

PRODUCT REVIEW

VectorVest ProGraphics Version 5.0 And Vector Vest ProTrader



VECTORVEST, INC.

2167 Wehrle Drive
Williamsville, NY 14221

Phone: 716 565-9630, 888 658-7638

Fax: 716 632-4871

E-mail: sales@vectorvest.com

Internet: <http://www.vectorvest.com>

Product: A stock analysis and portfolio management system with buy, sell, and hold recommendations plus a separate technical analysis charting program with pattern recognition capabilities.

Equipment requirements: Pentium 75 MHz or faster computer with Windows 95 or higher, 16 megabytes of RAM (32 MB recommended), minimum of 250 MB hard disk space, a 4X or faster CD-ROM drive, 14.4 baud or faster modem, mouse, and Internet access.

Price: \$49 per month for daily downloads or an annual subscription of \$545. Trial offer for VectorVest ProGraphics: \$29.95 for a five-week trial. ProTrader trial offer, \$9.95 for 30 days.

by Barbara Star, Ph.D.

Need help finding good buy or sell candidates? Looking for trading strategies to uncover just those stocks that meet your personal trading style? Want to find the strongest stocks in the strongest industry groups? How about including a charting package filled with technical indicators to further refine and monitor trades? VectorVest ProGraphics and its new add-on module, VectorVest ProTrader, offer all this and more.

VectorVest ProGraphics, the brainchild of Bart DiLiddo, is an end-of-day program that incorporates a unique system for stock selection, market direc-

tion, and trading applications. It has a recent, fully compatible companion, VectorVest ProTrader, which is a broad technical analysis charting software module that also offers the ability to find certain chart patterns.

WHAT YOU RECEIVE

The regular program arrives on a CD-ROM, with three months of daily data and one year of weekly data for more than 7,400 stocks that trade on four

different exchanges. (If users have enough hard drive space available, they may request a free upgrade that contains six months of daily and two years of weekly data.) The software includes an Internet

Stock viewer Calendar Relative value Relative safety Relative timing VST vector Projected growth rate Buy/sell recommend Stop price

Company	Symbol	Exch	PRICE	VALUE	RV	RS	RT	VST	GR1	REL	STOP	EPS	EY	P/E	GPE
Price TR Assc	TROW	xO	41.813	51.50	1.50	1.48	1.76	1.60	25	B	34.05	2.26	5.40	18.50	1.35
M G I C Invstm	MTG	xN	54.500	77.40	1.49	1.47	1.75	1.59	23	B	43.22	5.06	9.29	10.77	2.14
Silicon VlyBnk	SIVB	xO	39.625	63.20	1.60	1.08	1.96	1.59	39	B	30.82	2.98	7.51	13.30	2.93
Concord EFS	CEFT	xO	26.063	25.90	1.55	1.41	1.73	1.57	36	B	20.47	0.99	3.79	26.33	1.36
Cintas Corp.	CTAS	xO	48.125	26.80	1.17	1.51	1.84	1.57	21	B	36.75	1.25	2.60	38.50	0.56
Old Kent Finl	OK	xN	35.375	48.30	1.45	1.48	1.72	1.57	18	B	28.93	2.67	7.55	13.25	1.15
BestFoods	BFO	xN	64.938	56.20	1.26	1.46	1.81	1.56	19	B	50.93	2.86	4.41	22.71	0.84
AFLAC Inc	AFL	xN	52.813	51.60	1.29	1.49	1.75	1.55	20	B	43.19	2.50	4.74	21.13	0.95
SunTrust Banks	STI	xN	65.563	84.50	1.43	1.44	1.72	1.55	19	B	52.81	4.57	6.97	14.35	1.32
Linear Tech	LLTC	xO	66.000	22.40	1.13	1.42	1.86	1.54	29	B	50.00	0.99	1.50	66.67	0.44
Radian Grp Inc	RDN	xN	56.500	84.50	1.49	1.24	1.79	1.53	26	B	46.81	6.16	10.90	9.17	2.83
Synovus Fin'l	SNV	xN	20.938	18.70	1.27	1.48	1.72	1.53	18	B	17.35	0.95	4.55	22.04	0.82
Buffets Inc	BBCB	xO	12.125	15.50	1.37	1.35	1.74	1.52	19	B	9.56	1.23	10.18	9.86	1.93
Patterson Dent	PDCO	O	51.375	57.50	1.44	1.44	1.64	1.52	25	B	41.38	2.39	4.66	21.50	1.16
Alliance CapLP	AC	xN	46.813	56.20	1.56	1.44	1.54	1.51	27	B	39.31	3.09	6.60	15.15	1.78
Bed Bath&Bynd	BBBY	xO	40.063	29.10	1.26	1.36	1.77	1.51	24	B	33.06	1.23	3.07	32.57	0.74
Emerson Elec.	EMR	xN	62.500	65.30	1.20	1.54	1.66	1.51	13	B	50.01	3.48	5.57	17.96	0.72
Fastenal Co	FAST	xO	65.500	55.50	1.28	1.31	1.80	1.51	24	B	53.05	2.36	3.60	27.75	0.86
Lyddall Inc.	LDL	N	11.250	15.50	1.49	1.25	1.73	1.51	28	B	8.84	0.87	7.69	12.93	2.15

Investment (Management)
 Buys:1929(26.1%) Sells:3244(44.0%) Holds:2221(30.1%) Total: 7398

PRICE	VALUE	RV	RS	RT	VST	GR1	STOP	EPS	EY	P/E	GPE	DIV	DY	Open	High	Low
24.822	30.36	1.18	1.00	1.24	1.17	19	22.32	1.64	6.61	15.14	1.26	0.41	1.72	24.302	25.182	23.995

Daily Data Mode

Industry

Number of buy, sell, holds in the databas

FIGURE 1: THE STOCK VIEWER SPREADSHEET: The Stock Viewer spreadsheet appears with the proprietary indicators developed by VectorVest, plus more than 20 additional fundamental and technical analysis categories. There is so much information that it is necessary to use the vertical and/or horizontal scroll bars. The user must decide whether to rank the stocks from high to low or from low to high. In this case, the stocks holding the highest VST ratings for the day rose to the top. Spreadsheets may be displayed in both daily and weekly time frames. The calendar shows past data rankings so that traders may see changes over time. Beneath the spreadsheet lies information about the number and percent of buy, sell, and hold recommendations given that day. The industry group for any highlighted stock is automatically displayed near the bottom of the page.

downloader, a users' manual, a video overview, and a book by DiLiddo titled *Stocks, Strategies & Common Sense*.

For most computers, the installation begins automatically when the CD-drive door closes. Some computers, however, may need a manual install via the start and setup selections. Computer speed counts to maintain reasonable waiting times for the sorting and searching functions on its large database, so faster is better! Internal ranking and sorting functions usually take only a few seconds, at least on my Pentium II.

Each indicator is applied daily to every stock in the database. For easy comparison, each indicator is plotted on a scale of zero to +2.00.

Because all data needs to be processed through the VectorVest system prior to downloading, daily data updates are available from the Internet after 8 pm Eastern time. Downloading time depends on modem speed and Internet traffic. It took about five minutes to transfer the data to my hard drive. In case of an Internet logjam, the company also provides a telephone number (a toll call) from which to download. And, while traveling, the company furnishes free use of the Internet-only limited-content version.

Manual datafeeds or data transfers from outside vendors are not possible, but an export feature *does* allow information transfer from the ProGraphics program to text, .csv, and ASCII files.

Everything in the package is geared toward making the program simple to use. DiLiddo's book explains the value-oriented trading philosophy that underlies VectorVest and suggests practical trading strategies. The video, the demo module on the CD-ROM, and the help menu contain step-by-step instructions. The manual contains the same instructions, but without the graphics. Still stymied? Not to worry! For the cost of a phone call, technical support is available every day. Every user I spoke with had high praise for

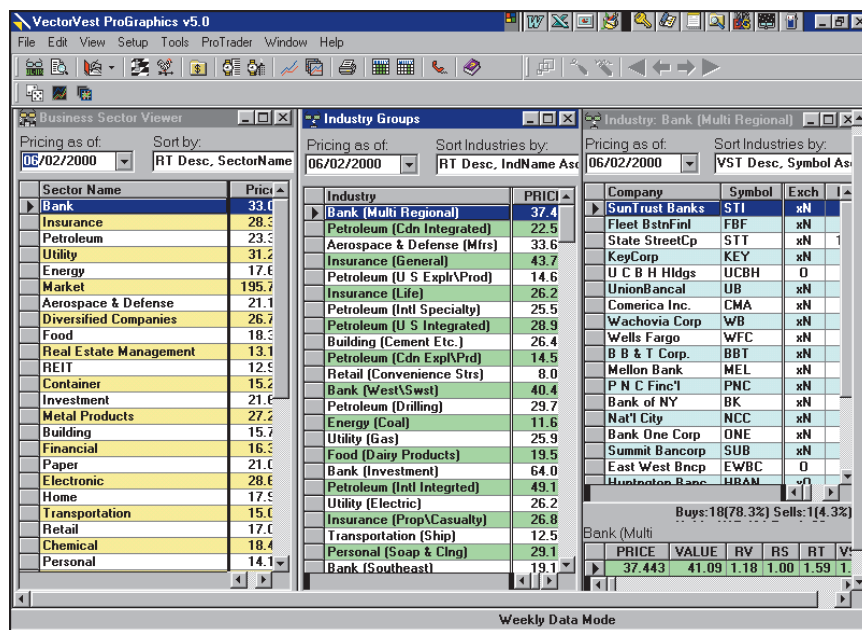


FIGURE 2: BUSINESS SECTORS AND INDUSTRY GROUPS. This graphic presents an overlap of three charts in weekly mode to show that the Stock Viewer also performs rankings on sectors and industry groups. The list on the left presents the top sectors found that week. Although multiple sectors can be chosen, only the first sector, banking, was selected here. The middle panel brought up the list of industry groups in that sector. Clicking on the top group, multiregional, produced the stocks that make up the multiregional banking industry, ranked from the highest to the lowest VST scores. The program simplifies the process of ranking and locating the best stocks in the hottest sectors and industry groups.

the courteous, patient, and knowledgeable technical support staff.

THE HEART OF PROGRAPHICS

Those who have visited the VectorVest Website for stock analysis know that the heart of the program is the proprietary ranking system from which the buy, hold, and sell recommendations are made. A vector is a quantity that has magnitude and direction; the program derives its name from a master ranking category, called VST-Vector (VST). The ranking system incorporates three indicators:

- *Relative value (RV)*, an indicator that measures a stock's long-term price appreciation potential compared with an investment in AAA corporate bonds
- *Relative safety (RS)*, a measure of the probability that a stock will meet price performance expectations, and
- *Relative timing (RT)*, which reflects and projects a stock's short-term price performance.

VST stands for *value-safety-timing* vector and is a weighted vector sum of the RV, RS, and RT values. Stocks with high VST ratings have the best combinations of value, safety, and timing. Each indicator is applied daily to every stock in the database. For easy comparison, each indicator is plotted on a scale of zero to +2.00. Scores above +1.00 (the closer to +2 the better) are considered favorable. Scores below 1.00 are unfavorable. (See Figure 1.)

In addition, the VectorVest system computes an inherent price value ("Value") for each stock, a projected long-term growth rate (GRT), and a stop price ("Stop") exit placement. Buy, hold, and sell recommendations ("REC") are based on value, timing, and risk.

All these rankings are presented on a spreadsheet in the Stock Viewer component of ProGraphics. Also presented are the name of the market exchange on which each stock trades, whether it is optionable, the industry group to which it belongs, and two dozen categories of both fundamental and technical information. See sidebar, "Stock Viewer spreadsheet cat-

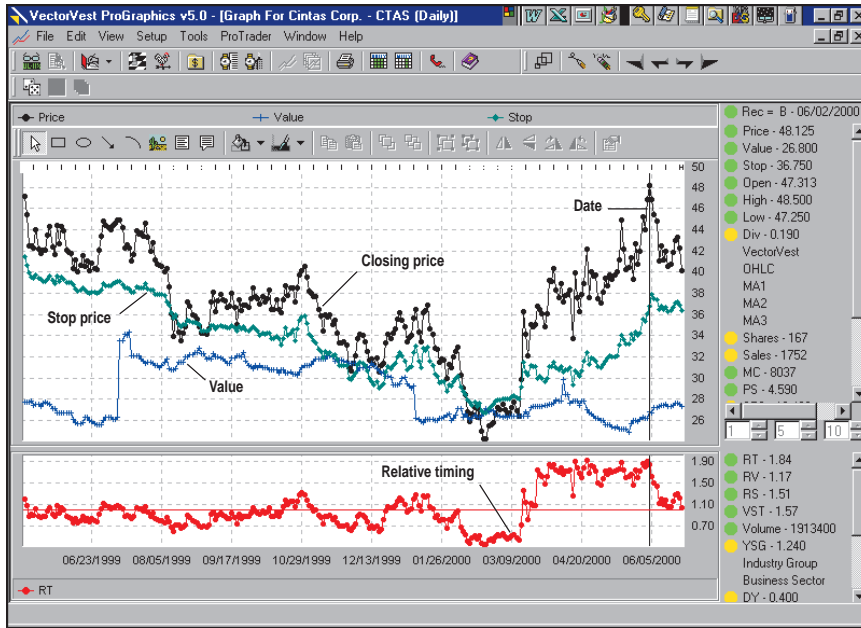


FIGURE 3A: VECTORVEST PRICE CHARTS. VectorVest default charts are really graphic displays of the stock's closing price (black dots), its inherent value (blue plus sign), and the stop price (green diamond shape) in the upper panel. This chart of Cintas Corp. indicates that the price at which it was trading was well above its real value. It also shows where it would have received a sell signal each time it fell below its stop price. The lower panel contains a red relative timing indicator and a horizontal line at the indicator's 1.00 level. When the RT crosses the +1.0 level, it indicates that the stock price is gaining price momentum. The vertical line indicates the date another buy recommendation was given.

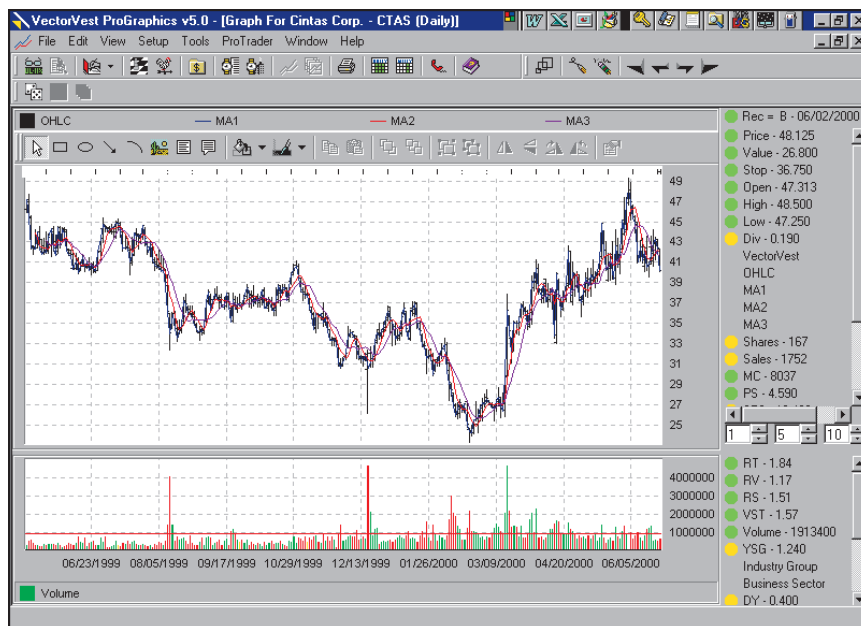


FIGURE 3B: CINTAS OHLC PRICE CHART. A much more familiar price chart emerges when the open-high-low-close option is chosen. Price bars in the top panel and volume bars in the bottom panel turn color in response to daily or weekly changes. Up to three moving averages may be plotted in addition to trendlines.

egories.” Users may sort in ascending or descending order in any category by simply clicking on its heading.

The program provides similar rankings and information for industry groups and business sectors but without the buy/sell recommendations. It is also possible to view the industry groups within the business sectors and the stocks that compose them. (See Figure 2.)

A calendar on the spreadsheet takes the user back in time, either daily or weekly, to see how the rankings have changed. Highlighting the company name on the spreadsheet and clicking the graph icon will display any stock, industry group, or business sector as a price chart. (See Figure 3A.) Multiple charts are stacked and shown one at a time.

The default charts aren't pretty, but they yield instant information about timing, value, safety, stop-loss placements, and buy/sell recommendations. You could create nicer-looking charts plus moving averages and trendlines by selecting the OHLC option. (See Figure 3B.)

STOCK HUNTING

Traders who use ProGraphics told me they find it very user-friendly. The steps for locating stocks are few and easy. One user even told me the procedure was a “no-brainer,” that it was that simple to master.

Find market direction: First, download the data and read *VectorVest Views*, a daily newsletter written by DiLiddo. Check out the sections on market timing and strategies to learn which work best under current market conditions.

Market timing is based on the VectorVest Composite (VVC), a special indicator that can be analyzed and graphed as if it were a stock. The price movements of VVC signal the market direction. By waiting until the signal is verified, VVC can detect major market turns soon after (and sometimes before) the market changes direction. (See Figure 4.)

VectorVest contends that its market timing system (MTI) has never failed to keep traders on the right side of market trends. Color Guard, which is based on the VVC, signals both market strength and direction. (See Figure 5.) The news-

letter suggests trading strategies based on market strength, direction, and the user's trading style.

VectorVest Views contains other information of interest, such as the investment climate, an evaluation of the DJIA, a list of selected stocks, a top stock of the week, user group locations, and upcoming events.

Narrow the search: Now that market direction and general strategy are known, select the strategy icon and run one or more of the built-in strategies on the entire database of stocks, industry groups, or business sectors.

The Strategies component searches and sorts stocks, industry groups, or

business sectors that meet a given set of criteria on a given day. Pick a category that reflects your risk-taking style, be it conservative or speculative, and the program generates several specific strategies from which to choose. (See Figure 6.) For instance, a prudent trader might prefer to balance safety, value, and timing, while a more aggressive or speculative trader would decide to place greater emphasis on timing, even though it entails greater risk. In addition, there are strategies based on special interests, such as price-volume expansions or undervalued stocks that have maintained consistent dividends.

Another component, Trendsetter, can search for stocks that match several criteria over as many as 10 time periods. This powerful feature not only uncovers trending stocks, industry groups, or business sectors, it also serves as a pattern recognition method that is especially useful for bottom-fishing. Figure 7 shows an example of one of the many built-in Trendsetter patterns.

Stick with the built-in searches or develop your own. Both the Strategies and Trendsetter components allow any of about 30 categories to be used as parameters along with many operators (for example, +, -, *, /, >, <, =, <>). Advanced users even create search routines that further refine other searches. And, as with most aspects of the program, these can be backtested up to the amount of data in the user's database.

Create watchlists: Each search and sort routine produces a list of stocks. Transfer those stocks into one or more watchlists as shown in Figure 8A. When a particular search contains a large number of stocks, rank them by VST. Then save only the top 10 to 20 stocks, because they probably represent the best of the bunch. Look for REC change on existing watchlists (Figure 8B).

VectorVest ProGraphics comes with more than two dozen watchlists that include the Dow Jones Industrial Average (DJIA) and Standard & Poor's 500. Maintain as many watchlists as you wish; there are no restrictions as to the number or content size. It is even possible to manually enter stocks sug-

STOCK VIEWER SPREADSHEET CATEGORIES

Company	Company name
Symbol	The stock's ticker symbol
Exchange	Where the stock is traded
Price	The closing price for the day
Value	The stock's intrinsic value
RV	Relative value, an indicator of long-term price appreciation potential
RS	Relative safety, an indicator of consistency and predictability
RT	Relative timing, an indicator reflecting short-term performance
VST	VST-Vector, an overall rating of value, safety and timing
REC	Buy, hold or sell recommendation
STOP	Stop price
EPS	Leading 12-month earnings forecast, \$/share
EY	Earnings yield in percent
P/E	Price to earnings ratio
GRT	Forecasted earnings growth rate
GPE	Growth to P/E
DIV	Annual dividend payment in \$/share
DY	Dividend yield in percent
DS	Dividend safety
DG	Dividend growth rate in %/year
YSG	Dividend yield-safety-growth vector
Risk	Dividend risk assessment
Open	Opening price for the day
High	High price for the day
Low	Low price for the day
Range	High minus low
% PRC	Day-to-day percent price change
Volume	Total # of shares traded
AvgVol	50-day moving average of daily volume
% Vol	% Volume change from average volume
Shares (M)	Outstanding shares in millions
Sales (\$M)	Sales in millions
Mkt Cap (\$M)	Market capitalization in millions
P/S	Price to sales/share ratio
SPS	Sales per share
Industry	Name of industry group

- **Fundamental factors** include: Value, RV, RS, GRT, \$Div, DY, EY, EPS, P/E, GPE, DS, DG, YSG, Risk, and Industry.
- **Technical factors** include: Price, RT, Stop, Volume, AvgVol, % Vol, Open, High, Low, and % PRC, P/S, SPS, Mkt Cap (\$M).

VST-Vector and REC combine both fundamental and technical factors.

—B. Star

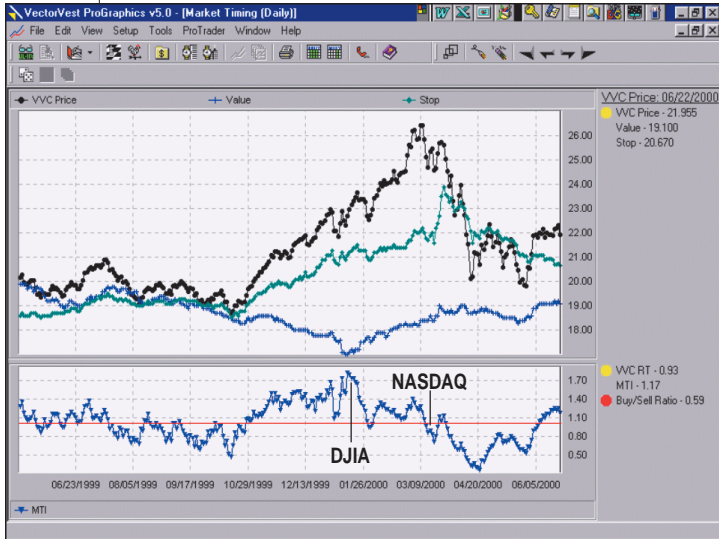


FIGURE 4: TIMING THE MARKET. The market timing composite (VVC), the black line in the upper panel, is an average of the closing price of every stock in ProGraphics 5.0. Value and stop price also share that panel. The market timing indicator (MTI), which occupies the lower panel of the chart, combines the VVC price, the relative timing of the VVC, and a buy/sell ratio into a single indicator. The up arrow on the MTI panel indicates where the Dow Jones Industrial Average made its top in January. The down arrow shows when the MTI broke below its 1.0 line. That happened on March 14, 2000, just four days after the Nasdaq Composite peaked. The strategy section of the "VectorVest Views" newsletter warned, "This seems to be the beginning of a severe correction, therefore serious caution is advised."

gested by newsletter gurus or financial publications into a watchlist and run trading strategies on those. Maybe you want to keep a watchlist of optionable stocks. Analyze them fur-

ther by using the option feature to determine volatility based on the delta.

Track your trades: When buy/sell trading positions are taken, monitor how

well the stocks perform via the portfolio manager feature. (See Figure 9.) With each data download, the ProGraphics program automatically updates the stocks in the portfolio, including changes

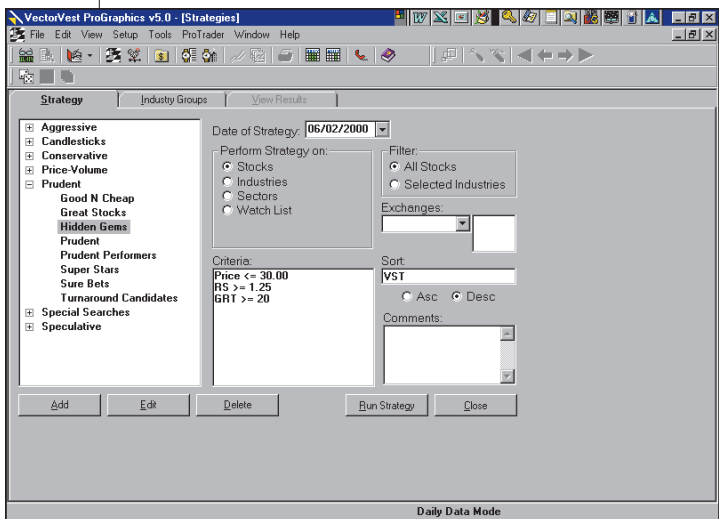


FIGURE 6: TRADING STRATEGIES. This feature offers many search-and-sort routines that meet different trading approaches. Here are the choices available. The Hidden Gems routine was highlighted and its parameters appeared in the criteria box. This search looks for stocks priced \$30 or less, with good relative safety at 1.25 or higher, and a projected growth rate of 20%. It can run this search on all stocks and present the results on a spreadsheet sorted from high to low, according to their VST rankings. These strategies, even those in the more aggressive categories, may catch part of a move but not necessarily actual tops or bottoms.

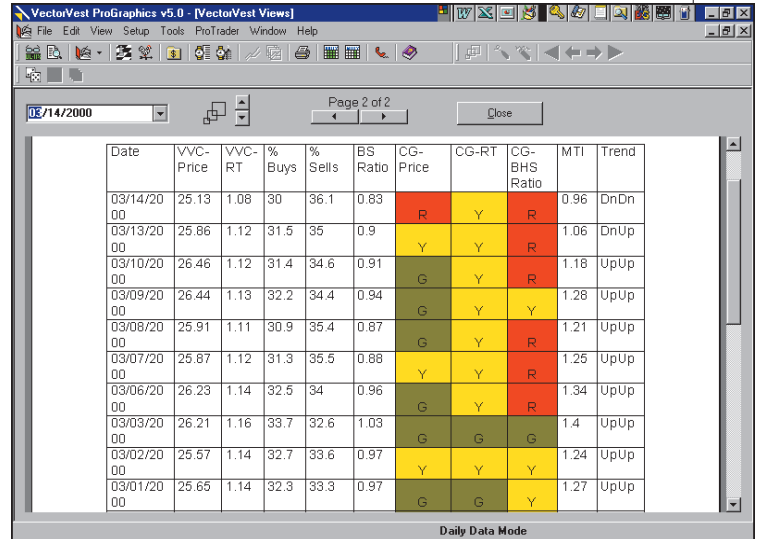


FIGURE 5: THE COLOR GUARD. The Color Guard timing method appears daily in "VectorVest Views." It is meant to portray an accurate description of the direction and strength of the stock market. The numeric direction of the three Color Guard indicators — the price of the VectorVest Composite (VVC Price), the relative timing of the VectorVest Composite (VVC RT), and the buy/sell ratio (BSR) — determines its strength. Each indicator is colored green to show strength in that category, red shows weakness, and yellow is neutral.

The final column in the graph is called "trend." It looks at the direction of both the VVC price and the MTI in relation to the day (or week) before. From the beginning of March 1 through March 10, the trend was up. By March 14, the trend had changed from up to down. That plus the change in the buy/sell ratio to red, the string of yellow in the relative timing, and the decreasing VVC prices led to the warning that a correction had begun.

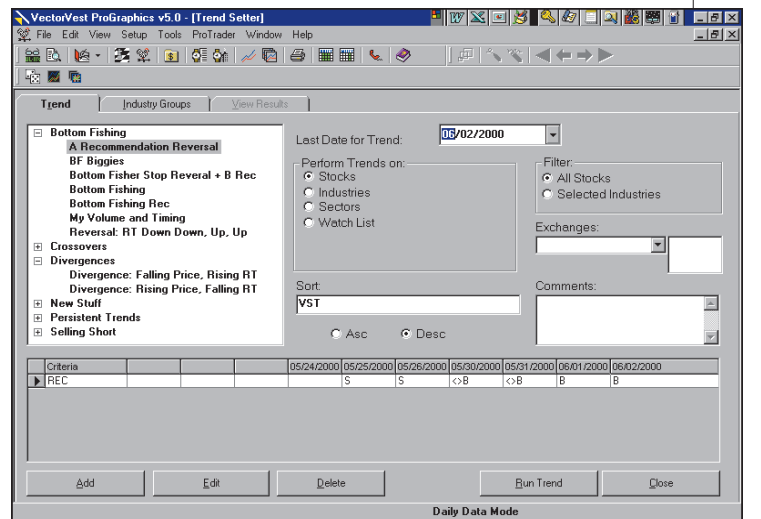


FIGURE 7: TRENDSETTER. Trendsetter differs from strategies in a few ways. First, it is not concerned with trading style or risk levels. Second, it can contain multiple criteria that occur over several periods. In the example above, Trendsetter would look for a bottom-fishing search based on changes in the buy, sell, and hold recommendations given for the last six days. The criteria specify that the recommendations (REC) move from a sell to a nonbuy (either a sell or hold) to a buy.

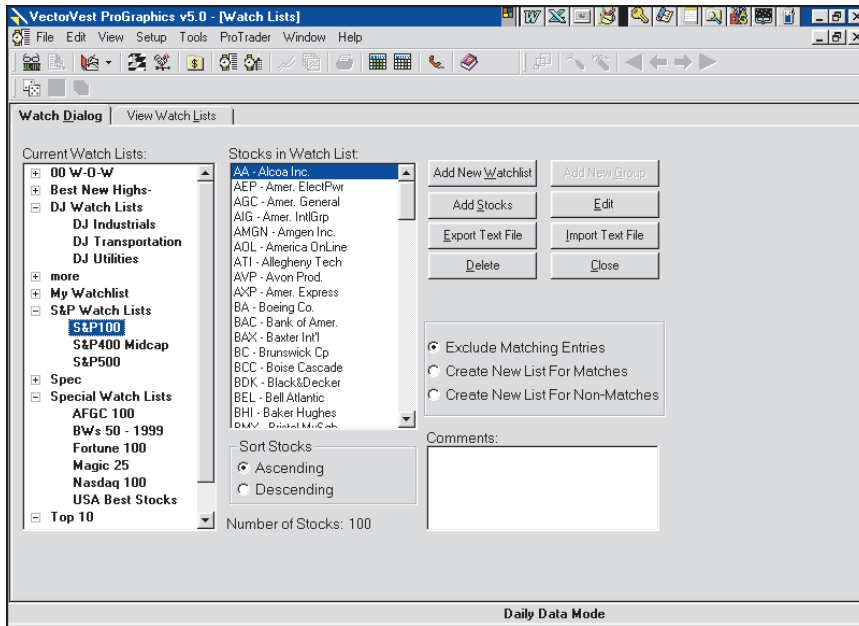


FIGURE 8A: WATCHLIST. A watchlist is similar to a directory that holds only those stocks you wish to follow. Create any number of watchlists to keep stock, industry, or index categories separate. ProGraphics has watchlists for stocks that make up the DJIA, S&P, and the Nasdaq plus several other categories. Once a watchlist is created, view the stocks to see what the new download ranks are and/or run any strategies or Trendsetter sort routines on them.

Company	Symbol	Exch	PRICE	VALUE	RV	RS	RT	VST	GRT	REC	STOP	EPS	EY	P/E	GPE
Amer. IntlGip	ALG	xN	118.625	76.70	1.12	1.51	1.67	1.49	18	B	100.44	3.86	3.25	30.73	0.59
Amer. General	AGC	xN	66.125	82.90	1.28	1.11	1.72	1.41	16	B	55.42	5.42	8.20	12.20	1.31
Cigna Corp.	CI	xN	89.375	124.70	1.40	1.00	1.72	1.41	24	B	77.17	6.80	7.61	13.14	1.83
Bank of Amer.	BAC	xN	61.000	78.90	1.35	1.01	1.72	1.40	20	B	50.91	5.50	9.02	11.09	1.80
Wells Fargo	WFC	xN	47.500	50.40	1.23	0.96	1.77	1.39	24	B	40.62	2.69	5.67	17.66	1.36
Gen'l Dynamics	GD	xN	58.625	75.50	1.27	1.00	1.73	1.38	18	B	51.10	4.12	7.02	14.23	1.26
Hartford Finl	HIG	xN	60.000	68.30	1.04	0.90	1.86	1.38	10	B	49.68	4.36	7.27	13.76	0.73
Johnsn & Jhns	JNJ	xN	84.500	71.00	1.27	1.62	1.19	1.38	18	B	73.39	3.53	4.18	23.94	0.75
Morgan StanDW	MWD	xN	82.563	97.40	1.41	1.25	1.47	1.38	24	B	72.48	4.92	5.96	16.78	1.43
Wal-Mart Strs	WMT	xN	59.063	32.30	1.15	1.56	1.32	1.38	20	B	50.98	1.55	2.63	38.11	0.53
Computer Sci.	CSC	xN	91.375	72.80	1.37	1.54	1.18	1.37	24	B	76.24	3.20	3.50	28.55	0.84
Home Depot	HD	xN	53.625	31.10	1.36	1.67	1.01	1.37	25	H	49.71	1.37	2.55	39.14	0.64
Honeywell Intl	HON	xN	56.625	71.50	1.39	1.32	1.41	1.37	19	B	49.06	3.41	6.03	16.61	1.15
Citigroup	C	xN	66.250	72.40	1.29	0.93	1.70	1.36	29	B	57.96	3.57	5.39	18.56	1.56
Merck & Co.	MRK	xN	68.938	58.10	1.27	1.64	1.07	1.35	17	B	60.66	2.87	4.17	24.02	0.71
Entergy Corp.	ETR	xN	29.313	28.80	0.95	0.91	1.82	1.34	6	B	24.17	2.68	9.13	10.94	0.55
May DeptStrs	MAY	xN	30.438	41.10	1.36	1.37	1.29	1.34	13	B	26.71	2.96	9.71	10.28	1.26
McDonalds	MCD	xN	36.125	32.00	1.16	1.60	1.13	1.33	14	H	32.68	1.63	4.52	22.16	0.63

Buy:51(51.0%) Sells:10(10.0%) Holds:39(39.0%) Record Count = 100

Price	Value	RV	RS	RT	VST	GRT	Stop	EPS	EY	P/E	GPE	DIV	DG	Open	High	Low
49.634	43.27	1.10	1.09	1.22	1.17	16	45.26	2.71	6.30	25.34	0.99	0.72	3	50.000	50.743	48.8

FIGURE 8B: WATCHLIST RESULTS. The watchlist of the S&P 100 shows some REC changes from buy to hold.

in buy, hold, and sell recommendations. Stock splits are adjusted automatically. Pie charts show the percentage of individual stock holdings or the industry group diversity that exist in each portfolio. (See Figure 10.)

Traders can even create a watchlist of the stocks in the portfolio and run search and sort routines to help make the decision whether to keep or dump certain stocks.

The history tab of the portfolio manager displays stocks sold. Print the display and receive two reports, one for the long term and the other for short-term holdings. It's great to have at tax time!

VECTORVEST PROTRADER

VectorVest offers ProTrader as a separate technical analysis program designed to work only with ProGraphics 5.0. The ProTrader module provides a seamless link with ProGraphics. Its impressive array of popular indicators allows traders to chart and analyze stocks, industry groups, or watchlists without having to leave the ProGraphics software. Because it draws from the existing ProGraphics database, it eliminates the need to create duplicate data directories, saving time and hard drive space. (See sidebar, "ProTrader technical analysis tools," for the list of indicators, studies, and price charting styles.) There is a separate ProTrader help index within the larger help menu. There is no formal manual at this time.

ProTrader can display up to three indicators plus price on each chart along with moving averages, Bollinger Bands, trendlines, and other interactive drawing features on price. (See Figure 11. Note that the background color of Figure 11 has been changed for ease of reference for this review.) Traders may view charts by choosing from several preset periods or by setting custom date parameters. It takes noticeably longer to construct price charts when custom settings are used.

Right-click on any displayed indicator to change its length, color, line width, and line style. Plot your three favorite indicators within one of the preset time frames and save it as a layout. Run single or multiple charts directly from

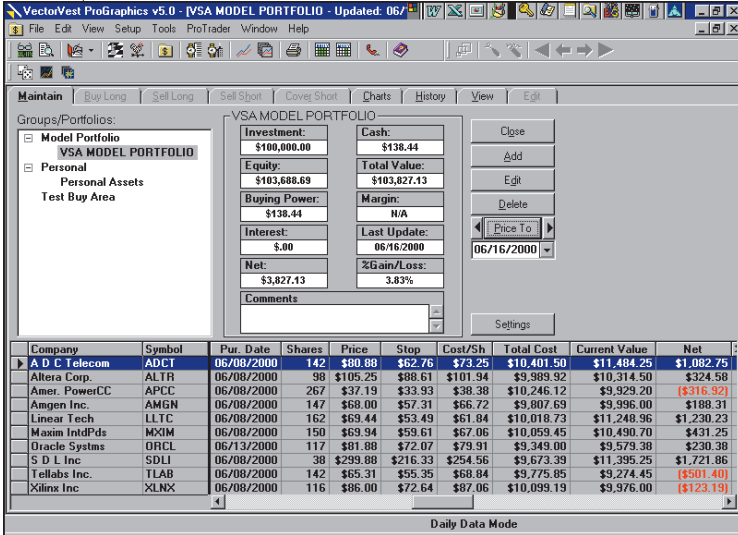


FIGURE 9: PORTFOLIO MANAGER. VectorVest maintains a model portfolio. Using an initial investment of \$100,000, this portfolio grew almost \$4,000 (\$103,827) in eight trading days. Build portfolios derived from actual stock transactions or on "what-if" scenarios.

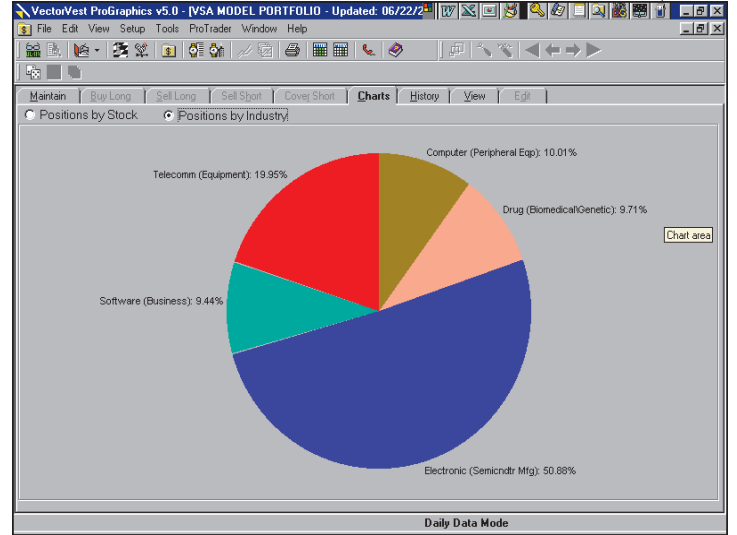


FIGURE 10: PORTFOLIO ALLOCATION. A pie chart within the portfolio manager gives traders a snapshot of their sector and industry allocation. The pie chart here shows the asset allocation heavily weighted in the semiconductor industry of the electronic sector.

the ProGraphics spreadsheet of stocks, industry groups, sectors, or watchlists. Create a watchlist of your portfolio(s) to analyze their contents with technical indicators.

PATTERN RECOGNITION

On the surface, ProTrader looks like a nice little charting package. However, if you were to look deeper, you would

discover its powerful pattern recognition component, a feature that separates ProTrader from many other technical analysis programs.

The module contains several preprogrammed searches that work alone or in conjunction with ProGraphics trading searches and sorts. Some printed material accompanies the program to explain how and when to use the built-in

pattern searches.

Figure 12 shows the interesting assortment of major categories currently available. Within each major category are one or more preprogrammed choices for the user to select for the search. The program also provides the capability to add other choices.

A pattern search looks only for those stocks that fit the selected choice on the

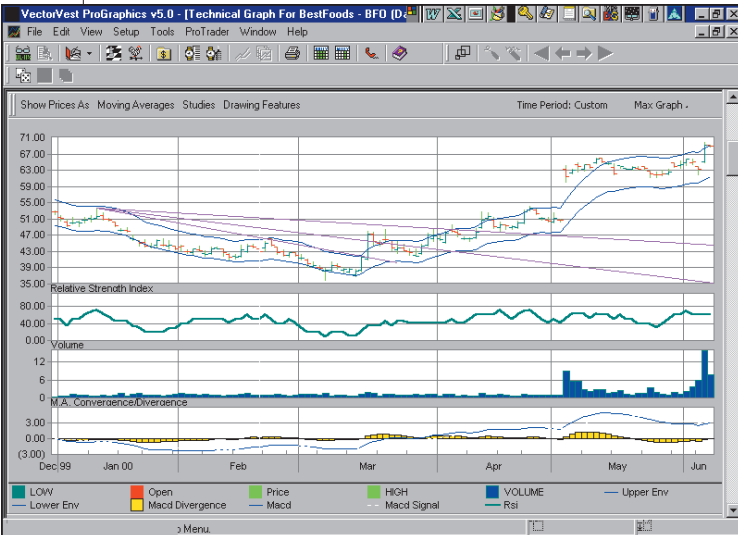


FIGURE 11: VECTORVEST PROTRADER PRICE CHART. ProTrader produces colorful charts that display up to three indicators. It is similar to, but more sophisticated than, charting packages seen on the Internet. This chart also contains two of the interactive drawing features on price — moving average envelopes and speed resistance fan lines. This chart also contains two of the interactive drawing features on price — moving average envelopes and speed resistance fan lines.

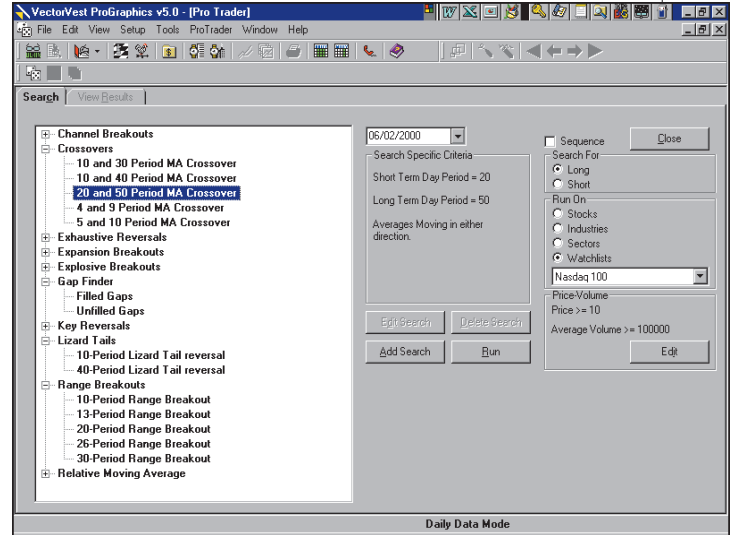


FIGURE 12: PROTRADER PATTERN SEARCHES. As with all search functions, VectorVest includes many types and variations of preprogrammed searches. Here's a 20- and 50-day moving average crossover of the Nasdaq 100 watchlist. A sequencing function allows traders to further narrow the search by selecting searches from other category types — for example, choosing a crossover of the moving average, an unfilled gap, and a 20-period range breakout on the same day. Search results are presented for those stocks that meet all, not just one, of the searches' chosen criteria.

PROTRADER TECHNICAL ANALYSIS TOOLS

This software has these studies:

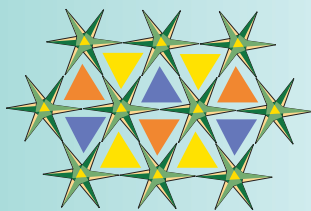
- Accumulation/distribution indicator
- Average true range
- Bollinger Bands
- Chaikin's oscillator
- Chaikin's volatility
- Commodity channel index
- Detrended price oscillator
- Ease of movement
- Exponential moving average
- Lane's stochastic (%D and %K)
- Mass index
- Median price
- Moving average convergence/divergence
- Money flow index
- Negative volume index
- On-balance volume
- Performance
- Price and volume trend
- Price rate of change

- Rate of change percent
- Relative strength index
- Standard deviation
- Triangular moving average
- TRIX
- Typical price
- Vertical horizontal filter
- Volume oscillator
- Weighted close
- Weighted moving average
- Williams' %R

And these interactive drawing features:

- Gann — Fans
- Fibonacci — Arcs, fans, retracements, and time zones
- Tirone — Midpoint, mean
- Lines — Resistance, quadrant, and trend

—B. Star



day it is run. If nothing is found for the current day, users may change the calendar date and rerun the search on any prior day.

Run any search on stocks, industries, sectors, or watchlists.

Create a watchlist of the stocks in a portfolio to check for one of the selected patterns. It is even possible to run multiple searches using ProTrader's Sequencer; for instance, search for the crossover of the five- and 10-unit moving averages and also for unfilled gaps. First, the program looks for any match of the crossover. Then it searches any crossover stocks that were found to locate unfilled gaps. The sequential search is another way to further refine stock selection. Care should be taken not to narrow the selection process so much that no stocks could be found.

CONCLUSION

VectorVest ProGraphics 5.0 and ProTrader make a powerful team for those traders who want to combine fundamental and technical analysis. ProGraphics 5.0 offers so many useful features that it can meet the needs of many types of traders. The ProGraphics users I spoke with liked the ease with which the software can be run and being able to locate good stocks from which to make trading decisions. Once users become familiar with the basics of the program, there is room for them to create new, more complex strategies. In other words, it is a program that allows

VectorVest has a combination of fundamental and technical analysis along with a newsletter, market timing system, and built-in search engines, all of which come together as a stock analysis and portfolio management system that makes it unique in its field.

users room to grow as trading needs and styles change.

ProTrader certainly provides chart displays that are superior; it offers a basic charting program for those who like the opportunity to use, or learn to use, technical indicators that enhance entry and exit decisions. In all, ProTrader's built-in search routines are a boon for those who want a fast and easy method for locating signs of potential price changes.

VectorVest has a combination of fundamental and technical analysis along with a newsletter, market timing system, and built-in search engines, all of which come together as a stock analysis and portfolio management system that makes it unique in its field.

Barbara Star, Ph.D., 818 224-4070, is a part-time trader and former university professor. She is a past vice president of the Market Analysts of Southern California and led a MetaStock users group for many years. She is a frequent contributor to Technical Analysis of STOCKS & COMMODITIES. Currently, she provides individual instruction and consultation to those interested in technical analysis. She may also be reached via E-mail at star4070@aol.com.

S&C

