NAME

linuxtrade – A stock tracking console with real-time quotes

SYNOPSIS

linuxtrade [*options*] [*symbols*]

DESCRIPTION

There are a number of free and subscription streaming real time quote services available on the web, such as **scottrader.com** (free) and **money.net** (subscription). They offer visually slick looking Java based applications which suffer from all the usual problems: too big, requires a graphical user interface, requires a web browser where Java actually works, can't save and replay the data, etc. In addition, they are rarely designed to offer convenient access to stock news and other information.

linuxtrade is a *Curses* (text-based) implementation of a stock streamer application, plus additional features inspired by the excellent *MedVed QuoteTracker* Windows program, plus its own set of unique features. **linuxtrade** is lightweight yet has all the cool features: portfolios, real time quotes, charts with live updates, time and sales, fundamental and technical indicators, top ten and market movers, news articles, alerts, option chains, the Briefing.com In Play and Up/Downgrades lists, earnings, splits and quiet period calendars, and Level 2 market depth indications from the Archipelago and the Island ECN's.

linuxtrade currently supports **scottrader.com**, **schwab.com**, **money.net**, **quotemedia.com**, **sonictrading.com**, and other streamer servers; see the complete list below.

QUICK START

First, you should go to **http://www.scottrader.com** and sign up for a free account. They will send you a password by email. This takes only a minute or so.

Now, start up an **xterm**(1) or a **gnome-terminal** with as many lines as will fit on your screen. Then run the application and enter your password:

> $ **linuxtrade**
> Please sign up for your own FREE Scottrader account at:
>   http://www/scottrader.com
> Enter password (JPY9747 for demo): **XXXNNNN**

Now save these settings by pressing $\boxed{\text{P}}$, then $\boxed{\text{c}}$, and then press $\boxed{\text{s}}$ twice. If you entered a password that is not the demo password, then you won't need to enter your password again. NOTE: see sections Preferences and Changing Streamer Preferences below.

Press $\boxed{\text{?}}$ to popup the main help screen.

For more complete installation instructions, including other packages you may need to install, please refer to the INSTALLATION section at the end of this manual page.

COLOR MODES

LinuxTrade has 4 background color modes. You can set the mode on the command line with the **-c** option or on the preferences screen (press **P**). The color mode takes effect only when the application starts, so if you change it on the preferences screen, save the preferences and then quit and restart. The default color mode is **3**; the color modes are:

0	Force black background
1	Force white background
2	Use users 'dark-colored' xterm background
3	Use users 'light-colored' xterm background

SCREEN SIZE

LinuxTrade will work with an **xterm** size as small as 25x80. However, much more information can be presented if the number of lines or columns is increased.

Increasing the number of lines will allow you to see larger charts, more time and sales windows, the top 10 lists, and news windows without obscuring the main quote display.

Increasing the number of columns to at least 86 will allow you to see the percentage that the stock price has changed today.

Increasing the number of columns to at least 124 will allow you to see your stock holdings and portofolio value without having to use holdings mode.

Increasing the number of columns to at least 160 will allow you see the time and sales windows on the right side of the screen, while other information, such as a chart or a L2 book can be shown on the left side of the screen.

HELP SCREEN

```
┌──────────────────────────── Help ────────────────────────────┐
│ STOCK COMMANDS.................  INFO COMMANDS...................  │
│ a    Add Symbol(s)              c/C  Popup Stock Chart/LiveChart  │
│ d    Delete Symbol(s)           e    Popup Earnings Calendar      │
│ j/k  Move cursor down/up        g/G  Browse all charts in this list │
│ 0-9  Display stocklist #        i    Popup Fundamental Info       │
│ s#   Save current list to list # I   Popup Technical Info         │
│ S#   Save current symbol to list# n  Popup News                   │
│ A    Set alerts for stock       p/u  Popup InPlay/Upgrades list   │
│ ^A   Clear alert, ^A^A clears all b/B Popup Archipelago/Island Book │
│ H    Show/don't show holdings   l/L  Popup L2 Book                │
│ *    ... by total or share cost o/O  Popup/Browse Option Chains   │
│ #    Enter holdings (shares,cost) M  Popup NASDAQ 100 heatmap     │
│                                                                  │
│ MARKET COMMANDS................  MISC COMMANDS...................  │
│ E/N/Q Show AMEX/NYSE/NASD top 10 P   Change password/preferences  │
│ $/%  ... by net/percent change  U    Upgrade this software        │
│ m    Show Market Movers         ^N/^P Switch to next/prev streamer │
│ t    Toggle Time & Sales windows ^R  Restart current streamer     │
│ ^b   Start broker browser       W    Record session to file       │
│ ^L   Refresh screen             q    Quit/Quit popup              │
│ :?   Help for : extended commands F12 Print                      │
│                                                                  │
└─────────────────── linuxtrade 3.51 by Rick Richardson ──────────┘
```

Press ⟨?⟩ to popup the main help screen. Press any other key to hide the popup. This complete manual page can also be viewed from within **linuxtrade** using the extended command **:man**.

Each screen and function is described in the sections that follow.

EXTENDED COMMANDS HELP SCREEN

```
─────────────── Extended Commands Help ───────────────
 :sort p|P|v|V|g|G|c|C|n|N          Sort stocklist by price/vol/gain/nam
 :<number>                          Switch to stocklist <number> (1-99)
 :list [<string>]                   Switch to stocklist name <string>
 :save [<number>]                   Save the stocklist as <number>
 :label <string>                    Label the current stocklist
 :comment <string>                  Add comment to current stock
 :heatmap [etf|pmi|100]             NASDAQ Heatmaps: ETF, Premarket, 100
 :heatmap [market|heat|sector]      Money.net heatmaps
 :carpet [sector|market|index]      Stockcharts.com carpets
 :carpet [fidelity|rydex|toronto]   more Stockcharts.com carpets
 :lc [<symbol>|all]                 Lycos.com LiveChart Applet
 :pf [<symbol>|all]                 ProphetFinance ChartStream Applet
 :earnings [<symbol>]               Display full earnings info for stock
 :news/mnews/snews [<symbol>]       Display news for <symbol>
 :onews                             Popup old (saved) news window
 :halts                             Display NASDAQ trading halts
 :pre / :after [<symbol>]           Pre/after-mkt trades for <symbol>
 :wc [<symbol>]                     Display web chart for <symbol>
 :name [<symbol>]                   Full name for <symbol>
 :pe [<symbol>]                     P/E ratios for <symbol>
 :pivot [<symbol>]                  Pivots for <symbol>
 :players [@][<symbol>]             Players/Components for <symbol>
 :range [<symbol>] [<days>]         Daily range for <symbol> <days>
 :shortint [<symbol>]               Short interest for <symbol>
 :ts [<symbol>] [0|1]               T&S for <symbol>
 :whisper [<symbol>]                Earnings whisper #'s for <symbol>
 :arca [<symbol>]                   Display ARCA book for <symbol>
 :island [<symbol>]                 Display Island book for <symbol>
 :econ                              Briefing.com economic calendar
 :ipo                               Alert!IPO upcoming calendar
 :lookup <string>                   Lookup symbol for <string>
 :mmid <string>                     Lookup full MM name for <string>
 :qp                                ipo.com quiet period calendar
 :splits                            Briefing.com splits calendar
 :indexes                           Display all canonical index syms
 :majors / :dow                     Display major industries/dow stocks
 :spiders                           Display S&P select SPDRS
 :wide / :Wide                      Same as 'g'/'G' but wider charts
─────────────── linuxtrade 3.50 by Rick Richardson ───────────────
```

```
┌───────────────── Extended Commands Help ─────────────────┐
│ :ibdvol                      Get IBD unusual volume list  │
│ :bwkvol                      Get BWK unusual volume list  │
│ :frb                         Display Fed Reserve Bank $$$ input │
│ :!<cmd>                      Fill stocklist 0 by running <cmd> │
│ :clrcom                      Clear all comments in this list │
│ :clralerts                   Clear all alerts in this list │
│ :clrhold                     Clear all holdings in this list │
│ :total                       Display total holdings value │
│ :streamer <type>             Switch to streamer <type>   │
│ :manualpage                  Display full manual page     │
│ :homepage                    Browse linuxtrade home page  │
│ :grouppage                   Browse linuxtrade group page │
│ All commands and arguments may be abbreviated             │
└───────────────── linuxtrade 3.50 by Rick Richardson ──────┘
```

Press ⌷:⌷ ⌷?⌷ to popup the extended commands help screen. Note that any extended command can be abbreviated with the shortest substring that makes the command unique.

Each screen and function is described in the sections that follow.

PREFERENCES

```
┌──────────────────────── Preferences ────────────────────────┐
│ streamer            scottrader.com                           │
│ alert_mail          demo@localhost                           │
│ colormode           3                                        │
│ news_alerts         1                                        │
│ alert_ext           linuxtrade.audio                         │
│ alert_synth         default                                  │
│ top10_mkt           Q                                        │
│ top10_mode          %                                        │
│ showtotals          0                                        │
│ print_cmd           a2ps -q                                  │
│ mouse               1                                        │
│ fill_charts         prophet.net                              │
│ web_charts          stockcharts.com                          │
│ java_charts         livecharts.com                           │
│ lc_user             demo                                     │
│ lc_pass             demo                                     │
│ lc_geom             700 x 350                                │
│ lc_opts             5,1,2                                    │
│ pf_user             Guest                                    │
│ pf_pass             Guest                                    │
│ browser             gnome-moz-remote --newwin %s             │
│ broker_browser      mozilla -P linuxtrade -width 400 -height 630 │
│ broker_URL          https://pb.schwab.com/dwp/loginwiz       │
│ optchain_URL        http://www.pcquote.com/options/string.php?ticker=%s │
│ arca_host           tools.tradearca.com                      │
│ arca_port           80                                       │
│ island_host         newgritch.island.com                     │
│ island_port         80                                       │
│ island_URL          /SERVICE/SQUOTE?STOCK=%s                 │
│ live_quotes         5                                        │
│ inplay_URL          http://www.briefing.com/dlj/inplay.htm   │
│ inplay_poll         5                                        │
│ inplay_alert        5                                        │
│ updown_URL          http://www.briefing.com/dlj/updown.htm   │
│ updown_poll         5                                        │
│ updown_alert        5                                        │
│ splits_URL          http://www.briefing.com/print/FreeServices/fs_splits │
│ exthours_poll       15                                       │
│ timezone            US/Eastern                               │
│                                                              │
│  c=Change   f=Reset to Factory   F=Reset All   s=Save   q=Quit │
└──────────────────────────────────────────────────────────────┘
```

Press P to popup the Preferences screen. Use the ↑ and ↓ arrow keys or the j and k keys to move the highlighted line to the entry that you want to change, then press c to change the line.

When editing the entry, use the ← and → arrow keys to move the cursor. Use Backspace to delete the character to the left of the cursor. Use Delete to delete the character under the cursor. Press Enter when you are done making changes, or Esc to discard the changes.

Press f to reset the highlighted entry to its default value. Press F to reset all entries to their default values.

Press ⌑s⌑ to permanently save your preferences, or ⌑q⌑ to quit the popup without saving. These keys will also hide the popup.

Passwords are normally obscured with asterisks. Press ⌑Ctrl⌑ ⌑p⌑ to display passwords, and again to hide them.

Here is a description of the preference items that you can change under normal circumstances. Changing the other preferences might cause unusual behavior.

streamer	This is the source of the streamer data. Press the ⌑c⌑ key on this item to popup the Change Streamer screen where you will be able to change the streamer source and the username and password associated with it. This is fully described in the next section.
alert_mail	This is the email address for alerts.
colormode	See the COLOR MODES section above.
news_alerts	This value controls news alerts on a global basis. If the value is 0, then news alerts are completely disabled. If the value is 1, then news alerts are enabled on an individual stock basis according to the settings in the news alerts popup. If the value is 2, then news alerts are enabled for all stocks in the current portfolio, regardless of what the setting is for an individual stock.
alert_ext	This is the name of a program to run in order to deliver an external alert. The default is to use the **linuxtrade.audio** script to play a speech synthe- sized alert message. However, an alternative program or script could be written to deliver alerts many other ways, such as flashing the house lights on and off using an x10 controller.
	The external program will be passed 6 arguments on the command line. The arguments are: symbol name, last trade, last volume, alert variable, comparsion operator, comparison value.
alert_synth	The voice synthesizer to use for voice alerts.
top10_mkt	This is the default market to display on the top 10 list. A value of 'E' means to display the AMEX. A value of 'N' means to display the NYSE. A value of 'Q' means to display the NASDAQ.
top10_mode	This is the default display format for the top 10 list. A value of '%' means to display the top 10 percentage gainers. A value of '$' means to display the top 10 net gainers.
showtotal	If non-zero, portfolio totals are continuously displayed underneath the cur- rent stock list.
print_cmd	This is the command line to use which will print plain text to the print spooler. A command that can handle overstrikes for bold and italics is pre- ferred.
mouse	A non-zero value enables mouse support.
fill_charts	This is the source to use for backfilling the charts displayed with the ⌑c⌑ command when not using the streamer based charts. The source can be **prophet.net**, **quote.com** or **askresearch.com**.
	Some streamers, such as the schwab.com, esignal.com, and scottrader.com streamers, can also backfill charts. Streamers that can backfill charts will have a **usecharts** streamer preference item. Set **usecharts** to **1** to use the streamer to backfill the charts.

web_charts	This is the source to use for the printable web browser chart pages displayed with the `g` and `G` commands. The source can be **stockcharts.com**, **quote.com**, **pcquote.com** or **yahoo.com**.
java_charts	This is the source to use for Java live charts displayed with the `C` command. The source can be **livecharts.com** (a.k.a. finance.lycos.com), money.net, or two types of chart applets from **prophet.net**.
lc_user	This is the user name to use when logging into **finance.lycos.com**. This is needed if you want to get real time updates with the Lycos LiveChart java applet which is displayed with the `C` command.
lc_pass	This is the password to use when logging into **finance.lycos.com**.
lc_geom	This is the desired applet geometry (width x height) for the Lycos Live Chart java applet. The default is 700 x 350.
pf_user	This is the user name to use when logging into **prophet.net**. This is needed if you want to get real time updates with the ChartStream java applet which is displayed with the `C` command. It is also needed to get real time chart backfills from **prophet.net**. If you don't have a subscription to **prophet.net**, set the user name to **Guest**.
pf_pass	This is the password to use when logging into **fBprophet.net**.
browser	This is the command line to use when starting a new browser window.
broker_browser	This is the command line to use when starting a small browser window for quickly accessing your brokers trading website using the `Ctrl` `b` command.
broker_URL	This is the URL of the brokers trading website. It is used in conjunction with the broker_browser preference. For the least amount of graphics bloat and quickest entry of broker orders, use the brokers "web-clipping" (PDA, cell-phone compatible) lightweight web page.
optchain_URL	This is a URL to use when getting option chains, for use with streamers that do not support option chains themselves. This URL will be shown in your web browser.
inplay_poll	This is the period in minutes between refreshes of the briefing.com In Play list. A value of 0 disables this feature.
live_quotes	This is the period in seconds between updates of the live quotes in any of the displayable web documents, such as the In Play list or the Up/Downgrades list. A value of 0 disables this feature.
inplay_alert	This is the period in minutes between checks of the briefing.com In Play list for new updates when the In Play list isn't displayed. A value of 0 disables this feature. If the In Play list changes, you are alerted by the red INPLAY indicator that will appear at the top of the screen.
updown_poll	This is the period in minutes between refreshes of the briefing.com Up/downgrades list. A value of 0 disables this feature.
updown_alert	This is the period in minutes between checks of the briefing.com Up/downgrades list for new updates when the Up/downgrades list isn't displayed. A value of 0 disables this feature. If the Up/downgrades list changes, you are alerted by the red UPDOWN indicator that will appear at the top of the screen.

CHANGE STREAMER PREFERENCE

```
┌───────────────────── Change Streamer ──────────────────────┐
│streamer          scottrader.com                            │
│username          notneeded                                 │
│password          XYZ7820                                   │
│hostname          63.240.138.21                             │
│port              443                                       │
│                                                            │
│                                                            │
│ c=Change  f=Reset to Factory  F=Reset All  s=Save  q=Quit  │
└────────────────────────────────────────────────────────────┘
```

LinuxTrade currently supports six streamer data sources; see the table below for the list of supported streamers. From the Preference screen, position the cursor on the **streamer** item and press the `c` key to bring up the Change Streamer popup.

When the cursor is positioned on the **streamer** item, you can use the `c` key or the `←` and `→` arrow keys to cycle through the streamer data sources: none, scottrader.com, ameritrade.com, datek.com, esignal.com, freetrade.com, money.net, quotemedia.com, schwab.com, sonictrading.com, moneyam.com(uk), and swissquote.ch.

Use the `↑` and `↓` arrow keys to move to the **username** and **password** items. Press the `c` key to change these items to your username and password.

Passwords are normally obscured with asterisks. Press `Ctrl` `p` to display passwords, and again to hide them.

Finally, press the `s` key to save your username and password and begin using this streamer as the data source. You will then be returned to the Preferences popup. You should press the `s` key there if you want to make this streamer your permanent default streamer.

NOTE: When you enter your password for the **money.net** streamer, **LinuxTrade** will immediately authenticate you and display a hashed password in the **encpasswd** item. Under normal circumstances, do not change this value.

Quick Streamer Change. From the main screen, you can use `Ctrl` `n` to select the next streamer and `Ctrl` `p` to select the previous streamer. Each time you press `Ctrl` `n` or `Ctrl` `p` the streamer data source will change to the next or the previous streamer that has been configured with a username and password. This lets you switch to a backup streamer very quickly. The extended command **:streamer** *type* can be used to switch to a specific streamer as for the **-t** command line switch (below).

SUPPORTED STREAMERS
Here is a table of the **LinuxTrade** features which are supported with each streamer.

Streamer	Top 10	Live Quotes	Charts	Info	Option Chains	News	Cost
scottrader.com	Yes	Yes	Yes	Yes	Yes	No	Free
ameritrade.com	No	No	na	No	na	No	Free
datek.com	No	No	na	No	na	No	Free
esignal.com	No	Yes	Yes	No	na	No	(t)7.95
freetrade.com	No	No	na	No	na	No	(c)9.99
money.net	No	Yes	na	No	na	No	14.95
moneyam.com(uk)	No	No	Yes	No	na	No	Free
quotemedia.com	No	Yes	na	No	na	No	(*)12.95
schwab.com	Yes	Yes	Yes	No	na	Yes	(c)Free

sonictrading.com	No	No	na	No	na	No	Free
swissquote.ch	No	Yes	na	No	na	No	Free

(*) Delayed quotes are free with simple registration.
(c) Must be a customer.
(t) Free trial.

MAIN SCREEN

```
LinuxTrade - [FreeStreaming5]  LIST 1         01/02/2002 09:38:39 AM EST
INPLAY UPDOWN
STOCK TIME          BID/SZ     ASK/SZ     LAST/SZ    CHG    HIGH    LOW    VOL

DJI   09:38:38    0.00 0    0.00 0    10005 0   -6.88   10038  10004  1022
COMP  09:38:28    0.00 0    0.00 0    1962.9 0  12.52  1965.3 1961.0     0
SPX   09:38:33 1146.0 0  1147.7 0    1147.0 0  -1.05  1150.0 1147.0     0
CSCO  09:38:36   18.47 11  18.48 20   18.48 32   0.37  18.53  18.26 33477
SUNW  09:38:36   12.57 10  12.59 10   12.57 68   0.27  12.64  12.50 20816
INTC  09:38:36   31.85 50  31.88 10   31.87 7    0.42  31.95  31.73 23266
MSFT  09:38:34   66.40 1   66.43 9    66.41 4    0.16  66.72  66.30 12722
ORCL  09:38:35   13.91 15  13.94 25   13.93 89   0.12  13.99  13.80 22652
JDSU  09:38:34    8.76 25   8.77 10    8.76 10   0.08   8.88   8.66 33940
DELL  09:38:35   27.73 10  27.76 50   27.74 15   0.56  27.80  27.56 11280
JNPR  09:38:36   19.18 1   19.20 6    19.20 23   0.25  19.26  19.07  4937
CIEN  09:38:34   14.81 5   14.82 11   14.80 93   0.49  14.85  14.57  6864
WCOM  09:38:33   14.29 50  14.30 10   14.30 128  0.22  14.41  14.26 12769
GE    09:38:33   40.25 15  40.33 11   40.27 5    0.19  40.44  40.25  6764


NASD Top 10 Volume        NASD Top 10 Pct Gainers NASD Top 10 Pct Losers
DIMEZ   +0.00  34755   THTL    +3.91    20   SWIR    -3.85    558
JDSU    +0.10  33938   MTMS    +0.85    79   XNVA    -1.77    348
CSCO    +0.36  33376   QXLCD   +1.49     1   IINT    -1.05    384
BNKUZ   +0.00  32938   SKYE    +1.34    23   GVHR    -0.30    117
GSBNZ   +0.00  31940   MDLK    +0.39    36   SYKE    -1.13    506
CCPRZ   +0.00  26278   BIKE    +0.31    59   MPWG    -0.25     15
INTC    +0.43  23259   SEMX    +0.27    10   DIAN    -5.76   1143
ORCL    +0.11  22629   ORCC    +0.29     5   UTCI    -0.30    129
SUNW    +0.29  20745   EPMN    +0.33    22   FCGI    -1.46     48
MFNX    +0.02  18115   MTLK    +0.60   415   QVDX    -0.85    249
```

This is the main **LinuxTrade** screen. At the right of the first line of the screen there is an indicator that shows when the program is connected to the streamer server. If the indicator is a red X, then the program is attempting to connect to the streamer. If the indicator is blue or green, then the program is connected and the name of the server (e.g. FreeStreaming5) is displayed.

The top center of the screen shows the stocklist that is currently being displayed. There are 100 stocklists numbered from 0 to 99. Stocklist 0 is a temporary stocklist which is populated from the command line or from various popups such as the In Play data. Stocklists 1-9 are permanent stocklists which can be selected with a single keystroke. Press the number keys 0 to 9 to change the displayed stocklist. Press the a key to add one or more stock symbols to the currently displayed list. Press the s key twice to save the currently displayed list. Press the s key and a list number 1 to 9 to save the currently displayed list to a specific list number.

Stocklists 10-99 can be accessed using the extended commands **:<number>**, **:save [<number>]**, and **:list <name>**.

On the second line of the screen are red `INPLAY` and `UPDOWN` indicators. These appear when new information is available on the In Play and Up/Downgrade popups.

The next several lines show real time quote information for the stocks in the currently selected stocklist. The bid size, ask size, and volume are all in units of 100's of shares.

Many of the other **LinuxTrade** operations work on the stock that is currently highlighted. Use the $\boxed{\uparrow}$ and $\boxed{\downarrow}$ arrow keys or the $\boxed{\text{j}}$ and $\boxed{\text{k}}$ keys to move the highlighted line to the entry that you want to work with.

Press the $\boxed{\text{d}}$ key twice to delete the stock that is highlighted. Press the $\boxed{\text{D}}$ key to delete stocks by entering their names.

The extended command **:label** can be used to give a description to a stocklist, such as **:label Cup and Handle Stocks**.

The extended command **:comment** can be used to attach short notes to the currently highlighted stock, such as **:comment Possible Short**. The comments column is visible when the terminal width is 140 columns or more, but the full comment for the current stock also appears on the message line at the bottom of the screen. The **:clrcom** command can be used to clear out all comments in the current stocklist.

The extended command **:sort** can be used to sort the current stocklist. Only the portion of the stocklist beginning with the stock at the current cursor location is sorted. The argument supplied to the **:sort** command selects the sorting criteria:

:sort p	Sort by price lowest to highest
:sort P	Sort by price highest to lowest
:sort v	Sort by volume lowest to highest
:sort V	Sort by volume highest to lowest
:sort g	Sort by gain lowest to highest
:sort G	Sort by gain highest to lowest
:sort c	Sort by % change lowest to highest
:sort C	Sort by % change highest to lowest
:sort n	Sort symbol names alphabetically a to z
:sort N	Sort symbol names alphabetically z to a

FIELD COLORS

If the bid or ask is higher than the previous bid or ask, the bid or ask are displayed in blue or green.

If the bid or ask is lower than the previous bid or ask, the bid or ask are displayed in red.

If the bid is greater than or equal to the daily high, the stock symbol name is displayed in blue or green.

If the ask is less than or equal to the daily low, the stock symbol name is displayed in red.

If a new daily high or low is reached, the high or low is displayed in orange.

QUOTE TREND

The quote trend indicates the direction of the last 5 or more quote updates the program has received. If the terminal window is 80 columns wide, only the last 5 direction indicators will be displayed, but if the terminal window is wider than 80 columns you will see a longer period of trend data.

A colored symbol is added at the left while the trend scrolls to the right.

If last sale is higher than the previous sale, a green + sign is added.

If last sale is lower than the previous sale, a red − sign is added.

If last sale is the same as the previous sale, an equals (=) sign is added with the color of the most recent + or − sign.

TOP 10

The final ten lines of the main display show the Top 10 stocks by volume, gains, and losses. Press the E key to select the AMEX Top 10. Press the N key to select the NYSE Top 10. Press the Q key to select the NASDAQ Top 10. Press the % key to display the gainers and losers by percentage. Press the $ key to display the net gainers and losers.

HOLDINGS MODE

```
STOCK TIME        SHARES    TOTCOST      GAIN    LAST    CHG    HIGH     LOW ..

DJI   12:50:00[        0]     0.00      0.00   10130  56.46   10152   10052 ..
COMP  12:50:00         0      0.00      0.00  2026.3  47.04  2031.3  1987.1 ..
SPX   12:50:06         0      0.00      0.00  1158.0   3.36  1161.9  1154.0 ..
CSCO  12:50:14       100     10.00   2015.00   20.25   1.02   20.26   19.50 ..
SUNW  12:50:13       100   2000.00   -653.90   13.46   0.42   13.53   13.16 ..
INTC  12:50:14       800  10000.00  17976.00   34.97   1.97   35.00   33.40 ..
MSFT  12:50:14       100    500.00   6374.10   68.74   1.70   68.94   67.09 ..
ORCL  12:50:14       200   5000.00  -1980.00   15.10   1.12   15.13   14.10 ..
JDSU  12:50:11       300   4242.00  -1392.00    9.50   0.37    9.68    9.22 ..
DELL  12:50:14       400   6900.00   4660.00   28.90   1.40   29.05   27.61 ..
JNPR  12:50:14       100    300.00   1897.00   21.97   1.18   22.12   21.09 ..
CIEN  12:50:14       500   6789.00    961.00   15.50  -0.09   16.05   15.32 ..
WCOM  12:50:14       100   5426.00  -3988.00   14.38  -0.12   14.75   14.33 ..
GE    12:50:08        50   2500.00   -482.50   40.35  -0.60   40.92   40.15 ..
                            ┌──────────────Holdings Data Entry──────────────┐
   Enter the number of shares in your portfolio and the total cost of
   those shares in the SHARES and TOTCOST fields.  Use the arrow keys,
   tab, space, or enter to move between the SHARES and the TOTCOS
   fields.  Enter short positions using a negative TOTCOST.  To enter
   by cost per share, type '*<cost-per-share>' in the TOTCOST field.


   Press 'q' to quit or 's' to save and quit.
```

Holdings mode allows you to see the net gains and losses for stocks that you hold in your portfolio. You can switch to view your holdings at any time by pressing the H key. Press the H key a second time to return to the normal display. **NOTE:** If you have a wide screen display, your holdings are always displayed and holdings mode won't be needed or available.

Press the * key to change the holdings display to show the per-share cost instead of the total cost of the position.

Press the # key to enter your portfolio holdings. For each stock, you can enter the number of shares that you own and the total cost of those shares. Use the arrow keys, Tab , Space , and Enter keys to move between the fields on the data entry screen.

Prefix an amount with * to specify the per-share cost, or with = to specify the total cost, regardless whether the display is in TOTCOST or SHRCOST modes.

When you are done entering your holdings, press the s key to save the data permanently. Note that your holdings data is associated with a particular stock list.

The extended command **:clrhold** can be used to clear (zero) all holdings in the current stock list.

The extended command **:total** will display the current total value of your holdings at the bottom of the screen. The **showtotals** preference will cause the totals to be continuously displayed underneath the current stock list.

SYMBOL LOOKUP

```
┌─────────────────────────Symbol Lookup──────────────────────────────────┐
│                                                                         │
│ Symbol      Name                                         Market    Type │
│ NXTV        Next Level Communications Inc                NasdaqNM  Stock│
│ NEXAF.PK    Next PLC                                     PNK       Stock│
│ NGMC.OB     Next Generation Media Corporation            OTC BB    Stock│
│ NGTH.OB     Next Generation Technology Holdings In OTC BB          Stock│
│ NM.V        Next Millennium Commercial Corp              Vancouver Stock│
│ NPTK.PK     NextPath Technologies Inc                    PNK       Stock│
│ NXCD.OB     NextCard Inc                                 OTC BB    Stock│
│                                                                         │
│                                                                         │
└─────────────────────────────────────────────────────────────────────────┘
```

The extended command **:lookup** can be used to lookup a symbol given the portion of the corporation name listed on the command line. A popup window will appear with a table of the symbols that might be associated with that name. The example above was produced with the command **:lookup next**. Note that all of the symbol names might not be supported by the streamer that is currently selected. Use the arrow keys, PageUp , PageDown , Home and End to move through the list. Press the q key to hide the popup.

The extended command **:name** will lookup the full corporation name for the current symbol, or optionally the symbol name listed on the command line.

OPTION SYMBOLS

Option symbols can be streamed by the Scottrader, Ameritrade, Datek, eSignal, Freetrade, Money.net, and Schwab streamers. There is no universal naming convention for option symbols. Since **LinuxTrade** supports multiple streamers, it is necessary to have a consistent naming system for option symbols so you can switch between streamers and not have to change option symbols.

Option symbols are entered in a **canonical** format, which is the option root and the two letter expiration and strike price code followed by a trailing period (.). For example, the canonical symbol for Intel Sept. 20 calls is '**NQID.**'.
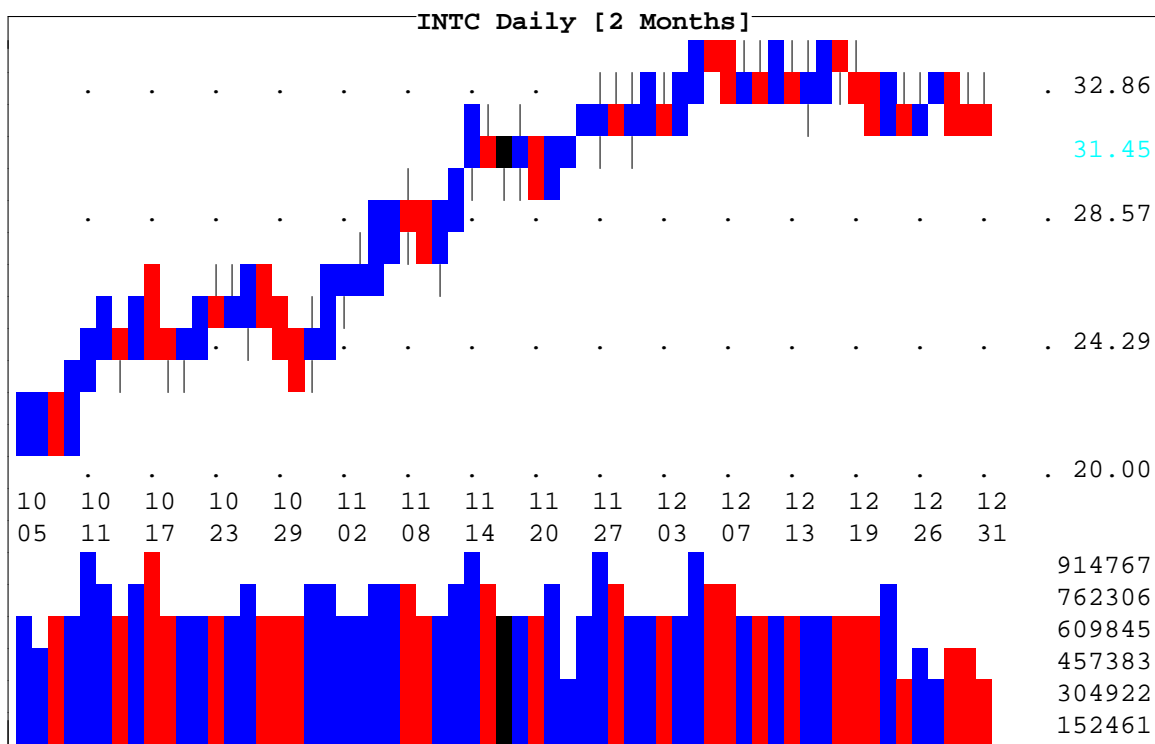
INDEX SYMBOLS

There is no universal naming convention for index symbols. Since **LinuxTrade** supports multiple stream-
ers, it is necessary to have a consistent naming system for index symbols so you can switch between
streamers and not have to change index symbols. To allow that, **LinuxTrade** maps a set of **canonical** index
symbols to the actual symbols that the streamer uses. Here is the table of canonical symbols to use for get-
ting index quotes.

Index	Canonical Symbol	scottrader .com	money .net
Dow Jones Industrial Average	$DJI	DJI	INDU
Dow Jones Transport Average	$DJT	TRAN	.DJTA
Dow Jones Utilities Average	$DJU	DJU	.DJUA
NYSE Composite	$NYA	NYA	.NYA
NASDAQ Composite	$COMP	COMP	COMPX
NASDAQ 100	$NDX	NDX	.NDX
S & P 500	$SPX	SPX	SPX
S & P 100	$OEX	OEX	.OEX
S & P 400 Mid Cap	$MID	MID	.MID
S & P 400 Small Cap	$SML	SML	.SML
S & P Retail	$RLX	RLX	.RLX
AMEX Airline	$XAL	XAL	.XAL
AMEX Biotechnology	$BTK	BTK	.BTK
AMEX Broker/Dealer	$XBD	XBD	.XBD
AMEX Composite	$XAX	XAX	.XAX
AMEX Computer Technology	$XCI	XCI	.XCI
AMEX Internet	$IIX	IIX	.IIX
AMEX Networking	$NWX	NWX	.NWX
AMEX Oil	$XOI	XOI	.XOI
AMEX Pharmaceutical	$DRG	DRG	.DRG
AMEX Telecommunications	$XTC	XTC	.XTC
GSTI Computer Software	$GSO	GSO	.GSO
Russell 1000	$RUI	RUI	.RUI
Russell 2000	$RUT	RUT	.RUT
Russell 3000	$RUA	RUA	.RUA
Philly Bank	$BKX	BKX	.BKX
Philly Gold & Silver	$XAU	XAU	.XAU
Philly Oil Services	$OSX	OSX	.OSX
Philly Semiconductor	$SOX	SOX	.SOX
Wireless Telecom	$YLS	YLS	.YLS
Disk Drives	$DDX	DDX	.DDX
Internets	$DOT	DOT	.DOT
30-Year T-Bond Yield	$TYX	TYX	.TYX
NYSE Short Term Trading	$TRIN	TRIN	.TRIN
NYSE Issues Up/Down	$TICK	TICK	.TICK
CBOE Gold	$GOX	GOX	.GOX
CBOE Implied Volatilty	$VIX	VIX	.VIX
NAS 100 Volatilty	$VXN	VXN	.VXN
NASDAQ Futures	$NQ	n/a	n/a
S&P 500 Futures	$ES	n/a	n/a

The extended command **`:indexes`** will display a stocklist with all of the canonical index symbols, assum-
ing your display has enough lines on it to display this long list (70 or more lines are needed). Other index
symbols may be added to the canonical list by emailing a request.

STOCK CHART

```
┌──────────────────────────── Chart Help ─────────────────────────────┐
│ CHART COMMANDS................... +    Increase chart duration       │
│ 1      1 Minute Chart            -    Decrease chart duration        │
│ 2      5 Minute Chart            <-- Scroll left                     │
│ 3      10 Minute Chart           --> Scroll right                    │
│ 4      Hourly Chart              HOME Scroll to beginning            │
│ 5      Daily Chart               END  Scroll to end                  │
│ 6      Weekly Chart              ^L   Refresh screen                 │
│                                  p    Display pivot points           │
└──────────────────────────────────────────────────────────────────────┘
```


INTC Daily [2 Months]

You can popup a candlestick chart for a stock. Highlight the stock of interest in the Main Screen, then press the c key to bring up the charts popup. Then press the ? key to popup up help on charts. **NOTE:** Charts look best when displayed in a terminal emulator with a lot of lines.

Press the 1 thru 6 keys to change the sample period of the chart from 1 minute to weekly. Press the + and - keys to increase or decrease the duration of the chart.

Use the ← → Home and End keys to scroll long duration charts left and right.

Press the q key to hide the chart popup.

One minute, five minute, and 10 minute charts have a live chart update feature that is activated whenever the chart is positioned at the end of the displayable data. New trades are automatically added to the chart, making the chart dynamically change as time advances.

Press the p key to display the pivot points for the stock.

JAVA CHARTS

The $\boxed{\texttt{C}}$ key will display a **finance.lycos.com** LiveChart, a **prophet.net** ChartStream Java applet, or a **money.net** ChartStream Java applet for the current stock, depending on the setting of the **java_charts** preference.

You must set the **lc_user** and **lc_pass** preferences and/or the **pf_user** and **pf_pass** preferences and/or configure the money.net streamer with a valid login name in order to get real time chart updates, otherwise the charts will be delayed. You must also have a Java SDK (see INSTALLATION below).

The extended commands **:lc**, **:mn**, and **:pf** can be used to start a LiveChart or one of the ChartStream applets without regard to the setting of the **java_charts** preference. An optional stock symbol may be passed to these commands to bring up a chart for that symbol, otherwise the current symbol is the stocklist is used.

WEB CHARTS

The $\boxed{\texttt{g}}$ and $\boxed{\texttt{G}}$ keys will use your web browser to display a page with stock charts of all of the symbols in the current stocklist in a format that is easily printed. The **web_charts** preference controls the source for these charts. The $\boxed{\texttt{g}}$ key will display intraday charts (if available from the selected source), and the $\boxed{\texttt{G}}$ key will display two month charts.

The extended commands **:wide** and **:Wide** are similar to the $\boxed{\texttt{g}}$ and $\boxed{\texttt{G}}$ commands except that the displayed charts are wider (typically two days for **:wide** and 6 months for **:Wide**).

The extended command **:wc** will display an intraday and 6 month chart for just the current symbol. An optional stock symbol may be passed to this command to bring up a chart for that symbol rather than the current symbol.

MISCELLANEOUS DATA

Several extended commands are available to retrieve miscellaneous data for either the current stock symbol, or the optional symbol listed on the end of the extended command.

Command	Description and Example
:pe	P/E ratios `INTC: P/E: 63.20, Price/Book: 3.44, Price/Sales: 4.73`
:pivot	Pivot points `INTC P=17.91 S1=17.57 S2=17.27 R1=18.21 R2=18.55`
:range	Average daily trading range `INTC: Avg. Daily Range = $1.28 (based on 7 days)`
:shortint	Most recently reported short interest `INTC: Short: 57.6M (0.93%), Float: 6.20B, AveVol: 68.5M`
:whisper	Earnings whisper numbers `INTC: Estimated: 0.13, Whisper: 0.13`

NEWS HEADLINES

```
┌──────────────────────── INTC News ────────────────────────┐
│12/31/01 15:52 Private Gifts Dropped in 2001                │
│12/19/01 16:31 Mattson Technology Appoints Chief Executive Officer; Dav│
│12/19/01 13:33 FabTime Donates Cycle Time Management Software to Arizon│
│12/19/01 11:01 Samsung Life Insurance to Focus On Intel-Based Solutions│
│12/19/01 08:08 JAMDAT Mobile Launches "Gladiator II: Quest for Freedom"│
│12/17/01 18:15 Palm Chooses TI As Chip Supplier            │
│12/17/01 08:04 Sony Online Entertainment and Intel Team Up to Bring Gam│
│12/14/01 18:59 Jury Rules Against Intel                    │
│                                                            │
│  Use the up/down arrows to select an article, then press enter to view│
└────────────────────────────────────────────────────────────┘
```

You can popup the most recent news headlines for a stock. Highlight the stock of interest in the Main Screen, then press the `n` key.

Use the arrow keys, `PageUp`, `PageDown`, `Home` and `End` to move through the list. Press the `q` key to hide the news popup.

You can also use the extended command **:news** to popup the window. An optional stock symbol can be supplied with the command, otherwise the current stock is used.

LinuxTrade uses a default "main" news source for most news. However, some streamers may also support streaming news. Those streamers have a preference **usenews** associated with them which can be set to 1 to use the streamer as the primary news source.

The extended commands **:mnews** and **:snews** can be used to force use of either the main news source, or the streamer news source.

NEWS ARTICLE

```
┌──────────────────────── Article ────────────────────────┐
│                  Jury Rules Against Intel                │
│                                                          │
│           AP Online, Friday, December 14, 2001 at 18:59  │
│SAN JOSE, Calif. (AP) - A federal jury ruled against Intel Corp.│
│on Friday in a $82 million patent infringement suit against rival│
│chip-maker Broadcom Corp.                                 │
│  The case, originally filed in August 2000, involved two patents│
│related to networking and video processing.              │
│  ''We're pleased the jury clearly recognized our products don't│
│infringe on the Intel products,'' said Bill Blanning, spokesman for│
│Irvine, Calif.-based Broadcom.                           │
│  Intel has not yet decided whether to appeal, spokesman Chuck│
│Mulloy said.                                             │
│  ''Clearly, we're disappointed in the jury's verdict,'' he said.│
└──────────────────────────────────────────────────────────┘
```

You can read a news article. Highlight the headline of interest and then press the `Enter` key. Press the `q` key to hide the news article and return to the news headlines.

SAVED NEWS

```
┌─ Saved News ──────────────────────────────────────────────────┐
│hot    09/23 18:41 *DJ AMP: Chmn To Oversee CEO Search, Step Down 6 Mo L │
│hot    09/23 18:40 *DJ AMP: Interim CEO To Be Andrew Mohl              │
│hot    09/23 18:39 DJ PEC Solutions/Gov Pact-3: Part Of Group Assigned T │
│inpla 09/23 18:35 Boeing team awarded $273 mln contract (BA)          │
│hot    09/23 18:39 *DJ AMP: To Consider Internal, External Replacements │
│hot    09/23 18:38 *DJ Australia's AMP CEO To Leave Company           │
│hot    09/23 18:38 DJ PEC Solutions/Gov Pact -2: Gets Pact Via Vector Re │
│GE     09/23 18:36 ...GOOD "FORTUNE"Retired General Electric [GE] chairm │
│hot    09/23 18:36 DJ First Banks Amer/First Banks -2: Agreed To Merger │
│hot    09/23 18:36 PRESS RELEASE: Williams Sells Alliance Pipeline Inter │
│                                                                        │
│  Use the up/down arrows to select an article, press enter to view it  v │
└────────────────────────────────────────────────────────────────┘
```

LinuxTrade supports streaming news on some streamers. Streaming news will appear on the MAIN screen below the stock lists, with the most recent headline at the top. These headlines will not be displayed on a narrow display if the market mover display is turned on.

The most recent 300 headlines are also saved for future display. Use the **:onews** extended command to popup the old (saved) news window.

Use the arrow keys, `PageUp`, `PageDown`, `Home` and `End` to move through the list. Press the `q` key to hide the news popup.

Highlight the headline of interest and then press the `Enter` key to display the article associated with the headline.

FUNDAMENTAL INFORMATION

```
┌─INTC──────────────────────INTEL CORP──────────────────458140100─┐
│Last:    32.00    Last Tick: Down   $ Change: +0.55  SharesOut: 6,725,000│
│Kid:     32.03    PrevClose: 31.45  % Change: +1.752 AnnualDiv: $0.08│
│Ask:     32.04    BxA Size:  34x25  LastSize: 100     Div. Paid: 11/30/01│
│High:    32.29    BxA Exch:  QxQ    Time:   10:30:36 LastQ EPS: $0.10│
│Low:     31.73    52wk High: 38.59  Exch:       Q    CurrQ EPS: $0.10│
│Vol:  10,035,700 52wk Low:  18.96  Yield:    0.250% PE Ratio:  42.107│
│                                                                  │
│CALCS                                                             │
│High Date:              01/31/2001  Moving avg [  9 day]:  32.260 │
│High Price:                 38.59   Moving avg [ 14 day]:  32.750 │
│Low Date:               09/21/2001  Moving avg [ 21 day]:  32.940 │
│Low Price:                  18.96   Moving avg [ 50 day]:  30.310 │
│Closing Price [Week]:   32.24       Moving avg [100 day]:  27.730 │
│Closing Price [Mon.]:   31.45       Moving avg [200 day]:  28.250 │
│Closing Price [Qtr.]:   31.45       Avg Volume [ 22 day]: 38,738,304│
│Closing Price [Year]:   31.45       Avg Volume [100 day]: 48,756,011│
│YTD Rate of Return:      0.000      Volatility [ 20 day]:  39.140 │
│Last Updated:           01/01/2002  Volatility [180 day]:  53.120 │
│                                                                  │
│VOLATILITY                                                        │
│Call Implied Vol.:  0.4656       Put Implied Vol.:   0.4628      │
│ 1 Mo. Volatility:  0.3864        7 Mo. Volatility:  0.5203      │
│ 2 Mo. Volatility:  0.4044        8 Mo. Volatility:  0.5115      │
│ 3 Mo. Volatility:  0.4724        9 Mo. Volatility:  0.6064      │
│ 4 Mo. Volatility:  0.5632       10 Mo. Volatility:  0.6354      │
│ 5 Mo. Volatility:  0.5450       11 Mo. Volatility:  0.6331      │
│ 6 Mo. Volatility:  0.5312       12 Mo. Volatility:  0.0000      │
│Last Updated:       01/01/2002                                    │
└────────────────────────────COMMON STOCK─────────────────────────┘
```

You can popup fundamental information for a stock. Highlight the stock of interest in the Main Screen, then press the [i] key. Press the [q] key to hide the fundamental information popup.

TECHNICAL INFORMATION

```
┌─INTC──────────────────────INTEL CORP────────────────────458140100─┐
│Last:     32.00    Last Tick: Down  $ Change: +0.55  SharesOut: 6,725,000│
│Kid:      32.03    PrevClose: 31.45  % Change: +1.752 AnnualDiv: $0.08   │
│Ask:      32.04    BxA Size:  34x25 LastSize: 100    Div. Paid: 11/30/01 │
│High:     32.29    BxA Exch:  QxQ   Time:   10:30:36 LastQ EPS: $0.10    │
│Low:      31.73    52wk High: 38.59 Exch:       Q    CurrQ EPS: $0.10    │
│Vol:  10,035,700 52wk Low:  18.96 Yield:     0.250% PE Ratio:   42.107   │
│                                                                         │
│CALCS                                                                    │
│High Date:             01/31/2001  Moving avg [  9 day]:   32.260        │
│High Price:                38.59   Moving avg [ 14 day]:   32.750        │
│Low Date:              09/21/2001  Moving avg [ 21 day]:   32.940        │
│Low Price:                 18.96   Moving avg [ 50 day]:   30.310        │
│Closing Price [Week]:   32.24      Moving avg [100 day]:   27.730        │
│Closing Price [Mon.]:   31.45      Moving avg [200 day]:   28.250        │
│Closing Price [Qtr.]:   31.45      Avg Volume [ 22 day]: 38,738,304      │
│Closing Price [Year]:   31.45      Avg Volume [100 day]: 48,756,011      │
│YTD Rate of Return:      0.000     Volatility [ 20 day]:   39.140        │
│Last Updated:          01/01/2002  Volatility [180 day]:   53.120        │
│                                                                         │
│VOLATILITY                                                               │
│Call Implied Vol.:  0.4656         Put Implied Vol.:    0.4628           │
│ 1 Mo. Volatility:  0.3864          7 Mo. Volatility:   0.5203           │
│ 2 Mo. Volatility:  0.4044          8 Mo. Volatility:   0.5115           │
│ 3 Mo. Volatility:  0.4724          9 Mo. Volatility:   0.6064           │
│ 4 Mo. Volatility:  0.5632         10 Mo. Volatility:   0.6354           │
│ 5 Mo. Volatility:  0.5450         11 Mo. Volatility:   0.6331           │
│ 6 Mo. Volatility:  0.5312         12 Mo. Volatility:   0.0000           │
│Last Updated:       01/01/2002                                          │
└──────────────────────────COMMON STOCK──────────────────────────────────┘
```

You can popup technical information for a stock. Highlight the stock of interest in the Main Screen, then press the `I` key. Press the `q` key to hide the technical information popup.

ALERTS

```
┌─────────────────────────── INTC Alerts ───────────────────────────┐
│                                                                     │
│                                    Alert Actions                    │
│       Type        Op       Value        xTerm    Mail    Ext    Enabled │
│                                                                     │
│      [news]      [=]     [    0.00]      [X]     [ ]     [ ]     [X]     │
│      [ ask]      [>]     [   34.00]      [X]     [X]     [ ]     [ ]     │
│      [ bid]      [<]     [   33.01]      [X]     [ ]     [ ]     [ ]     │
│      [last]      [=]     [   32.31]      [X]     [ ]     [X]     [ ]     │
│                                                                     │
│   a       Alert on ask price       NUM   Set alert value            │
│   b       Alert on bid price       +/-   Increase/Decrease value by 5% │
│   l       Alert on last price      <--/--> Increase/Decrease by 0.01 │
│   01      Alert on high price      t     Display alert on terminal  │
│   L       Alert on low price       m     Send email alert           │
│   v       Alert on volume          x     Send External alert        │
│   n       Alert on new news        e     Enable current alert       │
│   <       Alert on less than value d/DEL Delete current alert       │
│   =       Alert on equal to value  s     Save and quit alert screen │
│   >       Alert on more than value q/Esc Quit alert screen          │
│   p       Set 4 alerts based on pivots                              │
│                                                                     │
└─────────────────────────────────────────────────────────────────────┘
```

You can set alerts for a stock. Highlight the stock of interest in the Main Screen, then press the $\boxed{\text{A}}$ key to bring up the Alerts popup.

Now, use the arrow keys to highlight one of the four alert entries.

Next, press the $\boxed{\text{a}}$ $\boxed{\text{b}}$ $\boxed{\text{l}}$ $\boxed{\text{H}}$ $\boxed{\text{L}}$ or $\boxed{\text{v}}$ keys to select an alert on the ask, bid, low, high, or volume value. The **Value** column will be automatically filled in with the current value for that parameter.

Next, press the $\boxed{\text{<}}$ $\boxed{\text{=}}$ or $\boxed{\text{>}}$ keys to select the comparison operator.

Next, adjust the value. Use the $\boxed{\text{+}}$ or $\boxed{\text{-}}$ keys to increase or decrease the current value by 5%. Use the $\boxed{\leftarrow}$ or $\boxed{\rightarrow}$ keys to increase or decrease the current value by 0.01. Or, use the number keys to enter a specific value.

Next, select the type of alert action(s) that you want. Press the $\boxed{\text{t}}$ key to toggle on-terminal (on-screen) alerts on or off. Press the $\boxed{\text{m}}$ key to toggle email alerts on or off. Make sure that your email address is properly set in the Preferences popup. Press the $\boxed{\text{x}}$ key to select alert delivery by an external program (see Preferences).

Finally, enable the alert by using the $\boxed{\text{e}}$ key to toggle the enabled status.

You can enter news alerts similarly. Press the $\boxed{\text{n}}$ key to set a new news alert. There is no need to select an operator or a value for a news alert. If new news for a stock becomes available while **LinuxTrade** is running, you will be alerted.

Press the $\boxed{\text{s}}$ key to permanently save these alerts and hide the alert popup. Press the $\boxed{\text{q}}$ or $\boxed{\text{Esc}}$ keys to make the current set of alerts temporary and hide the alert popup.

Press the $\boxed{\text{d}}$ key to clear and delete the current alert entry.

NOTE: Alerts are active only on the stocklist that is displayed. This will be changed to include all stocks in all lists in a future version of **LinuxTrade**.

When you are on the main stock screen and a screen alert occurs, press the $\boxed{\text{Ctrl}}$ $\boxed{\text{a}}$ keys to clear the alert condition. Press them twice to clear all alerts.

The extended command **:clralerts** can be used to remove all alerts in the current stock list.

PIVOT POINT ALERTS

On the alert popup, press the $\boxed{\text{p}}$ key to set five alerts from the stock pivot points.

pp = (high + low + close) / 3;
r1 = (2*pp) - low;
s1 = (2*pp) - high;
r2 = pp + (r1 - s1);
s2 = pp - (r1 - s1);

QUICK ALERTS

You can quickly set high and low last price alert triggers from the main screen. Press $\boxed{\text{Ctrl}}$ $\boxed{\text{t}}$ and then enter the symbol name and the high and low alert triggers.

Alternatively, press $\boxed{\text{Ctrl}}$ $\boxed{\text{f}}$ and then enter the symbol name and the high and low alert triggers.

The difference is that triggers entered with $\boxed{\text{Ctrl}}$ $\boxed{\text{f}}$ will follow the www.trendfund.com 10 AM rule, where the trigger will be automatically adjusted before 10AM.

ARCHIPELAGO BOOK

```
 ┌INTC─────────────────────Intel Corporation──────────────────ARCA L2┐
 │Inside: 1   BidSize:     3000       Inside: 1    AskSize:      16    │
 │                                                                     │
 │                                                                     │
 │MMID    Time     BidSize BidPrice   MMID    Time     AskSize AskPrice│
 │REDI    18:26:41    3000    31.75    ISL    18:36:06     16    31.74 │
 │ISL     18:05:41    1000    31.71    ELF    18:27:11     98    31.75 │
 │ISL     17:37:26    3900    31.70    REDI   18:38:04    800    31.76 │
 │ISL     18:07:31    1000    31.68    ISL    18:39:01    100    31.79 │
 │REDI    18:29:44    3000    31.65    REDI   18:08:07   1935    31.80 │
 │ELF     17:19:08    9000    31.62    ISL    18:24:11    100    31.82 │
 │ELF     15:58:26    1000    31.61    ISL    17:25:33    200    31.83 │
 │ISL     16:55:51    3500    31.61    REDI   16:21:15   1500    31.84 │
 │REDI    17:22:08    2300    31.60    REDI   17:08:40   1000    31.85 │
 │ELF     15:46:09    1000    31.55    ISL    18:30:46    400    31.85 │
 │REDI    16:20:31     300    31.53    ELF    16:08:16   1700    31.90 │
 │ISL     16:14:41    1000    31.51    REDI   16:36:59   2500    31.90 │
 │ISL     16:47:53     300    31.50    ISL    16:08:26    200    31.92 │
 │REDI    17:08:23    1000    31.50    REDI   16:12:55    100    31.92 │
 │ISL     16:00:22    2000    31.49    ISL    11:07:06    100    31.94 │
 │34 more                              19 more                         │
 └─────────────────────────────────────────────────────────────────────┘
```

You can see the Archipelago book for a stock. Highlight the stock of interest in the Main Screen, then press the $\boxed{\text{b}}$ key to display the book. The left side of the screen shows buyers, and the right side of the screen shows sellers. The MMID indicates which ECN the order comes from; ISL is for the Island book, REDI is for the RediBook, and ELF is for the Archipelago book.

The colored horizontal bar at the top of the display gives an indication of the total number of shares being offered. Within the bar there is a vertical line. The line moves towards the right side of the screen if there are more buyers than sellers.

ISLAND BOOK

```
┌─INTC──────────────────────────────────────────────────────Island L2─┐
│ Inside:    1 BidSize:      171       Inside:    1 AskSize:      16    │
│ ███████████████████████████████████████████████████████████████████ │
│                                                                      │
│ BidSize BidPrice        AskSize AskPrice        Last Match           │
│    171     25.41             16    25.43        25.40     19:23:45    │
│  1,777     25.40            200    25.45                              │
│  1,000     25.34             40    25.45        Orders:   20,224      │
│    400     25.33             60    25.45        Volume:   6,440,555   │
│    100     25.33            250    25.48        As of:    19:28:47    │
│  3,000     25.33            100    25.50                              │
│  1,000     25.25            200    25.50                              │
│    300     25.24            400    25.52                              │
│  2,000     25.23            200    25.58                              │
│    500     25.13            100    25.59                              │
│    300     25.08          1,000    25.62                              │
│    100     24.94            300    25.63                              │
│    100     24.92            100    25.63                              │
│    300     24.84          1,000    25.63                              │
│    400     24.84             11    25.64                              │
│ ... 124 more ...        ... 261 more ...                             │
└──────────────────────────────────────────────────────────────────────┘
```

You can also see the Island book for a stock. Highlight the stock of interest in the Main Screen, then press the ⬚B⬚ key to display the book. The left side of the screen shows buyers, and the middle of the screen shows sellers. The Last Match column shows the last sale that was completed on the Island ECN.

The colored horizontal bar at the top of the display gives an indication of the total number of shares being offered. Within the bar there is a vertical line. The line moves towards the right side of the screen if there are more buyers than sellers.

OPTION CHAINS

```
                           ┌INTC Option Chains┐
│DATE  STRIKE CALLS   LAST    CHG    VOL   OPEN PUTS   LAST    CHG    VOL   OPEN│
│Mar02 15.00 NQCC   17.80     pc      0     93 NQOC   0.00     pc      0     80│
│Mar02 17.50 NQCW    0.00     pc      0      0 NQOW   0.00     pc      0      0│
│Mar02 20.00 NQCD   11.50  +0.30     18     99 NQOD   0.00     pc      0      0│
│Mar02 22.50 NQCX    9.20     pc      0    196 NQOX   0.05     pc      0     99│
│Mar02 25.00 INQCE   6.60  +0.70     45   1012 INQOE  0.10     pc      0  11000│
│Mar02 27.50 INQCY   4.20  +0.30    197   2642 INQOY  0.05     pc      0  18642│
│Mar02 30.00 INQCF   1.65  +0.55   1036  25912 INQOF  0.05  -0.10    207  72185│
│Mar02 32.50 INQCZ   0.05     --    123  43378 INQOZ  0.90  -0.70   2394  45571│
│Mar02 35.00 INQCG   0.05     --    102  58104 INQOG  3.30  -0.50    398  13867│
│Mar02 37.50 INQCU   0.05     pc      0   9119 INQOU  6.40     pc      0   1266│
│Mar02 40.00 INQCH   0.05     pc      0   4704 INQOH  8.60     pc      0    224│
│Mar02 42.50 INQCV   0.05     pc      0     39 INQOV  0.00     pc      0      0│
│Mar02 45.00 INQCI   0.00     pc      0     10 INQOI  0.00     pc      0      0│
│Mar02 47.50 INQCW   0.00     pc      0      0 INQOW  0.00     pc      0     19│
│Mar02 50.00 INQCJ   0.00     pc      0      0 INQOJ  0.00     pc      0     65│
│MaxHurt = 32.50                                                              │
│                                                                            v│
│                                                                             │
└────────────────────from cboe.com - exchange E──────────────────────────────┘
```

You can get a list of the option symbols for a stock. Highlight the stock of interest in the Main Screen, then press the [o] key to display the option symbols. The left side of the screen shows the calls, the right side of the screen shows the puts.

Use the arrow keys, [PageUp], [PageDown], [Home] and [End] to move through the list. Press the [q] key to hide the popup.

The option chains popup features a live quote feature. Quotes for each option on the display are updated every 60 seconds.

EXTERNAL OPTION CHAINS

If the currently selected streamer doesn't support option chains, you can use the [O] key to display option chains for the current stock using your web browser.

TIME AND SALES

```
┌────────CSCO────────┐ ┌────────SUNW────────┐ ┌────────INTC────────┐
│ 18.52  3200 12:29:25│ │ 12.76 15000 12:29:10│ │ 32.14   100 12:29:13│
│ 18.51  1000 12:29:27│ │ 12.77   200 12:29:12│ │ 32.14   300 12:29:15│
│ 18.50  4400 12:29:29│ │ 12.77  1500 12:29:18│ │ 32.17 15000 12:29:23│
│ 18.51 20000 12:29:31│ │ 12.76   100 12:29:20│ │ 32.15   100 12:29:27│
│ 18.50  8000 12:29:36│ │ 12.76  3500 12:29:25│ │ 32.15   100 12:29:32│
│ 18.50  1000 12:29:38│ │ 12.76  8600 12:29:29│ │ 32.15   800 12:29:34│
│ 18.49   200 12:29:41│ │ 12.76  1800 12:29:40│ │ 32.14   700 12:29:40│
│ 18.49   400 12:29:43│ │ 12.76   200 12:29:42│ │ 32.15   900 12:29:42│
└─────────────────────┘ └─────────────────────┘ └─────────────────────┘
```

Press the `t` key to turn the display of the Time and Sales window for the current stock on or off.

Press the `T` key to turn the display of the Time and Sales windows for all stocks on or off.

The Time and Sales windows show all trades for each selected stock in the stocklist, up to as many stocks as will fit on the screen. If you want more stocks displayed, simply use a terminal emulator with more lines or columns. The volume is shown in shares, not lots.

The color of each line indicates something about the sale.

Reverse blue	Reverse green	At or above daily high
Blue	Green	At or above current ask
Red	Red	At or below current bid
Reverse red	Reverse red	At or below daily low

MARKET MOVERS

```
┌────────────────────────────────────────────────────────────────────────┐
│ New Daily Lows........          New Daily Highs.......                   │
│ NVDA      66.00    -0.90          SBLU      4.22    +0.18                 │
│ AKAM       5.83    -0.11          RJR      56.80    +0.50                 │
│ GR        25.60    -1.02          MADGF     0.58    +0.13                 │
│ BSX       22.54    -1.58          SBLU      4.24    +0.20                 │
│ AKAM       5.82    -0.12          DIMEZ     0.20    +0.05                 │
│ NVDA      65.97    -0.93          IMDS      0.50    +0.02                 │
│ NVDA      65.96    -0.94          ASCL      4.19    +0.14                 │
│ AKAM       5.80    -0.14          SYY      26.05    -0.17                 │
│ PCP       26.74    -1.51          VTA       8.26    +0.26                 │
│ NVDA      65.95    -0.95          CEI      18.38    +0.27                 │
│ NVDA      65.94    -0.96          MADGF     0.59    +0.14                 │
│ WEN       28.95    -0.22          BWEB      1.69    +0.34                 │
│ TOY       19.55    -1.19          PAR       5.65    +0.52                 │
│ NVDA      65.93    -0.97          QGLY      3.17    +0.87                 │
│ NVDA      65.92    -0.98          SPG      29.55    +0.22                 │
│ NVDA      65.91    -0.99          QGLY      3.20    +0.90                 │
│ NVDA      65.90    -1.00          QGLY      3.21    +0.91                 │
└────────────────────────────────────────────────────────────────────────┘
```

Press the `m` key to toggle the display of the Market Movers data on or off. The Market Movers shows stocks making new daily highs or lows in real time.

PREMARKET AND AFTER HOURS TRADES

```
┌─────────────────────────nasdaq.com extended hours──────────────────────────┐
│                                    Page 1                                    │
│                                                                              │
│  Pre-Market Trade Reporting Friday August 9                                  │
│                                                                              │
│  Last:      $17.93        Best Bid              High:      $18.25            │
│  Volume:    296,132       Best Ask              Low:       $17.85            │
│                                                                              │
│  Pre-Market Time (ET)     Pre-Market Price      Pre-Market Share Volume      │
│  09.29                    $ 17.93               3700                         │
│  09.29                    $ 17.92               500                          │
│  09.29                    $ 17.93               800                          │
│  09.29                    $ 17.92               100                          │
│  09.29                    $ 17.93               200                          │
│  09.29                    $ 17.93               2000                         │
│  09.29                    $ 17.93               800                          │
│  09.29                    $ 17.92               100                          │
│  09.29                    $ 17.93               100                          │
│  09.29                    $ 17.92               700                          │
│  09.29                    $ 17.93               1700                         │
│  09.29                    $ 17.93               1000                         │
│  09.28                    $ 17.92               400                          │
│  09.28                    $ 17.93               1000                         │
│  09.28                    $ 17.91               1600                         │
│  09.28                    $ 17.92               100                          │
│  09.28                    $ 17.95               900                          │
│  09.25                    $ 17.95               5000                        v│
└──────────────────────────────────────────────────────────────────────────────┘
```

The extended commands **:pre** and **:after** will popup a window that displays the NASDAQ premarket or after hours trades for the current symbol (or for a specific symbol listed on the command line).

The time and sales data is displayed with an internal text-based web browser. Use the arrow keys, `PageUp`, `PageDown`, `Home` and `End` to move through the list of trades. Press the `q` key to hide the popup.

Currently, NASDAQ supplies premarket trade information on a real time basis, but after hours trades on a 15 minute delayed basis. The trades are limited to those trades during the NASDAQ extended hours sessions, 8AM to 9:30AM and 4PM to 6:30PM. Trades on ECN's are not included.

IN-PLAY

```
┌──────────────────Briefing.com In Play──────────────────┐
Updated: 02-Jan-02 10:59 ET     Comprehensive coverage on ShortStories,
analysis on Story Stocks
Today's In Play


10:59 ET Schering-Plough (SGP)  [35.20    -0.61]  35.12 -0.69 (-1.9%):
ABN AMRO comments on news that Phase III clinical trials of a
fixed-combination tablet containing Claritin and Merck's (MRK -0.7%)
Singular did not demonstrate a statistically significant improvement in
the treatment of seasonal allergic rhinitis. According to firm, the
companies had hoped the combination would offset oncoming
generics. Views news as having more of an impact on SGP given that
Claritin will face generic competition will in early 2003.
10:54 ET eBay (EBAY)  [65.30    -1.60]  65.01 -1.89 (-2.9%): -- Update --
Technical -- Worth watching today and over the next several sessions as
the chart has weakened in terms of its near-term outlook.  Stock is
currently working to hold support at 65.00 -- on a clean break lower
look for subsequent support at congestion around 63.7/63.8 followed by
additional support at its 50-day moving average of 62.15.  The intraday
tone would improve on a break above 65.50.
10:32 ET Nasdaq Composite : -- Technical -- Index continues to maintain
a posture over near-term support at congestion around 1950.  On a break
```

Press the $\boxed{P}$ key to popup the *Briefing.com In Play* list. The list is displayed with an internal text-based web browser. Use the arrow keys, $\boxed{\text{PageUp}}$, $\boxed{\text{PageDown}}$, $\boxed{\text{Home}}$ and $\boxed{\text{End}}$ to move through the list. Press the $\boxed{q}$ key to hide the popup.

LinuxTrade automatically looks for stock symbols in the In Play list and adds them to stocklist number **0**. This lets you watch the days hot stocks by switching the main screen to stocklist 0 after displaying the In Play list.

If the In Play popup is displayed and the display is on the first line of the list, then **LinuxTrade** will automatically refresh the information periodically. You can set the interval between refreshes with the **inplay_poll** preference value. The poll period is in minutes; set it to 0 to disable this feature.

If the preference item **live_quotes** is non-zero, then live quotes will be added to the right side of the display. These quotes will be updated in real time.

UP/DOWNGRADES

```
                        ┌Briefing.com Up/Downgrades────────────┐
│Updated: 10:28 ET 02-Jan-02                                   │
│                                                              │
│Upgrades                                                      │
│                                                 Live Quotes  │
│Company    Symbol Brokerage UpgradeFrm UpgradeTo Target  Price  Change │
│CSG Syste  CSGS   Buckingha Swap       Neutral            40.21  -0.24 │
│Novatel W  NVTL   USB Piper Mkt Perfor Outperfor           1.54  +0.32 │
│Genentech  DNA    USB Piper Mkt Perfor Outperfor $65      52.99  -1.26 │
│Intimate   IBI    Banc of A Mkt Perfor Buy       $20      15.25  +0.39 │
│AnnTaylor  ANN    Banc of A Mkt Perfor Buy       $42      34.50  -0.50 │
│Apple Com  AAPL   Gerard Kl Neutral    Outperfor $26      22.43  +0.53 │
│AT         T      Merrill L NT Neutral NT Buy    $21      18.43  +0.29 │
│                                                              │
│Downgrades                                                    │
│                                                              │
│Company    Symbol Brokerage DowngradFr DowngraTo Target       │
│Gladstone  GLAD   BB Capita Strong Buy LT Buy    $19      18.15  -0.35 │
│Imclone S  IMCL   Stephens  Buy        MktOutper $49      43.90  -2.56 │
│MTR Gamin  MNTG   Dresdner  Buy        Add       $18      14.91  -1.09 │
│Corn Prod  CPO    Prudentia Buy        Hold      $38      32.84  -2.41 │
│IMS Healt  RX     Bear Stea Buy        Attractiv $22      19.26  -0.25 │
│INRANGE    INRG   Salomon S Buy        Outperfor $15      11.77  -0.58 │
│EOG Rsrcs  EOG    UBS Warbu Buy        Hold      $41      37.52  -1.59▼│
└──────────────────────────────────────────────────────────────┘
```

Press the ⌷P⌷ key to popup the *Briefing.com Up/Downgrades* list. The list is displayed with an internal text-based web browser. Use the arrow keys, ⌷PageUp⌷ , ⌷PageDown⌷ , ⌷Home⌷ and ⌷End⌷ to move through the list. Press the ⌷q⌷ key to hide the popup.

LinuxTrade automatically looks for stock symbols in the up/downgrades list and adds them to stocklist number **0**. This lets you watch the days hot stocks by switching the main screen to stocklist 0 after displaying the up/downgrades list.

If the up/downgrades popup is displayed and the display is on the first line of the list, then **LinuxTrade** will automatically refresh the information periodically. You can set the interval between refreshes with the **inplay_poll** preference value. The poll period is in minutes; set it to 0 to disable this feature.

If the preference item **live_quotes** is non-zero, then live quotes will be added to the right side of the display. These quotes will be updated in real time.

EARNINGS CALENDAR

```
┌─────────────────Bloomberg Earnings Calendar for 01/04/2002─────────────────┐
│                                                                            │
│ Page F                                                                     │
│                     Expected Period Est   / Actual            Live Quotes  │
│ Symbol Company Name Ann Date Ending EPS   / EPS    Audio     Price  Change  │
│ CLRNE  CLARENT CORP 01/04/02 12/01  -0.40 / - -               5.35   +0.00  │
│ FORD   FORWARD INDS 01/04/02 12/01  --    / --                1.14   +0.07  │
│ SIMN   SIMON TRANS  01/04/02 12/01  --    / --                3.30   +0.65  │
│ THC    TENET HEALTH 01/04/02 11/01  0.70  / 0.77  Listen     61.75   +1.75  │
│ VPS    VERMONT PURE 01/04/02 10/01  0.04  / - -               4.90   +0.05  │
│ GAP    GREAT ATL    01/07/02 11/01  0.07  / --               24.78   +0.03  │
│ UNF    UNIFIRST COR 01/07/02 11/01  0.37  / --    4:00pm     21.75   -0.16  │
│ AA     ALCOA INC    01/08/02 12/01  0.10  / --               37.16   +1.02  │
│ CRAI   CHARLES RIVE 01/08/02 11/01  0.20  / --    10:00a     21.00   +0.99  │
│ EMMS   EMMIS COMM C 01/08/02 11/01  -0.30 / --               23.57   +0.97  │
│ FRS    FRISCHS RSTR 01/08/02 11/01  0.29  / --               15.37   -0.25  │
│ HELE   HELEN OF TRO 01/08/02 11/01  0.32  / --    11:00a     12.32   -0.01  │
│ HMSY   HEALTH MGMT  01/08/02 10/01  --    / --                3.28   -0.01  │
│ ICLR   ICON PLC     01/08/02 11/01  0.28  / --               28.96   +0.65  │
│ IMGC   INTERMAGNETI 01/08/02 11/01  0.19  / --               25.70   -0.10  │
│ NUHC   NU HORIZONS  01/08/02 11/01  0.02  / --    4:15pm     10.65   -0.04  │
│ RPM    RPM INC      01/08/02 11/01  0.22  / --    10:00a     15.12   +0.20  │
│                                                                            │
└────────────────────────────────────────────────────────────────────────────┘
```

Press the P key to popup the *Bloomberg Earnings Calendar*. The calendar is displayed with an internal text-based web browser. Use the arrow keys, PageUp , PageDown , Home and End to move through the list. Press the q key to hide the popup.

Use the → and ← keys to move the calendar display forward or backward by one day. Use the + and - keys to move the calendar display to the next or the previous week.

LinuxTrade automatically looks for stock symbols in the earnings calendar and adds them to stocklist number **0**. This lets you watch the days hot stocks by switching the main screen to stocklist 0 after displaying the earnings calendar.

If the preference item **live_quotes** is non-zero, then live quotes will be added to the right side of the display. These quotes will be updated in real time.

If the preference item **mouse** is non-zero, then you can select a conference call to listen to. Under the **Audio** column, click on the word **Listen**. The RealNetworks **realplay** program must be installed on your system for this to work.

The extended command **:earnings** can be used to display detailed earnings information for the current stock in your web browser. An optional symbol name can be supplied to the **:earnings** command to display information on that stock.

SPLITS CALENDAR

```
                      ┌Briefing.com Splits Calendar┐
                                                                      
April                                                  Live Quotes
Company         Symbol Ratio Payable Ex-Date Announced Opt   Price  Change
Jacobs          JEC    2-1   Apr 01  Apr 02  Feb 12    Yes   71.29  +0.00
99 Cents Onl    NDN    4-3   Apr 03  Apr 04  Mar 12    Yes   38.34  +0.00
Alliance Gam    ALLY   2-1   Apr 08  Apr 09  Mar 20    Yes   30.53  +0.00
McCormick       MKC    2-1   Apr 08  Apr 09  Feb 19    Yes   51.13  +0.00
THQ Inc         THQI   3-2   Apr 09  Apr 10  Mar 08    Yes   49.10  +0.00
Applied Mate    AMAT   2-1   Apr 16  Apr 17  Mar 21    Yes   54.27  +0.00
Autodesk        ADSK   2-1   Apr 18  Apr 19  Mar 14    Yes   46.69  +0.00
MASSBANK        MASB   3-2   Apr 19  Apr 22  Jan 16          46.00  +0.00
Progressive     PGR    3-1   Apr 22  Apr 23  Mar 19    Yes  166.62  +0.00
Dean Foods      DF     2-1   Apr 23  Apr 24  Feb 21    Yes   75.72  +0.00

May
Company         Symbol Ratio Payable Ex-Date Announced Opt
Darden Rest     DRI    3-2   May 01  May 02  Mar 21    Yes   40.59  +0.00
ABM Industri    ABM    2-1   May 06  May 07  Mar 12          36.70  +0.00
Cathay Banco    CATY   2-1   May 09  May 10  Mar 22          72.10  +0.00
Enterprise P    EPD    2-1   May 15  May 16  Feb 27          48.35  +0.00
Fulton Fincl    FULT   5-4   May 20  May 21  Mar 19          25.04  +0.00
NTT DoCoMo      DCM    5-1   May 22  May 22  Mar 04          68.40  +0.00

June
Company         Symbol Ratio Payable Ex-Date Announced Opt
First Data      FDC    2-1   Jun 04  Jun 05  Mar 07    Yes   87.25  +0.00
PMI Group       PMI    2-1   Jun 14  n/a     Feb 21    Yes   75.76  +0.00

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```

Enter the extended command **:splits** to popup the *Briefing.com Splits Calendar*. The calendar is displayed with an internal text-based web browser. Use the arrow keys, `PageUp` , `PageDown` , `Home` and `End` to move through the list. Press the `q` key to hide the popup.

LinuxTrade automatically looks for stock symbols in the splits calendar and adds them to stocklist number **0**. This lets you watch the stock that are pending splits by switching the main screen to stocklist 0 after displaying the splits calendar.

QUIET PERIOD CALENDAR

```
┌──────────────────────Quiet Period Calendar───────────────────────┐
│                     IPO.com: Lock-up Period Calendar              │
│ Companies Exiting the Quiet Period                  Live Quotes   │
│Quiet End  Trading Company            Symbol  Offering  Price  Change│
│04/22/02  03/27/02 MedSource Technologi MEDT    $12.00  14.00  -1.00│
│05/06/02  04/09/02 Empire Financial Hol EFH     $6.00    4.75  -0.05│
│05/07/02  04/12/02 Jetblue Airways Corp JBLU    $27.00  43.63  -0.57│
│05/07/02  04/12/02 Ribapharm Inc.       RNA     $10.00  11.80  +0.60│
│05/13/02  04/18/02 Expressjet Holdings, XJT     $16.00  16.15  +0.15│
│05/13/02  04/18/02 Medical Staffing Net MRN     $19.00  22.20  +0.70│
│  Any investment bank not involved with the underwriting can start │
│coverage immediately.                                              │
│                  Printed Saturday, April 20, 2002                 │
│                                                                   │
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│improvements and/or changes in this product(s) and/or the program(s)│
│described in this publication at any time.                         │
│                                                                   │
└───────────────────────────────────────────────────────────────────┘
```

Enter the extended command **:qp** to popup the *IPO.com Quiet Period Calendar*. The calendar is displayed with an internal text-based web browser. Use the arrow keys, PageUp , PageDown , Home and End to move through the list. Press the q key to hide the popup.

LinuxTrade automatically looks for stock symbols in the quiet period calendar and adds them to stocklist number **0**. This lets you watch stocks in the quiet period by switching the main screen to stocklist 0 after displaying the quiet period calendar.

ECONOMIC CALENDAR

```
┌────────────────────────Briefing.com Econ Calendar─────────────────────────┐
│Economic Calendar                                                           │
│                                                                            │
│Updated: 09-Aug-02 │ Click here for description of column headings          │
│This Week's Calendar  Click on a release for Instant Analysis!              │
│                                                                            │
│Date   ET     Release            For   Actual Briefi Consen Prior           │
│Aug 09 08:30 Productivity-Prel  Q2     1.1%   0.6%   0.7%   8.6%   8.4%      │
│Week of August 12 - August 16                                               │
│                                                                            │
│Date   ET     Release            For   Actual Briefi Consen Prior           │
│Aug 13 08:30 Retail Sales       Jul           1.5%   1.2%   1.1%            │
│Aug 13 08:30 Retail Sales ex-au Jul           0.2%   0.3%   0.4%            │
│Aug 13 14:15 FOMC Meeting                                                   │
│Aug 14 08:30 Business Inventori Jun           0.2%   0.2%   0.2%            │
│Aug 15 08:30 Initial Claims     08/10         370K   NA     376K           │
│Aug 15 09:15 Industrial Product Jul           0.0%   0.2%   0.8%            │
│Aug 15 09:15 Capacity Utilizati Jul           76.1%  76.2%  76.1%          │
│Aug 15 12:00 Philadelphia Fed   Aug           5.0    8.5    6.6            │
│Aug 15 14:00 FOMC Minutes       6/26                                        │
│Aug 16 08:30 CPI                Jul           0.1%   0.2%   0.1%            │
│Aug 16 08:30 Core CPI           Jul           0.1%   0.2%   0.1%            │
│Aug 16 08:30 Housing Starts     Jul           1.690M 1.670M 1.672M         │
│Aug 16 08:30 Building Permits   Jul           1.670M 1.680M 1.700M         │
└────────────────────────────────────────────────────────────────────────────┘
```

Enter the extended command **:econ** to popup the *Briefing.com Economic Calendar*. The calendar is displayed with an internal text-based web browser. Use the arrow keys, PageUp , PageDown , Home and End to move through the list. Press the q key to hide the popup.

HEATMAPS and CARPETS

The extended commands **:heatmap** and **:carpet** run various Java applets which display market heatmaps and carpets. For these commands to work, one or more Java SDK's must be installed (see INSTALLATION below).

The heatmaps and carpets that are available are:

:heatmap etf	nasdaq.com exchange traded funds heatmap
:heatmap pmi	nasdaq.com premarket heatmap
:heatmap 100	nasdaq.com NASDAQ-100 heatmap
:heatmap	If before 9:30, premarket heatmap, else NASDAQ-100 heatmap
:heatmap market	money.net marketMETER
:heatmap heat	money.net heatmap
:heatmap sector	money.net sectorTRACKER
:carpet sector	stockcharts.com sector carpet
:carpet market	stockcharts.com market carpet
:carpet index	stockcharts.com index carpet
:carpet fidelity	stockcharts.com Fidelity mutual funds carpet
:carpet rydex	stockcharts.com Rydex mutual funds carpet
:carpet toronto	stockcharts.com Toronto exchange carpet

UNUSUAL VOLUME

The extended command **:ibdvol** populates stocklist 0 with the list of 12-14 unusual volume stocks which are currently featured on the Investors Business Daily home page.

The extended command **:bwkvol** populates stocklist 0 with a list of up to 25 unusual volume stocks from a screen using the Business Week real time stock screener.

PLAYERS

Stocklist 0 can be popoulated using the extended commands:

> **:pla**yers
> **:pla**yers *tag*
> **:pla**yers @
> **:pla**yers @*index-symbol*

The first form of the command (with no argument) looks up the current symbol in the **players.txt** file. This is often used to convert an index symbol into a stocklist of its components.

The second form of the command looks up the *tag*, which can be any string, in the **players.txt** file.

The third form of the command (with an @ sign as the only argument) looks up the components of the current canonical index symbol using an external website.

The fourth form of the command looks up the components of the listed canonical *index-symbol* using an external website.

The **players.txt** file is a simple tab separated text database. Lines that do not begin with tab contain a tagname and an optional stocklist comment. The symbols associated with that tab follow, one per line, on all subsequent lines that begin with a tab. The symbol lines contain a symbol name followed by an optional comment. For example:

```
vola    Volatile Stocks
        QLGC    Qlogic
        EXPE    Expedia POS
        NVDA    Nvidia
dow     Dow Industrials
        $DJI    Average
        A       Alcoa
        AXP     American Express
        T       AT&T
```

The **players.txt** files are searched for tags in the following order: current directory, **$HOME/.linuxtrade/players.txt**, and finally **/usr/share/linuxtrade/players.txt**.

The system supplied **/usr/share/linuxtrade/players.txt** file contains definitions for tags **:dow**, **:spiders**, and **:majors**. In addition, component breakdown tags are provided for all of the index symbols in the majors list. You can use the **:majors** command to view the major market sectors, then position the stock cursor and use the **:players** command to view how individual stocks are performing within a specific sector.

EXTERNAL STOCKLISTS

Stocklist 0 can be populated from user written external shell scripts. The shell script should output a list of stock symbols, one per line. To specify a comment for the symbol, follow it with a tab character and the comment. The label for the stocklist can be supplied with a line of the form **label=**string.

The extended command **:!**scriptname will run your shell script named *scriptname* to populate stocklist 0.

TOOL MODE

        linuxtrade can also be used as a tool to access quote data without using the user interface. This mode can be used to run **linuxtrade** from a script. The **-T** *toolmode* command line option is used to run the program in tool mode.

        In tool mode, quote data is sent to **stdout** in a canonical text format, regardless of which streamer is selected. Commands to change the stock list may also be sent to the program on **stdin**.

TOOL MODE OUTPUT

        The output in tool mode is comprised of text lines that begin with a tag and consiste of one or more fields. The tag and the fields are terminated with the vertical bar character (|).

        OPEN|*streamer***|**

                streamer   streamer ID.

                The **OPEN** record is sent before the streamer is opened.

        SYMS|*symlist***|**

                symlist   List of symbols which were sent to the streamer.

                The **SYMS** record is sent whenever the symbol list is changed.

        CONNECT|*ident***|**

                ident   Identifier received from server (if any).

                The **CONNECT** record is sent when the streamer connection has been established.

        COLS|*column***|***column***|...|**

                column   Column labels for the QUOTE and TRADE records.

                The **COLS** record is sent to identify the order and meaning of the fields in the **TRADE** and **QUOTE** records.

        QUOTE|*symbol***|***time***|***bid***|***bidsize***|...|**
        TRADE|*symbol***|***time***|***bid***|***bidsize***|...|**

symbol	Stock symbol.
time	Seconds since midnight, EST.
bid	Inside bid price (floating point).
bidsize	Inside bid size in hundred share units (integer).
bidid	Inside bid exchange ID (character).
ask	Inside ask price (floating point).
asksize	Inside ask size in hundred share units (integer).
askid	Inside ask exchange ID (character).
last	Last trade price (floating point).
lastsize	Last trade size in shares (integer).
volume	Total volume (integer).
high	Highest trade price (floating point).
low	Lowest trade price (floating point).
close	Previous days closing price (floating point).

                The **TRADE** record is sent when a trade has been completed. The **QUOTE** record is sent when the inside bid or ask changes.

        DISC|*number***|***reason***|**

number	Numeric disconnect code.
reason	Disconnect reason.

                The **DISC** record is sent when the streamer is disconnected.

TIME|*date*|*time*|*zone*|*unixtime*|

date	The current date in New York.
time	The current time in New York.
zone	The time zone in New York.
unixtime	The time in seconds since the Unix epoch.

The **TIME** record is sent right after the streamer is connected, and once per minute thereafter.

NEWS|*symbol*|*unixtime*|*datestr*|*headline*|

symbol	The stock symbol or **hot** for general news.
unixtime	The time as the number of seconds since the Unix epoch.
datestr	A human readable version of the date.
headline	The new headline.

The **NEWS** record is sent whenever the selected streamer reports a news item and the tool mode (-T) option value is 16 plus 1, 2, or 3 (17, 18, or 19).

TOOL MODE COMMANDS

Commands for tool mode are read from **stdin**. The command formats are:

a *symlist*

Add the symbols in *symlist* to the streamer data.

D *symbol*

Delete the *symbol* from the streamer data.

q

Disconnect the streamer and quit the program.

TOOL MODE EXAMPLE

An example of tool mode output is the following:

```
OPEN|scottrader.com|
CONNECT|FreeStreaming5|
TIME|11/23/2001|12:01:00|EST|1006538460|
SYMS|DELL,INTC,JDSU|
COLS|Time|Bid|BidSize|BidID|Ask|AskSize|AskID|Last|LastSize|\
     Volume|High|Low|PrevClose|
TRADE|INTC|43751|30.95|5|Q|30.97|45|Q|30.97|300|\
     12282400|31.05|30.32|30.81|
QUOTE|DELL|43591|26.24|5|Q|26.25|40|Q|26.25|500|\
     5119900|26.37|25.75|25.95|
TIME|11/23/2001|12:02:00|EST|1006538520|
TRADE|JDSU|43752|11.70|20|Q|11.71|240|Q|11.71|1800|\
     8897300|11.78|11.31|11.35|
DISC|104|Command request|
```

COMMAND LINE OPTIONS

−c *bg*   Sets the background color mode (0 to 3). See the description of the colors modes above.

−l *number*
Start the display with stocklist *number*. Number may be 1-99. The default is 1.

−t *type* Sets the streamer type to use as a data source. The *type* can be `none`, `scottrader.com`, `ameritrade.com`, `datek.com`, `esignal.com`, `freetrade.com`, `money.net`, `quotemedia.com`, `schwab.com`, `sonictrading.com`, `moneyam.com`, or `swissquote.ch`. A leading partial substring of the name can be used to abbreviate the *type*. The `none` *type* can be useful if the username, password, host, or port parameters associated with a streamer are incorrect and you want a fast entry into the program so you can go to the Change Streamer popup and correct the parameters.

−p *password*
Set the password to use in connecting to the streamer. The default is a "demo" password.

−u *username*
Set the username to use in connecting to the streamer. The default is a "demo" username.

−P *'preferance=value'*
Set the named *preference* to *value*.

−h *hostname*
Set the hostname or IP address to use in connecting to the streamer. The default is the value stored in the preferences for that streamer.

−w *filename*
Logs the streamer data to *filename*, for later replay.

−r *filename*
Replays the streamer data from *filename*.

−L *filename*
Logs the raw streamer data to *filename*, for debugging.

−T *toolmode*
Run in tool mode. See section on tool mode above for a description. The *toolmode* parameter controls what happens if the streamer connection canot be made or if it disconnects. If *toolmode* is 1, then a connection failure causes the program to exit. If *toolmode* is 2, then a connection failure causes a new connection to be attempted. If *toolmode* is 3, then a connection failure causes a switch to the next configured streamer. If *toolmode* is 4, then the program exits after retreiving at least one quote for each of the listed stocks.

Adding 0x10 (16) to *toolmode* turns on news reports for streamers that support news.

INSTALLATION

BASIC

Get the most recent version of **LinuxTrade** from:
http://linuxtrade.0catch.com

Login or su to root and install it with this command:
rpm -U linuxtrade*.rpm

Get the most recent version (at least 7.9.5) of **curl** from:
http://curl.haxx.se/
or
http://rpmfind.net/linux/rpm2html/search.php?query=curl

Login or su to root and install it with this command:
rpm -U curl*.rpm

VOICE ALERTS

If you want voice alerts, get the most recent version of IBM ViaVoice or festival from:
http://www-4.ibm.com/software/speech/dev/ttssdk_linux.html
or
http://rpmfind.net/linux/rpm2html/search.php?query=festival

Install one of those RPM's as usual.

JAVA

LinuxTrade can access and run various Java applets from financial websites, such as the **nasdaq.com** heatmaps, or chart streamers from **livecharts.com** and **prophet.net**. What we have found is that these applets will work with some web browsers but not all web browsers. The reason that they sometimes work and sometimes don't seems to be the version of the Java VM that is installed with the web browser. Some applets work well only with the Java VM that is in Netscape 4.x, some work well only with a more recent Java VM from Sun such such as might be installed with Netscape 6.x, and some work well with either VM.

LinuxTrade knows which Java VM works best with each applet, and will run applets outside of any web browser by using the Java **appletviewer** program. But you must install at least two Java JDK/SDK/JRE's for best results. We recommend that you install at least the Blackdown 1.1.8 JDK and the Sun 1.4.0 JDK.

The 1.1.8 JDK/SDK can be downloaded from this site:
ftp://metalab.unc.edu/pub/linux/devel/lang/java/blackdown.org/JDK-1.1.8/i386/v3/

The 1.4.0 JDK/SDK can be downloaded from this site:
http://java.sun.com/j2se/

If both of these packages are installed, you will have these two directories:
/usr/java/j2sdk1.4.0
/usr/java/jdk118_v3

FILES

/usr/bin/linuxtrade
/usr/share/linuxtrade/bin/linuxtrade.advfn
/usr/share/linuxtrade/bin/linuxtrade.audio
/usr/share/linuxtrade/bin/linuxtrade.auth
/usr/share/linuxtrade/bin/linuxtrade.av
/usr/share/linuxtrade/bin/linuxtrade.bwkvol
/usr/share/linuxtrade/bin/linuxtrade.cpt
/usr/share/linuxtrade/bin/linuxtrade.frb
/usr/share/linuxtrade/bin/linuxtrade.G
/usr/share/linuxtrade/bin/linuxtrade.hm
/usr/share/linuxtrade/bin/linuxtrade.ibdvol
/usr/share/linuxtrade/bin/linuxtrade.lc

/usr/share/linuxtrade/bin/linuxtrade.name
/usr/share/linuxtrade/bin/linuxtrade.pe
/usr/share/linuxtrade/bin/linuxtrade.pf
/usr/share/linuxtrade/bin/linuxtrade.pivot
/usr/share/linuxtrade/bin/linuxtrade.qm
/usr/share/linuxtrade/bin/linuxtrade.range
/usr/share/linuxtrade/bin/linuxtrade.shortint
/usr/share/linuxtrade/bin/linuxtrade.sq
/usr/share/linuxtrade/bin/linuxtrade.up
/usr/share/linuxtrade/bin/linuxtrade.wn
/usr/share/applications/linuxtrade.desktop
/usr/share/applnk/Applications/linuxtrade.kdelnk
/usr/share/gnome/apps/Applications/linuxtrade.desktop
/usr/share/icons/linuxtrade.xpm
/usr/share/linuxtrade/java.policy.allperm
/usr/share/linuxtrade/players.txt
/usr/share/pixmaps/linuxtrade_icon.png
$HOME/.linuxtrade/rc
$HOME/.linuxtrade/N.list
$HOME/.linuxtrade/alerts
$HOME/.linuxtrade/ameritrade.com
$HOME/.linuxtrade/datek.com
$HOME/.linuxtrade/esignal.com
$HOME/.linuxtrade/freetrade.com
$HOME/.linuxtrade/players.txt
$HOME/.linuxtrade/money.net
$HOME/.linuxtrade/quotemedia.com
$HOME/.linuxtrade/schwab.com
$HOME/.linuxtrade/scottrader.com
$HOME/.linuxtrade/sonictrader.com
$HOME/.linuxtrade/swissquote.ch
$HOME/.linuxtrade/moneyam.com

When searching for a helper program, **linuxtrade** will search **$PATH**, **$HOME/bin**, and **/usr/share/linux-trade/bin**, in that order. Any of the helper programs can be customized by placing a modified copy into **$HOME/bin**.

AUTHOR

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