



Trading Basics: Tools of the Trade

Twenty years ago only large financial institutions had access to the computer systems, historical data and know-how needed to design, back-test and optimize trading systems. Today even the modest independent investor can have access to the technology needed to build profitable trading systems.

Hardware/Software

- An up-to-date PC
- A reliable internet connection
- A robust development & trading platform

The computer should be recent and powerful, but it does not need to be the 6 screen, fully-redundant multi-CPU system one sees traders using on TV. Ideally one should have 3 large (24" and up) screens connected to one powerful PC with multiple video cards. One screen for development, one for production (live trading), and one for everything else (email, internet research, etc). I personally use three 24" screens which is perfectly adequate for what I do.

A fast and reliable internet connection is critical. You do not want your live market feeds to go dead when you are in the middle of a busy trading day. So don't hesitate to go with the fastest service provided by the most reliable ISP in your area.

Trading Platform

A state of the art development & trading platform is the most important tool of the system trader. The chosen platform must:

- Provide comprehensive charting features
- Be fully programmable
- Support back-testing and forward-testing
- Have a simulator & virtual account

The two top contenders these days appear to be NinjaTrader and TradeStation (TS). Both are extremely feature-rich and have developed their respective cult-following. Personally I have been a TS client for more than a decade and have been happy with their service.

Programming Skills

Most trading platforms come with built-in indicators and charting tools. You can apply Bollinger bands, draw trend lines and see pivot points. Some platforms also come with many built-in strategies that can be applied to charts very easily. These can be a great starting point for the novice system trader.

However, one should note that no commercial trading platform comes with a set of profitable, tradable strategies out of the box. These need to be developed, optimized and tested by you. And



this implies some degree of programming. Of course you could post your trading ideas on a forum and hire a system developer to write the code that reflects the concept, but who wants to give their potential nuggets away?

Most languages for trading systems are fairly simple to pick up, so this should not scare away prospective mechanical traders. The TS development language (EasyLanguage), for example, is very powerful, and the forums on the TS website are a great source of information and wisdom.

Low-Fee Broker & Capital

With NinjaTrader one has a choice of several online brokerages. That is also the case with TradeStation, with the added advantage that one can use TS's brokerage arm (TradeStation Securities) as well, making TS a one-stop solution for charting, system development and brokerage.

Also needed is capital. This can be virtual at first: a US\$100,000 demo account to play with is a great way to start. Later, once the trader has become familiar with the platform and is confident that he had a "tradable" system, he can go live with real money.

Patience, Realism and a Curious Mind

Developing trading systems is not an easy endeavor. If it was, everyone would be making their millions in front of a set of trading screens. The development aspect is time consuming so a great deal of patience is needed. It can also be discouraging – working for several days on a promising strategy only to conclude that its profit expectancy is only marginal. So sifting through dozens and dozens of permutations looking for gold requires patience and dedication.

Managing one's expectations is also important. Making a lot of money in a short period of time with trading is indeed possible. However, making huge returns consistently is not. So when one hears of a fund that's made 150% this year, it's worthwhile asking what the return was in the 5 years prior. Even top hedge fund managers with immense resources and access to the top minds in the industry have had some very poor years (think John Paulson) .

So realistically, a strategy using no margin, with a low risk profile, low peak-to-trough drawdowns that can generate decent returns consistently should be considered a very good system. Even more so if the strategy in question is rarely in the market, allowing capital to be put to use by other strategies, thereby compounding returns and providing diversification.

A curious mind is needed to be successful in this business. The best strategies are often the counter-intuitive ones, so creative thinking is an asset.