Barron’s estimated a customer’s monthly costs at each of the 18 brokers in this year’s “Best Online Broker” ranking. Interactive Brokers was the best deal for both the occasional and frequent trader.

### Occasional Trader’s* Monthly Costs

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<tr>
<th>Broker</th>
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</thead>
<tbody>
<tr>
<td>Interactive Brokers</td>
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<td>eOption</td>
<td>27.00</td>
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<td>Merrill Edge***</td>
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<tr>
<td>Lightspeed Trading</td>
<td>29.94</td>
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<td>OptionsHouse</td>
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### Frequent Trader’s** Monthly Costs

<table>
<thead>
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<td>Livevol</td>
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<tr>
<td>Merrill Edge***</td>
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</tr>
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</table>

All costs assume customer has a minimum of $100,000 in assets with broker. *Occasional Trader: 6 stock and 2 options trades per month. **Frequent Trader: 100 stocks and 100 options trades plus $30,000 in margin debt. ***Assumes customer qualifies for 100 free stocks trades per month.
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1 Kiplinger’s magazine, December 2014. Results based on ratings in the following categories: total commissions, investment choices, tools, research, Web site, mobile, and advisory services. Criteria not equally weighted. In 2014, Fidelity tied for #1 with Charles Schwab which ranked 10 leading discount brokers. In 2011, Fidelity tied with TD Ameritrade which ranked 14 discount brokers, was #1 in November 2008 which ranked 12 discount brokers, and tied for #1 with Muriel Siebert in 2007 which ranked 10 discount brokers.

System availability and response times may be subject to market conditions.

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by Joe Gruender

While there’s no shortage of alternatives in investment services and trading platforms, SectorSurfer is built with some unique features. It’s an automated, web-delivered, algorithmic investment advice service that made its debut in 2010 after more than 20 years of fundamental research, development, and testing through many bull and bear markets.

Designed from the ground up, SectorSurfer rejects modern portfolio theory’s deliberate exclusion of time domain data and embraces well-known engineering signal processing principles to optimally detect trends in noisy market data. Its True Sector Rotation algorithm drives performance during bull markets, and its protective StormGuard algorithm exits to cash during bear markets. Because so much of its technical intricacy has been automated, all you have to do is select a set of stocks/funds that play well together throughout economic cycles.

SectorSurfer was created by SumGrowth Strategies founder and CEO Scott Juds, a Stanford-educated engineer, author, and named inventor on more than 40 US and foreign patents. The company is well known for its prompt and detailed email responses from its founder, and its nearly constant flow of new ideas and features.

TRUE SECTOR ROTATION AND STORMGUARD
SectorSurfer’s performance is rooted in its two proprietary momentum trading algorithms, True Sector Rotation and StormGuard. It employs the cross-disciplinary mathematics of differential signal processing and matched filter theory to optimally extract the trend signal from noisy market data. It also utilizes its polymorphic forward-walk progressive-tuning algorithm to adaptively adjust its trend filter shape and time constants for optimum performance as market conditions or equity selections change.

True Sector Rotation is a method of owning the one trend leader from among a set of candidate funds. SectorSurfer strategies are designed to practice True Sector Rotation by selecting the trend leader from a set of up to 12 candidate funds. While stocks may be used in a SectorSurfer strategy, its true calling is for a set of sector ETFs or sector mutual funds.

In the ETF SPDR Sectors strategy in Figure 1, a dozen candidate ETFs are listed in the upper left according to their current automated trend ranking. The relative price of each ETF is plotted in the main chart with the S&P 500 (white) and the strategy equity curve (yellow). The flat areas of the equity curve (circled in red) are indicative of SectorSurfer’s StormGuard algorithm, which advises you to move to the safety of cash during major down-market periods. The StormGuard algorithm comes in two varieties: the “Std” (standard) version, which adheres to a month-ending trading rule, and the “AQR” (asymmetric quick response) version, which allows triggering at any time during the month and significantly reduces its response time during recovery to capture more return following the “V” bottom of a market crash. However, the best feature of StormGuard is arguably its Bear Market Symbol option, which provides a means to implement alternatives to sitting out bear markets in cash such as moving to a long-term treasury or bond fund.

AUTOMATED AND EASY TO USE
Although it’s complex under the hood, SectorSurfer is relatively easy to drive because so much of it is automated. All the action happens on the “My Strategies” page (Figure 2), where subscribers import, create, and manage their strategies. New strategies can be created by entering a list of ticker symbols to be evaluated. SectorSurfer’s automated strategy-tuning feature eliminates the need to tinker with indicator parameters, although you still have a few options to choose from. These include the StormGuard options and alternatives to the default month-ending trading rule.

For most subscribers, it’s easier to simply import a strategy from the Select-a-Strategy popup window or from the Strategy Hall of Fame page. Every night over 20,000 user strategies are
evaluated and ranked in six categories: safety, mutual funds, ETFs, stocks, ultra/inverse, and most widely held. The top 30 in each category are posted. The Strategy Hall of Fame page is about enabling crowd-sourced high-performance strategy design.

There are two primary sections on the My Strategies page: Active Strategies and Sandbox Strategies. The Active Strategies section is for live account management and will display the current buy/sell ticker symbols and generate trade alerts. While you may use any of the two dozen or more posted free strategies without a paid subscription, the better-performing premium and custom strategies require a paid subscription to see the most recent buy/sell signals. The Sandbox Strategies section is for experimentation and evaluation. Sandbox strategies are always free, but do not display the current buy/sell ticker symbols or generate trade alerts. They do provide all other editing and performance-reporting features necessary for evaluating their suitability. Up to 30 Active Strategies and 20 Sandbox Strategies can be accommodated in an account.

The My Strategies page has numerous icons to facilitate strategy creation and management, including icons for importing a ready-made strategy; managing various properties and settings of a strategy; and reviewing the complete trading history of a strategy and downloading its performance statistics spreadsheet.

**TRADE MANAGEMENT**

SectorSurfer uses data provided by FastTrack. The data is adjusted for dividend and capital gains distributions in the same manner as for stock splits. Most strategies are set for month-end trading and generate trade signals only on the evening following the last trading day of a month. All charting and spreadsheet performance statistics assume that trading will be complete at the end of the next trading day. SectorSurfer strategies typically generate three to five trades per year. Trade alerts may be sent by email, cell text, or both, and backup alerts can be sent to a second device.

**FORWARD-WALK PROGRESSIVE-TUNING**

Forward-Walk Progressive-Tuning (FWPT) is for backtesting the performance of a predictive algorithm and is a primary feature of all SectorSurfer strategies. The first yellow dot on the horizontal axis of the chart is a point in time referred to as the BornOn Date. All performance up through the BornOn Date is strictly optimized backtesting and is used to set the initial tuning parameters of the algorithm. These parameters are then used to walk forward in time through out-of-sample data over the subsequent six-month time period. Parameters are then updated and the process repeats across the span of time. Each yellow dot on the horizontal axis is indicative of a date on which the algorithm was progressively tuned.

**STRATEGY-OF-STRATEGIES**

While a SectorSurfer strategy selects the trend leader from among a set of candidate funds, a Strategy Of Strategies (SOS) selects the trend leader from among a set of candidate strategies. Thus, the SOS recommends buying only the best-performing fund in the best performing strategy. If one or more of the candidate strategies falter, the SOS automatically switches its focus to the strategy that has become the new trend leader. An SOS serves as a form of insurance against the risk associated with hindsight selection bias.

**TACTICAL DIVERSIFICATION**

You can’t eliminate risk by just diversifying your portfolio. SectorSurfer applies a layered approach to tactical diversification to reduce those risks. There are three different types of tactical diversification available in SectorSurfer. They are:

1. **Funds**—This allows you to diversify your equities by owning several stock or bond funds. This allows you to reduce risks that you would face if you owned individual equities.

2. **Strategy**—This gives the investor access to true sector rotation. Over time, you can own multiple funds or strategies but you’d only be invested in one trend leader at any given moment in time.

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**FIGURE 2: MY STRATEGIES.** Here you can import, create, and manage all your strategies.

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Portfolio—This allows you to be diversified across different asset classes. You would own multiple strategies, each selecting a different fund. By combining these, your volatility would be further reduced.

As an example, I’ll use a model portfolio called the Seven Faces of Risk Portfolio that avoids some of the common risks. The portfolio integrates two separate stock portfolios, an ETF Black Gold Hedge strategy, three different Strategy of Strategies, and a long-term treasury fund (generally negatively correlated to stocks). Together, they work to reduce the portfolio’s remnant volatility, producing impressive returns, a Sharpe ratio of 2.3, and drawdowns less than 1/6 that of the S&P 500.

CONCLUSION
SectorSurfer enables investors to spend less time fiddling with indicators and screening for that next trade. More time can be spent on attending to the bigger picture of designing a diversified set of low-maintenance strategies that feed into an overall portfolio and produce the lower-risk results you can expect when fully employing tactical diversification. Spending only hours a month versus many hours a day managing a set of strategies is reason enough to take a serious look.

Lieutenant Colonel (ret.) Joe Gruender, USAF, is the CEO and founder of InvestorsHELP.net and the “Investors Help” YouTube channel. Gruender, a graduate of the Air Force Institute of Technology with an MBA from the University of Utah, first learned about SectorSurfer at an American Association of Individual Investors (AAII) conference in November 2012. He founded San Jose’s SectorSurfer user group, which holds bimonthly meetings. He can be reached at investorshelpnet@gmail.com.

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