

Stochastics : Differences Between NST and Other Programs

On occasion, our users who run NST along with other programs find differences between the values returned from our Stochastic indicators and those returned from another trading platform such as TradeStation.

There is no National Institute of Standards for market technical indicators, and there are many ways to code them. There is no "correct" formulation for most of the common indicators. Even textbooks have varying formulations. At the end of the day, small differences rarely matter anyway, especially if neural nets or optimization is utilized.

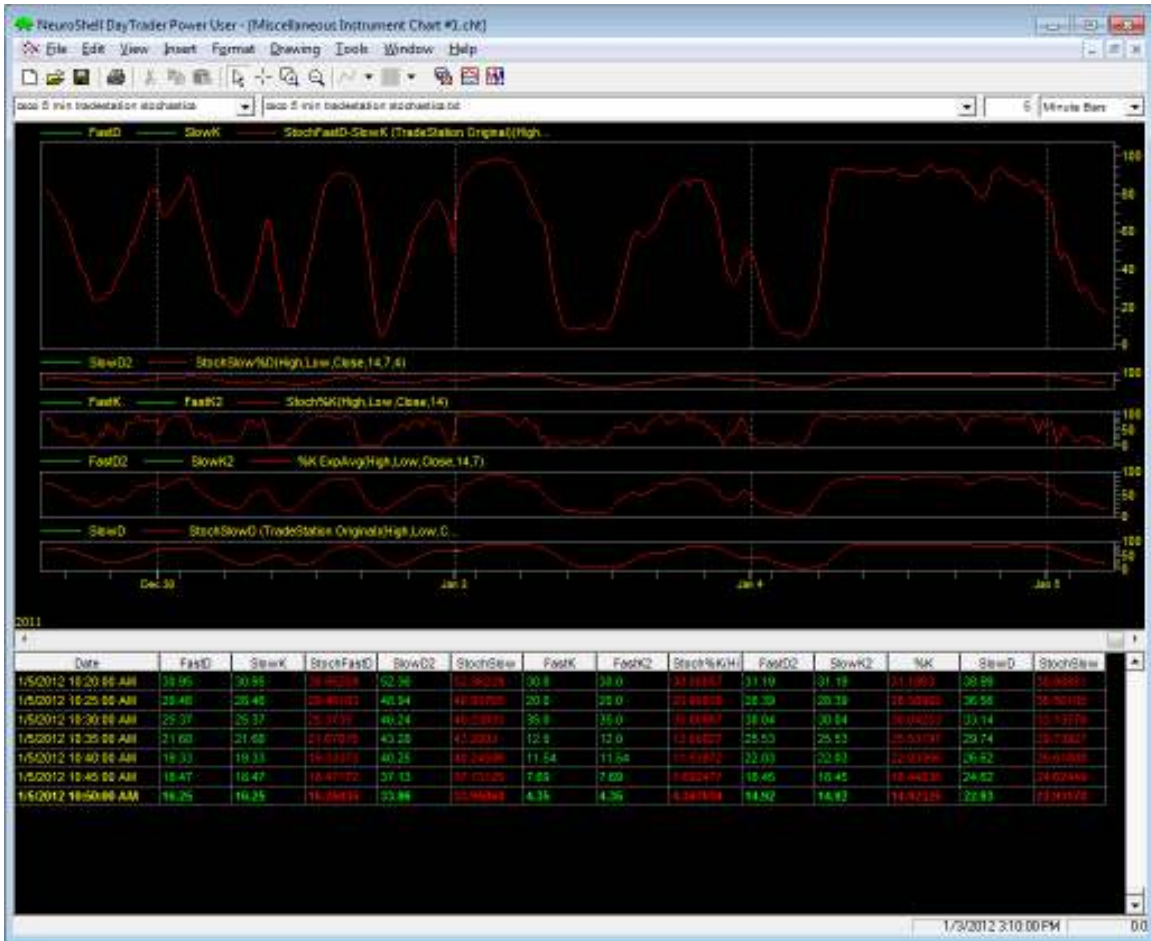
Comparing the outputs of TradeStation's Stochastic indicators versus the outputs of NST's Stochastic indicators, we created the following chart to outline the equivalent indicators from each platform:

TradeStation Indicator <ul style="list-style-type: none"> • StocLength = 14 • Smoothing Length1 = 7 • Smoothing Length2 = 7 	NST Equivalent
<ul style="list-style-type: none"> • FastK (Original – Smoothing Type 1) • FastK (Legacy – Smoothing Type 2) 	Stoch%K <ul style="list-style-type: none"> • Stochastic Periods = 14
<ul style="list-style-type: none"> • FastD (Legacy – Smoothing Type 2) • SlowK (Legacy – Smoothing Type 2) 	%K ExpAvg <ul style="list-style-type: none"> • Stochastic Periods = 14 • ExpAvg Periods = 7
<ul style="list-style-type: none"> • SlowD (Legacy – Smoothing Type 2) 	StochSlow%D <ul style="list-style-type: none"> • Stochastic Periods = 14 • Smoothing Periods #1 = 7 • Smoothing Periods #2 = 4*
<ul style="list-style-type: none"> • FastD (Original – Smoothing Type 1) • SlowK (Original – Smoothing Type 1) 	StochFastD-SlowK(TradeStation Original)^ <ul style="list-style-type: none"> • Stochastic Periods = 14 • Smoothing Length 1 = 7 • Smoothing Length 2 = 7
<ul style="list-style-type: none"> • SlowD (Original – Smoothing Type 1) 	StochSlowD(TradeStation Original)^ <ul style="list-style-type: none"> • Stochastic Periods = 14 • Smoothing Length 1 = 7 • Smoothing Length 2 = 7

*Smoothing Periods #2 = (TradeStation SmoothingLength2 / 2) then rounded down and add 1. In the above example, the TradeStation SmoothingLength2 = 7. Divide that by 2 = 3.5. Round down to 3 and then add 1 = 4.

^Indicator available as a downloadable custom indicator.

We exported a text file from TradeStation with OHLC as well as the Stochastic values using both Smoothing Types and then opened that file in NST. Here is a visual chart showing the TradeStation indicators in green, with the equivalent NST indicators in the same subgraph in red, along with a historical view to show the values match:



As the chart illustrates, there isn't any green in the overlays of the NST versions on the TradeStation exports, so it is a near perfect match.

Please note that due to differences in initial conditions for moving and exponential average calculations between NST and TradeStation, values at the beginning of the chart may not match.