

Bollinger Bands® Confirmed Breakouts (Method IV) Manual

About the Methods:

Welcome to the Bollinger Band Methods for Trade Station. There are four Bollinger Bands Methods offered on Trade Station. You have subscribed to Method IV. Methods I-III were originally presented in John Bollinger's book, "Bollinger on Bollinger Bands." They illustrate three different approaches to trading with Bollinger Bands. Method IV was developed after the book and is a variation of Method I with an interesting twist.

Though these techniques were developed on daily charts, they can be used in any time frame. There is no material difference as long as there is sufficient data in each price bar at that time frame. The idea is that you want to see the price formation mechanism at work in each bar. If you look at the chart of a security in a shorter time frame and find that there are frequently bars with no trades during that period, or if you find the open and close of the bars are often also the high and low, then there may not be sufficient data to accurately power the indicators.

Find more information and video support at: <https://www.bollingerbands.com/tradestation-methods>

About Method IV:

Bollinger Band Method IV looks for Confirmed Breakouts. Like Method I, it is based on the idea of a Squeeze. Methods I and IV take advantage of the cyclical nature of volatility. The core idea is that low volatility is known to beget high volatility, so we look for stocks with historically low volatility, also known as a Squeeze, and then wait for them to break out of the Bollinger Bands anticipating that an expansion of volatility may follow.

However, Method IV alerts only when there are consecutive closes outside of the Bollinger Bands, or a confirmed breakout.

In addition, having two consecutive closing values either above or below the Bollinger Bands can have different implications depending on the characteristics of the market. For this method ADX is used to determine if the market is trending or not.

Included Indicators:

Method I includes a TradeStation Workspace and an EasyLanguage file with the relevant studies. To allow personal customization, each study has one or more input parameters that allow you to modify the study calculation to adjust for frequency of alerts and various trading styles. Remember if you change an input in one study, you must change that same input in all other similar studies in both charting and RadarScreen so that the indicator values match correctly and the RadarScreen scan matches as well.

Radar Screen Studies:

- BBM4 – Momentum Breakout
- BBM – %b
- BBM – %bw

Chart Studies:

- BBM – Bollinger Bands
- BBM – Bollinger Bars
- BBM – %b
- BBM – %bw
- BBM – ADX
- BBM4 – Momentum Breakout

Indicator Explanations:

Bollinger Bands

Bollinger Bands are adaptive trading bands that answer the question “Are prices high or low?” on a relative basis. The adaptive mechanism is volatility. The middle band is a simple moving average with a default period of 20. The upper and lower bands are spread above and below the middle band by a multiple of standard deviation, with the default multiplier being two.

- $\text{MiddleBB} = \text{Average}(\text{close}, 20)$
- $\text{UpperBB} = \text{MiddleBB} + 2.0 \times \text{Standard Deviation}(\text{close}, 20)$
- $\text{LowerBB} = \text{MiddleBB} - 2.0 \times \text{Standard Deviation}(\text{close}, 20)$

%b

%b (Percent b) was one of the first two indicators derived from Bollinger Bands. It employs a variation on the formula for Stochastics. %b depicts the location of the most recent close within the Bollinger Bands. At 1.0, the close is at the upper band, at 0.0 the close is at the lower band and at 0.5 the close is at the middle band. A %b reading of 1.1 means that you are above the upper band by 10% of the width of the bands. -0.2 means that you are below the lower band by 20% of the width of the bands.

BandWidth

BandWidth was one of the first two indicators derived from Bollinger Bands. BandWidth depicts how wide the Bollinger Bands are as a function of the middle band. The formula is $(\text{upperBB} - \text{lowerBB}) \div \text{middleBB}$.

The most popular use of BandWidth is to identify The Squeeze, which is a 125-period low for the indicator. A Squeeze is very helpful in diagnosing the beginning of trends. The opposite of The Squeeze, The Bulge, is useful in diagnosing the end of trends.

% BandWidth

%BandWidth uses the formula for Stochastics to normalize BandWidth as a function of its n-day look-back period. 125-periods is the default, but you may choose your own look-back period. 1.0 equals the highest BandWidth in the past n periods, while 0.0 equals the lowest BandWidth in the past n periods. If you use 125 as the look-back period, then 0.0 = The Squeeze and 1.0 = The Bulge. The interpretations are similar to BandWidth, but some find the normalized, or closed presentation more intuitive.

%BandWidth, along with %b, are the two primary building blocks for Bollinger Band trading systems.

Average Directional Movement Index (ADX)

The ADX trend indicator was invented by Wells Wilder with the aim of measuring the strength of a trend, i.e. to more clearly analyze the transition from a trend state to a non-trend state for the market.

The threshold level for ADX is set to a default, but you can adjust this level to suit your trading style, a higher level will require a stronger market to generate Trending Alerts, while a lower level will see more trending alerts. Please note that to change the alerts you need to edit the level for ADX in three places: in the ADX indicator, in the RadarScreen method indicator, and in the Charting method indicator.

Momentum Breakout/Method IV

Method IV uses three inputs to determine the alert type. %b is used to determine price breakouts and breakdowns in relation to the Bollinger Bands. %BandWidth is used to detect the Squeeze. ADX is a trend measure that determines the type of alert to be triggered in the case of a breakout.

An alert will be generated in cases where a security has been in a Squeeze and price breaks out above the upper Bollinger Band for two consecutive periods or if there has been a squeeze and it is followed by a breakdown of price below the lower Bollinger Band for two consecutive periods.

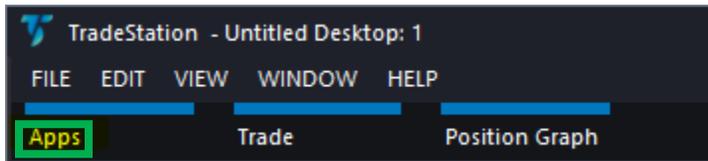
When ADX is above the threshold level a Confirmed Breakout above the upper Bollinger Band is a positive indication and will trigger a buy alert, When ADX is below the threshold level a confirmed Breakout above the upper Bollinger Band is treated as a reversal signal. The inverse is true for shorts.

The Radar Screen provides details surrounding the alerts in the 2 columns that come with Method IV, Alert and Count. The first column, Alert, indicates when a Confirmed Breakout alert has been triggered. You will see that after the New Buy or New Short there is "Rev" or "Trnd" in parenthesis. Rev indicates a

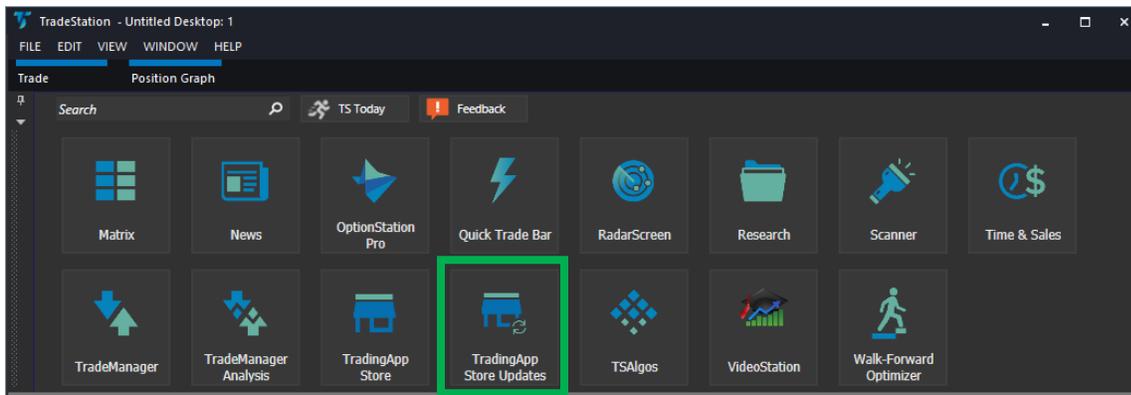
Reversal Signal while Trnd indicates a trend following signal. The next column, Alert Count, indicates the number of periods since there has been an alert for that ticker. Sorting on this column allows you to locate prior signals.

Installation:

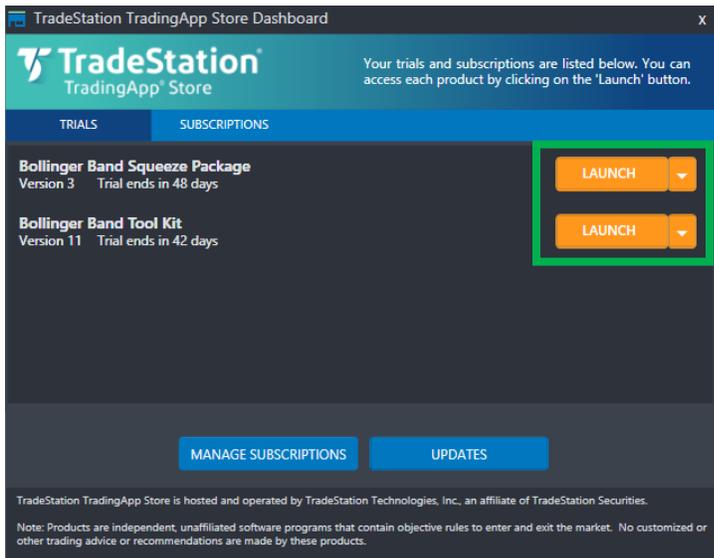
To launch the Method IV workspace in TradeStation 10: go to the “Apps” Menu under File in the upper left:



Click on “TradingApp Store Updates”.



Find the Bollinger Method Package you want to access and click “Launch”.



Note: if you do not see your Bollinger Band Method Package; first double check ‘Manage Subscription’ in the AppStore to make sure the subscription is active in your account, then try shutting down TradeStation and restarting your computer. Then restart TradeStation.

The workspace will display as follows:



Once the Workspace has opened, we suggest that you rename and save that workspace so you always have the original version if needed. Goto File~Workspaces~Save Workspace As... You can also right click on the workspace tab and rename it from there.

Thank You and Good Trading!

This product is not a recommendation to buy or sell, but rather a guideline to interpreting the specified analysis methods. The information provided should only be used by investors who are aware of the risks inherent in securities trading. TradeStation, John Bollinger or Bollinger Capital Management accept no liability whatsoever for any loss arising from any use of this product or its contents.

Past performance, whether actual or indicated by historical tests of strategies, is no guarantee of future performance or success. There is a possibility that you may sustain a loss equal to or greater than your entire investment regardless of which asset class you trade (equities, options, futures or forex); therefore, you should not invest or risk money that you cannot afford to lose. If you plan to use margin, [please read about the risks of margin](#).