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This book discusses in detail how TradeStation is designed to help you develop, test and implement trading strategies. However, TradeStation Securities does not provide or suggest trading strategies. We offer you unique tools to help you design your own strategies and look at how they could have performed in the past. While we believe this is very valuable information, we caution you that simulated past performance of a trading strategy is no guarantee of its future performance or success. We also do not recommend or solicit the purchase or sale of any particular securities or securities derivative products. Any securities symbols referenced in this book are used only for the purposes of the demonstration, as an example ---- not a recommendation.

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Chapter 1 : Understanding RadarScreen

RadarScreen is a unique and powerful tool for monitoring markets. It combines the breadth of tracking afforded by a spreadsheet-style format with the depth of information otherwise available only in charting. Start with generous quantities of market information, add Indicators and other tools based on historical data calculations, and blend in the ability to scan, sort and rank. That is the recipe for RadarScreen.

Tabular Charting

At first glance, the picture below may look like an ordinary tabular quote screen. Available fields include such standards as Open, High and Low, just to name a few. On closer look, however, you will see columns for the likes of Money Flow, Slow Stochastics, and Key Reversal Up and Key Reversal Down. These calculations and bar patterns (Indicators and ShowMe’s) may be employed in RadarScreen windows just as they are in chart windows. This means that RadarScreen allows you to monitor the same Analysis Techniques used in your charting in a multi-symbol table.

![RadarScreen Tabular Chart](image-url)
This may be described as “tabular charting.” Each symbol row in a RadarScreen window is the tabular equivalent of a chart. Each cell delivers the data calculated for that symbol based on the Analysis Technique in each column. Using RadarScreen, you may monitor current analysis values for what amounts to hundreds of charts at once, all in a single RadarScreen window. RadarScreen takes this yet another step forward: each row represents a symbol and a bar interval. That is, the analysis techniques may be calculated based on one or more bar intervals for the same symbol, just as you might chart 5-, 10- and 15-minute bar charts in TradeStation.

**Analysis Techniques using Historical Data**

Standard market-quotation windows deliver only current market data; further, the data delivered is generally “simple” quote detail such as high and low. RadarScreen opens limitless possibilities by combining the analysis library of TradeStation with access to historical price data. For example, calculating the current value of an Indicator such as Money Flow requires referencing the recent set of past bars in addition to the current market data. In charting, we always create charts with hundreds or even thousands of bars, more than enough to make our calculations. Past and current Indicator values are then examined when we observe the plotted lines.

RadarScreen also loads “bars.” In this case, the bars are not displayed but held in RadarScreen for calculating the analyses as they would be in charting. Of course, RadarScreen needs only to load enough bars to make the current calculations accurately and has no need to plot the analyses historically as on a chart.
Indicators, ShowMe’s, PaintBars

TradeStation users will recognize Indicators, ShowMe’s and PaintBars as three types of Analysis Techniques commonly used in charting. Generally, Indicators display calculated values as lines or histograms; ShowMe’s and PaintBars have a logic component and are used to highlight particular bars when an event or condition is true. TradeStation and RadarScreen come equipped with hundreds of these Analysis Techniques and all three may be used in RadarScreen. Indicators will display the most recent value for the calculation as they would for the last bar on a chart. ShowMe’s and PaintBars will generally display price values from the bar if the condition is found to be true.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Interval</th>
<th>Last</th>
<th>Momentum Increasing</th>
<th>Outside Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMCSK</td>
<td>5 Min</td>
<td>28.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMZN</td>
<td>5 Min</td>
<td>40.50</td>
<td>40.59</td>
<td>40.15</td>
</tr>
<tr>
<td>ANGN</td>
<td>5 Min</td>
<td>66.25</td>
<td>66.17</td>
<td>65.99</td>
</tr>
<tr>
<td>DCC</td>
<td>5 Min</td>
<td>17.75</td>
<td>17.76</td>
<td>17.67</td>
</tr>
<tr>
<td>QLGC</td>
<td>5 Min</td>
<td>49.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBAY</td>
<td>5 Min</td>
<td>56.12</td>
<td>PaintBar</td>
<td></td>
</tr>
<tr>
<td>AMAT</td>
<td>5 Min</td>
<td>21.65</td>
<td></td>
<td>ShowMe</td>
</tr>
<tr>
<td>CSCO</td>
<td>5 Min</td>
<td>16.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LU</td>
<td>5 Min</td>
<td>1.91</td>
<td>1.91</td>
<td>1.91</td>
</tr>
<tr>
<td>GNC</td>
<td>5 Min</td>
<td>12.56</td>
<td>12.54</td>
<td>12.70</td>
</tr>
</tbody>
</table>

Custom Analysis Techniques

EasyLanguage is TradeStation’s language for writing Analysis Techniques and Strategies. It is designed to allow traders to describe the formulas or conditions of interest to them and have the calculation and examination done by TradeStation and/or RadarScreen. All the Strategies and Analysis Techniques supplied are written in EasyLanguage. Without any further work on your part, you may use these Analysis Techniques just as they are provided in RadarScreen. However, you may also open these documents for review and even customize the calculations or alerts. EasyLanguage may also be used to create Analysis Techniques and Strategies from scratch.
**Monitoring Many Symbols at Once**

Each RadarScreen window may contain up to 8 pages. Each page is tabbed along the bottom of the RadarScreen window.

Each of these pages may contain different symbols and intervals, as well as different Analysis Techniques, alerts, and sort settings.
**Alerts**

Most built-in Analysis Techniques contain special instructions to generate real-time alerts under given circumstances. Of course, such instructions may also be included in your own custom-written Analysis Techniques. Alerts may be set for a single symbol, a group of symbols or all the symbols on a RadarScreen page. A blue mark in the upper right corner of a cell indicates that an alert has been set in that cell; a yellow bar on the right side of the cell means that the alert has just been triggered; a purple bar signifies an alert that was generated previously.

Alerts may even be used as the sort criteria for a RadarScreen page. Those symbols that have current alerts may be brought to the top of the page for closer review.
Sort and Rank
Symbols in a RadarScreen window may be sorted on demand, or a sort frequency may be set for automatic re-sorting. Double-clicking on an Analysis Technique column heading will sort an entire page in ascending order according to the values in that column. Double-click again and the sort order is now descending.

RadarScreen sorting may be done based on any Analysis Technique column. This may be alphabetical when sorting simply by symbol, or numeric when sorting by, say, Volume or Net % Chg. As noted above, triggered alerts in any column may also be used for sorting. This will bring the symbols currently meeting your alert criteria to the top of the page.
Multi-criteria sorting may also be done in RadarScreen. Up to 4 columns may be included in the sort sequence. Further, this sort sequence may be set to update automatically, on a timed frequency. This way, the symbols of particular interest are continually brought to the top of the page. Automatic sorting is valuable whether the sort is based on numeric values or alerts.
Symbol Lists
RadarScreen pages may be populated simply by typing a symbol into a cell in the Symbol column. Or, you may copy and paste a list from another source, such as a Hot Lists window or text file. For even greater convenience, RadarScreen includes a variety of prepared Symbol Lists, including:

- Index Components – Lists of the component issues for hundreds of popular indexes.
- Indexes – Lists of popular indexes.
- Industry groups - Lists of stocks classified by industry.
- Largest Volume Stocks – Lists of recent high-volume stocks by exchange, and separate lists of those that are also trading above $5 per share.

Symbol Lists make it easy to start with a specific group of stocks, apply your favorite Analysis Techniques to the group, and monitor, sort and rank from there.
Window Linking

The TradeStation platform allows for linking windows by symbol and/or interval. For users of RadarScreen, this means it is quick and easy to have a Chart Analysis window that changes symbols whenever you click on a symbol in a RadarScreen window. You may track a large number of symbols in RadarScreen, with the Analysis Techniques and alerts you need. A nearby Chart Analysis window can be used for a close-up look at any symbol just by linking the two windows.

Now that you have some idea of the power of RadarScreen, let’s look at how these features might be used by traders with different market approaches.
Chapter 2: Ms. Able, “Hot Lists” Trader

TradeStation Hot Lists Windows

Ms. Able monitors each day’s initial period for stocks that show the greatest percentage gains and losses. She does this using a Hot Lists window for each list: “All % Gainers” and “All % Losers”. We will focus on the % losers, assuming Ms. Able uses a mirror image for working with the list of % gainers.

![TradeStation Hot Lists window with ALL % Losers list]
**Copy and Paste**

Ms. Able copies and pastes the symbols from the Hot Lists window “All % Losers” into a RadarScreen window she has created for this purpose. The first page of the RadarScreen window includes the description in case she is unfamiliar with the symbol. Most importantly, this page employs a Daily interval so that Ms. Able can cull the list by general price and volume characteristics.
First, she sorts the list by the Last (price) column in descending order by double-clicking twice on the column heading. She then deletes any stock with a price below $4 per share.

Ms. Able has included an Indicator that reports the volume and the average volume for each symbol. The column is labeled VolAvg. She uses this to sort according to the average volume over the last 10 days. Here, too, she can double-click twice on the column heading to sort in descending order. Now she can delete all the stocks that average less than 500,000 shares per day.
The remaining symbols qualify for closer intraday scrutiny. She copies these to page 2 of this RadarScreen window. On this page, the symbols are set to use an interval of 5 minutes. In addition to basic quote data, Ms. Able has included the following:

**Slow Stochastic** (Indicator, StochSlow)
**Key Reversal Up** (ShowMe, KeyRevUp)
**Volume Brkout** (ShowMe, VolBrkOut).

For all three of these, she has set alerts that will notify her as the conditions occur or, in the case of Stochastic, as the values exit overbought or oversold. Ms. Able will use these in an attempt to time intraday rallies.
**Window Linking**

Ms. Able has a Chart Analysis window in the same workspace. The RadarScreen window and the Chart Analysis window are symbol-linked. That is, when Ms. Able clicks on a symbol in the RadarScreen window the symbol plotted in the chart is changed. The Chart Analysis window contains the same Analysis Techniques that appear in the RadarScreen window:

- Slow Stochastic (Indicator)
- Key Reversal Up (ShowMe)
- Volume Brkout (ShowMe)
Label Rows
At the end of the day, Ms. Able adds a label row above the symbols that she captured from that morning’s Hot Lists. The label indicates the date. Tomorrow morning she will begin the process again and add the new symbols to the top of this RadarScreen page. After a few days, she may have developed her own group of stocks to watch, based on volatility, and she may begin to observe which ones are on the list frequently. Even more interesting, she might notice which ones move often between the % losers and % gainers lists.
Chapter 3 : Mr. Baker, Index Component Pairs Trader

Mr. Baker tracks several sector indexes and their component issues. He looks for opportunities created by the divergence of component issues from the index. To help him do this, Mr. Baker has created a RadarScreen window with a series of pages allowing him to monitor the indexes and their components. He has given each page an appropriate name for easy reference, as seen on the tabs at the bottom of the RadarScreen window.

On the first page, labeled Indexes, Mr. Baker has eight sector indexes that he tracks. He uses a long intraday interval with a 2-Line Moving Average (MA2) and ADX so as to track intermediate term trends.

Blank Rows

Mr. Baker has included two broad-based indexes to monitor along with the sectors. He inserted a blank line between the sector indexes and the broad-based indexes. This blank line will keep the groups from being mixed when sorting. That is, RadarScreen will keep separate any groups of symbols separated by blank lines or label rows when sorting.

Indexes and Components

Each of the next few pages contains indexes and components grouped loosely by the type of index. The pages are labeled (see illustration below):

Tech
Drugs and Biotech
Oil, Gold, Banks
Each group, on each page, has a label row, followed by the symbol for the index; then a blank row followed by the components. As noted earlier, the label rows and blank rows will keep the indexes and component groups separate when sorting.

Mr. Baker pays particular attention to the few strongest and weakest components in each index, as measured by their Net%Chg. He looks for pairs-trading opportunities by examining those issues that are showing extreme movement compared to their peers and the index. As seen in the picture above, he has established an automatic sorting sequence that allows easy identification of these trading candidates.
**Sort and Rank**

To accomplish this, Mr. Baker has set the sort to run based on the percent change (Net%) for the day, in descending order, and has set the page to re-sort automatically every 120 seconds.

This sort setting and the color of the numerals in the Net% column make it easy to see the strongest in each group at the top of the list and the weakest in each group at the bottom of the list. Again, the label rows and blank rows prevent mixing symbols that are intended to be sorted separately.

Mr. Baker uses Momentum for further analysis on these symbols. He has enabled alerts for the Momentum (Mom) Indicator to supplement the sorting on each page. That is, the sort sequence will place the strongest and weakest components at the top and bottom of each group and the alert markers help Mr. Baker identify which symbols are experiencing a shift in short-term momentum.
**Linking Multiple Windows**

Mr. Baker also has several other windows on this workspace. In particular, he has a Chart Analysis window, with the Momentum Indicator plotted, and a Market Depth window. He has linked these two windows and the RadarScreen window so that he can examine a chart and see the current Market Depth data for any symbol in the RadarScreen window simply by clicking on that symbol.
Chapter 4: Mr. Charles, “Top-Down” Position Trader

Broad Indexes

Like Mr. Baker, Mr. Charles uses indexes as part of his analysis. His focus, however, is to use indexes in a “top-down” approach. That is, he starts his analysis with broad indexes and attempts to identify long-term trends.

Mr. Charles tracks these indexes in three long-term and very long-term intervals, all on one page of a RadarScreen window. He has included moving averages (MA2), ADXR and Momentum (Mom) on this page. Alerts are enabled to cue him when there are significant changes in these Indicators.
Narrow Indexes
When his analysis indicates that a favorable trend is beginning in the broad market, Mr. Charles begins an examination of narrower indexes for those that are exhibiting the same trend characteristics.

Sort and Rank
Mr. Charles has 10 indexes on this page, all accessing daily data as noted in his Label Row at the top of the page. Also on this page he has added the Indicator RSI to the same group of indicators he used earlier. Mr. Charles has set the sort order based on Momentum. He feels that this gives him a useful way to sort by strength or weakness over a reasonable time period. Mr. Charles then looks for those indexes exhibiting the greatest correlation to the trends he identified in his list of broad indexes.
**Window Linking**

Mr. Charles has also created a linked Chart Analysis window with the same Analysis Techniques that he is using in RadarScreen.

---

**Sorting and Ranking Component Issues**

Mr. Charles has created another RadarScreen window to track the components of these indexes. Using a second RadarScreen window in the same workspace allows him to see the two RadarScreen windows side-by-side and to create separate window links from this second RadarScreen window. Although most of the indexes and, of course, the components are the same as those followed by Mr. Baker, the “component pairs” trader, there are several notable differences in how Mr. Charles has organized this RadarScreen window. All the symbols are tracked here using a daily interval, as noted in Mr. Charles’ label rows. As a position trader, he is using trading ranges and volume as key factors in his analysis.
Mr. Charles tracks new highs and lows, as well as the location of prices within the recent range of highs and lows, using the Period HL indicator. This Indicator lets him see what prices are at the recent boundaries. The third column under this Indicator, %Range, lets him rank the symbols according to their current prices vis-à-vis those boundaries. The alerts will cue Mr. Charles when a new high or low is made.

The ShowMe Volume Brkout (VolBrkOut) monitors volume as compared to the recent average volume and Mr. Charles uses alerts here, as well.
**Tracking Positions**

To assist in tracking his positions, Mr. Charles has inserted the Position P/L (PosPL) Indicator into this RadarScreen window. Once he has input his position information, this Indicator updates his profit or loss status on a real-time basis.

Profit and loss information for his brokerage account is also available from the TradeManager, of course. But using this Indicator allows Mr. Charles to sort by current profit and loss. This may be particularly useful in identifying those positions that are losing money or otherwise lagging in performance. These will appear at the bottom of a sort by profit and loss, in descending order. Sorting is done between label rows and blank rows, keeping each sector of stocks separate.
Using Additional Window Link Groups

Mr. Charles also has created a second Chart Analysis window on this workspace and linked it to the second RadarScreen window. TradeStation allows him to establish separate window links for different windows in a workspace. This Chart Analysis window is dedicated to the individual issues he is tracking.

Mr. Charles has two Indicators in this Chart Analysis window. The Price Channel Indicator in the Chart Analysis window is the “charting equivalent” of the Period HL Indicator that appears in the RadarScreen window. The Volume Brkout (VolBrkOut) ShowMe in the RadarScreen window identifies and generates alerts for high volume bars. These are the histogram bars that exceed the average volume line in the Volume Avg Indicator plotted in the Chart Analysis window.
**Custom Symbol Lists**

Many of the symbols that Mr. Baker and Mr. Charles used in RadarScreen were drawn directly from RadarScreen’s Symbol Lists. Mr. Charles has also used a RadarScreen feature known as Custom Symbol Lists to create a list of the narrow indexes he is tracking and their components.
News Windows
Mr. Charles creates a News window on this workspace and uses this Custom Symbol List as a filter for the News window. Now, he can be sure this News window will monitor his news feeds for any stories relating to these industries generally and these particular stocks.
Chapter 5: Mr. Deltoid, Multi-interval Trader

Mr. Deltoid has a list of stocks that he tracks, primarily large capitalization issues, only occasionally making changes to this list. His analysis is based on monitoring these symbols across multiple time-based intervals: a short interval for early warning, an intermediate length for trading and a longer interval for background.

On this RadarScreen page, he monitors MACD and Stochastics (StochSlow), across all three intervals for his list of stocks.
Here is a close-up view of the columns for the first few rows of symbols in the shortest time frame.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Bar Type</th>
<th>Last</th>
<th>NetCh</th>
<th>MACD</th>
<th>MACDdiff</th>
<th>StochSlow</th>
<th>SlowK</th>
<th>SlowD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>15 Min</td>
<td>28.40</td>
<td>-0.23</td>
<td>0.027</td>
<td>58.82</td>
<td>55.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIG</td>
<td>15 Min</td>
<td>53.20</td>
<td>-0.07</td>
<td>0.036</td>
<td>73.91</td>
<td>76.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AXP</td>
<td>15 Min</td>
<td>52.38</td>
<td>-0.10</td>
<td>0.024</td>
<td>68.13</td>
<td>69.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>15 Min</td>
<td>60.37</td>
<td>-0.67</td>
<td>0.054</td>
<td>77.80</td>
<td>80.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>15 Min</td>
<td>46.72</td>
<td>0.34</td>
<td>0.005</td>
<td>70.59</td>
<td>72.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAT</td>
<td>15 Min</td>
<td>50.00</td>
<td>1.23</td>
<td>0.115</td>
<td>68.05</td>
<td>89.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD</td>
<td>15 Min</td>
<td>47.50</td>
<td>-0.59</td>
<td>0.081</td>
<td>87.63</td>
<td>91.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIS</td>
<td>15 Min</td>
<td>26.65</td>
<td>-0.30</td>
<td>(0.043)</td>
<td>23.75</td>
<td>22.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE</td>
<td>15 Min</td>
<td>56.19</td>
<td>0.56</td>
<td>0.027</td>
<td>53.18</td>
<td>94.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Setting Alerts in Multiple Intervals**

Mr. Deltoid sets alerts for MACD crossovers and for Stochastics breaking out of overbought or oversold levels. When these alerts are triggered for his shortest interval, he knows to begin looking more carefully at his intermediate, or “trading,” interval. When the same Alerts are triggered in this intermediate interval, he can check against the long-term interval to see if this might be an early warning of direction change or a false move. Organizing each symbol, in each interval, in the same row makes it easy for Mr. Deltoid to look across any row and see the current status of that symbol in all intervals at once.
Linking

Mr. Deltoid’s workspace also contains three Chart Analysis windows. Each of the three charts has the same symbol as well as the MACD and Stochastics Indicators. However, each chart is a different interval, corresponding with the intervals in the RadarScreen window.

Mr. Deltoid has linked all three Chart Analysis windows and the RadarScreen window. When he clicks on any symbol in the RadarScreen window, all three charts, and the Indicators, are re-plotted for that symbol in all three intervals.
Chapter 6 : Ms. Essex, Candlestick Trader

Ms. Essex has spent many years working with candlestick charts. She is comfortable working with this method of analysis, but is frustrated in her attempts to monitor a large number of markets for candlestick patterns.

These patterns ordinarily require close visual scrutiny and some of these patterns may be very rare. Ms. Essex has set up a RadarScreen window designed to overcome this.
Using TradeStation Symbol Lists
Ms. Essex used TradeStation Symbol Lists to create a RadarScreen window of actively traded, liquid stocks.

She added several of the lists and sorted the symbols alphabetically. Ms. Essex then scrolled through the list and deleted any duplicate entries. She felt that this list of approximately 900 widely followed stocks was a good “universe” for her to work with.
Monitoring for Bar Patterns using ShowMe Studies

Typically, ShowMe studies are used in a TradeStation Chart Analysis window to identify bar patterns. When a particular pattern occurs, or is “true,” the ShowMe study places a dot on the bar.

ShowMe studies may also be used in RadarScreen. Of course, in RadarScreen’s tabular format a ShowMe study does not place a dot in a cell; rather, a numeric value will appear in the cell.

This numeric value is not important per se; however, the appearance of the number indicates that the ShowMe condition is true. (The numeric value is actually the location of the dot on the bar, or y-axis, if the ShowMe were applied to a chart. This is customarily the high or low of the bar.)
Using Alerts as Sort Criteria

Enabling Alerts for ShowMe studies is also useful in RadarScreen. An alternative to having an Alert which generates a pop-up and audible notification, Alerts may be set only to display in the cell and then used as the sort criteria for a RadarScreen page.

Ms. Essex has enabled alerts of this type for all the candlestick ShowMe studies. In addition, she set the Automatic Sort feature for this page to re-sort every 10 minutes.
Here is Ms. Essex’ RadarScreen window with the ShowMe studies for candlestick patterns, Alerts for sorting and an Automatic Sorting frequency.
Chapter 7 : Using RadarScreen

Creating a RadarScreen Window
Click the RadarScreen icon from the Tools section of the Shortcut Bar to create a new RadarScreen window.

The new RadarScreen window appears with a single page containing a Symbol column and several default Analysis Technique columns.

Using Multiple Pages in a RadarScreen Window
Each RadarScreen window can contain up to eight pages. Use the Insert – Page menu sequence to add pages to a RadarScreen window.
**Inserting Symbols into a RadarScreen Window**

A single RadarScreen page can track as many symbols as you add, but there are some limitations to the total number of symbols you may track in all your open RadarScreen windows. There is a limit of 1000 symbols requiring historical data and 2000 symbols accessing current quotes only. Remember, these totals are across all your open RadarScreen windows.

There are several ways to insert symbols into the RadarScreen window.

**To Insert a Symbol into a Radarscreen Window**

Type a symbol into any blank cell in the Symbol column, and then press ENTER.

**To Insert a Symbol Using Only the Description or Part of the Symbol**

Click in the Symbol column of a blank row where you want to insert the symbol. Use the Insert - Symbol menu sequence.
From the Insert Symbol dialog box, click the Lookup button.
From the Symbol Lookup dialog, click the appropriate tab (Stocks, Futures, Options, Index, Funds, Bonds).
In the Specific Symbol/Desc: box, enter your search criteria. You can enter a complete symbol or description, or just a few letters of a symbol or description. Select either the Symbol or Description search option.
The symbols matching your search criteria are displayed. Click the symbol(s) you want to add. To select multiple symbols, press and hold the CTRL key while clicking additional symbols you want to insert.
Click OK, and then click Insert.
Adding a Symbol List to a RadarScreen Window
Click the RadarScreen window to make the window active.
Click Insert, and then select Symbol List.
Select the desired symbol list group from the Insert Symbol List dialog box. By clicking +, you can expand the list category from which you want to choose.
Click OK.
Note: You can only select one symbol list at a time.
Formatting a RadarScreen Page

You can customize the fonts and colors in a RadarScreen page, as well as many other page settings, specify the sorting characteristics, and freeze (anchor) any number of columns. You can also change the format of the data displayed in the columns. These settings may then be saved as a template that you can apply to any other RadarScreen page.

Use the Format – Page menu sequence to access these settings. Use the Format – Save Template and Format – Apply Template menu sequences to save and access your RadarScreen page templates.

For further instructions on formatting your RadarScreen pages, search the Online User Guide for Formatting Pages in a RadarScreen window.
Using Analysis Techniques in RadarScreen

Each Analysis Technique in RadarScreen is displayed as a column with sub-columns for each plot.

Indicators

Indicators can be inserted into the window just as they would be inserted into a chart. In RadarScreen, you are viewing the current real-time calculated value of the Indicator.

You may use many of the same built-in Indicators that you currently use in TradeStation charting. Other built-in indicators have been designed specifically for RadarScreen, including many unique real-time quote fields such as VWAP (Volume Weighted Average Price), and position tracking indicators (e.g., Position P/L).

Most of the built-in Indicators for RadarScreen include one or more alert conditions that can be used for generating real-time alerts and also for sorting symbols on a RadarScreen page.
ShowMe and PaintBar Studies
ShowMe and PaintBar Analysis Techniques are also available in RadarScreen. ShowMe and PaintBar studies in RadarScreen will only display values when the condition(s) is true for the symbol in that row. The cell will be blank if the ShowMe or PaintBar condition(s) is false. ShowMe and PaintBar studies include alert criteria which may be used for generating real-time alerts and also for sorting symbols on a RadarScreen page.

Inserting Analysis Techniques
Use the Insert - Indicator or Insert – ShowMe or Insert – PaintBar menu sequence. The Select Analysis Type box lets you change the type of Analysis Technique you want to display in the Available pane. The Available pane lists the available Analysis Techniques that you can apply to the RadarScreen page; the Selected pane lists those already added to the page. Highlight the Analysis Technique that you would like to add to the page. Click Add. Click Move Up or Move Down to change the order in which the Analysis Techniques appear in the window. Click OK.
Analysis Technique Chooser

You can also add columns to your window by using the Analysis Technique Chooser. You may use this to drag and drop Analysis Techniques directly onto a RadarScreen page. Use the View – Analysis Technique Chooser menu sequence to display the chooser.
Changing Inputs in an Analysis Technique

Most Analysis Techniques have input parameters that allow you to adjust certain calculation values. For example, you may want to change the length of the Momentum Indicator to a value other than the default of 12. You can adjust these parameters on a single symbol, a group of symbols, or on all the symbols on a page at one time. Inputs may be edited when adding an Analysis Technique using the Insert Analysis Technique dialog box. Inputs may be edited after the Analysis Technique has been added to the page by following these steps:

Right click on the Analysis Technique’s column header.
Click Format for this particular Symbol, the Selected Symbols or All Symbols.
Click the Inputs tab.
Click in the cell containing the input value you want to change, and enter your value directly into the cell.
Repeat for all the inputs you want to change.
Click OK.
Note: You may use different input values for each symbol.
Understanding Data Intervals in RadarScreen

Each symbol in RadarScreen can be added with its own data interval. That is, each symbol has an interval just as you would select a bar interval in charting. These may be tick, intraday (e.g., 1-minute and 5-minute intervals), daily, weekly, or monthly intervals. Each Analysis Technique for a symbol will then be calculated based on that data interval.

Note: Certain Analysis Techniques such as Net Change, Net Percent Change, High and Low, deliver data only for the day, independent of the selected bar interval for the symbol. The data interval affects only Analysis Techniques accessing historical data.
Note: The default interval for all symbols is 5 minutes.

Custom Sessions in RadarScreen

RadarScreen has access to the same trading session features used in TradeStation. This means that a symbol may be formatted to use regular daytime sessions, pre- and post-market data or custom session settings. For more information, see Understanding Symbol Sessions in the Online User Guide.
**Sorting**
Symbols on a RadarScreen page may be sorted by the numeric value of an Analysis Technique, the status of alerts, or simply alphabetically by symbol. Sorting may be done in ascending or descending order, either manually “on demand” or according to a timed setting.

**Manual Sorting**
RadarScreen allows you to sort manually by double-clicking the left mouse button with the pointer in any column heading. The sort will be in ascending order based on that analysis technique; double-click again and the sort is changed to descending order.

**Sorting by Multiple Columns**
Click Format-Page and then select the Sort tab.
Under Sort Keys, select the first Sort Key by using the drop-down list.
Select the direction of the sort for this key by using the arrow next to the key drop-down.
Use as many of the four sort keys as needed.
Click OK and the RadarScreen page will be sorted according to the series of Sort Keys you selected.

When using the alerts for an Analysis Technique as a Sort Key, as in the picture above, setting the sort order to ascending will bring all the current alerts to the top of the RadarScreen page or group.

**Automatic Sorting by Multiple Columns**
You may set a RadarScreen page to re-sort at a regular frequency according to these same Sort Keys.
On the same Sort tab of the Format Page dialog, select the Keep Data Sorted check box, and enter the number of seconds to be used as the sort frequency for this RadarScreen page.
Click OK.
As noted above, when using alerts for an Analysis Technique as a Sort Key, setting the sort order to ascending will bring all the current alerts to the top of the list. When combined with the Automatic Sorting Option, all symbols currently generating alerts will be sorted to the top of the list.

**Blank Rows and Label Rows**

Blank rows and label rows may be used to separate groups for sorting purposes. Use the Insert menu to place blank or label rows into a RadarScreen page. Both manual and automatic sorting will be done only within each group of symbols between blank or label rows.
**Alerts**

Most of the built-in Analysis Techniques for RadarScreen include one or more alert conditions that can be used for generating real-time alerts and also for sorting symbols on a RadarScreen page.

Enabling an alert may be done through the Format – Indicator dialog, Alerts tab. Alerts may be enabled for a single symbol, a group of symbols, or all symbols on a RadarScreen page. There are two radio buttons on this tab that may be used for enabling alerts.

Enable alert with no Message Center notification is used when alerts are intended for sorting only. No audio or visual alert will be generated other than a marker in the cell.

Enable alert with the following Message Center notification may be used for sorting, and will also generate audio visual notification according to the default or user settings made by clicking Configure.