Documentation for

Sigma Channels Tool Kit

EasyLanguage code developed by

Jan Arps'

Trader's Toolbox

TradeStation Open Platform Solution Provider

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Installation

Thank you for ordering our trading systems and indicators. They are written in EasyLanguage from TradeStation Technologies, Inc., and are designed to work with the TradeStation platform.

How to load studies into TradeStation:

1. Open TradeStation. (For 2000i users, open Power Editor.)
2. Click File.
3. Click Import/Export.
4. Click on Import EasyLanguage File.
5. Click Next.
6. Click Browse if you know the location of the file, or click Scan if you need the computer to look for the file. You will need to enter the drive letter that you want the computer to scan, e.g. A or C.
7. Click once on the file you want to import. Click Open or Next depending on option you chose above.
8. Click Next.
9. Click Next.
10. Click Finish.
11. Click OK.

Password Instructions

Your systems and indicators are password protected and tied to your security block number.

Your password to run these studies in Charting is:

To load your password, open a chart window and load all of the indicators and systems you have received into the chart. Then click on FORMAT, ANALYSIS TECHNIQUES, INPUTS. If the INPUTS setting for the study includes a PASSWORD input, click EDIT, and enter your unique password. Then click on SET AS DEFAULT and you will never have to enter it again.

If any of these studies ever give you a DIVIDE BY ZERO error message, or if you see an empty subgraph where the indicator is supposed to be, the first thing you should check is to make sure you have entered a valid password.

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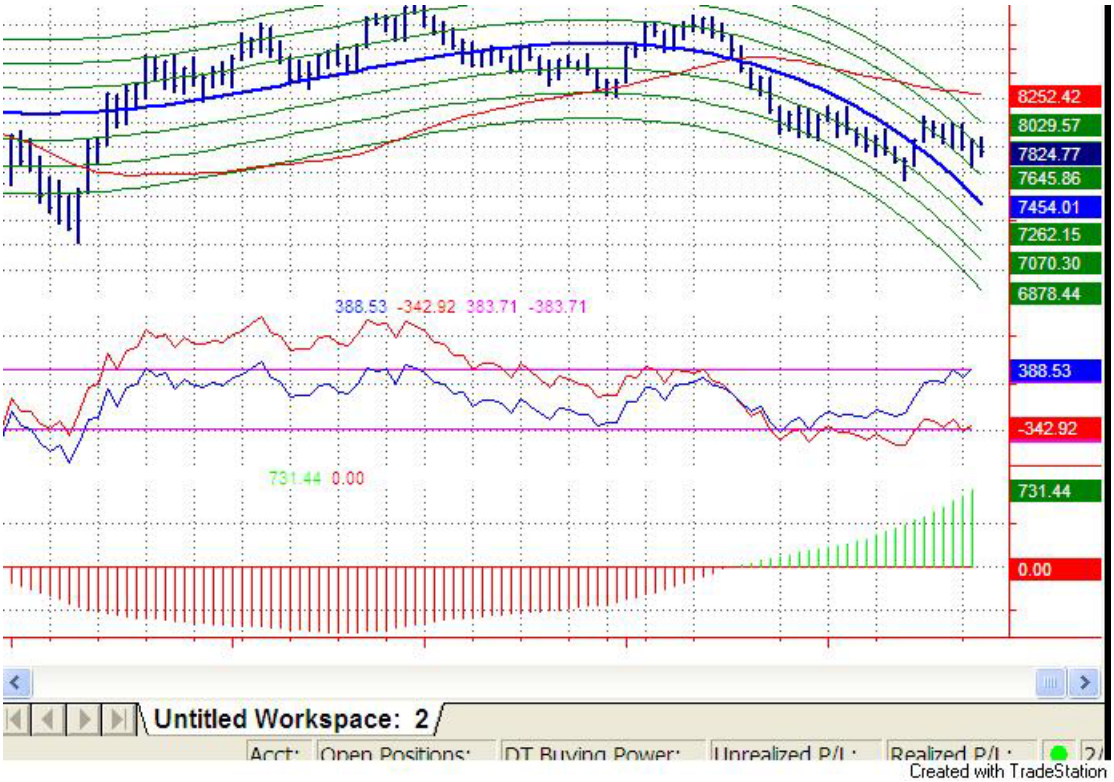
Sigma Trading Bands Tool Kit



This Tool Kit includes the following indicators:

SIGMA INNER CHANNEL {Plots the centerline, the inner + and – Sigma bands, and the red LR line.}

SIGMA OUTER CHANNEL {Plots the outer two + and - Sigma bands}

SIGMA MOMENTUM LINES A, B, C {Plots the standard deviation lines converted to straight lines, along with the difference between closing price and (a) the centerline (black), and (b) the red LR line}

SIGMA MOM DIFF {Plots the difference between the centerline and the red LR line.}

SIGMA INNER CHANNEL RT {plots the progress of the end point of the Sigma Bands inner channel calculations for each bar on the chart}

SIGMA OUTER CHANNEL RT {plots the progress of the end point of the Sigma Bands Outer Channel calculations for each bar on the chart}

SIGMA CENTERLINE RT {plots the progress of the end point of the Sigma Bands Centerline for each bar on the chart}

NOTE WHEN YOU LOAD THE SIGMA MOMENTUM LINES A, B, &C ON YOUR CHART:

1. IN THE "FORMAT" BOX CLICK THE "DATA" TAB
2. SELECT "SUBGRAPH 2"
3. WHEN TRADESTATION ASKS YOU IF YOU WANT TO MOVE THE STUDY TO SUBGRAPH 1, SAY "NO".
4. ALL THREE OF THESE INDICATORS SHOULD HAVE THEIR "SCALING" SETTING DEFAULTED TO "SAME AS SYMBOL".

This set of indicators plots a series of support and resistance channel lines around a polynomial regression centerline. The formula for the centerline takes the form, $a + bx + cx^2 + dx^3 + ex^4$ ….

The Sigma channel lines are spaced above and below the centerline at equal standard deviation intervals.

It has been observed that when prices cross outside the outer boundaries of the Sigma Trading Bands they almost invariably return to the centerline (reversion to the mean).

Inputs are as follows:

Len (150), {The number of bars to include in the regression calculation}

RedLineLen {The number of bars in the red LR line calculation}

Order (3), {The order of the polynomial regression equation. An order of 1 will plot a linear regression channel. An order of 2 will plot a single-curve channel. Orders of 3 and 4 will plot progressively more complex curves. The maximum order value is 4.}

Sdev (.5), {The number of standard deviations from the centerline to the first Sigma Band. The remaining Sigma bands are 2 and 3 multiples of the SDEV value.

Price (C), {The price on which the calculation is based}

Trading with the Sigma Bands

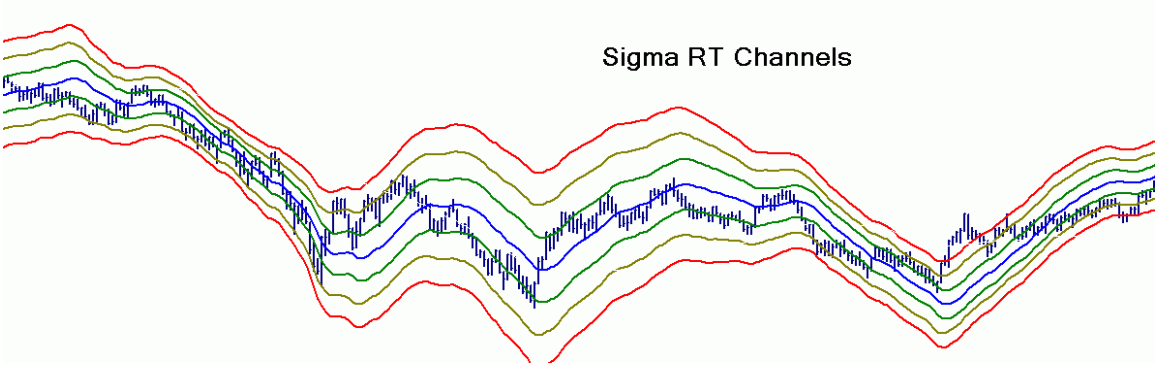
Prices tend to regress toward the mean, which is represented by the blue centerline on the Sigma Bands chart. The three curvilinear bands above, below and paralleling the centerline represent one, two and three standard deviations of the actual data points from the mean centerline. There is only a five-percent chance that prices will exceed the 2-standard deviation line, and less than a one-percent chance that they will exceed the 3-standard-deviation line. So, when prices reach these bands, a relatively low-risk entry opportunity presents itself to trade in the opposite direction of the current move.

Additionally, a red momentum line is shown on the chart. When the centerline diverges from the red momentum line, the overall trend will be in the direction of the centerline relative to the red line. When the red momentum line and the centerline are close together and more or less parallel, a trendless market condition exists, and it is best to stay out of the market.

Sigma RT Channels

As you watch the Sigma Bands in action on a real-time chart, you will see that the shape of the bands changes on each bar as the first bar of the previous bar's regression calculation is dropped from the calculation and the new bar is added into the calculation. Thus, the Sigma RT channel plots the progress of the end point of the Sigma Bands channel calculations for each bar on the chart. In other words, his indicator permits a continuous evaluation of how the Sigma Band relationships changed with time.

If you overlay the Sigma Bands indicator with the Sigma RT Channel indicator, both with the same settings, you will see that the value of the RT Channel lines on the last bar will match exactly the value of the corresponding Sigma Band channel lines on the last bar. It's as if the RT channels represent a "trail of crumbs" showing where the Sigma Bands were when each bar was the last bar on the chart. The usefulness of this indicator is to show how the Sigma Bands calculations have behaved in the past as the regression channels are recalculated on every bar.



Sigma RT Centerlines

Another use for the Sigma RT calculations is to plot the Sigma RT Centerline on a chart twice using two different settings for the Order input. The example below shows a blue Sigma RT line or Order 3 and a red Sigma RT line of Order 4. Note how closely the blue line follows behind price and how responsive it can be to changes in trend direction. The use of these lines in trend analysis opens a whole new area of potential for better technical analysis tools.