# CSI NEWS JOURNAL

## In This Issue

## Welcome Macintosh!

At long last, we now offer software for Macintosh computer users who have been clamoring for CSI support. We are proud to introduce TRADE DATA MANAGER. This program will open many new doors by performing like three programs in one:

### #1 Data Downloader -

Trade Data Manager retrieves both daily updates and historical data from CSI via modem. Like the IBM QuickTrieve,® it can use direct dial or network phone lines from cities around the world.

Trade Data Manager is not a QuickTrieve clone, but a graphics-based system in true Macintosh style. Mac users will be pleased with the mouse-driven graphic environment which allows for simple data access and management.

### #2 Charting -

Trade Data Manager's graphs are simple, yet sophisticated. The program allows you to tile up to 32 price bar charts on the screen at once. Any of these may be selected for full-screen viewing and may be edited through an interactive price editor. A sample chart is shown.

### #3 Accounting -

Trade Data Manager's accounting system is ideal for the trader wishing to keep up-to-date account records with very little effort. On one screen, it offers a quick review of account equity including cash, securities and open equity. It also can produce detailed reports for closed trades, new positions, old positions, account equity and open orders.

Trade Data Manager will automatically update current equity evaluations by comparing open trades to your latest daily update from CSI. The accounting process includes screens for

TYPICAL PRICE, VOLUME & OPEN INTEREST CHART



recording open orders, stops, fills, open positions and closed positions. There's also a utility to close open positions, either completely or partially.

While this program is not as extensive or flexible as our IBM TraDe$k™ program, it offers a great deal of functionality to the individual investor.

Compatibility -

Trade Data Manager is the long-awaited interface between CSI and CompuTrac's Macintosh program. Unlike other so-called CompuTrac-compatible Macintosh data downloaders, Trade Data Manager automatically updates CompuTrac/M files without the hassle of export and import requirements.

# Calculating Your Return on Investment
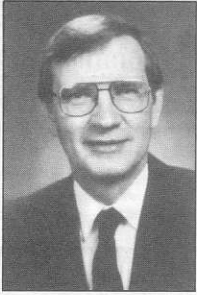
Robert C. Pelletier

*"Knowing your system's projected return on investment can produce far-reaching additional benefits where portfolio diversification is concerned."*

When we planned the substance of our new Trader's Money Manager™ (TMM) product, the focus of the calculation was multipronged. The main thrusts included finding the required funds to capitalize an account, the probability of sustaining success and a determination of the appropriate level of market exposure to maximize downstream profits. An additional, but less significant output of the program was the calculation of a system's expected return on investment (ROI). Our work in these areas has been rewarding and well received by the ever-growing role of TMM users.

The calculation of return on investment has become a major focus of some users who consider this a key element in system evaluation and in comparing one system with another. As we did not consider this a major focus during TMM's development, we may have given this calculation less than the full attention it deserved where market exposure is concerned. We have therefore given the Money Management ROI formula more consideration and developed a modified means for calculation. We would like to explain this enhancement here, not only for TMM users, but for anyone interested in the mathematical principals behind system evaluation.

An important processing step in TMM is the degradation of profits for parameter count, sample size, etc. This degradation step, which we call the "removal of hindsight bias," tends to significantly reduce the merit and anticipated return on investment of the system studied. These reductions were considered to be of sufficient significance to keep the capital requirements high and avoid inflating the ROI. We expected that users would trade systems with capital levels that would push the probability of reaching self-imposed goals very close to 1.0. At such high success rates, the merit rating and return on investment are not significantly inflated. Because of this, we

avoided introducing certain probabalistic adjustments in the return on investment calculation that would have reduced the Money Management ROI.

After speaking with several users of TMM, it is obvious that many traders want to use too little capital to fund their investments. They may be happy with an average probability of 90% for reaching a given goal, but they fail to realize that the constant force to failure at any level is its complement. In the case of a 90% probability of success, there is a 10% probability of failure. With repeated trials, the odds of failure will eventually catch up with anyone.

The equation for ROI in the Capital Analysis mode of TMM will remain the same as before, as it continues to fulfill its stated purpose. When ROI is computed in the Money Management mode, the equation changes somewhat. This is to accommodate the fact that the series of trades depends on reaching subgoals of accumulated profit. The program is designed to allow for 100 incremental subgoals as ten times the starting capital is reached.

The Money Management ROI is computed from positive or negative single-step changes in market exposure. These occur as an artificial overall goal equal to ten times the starting capital is satisfied. Each of 100 "accumulated profit" changes represents a different subgoal on the way to reaching the overall goal. Each subgoal is a candidate for a separate simulation which builds on the overall profit objective.

If the accumulated profit or horizontal X scale of the money management chart can be identified as goal, $G_i$, where i is the sequence number of the 100 readings and $P_i$ is the ith win probability, then for any given $G_i$ the money management equation would be represented as follows:

# Welcome Macintosh!

Trade Data Manager can also produce standard ASCII files which are comma, blank or tab delimited. This makes the data easily compatible with most spreadsheets under various Macintosh platforms. Although this version of Trade Data Manager is not SYSTEM 7 savvy, it is SYSTEM 7 compatible. In fact, you'll have no problem running it with any Macintosh system version 4.1 or later. Trade Data Manager requires 512KB of main memory (RAM). It can operate on older models such as the Mac Plus, right on up to the newer models such as the Mac LC, Mac LC II or any Macintosh II series model.

## Data Pricing -

Trade Data Manager retrieves ASCII files from CSI, not the compressed binary files QuickTrieve uses. This different format can take three to four times as long to transmit, so the computer and telephone time involved will be greater on the Macintosh. To compensate for the higher cost of supplying this data, we charge slightly higher rates for Macintosh users. A Macintosh data price schedule is available upon request.
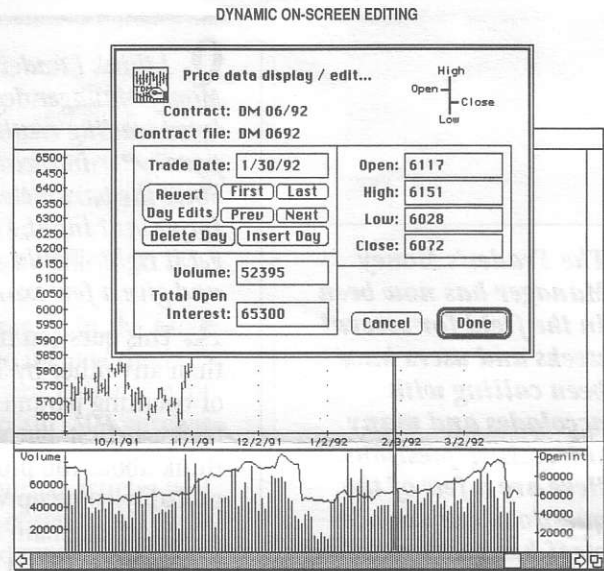
## Introductory Offers -

The Trade Data Manager software is not sold separately, but is included with your subscription to the CSI Data Retrieval Service. The software alone is worth well over $100 and the data provided with the introductory offers can be worth up to $123 per month.

**One-Month Macintosh Special** - This offer provides the Trade Data Manager software and your first month of toll-free daily updates on any portfolio of up to 64 futures contracts or 256 stocks. For subsequent months, our regular rates (which start at $39 for a 15-contract portfolio) apply. Introductory price = $99 (Int'l users add $25 for toll-free service.)

**Three-Month Macintosh Special** - This offer provides the Trade Data

Manager software and your first three months of toll-free daily updates on any portfolio of up to 64 futures contracts or 256 stocks. For subsequent months, our regular rates (which start at $39 for a 15-contract portfolio) apply. Introductory price = $199 (Int'l users add $75 for toll-free service.)

To order, mail the coupon below or call CSI at 800-CSI-4727 ✦

DYNAMIC ON-SCREEN EDITING

# Ask Customer Service

*The Trader's Money Manager has now been in the field for several weeks and users have been calling with accolades and many interesting questions. Here are a few of the questions our service staff has received, along with answers that may be of interest to all.*

**Q.** *I think I understand why Trader's Money Manager degrades my simulated trading results to correct for parameter-induced hindsight bias. Since the parameter count is such an important input, I want to make sure I get it right. Would you please explain and give a few examples?*

**A.** This question has been raised more than any other by TMM users. The idea of counting parameters may seem a bit tricky at first, but when you really think about the problem, you can probably come up with the correct solution. The main rule of thumb to remember is that a parameter is a trading rule in the form of a numeric setting or simple control switch used to determine buy and sell signals.

Before you start counting, take a good look at the system you're evaluating. Determine which parts of the formula are constants and which are optimized variables. A true constant (one which you have not optimized and which will not change) should not be counted. Any other trading rule should be counted.

### Some examples:

1) A very simple channel breakout system might have entry and exit bands based on the highest high and lowest low of x number of days (with x being the variable). Even though this affects two actions (buying and selling) it counts as one parameter because there is only one variable for both cases. If a different number of days were used for the entry point and exit point, two parameters would be counted.

2) A trading system reverses to long if X price is reached in Y days, and reverses to short if a different Z price is reached in Y days. In this case, there are three parameters, which are X, Y and Z. Although this is an "either or" situation, where only two parameters can be called into play at any one time, all three must be counted.

**Q.** *I have done extensive historical testing on a trading system I have developed and have a 3,000-entry profit and loss file I'd like to analyze. How can I reconcile this with TMM's 300-entry file limit?*

**A.** Trader's Money Manager does not need every trade generated by your system to do a good evaluation. A representative sample is all that is required. If you want even greater precision, sort the entries from largest to smallest, then select every 10th one for entry into TMM. This should produce an excellent cross section of your system's results.

Any time the entire P&L string is greater than TMM's limit, skip entries at even intervals as required to come as close as possible to 300. Try to capture the smallest and largest entries in you list.

**Q.** *I am a little concerned about TMM's requirement that my trading results be independent. I'm trying to evaluate a system that trades several currencies simultaneously. Since the currencies are all measured against the dollar, there tends to be a great deal of correlation in the market movement. Is it appropriate to combine the P&L files for these currencies in the same evaluation?*

**A.** You are wise to consider TMM's independence assumption before combining different markets in the same evaluation. Currencies tend to be among the most correlated markets, so they should probably not be evaluated together. Other commodities are also highly correlated, such as Crude Oil and its byproducts, or the grain complex, etc... When evaluating multiple P&L files, try to pair them into groups that show the lowest degree of correlation. You will find that it is virtually impossible to obtain true independence, but be as diligent as possible. ✦

## Calculating Your Return...
(continued from page 2)

$$\text{ROI}(G_i) = \frac{25100 * \left[\dfrac{\prod\limits_{j-1}^{i} P_j * G_i - (1 - P_1) * C}{C}\right]}{N_i * D}$$

The value of $N_i$ is the number of money management trades required to achieve goal, $G_i$, and $P_1$ is the probability of achieving the first subgoal of $G_1$. The correction imposed by taking the product of the win probabilities is not necessarily significant unless some of the values of $P_j$ are less than .999. Since the level of the Capital Stake, C, has much to do with each $P_j$ value, the user should explore many alternatives before commencing his actual trading exercise.

Knowing your system's projected return on investment can produce far-reaching additional benefits where portfolio diversification is concerned. Security or mutual fund investments return profits because of dividends, capital gains and interest. A trading system accomplishes a similar alterna-tive benefit through trade timing mechanisms and money management. Without a measurement of investment return, there is no possibility for portfolio diversification because there would be no basis for favoring one approach or speculative medium over another.

The TMM program is in the process of being modified to include the ROI changes discussed here. Enhancement disks will be sent to all TMM purchasers upon completion.

Future News Journal articles will explore the benefits of statistical diversi-fication, uncorrelated returns and optimum levels of alternative market risk. When the act of diversification is correctly managed, it can be shown that the required capital to manage an account can be reduced. Such reductions will significantly boost your total account's investment return. ✦

*Bob Pelletier*

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## CSI Software Product Summary

❑ **QuickTrieve®/QuickManager®** - To retrieve, manage & edit data; includes Alert Calendar $99/Unrestricted use $39/Daily data user

❑ **QuickPlot®/QuickStudy®** - Charting & analysis software (requires QT/QM) $156

❑ **Trader's Money Manager™** - Introductory price $499 (a $200 savings)

❑ **Trading System Performance Evaluator™** - Computes your system's capital requirements $199

❑ **TraDe$k™** - Traders' complete accounting system-(price varies with number of accounts) Starting @ $399/Unrestricted use $299/Daily data user or 12-month lease starting @ $22/Mo.

❑ **Seasonal Index Value Pack** - Three years of history for 33 popular commodities $444

❑ **CSI News Journal** - Aug. 1990 to present $35/Yr. or $5/Reprint

❑ **CSI Mailing List** - $200/1,000 names (CSI users omitted)