771 FLML 1 -0.01 833 SET 4 +0.12 14.07 10 -0.02 Set Font ▶ SNX 13 +0.24 13.09 Nays 1 -0.02 Setect Market ▶ PND 12 +0.24 13.09 MN2N 1 -0.01 Set Minimum Hits/Change Nyse QSL 1 +0.01 4.014 4.015 Set Minimum Hits/Change Amex	EINC 11 +0.19 11.19 1586 20 -3.74 342.27 15 +0.21 16-90 1586 19 -3.73 342.27 MRT 6 +0.14 15.56 1596 18 -3.66 347.23 GONG 1 +0.07 8.59 1596 17 -3.33 362.33 FPUL 14 +0.19 16.8771 FUNL 1 -0.01 SOC 7 +0.15 24.77 MEND 10 -0.32 Set Font MRT 4 +0.12 1409 ASUR 1 -0.01 Select Market All Symbol Filter Symbol Filter Set Minimum Hits/Change Nyse Amex Market Amex	VIIV	10	+0.20	16.15				-3.81	342.19			
PXL 15 +0.21 16.90 19XG 19 -3.73 342.28 WRT 6 +0.14 15.36 19XG 18 -3.03 342.36 VMRT 6 +0.07 8.93 19XG 17 -3.03 342.36 PXL 14 +0.07 8.93 18 -3.03 30.029 PXL 14 +0.12 14.09 XATA 1 -0.01 30.029 SCC 7 +0.15 24.77 MRD 10 -0.023 Set Font ▶ SQX 13 +0.35 31.70 PODDO 6 -0.027 Select Market ▶ MRO 13 +0.24 13.09 ASUR 1 -0.01 Symbol Filter > SQX 1 +0.01 35.21 ASUR 1 -0.01 Symbol Filter > Nasdaq SQX 1 +0.01 4.6199 AMXN 14 -0.15 Set Minimum Hits/Change Amex MRT 8 +0.25 59.95 AMRN <td< th=""><th>IPNL IS +4.21 16.90 ISR6 19 -3.73 342.23 WRT 6 +0.14 15.36 ISR6 19 -3.73 342.33 IPNL 14 +0.07 8.93 ISR6 17 -3.03 342.33 IPNL 14 +0.07 8.92 ISR6 17 -3.03 342.33 IPNL 14 +0.07 8.92 ISR6 17 -3.03 342.30 IPNL 14 +0.017 8.03 ISR6 18 -0.013 803 SCSC 7 +0.15 28.77 NBND 10 -0.02 Set Font Image: Set Font Nasdaq Set Minimum Hits/Change Nasdaq Set Minimum Hits/Change Nyse GRY 1 +0.01 45.99 AMAN 13 -0.014 Set Minimum Hits/Change Nyse GRY 1 +0.02 59.95 AMAN 13 -0.14 -4.14 -4.14 GRY 1 +0</th><th>ZIINC</th><th>11</th><th>+0.19</th><th>11.19</th><th>123</th><th></th><th></th><th>-3.74</th><th>342.27</th><th></th><th></th><th></th></td<>	IPNL IS +4.21 16.90 ISR6 19 -3.73 342.23 WRT 6 +0.14 15.36 ISR6 19 -3.73 342.33 IPNL 14 +0.07 8.93 ISR6 17 -3.03 342.33 IPNL 14 +0.07 8.92 ISR6 17 -3.03 342.33 IPNL 14 +0.07 8.92 ISR6 17 -3.03 342.30 IPNL 14 +0.017 8.03 ISR6 18 -0.013 803 SCSC 7 +0.15 28.77 NBND 10 -0.02 Set Font Image: Set Font Nasdaq Set Minimum Hits/Change Nasdaq Set Minimum Hits/Change Nyse GRY 1 +0.01 45.99 AMAN 13 -0.014 Set Minimum Hits/Change Nyse GRY 1 +0.02 59.95 AMAN 13 -0.14 -4.14 -4.14 GRY 1 +0	ZIINC	11	+0.19	11.19	123			-3.74	342.27			
MRT 6 +0.14 15.36 TSKG 18 -3.60 342.33 CONG 1 +0.07 8.59 19NG 17 -3.50 342.50 SET 4 +0.12 16.8771 FUHL 1 -0.002 833 SET 4 +0.12 14.09 XATA 1 -0.012 833 REV 1 +0.02 81.70 PODD 6 -0.012 Set Font ▶ 80X 13 +0.15 31.70 PODD 6 -0.012 Set Font ▶ 80X 13 +0.12 13.74 BEST 2 -0.02 Set Font ▶ 90X0 13 +0.12 13.74 BEST 2 -0.02 Set Font ▶ 90X1 1 +0.12 33.09 ASUR 1 -0.012 Symbol Filter ↓ All 90X1 1 +0.014 45.98 1.014 -0.014 Set Minimum Hits/Change Nyse 9XT 8 +0.25 59.95 AM(2N	MRRT 6 +0.14 15.36 ISSG 18 -3.63 342.33 KONG 1 +0.07 8.59 ISSG 17 -3.59 342.50 VEXT 4 +0.12 14.09 NATA 1 -0.02 83.33 VEXT 4 +0.12 14.09 NATA 1 -0.02 83.04 VEXT 4 +0.15 28.77 NSED 10 -0.32 Set Font ▶ SRC 7 +0.15 28.77 NSED 0 -0.02 83.3 SRC 1 +0.15 31.70 PO000 6 -0.05 Set Font ▶ SRC 1 +0.12 13.74 BEST 2 -0.02 Set Font ▶ SRVD 12 +0.24 13.09 PORM 1 -0.05 Symbol Filter All SQR 1 +0.12 38.09 PAMA 1 -0.01 Set Minimum Hits/Change Nyse GRT 8 +0.25 59.95 AMAN 13 <td< th=""><th>PXL</th><th>15</th><th>+0.21</th><th>16.90</th><th></th><th></th><th></th><th></th><th>342.28</th><th></th><th></th><th></th></td<>	PXL	15	+0.21	16.90					342.28			
CONG 1 +007 8.99 15%G 17 -3.50 347.20 PNL 14 +019 16.877 FNL 1 -002 833 SET 4 +012 14.09 JA3771 FNL 1 -002 3.0224 SET 4 +012 14.09 JA47A 1 -001 3.0224 SET 4 +0135 31.70 10 -002 Set Font > SWX 13 +0135 31.70 PODO 6 -006 Set Font > MXV 1 +0135 31.70 PODO 6 -006 Set Font > PND 12 +012 13.74 PET 2 -002 Set Font > Swmbol Filter Symbol Filter Symbol Filter Nasdaq Nyse Nyse QX1 1 4014 4013 4014 -015 Set Minimum Hits/Change Amex WRT 8 +025 59.95 AM2N 13 -0.14 Always On Top Amex <	CONG 1 + 4007 8.49 1980 17 -302 3402.50 IPAL 14 + 61.9 16.8771 FINE 1 - 602 833 IST 4 + 61.2 14.69 XATA 1 - 602 833 IST 4 + 61.2 14.69 XATA 1 - 602 34024 ISO2 7 + 61.2 13.74 MED 10 - 602 34024 SQC 7 + 61.2 13.74 MED 10 - 602 Set Font - #NV 1 + 61.3 13.74 MEST 2 - 602 Set Font - #NV 1 + 61.3 31.77 MENO 34.77 - All WRO 13 + 31.7 35.1 ASTE - - All VXY 1 + 61.1 - - - Set Minimum Hits/Change Nyse VXY 1 + 61.2 59.95 AW31 13 - Always On Top Amex	MPRT		+0.14	15.36					342.33			
PNL 14 +019 168771 RVL 1 -001 300787 SET 4 +012 14.09 XATA 1 -001 300787 SET 4 +015 23.7 MBOX 10 -032 Set Font > MSOX 13 +015 31.70 PODO 6 -006 Set Font > MNV 1 +012 13.74 REST 2 -002 Set Font > PND 12 +024 13.09 ASIR 1 -006 Select Market > All PND 12 +024 13.09 ASIR 1 -006 Symbol Filter > Nasdaq SQL 1 1012 30.90 ANRAN 14 -015 Set Minimum Hits/Change Nyse ANX 8 +0.25 59.95 ANRAN 13 -0.14 Always On Top Amex	IM 14 +0.19 16.6771 RVL 1 -0.01 3.0020 SCSC 7 +0.12 14.00 10 -0.02 Set Font ▶ SCSC 7 +0.12 14.00 10 -0.02 Set Font ▶ SCSC 7 +0.12 13.07 0000 6 -0.01 Set Font ▶ SCSC 7 +0.12 13.07 8050 2 -0.02 Set Font ▶ SW0 12 +0.12 13.47 8657 2 -0.02 Setelct Market ▶ All SW0 12 +0.12 33.48 1 -0.01 Set Minimum Hits/Change Nasdaq SQL 1 +0.01 45.99 ANGN 14 -0.01 Set Minimum Hits/Change Nyse GRX 8 +0.25 59.95 AMGN 13 -0.14 ✓ Always On Top Amex	(ONG		+0.07	8.59								
STT 4 +0.12 14.09 XATA 1 -0.01 30828 VBOX 13 +0.15 2.07 NSD 10 -0.03 Set Font > VBOX 13 +0.15 31.70 PQDD 6 -0.05 Set Font > VBOX 13 +0.12 13.74 BEST 2 -0.05 Select Market > VPND 12 +0.12 13.74 BEST 2 -0.05 Select Market > All VRO 13 +1.37 35.21 ASTE 5 -0.12 Symbol Filter Symbol Filter Vasdaq Nyse OSL 1 +0.01 46.09 AWAN 14 -0.13 Set Minimum Hits/Change Nyse VRT 8 +0.25 59.95 AMAN 13 -0.14 Always On Top Amex	STT 4 4012 1409 XATA 1 -0.03 38224 SEC 7 4015 23.77 NEDO 10 -0.03 Set Font Image: Constraint of the set of	PXL	14	+0.19	16.8771	ΠĽ			-0.02	8.33			
CSC 7 +015 21.77 MOD 10 -0.05 Set Font > MEX 1 +0136 31.70 NPOD 6 -0.06 Set Font > MVD 12 +012 13.74 BEST 2 -0.07 Set Font > MVD 12 +0.24 13.09 ASUR 1 -0.06 Symbol Filter > All GSL 1 +0.02 38.09 OMSM 1 -0.012 Set Minimum Hits/Change Nyse GX1 1 +0.01 4.6199 AMSM 13 -0.04 Set Minimum Hits/Change Nyse SRT 8 +0.25 59.95 AMSM 13 -0.04 Always On Top Amex	CSC 7 4415 28/77 4405 38 402 Set Font Image: Set Font <	ILLER	4	+0.12	14.09	XAT	FA		-0.01	3.0929			
800X 13 +113 31.70 PCMO 6 +100 800X 13 +112 13.74 8657 2 -0.02 FNO 12 +127 35.21 ASLR 1 +0.02 SQL 1 +1.37 35.21 ASLR 5 -0.12 SQL 1 +1.27 35.21 ASLR 5 -0.12 SQL 1 +0.12 30.09 14 -0.015 Set Minimum Hits/Change Nyse RRT 8 +0.25 59.95 AM31 RRT 8 +0.25 59.95 AM331 13	980A 13 +1130 31.71 POLO 6 +1030 Select Market All 980A 13 +112 13.74 BEST 2 -40.72 Symbol Filter All 980A 13 +13.7 35.21 ASTE 5 -41.25 Symbol Filter Value 980A 13 +117 35.21 ASTE 5 -41.25 930SL 1 +112 38.09 ANSN 14 -41.5 947 1 +40.01 4.5199 ANSN 14 -41.5 9487 8 +40.25 59.95 ANSN 13 -0.14 9487 8 +40.25 59.95 ANSN 13 -0.14	xexc	7	+0.15	29.77				-0.32	Set Font		•	
NRC 1 +012 11/4 95/8 1 4000 NRO 13 +137 35/1 ASTR 1 4000 Symbol Filter Symbol Filter Set Minimum Hits/Change ✓ Nasdaq OSL 1 +011 4619 ANRA 14 -015 YRT 8 +025 59.95 ANRA 13 -014	Number 1 HEL2 13/4 Decision 2 Hel2 Hel2 <th< th=""><th>SBOX.</th><th>- 15</th><th>+0.30</th><th>31.70</th><th></th><th>μ.</th><th></th><th>-0.05</th><th>Cala - NA-</th><th>where the</th><th>- N</th><th>All</th></th<>	SBOX.	- 15	+0.30	31.70		μ.		-0.05	Cala - NA-	where the	- N	All
ARC 13 +1.3 32.1 ASTE 5 -0.12 Symbol Filter ✓ Nasdaq OSL 1 +0.12 30.09 ONEN 1 -0.012 Set Minimum Hits/Change Nyse OSL 1 +0.01 46.09 MNR 14 -0.01 Set Minimum Hits/Change Nyse SRT 8 +0.25 59.95 AMRI 13 -0.14 ✓ Always On Top Amex	ABC0 13 +137 3521 ASTE 5 -0.12 Symbol Filter ✓ Nasdaq V32 1 +0.12 30.09 ONAV1 -0.012 Set Minimum Hits/Change ✓ Nasdaq V32 1 +0.02 59.95 AMOR 13 -0.14 Set Minimum Hits/Change ✓ Nasdaq V32 X 1 +0.01 4.619 AMOR 13 -0.14 Set Minimum Hits/Change ✓ Always On Top Amex	EWD.	17	+0.12	13.09				-0.02	Select Ma	rket		All
OSL 1 +0.12 38.09 ONSM 1 -0.01 Set Minimum Hits/Change Nyse CRY 1 +0.01 46.09 ANKAN 14 -0.15 Set Minimum Hits/Change Nyse CRY 1 +0.02 59.95 ANKAN 13 -0.14 ✓ Always On Top Amex	Sos 1 +0.12 38.09 ONSM 1 -0.01 Set Minimum Hits/Change Nyse CRY 1 +0.01 4.6199 AWAN 14 -0.15 Set Minimum Hits/Change Nyse CRY 1 +0.02 59.95 AWAN 13 -0.14 ✓ Always On Top Amex	NRO	33	+1.37	35.21	A 51	Ē		-0.12	Symbol Fi	lter		🗸 Nasdag
CRY 1 +0.01 4.6199 AMGN 14 +0.35 Set Minimum Hits/Change Nyse ANRT 8 +0.25 59.95 AMGN 13 +0.14 ✓ Always On Top Amex	CRY 1 +0.01 4.6199 AMCAN 14 -0.15 Set Minimum Hits/Change Nyse ART 8 +0.25 59.95 AMCAN 13 -0.14 ✓ Always On Top Amex	DSL.	1	+0.12	38.09	ON			-0.01	- · · · ·	un let		
Amex 8 +0.25 59.95 AMGN 13 -0.14 ✔ Always On Top Amex	Amex 8 +0.25 59.95 AMGN 13 -0.14 ✓ Always On Top Amex	CRY		+0.01	4.6199	AM			-0.15	Set Minim	um Hits/Change	·	Nyse
		/PRT		+0.25	59.95					🗸 Always O	n Top		Amex



✤ Cross Locked Display → "Min CrossLock"



The following dialog displays to enable the user to select the pre filled values of "Min Cross" from the available combo

Cross Lock Filter				
	tin Cross 0.05 0.05 0.07 0.10 0.15		cel	

✤ Highs → "Set Minimum Hits/Change..."



The following dialog displays how to enter the values to filter data.

Set Minimum Hits and Net Changes			
Minimum Display Hits:	Minimum Net		
3	0.00 💌		
OK	Cancel		

The value for Minimum Display Hits can be entered in the text box in order to filter the data. The 2^{nd} column of Highs window shows the Display Hits.



Set Minimum Hits and Net Changes			
Minimum Display Hits:	Minimum Net		
OK	Cancel		

The Minimum Net can be selected from the available combo. The 3rd column of Highs window shows the Net value.

Similar filter dialog is also available for Lows, Highs & Lows window



For some Analytic Views, the background color can be changed by clicking the Background Color menu item. It will open a Color Dialog and the user can choose the color for that view's background color. Similar menu option is also present for "Top Range", "Top Close Change", "Top Open Change" and "Top Percent Change" window

Color			? ×
Basic colors:			
<u>C</u> ustom colors:			
		11	Deck 255
		Hu <u>e</u> : [160	
	Colorida list	Sat U	<u>G</u> reen: 255
Define Custom Colors >>	Color(S <u>o</u> lid	<u>L</u> um: 240	Bl <u>u</u> e: 255
OK Cancel	<u>A</u>	dd to Custom (Colors



✤ Bid and Ask Scan → "Symbol Filter"



The following Symbol filter dialog pops up when user selects Symbol Filter menu option.

ymbol Filter
Volume/Price Filter: Min Volume: Max Volume: Min Price: Max Price 0 • 0 • 0 • 0 •
Symbol Filter:
Symbol Included Add Symbol
Symbol : Delete Symbol
ECN Filter:
ECN Included
C ECN Excluded Add ECN
ECN : Delete ECN
OK Cancel

User can select Symbol filter with "Symbol Included" or "Symbol Excluded" options as well as ECN Filter with "ECN Included" or "ECN Excluded" options as shown in the following figure to filter out the data

Symbols can be edited on the available Symbol text box and then added to the list box by clicking on the Add Symbol button. Similar operation could be done in ECN filter too.

Also user can select any symbol from the list box and delete that by selecting the "Delete Symbol" button



Symbol Filter
Volume/Price Filter: Min Volume: Max Volume: Min Volume: Max Price: 0 0
Symbol Filter: Symbol Included Symbol Excluded Symbol : VOD Delete Symbol
ECN Filter: • ECN Included • ECN Excluded Add ECN BAT NAS
OK Cancel

✤ Bid and Ask Scan → "Bid Ask Filter"



Following dialog shows how to filter while setting values for minimum size (share), Min Spread and Min Ask.

For Min Size, the entered value must be multiple of the value displayed under share column.

Bid/Ask Scan Filte	er	×
Bid/Ask Size, Sp	Show symbols in SA read Filter and Ask D	l only own Spread:
Minimum Size: 500	Min Spread: .25	Min Ask 100
OK		ancel



✤ Price Alerts "Price Alert Filter"



The following dialog shows how to filter symbols with it's below and above values.

Filter		x
Volume/Price Filter: Min Volume: Max V 0 V	/olume: Min Pr	ice: Max Price
Symbol Filter:		
Symbol : GOOG	Add Symbol	GE
Below: 5	Delete Sumbol	
Above: 1000		
		I
OK		Cancel

✤ Imbalance → "Imbalance Filter"

Malance filter			
Min Volume: Max Volume: Min Price: Max Price 0 0 0 0 0			
Min % Volume: Max % Volume: 0.00 Image: Im			
Exclude Symbol Filter:			
Add Symbol			
Delete Symbol			
Buy/Sell and Volume Filter			
C Buyside C Sell side Min Imb % 25			
Both buy and sell side Min Imb Qty 5,000			
- Status Filter			
Show With Market Imbalance ("M")			
OK Cancel			

Note: Similar filter dialog with caption "Regulatory Imbalance Filter" is attached with the "Regulatory Imbalance" window



✤ Cross Prints → "Min CrossLock"



The following dialog shows how to set the values in order to filter Quantity, Price and Delta column values.

М	in /Max Filter	r - Cross	Display		×
	– Filter Settings	Min		Мах	
	Qty	2	•	1000 💌	I
	Price	10.00	•	100.00 💌	I
	Delta	0.02	•	0.05 💌]
		Car	ncel	OK	

✤ Bid/Ask Spread → "Spread Filter"



Following dialog shows how to set the values for Min Spread and Max. Spread in order to filter the data.

Spread Filter	×
Min. Spread :	Max. Spread : 50.000
ОК	Cancel



7. Exiting the Application

♦ Action → Exit



 $\underline{\textbf{Note:}}$ Application can be also exited by clicking on the cross button on the top right corner of the dialog