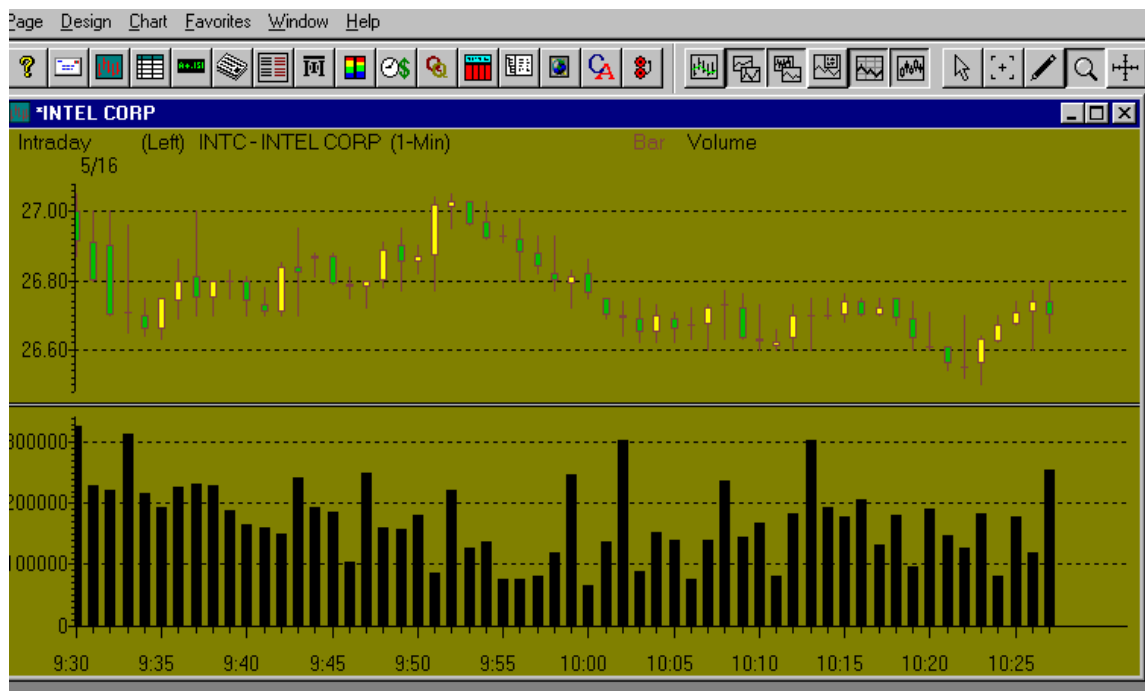


Quick guide to building RealTick® pages

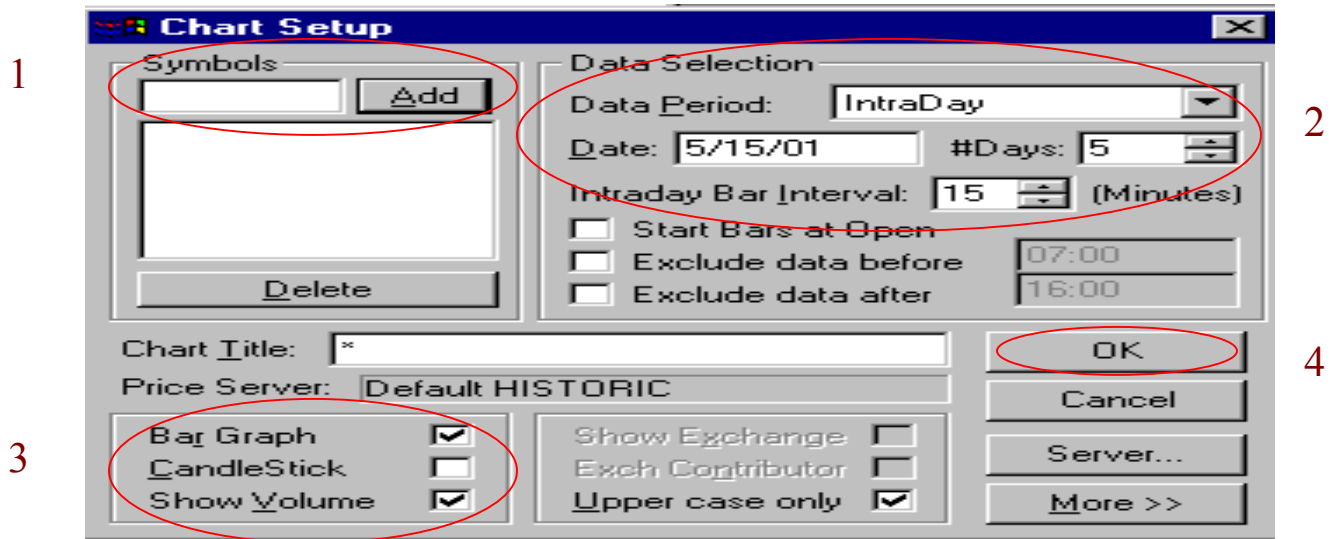
This guide is intended to assist in quickly setting up the various windows in RealTick that comprise a RealTick page. If you have any questions about setting up a RealTick page or learning about other various features, please visit the Help section in RealTick, or call Terra Nova Online's customer support.

Charts



Fully customizable charts with technical analyses like MACD, Relative Strength, Stochastics and many more. Choose daily, yearly, monthly or even intraday intervals down to one minute. Colors and fonts may be customized by the user.

Charts Setup

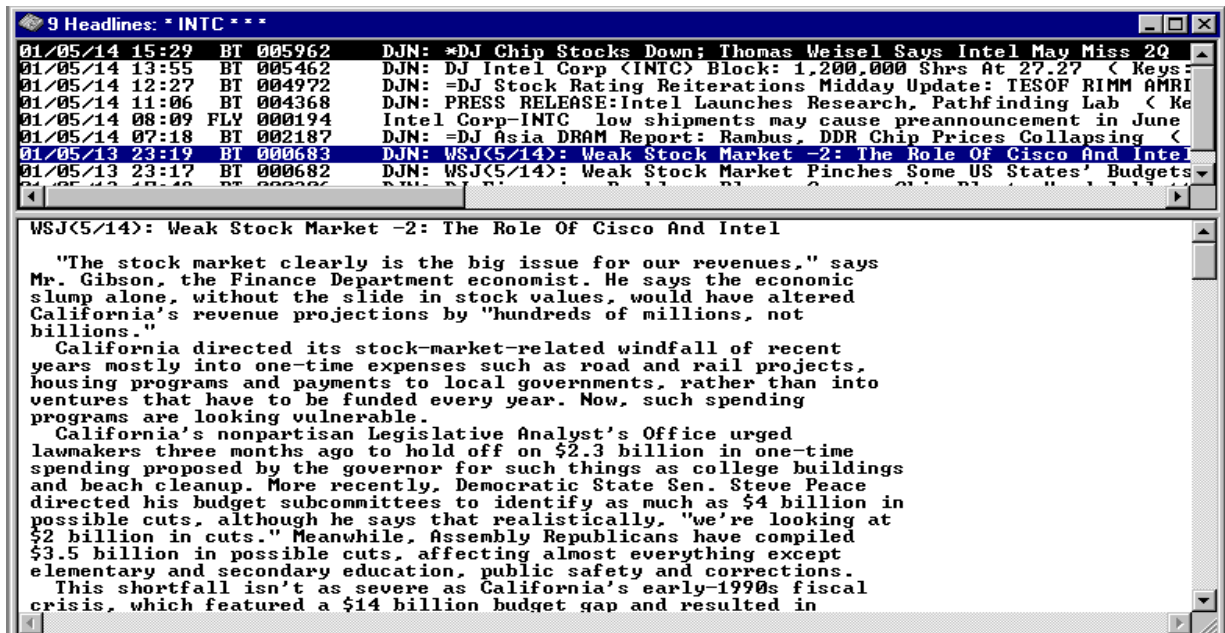


1. Select symbol.
2. Select date according to time/period specifications.
3. Add bar graphs, candlesticks and volume.
4. Click "OK."

Some other important features of the Charts (accessed by a right mouse click on the chart):

- Full technical analyses and studies may be inserted including moving averages, relative strength and stochastics.
- Colors and fonts of the chart may be changed to your preference.
- Zoom in or out of a particular time period of a chart to get a closer look at the movement of a stock.
- Draw trend lines to obtain a better feel of the movement of a stock.
- Use the toolbar to perform many charting functions with a click of the mouse.

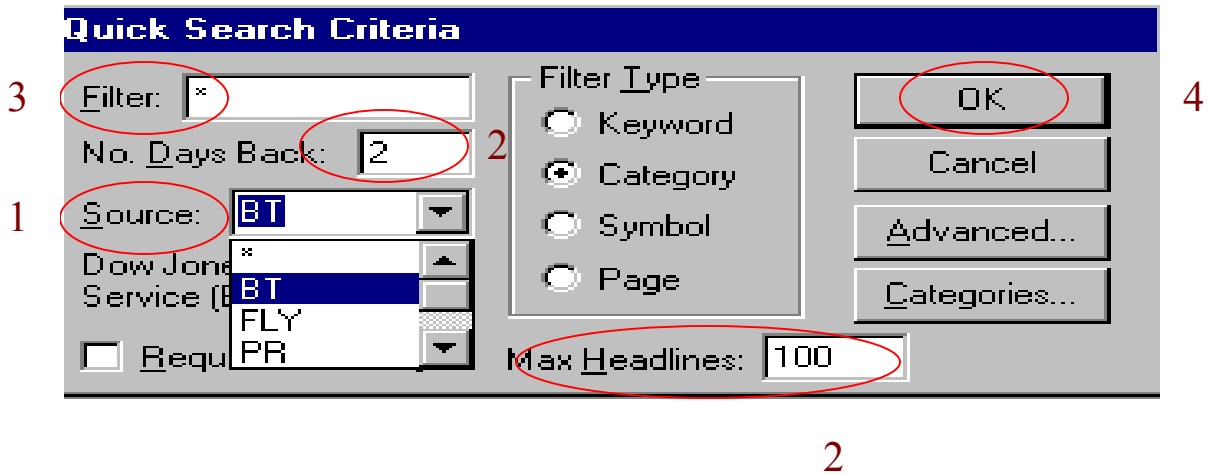
News



The news screen displays headlines on the breaking stories that move the markets. The standard news source is Fly on the Wall, providing breaking news directly from Wall Street brokers, trading desks, money managers, research firms and companies.

Also available is the Dow Jones News Wire, Comtex news network and RealTimeTraders news. The Dow Jones News Wire encompasses a wide variety of news, from the latest financial headlines to sports and world news. Comtex delivers regularly updated headline news from around the world, focusing on corporate, economic and legislative news that influences market activity. RealTimeTraders News is an innovative market news service that delivers real-time financial news and stock alerts. Each of these news sources are fee based. For information on the pricing for the Dow Jones News Service, Comtex and RealTimeTraders News, please click [here](#).

News Setup



1. Choose the News source: BT = Dow Jones BroadTape, FLY = Fly on the Wall PR = PR News wire and RTT = RealTimeTraders. The asterisk will select all news sources.
2. Determine the number of days the news articles will display and the maximum number of headlines to be displayed.
3. The filter will select a certain subject that you wish to view. The asterisk will select all subjects. The filter type allows you to choose how to filter the news stories. For example, the news stories on a particular symbol, enter the symbol next to Filter and highlight the bullet point next to symbol.
4. Click "OK" to retrieve your news headlines.

Some important aspects to note about the News screen:

- The upper half of the news screen will populate with a list of the headlines chosen. Double click on a headline and the story will appear in the lower half of the news screen.
- Resize the middle line between the listing of the articles and the news story.
- Choose alarm (right click on news screen) to set alarms for news stories. An alert will popup when the story is released.
- Make the news window a floating window and move it off of the trading page. Right click the mouse and choose Child -> Popup

Turbo Options

Day Volume	Ask	Calls Bid	Change Close	Last	MSFT	Last	Change Close	Puts Bid	Ask	Day Volume
30478900	71.91	71.90	.52	71.90	MSFT					
May '01										
765	12.30	12.00	.30	12.00	60	.20	.00	.10	.15	1030
2336	7.40	7.20	.40	7.40	65	.40	-.10	.30	.40	8045
20311	3.20	3.10	.25	3.20	70	1.20	-.20	1.15	1.20	3643
6511	.80	.70	.05	.80	75	3.80	-.30	3.60	3.90	351
497	.20	.10	-.05	.15	80	9.30	.00	7.90	8.30	0
0	.05	0	.00	.05	85	17.90	.00	12.90	13.30	0
Jun '01										
18	12.90	12.70	.30	12.70	60	.90	.15	.75	.80	430
99	8.70	8.50	.30	8.50	65	1.40	-.05	1.35	1.50	5630
4604	5.00	4.80	.40	5.00	70	2.65	-.35	2.70	2.80	1732
2009	2.35	2.25	.05	2.25	75	5.10	-.50	5.00	5.30	30
268	.90	.80	.00	.85	80	8.60	-.20	8.60	8.90	20
17	.40	.30	.00	.35	85	14.00	0	13.00	13.40	7
Jul '01										
Oct '01										

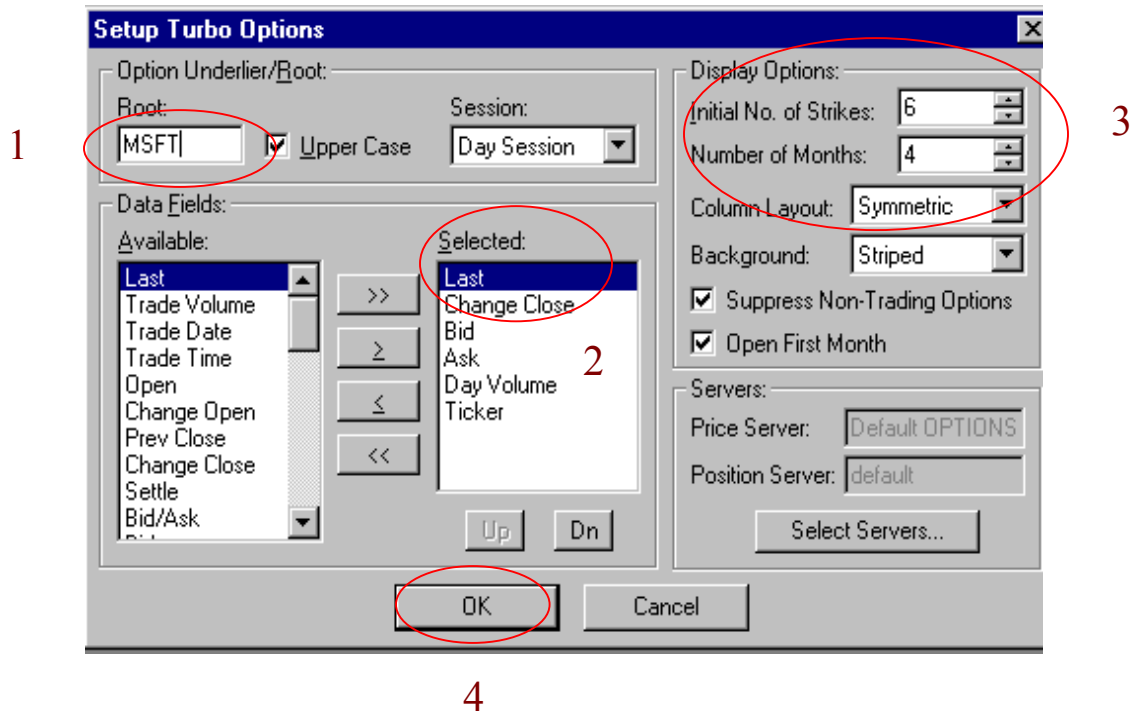
Exch	Bid	Vol	Exch	Ask	Vol
PSE	12.00	18	CBO	12.30	727
PHS	11.90	0	PHS	12.40	0
ASE	11.90	20	ASE	12.40	20
CBO	11.90	727	PSE	12.50	18

Symbol	+MSQEL	MSFT MAY 01 60 CALL	Open/Close	Auto	Expiration	Day
Price	12.40	LMT	Volume	1	Partial	Reserve Amt. 100
Margin	Buy +MSQEL	Sell +MSQEL	Cancel All +MSQEL			

Turbo options is a sophisticated, yet easy-to-use options trading platform that provides all necessary data at your fingertips. View the strikes and expiration months for any symbol of your choice. Options chains are provided for your reference and can be loaded into the order entry portal with a click of the mouse. Choose which options exchange the order will be routed to by using the table in the lower left-hand corner of the platform. This table provides the bid/ask price, volume and the exchange where the option is traded.

To view a brief tutorial on Turbo Options, please click [here](#).

Turbo Options Setup



1. Select a symbol.
2. While six different data fields are selected automatically, customize the fields by subtracting or adding according to the fields in the “Available” column.
3. Change the number of strikes and months to be displayed.
4. Click “OK.”

Market Minder

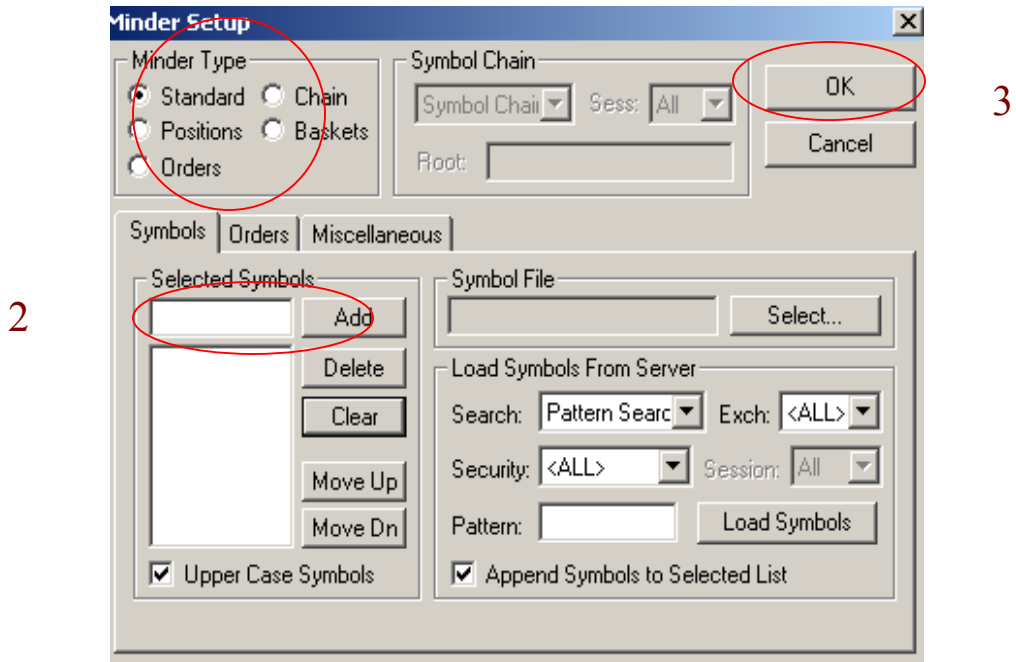
Use the market minder to track your orders, positions or stocks that are potential trades. The ability to fully customize the market minders allows flexibility in layout and the type of data that is viewed. All data is updated in real-time.

Symbol	Bid	Ask	Ask Size	Bid Size	Last	Week Vol %	Change	Volume
AAPL	20.89	20.90	500	2100	20.89	4.84	+50	826700
ADBE	31.85	31.87	200	200	31.87	2.73	+0.04	886700
ADCT	5.01	5.02	3100	2100	5.02	3.53	+0.03	1735800
AKAM	5.10	5.13	3400	1000	5.13	4.52	+0.10	503000
ALTR	23.55	23.59	1000	1400	23.59	4.00	+0.34	1291500
AMAT	43.05	43.08	1000	400	43.08	3.73	+0.75	3240000
AMCC	10.93	10.94	1000	1700	10.93	5.68	+0.16	3731600
AMD	17.56	17.61	1000	400	17.59		+0.12	1120700
AMKR	16.03	16.05	900	400	16.02	2.93	+0.37	154700
AMZN	10.57	10.58	1000	700	10.57	3.80	-0.43	1846900
ARBA	5.97	5.98	2900	1600	5.97	4.31	+0.05	4842700
ATML	8.09	8.10	4700	2700	8.09	4.15	+0.07	718600
CEFT	30.53	30.57	1800	400	30.57	3.85	+1.43	830500
CHKP	42.40	42.46	100	2300	42.41	5.05	+1.60	2128300
CIN	14.79	14.81	400	700	14.79	3.69	+0.53	5617500
CNXT	17.46	17.48	1000	900	17.46	13.72	+1.60	4359600
COMS	5.00	5.02	1400	1000	5.01	8.35	+0.19	1463000
CREE	26.67	26.70	100	400	26.66	8.51	+0.74	385700
CSCO	19.62	19.63	1600	100	19.63	4.49	+0.34	15718800
CTXS	22.93	22.97	1900	400	22.93	4.11	+0.90	726900
DCLK	11.56	11.59	100	400	11.55	2.78	+0.12	565400
DELL	28.32	28.35	1000	1500	28.35	3.85	+0.23	4235600
EMC	15.40	15.44	5100	200	15.40		+0.36	3978700
GTW	8.40	8.43	5000	1000	8.42		+0.32	495300
HWP	21.04	21.05	1700	5000	21.05		+0.05	1253600
ITWO	6.54	6.55	900	100	6.55	4.42	+0.25	2837800
JBL	27.62	27.72	100	100	27.69		+0.79	681300
JDSU	9.03	9.04	5100	1000	9.04	4.54	+0.51	8786300
JNPR	21.37	21.39	600	500	21.37	5.22	+1.13	6027600
MOT	16.33	16.35	700	800	16.34		+0.00	1755000
MSFT	68.28	68.29	1000	400	68.29	4.99	+0.05	5903700
NOVL	4.71	4.73	1200	1000	4.73	5.19	+0.25	929400
NTAP	22.06	22.08	200	100	22.08	3.44	+1.04	2781100
ONIS	6.63	6.65	1000	1000	6.63	3.32	-0.23	537800
ORCL	14.82	14.83	5000	1000	14.82	3.89	+0.26	8905300
PALM	3.26	3.27	7500	5800	3.26	6.34	-0.21	5052600
PAYX	38.33	38.37	100	900	38.34	3.18	+0.35	408100
QCOM	55.86	55.92	1900	700	55.92	4.24	+0.00	2373700
QLGC	52.47	52.51	300	500	52.51	3.58	+0.30	1637400
RMBS	8.30	8.35	2000	900	8.35	3.65	+0.33	346100
SUNW	12.67	12.68	2000	1000	12.68	5.10	+0.34	13138700
TMTA	1.78	1.79	1000	2000	1.78	3.11	-0.02	293800
TQNT	15.05	15.07	1100	200	15.05	5.25	-0.05	1144900

Right click on the Market Minder to set up and customize the minder. Once the minder is initially set up, right click and choose “Display Options” to customize the fonts and colors. Click “Configure Column Layout” to customize the data layout.

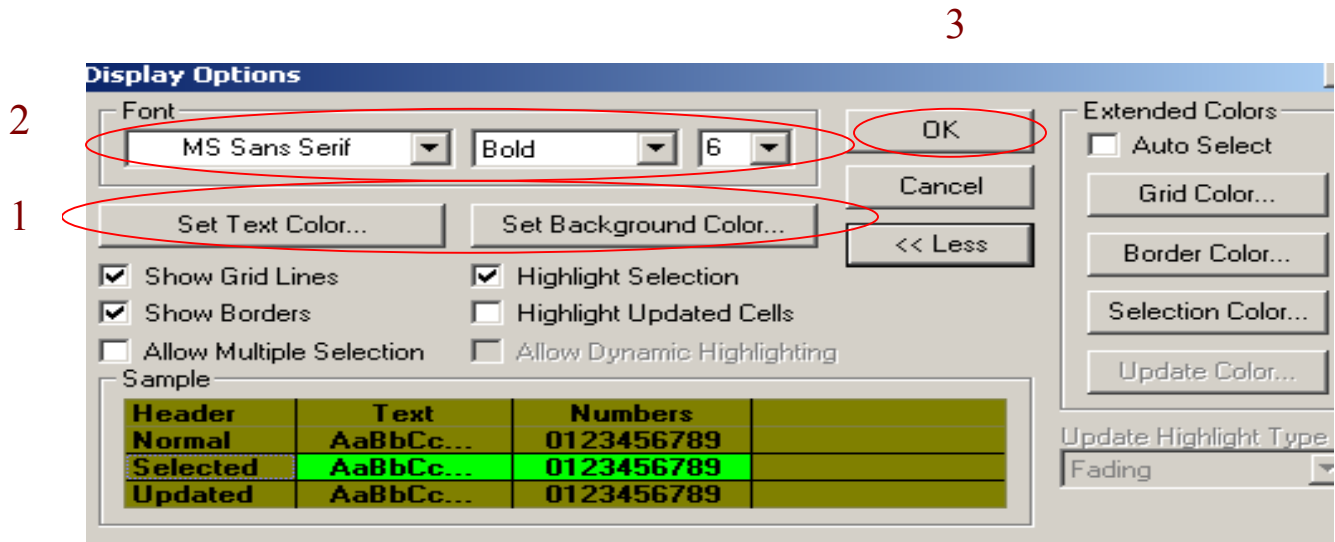
Market Minder Setup

1



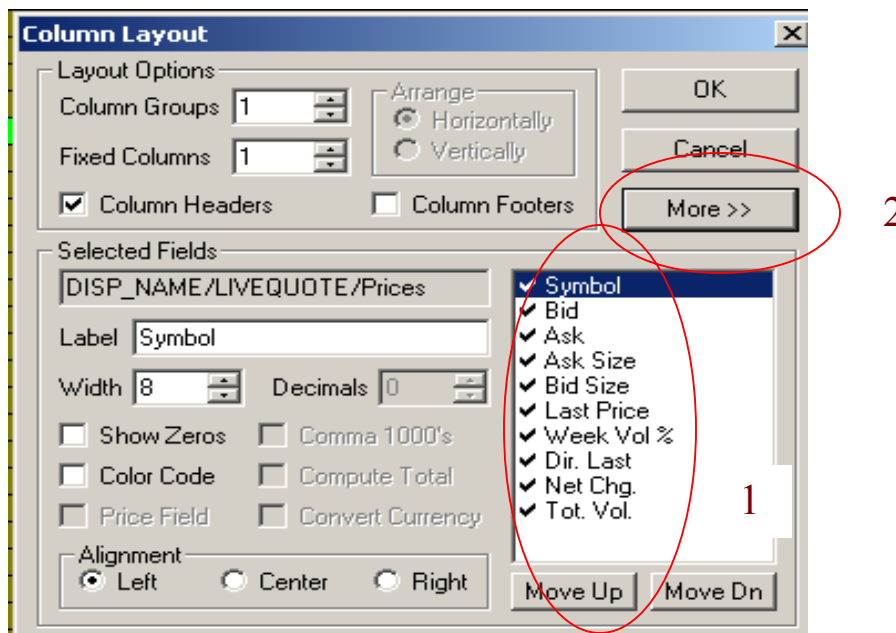
1. Select the Minder type. A standard minder would be similar to a watch list of stocks. A position minder will present a listing of all current positions. An order minder will keep track of all current open, canceled and filled orders.
2. If setting up a standard minder, select the symbols to include in the minder.
3. Click "OK."

Market Minder Display Options

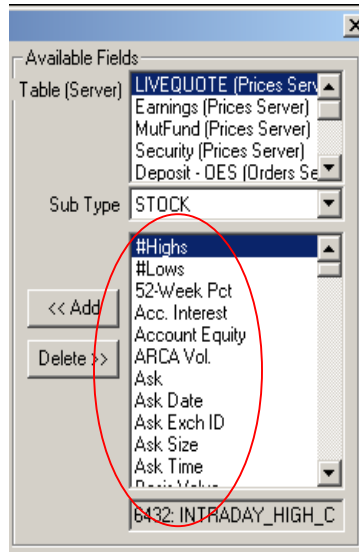


1. Select the colors for the text and background on the minder.
2. Select the font size of the text in the minder.
3. Click "OK."

Market Minder Column Configuration



The Column Layout window provides control over the layout and the type of data displayed in the market minder. The selected fields window (1) is a list of the data fields currently displayed on your minder window. Click on More >> (2) will show a multitude of other data fields available.



The above window displays the additional fields available to add to your current list of selected fields. Changing the Table brings new fields available to choose from.

Market Maker

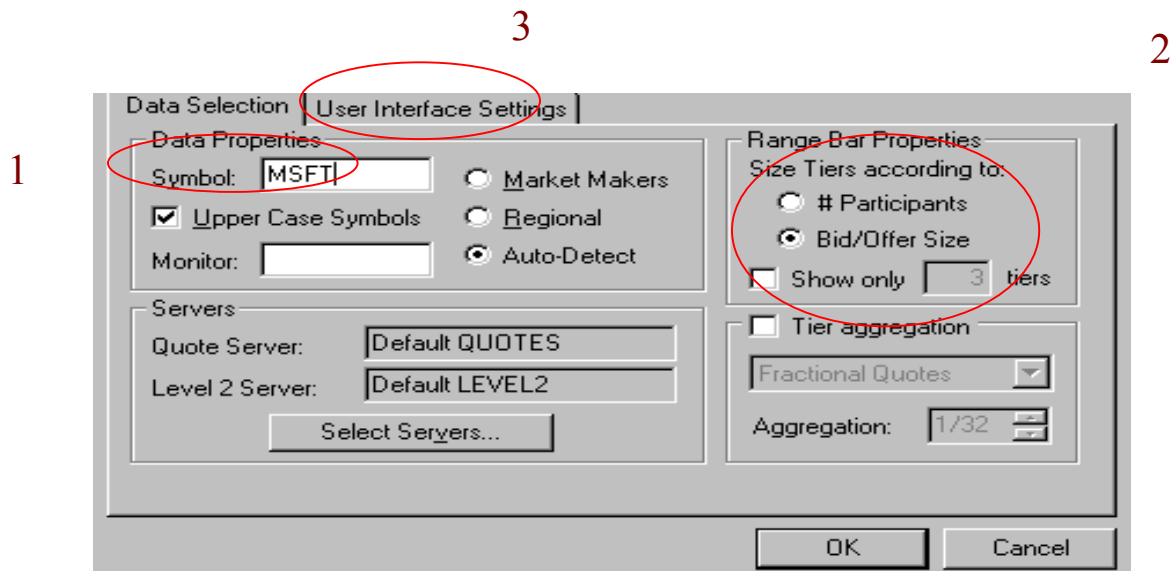
The screenshot shows a window titled "Microsoft Corporation" with a sub-header "MSFT". The main data area displays the following information:

MSFT	72.05	↓	+67	12000	16:00
High	72.10	Low	70.75		36679300
Bid ↑	72.05	Ask	72.04		71.38

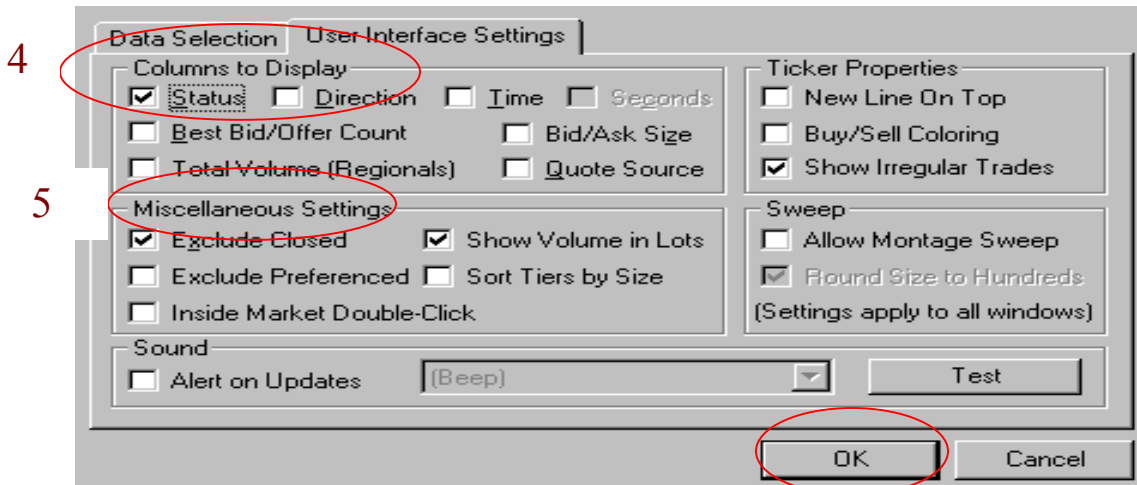
Name	Bid	Name	Ask
NDBC	72.05	ISLAND	72.03
SLKC	72.05	ISLAND	72.04
INCA	72.04	ISLD	72.04
RAMS	72.03	ARCHIP	72.05
FBCO	72.03	DBAB	72.06
SBSH	72.02	RAMS	72.06
ISLD	72.02	TWPT	72.06
ARCHIP	72.01	ARCA	72.06
NITE	72.01	ARCHIP	72.06
ARCA	72.01	INCA	72.06
HRZG	72.00	SBSH	72.07
REDIBK	72.00	REDIBK	72.08
REDI	72.00	REDI	72.08
ISLAND	71.99	ISLAND	72.08

The Market Maker window is essentially a Level II screen that displays the best bid and ask price and depth of the market for a particular equity.

Market Maker Setup



1. Select the symbol.
2. Select the Range Bar property. This will determine how the tiers are disseminated.
3. Click on “User Interface Settings” tab.



6

4. Select which columns to be displayed on the Market Maker window.
5. Choose the Miscellaneous settings according to your preferences.
6. Click “OK” when finished.

Other useful features of the Market Maker screen:

- The market maker window may be placed in a “child to popup” window. This allows the user to take the Market Maker window out of the RealTick page and place it anywhere on the desktop. (Right Click on Market Maker screen and chose “child to popup”).
- A Ticker may be added to the Market Maker screen. (Right Click on Market maker screen and choose “Show windows.”)
- A range bar may be added to the market maker screen. This will provide a linear, graphical representation of the depth of the market. (Right Click on Market maker screen and choose “Show windows.”)
- Fonts and colors may be changed according to your preferences.
- The number of times that a certain market participant has presented the best bid or offer may be displayed.
- The bid/ask size can be displayed next to the bid/ask price.

Time and Sales

Date	Time	Price	Volume	Exch	Type	Bid	BSize	BEx	Ask	ASize	AEx	Cond
12/19/2001	11:43	19.40	1000		Trade							
12/19/2001	11:43	19.40	300		Trade							
12/19/2001	11:43	19.40	700		Trade							
12/19/2001	11:43				Best Bid	19.39	27500	NAS	19.41	8700	NAS	down
12/19/2001	11:43				Best Ask	19.39	27500	NAS	19.40	8700	NAS	down
12/19/2001	11:43	19.40	300		Trade							
12/19/2001	11:43	19.39	200		Trade							
12/19/2001	11:43				Best Bid	19.39	14500	NAS	19.40	8700	NAS	down
12/19/2001	11:43				Best Ask	19.39	14500	NAS	19.40	8700	NAS	down
12/19/2001	11:43	19.34	7500		Trade							
12/19/2001	11:43	19.40	100		Trade							
12/19/2001	11:43	19.41	300		Trade							
12/19/2001	11:43	19.41	1300		Trade							
12/19/2001	11:43	19.41	200		Trade							
12/19/2001	11:43	19.41	1000		Trade							
12/19/2001	11:43	19.40	100		Trade							
12/19/2001	11:43				Best Bid	19.39	13000	NAS	19.40	8700	NAS	down
12/19/2001	11:43				Best Ask	19.39	13000	NAS	19.40	8700	NAS	down
12/19/2001	11:43	19.40	1000		Trade							
12/19/2001	11:43	19.40	1000		Trade							
12/19/2001	11:43	19.39	100		Trade							

The Time and Sales window provides a gauge on the activity on a particular stock as the security is traded. This Real Time tracker displays the buys or sells along with the price, size and the exchange, amongst other fields.

Time and Sales Setup

1

2

3

4

1. Select the symbol you wish to track in the time and sales window.
2. Choose the begin and end time.
3. Other customizations include a minimum volume size, colors and regions.
4. Click "OK."

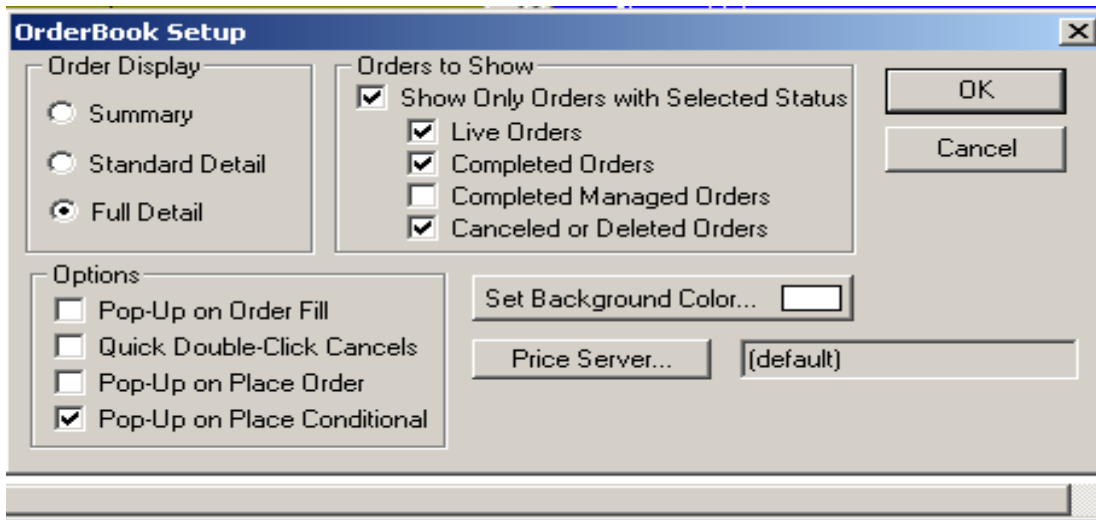
Order Book

Date	Time	Order ID	Action Taken	Result
05/09/2001	11:54:04	07a3-006a-00	Buy 100 ERICY at 6.29 on TALX (100 traded @ 6.0900)	Executed
05/09/2001	11:54:04		Bought 100 ERICY at 6.09 with FRED[order 07a3-006a-000	Completed
05/09/2001	11:54:30	07a3-006a-00	Buy 100 COMS at 5.70 on TALX	Live
05/09/2001	11:56:51	07a3-006a-00	Buy 100 T at 20.77 Deleted	Killed [CancelledByUsi
05/09/2001	11:57:00		Changed Order 07a3-006a-0003-00 to 100 T at 20.77	Completed
05/09/2001	11:57:14		Cancel order 07a3-006a-0003-00 sent to exchange	Sent
05/09/2001	11:57:15		Order 07a3-006a-0003-00 killed by the exchange for reason	Completed

T	Price	Stop Price	Volume	Margin	<input type="checkbox"/> SelectNet Pref:	<input type="checkbox"/> Conditional
<input checked="" type="checkbox"/> Uppercase	20.57	LMT	21.67	100	Partial	<input type="checkbox"/> Sell Short
REPEAT BUY		TALX DAY		<input type="checkbox"/> Post (No Pref) on ARCA		
				<input type="checkbox"/> Deferred		

The Order Book is a point and click order entry portal that also keeps a log of all trades that are executed, completed, live and cancelled.

Order Book Setup



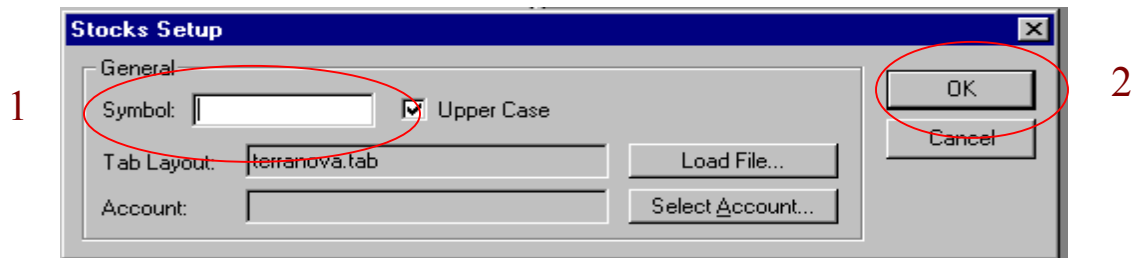
The Order Book setup screen equips the user to customize the display of the order book. Select summaries or full details of your orders. Show live, completed, cancelled or deleted orders. Enable pop-ups for filled or placed orders.

Stocks

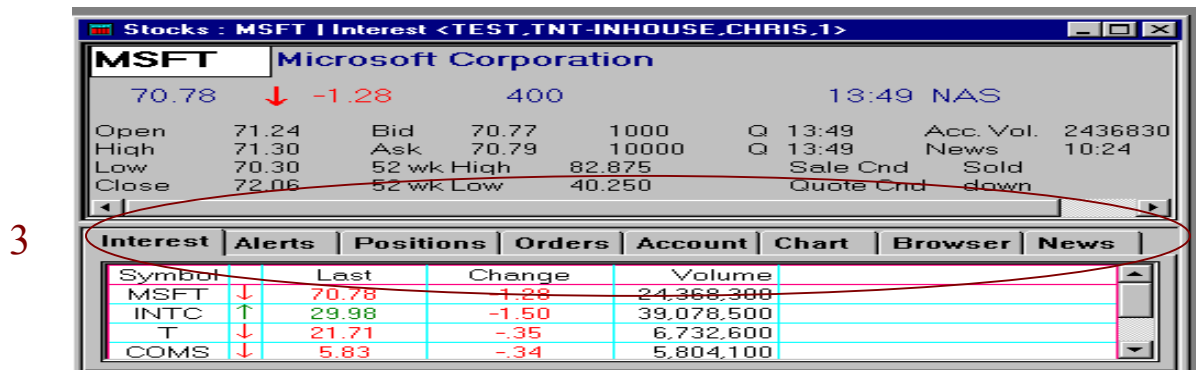
Interest							Alerts							Positions							Orders							Account							Chart							Browser							News						
T		AT&T CORP					21.75 ↑ -0.31							3900							N 12:11 NYS																																		
Open	21.90	Bid	21.74	5500	N 12:11	Acc. Vol.	5070400	High	21.91	Ask	21.76	7500	N 12:11	News	Low	21.65	52 wk High	48.81	Sale Cnd	Close	22.06	52 wk Low	16.50	Quote Cnd																															
Symbol	Status	Action	Price	Vol	Exch	Time																																																	
ERICY	COMPLETED	Buy	6.29	100	TALX	11																																																	
COMS	LIVE	Buy	5.70	100	TALX	11																																																	
T	DELETED	Buy	20.77	100	TALX	11																																																	
Totals																																																							

The Stocks screen is a versatile tool that provides a multitude of information. This screen can serve as a Level I quote window, a position and order minder, an account balance minder, chart, web browser and news index.

Stocks Setup



1. Enter the symbol you wish to populate in the Stock quote screen.
2. Click “OK.”
3. The Stock screen will populate on your RealTick page. You may customize each tab further.



Some useful aspects of the Stock screen:

- The Interest, Alerts, Positions and Orders tabs may be set up similar to the Market Minder feature (right mouse click on that particular screen).
- The Chart tab is similar to the Chart feature and may be customized as such (right mouse click on that screen).
- A web browser and the News feature can be accessed through the corresponding tab – this can save space on your RealTick page.

Note: The tabs on the stocks window maybe customized. Please contact your Terra Nova Online representative for more details.

Web Browser

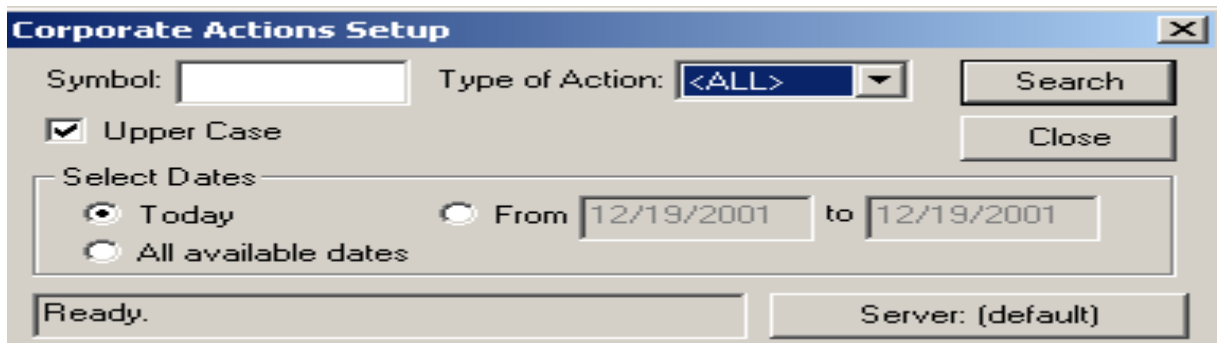


The Web Browser allows access to the internet from your RealTick platform.

Corporate Actions

Symbol	Date	Info
X	05/14/2001	Dividend set to 0.1.

The Corporate Actions window provides information regarding any actions taken by the corporation for any symbol. The Actions available to view range from dividends, stock splits, IPOs and suspension of trading activity.



Enter the symbol, type of action (dividend, IPOs, stock splits, etc.) along with the desired date range.

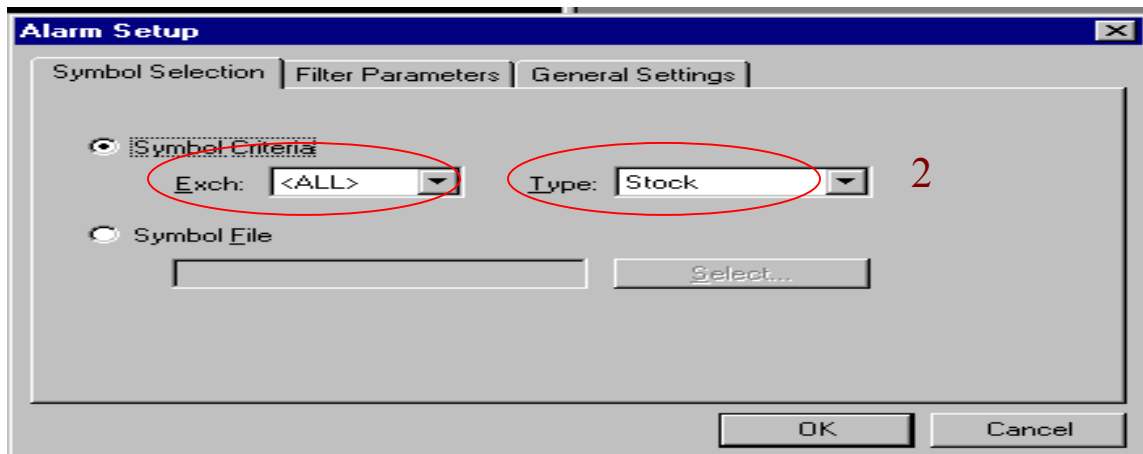
TAL Alarms



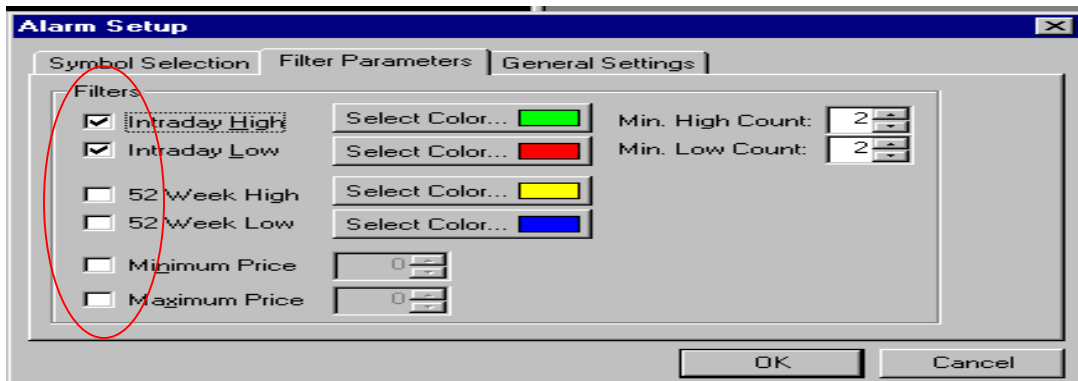
Symbol	Value	Symbol	Value
New Low for TCM (#14)	15.80		
New Low for ASCA	8.01	New Low for AREA	15.05
New Low for EAS (#11)	20.46	New Low for PDII	78.01
New Low for TTI (#2)	27.15	New Low for MIPSB	17.35
New Low for ARI (#4)	24.29	New High for EL (#11)	40.40
New Low for SGU (#3)	20.95	New High for MGRC	23.16
New Low for PRD (#8)	4.40	New Low for EMMS	26.80
New High for RDEN	23.25	New Low for KNK (#2)	23.45
New 52-week High for TESTV	16.43		
New Low for CGRT	.3000		
New High for HRBT	19.20	New Low for BRVO	.4500
New 52-week Low for AMCVP	15.55		
New High for OHRl	4.6000	New Low for MFLO	13.50
New High for MXF (#3)	17.50	New Low for LION	5.98
New 52-week High for WZR	7.70		
New Low for LEN (#14)	42.25	New High for HRBT	19.19
New 52-week High for MATW	34.78		
New High for TENF	.66		

The TAL Alarms screen provides indications of new intraday highs and lows, new 52-week highs or lows, volume, ticks and more. Establish alerts for symbols that have moved below or above a certain price (or volume, etc.).

TAL Alarms Setup



1. Under symbol criteria, choose the Exchange.
2. Select the security.

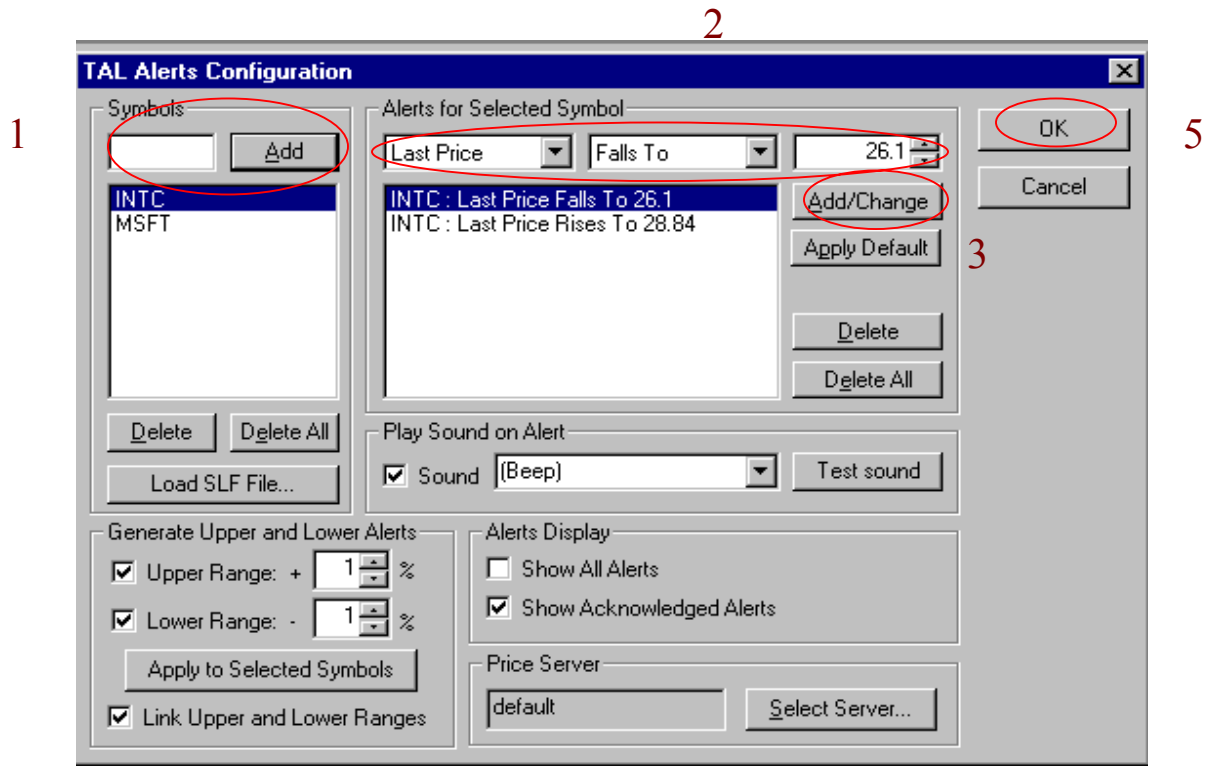


3. Under the "Filter Parameters" tab, choose the information to display in the TAL Alarms box.



4. Select the Display Options.

TAL Alarms Setup



You may also set up alarms for individual stocks according to your preference. To access this set up box, right click on the TAL Alarms screen and choose “display alerts.”

1. Insert symbol(s).
2. Set the parameters of the alarms. Choose from a variety of selections.
3. Whenever you change any parameter of an alert, click ‘Add/Change’ for it to take place.
4. When your selected parameters are met, a box will pop up as the alarm. You must then acknowledge the alarm.
5. Click “OK.”

