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TECHNICAL ANALYSIS OF STOCKS & COMMODITIES™

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Unfair Advantage

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Email: (sales) info@csidata.com; (support) support@csidata.com
System requirements: Most Windows operating systems supported
Product: Supplier of end-of-day and historical data for worldwide financial markets
Price: A wide variety of packages are offered, such as North American Futures ($33.54/month or $313/year) or US Stocks and Indices ($33.25/month or $285/year)

by S&C Staff

The primary objective of Unfair Advantage (UA) is to allow you to export end-of-day (EOD) quotes to third-party software. You store the data on your disk in a compressed format and then convert it to a format that the third-party software can use. The compression is so efficient that it lets you get by with as little as one gigabyte (GB) for US stocks and indexes, and only requires two GB for options. Much of the data goes back 20 years and some of it 60 years. CSI (Commodity Systems, Inc.) prides itself in its accurate data, which is why companies such as Yahoo Finance! use CSI to provide EOD quote data to users.

UA includes charting but it is not equipped with all the bells and whistles you find on full-featured products. Several techniques are available to create continuous commodities contracts, and UA covers all of the world's major markets. If you are looking for a cost-competitive and accurate EOD datafeed, this is the product you want.

COMMODITIES CONTRACTS

If you have a brokerage account that allows you to trade commodities, you can probably get quotes on a limited number of contracts, such as those trading on the CME (Chicago Mercantile Exchange). If you want to backtest commodities, you'll want to create a "continuous" contract. Commodities contracts usually have a limited life because there is a delivery date involved. A continuous contract allows you to have a price series that is longer than any single contract. UA has several techniques for creating continuous contracts for commodities traded on exchanges all over the world. The tabs at the top of Figure 1 such as *nth nearest*, *perpetual*, *back-adjusted*, and *Gann* are all different techniques for creating a continuous price series.

One note about terminology: When UA refers to a *series*, it is talking about a series of individual contracts that have been linked together to create a single continuous contract. Two terms that any commodities trader needs to know are open interest (OI) and volume. Open interest refers to the number of contracts currently being held, and volume refers to the total number of contracts bought and sold. The differentiation is important because it can signal buyer expectations versus liquidity. A useful technique in creating a continuous contract is to start using the next contract when the OI on that next contract equals the OI on the previous contract. This process of going from one contract to the next is called rollover.

WHAT IS YOUR ROLLOVER CRITERIA?

As mentioned earlier, UA has several different techniques for creating a continuous contract or price series. We'll examine one of the techniques, *nth nearest*, with a hypothetical example. Suppose it is sometime in April and the contract with the earliest expiration date is in June. Now suppose that the next contract after the June contract is one with a September expiration date. Using *nth nearest* and choosing the nearest contract, you would end up linking the June contract with the September contract. In the *new chart dialog* window in Figure 1, in the middle-right heading, you will see an option for selecting *how many contracts out*. The default is *2, second nearest*. If you use the dropdown button, you'll find that one of the options is *1, Nearest*. You'll also see that you have a full range of what you'll use as the next contact to link to.

Now that you have selected the contracts you want linked to make a continuous contract, you have to decide

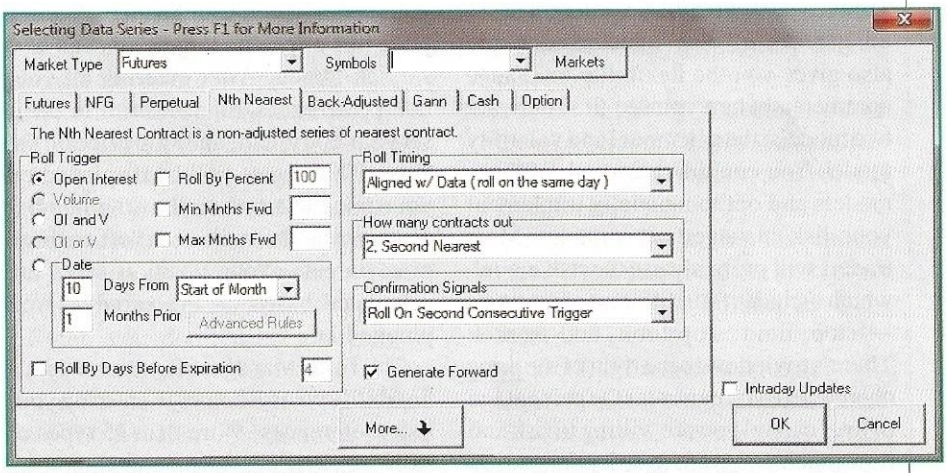

FIGURE 1: NEW CHART DIALOG SCREEN. The dropdown and entry windows at the top let you specify the type of equity and then the symbol. Since UA includes global data, there is an extensive symbol list. You can invoke a symbol search by clicking on *markets* at the upper middle-right. Start typing the name of the commodity, and UA will show you a list of items.

what mechanism you'll use for linking. On the left side of Figure 1, you see the heading *roll trigger*. Under this heading are several choices such as *open interest* and *date*. In the hypothetical example, if we had selected the default date, the September contract would have been linked with the June contract on June 10. If we had selected *open interest*, we would roll over when the September OI surpassed the June OI. To the right of the OI radial is an entry window for percentage. This allows you to adjust your rollover trigger to be any percentage you want. If you input "80" in the hypothetical example, you would roll over to the September contract when the OI for the September contract was greater than 80% of the June contract OI.

In Figure 1, the roll trigger choices involving volume are grayed out. This is because volume tends to spike at times, giving false signals when rolling over from one contract to the next. The result is that you can actually go backwards at times. Hence, if you do want to use volume, you need to uncheck the box titled *generate forward*.

Let's see what the two different contracts look like. In Figure 2, one continuous contract was created using *nth nearest*, and the other was created using *back-adjusted* (green). If you examine the two price series in Figure 2, notice the absence of price gaps in the *back-adjusted* versus the *nth nearest* price series. The gaps sometimes occur at delivery dates, which are denoted with yellow circles. The back-adjusted is created by taking the difference between the next contract and the current one and then adding the difference of the prices. In our hypothetical example, when September OI was equal to June OI, the difference in closing prices on that day is calculated and then added to all of the previous contracts. The reason *back-adjusted* contracts can become negative is because the difference may be negative.

It gets more complicated. There are first and last notice dates as well as last traded days. Some traders have asked for more options to create rollover rules, especially when it comes to expiration dates. For some contracts, an OI roll-

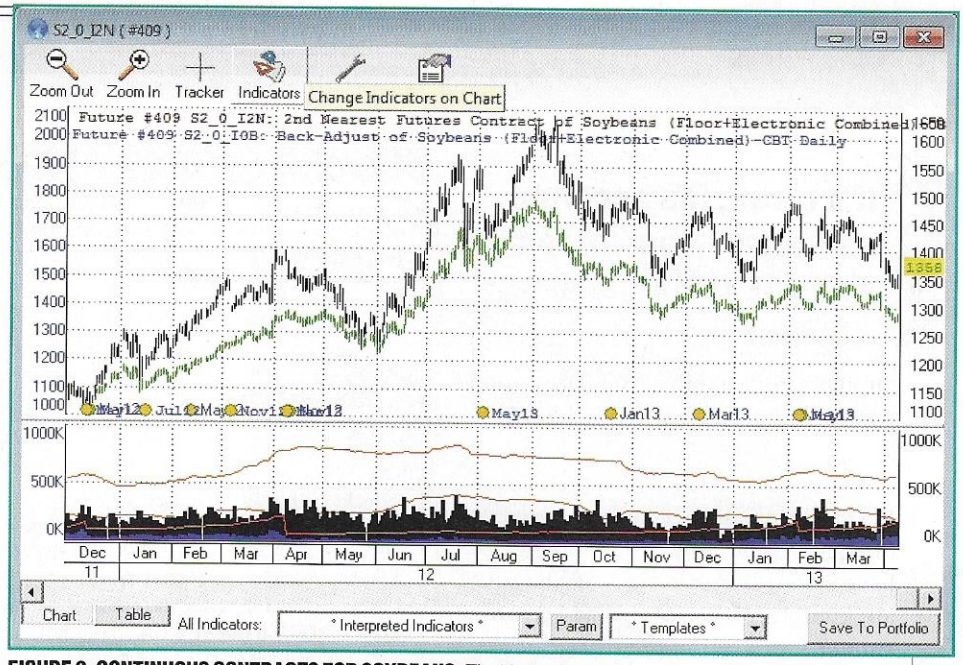

FIGURE 2: CONTINUOUS CONTRACTS FOR SOYBEANS. The black price series was created using an *nth nearest* scheme and OI for rollover. The green price series was created using the *back-adjusted* scheme and OI for rollover. Yellow circles mark delivery dates. The subchart at the bottom shows total and individual volume using black and blue histograms. The red lines in the bottom subchart correspond to total and individual OI.

over trigger comes too late, so an easier method is to modify the expiration date. Figure 3 displays the flexibility you have in changing expiration rules. You find this dialog by clicking on the *more* button on the window in Figure 1.

As explained above, creating a back-adjusted series sometimes leads to negative prices. But UA has a feature called detrending that calculates the slope from the current contract price to the beginning contract, which is typically several years back. The increment for each day is calculated and added. You can apply detrending to any equity including commodities. Simply go through the steps starting with the *data wizard*, which is in the icon menu line shown in Figure 3.

The conclusion you come to, after going through and understanding all of the options you have for creating continuous contracts and the worldwide coverage of commodities, is that CSI is superior in many ways. In fact, if you were just trying to learn about commodities, going

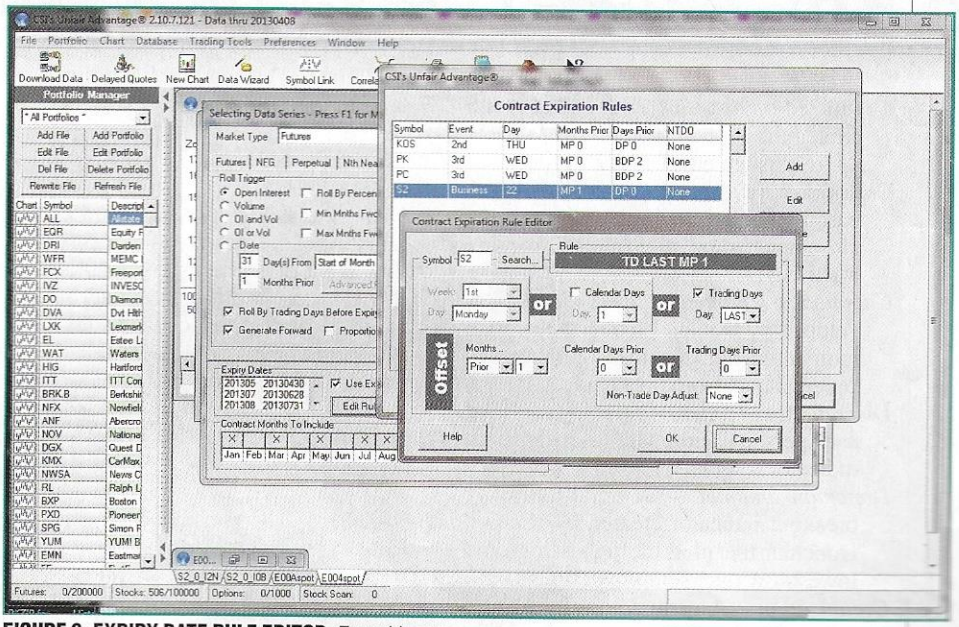

FIGURE 3: EXPIRY DATE RULE EDITOR. From this screen you can change your expiration rules. You can specify calendar dates, add rules, and create portfolios.

It's clean, it's accurate, and you can get 20 to 60 years of historical data.

through CSI's features would be a good way to learn.

OTHER DATA AND FEATURES

Besides having an enormous amount of equity data (did I mention they also have option quotes as well?), they have all kinds of economic data. Choose *market specs* from the icon menu line and then choose *other* on the follow-up screen. One example is unemployment data (Figure 4).

All of this ignores one of the huge features of UA — the ability to create a portfolio and download. The portfolio is created from the data download you have paid for. The purpose of creating the portfolio is to convert the compressed data into a third-party format, and UA provides for several different formats including ASCII. The dialog buttons for adding symbols to your portfolio are seen on the left of Figure 3, or you can choose from prebuilt portfolios such as the S&P 500.

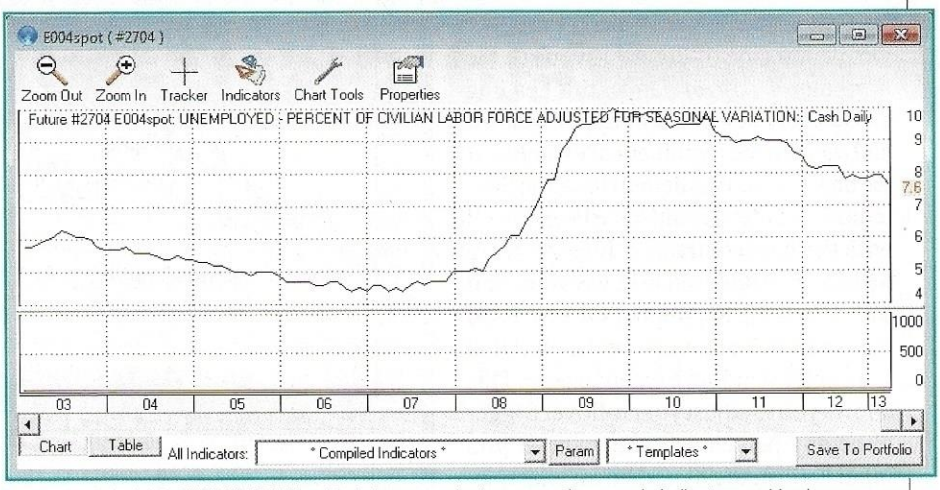

FIGURE 4: UNEMPLOYMENT DATA. This is just one of a large set of economic indicators and is shown as a line chart. UA gives five options for plotting data including OHLC and candlesticks. You can also see the data in table form.

SUMMARY

UA is in a class of its own. Besides being a sophisticated product, it has an excellent staff. The people who work there have been there for years, which means two things: CSI is successful and it treats its staff well. Besides that, it is cost-competitive. There is a reason it has been around a long time.

FURTHER READING

Gopalakrishnan, Jayanthi [2006]. "Bob Pelletier Of CSI Data," interview, *Technical Analysis of* STOCKS & COMMODITIES, Volume 24: Bonus Issue.

Peterson, Dennis [2003]. "Unfair Advantage," product review, *Technical Analysis of* STOCKS & COMMODITIES, Volume 21: January.

Pelletier, Robert, and Sabrina Carle [2005]. "Sound Systems," *Technical Analysis of* STOCKS & COMMODITIES, Volume 23: March.

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TRADERS' GLOSSARY

Backtesting — A strategy is tested or optimized on historical data and then the strategy is applied to new data to see if the results are consistent.

Chandelier Exit — A stop order calculated based on either the highest high or the close and some multiple of average true range.

Commodity Channel Index (CCI) — Developed by Donald Lambert, this price momentum indicator measures the price "excursions" from the mean.

Discretionary Trader — A trading style that uses personal judgment to evaluate an indicator's signals.

Donchian channel — A trend-following breakout indicator created by Richard Donchian that plots the highest high and lowest low over set time periods.

Optimization — A methodology by which a system is developed with rules tailored to fit the data in question precisely.

Pivot Point — A price reversal point.

Real Estate Investment Trust (REIT) — A security that invests directly in real estate. REITs are sold on major exchanges just like stocks.

Selling Short — Selling a security and then borrowing the security for delivery with the intent of replacing the security at a lower price. In futures trading, selling short is to assume the responsibility of the seller vs. the buyer in the establishment of the futures contract between parties.

Short Squeeze — A situation in which those holding short positions are forced to buy back shares due to a rapid rise in price.

Stop-Loss — The risk management technique in which the trade is liquidated to halt any further decline in value.

Swings — The measurement of movement of the price of a tradable between extreme highs and lows.

Ulcer Performance Index (UPI) — A measure of the reward-to-risk ratio, determined by:

$$UPI = (\text{Return fund} - \text{Money market}) / UI$$

where money market is a "riskless fund" and UI is the ulcer index, a measure of how much downward variation is in the fund. Thus, the numerator is the return and the denominator is the risk.

Walk-Forward Testing — A technique whereby parameter values are optimized on in-sample data and then applied to out-of-sample data.

Zigzag — In a bull market, an Elliott three-wave pattern that subdivides into a 5-3-5 pattern with the top of wave B noticeably lower than the start of wave A. In a bear market, this pattern will be inverted.