

TRADEnosis QScore User Guide

Nirvana Systems, Inc.
BETA v1.0 – February 20, 2023

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1 - Introduction to TRADEnosis QScore

by Ed Downs and Steve Mayo

“I have known Steve Mayo since he first purchased OmniTrader back in 1996. He is a good scientist and researcher, but he also shares my interest in the pursuit of automated trading technology. Steve prototyped the system he calls TRADEnosis over two years. During this time Steve presented his findings to our 5-person trading group, and it became apparent that he had worked through all the problems associated with using Cloud AI to generate excellent stock predictions. We joined forces in January 2023 and, with the help of our Nirvana Team, enhanced Steve’s original concept to take it into a production environment and provide recommendations in OmniTrader. We are now ready to release BETA 1.0 to those who have supported this effort.” *Ed Downs*

“**TRADEnosis** is a complex orchestra of cloud servers that engineers and compiles various “features” each day across hundreds of stocks and multiple timeframes. These features are then fed into sophisticated machine learning (‘Artificial Intelligence’ or ‘AI’) algorithms to generate trading signals.

The first “cloud-AI” algorithm to use the TRADEnosis platform is called **Q-Score**. It was trained to identify combinations of features that predict an “unusual” return over a future interval, specifically 10 market days (about 2 weeks) ahead from the signal date. The name comes from statistics: when you bin the returns over all the prior 10-day periods and plot them as a frequency curve, the result resembles a bell-curve. The far-left/-right edges or “tails” of that curve have the highest/lowest, but also the most infrequent, returns. Those extreme quadrants are exactly where we want our trades to occur.

To use these raw signals, we need a robust system like **OmniTrader** which can apply trade plans, run simulations, and manage the broker trades. The combination of OT and TRADEnosis provides a platform that is unmatched and opens a world of possibilities.

For this first release, we have trained Q-Score on 137 tickers. We hope to expand the list to about 200 in the short-term and potentially more later as we add additional ‘mini servers’ to the orchestra. As Q-Score incorporates company financial data (“fundamentals”), there are limitations on which stocks have the needed features and historical data. This is generally the larger, more established companies, which are exactly the ones that work best in Q-Score; young, small highly volatile companies tend to be driven by news releases more so than the macro-economic and financial trends to which Q-Score is trained.

Using TRADEnosis Q-Score in OT is easy. It is provided as a “System” which can be selected in the Systems Block of the Strategy Builder. There is one parameter, called the Advisor Rating, which can be used to filter to those signals with the highest probability of profitability. Generally, you should start with a setting around 70% and then run some simulations to tune the results to your trading style. Higher AR’s will tend to be more profitable but extreme values might result in a “cherry picking” bias that won’t be generalizable to the future trades. Of course, a Strategy minimally needs a Vote Block and a Trade Plan. The installation comes with a Strategy that we’ve developed, but you can certainly try other things: try adjusting the stops, adding filters maybe with a trained GA, scaling-in/out, or anything else available in OT.

Steve Mayo

TRADEnosis Data Sources

CURRENT:

- Price & Volume
- Company Finances
- Technical Indicators
- Market Benchmarks
- Commodity Prices
- Volatility Measures
- Currency & Crypto Prices

IN-DEVELOPMENT:

- Econometrics
- New & Sentiment
- Analyst Ratings
- Other Alternative Sources

2 - Installing and Registering TRADEnosis QScore

This plug-in is one of the most sophisticated and complex deliverables Nirvana Systems has ever released. The good news is, all that complexity is “in the cloud” so that OmniTrader itself can communicate with the servers to retrieve Buy and Sell Recommendations.

The following instructions will help you install and register the package as quickly as possible.

Installing TRADEnosis QScore

Before you can begin using QScore, confirm that you have the latest version of OmniTrader or VisualTrader installed. Then click the following link to install TRADEnosis and follow the on-screen instructions.

<https://www.omnitrader.com/currentclients/downloads/item.asp?Prodcode=8200>

Registering TRADEnosis QScore

To register TRADEnosis, complete the following steps.

1. Click Help >> Registration
2. Enter the TRADEnosis key from your invoice or click Get My CD Keys and your registration file will be update automatically with your key.

3 – The TRADEnosis QScore Components

Overview

The TN QScore Package includes the following components:

- TRADEnosis QScore Profile
- TRADEnosis QScore OmniScan
- TRADEnosis QScore Strategy, which includes:
 1. The QScore System
 2. A Pivot Filter Block
 3. QScore Trade Plan

The TRADEnosis QScore Profile

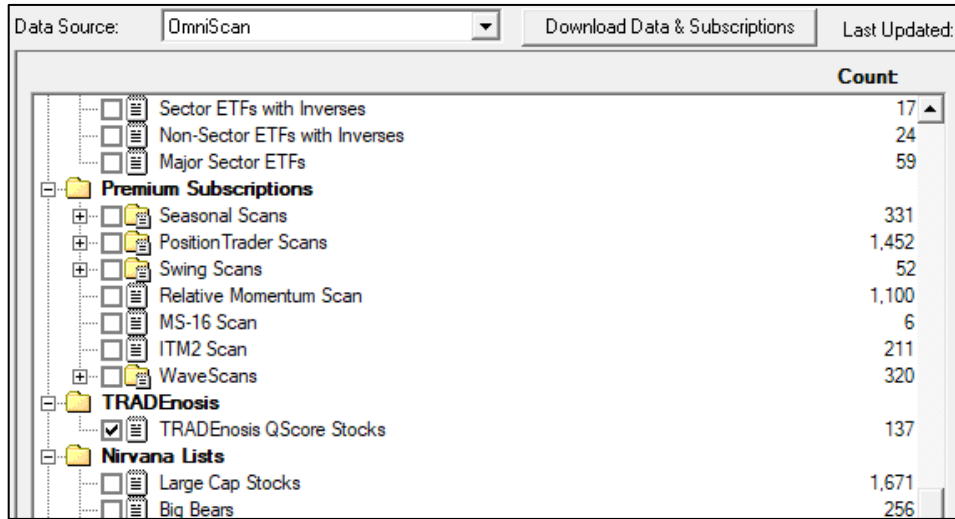
The Profile is an EOD profile that contains 137 stocks that were trained for BETA 1.0.



The TRADEnosis QScore Profile Configuration

The Daily Run

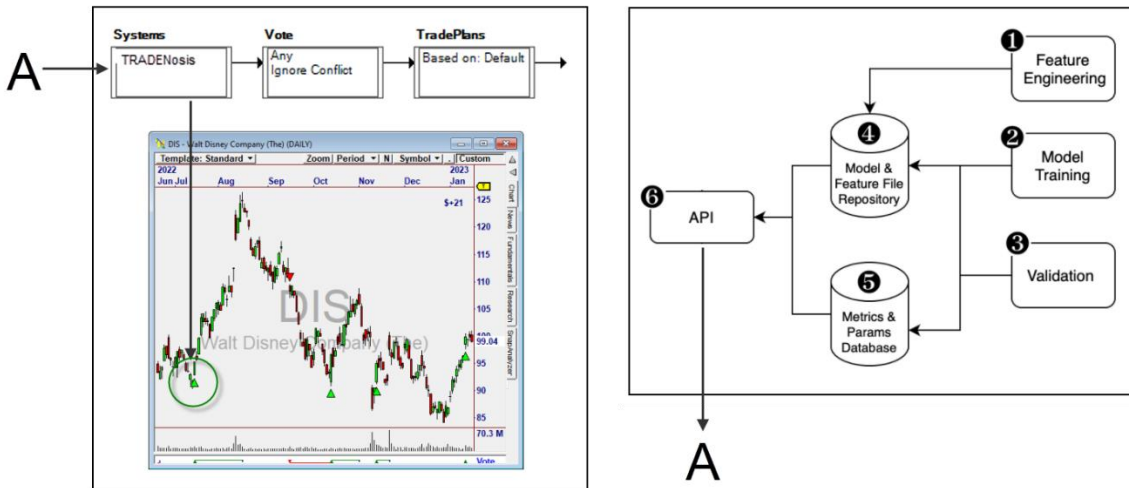
Signals are available each day from the servers at 6am CST. When the ToDo List is run, an OmniScan list is automatically populated with all **TRADEnosis QScore Stocks**. This List will automatically be updated as new symbols are added (users who do not have OmniScan can periodically download an updated Profile from the dashboard.)



OmniScan showing the TRADEnosis section with the TRADEnosis QScore Trained Stocks list.

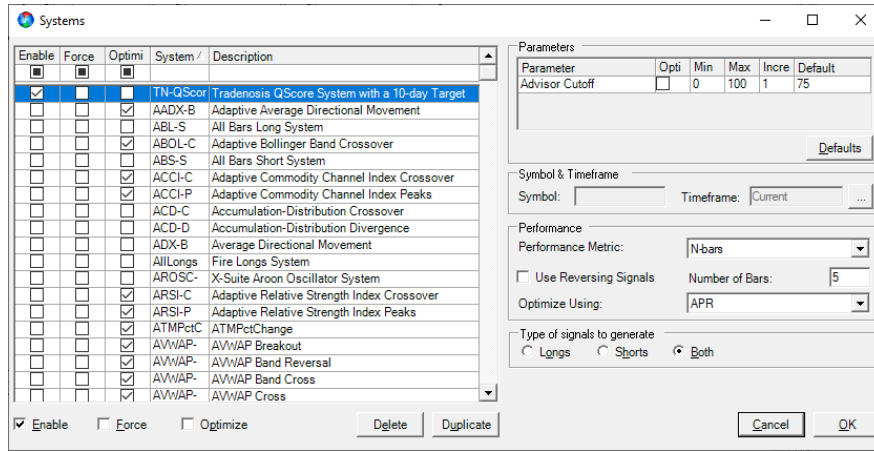
QScore Trading System

The QScore Trading System (TN-QScore 10) trains to a 10-bar target date. It communicates with the Cloud A.I. Servers to retrieve recommendations for the stocks that have been trained. This happens within the System DLL “behind the scenes.”



The TRADEnosis QScore System communicates with the Cloud AI for Daily Recommendations

The System can be used anywhere in OmniTrader that a System can be referenced, including the System and Confirmer blocks and SysInd() indicator.



TRADEnosis QScore System in the Systems Block

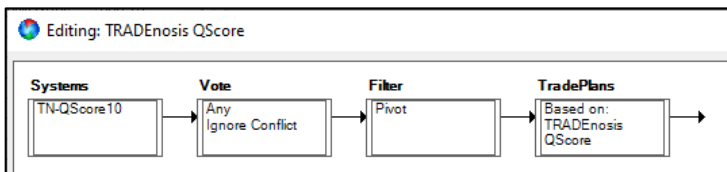
System Parameters:

1. Advisor Rating: The minimum "Advisor Rating" from the A.I. for Signals. Default is 75.

An Important Note about Probability:

If you plot the System by itself, you will see many Signals that appear to be somewhat "random". However, since the Signals are 60 to 75% accurate, the signal distribution produces opportunities within this level of accuracy. With Filters and a good Trade Plan we are seeing the results shown under Simulated Performance at the end of this document.

The TRADEnosis QScore Strategy



TRADEnosis QScore Strategy

The included TRADEnosis QScore Strategy uses 3 components in addition to the Vote Block.

System

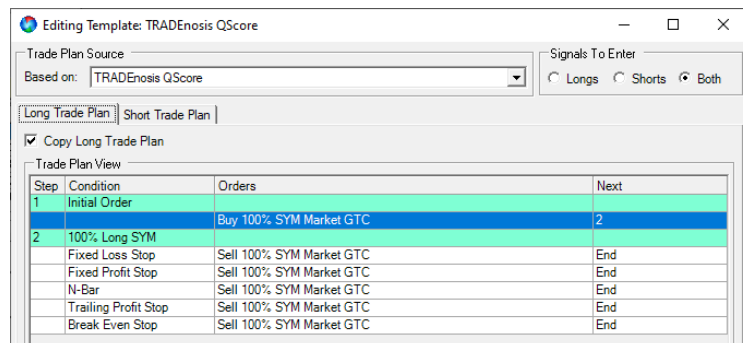
TN-QScore System 10 as documented above.

Filter

A Pivot indicator is used to identify Higher Lows and Lower Highs to improve signal timing. (The Filter is not shown here).

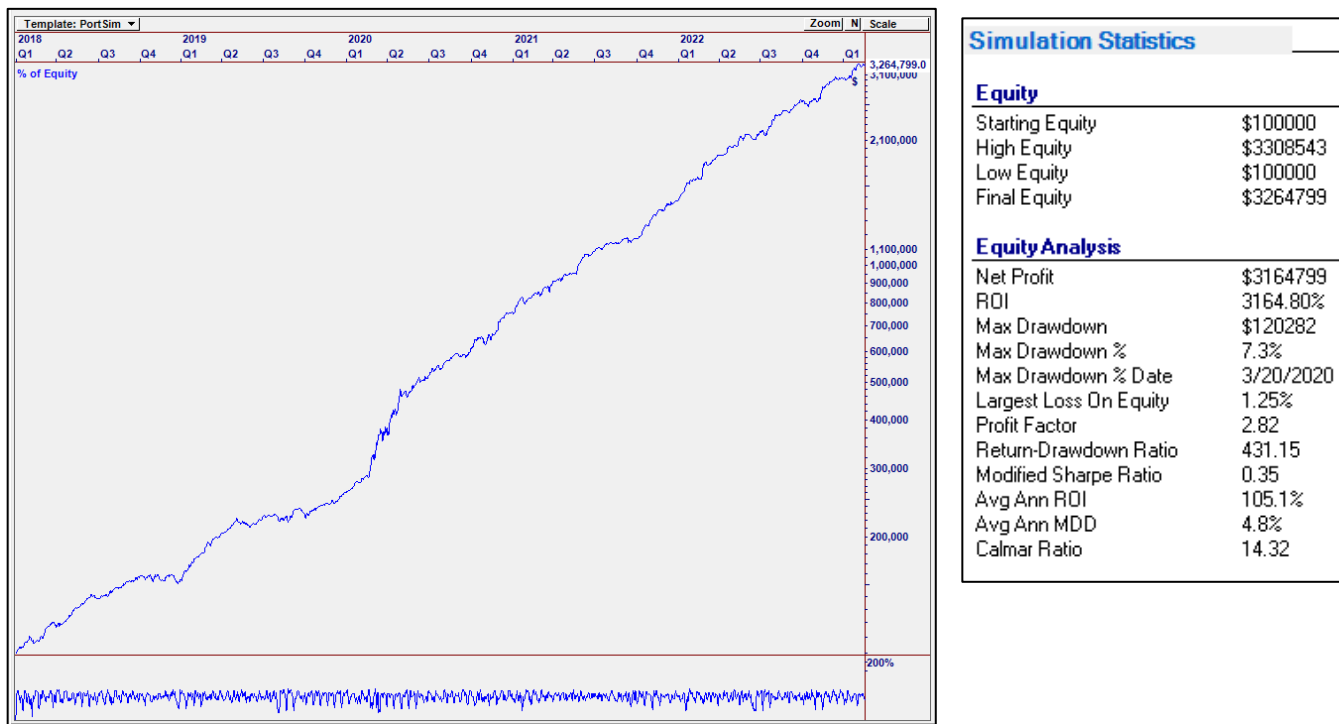
Trade Plan

The Trade Plan has Stops that have been designed to generate the most consistent profits from the Signals that are recommended by the AI and Filtered with the Filter block.



4 – Simulated Performance

Here is a recent Portfolio Simulation generated on the initial 137 tickers without the use of margin for January 2018 through January 2023.



Simulated equity curve generated by TRADEnosis BETA 1.0 on Feb 20, 2023

About The TRADEnosis BETA

The TRADEnosis project is our partnership with Steve Mayo to exploit Cloud A.I. to trade the stock market. The Nirvana Team did a superb job of integrating it into OmniTrader. Before that happened, Steve was only able to look at raw statistics generated by the predictions. Now we can use them to build OmniTrader Strategies and run Portfolio Simulations like the one shown above.

This is BETA Release 1.0. As is the case with any software, we will likely have tweaks and changes as a trade history is generated. Users are advised to paper trade or start on a smaller scale as we gain some experience. We also encourage licensees to use the System in new ways and report their findings.

Nirvana Systems is 100% dedicated to the technology and process Steve Mayo developed. As we learn more and investigate other A.I. models, I expect that TRADEnosis QScore will continue to improve. We appreciate all our customers who accepted our invitation to engage this project with us.

Ed Downs