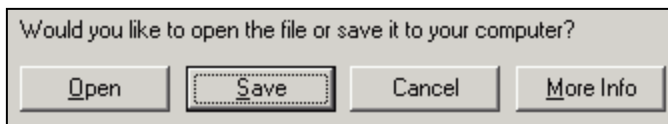
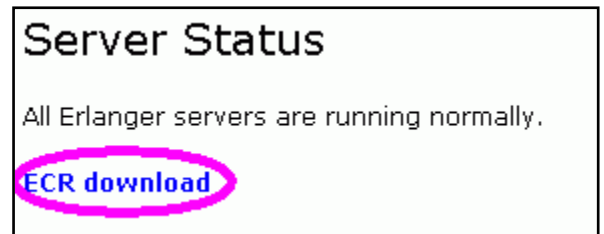


ECR User Guide
Erlanger Chart Room
Research and Analytics Platform
Initial Installation and Quick Start User Guide

1. Installation

1.1. Download the Install Wizard

The installation of Erlanger Chart Room begins with downloading a self-extracting executable file. Enter in a browser the following link www.erlangresearch.com/server_status.asp, then click on the ECR Download link. Depending on your operating system and the set up of your computer, you should be prompted with the following options.



You can choose open to start the process, but if you feel more comfortable you can save the exe file to your harddrive (either desktop or a temporary directory).

1.1. Run the Install Wizard

If you chose the option to “save” the SetupECRBeta[version#].exe, you will have to use the MyDocuments to find the file on your harddrive to run or doubleclick on the icon if you saved it to your desktop. Once started click yes to continue the install. Follow the steps of



the install by clicking “Next”. Stick to the default install directory unless you want to install on an alternative drive or network drive.

1.2. Firewall Information

If you are aware of firewall issues that commonly occur, then we will need to pass along the following information to an IT Department:

Erlanger IP Address 209.213.76.122 and Port 3990

Back up Server Erlanger IP Address 209.213.90.67 and Port 3990

1.3. Contact for Help

Contact Information is as follows:

Erlanger Research	Phil Erlanger	978-263-2536	phil@erlanger.com
Quantitative Partners	Geoff Garbacz	608-270-9209	ggarbacz@quantpartners.com
Quantitative Partners	Jack Bahrenburg	802-264-9702	jbahrenburg@quantpartners.com

2. Opening ECR and Login Process

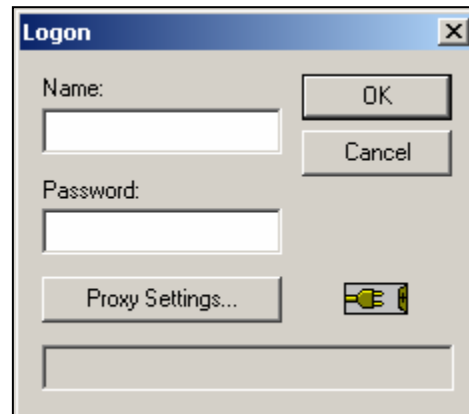
2.1. Desktop Icon

After installation, **double mouse click on ECR icon** located on your desktop.



2.2. Log In Dialogue Box

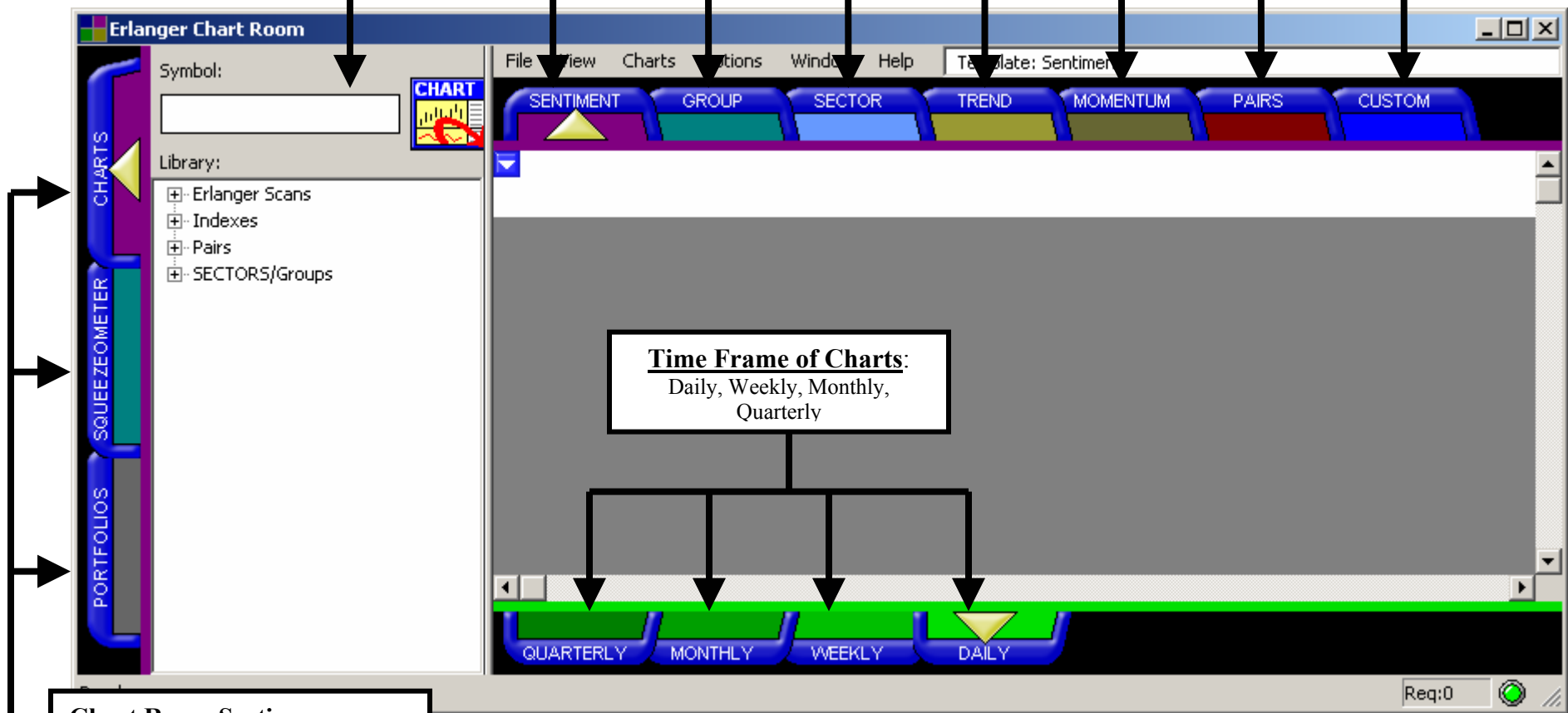
You will be asked to login to ECR server.
Enter you username and password
provided



3. The Entry Layout

Enter in a symbol to view the chart

Chart Styles:
Clicking on the various chart styles will give you different indicators to view.
Sentiment - Erlanger Technical Rank, Short Rank, Type Classification, Options Data
Group/Sector - Avg Tech Rank, Avg Short Rank, % Type 1 and 4, Advanced/Decline Lines
Trend - Relative Strength, On Balance Volume, Directional Trend Index, Bollinger Bands, True Strength Index
Momentum - MACD, Donchian Channels, 1mos High/Lows, Ergodic Oscillator
Pairs - View chart of pair ratio over time along with individual charts of long and short components.
Custom - Build your own Template with any indicators you want!



Time Frame of Charts:
Daily, Weekly, Monthly, Quarterly

Chart Room Sections:
Charts: View Individual, Group and Sector charts
Squeezeomter: View latest readings and confidence of SPX and NDX
Portfolios: Underdevelopment

Looking at Individual Stocks

In the Symbol Box enter MSFT and hit Enter

Symbol:

 Library:

REPORT

You will now have four charts (quadrants) of the Microsoft:



Each chart can be maximized by either double clicking on the title bar of the individual chart or by clicking the Windows Icon in the upper right corner of the chart dialogue box.

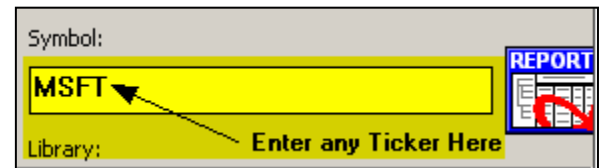
Double clicking the title bar again will return you to the original multichart view, as will clicking the Quadrant Icon in the upper right corner of the dialogue box.



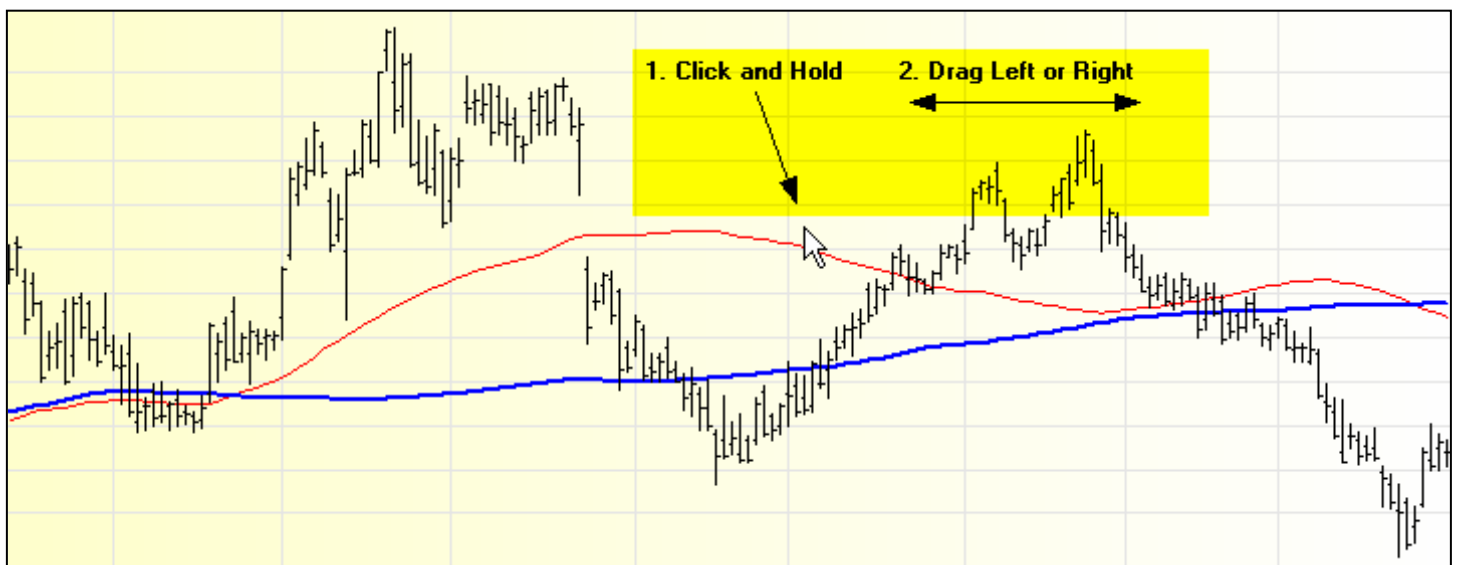
The four charts on the **Sentiment Tab** represent different views of the individual stock:

- **Top left:** Erlanger Tech Rank (10 to 100 – 100 is strongest), Short Rank (0 to 100 – 100 is heavily shorted), and Short Ratio (days to cover)
- **Top right:** Power Rank (0 to 100 – 100 is strongest), Type Classification (Type 1 – short squeeze, Type 2 – recognized strength, Type 3 – shorts are right, Type 4 – long squeeze)
- **Bottom left:** Erlanger Options Rank (0 to 100 – 100 represents dominant put activity), Put Call Ratio 10-Day, Call Put Ratio 10-day
- **Bottom right:** Sector Rank (1-18 with 1 being the strongest), Sector Type 1%, Sector Type 4%, Group Type 1%, Group Type 4%. Sector and Group % Type 1 and 4 represent the % of issues with in that group/sector that are a type 1 or 4.

Any stock can be examined in this manner by entering its ticker into the symbol box.



You can also examine data farther back in the window by clicking down in the graph area and holding and then dragging to the right to see older data.



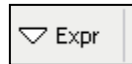
The Toolbar

The toolbar, pictured below, is divided into several sections.

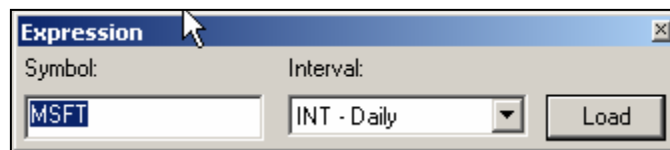


Expression Bar

This bar allows you to change the symbol and interval of an active chart. Click on the Expr(ession) button.



The following dialogue box will appear in the upper left of the chart you have active.



You can then enter a new ticker in the Symbol box and select a new interval from the interval drop down box.



Note that you can change the interval of all four quadrants at once by selecting the different tabs along the bottom of the quadrant window.



Chart Types

Just to the right of the Expression Button are four chart display type buttons. They are,



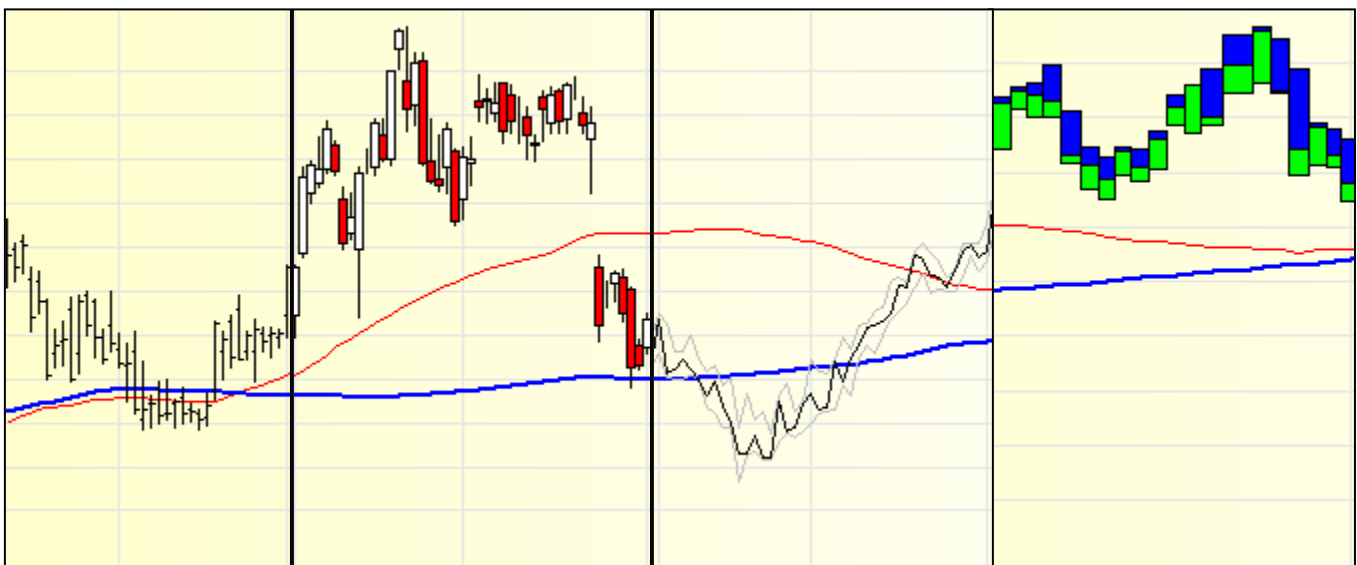
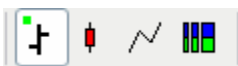
from left to right: Bars, Candlesticks, Lines and Equivolume. Below are examples of how the graph will appear with each of the possible selections. Note that again, you must single click the title bar of one of the quadrants to change that particular chart. If you have maximized one of the quadrants it will default to it.

Bars

Candlesticks

Lines

Equivolume



Crosshairs and Data Display Icons

To the right of the Display Type buttons is a Data Section.



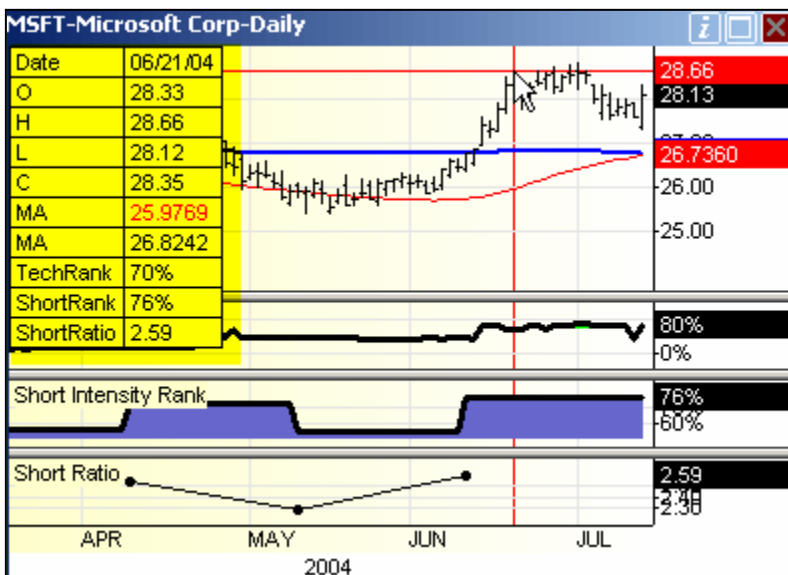
There are three buttons: Crosshairs, Data Window and Anchor.



The Crosshairs provide a moving point that by itself gives the price at any given point on the chart. In the example below we can see that where the crosshairs are, the price of the Microsoft was \$28.66. While this can be useful, it is most useful when used in conjunction with the Data Window.



With the Data Window and the Crosshairs selected...

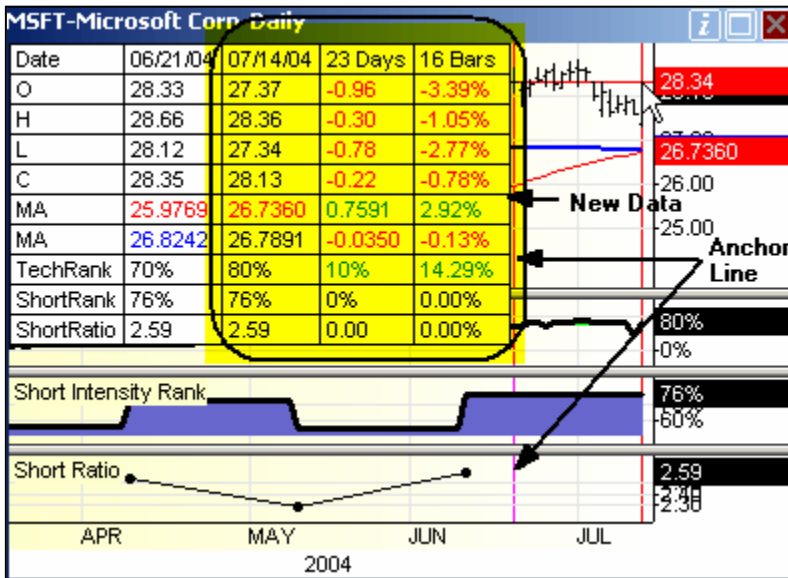


... we get even more information about that point. The Data Window will provide the numerical data points for the studies displayed in the chart for the particular date the crosshairs are over.

We can get relative information by selecting the Anchor as well as the Crosshairs and Data Window.



After Selecting the Anchor button, you can place the cursor on any horizontal axis (i.e. date) and left click the mouse. This will bring up an “Anchor” line that you can look at data in relation to. Notice that as well as the first set of data, three more columns appear.



By moving the crosshairs to other dates, we can look at how Microsoft has changed between the selected date and the anchor date. To move the Anchor, simply deselect the Anchor Icon and repeat the process.

Note that unless the Data Window icon is selected, the Anchor icon is not selectable.

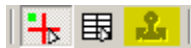


Chart Display Options

The next seven buttons after the Crosshairs and Data Display, change the chart display to suit personal preferences.



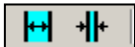
The first button, changes the scale from linear to log. This will make relatively little difference in most displays, however when looking over a large time spread, it can be useful.



The next two buttons change the width of the selected display. The first button thickens the lines and the second thins the lines (except for Equivolume)



The next two buttons change the spacing between lines. The first increases the spacing between data points, while the second button decreases the spacing between data points.

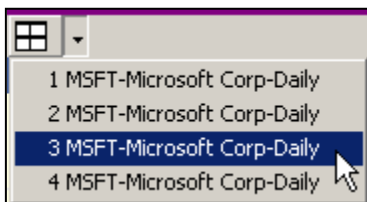


The final two buttons in this series have similar functions. The first returns you to the most recent data. Effectively moving the chart the farthest to the right. The second button resets all the settings back to their defaults.



Quad Select

The final button on the toolbar is simply another method of maximizing the quadrants. Selecting one of the drop down selections maximizes that selection.



Timeframe

Along the Bottom of ECR there will be four tabs we touched on briefly above.



These tabs allow us to look at different ranges of time with each bar representing one Quarter, one Month, one Week or one Day.

Chart Styles



Along the top of ECR there will be six tabs representing different Chart Styles. We will discuss each of these charts in turn. Sentiment is the default chart and we have discussed this at length already.

The Group Chart

To select the Group Chart display, select the corresponding Tab along the top of ECR



This display (see next page graphic) shows the following information for any one of the 139 Industry Groups we follow:

Group Rank

Relative Ranking system that compares all 139-industry groups in the Erlanger database. A ranking of 1 is the highest most positive ranking for an industry group. A ranking of 139 is the lowest most negative ranking for a group.

1 through 46 is considered positive/buys

47 through 93 is considered neutral/holds

94 through 139 is considered negative/sells or shorts

Group Average Tech Rank

The Tech Rank is a relative strength ranking value utilizing proprietary pattern recognition software to classify stocks from 10 to 100. The Group Average Tech Rank is an unweighted average of the constituents of that particular group.

Group Average Short Rank

This is an unweighted average of all group constituents Short Rank. A percentage above 55% indicates above average short intensity for a group while below 45% shows below average short intensity.

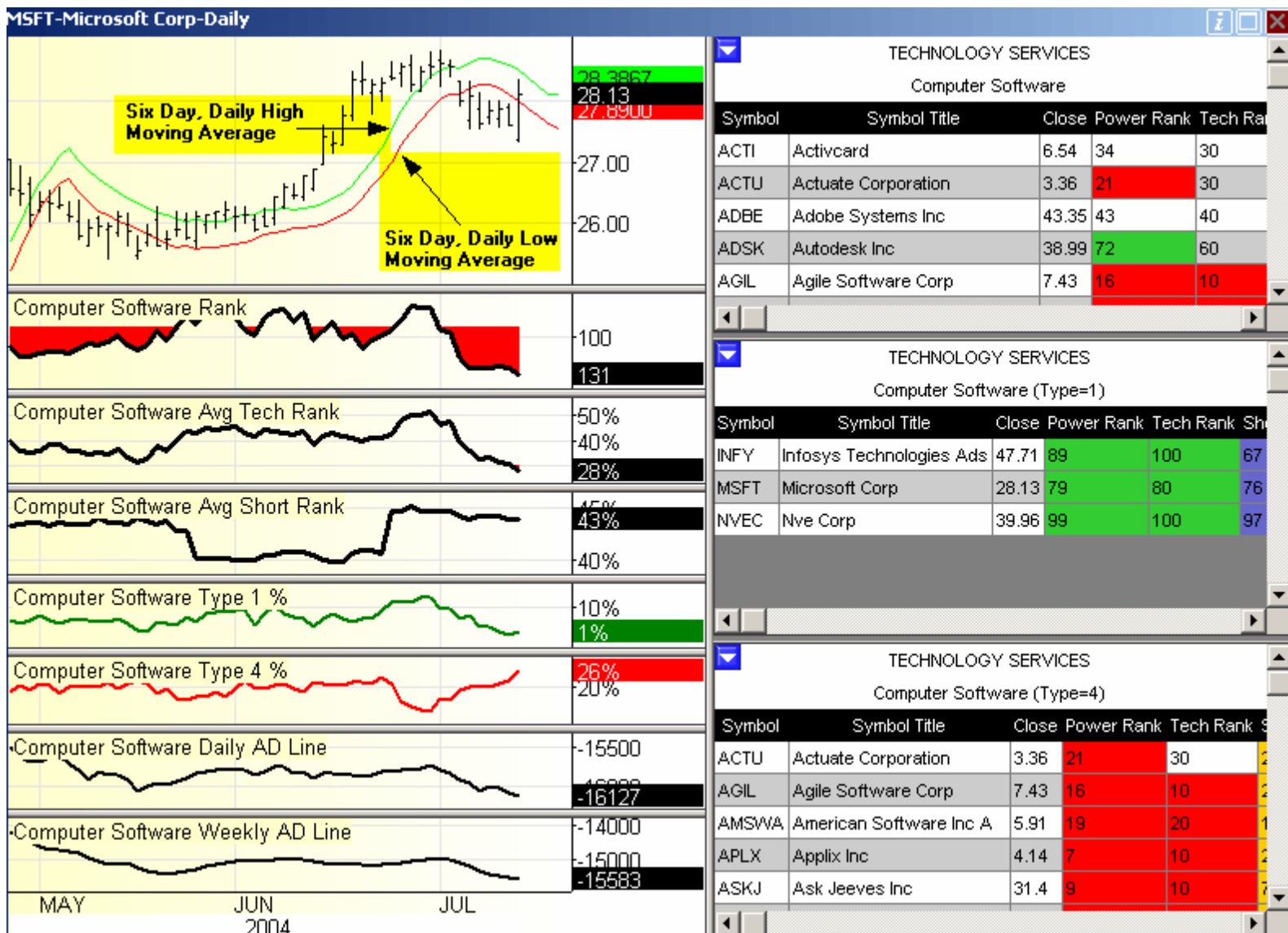
Group Type %

Summary data points that demonstrate the number or % of stocks in a particular group with a Type designation.

Calculation is: $\# \text{ of Stocks with } X \text{ Type} / \text{Total Number of Stocks in Group}$

GroupType1Pct ≥ 20 technically strong stocks with heavy short activity

GroupType4Pct ≥ 20 technically weak stocks with light short activity



Along the left you have the stock price on the Time Frame basis you've selected. The two lines in the graph represent the six day moving average based on the daily high (Green) and daily low (Red), along with various metrics relating to the Group.

Note that the Daily Moving Averages are replaced by Moving Averages based on the Close price of the stock in the Weekly, Monthly and Quarterly Tabs. The blue line represents a 65 bar moving average while the red line represents a 200 bar moving average.

Weekly



Monthly



Quarterly



On the right side of the Frame you will see three reports. Each report has first the Sector that the company is in. In this case it's Technology Service. In the top box the second title refers to the Group, in this case Computer Software. The report itself is all the stocks that fall into the Computer Software Group. The second and third reports give all the Type 1's Short Squeezes and Type 4's Long Squeezes in the Computer Software Group, respectively.

Finally, there are blue buttons with white down arrows in the upper left corner of each of the frames. These buttons allow you to print each report.

The screenshot shows a software interface with three reports for 'TECHNOLOGY SERVICES' - 'Computer Software'. Each report has a blue button with a white down arrow in the top left corner. The reports list stock symbols, titles, close prices, power ranks, and tech ranks.

Symbol	Symbol Title	Close	Power Rank	Tech Rank
ACTI	Activcard	6.54	34	30
ACTU	Actuate Corporation	3.36	21	30
ADBE	Adobe Systems Inc	43.35	43	40
ADSK	Autodesk Inc	38.99	72	60
AGIL	Agile Software Corp	7.43	16	10

Symbol	Symbol Title	Close	Power Rank	Tech Rank	Sh
INFY	Infosys Technologies Ads	47.71	89	100	67
MSFT	Microsoft Corp	28.13	79	80	76
NVEC	Nve Corp	39.96	99	100	97

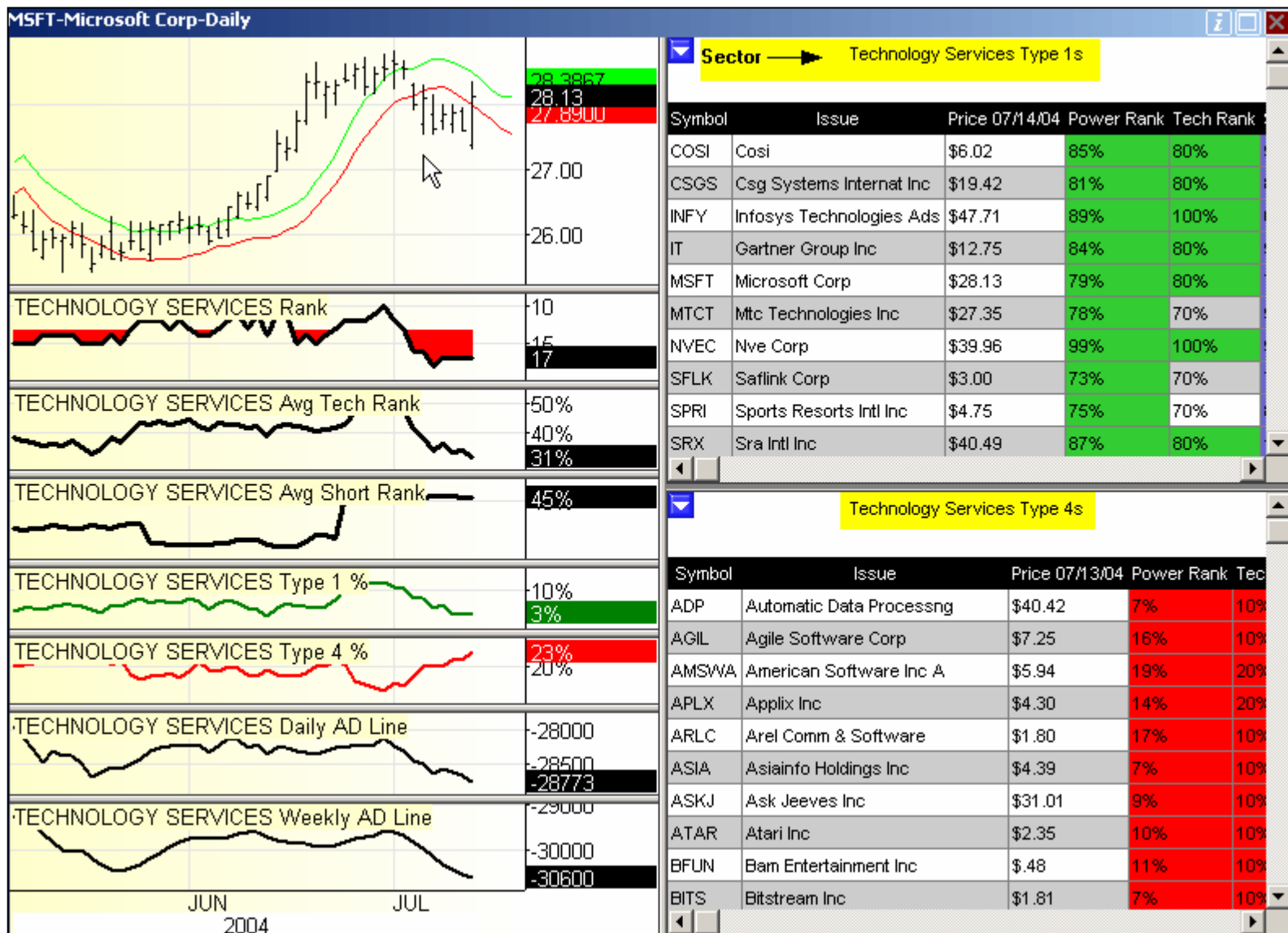
Symbol	Symbol Title	Close	Power Rank	Tech Rank	S
ACTU	Actuate Corporation	3.36	21	30	2
AGIL	Agile Software Corp	7.43	16	10	2
AMSWA	American Software Inc A	5.91	19	20	1
APLX	Applix Inc	4.14	7	10	2
ASKJ	Ask Jeeves Inc	31.4	9	10	7



The Sector Chart



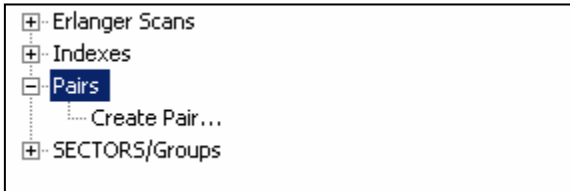
The Sector Chart is similar to the Group Chart in most respects. The metrics in the left column relate to the 18 Sectors rather than the 139 Industry Groups and the right column has two reports relating to the Sector. The top report has a listing of the Sector Type 1's (short squeezes) and the bottom report, a listing of the Sector Type 4's (long squeezes)





Pairs

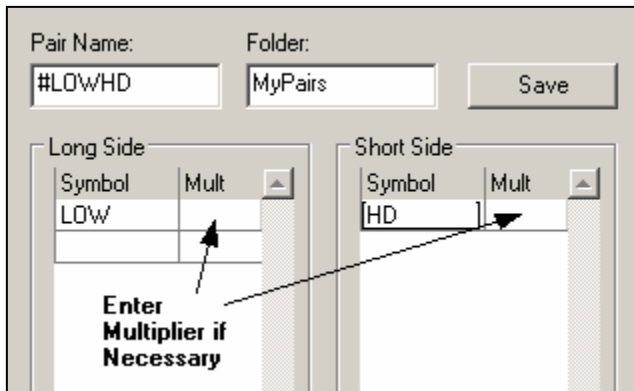
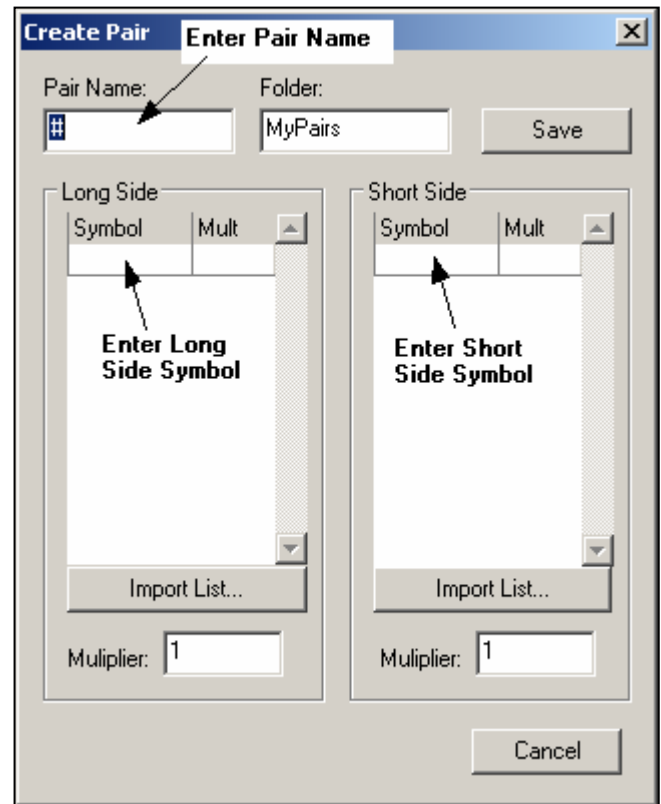
Pairs is a special style in ECR. It allows the user to create a pairing of stocks, long and short, to be followed together as a unit. When you first start ECR, your Pairs menu should look like this, with “Create Pair...” as the only selection. Selecting Create Pair, will bring up a window in which to create a pairing



of stocks.

The first thing to enter after opening the Create Pair

window is the *Pair Name*. The Pair Name always follows the same formula, it is a pound sign (#) followed by the long symbol, followed by the short symbol. So for example, if we were to go long on Lowe’s and short Home Depot, the pair name would be #LOWHD.

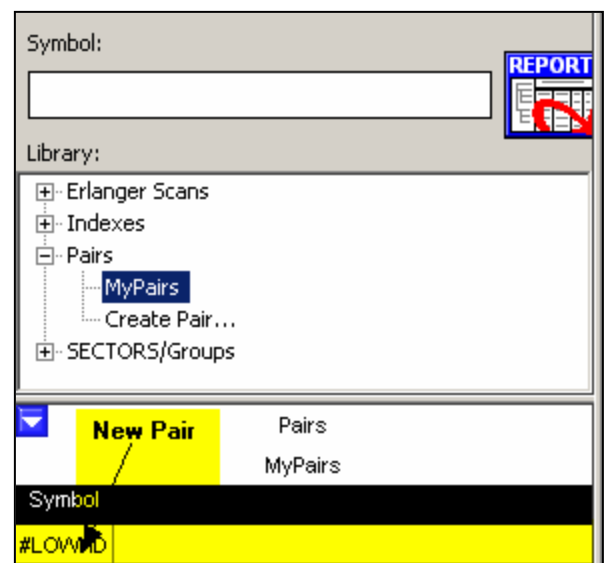


After entering the Pair Name, we can enter the Long Side Symbol and the Short Side Symbol. Once the symbols are entered, click on the Save button and the Pair will be

saved in the Library under MyPairs. If you don’t wish

to equally weight the pair, then you can put in multipliers in the “Mult” cell just to the right of the symbol.

Under the Pairs Menu, there is now a MyPairs selection. Selecting MyPairs will bring up a listing of all the pairs created so far.

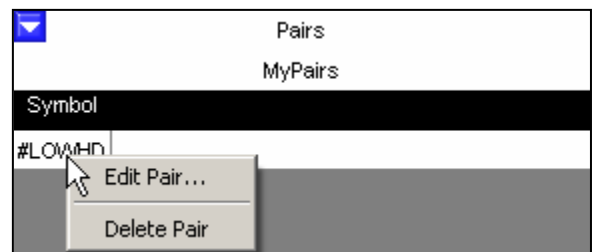


Selecting the #LOWHD pair will bring up the pair in the chart area as shown below.



On the far left there is a chart detailing how the Pair performed over time (ratio price long/price short). To the right of that is a set of charts detailing a price chart and underlying studies of the individual long and short components.

Once the pair is created, it can be deleted or edited by right clicking on its symbol in the My Pairs window.



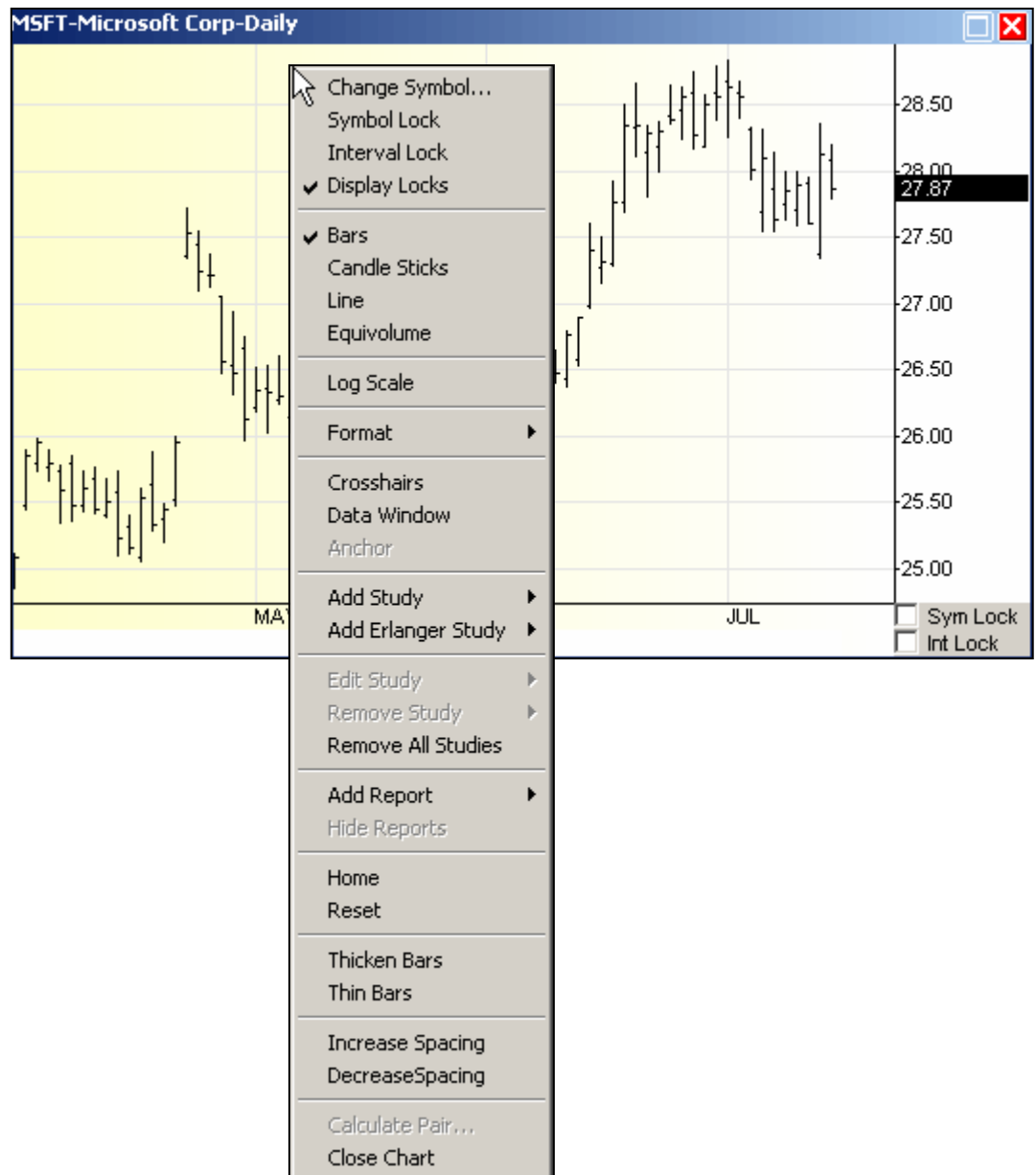
The Custom Chart



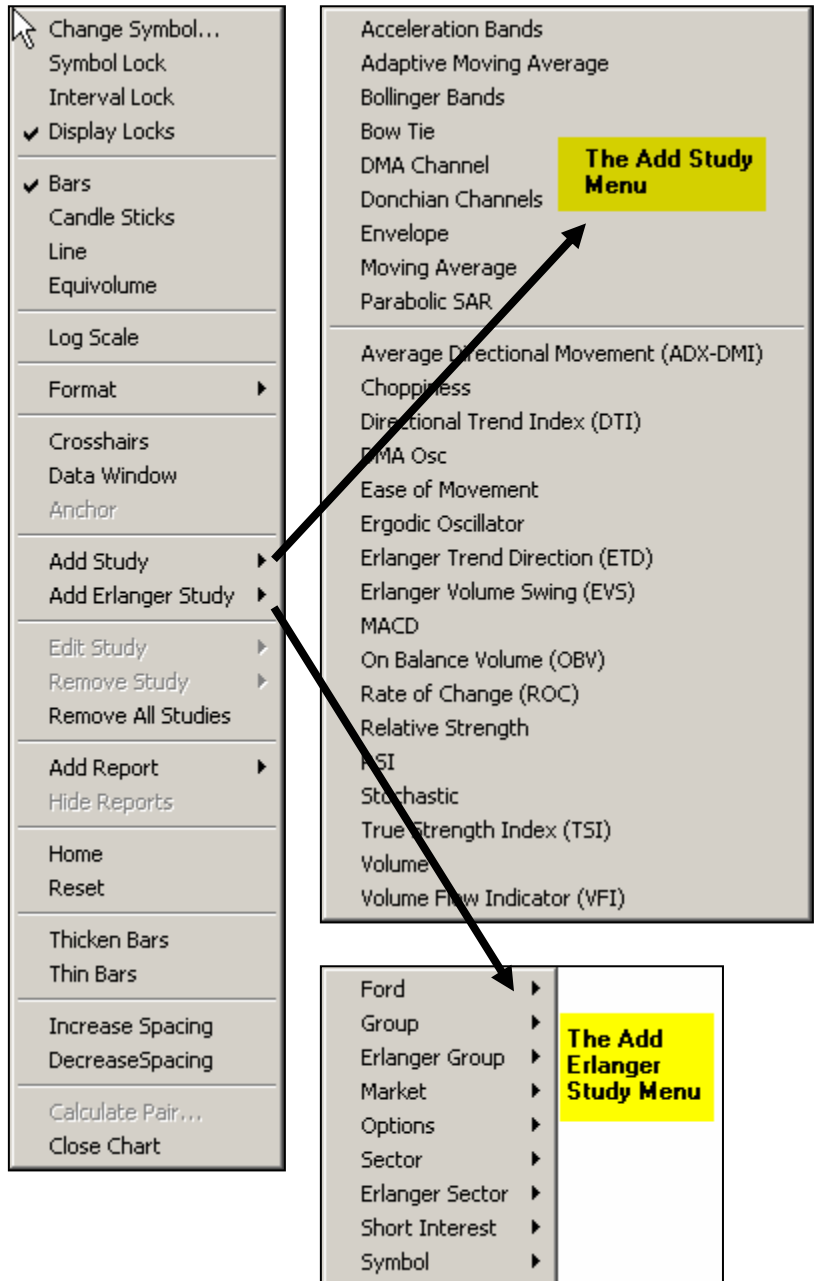
The Custom Tab brings up a basic chart. As its name suggests, this chart can be customized to display the information an individual user finds important.

Options for customized information can be obtained by right clicking over the chart area.

The Add Study and Add Erlanger Study are the two menus where there are customized data variables to add.



The “Add Study” selection leads directly to a series of traditional technical analysis data options. The “Add Erlanger Study” selection leads to another Sub – Menu, which leads to a series of proprietary Erlanger data options.



The Library

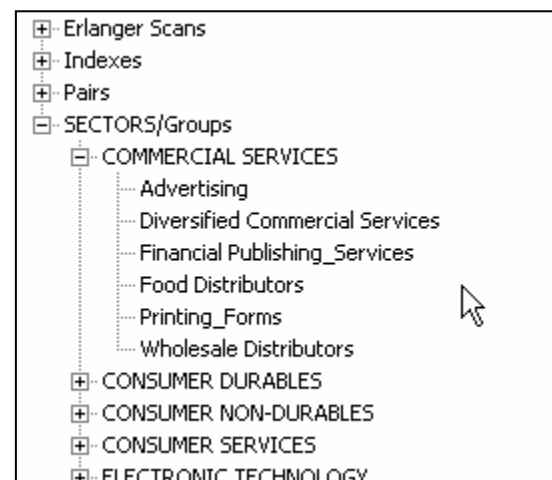
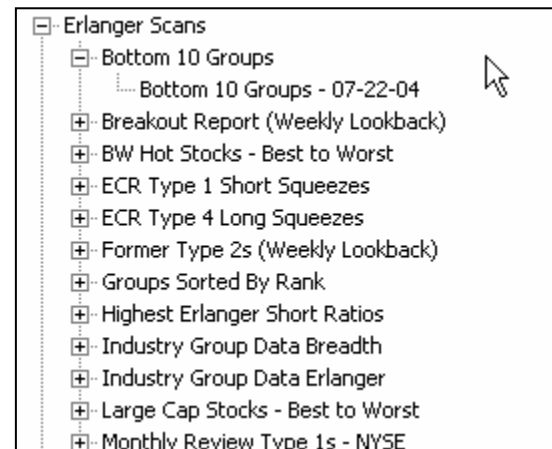
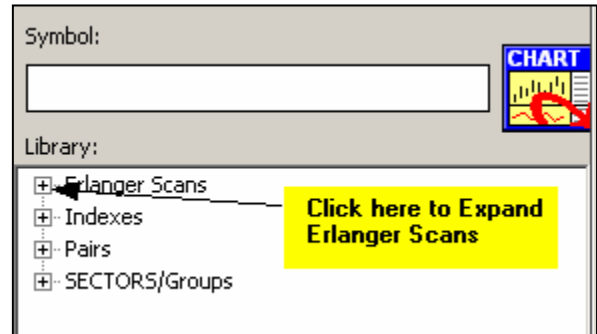
The Library is a section of ECR that provides users various reports for idea generation and further study. There are four default Top Level groupings: *Erlanger Scans*, *Indexes*, *Pairs* and *SECTORS/Groups*.

Erlanger Scans is an assortment of generic idea generation reports. Most of the reports are generated daily to highlight movements in particular data points and help generate both long and short ideas.

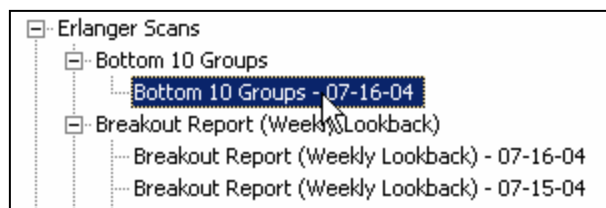
Indexes gives a listing of the major indexes and the user the ability to click on various indexes to view the charts.

Pairs allows the creation of long/short pairs for tracking together.

SECTORS/Groups gives a listing of all 18 Erlanger Sectors and then the underlying Groups contained within those sectors and then the stock continuants of the group.



Selecting the box (+) next to one of these top levels will expand the next level of selections. This can be done until you reach a root level, which is a selection with no box directly to the left.



Expanding Erlanger Scans shows a list of all the data provided. Expand Bottom 10 Groups until you get to a root selection and click on it.

You can then click on any of the tickers listed in the report, and this will then activate the chart as the primary display and place the report in the bottom left corner of the ECR dialogue box. A user can continue to click on other symbols of the report to view that particular symbol. If you would like to see the report as the primary display, click on the icon “Chart” to the right of the Symbol entry box as show below.

Switch Between Chart and Report

Library:

- Erlanger Scans
 - Bottom 10 Groups
 - Bottom 10 Groups - 07-16-04
 - Breakout Report (Weekly Lookback)
 - BW Hot Stocks - Best to Worst
 - ECR Type 1 Short Squeezes
 - ECR Type 4 Long Squeezes
 - Former Type 2s (Weekly Lookback)
 - Groups Sorted By Rank
 - Highest Erlanger Short Ratios
 - Industry Group Data Breadth
 - Industry Group Data Erlanger
 - Large Cap Stocks - Best to Worst
 - Monthly Review Type 1s - NYSE
 - Monthly Review Type 1s - OTC
 - Monthly Review Type 4s - NYSE
 - Monthly Review Type 4s - OTC
 - New Daily Type 1s and 4s
 - Not Type 4 Anymore (Daily)
 - Options: NDX Daily Unusual Call A
 - Options: NDX Daily Unusual Put A
 - Options: SPX Daily Unusual Call A
 - Options: SPX Daily Unusual Put A
 - Sectors By Rank
 - Short Interest: Type 1 Increase I
 - Short Interest: Type 1 Increase I
 - Short Interest: Type 2 Decrease
 - Short Interest: Type 2 Decrease
 - Short Interest: Type 3 Increase I
 - Short Interest: Type 3 Increase I
 - Short Interest: Type 4 Decrease
 - Short Interest: Type 4 Decrease
 - Strongest Groups moving into To
 - Top 10 Groups
 - Type 1s - Top 10 Groups
 - Type 2 to Type 4

File View Charts Options Window Help | Template: Sentiment

SENTIMENT GROUP SECTOR TREND MOMENTUM PAIRS CUSTOM

Bottom 10 Groups

Phil Erlanger Research Co., Inc

Symbol	Issue	Price 07/15/04	Power Rank	Tech Rank	Short Rank	Short Ratio	Type	Group
CSQ	Calamos Strategic Total Return	\$12.86			0%	2.34		Investment Bankers_Broker
MWD	Morgan Stanley	\$47.96	7%	10%	0%	1.80	4	Investment Bankers_Broker
LM	Legg Mason Inc	\$83.23	7%	10%	1%	3.58	4	Investment Bankers_Broker
OLY	Olympic Cascade Fncl Cor	\$1.46	7%	10%	0%	.02	4	Investment Bankers_Broker
ET	E Trade Financial Corp	\$10.02	7%	10%	2%	1.77	4	Investment Bankers_Broker
SCH	Charles Schwab Corp	\$8.45	9%	10%	6%	3.72	4	Investment Bankers_Broker
LEH	Lehman Bros Hldg Inc	\$68.90	10%	10%	10%	2.19	4	Investment Bankers_Broker
EFH	Empire Financial Holding Co	\$1.00	11%	10%	13%	1.11	4	Investment Bankers_Broker
KILN	Kirlin Holding Corporation	\$4.13	12%	10%	16%	.22	4	Investment Bankers_Broker
MER	Merrill Lynch & Co	\$49.51	13%	10%	19%	2.12	4	Investment Bankers_Broker
KENT	Kent Financial Services	\$2.11	14%	10%	22%	.43	4	Investment Bankers_Broker
NITE	Knight Trading Group Inc	\$8.73	14%	10%	23%	6.64		Investment Bankers_Broker
GS	Goldman Sachs Group Inc	\$88.33	14%	20%	1%	1.98	4	Investment Bankers_Broker
SWS	Sws Group Inc	\$13.38	15%	10%	26%	15.52		Investment Bankers_Broker
AMTD	Ameritrade Holding Corporation	\$9.80	16%	10%	28%	2.64	4	Investment Bankers_Broker
OPY	Oppenheimer Hldgs Inc	\$26.11	17%	10%	31%	6.94		Investment Bankers_Broker
AGE	A.G. Edwards Inc	\$32.98	17%	20%	11%	3.58	4	Investment Bankers_Broker
LAB	Labranche & Co Inc	\$8.05	18%	10%	33%	11.10		Investment Bankers_Broker
PLCC	Paulson Capital Corp	\$6.91	19%	20%	16%	.15	4	Investment Bankers_Broker
JBOH	Jb Oxford Holdings Inc	\$2.42	23%	20%	29%	1.26	4	Investment Bankers_Broker
SIEB	Siebert Financial Corp	\$3.64	26%	10%	57%	5.96		Investment Bankers_Broker
JEF	Jefferies Group Inc	\$28.81	30%	10%	70%	11.15	3	Investment Bankers_Broker
LTS	Ladenburg Thalmann Finl	\$6.68	30%	10%	69%	.90		Investment Bankers_Broker
ITG	Investment Technologv	\$12.22	31%	20%	52%	5.15		Investment Bankers_Broker

QUARTERLY MONTHLY WEEKLY DAILY