

Darvas Box Package

User Guide

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List of Effective Changes

Original 06 April 2004

Revision A 20 April 2004

- Incorporated additional formatting changes (Pages: All)
- Added "List of Effective Changes" page (Page 2)
- Corrected typographical error (Pages: 2, 25)
- Updated graphic to reflect current User Interface (Page 7)
- Added additional text and graphic (Pages 9 and 10)
- Updated section on Darvas Box Stops (Pages 19 thru 24)

Introduction

Nicolas Darvas became famous for publishing his success story in the bestselling book, *How I Made 2 Million in the Stock Market*. The excellent text describes Darvas' implementation of a range breakout system, which has become known in popular trading circles as the 'Darvas Box'. Thousands of traders rely on the breakout signals provided by this simple yet powerful approach to signal their confirmed entries.

The Darvas Box is used to normalize a trend. A long signal would be indicated when the price of the stock exceeds the top of the box. A short signal would be indicated when the price of the stock falls below the bottom of the box. Nicolas Darvas only used the indicator for long trades, therefore his method of calculating the box was a high first method. In other words, he would calculate the high, or the top of the box first and then determine the bottom of the box.

Constructing a Darvas Box

The Classic Darvas Box uses the High First Method of Construction, meaning it will calculate the top of the box first and then establish the bottom of the box. This method can be represented using a condition based flowchart in which processing moves from one state to the next once certain conditions are met.

To construct a Darvas Box, we are going to spend at least three bars finding and validating the top of a box (States #1, #2 and #3), and we are going to spend at least three bars finding and validating the bottom of a box (States #3, #4 and #5). Once we have reached State #5, we have a valid Box Top and a valid Box Bottom —a Darvas Box.

On day one, we start off in State #1. This state tells us to set the Box Top to today's high. There is only one State per bar.

From State #1, we proceed to the next bar. If the Box Top that was saved from State #1 (yesterday) is less than today's high, we go back to State #1 and start over by setting the Box Top to today's high (a new Box Top).

If the Box Top that was saved from State #1 is greater than today's high, we proceed to State #2, keeping the Box Top from yesterday.

From State #2, we proceed to the next bar. If the Box Top that was saved from State #1 (two days ago) is less than today's high, we go back to State #1, and set the Box Top to today's high (a new Box Top).

If the Box Top that was saved from State #1 is greater than today's high, we proceed to State #3, keeping the Box Top from two bars ago. Having reached State #3, we also begin construction of our Box Bottom by setting the Box Bottom to today's low.

At this point, we have temporarily defined the Box Top and begun construction on the Box Bottom. Having reached this point in the construction process (State #3), we must now look not only at the Box Top, but Box Bottom as we proceed forward.

From State #3, we proceed to the next bar. If the Box Top that we saved from bars past is less than today's high, construction has ended and we go all the way back to State #1, setting the Box Top to today's high (a new Box Top). If the Box Top we saved from days past is still greater than today's high, we now proceed to the second part of the decision process which involves looking at the Box Bottom and low prices.

If the current bar low is lower than the saved Box Bottom (State #3), go back to State #3, and set the Box Bottom to today's low. If on the other hand, the current bar low is higher than the saved Box Bottom (State #3), we proceed to State #4, keeping both the Box Top and Box Bottom from State #3.

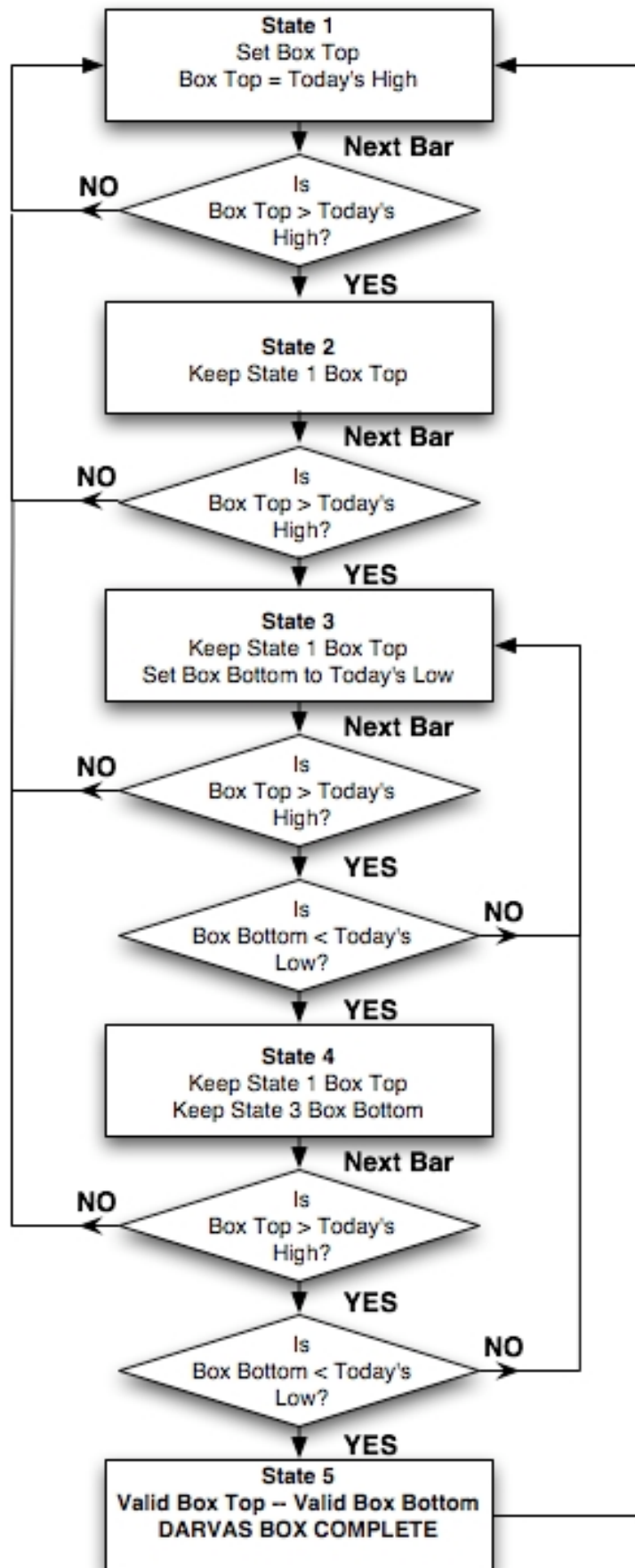
State #4 is similar to State #3, in that both the Box Top and the Box Bottom are considered in the decision making process.

From State #4, we proceed to the next bar. If today's high is greater than the Box Top we saved in State #4, construction has ended and we go all the way back to State #1, setting the Box Top to today's high (a new Box Top). On the other hand, if the Box Top we saved in State #4 is still greater than today's high, we now proceed to the second part of the decision process which involves the Box Bottom and low prices.

If the Box Bottom that we saved in State #4 is higher than the current bars low, we go back to State #3 and set the Box Bottom to the current days bars low. If on the other hand, the Box Bottom that we saved in State #4 is still lower than the current bars low, we go to State #5.

Once we are in State #5, we have a valid Box Top and a valid Box Bottom – a Darvas Box. Now that we have a Darvas Box, we simply wait until we get a day's high selling price that is greater than the Box Top (a long signal) or a day's low selling price that is lower than the Box Bottom (a short signal).

A flowchart illustrating the construction of a classic Darvas Box is shown on the following page.



Darvas Box Package

The Classic Darvas Box Indicator is included in the Nirvana Darvas Box Package. Yet this fundamental concept was also used to create additional indicators and systems. The Darvas Box Package includes:

Indicators

- Darvas Box Classic Indicator
- Darvas Box Nirvana Indicator
- Darvas Box Classic Support Indicator
- Darvas Box Classic Resistance Indicator
- Darvas Box Classic Support/Resistance Indicator

Systems

- Darvas Box Classic System (DAR-B)
- Darvas Box Nirvana System (DAN-B)
- Darvas Box Support/Resistance System (DSR-B)

Exits

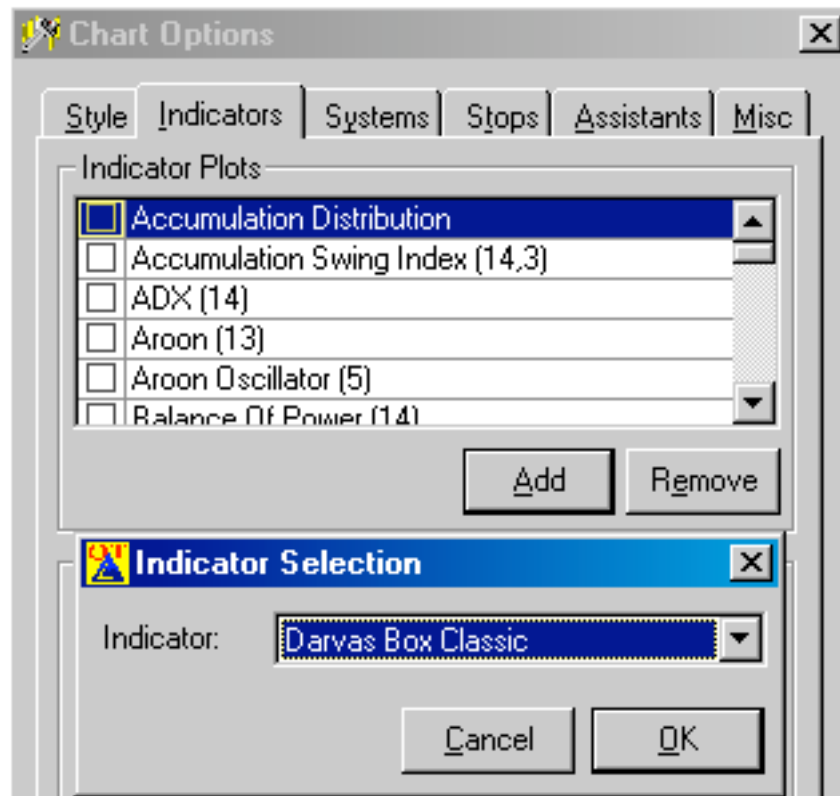
- Darvas Box Classic Stop
- Darvas Box Classic Trailing Stop

Strategies

- Darvas Box Classic Strategy
- Darvas Box Nirvana Strategy
- Darvas Box Support/Resistance Strategy

Darvas Box Indicators

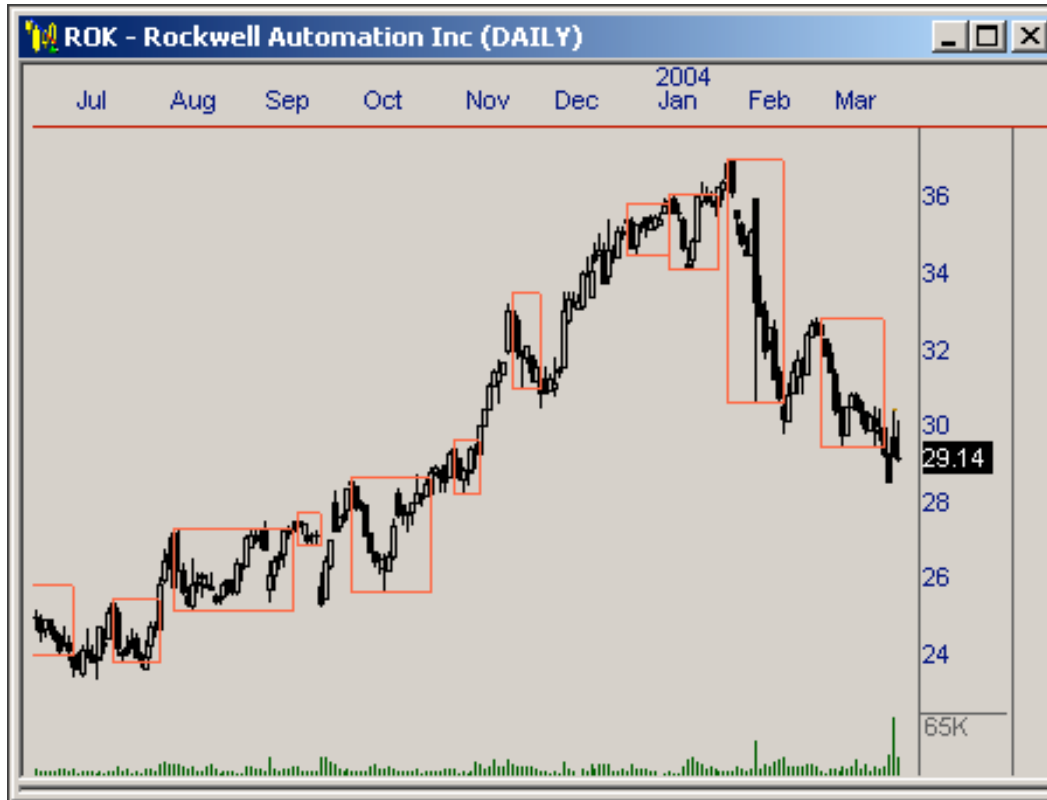
The Darvas Box Package contains five indicators based on the Darvas Box concept. These indicators are installed with the package, but they will not initially show up in your Chart Options > Indicators list. You will need to click the “Add” button and select each indicator from the drop down menu to add them to your Indicator List.



Adding the Darvas Box Classic Indicator to Your List

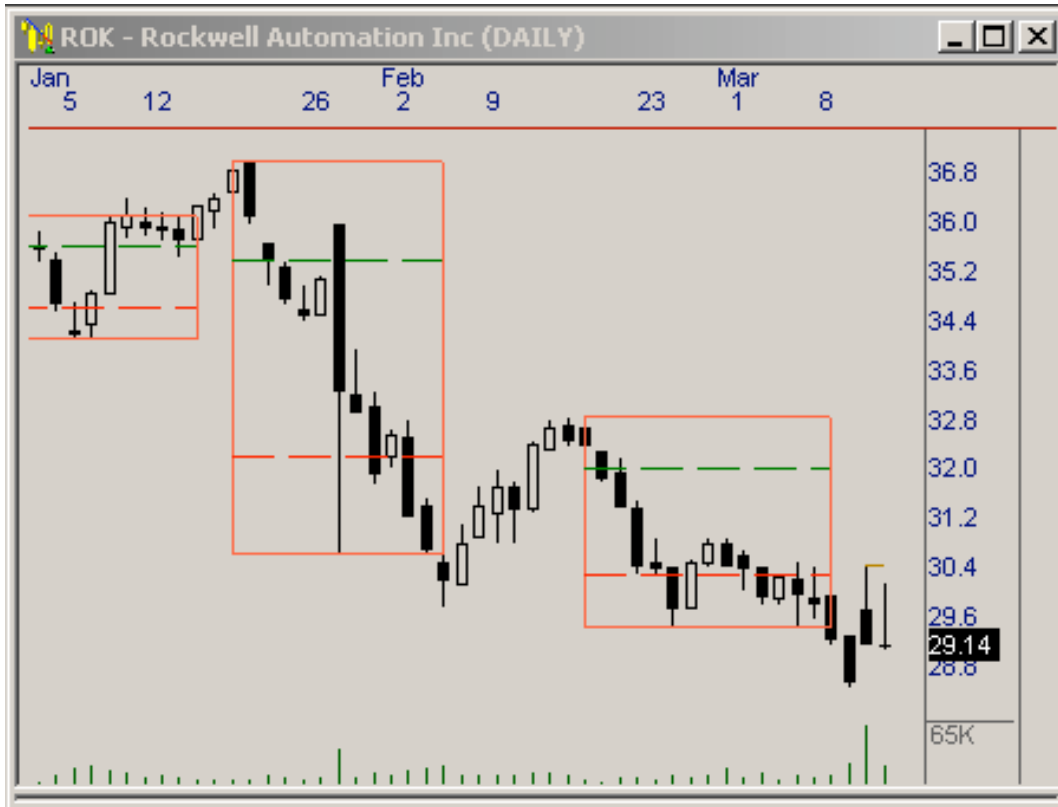
The Darvas Box Classic Indicator

The Darvas Box Classic Indicator is constructed in the exact manner as defined by Nicolas Darvas in his book, *How I made 2 Million in the Stock Market*. The flowchart on page 5 of this document illustrates the method used in constructing this indicator.



The Darvas Box Classic Indicator

Warning Line Percent: You can choose to have a warning line drawn inside the Darvas Box to alert you to a potential breakout. This feature will draw the line at a specified percentage from the top and bottom of the Darvas Box. (This is a set percentage value as defined by the user, and can not be optimized.)



Warning Lines drawn at a distance of 25% from the Box Tops and bottoms.

Beyond using the Warning Line Percent as a means of alerting you to potential breakout opportunities, the Warning Line Percent can be used to serve another useful function.

As price approaches the warning line, a trader can prepare to enter additional positions on the formation of new/additional boxes "stacking" higher in a strong up trend. These lines in affect serve as a WARNING that prices have risen to a specified level, giving a strong indication that higher prices may be likely in coming days.

Assuming an existing position is already being held, there is now an opportunity to increase the number of shares held through additional share purchases using what is often referred to as "pyramid" trades. Pyramid trading is normally restricted to between 10 and 25% of the original number of shares purchased. Since it is not uncommon to see 8 or more "stacked" Darvas Boxes in a strong trend, this approach to trading can be a highly profitable when trading a strong trend, which is what the Darvas style of trading is based on – long term trend trading.

Although Darvas only traded from the long side, this does not imply that trading the short side in a strong downtrend has any less potential for profit.

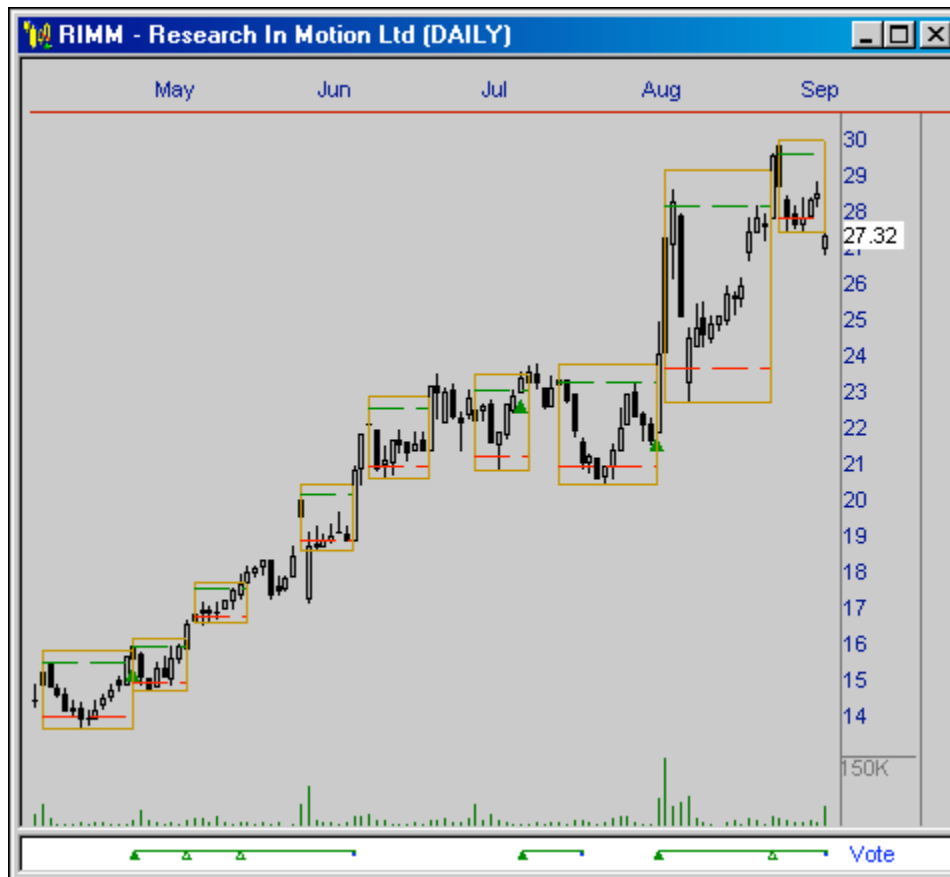


Chart of Research In Motion (RIMM) over a 5 month period

This chart of Research in Motion shows the profit potential that could be realized through the use of pyramid trading "stacked" boxes.

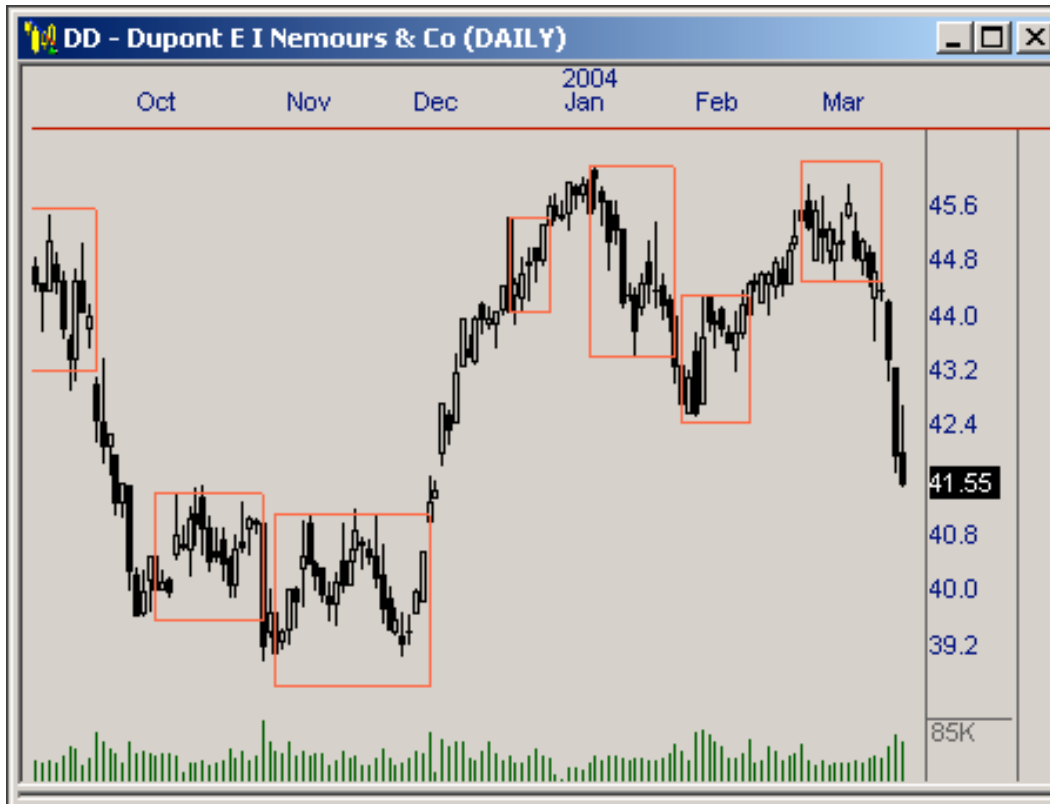
***Note:** The parameter settings for Chart Options - Systems and Indicators plots are separate and independent of Trading System parameters. Failure to ensure the parameters for a System or Indicator plot are set to match the parameters of the associated Trading System may result in a chart plot that is not indicative of the Trading System.*

Matching System or Indicator plot parameters is only effective when using non-optimized Trading Systems, where Default values are used.

Later in this User Guide, we'll discuss the Darvas Box Classic Trailing Stop. This highly innovative stop, based on the Warning Line Percent function, was created by Nirvana during development of the Darvas Box Package.

The Darvas Box Nirvana Indicator

The Darvas Box Nirvana Indicator is constructed in a similar manner to the Darvas Box Classic Indicator. In the Darvas Box Nirvana Indicator, when a Darvas Box is broken to the downside, the next Darvas Box will be constructed by confirming the Box Bottom first. In the Darvas Box Classic Indicator, Box Tops are always constructed first.



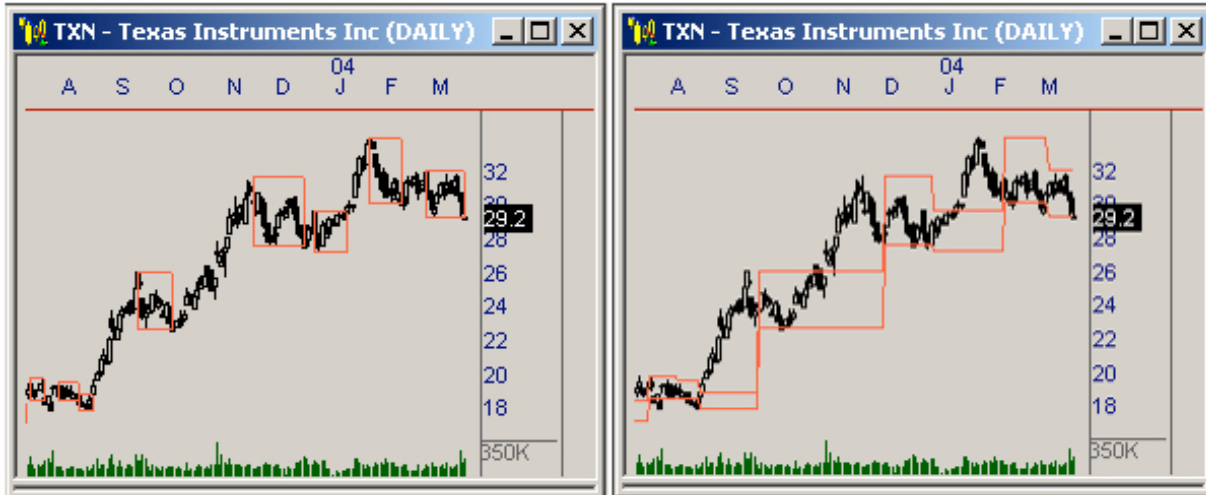
The Darvas Box Nirvana Indicator

Parameters

Warning Line Percent: see *Warning Line Percent* – Page 9

The Darvas Box Classic Support/Resistance Indicator

The Darvas Box Classic Support/Resistance Indicator is constructed in the exact same manner as the Darvas Box Classic Indicator, however, this indicator will continue to plot the support and resistance lines that were established in the previous box until a new box is completed.



The Darvas Box Classic Indicator and the Darvas Box Classic Support/ Resistance Indicator.

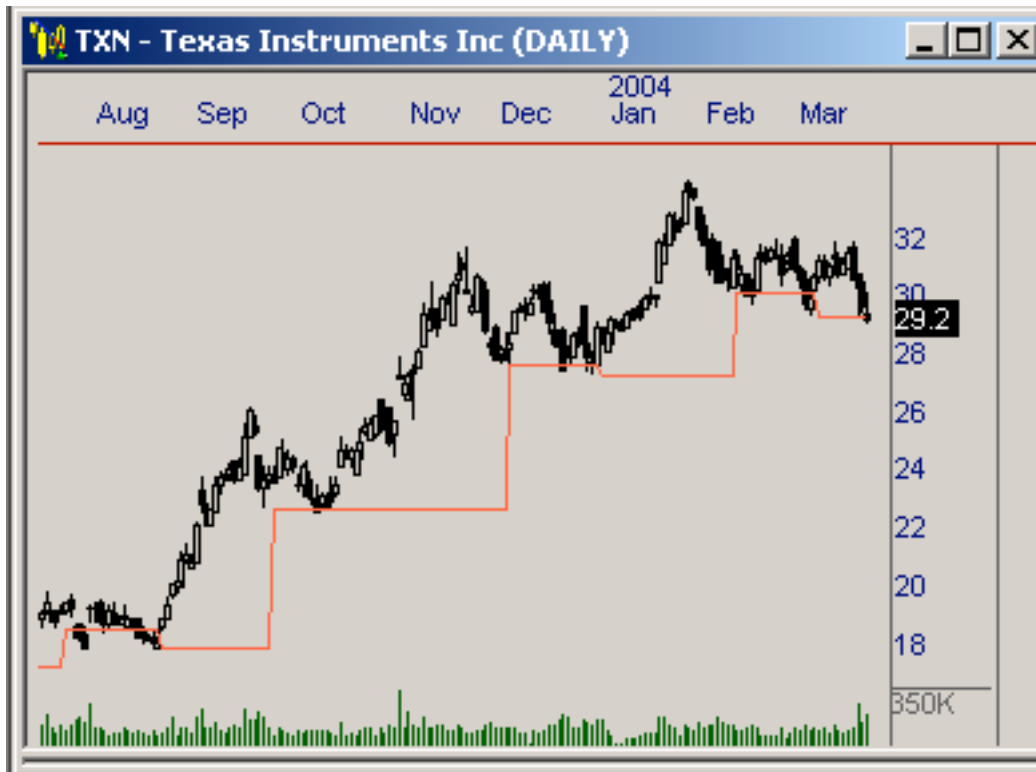
This examples above show that even though the indicators are constructed in a similar manner, the plots are very different. The Darvas Box Classic Indicator will draw the box beginning at State #1, then completes the box once the close price has penetrated either the box top or box bottom. Yet, with this indicator, the box tops and box bottoms are plotted only after they have been confirmed, then remain plotted until a new Darvas Box is completely confirmed.

Parameters

Warning Line Percent: see *Warning Line Percent* – Page 9

The Darvas Box Classic Support Indicator

The Darvas Box Classic Support Indicator is simply the support line of the Darvas Box Classic Support/Resistance Indicator. By isolating this level as a separate indicator, we have the ability to use this level as a filter in a strategy.



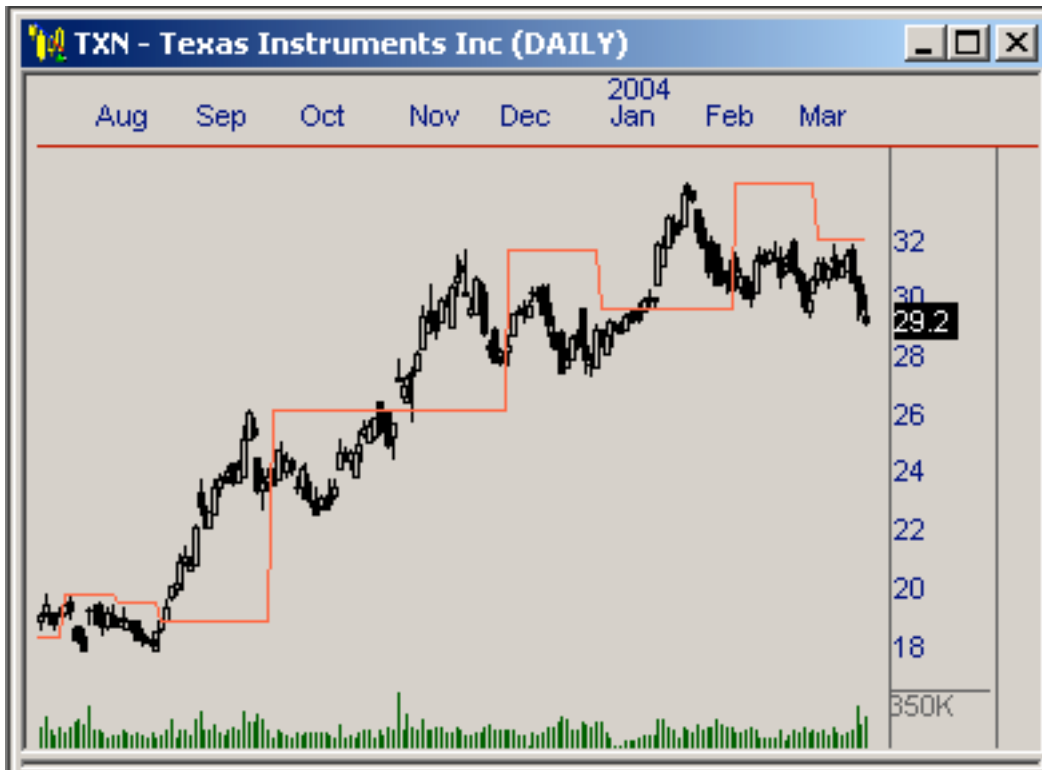
Darvas Box Classic Support Indicator

Parameters

Warning Line Percent: see *Warning Line Percent* – Page 9

The Darvas Box Classic Resistance Indicator

The Darvas Box Classic Resistance Indicator is the resistance level as defined in the Darvas Box Classic Support/Resistance Indicator. Just as in the Classic Support Indicator, the isolation of this level as a separate indicator allows us to create filters based on this level.



Darvas Box Classic Resistance Indicator

Parameters

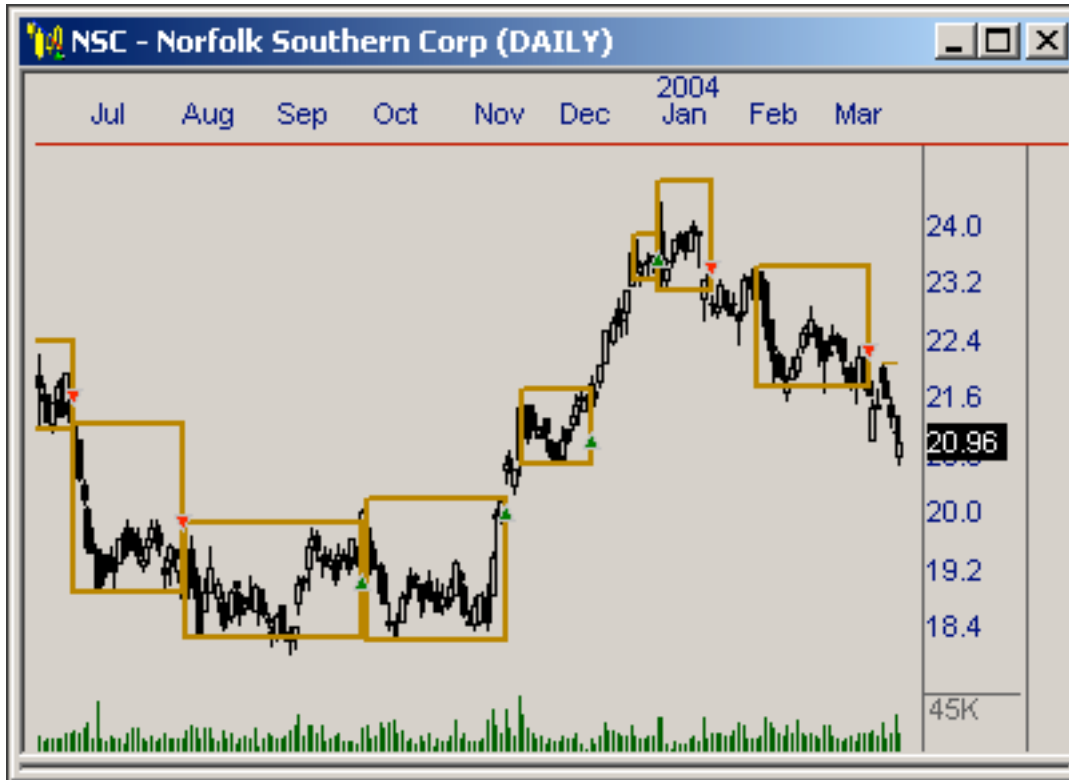
Warning Line Percent: see *Warning Line Percent* – Page 9

DARVAS BOX TRADING SYSTEMS

The Darvas Box Package includes three separate trading systems based on the Darvas Box Indicators. All three trading systems are designed to find breakout opportunities in the short to medium term timeframes.

Darvas Box Classic System (DAR-B)

This system is constructed using the Darvas Box Classic Indicator.



The Darvas Box Classic System (DAR-B)

Parameters

Close Above: Requires price to close above a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Close Below: Requires price to close below a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Top Based Box Confirms: The number of bars required to confirm a Box Top.
(Default = 3)

Warning Line Percent: see *Warning Line Percent* – Page 9

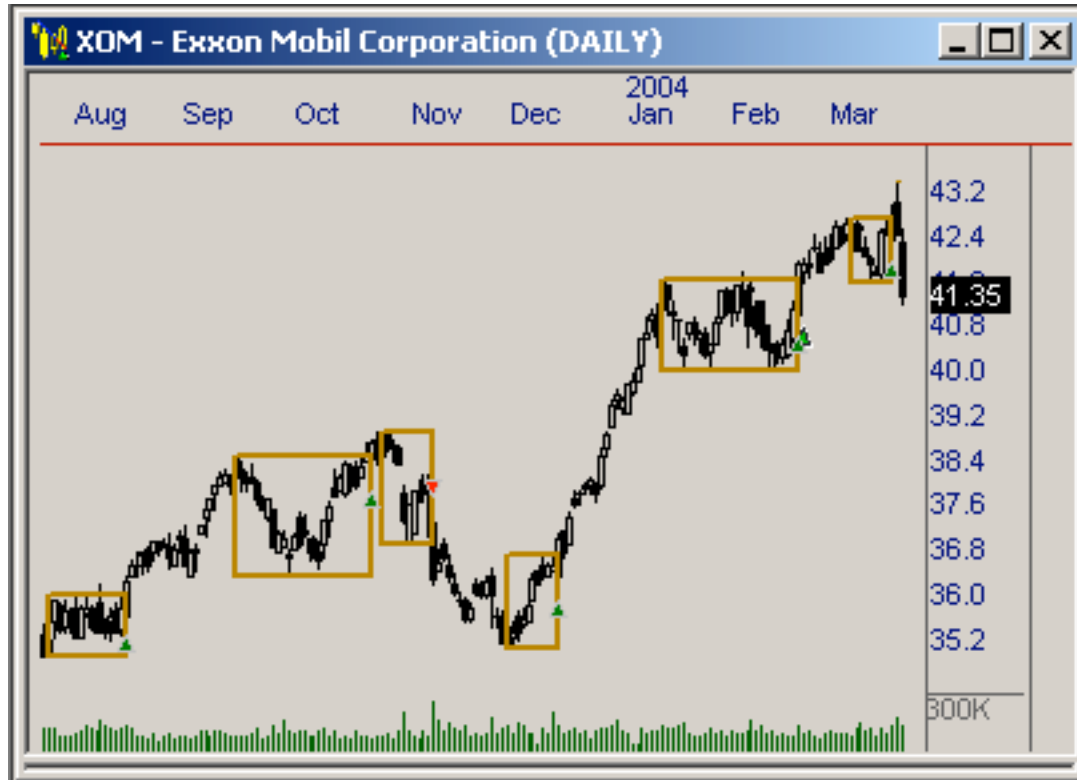
Signals

Long Signal: When price crosses from below to above the top of the current Darvas Box.

Short Signal: When price crosses from above to below the bottom of the current Darvas Box.

Darvas Box Nirvana System (DAN-B)

This system is constructed using the Darvas Box Nirvana Indicator.



The Darvas Box Nirvana System (DAN-B)

Parameters

Close Above: Requires price to close above a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Close Below: Requires price to close below a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Top Based Box Confirms: The number of bars required to confirm a Box Top.
(Default = 3)

Bottom Based Box Confirms: The number of bars required to confirm a Box Bottom.
(Default = 3)

Warning Line Percent: see *Warning Line Percent* – Page 9

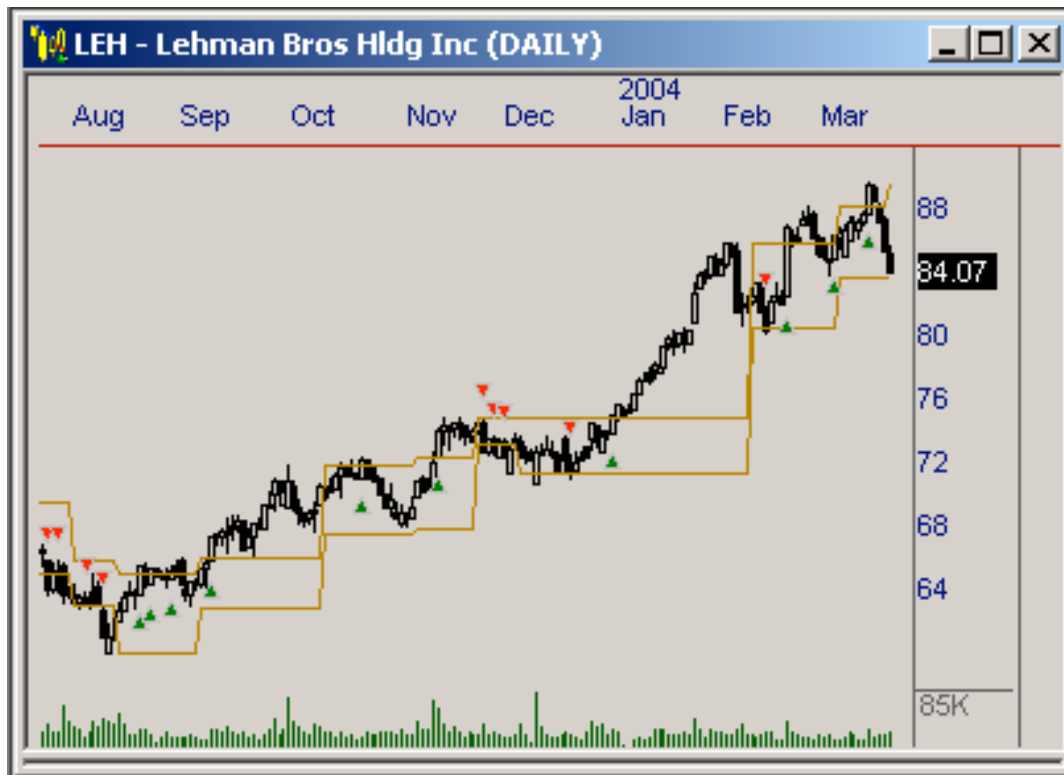
Signals

Long Signal: When price crosses from below to above the top of the current Darvas Box.

Short Signal: When price crosses from above to below the bottom of the current Darvas Box.

Darvas Box Classic Support/Resistance System (DSR-B)

This system is constructed using the Darvas Box Classic Support Resistance Indicator. This system will continue to fire signals on the upward penetration of the DSR-B top and downward penetration of the DSR-B bottom until a new Darvas Box is formed. This is the only system in the package that can fire multiple signals from one Darvas Box.



The Darvas Box Classic Support/Resistance System (DSR-B)

Parameters

Close Above: Requires price to close above a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Close Below: Requires price to close below a box for a signal to be fired.
0 = Not Required, 1 = Required (Default = 1)

Top Based Box Confirms: The number of bars required to confirm a Box Top.
(Default = 3)

Warning Line Percent: see *Warning Line Percent* – Page 9

Signals

Long Signal: When price crosses from below to above the top of the current Darvas Box.

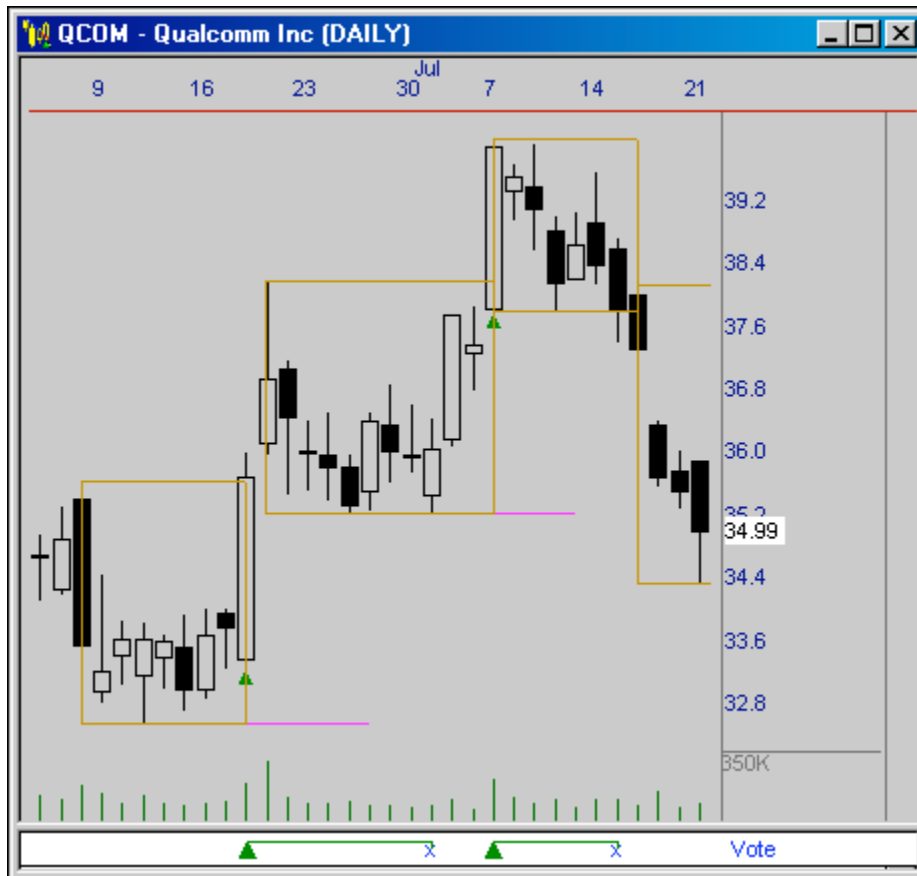
Short Signal: When price crosses from above to below the bottom of the current Darvas Box.

DARVAS BOX STOPS

The Darvas Box package includes two separate stops based on the Darvas Box Indicator.

Darvas Box Classic Stop

The Darvas Box Classic Stop uses the Darvas Box indicator to define the stop in an existing trade. By default, the stop for a long trade is the bottom of the current Darvas box. For a short trade, the stop is the top of the current Darvas box.



Darvas Box Classic Stops Plotted in OmniTrader

Parameters

There are no parameters for this stop.

Exits

Long Stop: When price crosses from above to below the bottom of the current Darvas box.

Short Stop: When price crosses from below to above the top of the current Darvas box.

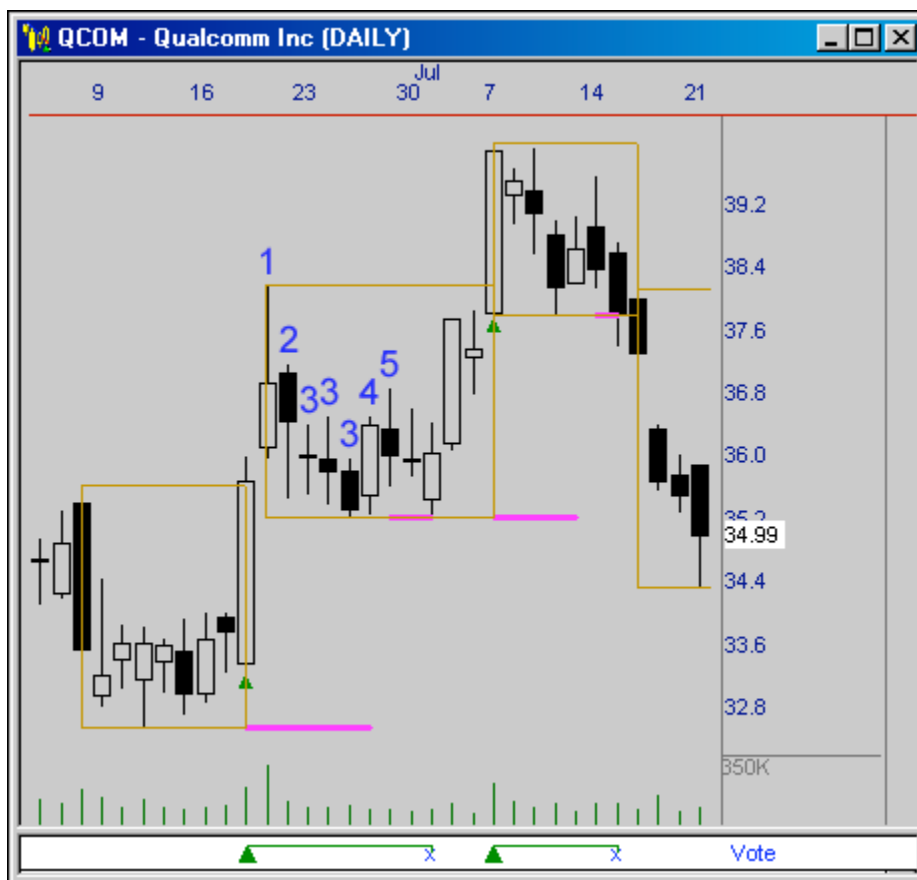
Note: The Darvas Classic Stop, like the majority of stops in OmniTrader provides the option of using either High/Low Price or Close Price to trigger an exit. Although Close Price is the default, for instructional purposes, a stop based on High/Low Price is used in these examples.

The stops shown in the chart above as pink horizontal lines are generated by the Darvas Box Indicator. As each new box is completed, OmniTrader will generate a stop based on the bottom of the box (in the case of Longs) and the top of the box (in the case of Shorts).

It should be noted that when plotting a combination of Darvas Stops, Darvas Systems and/or Darvas Indicators simultaneously, the System or Indicator plot may preclude a stop, or stops from being revealed on the chart. This can be seen in the image on the previous page. Looking at the first trade which exited on 1 July, it would first appear the trade exited based on the stop extending (horizontally) to the right of the second box bottom. Yet, this is not the case.

With the line width for the stop increased, the chart below reveals there were two stops near the 35.20 price level, not one. The first stop (the one that caused the trade to exit) was generated by the formation of the second Darvas Box. The horizontal line extending to the right of the box bottom (possibly believed to be our stop) is the initial Darvas Box Trailing Stop for the trade entered on 7 July.

If we consider for a moment how a Darvas Box is constructed, we can determine how the stop previously hidden by the indicator was generated. The numbered bars in the chart below follow the construction of the second Darvas Box. The bar labeled 1 formed the temporary Box Top. The third bar labeled a 3 (just preceding the 4) formed the temporary Box Bottom. The bar labeled 5 represents State #5; the construction of a valid Box Top and Box Bottom – a Darvas Box. With a new Darvas Box completed, a stop was generated under bar 5. We then see that two bars later, the low of the bar penetrated the stop and the trade closed.



Constructing a Darvas Box and the Darvas Box Classic Stop

Darvas Box Classic Trailing Stop

The Darvas Box Classic Trailing Stop uses the Darvas Box Classic Indicator to define a trailing stop in an existing trade. For a long trade, the stop is the bottom or a percentage from the bottom (as defined by the user) of the current Darvas Box. For a short trade, the stop is the top or a percentage from the top of the current Darvas Box.



Darvas Box Classic Trailing Stops Plotted in OmniTrader

Parameters

Percent Offset: The percentage from the bottom (for a long trade) or the bottom (for a short trade) to be used for the exit level.

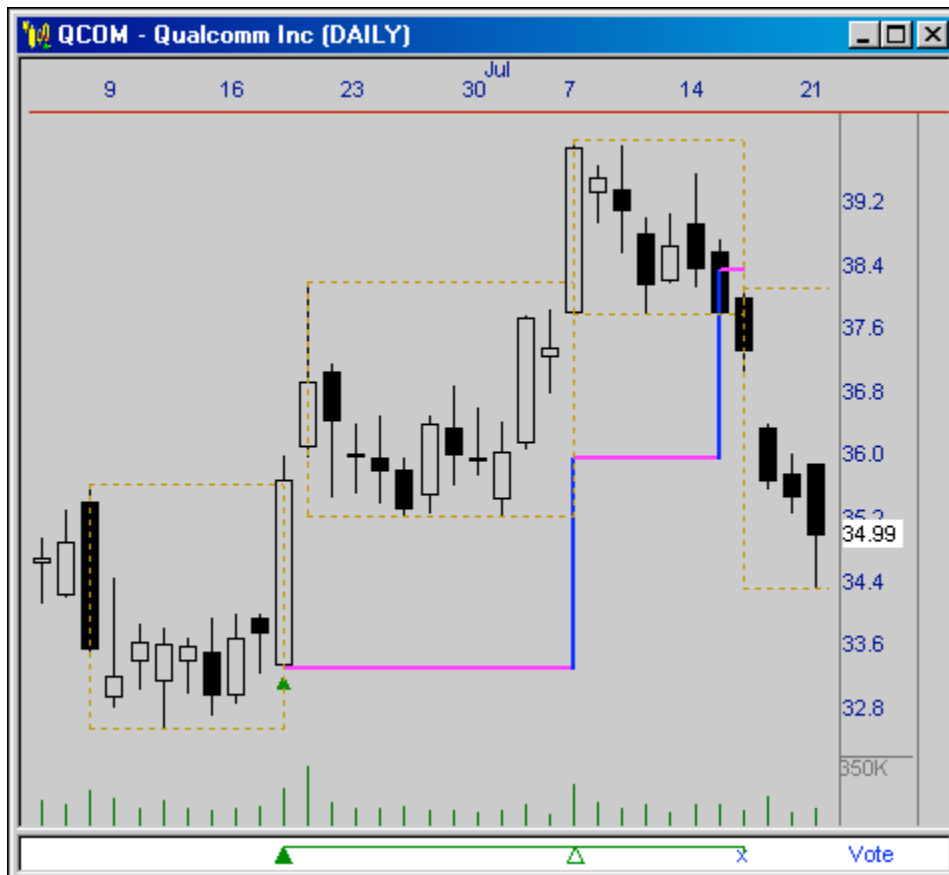
Exits

Long Stop: When price crosses from above to below the specified level of the current Darvas Box Stop.

Short Stop: When price crosses from below to above the specified level of the current Darvas box.

The following pages provide examples of a long and short trade using the Darvas Box Classic Trailing Stop. The Darvas Box Classic Indicator has been plotted on each chart as dotted lines to aid in viewing both the indicator and the stop.

Tip: *If you find your stops are sometimes hidden by a System or Indicator plot, try increasing the line width of the stop just enough to reveal the stop, or consider changing the line style of the offending System or Indicator plot as done in these examples.*

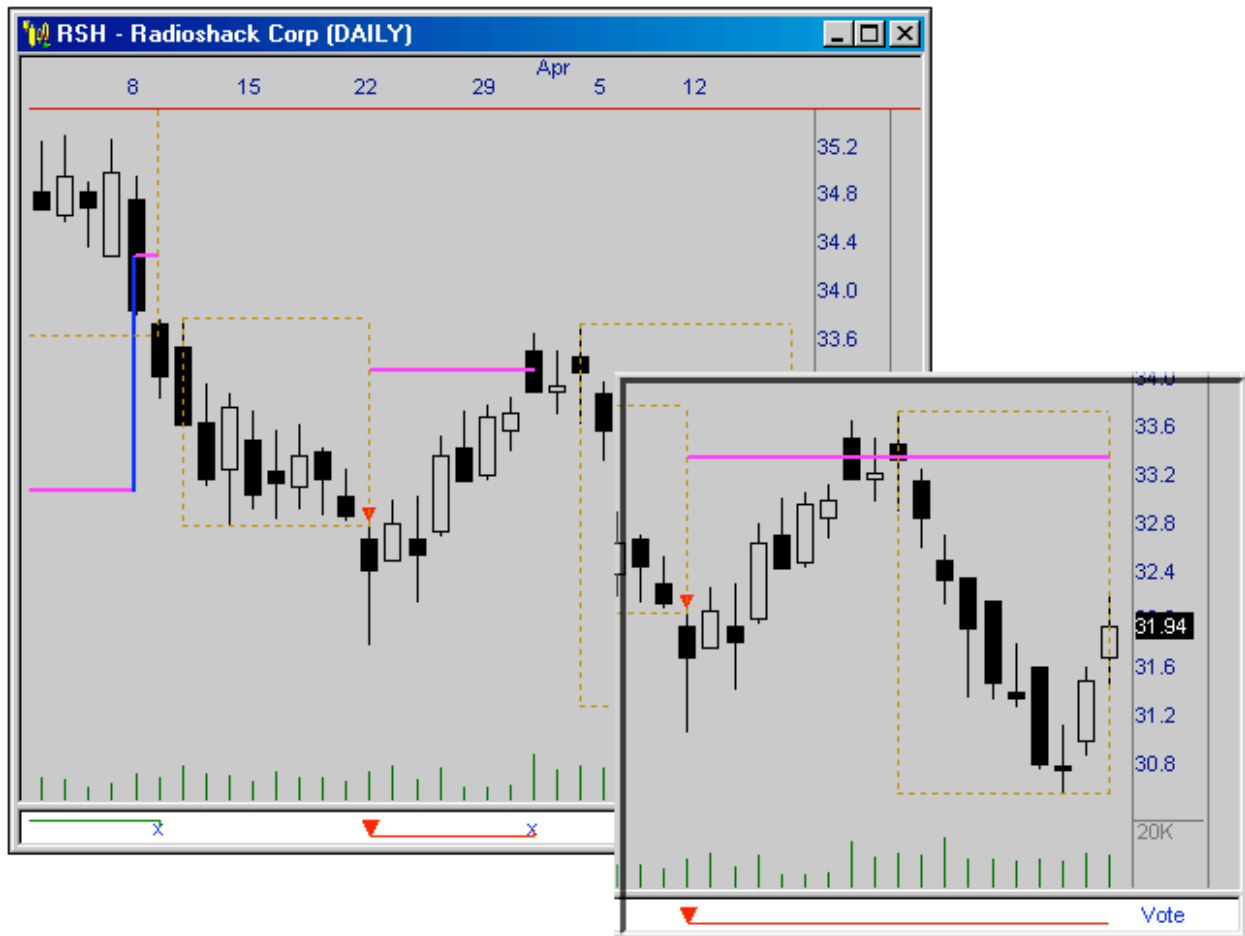


Darvas Box Classic Trailing Stop (Long Example)

The chart example above shows a Darvas Box Classic Trailing Stop using a 25% offset. In the case of Long Signals, the stop is calculated as the *Box Bottom + Percent Offset*.

Here we see that as each new box is completed, the stop is moved to a level 25% up from the new box bottom. The trade will remain open until such time as price closes below the stop or a signal in the opposite direction is generated.

Note: *The Darvas Classic Trailing Stop, like the majority of stops in OmniTrader provides the option of using either High/Low Price or Close Price to trigger an exit. Close Price is used by Default.*



Darvas Box Classic Trailing Stop (Short Example)

The two chart examples above show a 25% Offset applied to a short trade. In the case of short trades, the stop is calculated as the *Box Top - Percent Offset*.

In the chart on the left, we see a short trade was entered on 22 Mar when price broke the box bottom. The stop, located above the short signal is set 25% below the box top. On Mar 31, the short trade was stopped out when price penetrated the stop (using High/Low Price).

The smaller chart to the right shows the same trade, only this time the stop is set to use Close Price. As this chart shows, the short trade was not stopped out since price did not close above the stop.

When trading a short signal, the Darvas Box Classic Trailing Stop behaves in a similar, yet opposite manner from the long stop covered previously. In the case of short signals, as each new box is formed, the stop is moved to a level 25% *down* from the new box *top*. Like the example of the long trade covered previously, a trade will remain open until such time as the trade is stopped out or a signal is generated in the opposite direction.

DARVAS BOX STRATEGIES

The Darvas Box Package contains three strategies. Each strategy was created using one of the three different Darvas Systems that are included. All of the Darvas Box Strategies are constructed in a similar manner. The major difference in their signal generation is directly related to which Darvas Box system is being used by the strategy. These strategies are all non-optimized by default.

Darvas Box Classic Strategy

The Darvas Box Classic Strategy uses signals from the Darvas Box Classic System, and most closely resembles the method of trading that was used by Nicolas Darvas. Although Darvas only traded long, we have added short opportunities to this strategy as well.

The signals in the Darvas Box Classic Strategy are filtered with a 55 period Exponential Moving Average, and confirmed with a signal from either the Volatility Breakout System (VTY-B) or the Gap Breakout System (GAP-B). Signals are then only allowed to pass to the Vote Line if price exceeds the range over the last 45 days.



Signals Generated by the Darvas Classic Strategy

Darvas Box Nirvana Strategy

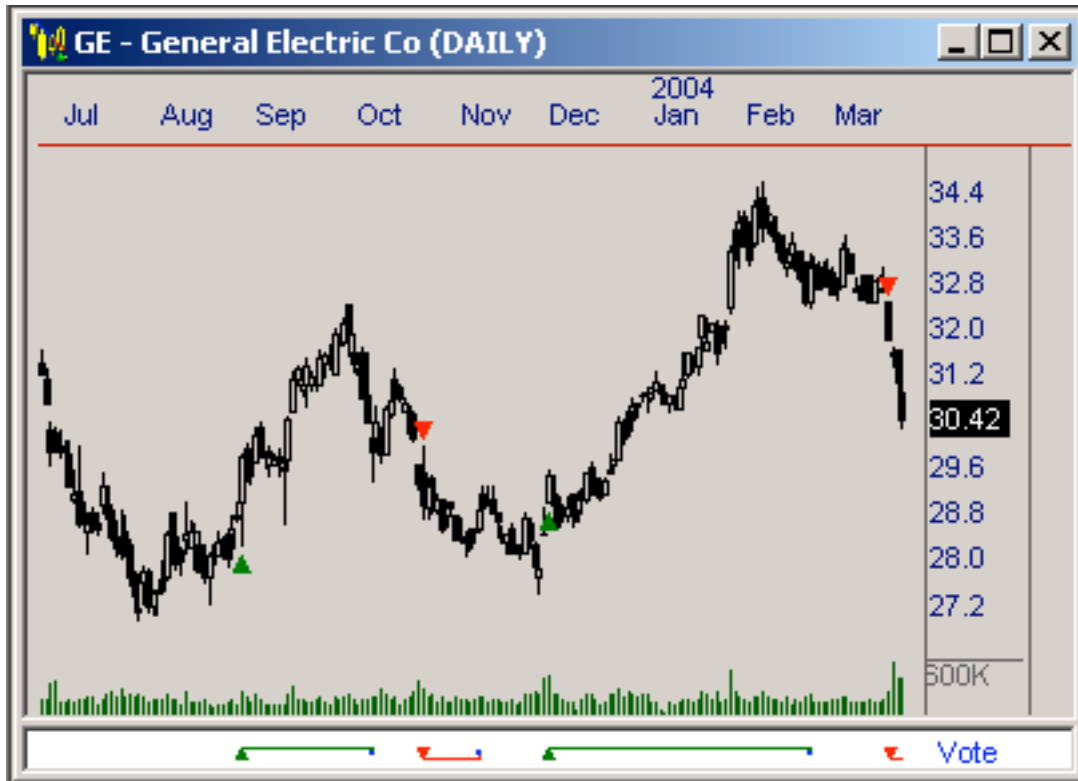
The Darvas Box Nirvana Strategy uses the Darvas Box Nirvana System to generate signals. Since the DAN-B system is being used, boxes are constructed differently than the Darvas Box Classic Strategy. Our testing has shown that this strategy is more accurate and profitable than the classic strategy, providing excellent signals regardless of whether or not the system is optimized. This strategy is good for short term to medium term trades.



Signals Generated by the Darvas Box Nirvana Strategy

Darvas Box Classic Support/Resistance Strategy

The Darvas Box Classic Support/Resistance Strategy will generate more signals than the other Darvas Box Strategies. This is due to the use of the Darvas Box Classic Support/Resistance System (DSR-B). While the other strategies will fire only one signal on the breakout move from a Darvas Box, this strategy will continue to fire signals if price moves back within the range of the previous box and then penetrates the support or resistance level of the box again.



Signals Generated by the Darvas Box Support/Resistance Strategy

Additional Resources

To learn more about the Darvas Box and how to apply it to your trading, please refer to the following resources:

How I Made 2 Million in the Stock Market by Nicolas Darvas

Written by the creator of the Darvas Box, this book details how the author was able to use this approach to chart analysis in profiting in the stock market. This book is included with your purchase of the Darvas Box Package and will be shipped to you separately.

The OmniTrader Forum

The OmniTrader Forum allows OmniTrader users from around the world to discuss different concepts related to using the software. Users can discuss the different components of the Darvas Box Package, and share thoughts on applying the concept to their trading.

OmniTrader Support

Contact our support department at support@nirvsys.com with questions regarding the Darvas Box Package. You can also call our support department at 512-345-2592 between the hours of 9 A.M. and 5 P.M. Central Standard Time Monday through Friday and 9 A.M. and 12 P.M. Central Standard Time on Saturday.