

NinjaTrader 8

Part 2

NINJATRADER, LLC

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Requirements: Minimum requirements are Windows Vista (SP2) w/platform update, Windows 7, 8, or 10, Windows Server 2008 w/platform update, Windows Server 2008 R2 or later; 1 gigahertz (GHz) or faster 32-bit or 64-bit processor; 2 GB RAM; Microsoft .NET Framework 4.5; screen resolution of 1024x768; DirectX10 compatible graphics card.

Product: Trading platform for active equity, futures, and forex traders.

Price: Always free use for advanced charting, strategy backtesting, and strategy simulation. For live trading in your brokerage account, purchase it for \$999 (or four monthly payments of \$299); lease it for \$600 annually, \$330 semi-annually, or \$180 quarterly; free through a NinjaTrader brokerage account.

by Jayanthi Gopalakrishnan

Last month in part 1, I reviewed some of the many features of NinjaTrader 8 and ended by saying that this month I would cover the strategy development features and some of the advanced order-handling features. As mentioned in the first part, there are so many features available in NT8 that it's impossible to cover all its features in a review. My objective here is to scratch the surface enough to reveal to you the powerfulness, efficiency, and flexibility of NT8. The platform will meet the needs of active traders, whether you're a long-term or short-term trader, and whether you trade equities, futures, options, or forex. There's something in it for everyone and the nice thing is you can take advantage of the free trial to find out more about the platform.

DEVELOPING STRATEGIES

One feature that packs a punch to the NT8 platform is NinjaScript. For programming novices, it may take some time to master but once you do, it opens up a world of infinite possibilities. NinjaScript is based on the C# programming language, which makes it very versatile.

You access NinjaScript via the NinjaScript editor. NT8 has a lot more .NET plug-ins than previous versions did. On the right-hand side of the window you'll see the *explorer panel*, which lists all the code that is currently available to users. You'll notice it's organized into several folders to make everything easy to find. In Figure 1 you see an example of the NinjaScript editor. I selected the simple moving average crossover strategy, and the code is displayed in the ScriptEditor window. If you open up the folders listed in the explorer window, you'll see that you have a number of code sets to choose from.

If you still prefer to create your own script, you can do that as well. All you have to do is right-click on any of the indicators listed in the explorer window and select *new strategy*, or you can open up a new *strategy builder* window and

start building your own strategy. As with all windows in NT8, you can have different tabs along the bottom, which gives you the ability to work on different scripts.

In NT8, it almost seems as though you have no limits in what you can do with NinjaScript. It goes well beyond creating trading strategies and gives you the opportunity to create custom bar types, chart types, custom drawing tools, import types for importing historical data, your own optimizer engines, and even Super DOM columns, among other things.

You can also integrate NinjaScript with Visual Studio. This allows you to debug NinjaScript objects while they're running, and that means you can test your programs right then and there. If you're a programmer, you'll know this is a big bonus.

If you've never written code or done any programming but want to give it a go, you can use the Strategy Builder, which walks you through developing your own strategies. It takes a while to get the hang of it but the nice thing is that tech support is readily available via support forums, the help desk, and online tutorials.

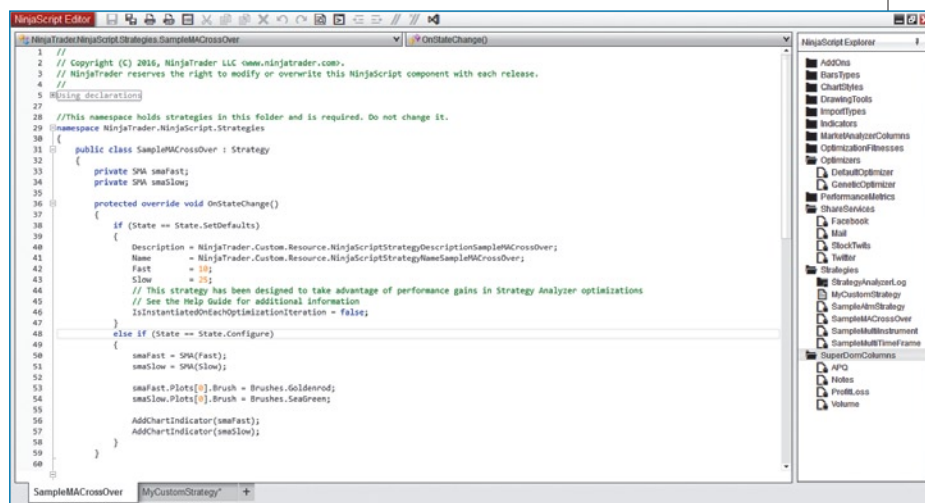


FIGURE 1: NINJASCRIP EDITOR. NinjaTrader offers a number of code sets to choose from. Here you see the code for a simple moving average crossover strategy.

BACKTESTING

Once you've developed a trading strategy that has been debugged and runs, your next step is to backtest it. How well has it done in the past? You can find out by running tests using historical data. Open up the *strategy analyzer* and select your parameters from the settings panel on the right-hand side (Figure 2). You can choose the type of backtest you'd like to perform, that is, standard, optimization, walk-forward optimization, or multi-objective optimization. You also select a strategy, strategy parameters, data series, timeframe, and so on. Once you've selected all the parameters, hit the *run* button. When the test is complete you'll be able to see the performance results of your strategy. For example, Figure 2 displays an analysis of the moving average crossover system applied to the March emini futures contract using the *% analysis* option, which is just one of the many different ways you can analyze the performance of your strategy.

You may prefer to view the performance results graphically, and as you may have guessed, there are different ways to graphically view strategy performance results. In the bottom half of the StrategyAnalyzer window in Figure 2, the maximum drawdown is displayed graphically. And you have the ability to create your own performance metrics using NinjaScript.

Here's where you see how thoughtful the technology behind NT8 is. One of the drawbacks of backtesting in general is that the results are not necessarily realistic since commissions, fills, and slippage aren't factored in. But in NT8 under *setup* in the settings panel, you can choose to include commissions, whether you want conservative or liberal order fills, and factor in some slippage.

I also want to bring your attention to the *break at EOD* option that is available in the settings panel. If this is selected, it means the bar will end at the close. If it's not selected, the bar will continue to form beyond the close until the bar ends. Some traders will need to know when the market closed, especially if their strategy is based on the closing price. Others may, depending on what type of strategy they are developing, prefer to wait till the bar

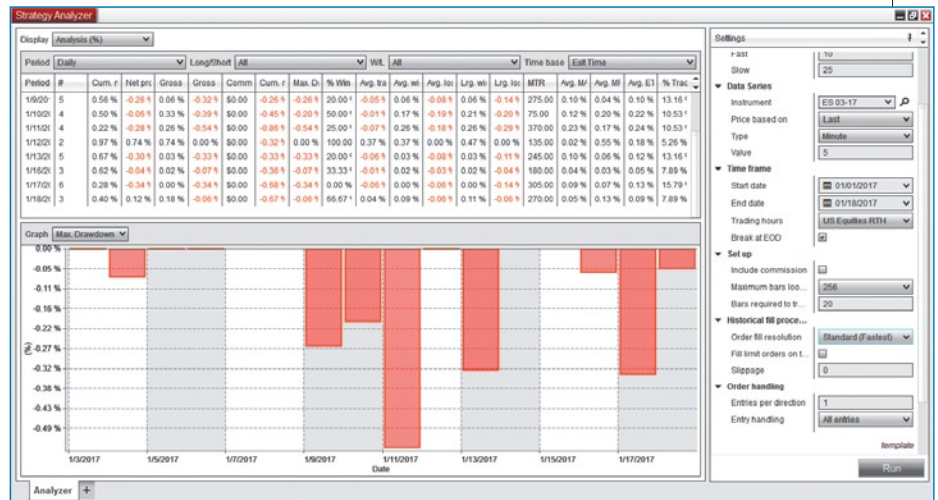


FIGURE 2: STRATEGY ANALYZER. There are many options when it comes to backtesting your strategy and analyzing its performance. And you have different ways to view the performance. Here you see the results of maximum drawdown in both a table and graphical format.

completes even if it's after the close. Here again, you see how NT8 caters to the needs of all types of traders.

ADVANCED TRADE MANAGEMENT

Now that you have a strategy that has been backtested and are happy with its performance, you're now ready to place your trades. NinjaTrader supports several online brokers and through them you can place trades automatically, semi-automatically, or any number of different ways. NT8 has made great strides in their Advanced Trade Management (ATM) feature to make trading through the platform much easier and more efficient than before. Managing trades is an important and necessary task for all traders and, once again, NT8 has incorporated tremendous flexibility when it comes to trade management.

ATM can be accessed through the order entry window. You can create your custom ATM strategy from the dropdown menu available on the ATM strategy option (Figure 3). From here, besides

the basic order entry parameters, you can set your stop-losses, your profit targets (you can set several), and stop strategies. And yes, you have the ability to create a custom stop strategy where you can set your auto breakeven points and auto trailing stops. You can save your custom stop strategy as a template and apply it to any order you want to place.

There are several other options for creating your custom ATM such as *auto chase*, which allows you to define your chase limits with options such as selecting your target chase, chase if touched, and your chase limit. There's also the option of selecting a stop limit for a stop-loss, market if touched for profit, and shadow strategy. *Shadow strategy* is a method of simulating an ATM and

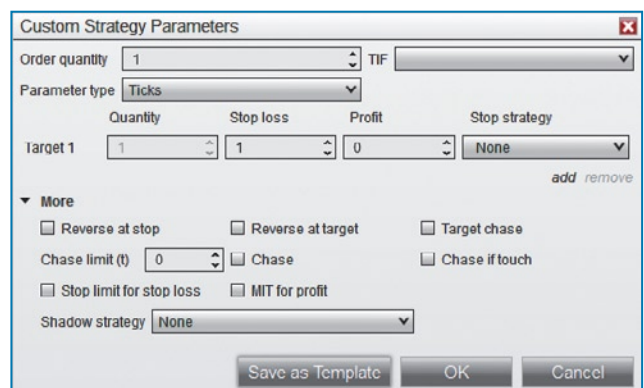


FIGURE 3: CUSTOM ATM STRATEGY. There's a ton of flexibility when it comes to managing your positions at the time you place them and after a position is open. You can set your stop-losses, profit targets, and stop strategy. You have the ability to create a custom stop strategy where you can set your auto breakeven points and auto trailing stops.

being able to forward-test it. Once you select your parameters, typically, you're going to enforce these at the time you place your order. But what if you only have a split second to place a trade? When you're in such a situation, NT8 has a solution for you. It allows you to apply an ATM to an open and unprotected position. Once you create an ATM, you save it as a template. To apply the ATM, go to the control center, then to *positions*, right-click on the open position, and select *apply ATM strategy*.

Another feature worth mentioning is the alerts feature. In previous versions of NT you needed to program the alerts, but in NT8 there's an alert feature that allows you to set up conditions and actions. You can access this from the chart window and set more than one condition. So if a condition is met you can create an action, which can be either in the form of a sound or a popup. You

can also share the alert via social media, and submit an entry or exit order tied to the alert.

JUST THE TIP OF THE ICEBERG

As you may have guessed by now, NT8 may appear to be similar to its previous iteration but really there's more to it than meets the eye. One of the unique characteristics of NT8 is the stellar support behind the product. NinjaTrader listened to their customers and redeveloped their platform based on what customers told them they need and want. The result is a trading platform with a lot of thought behind it and with something that meets the needs of any type of trader.

Jayanthi Gopalakrishnan is Editor of STOCKS & COMMODITIES.

Managing trades is an important and necessary task for all traders, and NT8 has incorporated tremendous flexibility when it comes to trade management.

FURTHER READING

Gopalakrishnan, Jayanthi [2017]. "NinjaTrader 8, part 1," product review, *Technical Analysis of STOCKS & COMMODITIES*, Volume 35: February.

‡NinjaTrader

‡See *Editorial Resource Index*

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