



# **User Manual for The Socrates Platform**

**(version 1.0 – revised, January 2019)**

**AE Global Solutions, Inc.**

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## Overview

An innovative and unique **Software-as-a-Service tool** designed to help individuals, institutions and organizations **research market behaviour on a global scale**. Our advanced artificial intelligence engine uses an historical-data-based approach to interpret various proprietary models behind the scenes which constantly evaluate the convergence of price, time and trend. This offers a truly unbiased, unemotional view.

- Monitors global capital flows and concentration – a key indicator of the world economy
- Employs **proprietary** pattern recognition and forecasting models – a unique combination of technical and cyclical analysis methodologies not found anywhere else
- Correlates unique price-based and time-based signals
- Factors in global economic and political environment and the potential impact on market trends

### Covering Key Financial Instruments Across the Globe (we call them “Covered Markets”)

The Socrates Platform allows members to research hundreds of financial instruments around the world – including top indices, stocks, exchange-traded funds (ETFs), commodities, bonds, and currencies.

- *We focus on established financial instruments with enough history to generate insights from our proprietary models (the more data fed into our systems, the more intelligent they become).*
- *While we typically look for instruments on major exchanges that have at least 5 or more year’s worth of public trading data, we may decide to cover some instruments a bit earlier if we believe they may have significance at that time based on trading volume, geographic and/or sector representation. Regardless, we typically do not look to add any Covered Market unless we have enough data for the models to produce insights across Daily, Weekly, and Monthly market time periods.*
- *We generally do not cover Initial Public Offerings (IPO’s) or Initial Coin Offerings (ICO’s) at inception, nor do we typically cover minor exchanges, penny stocks, mini futures, or options.*
- *Note you may see Covered Markets sometimes referred to herein as a financial “instrument” or “security” – it is one in the same for the purpose of this document*

**An Artificial Intelligence engine generating market analysis text each day across the hundreds of Covered Markets in our system:**

#### 1. Summary Analysis

- a. High level commentary on market behavior. Designed for anyone, including beginner and passive investors, looking to better understand global market cycles and potential trends of a given market.

#### 2. Detailed Analysis *(available to Plus or Pro Members only, see below)*

- a. More thorough assessment, with select price range and timeframe considerations. Designed for experienced investors more familiar with the proprietary models found in the Socrates Platform, and comfortable conducting detailed market research, typically across various different tools.

#### 3. Premium Analysis *(available to Pro Members only, see below)*

- a. Our most comprehensive study covering key potential price, time, trend and risk considerations. Designed for active investors and short-term traders who conduct extensive research, typically across various different tools, and are well versed in market volatility, liquidity, and associated risks while having a functional / advanced understanding of technical analysis and the proprietary models found in the Socrates Platform.

### Powerful, Proprietary Models at Your Fingertips

#### 1. Economic Confidence Model (ECM)

- a. Sometimes referred to as the Pi Cycle, the ECM is our **core model for comprehending the global economy**. Focusing on global capital concentration, the ECM provides a long-term timeframe for

potential shifts in confidence that could lead to notable economic events, as demonstrated over the course of history.

**2. Global Market Watch (GMW)**

- a. Our **pattern-recognition model**. The GMW records price movement across all Covered Markets and identifies if there is a historical pattern potentially repeating itself, or if a new pattern might be forming. Consider this a high level cheat sheet, helping uncover potential market movements that warrant closer analysis.

**3. Forecast (Timing) Arrays**

- a. Our **time-based model**. Forecast Arrays is a graphical representation of output from various models tracking market cycles across different time units (e.g. Daily, Weekly, Monthly). The Arrays can help identify potential time periods that are more likely to see market turning points (up or down), as well as potential changes in trends and/or volatility.

**4. The Reversal System**

- a. Our **price-based model**. Reversals indicate potential pressure points (or Reversal Points) in market price which, when crossed or breached on a market close (an Elected Reversal) manifests into potential market entry and exit points to consider. We recommend to **align Reversals with Forecast Arrays to further strengthen your research**, identifying potential convergence of time and price.

There are two versions of the Socrates Platform:

1. Standard – this is available online for any individual to sign up on their own
2. Institutional – as of this publication, this version is only offered privately to select institutions and organizations. It is not available for online sign up, and subscriptions require a license agreement.

**For this User Manual, we will focus on the Standard version of the Socrates Platform for individuals.**

Upon the release of the new Standard version of the Socrates Platform in January, 2019, there will be three membership options to choose from:

<b>Basic Membership</b>	<p>Designed for general investors looking to better understand market direction over long-term periods (Monthly or longer).</p> <ul style="list-style-type: none"> <li>- Access to our Global Market Watch across all available Covered Markets (Monthly / Quarterly / Yearly)</li> <li>- Includes 25 Summary Market Subscriptions (pre-defined list)</li> <li>- Ability to purchase Summary Analysis text on any other Covered Market (via either a Summary Market Subscription, or Summary Snapshot Report)</li> <li>- Access select Private Blog posts</li> <li>- Capital Flow Map</li> <li>- Customizable Watchlist</li> <li>- And more</li> </ul>
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<b>Plus Membership</b>	<p>Designed for experienced investors looking for more detailed insights as they build their strategy, but still typically focus on longer term opportunities.</p> <ul style="list-style-type: none"> <li>- Expanded access to our Global Market Watch across all Covered Markets (Weekly / Monthly / Quarterly / Yearly)</li> <li>- Expands the number of included market subscriptions to 55 total (pre-defined list of 50 Summary Market Subscriptions + 5 Detailed Market Subscriptions)</li> <li>- Ability to purchase either our Summary Analysis or Detailed Analysis on any other Covered Market (vis Market Subscriptions or Snapshot Reports)</li> </ul>
<b>Pro Membership</b>	<p>Designed for experienced professionals. Provides the most comprehensive analysis available on the system.</p> <ul style="list-style-type: none"> <li>- Full access to our Global Market Watch across all Covered Markets (Daily / Weekly / Monthly / Quarterly / Yearly)</li> <li>- Expands the number of included market subscriptions 116 total <ul style="list-style-type: none"> <li>o 100 Summary Market Subscriptions (pre-defined)</li> <li>o 15 Detailed Market Subscriptions (pre-defined)</li> <li>o 1 (member selected) Premium Market Subscription, which gives access to our Premium Analysis text (most comprehensive a.i.-generated examination of market price, time, trend and risk considerations), plus access to our Premium Market Tools: <ul style="list-style-type: none"> <li>▪ Consolidated view of data and various indicators</li> <li>▪ Pre-configured and manual technical analysis chart</li> <li>▪ Full Forecast Array graph and articulation (D/W/M)</li> <li>▪ Full chart and list of current Reversals (D/W/M)</li> <li>▪ Quick compare option to another Covered Market (<i>requires Premium Market Subscription for both</i>)</li> </ul> </li> </ul> </li> <li>- Unlimited ability to purchase either Summary Analysis, Detailed Analysis or Premium Analysis on any other Covered Market</li> </ul>

**Important to note that Socrates is:**

- *Not a “stock picking” service*
- *Not an online brokerage or bank*
- *Not an online trading system*
- *Not a fundamental analysis system*

**Disclaimer:** As with any market research system, the benefits any given user may derive will depend upon his or her understanding and application of the information. This point cannot be over-emphasized: using Socrates (just like any other system) without fully understanding it is not likely to result in a positive financial outcome, and in fact may result in significant financial losses. We highly recommend spending the time to understand the models and research available through the Socrates Platform before applying any information to any investment strategies – this User Manual is one way to help you better understand the Socrates Platform. Please consider all market conditions and your situation specifically before making any financial investment or trade, and always use various sources of information for your research and to inform your investment and trading strategies. Keep in mind, trying to “time the market” for perfect investment or trade time and price is near impossible on a consistent basis, but conducting market research is still valuable. Finally, we highly recommend you work with a financial advisor with proven track record of success to evaluate, recommend, prepare and execute any and all financial investment or trade that are appropriate for

your individual situation. We are not a financial advisory or management firm – the examples and information in this document are for informational and educational purposes only.

This User Manual is divided into the following sections:

1. **Introduction:** This section helps you understand the proprietary models available through the Socrates Platform – the Global Market Watch (GMW); the Reversal System; the Forecast Arrays; Indicating Ranges and Technical Analysis.
2. **How to Consider Using Information in Socrates:** This section shows you how to consider using the information available in the Socrates Platform as a tool to inform your investment or trading strategies.
3. **Discipline** This section expands on the obvious, but important point that all financial investments and trades involve risk, and it is important to conduct your research, use various sources of information, keep track of your history (failure and success), and to work with financial advisors to help manage your individual situation and risk / reward calculation appropriately.

## Section 1: Introduction

This section offers an understanding of the following: -

- Terminology
- Global Market Watch (GMW)
- Technical Indicators
- Indicating Ranges
- Forecast (Timing) Arrays
- Reversal System

### Terminology

Socrates uses terminology which is generally used in the investment industry, but some may be a bit more unique to our site. Our most up-to-date glossary can be found at <https://www.ask-socrates.com/glossary>.

<u>Term</u>	<u>Description</u>
<u>Forecast (Timing) Array:</u>	One of the three core models available in the Socrates Platform – time-based model analysis, as further explained with Timing Array section. Note that both the Yearly and Quarterly time levels are dynamic! They provide an effective Yearly and Quarterly level EVERY DAY!
<u>Bar:</u>	Because the term 'Bar' is used in two ways in this document, please be certain that you keep in mind whether Price bars or Array bars are being referred to in each circumstance: <ul style="list-style-type: none"> <li>• "Bar," when used among traders, most typically refers to the Price bar, which is the visual representation of Price movement of an instrument on its price chart.</li> <li>• 'Bar', as used within Socrates, more commonly refers to the bars on the Array which represent the number of cycles converging within the given time frame.</li> </ul>
<u>Global Market Watch (GMW):</u>	One of the three core models available in the Socrates Platform – pattern-recognition model providing a quick scan of global trends

	across all Covered Markets, as further explained in the GMW section below.
<u>Knee Jerk (high or low):</u>	A 1 time-unit event. This event will not continue.
<u>Panic Cycle:</u>	Part of our Arrays, this represents either a large move in price or an “outside reversal” in price (not to be confused with a “Reversal” as it is defined in the Socrates Platform). This is further explained in the section on Forecast Arrays
<u>Phase Transition:</u>	The break-out of a coiling pattern (consolidation pattern) which leads to a sustained move in the direction of the break-out.
<u>Reversal:</u>	One of the core models available in the Socrates Platform – price-based model generating points which, when crossed, can signal a change in trend (similar to support and resistance concept). The term “Reversal” as defined here and within the Socrates Platform is completely unrelated to the terms ‘outside reversal’ and ‘reversal in price’. Reversals are further explained in the Reversal System section below.
<u>Reaction (high or low):</u>	A 3 (or more) time-unit event, but it does not penetrate the previous high or low.
<u>Spike (high or low):</u>	A quick thrust that may be 3 actual time-units within 4 or 5, and creates a v-shaped event followed by a quick Reversal in price.
<u>Sling-shot move:</u>	A fake move down, taking out the previous low, followed by a blow-off parabolic move up, taking out the previous high.
<u>Target Date:</u>	Same as Turning Point and further explained in the section on Forecast Arrays
<u>Temp (high or low):</u>	A brief trend, greater than 3 time-units.
<u>Time Frame / Time Level:</u>	Socrates divides its analysis into 5-time frames, Daily, Weekly, Monthly, Quarterly and Yearly.
<u>Time Unit:</u>	A time-unit is reference to the time frame being considered: days, weeks, months, quarters, or years. For example, if GMW observes a knee-jerk reaction (which is a 1 time-unit event) in the weekly time frame, it is projecting a 1-week event (a 1 time-unit event). If it projects a knee-jerk reaction in the monthly time frame, then it is projecting a 1-month event (a 1 time-unit event), and so on.
<u>Turning Point:</u>	Same as Target Date and further explained in the section on Forecast Arrays

## Global Market Watch (GMW) – Pattern Recognition

Market	Close (as of 11/08/2018)	Change (vs prior close)	GMW Daily Trend	GMW Weekly Trend	GMW Monthly Trend	GMW Quarterly Trend	GMW Yearly Trend
☆ Argentina - Merval Buenos Aires Index (*MERV)	31,404.69	431.14 (1.39%)	New Pattern Forming	Weakening	New Pattern Forming	CAUTION ADVISED	Still BULLISH
☆ Asia - S&P Asia 50 \$ Index	4,369.56	11.47 (0.26%)	Still BULLISH	Turning Back UP	Turning Back UP	New Pattern Forming	POSSIBLE DECLINE
☆ Australia - All Ordinaries Index (*AORD)	5,982.00	23.30 (0.39%)	Temp High	Moving Higher	Temp Low in Place Holding For Now	Knee Jerk Reaction Low	Retesting Major High
☆ Australia - FTSE All-Share Index (*DJAU)	4,877.70	47.60 (0.99%)	Forming High	New Pattern Forming	Turning Back UP	Consolidating	Still Making New Record Highs
☆ Australia - S&P / ASX 300 Index	5,852.43	22.63 (0.39%)	Still BULLISH	Moving Higher	Temp Low in Place Holding For Now	Moving Lower	Retesting Major High
☆ Australia - S&P / ASX 50 Index	5,778.20	18.60 (0.32%)	Temp High	Reaction High	Holding For Now	Moving Lower	Reaction High

Global Market Watch (GMW) is a pattern recognition system which is based upon machine learning. One of the core models available in the Socrates Platform with the objective to provide a quick overview of global trends and highlight areas to research further. It monitors each market, recognizes patterns and can identify potential market behaviour in the future for each key time frame. Reminder, Basic Members have access to Monthly, Quarterly, Yearly GMW across all Covered Markets; Plus Members gain access to Weekly GMW; while Pro Members get the full GMW – Daily, Weekly, Monthly, Quarterly, Yearly).

As the GMW monitors all Covered Markets, it assigns each new pattern it identifies a unique number, and looks to see if/where/how often that pattern may repeat. As of early 2017, it had identified thousands of different patterns and continues to do so.



The purpose of Global Market Watch is to reveal market price movement around the globe.

Keep in mind that the GMW is dynamic, updating each day. This is important to remember as this implies that mid-week, for example, the caption / comment may read as if the week had closed that day. But because the price action of the Covered Market may change as the week progresses, so may the caption / comment. Be very mindful of this as you follow GMW.

### GMW Captions / Comments:

For each Covered Market, the GMW provides a caption / comment for each time frame, indicating the most notable event that either has occurred, is underway, or is may be likely to occur in the future.

- If a notable event has occurred, the caption might indicate '\_\_\_\_\_ in place' or some other comment which indicates that the event has already occurred and completed.
- If a notable event is underway, GMW will show a caption referencing that it is underway, such as 'Consolidating', 'Getting topy', 'Holding support', 'Phase transition in motion', and so on.
- If a notable event is forthcoming, GMW will use language to express that: 'About to breakout', 'Caution:



- risk of decline', 'Preparing to crash', and so on.
- When GMW uses captions, which do not include a reference to time, it should be interpreted that the event may be underway. Examples include 'Breakout to upside', 'Crash mode' 'Important low', 'Knee-jerk reaction high', 'Short covering', and so on - none of which imply a reference to time.
- 'Caution' - Implies of an unidentified pattern

Also important – the variation of text style applied to the GMW captions / comments have a purpose:

- When a GMW caption / comment appears in ALL CAPITALIZATION, it should be interpreted that this may be a stronger event than when the same caption appears in lower case.
- When a caption appears in **bold**, it should be interpreted that this may be a more important event than when the same caption appears without bold font.

So, CAPITALIZED COMMENT vs. lower-case comment sets apart the potential degree or magnitude of the potential event GMW is identifying, whereas **bold** vs non-bold font sets apart the potential importance of an event the GMW is identifying. For example, a caption would appear in **bold lower case** if the instrument was to have an event which is of typical magnitude (lower case), but which is of greater importance than average event GMW identifies (bold). A caption would appear in NON-BOLD CAPITALIZATION if the instrument was to have an event which is of greater magnitude than typical (upper case), but is of typical importance (non-bold).

### GMW Colors:

Color	Item	Meaning
Green	Open	The current Open is higher than the previous Open.
Red	Open	The current Open is lower than the previous Open.
Green	Open	The current Open is higher than the previous Open and the Open is higher than the previous High.
Red	Open	The current Open is lower than the previous Open and the Open is lower than the previous Low.
Light Blue	High	The current High is lower than the previous High.
Green	High	The current High is higher than the previous High.
Light Blue	Low	The current Low is higher than the previous Low.
Red	Low	The current Low is lower than the previous Low.
Yellow	High & Low	The current High is higher than the previous High and the current Low is lower than the previous Low.
Green	Close	The current Close is higher than the previous Close.
Red	Close	The current Close is lower than the previous Close.
Red	Close	The current Close is lower than the previous Close and the Close is below the Open.
Green	Close	The current Close is higher than the previous Close and the Close is above the Open.
Red	Comments	There are one or two bearish indicators.
Red	Comments	Three or more indicators are predicating a bearish trend.
Green	Comments	There are one or two bullish indicators.
Green	Comments	Three or more indicators are predicating a bullish trend.
Yellow	Comments	The model is predicating a high or low maybe forming.
Light Blue	Comments	The model is predicating an important event may occur.
Light Blue	Comments	The indicators are predicting a neutral trend.

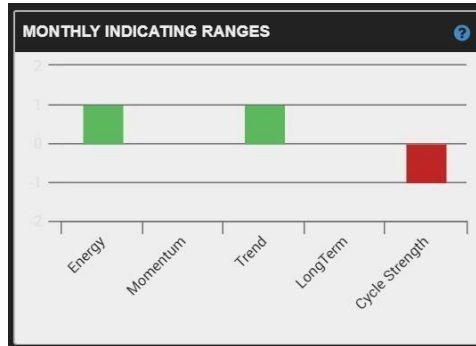
When monitoring the GMW, it is important to take note of both color and comment for a given time period – these are designed to easily identify market behaviour the GMW may be picking up. Colors of most importance are light blue and yellow.

- Light blue boxes indicate the potential for an impending sharp move. When the blue boxes have captions / comments suggesting larger one-directional moves, these are worthy of further consideration. Other blue boxes are important as well, but the ones indicating "crash," "breakout," "waterfall," "phase transition," "breaking through resistance," or the like tend to give better trading opportunities.
- Yellow boxes indicate potential highs and lows, and hence potential market Turning Points (see Forecast Arrays). When yellow boxes have captions / comments indicating that a Turning Point is likely, they are

particularly meaningful. While yellow boxes with other captions have significance, the captions "Turning Point", "Temp High", "Important Low" or "Topping Out" or the like, are more significant based on the patterns GMW is picking up on.

### Indicating Ranges (available in the Pro Membership)

Socrates provides a BULLISH, NEUTRAL or BEARISH signal for immediate (short-term), intermediate, and long-term trends on all time frames we cover (Daily / Weekly / Monthly / Quarterly / Yearly).



This example above shows the monthly indicating ranges, where 1 is BULLISH, 2 are NEUTRAL, 1 is BEARISH with the energy model being BULLISH.

<b>Short Term Basis</b>	Immediate Trend ..... Neutral Short-Term Momentum... Neutral Short-Term Trend ..... BULLISH
<b>Intermediate Term Basis</b>	Intermediate Momentum BULLISH Intermediate Trend ..... BULLISH
<b>Long Term Basis</b>	Long-Term Trend ..... BULLISH Cyclical Strength..... BULLISH Broader Trend ..... BULLISH Long-Term Cyclical Trend Neutral

## Technical Indicators (available in the Pro Membership)

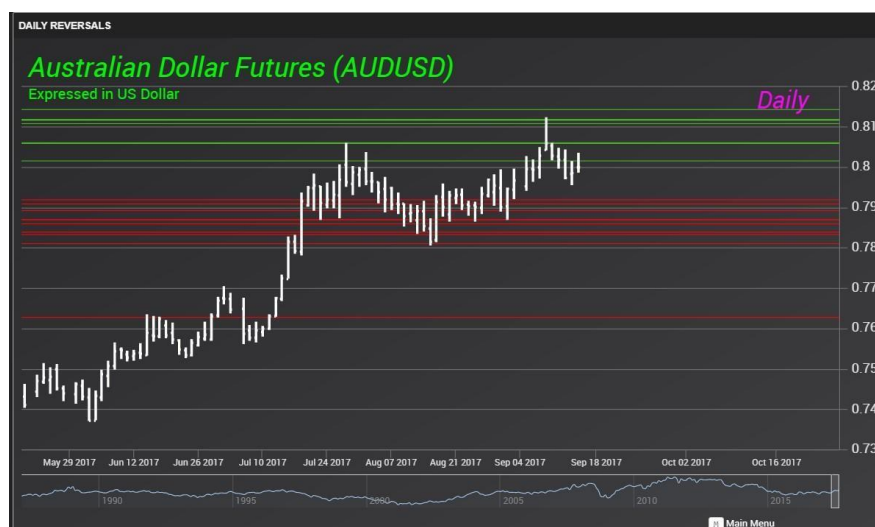


Socrates presents several technical indicators and interprets them along with potentially relevant Reversals and Arrays as part of certain Text Analysis.

Technical indicators that Socrates uses:

<b>Price Data</b>	Price action is the movement of a security's price. Price action is encompassed in technical and chart pattern analysis, which attempt to find order in the sometimes seemingly random movement of price. Swings (high and low), tests of resistance and consolidation are some examples of price action.
<b>Moving Averages (MA)</b>	A moving average (MA) is an arithmetic moving average calculated by adding the closing price of the security for a number of time periods and then dividing this total by the number of time periods.
<b>Pivots</b>	As a technical indicator, the pivot price is similar to a resistance or support level. If the price is exceeded, a breakout is expected to occur.
<b>Stochastics</b>	The stochastic oscillator is a momentum indicator comparing the closing price of a security to the range of its prices over a certain period of time. <ul style="list-style-type: none"> <li>• S1 – 13 periods</li> <li>• S2 – 3 periods</li> <li>• S3 – the MA of S1 and S2</li> </ul>
<b>Centre Point Studies</b>	Midpoint between high and low.
<b>Envelope</b>	Projected possible daily price range. Top meaning the top of the expected of trading range, naturally the bottom refers to the bottom of the expected trading range.
<b>Indicating Ranges</b>	Unique to Socrates, these non-linear indicators project Positive / Neutral or Negative trends. <ul style="list-style-type: none"> <li>• Momentum Indicators – identify short-term ability for a quick price move.</li> <li>• Trend Indicators – identify short-term or immediate trend at hand.</li> <li>• Cyclical Strength – identifies major moves which exceed 15%.</li> <li>• Long term trend – a shift on this indicator implies a sustained change.</li> </ul>
<b>Energy Studies</b>	Measures the energy within a market.

## The Reversal System – Price Pressure Points (available in Pro Membership)



The Reversal system was born through the theory that specific pressure points (the Reversal points) exist within price movement. If enough pressure builds in either direction, there will eventually be a point which, if exceeded or penetrated, signals a change in trend (similar to support or resistance concept). Reversal points are generated each time a market produces a new isolated high or low. These Reversal points, if breached above or below on a closing basis (a Reversal being “Elected”, or an “Elected Reversal”) could signal a potential change in trend, thus a potential market entry or exit point. The Reversal System is one of the core models available in the Socrates Platform.

### Understanding Reversal Points

***While Reversals are generated each time a market produces a new isolated high or low on an intraday basis, they can only be Elected on a closing basis***

Reversals are classified into four main categories:

- Major Reversals – generated from highest highs or lowest lows within a given time series.
- Intermediate Reversals – generated from a high or low that appears within a long-term trend.
- Minor Reversals – generated from a reaction high or low that appears within a short-term trend.
- Immediate Reversals – very short-term trend.

The Major and Intermediate Reversals bear more prominence than the Minor and Immediate. Therefore, be mindful of this when analysing Reversals.

### Reversals that are generated from highs or lows and identified as “Bullish” or “Bearish”:

- Bearish Reversals – generated from a high. If the market should close below the Reversal Point, then the uptrend may reverse into a bearish or declining trend.
- Bullish Reversals – generated from a low. If the market should close above the Reversal Point, then the downtrend may reverse into a bullish or increasing trend.
- **VERY IMPORTANT**: A Reversal cannot be Elected if the market closes precisely on it.
- In the case of a Bullish Reversal, a successful election requires the market close above the Reversal.
- In the case of a Bearish Reversal, an election requires that the closing be below the Reversal

When a market is very bearish, it can generate a bearish Reversal that is higher than the peak of a reaction rally and elect it simultaneously with being generated. This takes place normally with the broader long-term Reversals. It is an indication that it is very bearish.

The degree of a market move is classified by the speed at which the Reversal Points are Elected. The momentum of a move will be strong if all of the daily and weekly Reversals, as well as at least one monthly Reversal, is generated from a major high or low within three months. Historically, the longer it takes to elect a Reversal, the lower the degree of volatility thereafter. The Reversal System works best under extreme volatility — the greater the market panic, the higher the potential accuracy of the model.



**Election of all four Reversals:** Election of all four Reversals from an event is particularly important. For example, the 1989 Bubble top in the Japanese Nikkei 225 stock index Elected all four weekly bearish Reversals in 11 weeks from the high. Once the last one was Elected, the market collapsed. The famous high in 1929 of the U.S. Dow Jones Industrials stock market Elected all four weekly bearish Reversals in just 9 weeks from the high. The crash in the Euro from the high made the week of July 14, /2008 saw all four weekly bearish Reversals Elected in 7 weeks from the high. The shorter the time in which all Reversals are Elected, the greater the potential market move.

## Types of Reversals

Reversals are defined as four separate types:

- Single Reversal Point – generated from a single high or low
- Double Reversal Points – generated twice by the same high or low
- Triple Reversal Points – generated three times by the same high or low
- Quadruple Reversal Points – generated four times by the same high or low

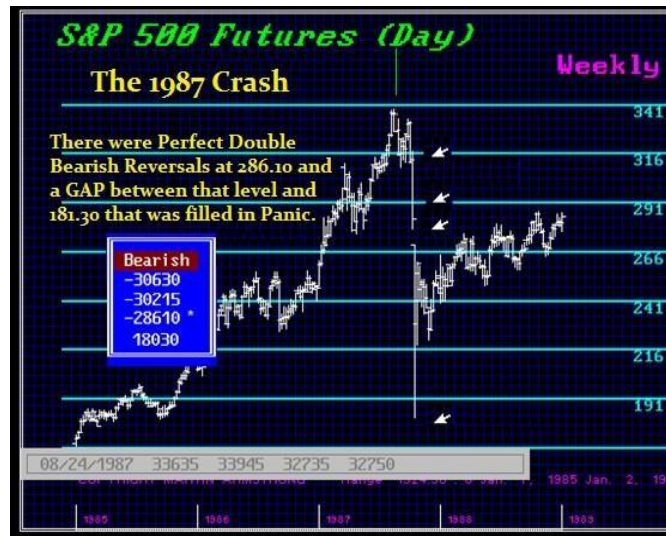
**Election of Double/Triple or Quadruple Reversals occur, it signals a potentially abrupt change in trend**

Historically, we've observed that Double Reversal Points occur a few times during a calendar year on a daily level, and once every two or three years on a weekly level. At major highs and lows, it is not uncommon to generate a Double Reversal on a monthly or weekly price level.

Triple Reversal Points are extremely rare and have only occurred twice by our record: once in gold in 1976, and once in the U.S. Treasury Bond futures in 1989.

A Quadruple Reversal Point has only been Elected once in history by our record: the 1929 U.S. Stock Market.

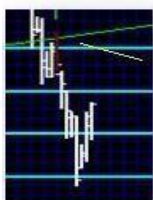




- **Trade-worthiness of Double, Triple, and Major Reversals:** These types of Reversals tend to present the best trading opportunities because of their infrequency and significance. When they appear, it is likely significant and warrants attention, offering a potentially rare opportunity and risk. This does not exclude minor Reversals from being used to invest or trade. However, the Double, Triple, and Major Reversals lend greater significance and hence a greater likelihood of an opportunity, especially for those who are well versed in the system. Be mindful, however, that in any given market, these are rare events and may not unfold on the weekly level for several years.
- **Density of Reversals:** Reversals tend to appear in groups or clusters, such that they are densely populated within a narrow price range. Each one is generated independently, but because they are close in proximity, they tend to act more substantively than a single Reversal alone. This is because price will tend to treat clusters or groups of Reversals with more respect than it will treat a single Reversal. An analogy is that one straw (one Reversal) is weaker and more easily broken than a group of straws (group of Reversals), which carry more strength. Conversely, if price moves through an entire cluster or group of Reversals, it will tend to stay on the opposite side of those Reversals (resistance becomes support and support becomes resistance) more so than it would if it were to move through a single Reversal.

It is at the Monthly time level where actual long-term trends tend to change direction from bull to bear, or vice versa. These Reversals, as one would expect, are best suited for portfolio management and position trading.

### The 1% Rule



**Often when a Reversal is elected but substantially BELOW the number or ABOVE it, the market will not follow through but will move back to retest the Reversal BEFORE resuming the indicated trend.**

When a Reversal is Elected by a market close greater than 1.0% away from the actual number, the market will retrace the Reversal Point to that price level. The greater the percentage move away from the Reversal the greater the time-period to retest. If multiple Reversals are Elected at the same time, it will revert to the last Elected Reversal. Once a Reversal has been executed, its validity as a potential buy or sell signal then disappears.

**Example:** Theoretical Instrument B has been in a bearish trend, and its nearest Weekly Bearish Reversal is 80.77. It closed the week at 78.66, it therefore Elected that Reversal. However, it closed 2.11 below the Reversal of 80.77, and this represents a 2.6% move beyond the Reversal. Therefore, it is likely that Theoretical Instrument B will return to test the 80.77 area before testing the next Bearish Reversal.

### The Third and Fourth Reversal

Using the Reversal System to ascertain potential changes in trend requires focusing on Monthly time level exclusively. The Daily and Weekly levels are the noise when it comes to identifying potential change in trend – and where many lose money trading because a correction may appear to be a change in trend but it will suck them into a false move and the reverse again. Only at the Monthly level can we determine the true character of a market, be it bearish or bullish.

On our model, we can draw lines in the sand that, if crossed, translates to a likely change in trend. This line is identified by all **FOUR** Monthly Bearish or Bullish Reversals being Elected by a market. Typically, first two Reversals are Elected, and the third is held. Electing three Reversals is a strong correction that causes many to assume the trend has changed, when according to our models it has not.

For example, all **FOUR** Monthly Bullish Reversals were elected in the Dow on the close of September 2012. There was one-month follow-through, a pull-back to retest the Reversal, then it simply took off.





Another example is when Gold pushed through the first **THREE** Reversals yet stopped before the **FOURTH** both on the upside and downside. From the major high, it elected the first **THREE** Monthly Bearish Reversals, but not the **FOURTH** at \$903. From the 2015 low, Gold rallied and again moved through the first **THREE** Monthly Bullish Reversals stopping at the **FOURTH**.



The major **TREND** is determined **ONLY** at the Monthly Level. Electing all **FOUR** Monthly Reversals to change a trend from bullish to bearish or bearish to bullish is by no means an easy accomplishment though. Don't get fooled by short-term moves on the Daily and Weekly level - so many people immediately call for a change in trend based upon just a few days of price action, and this can very well be a trap.



## The standard Socrates Platform provides Reversals on monthly, weekly and daily time levels

In each case, the Reversals created from the longer-term time level bear more relevance than the shorter-term timeframe. For example: A monthly Reversal is more important than weekly or daily. The life cycle of a number is not subjected to a definitive duration, nor does it appear to be an empirical frequency.

### Example:

Let's say Theoretical Instrument A has been in an uptrend, and its nearest Weekly Bullish Reversal is 101.

- If it closes at the end of the weekly time unit at 101.1, then the Weekly Bullish Reversal has been Elected.
- If, however, it closes at the end of the week at 101, then the Weekly Bullish Reversal has not been Elected, because it has matched but not exceeded the Reversal number.
- Now, let's turn back the clock a day and see what it did on Thursday: If it closed on Thursday at 102, but then dropped on Friday to close at or below 101, then the Weekly Bullish Reversal has not been Elected because election of a Weekly Reversal requires closure to exceed the Reversal upon the weekly close (not a Thursday close, unless Thursday was the last trading day of that week). In other words, crossing a Reversal prior to the close of the timeframe in question does not constitute election of that Reversal.
- Now, let us assume that the Monthly Bullish Reversal is at 99 and that the month will end the following Tuesday (four days later): If Theoretical Instrument A closes on Friday at 101.1, but then falls back to close at 98 on the following Tuesday (End of Month, or EOM), then the Weekly Bullish Reversal has been Elected (101.1 is higher than 101), but the Monthly Bullish Reversal has not been Elected (98, the EOM close, did not exceed 99, the Monthly Bullish Reversal). This particular scenario is not uncommon and often projects a brief rally (the shorter timeframe - weekly - did elect a Bullish Reversal) followed by a consolidation or downturn in price (because the longer timeframe - monthly - did not elect the Monthly Bullish Reversal and in fact closed below it). Your ability to follow the interplay of Elected and non-Elected Reversals in this manner, on all time levels, will help you understand future potential price movement. These interplays are the very things that you can see when you follow the Reversals, and they are also identified by the Socrates artificial intelligence engine which generates the various forms of text analysis on each Covered Market.
- Bearish Reversals work the same as Bullish Reversals, just in the opposite direction.

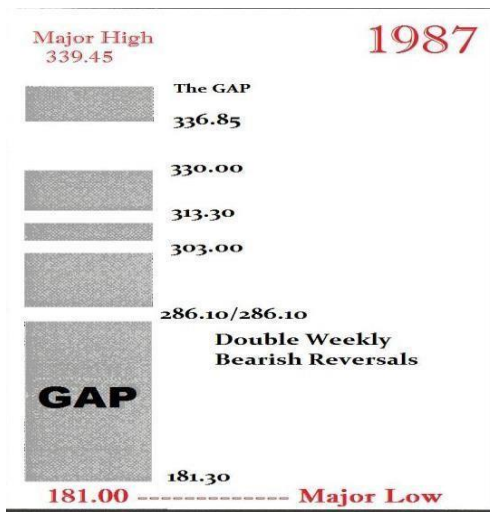
Price (EOD)	Friday 29 <sup>th</sup> (End of Week)		Monday 30 <sup>th</sup>		Tuesday 31 <sup>st</sup> (End of Month)	
	Weekly Elected?	Monthly Elected?	Weekly Elected?	Monthly Elected?	Weekly Elected?	Monthly Elected?
102	Yes	No	No	No	No	Yes
101- WR	No	No	No	No	No	Yes
100	No	No	No	No	No	Yes
99 – MR	No	No	No	No	No	No
98	No	No	No	No	No	No

### Closing back below an Elected Bullish Reversal (or above the Elected Bearish Reversal):

If a financial instrument elects a Reversal and later closes on the pre-election side of that Reversal, that is not in and of itself an indication that the election of the Reversal has failed. This is because Reversals work in one direction only. An Elected Bullish Reversal may act as support, but it does not become a Bearish Reversal. So, even though the Elected Reversal remains relevant for a possible re-test or back-test (as noted above), the recently Elected Reversal should not be used as a stop order (see *Reversal Points and Stop Orders* below).

**Example:** let's say a few weeks after Theoretical Instrument B Elected the Weekly Bearish Reversal of 80.77 it made a weekly close at 81, which is obviously above 80.77. This closing price above the recently Elected Bearish Reversal is not, in and of itself, an indication that the trade has failed (assuming, a short position had been entered upon election of the Bearish Reversal).

## Reversal Gaps



### A Reversal Gap is the void between two Reversal Points

Whenever large gaps form between Reversal Points, sharp swings become possible as the market moves from one side of the gap to the other; this leads to panic.

When Reversals are evenly dispersed, there are more support and resistance levels to penetrate. This requires more energy within the system to create what we consider a relative market panic situation.

**Example:** let's say Theoretical Instrument C's nearest Weekly Bullish Reversal is 50 and the next Weekly Bullish Reversal is 51, then the gap is 1 point (or 2% in this case), which is a small gap. However, if the next Reversal is 60, then the gap is 10 points (or 20%), obviously a much larger gap and potentially a

more favourable trade opportunity.

The significance of these gaps lies in the fact that once a Reversal is Elected, the financial instrument has a tendency to test the next Reversal. It may or may not elect that next Reversal, but has a tendency to approach it. Hence, when the gap between two subsequent Reversals is large, the entry of a market position upon election of the first Reversal presents a potentially more favourable risk-reward scenario than when the gap is small.

The strangest outcome to keep in mind with the Reversal System is that it tends to work best under extreme volatility; the greater the panic the system picks up on in a given financial instrument, the greater the chance of the accuracy of the related Reversal points. This of course means that some of the best opportunities require experience, extensive understanding and research, along with a proper mix of patience and conviction with proper risk controls in place. It's typically best to avoid short-term (daily) Reversals, and those generated from narrow, congested price ranges which produce minor, temporary high's and low's – rather, focus on the intermediate and major Reversals.

## Reversal Points and Stop Orders

Put simply, stop orders (or stop-loss orders) on an investment or trade sets an instruction in the trading system you use to sell a security or financial instrument if it hits a certain price point. Generally speaking, utilizing stop orders on a market position is a way of protecting yourself against market moves in a direction, or at a speed you did not foresee (which happens to everyone, no matter how much research and how many different systems you have to devise your strategy – no one, and no investment or trade is perfect, and many will not yield the financial results you had originally intended). Thus, when considering Reversals as part of your investment or trading strategy, it is generally advisable to utilize a stop orders. In such case, we typically recommend looking at the closest opposite Reversal *in the same time frame you used to enter a market position (e.g. weekly or monthly) as a price point in which to set a stop order*. So, if you entered a long (bullish) trade following the election of a Weekly Bullish Reversal, you could set a stop order at a price point based on the closest Weekly Bearish Reversal. Similarly, if you entered a short (bearish) trade following election of a Weekly Bearish Reversal, the price point for your stop order would be determined by the closest Weekly Bullish Reversal. In other words, Reversals in the opposite direction of the one you used to set your investment or trade (in the same timeframe; weekly, monthly, etc) are good reference points to determine a stop order price point to minimize your risk if the market goes against you: Bullish Reversals would be considered to determine a stop order on a short trade; Bearish Reversals would be considered to determine a stop order on a long trade.

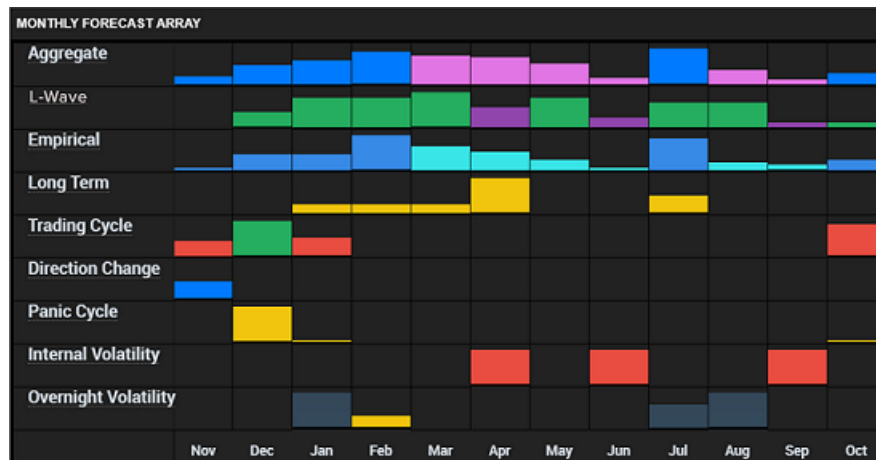
**Example:** If you entered a long (bullish) position in Theoretical Instrument B at 78.85 upon its election of the Weekly Bullish Reversal (of 78.66), then you would set your stop at the nearest *Bearish Reversal*. If the nearest Bearish Reversal is at 76.50, then the stop you put in place would not exit the trade unless and until Theoretical Instrument B *closed the week below 76.50*. Again, it the nearest Weekly Bearish Reversal, not the recently Elected Weekly Bullish Reversal, which should be considered when determining the stop order.

### **It is helpful to review past Elected Reversals to understand the markets current trend**

Example of a potentially scenario:

- There has been election of a Major Weekly Bullish Reversal; and
- There is a significant gap in price before the next Weekly Bullish Reversal.
- In this case, a long trade could be entered upon election of the Major Weekly Bullish Reversal with a target price (MIT) of the next subsequent Weekly Bullish Reversal for trade exit. A Sell Stop could be placed upon weekly close below the nearest Weekly Bearish Reversal. (As noted, the stop is NOT related to the recently Elected Weekly Bullish Reversal). The risk-reward for this trade would be calculated based on the entry price, target price, and stop price – always determine if the risk-reward is justifiable for your situation. The weekly Array will point to the time it will take for the move to potentially unfold, as the move is most likely to complete with the next Turning Point on the Weekly Array. If the price reaches technical resistance as the next Turning Point arrives in time, but price has not yet reached the next Bullish Reversal, you would exit the position and take profit because its time had come.

## Forecast (Timing) Arrays – Time Unit Cycles (available in the Pro Membership)



The Forecast Arrays provides a graphical representation of several independent proprietary time-based models designed to identify potential changes in market trends, turning points and volatility along different time periods (daily, weekly, monthly). The Forecast Arrays are sometimes referred to as Timing Arrays – or just the Arrays, and is one of the core models available in the Socrates Platform.

Each row in the Array table reflects an output of proprietary models – some have over 70 actual separate models behind the scenes.

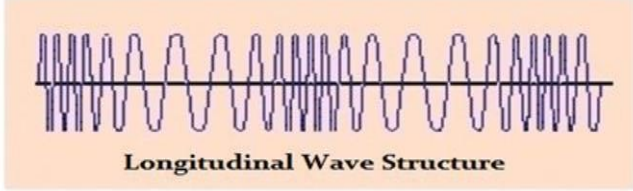
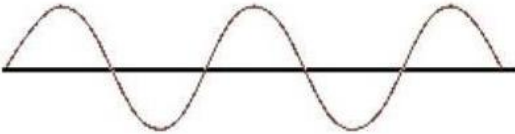
Each column reflects a time unit within the time period you are researching (daily, weekly, monthly). The size of a bar in each column and row increases based on the strength of the cycles behind the scenes identifying a potential turning point in trend, price or volatility on that day, week or month. We highly recommend aligning your research of Arrays (potential timing) with Reversals (potential price points).

Turning points in price (high or low) unfold on both the highest and lowest bars. There is no direct relationship between turning points and highs and lows in the array. A low in price may unfold with the highest plot and a high could form on the lowest plot or vice versa.

Keep in mind, while the Socrates artificial intelligence engine which generates text analysis does interpret the Arrays for purposes of identifying certain Turning Points, Directional Changes, Panic Cycles, and Volatility of note, but this is not a substitute for your own understanding of the Arrays. You must spend the time to study and better understand.

## Explanation of Array Rows

A brief explanation of each model (row):

<p><b>Aggregate</b></p>	<p>Aggregate Model is the combination of all models converged to provide potentially important dates ahead.</p> <ul style="list-style-type: none"> <li>○ The height of the bars vary based on the number of models converging in that unit of time (day, week, month). All the bars are standardized to the largest bar. The color of the bars in the Aggregate row are blue if greater than the previous bar and pink if less than the previous bar.</li> <li>○ Important to understand that Aggregate bar peaks or troughs represent the potential for a market high or a low, but bar peaks aren't necessarily market highs, and bar troughs aren't necessarily market lows.</li> <li>○ Turning Points tend to alternate with Aggregate peaks/troughs, so if one Aggregate peak/trough renders a high, then the following Aggregate peak/trough will tend to render a low, and so on.</li> <li>○ If you see multiple Aggregate peaks over a short period of time, this will tend to indicate that market price may be choppy with frequent alternating highs and lows.</li> <li>○ Troughs in the Aggregate row will appear as the lowest pink bars, and they reflect a lack of synergy in its components.</li> </ul> <p>In summary: the highest bars in the Aggregate row reflect the greatest synergy of the models and indicate when potential Turning Points are most likely to occur.</p> <p><i>Note: Aggregate is sometimes referred to as Composite</i></p>
<p><b>L-Wave</b></p>	<p>The L-Wave Model is longitudinally based which expands and contracts with time. The cyclical frequencies are based upon the computer model's interpretation of the market's cyclical pattern.</p> <div data-bbox="529 1157 1157 1346" style="text-align: center;">  <p><b>Longitudinal Wave Structure</b></p> </div> <p><i>Note: L-Wave is sometimes referred to as Comp II or Composite II</i></p>
<p><b>Empirical</b></p>	<p>The Empirical Timing Models are hard wired insofar as the frequencies are fixed.</p> <div data-bbox="591 1472 1102 1604" style="text-align: center;">  <p><b>Transverse Wave Structure</b></p> </div> <p>This model has been developed through years of research, and are unique to each market.</p>

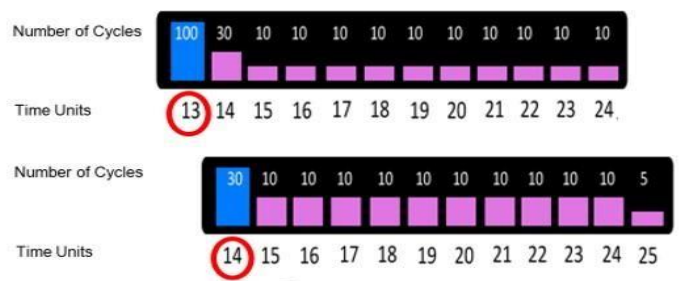
<p><b>Long Term</b></p>	<p>The Long-Term Timing Models are typically three times the duration of the normal Empirical Timing Models, and are similarly unique to each market.</p> <div data-bbox="407 270 1403 621" data-label="Image"> </div>
<p><b>Trading Cycle</b></p>	<p>The Trading Cycle Model offers a union of time and direction by counting time units (e.g. days, weeks, months) until a potential trend correction or convergence is seen.</p> <ul style="list-style-type: none"> <li>• Bull cycle counts are <b>GREEN</b> 7, 11, 14 and 21</li> <li>• Bear cycle counts are <b>RED</b> 2, 3, 5, 6 (panic), 10, 12 (panic), 18</li> <li>• <b>Yellow</b> bars represent a convergence of bull and bear cycles</li> </ul> <p>Green bars indicate a potentially ideal time for highs to unfold, whereas red bars indicate a potentially ideal time for lows to unfold, and yellow bars indicate a potential convergence of at least one bull and bear cycle, translating to the potential for a high and a low to take place during the same time interval. The more cycle counts that converge on a particular day, the larger the bar will be.</p>
<p><b>Directional Change</b></p>	<p>A Directional Change does not need to be an actual high or low in the market. Instead, it is the target where the market begins to make a decisive move. During periods of high volatility, it is likely that the turning point and directional change will converge in the same time period. This normally occurs when a market is making a spike high or low.</p> <p>For example, it is possible to find the intraday high or low take place 1 to 3-time units (days, weeks, months, etc.) preceding the DC target. On a weekly level, the actual high might form on Wednesday while the market moves sideways within a narrow trading band until the DC comes into play, perhaps the following week.</p>
<p><b>Panic Cycle</b></p>	<p>The Panic Cycle Models identify potential timing of abrupt, possibly dramatic price movement. A Panic Cycle differs from a turning point or a directional change insofar as it does not necessarily reflect a high or low, nor is it attempting to reflect the beginning of a change in trend.</p> <p>We've observed that approximately 70% of the time, a Panic Cycle has been an 'outside reversal' (e.g. when price exceeds the previous session high while also penetrating its low), or capitulation, whereas approximately 30% of the time it has been a relatively fast one way move.</p> <p><i>(Note: the use of the term 'reversal' in the phrase 'outside reversal' has absolutely no relation to the term "Reversals" from the proprietary Reversal System available in Socrates – it simply refers to a dramatic price move in which a market price exceeds the previous session high while also penetrating its low).</i></p>

<b>Volatility (Internal and Overnight)</b>	<p>The Volatility Models provides an indication for when a change in the current volatility trend may take place. Volatility is only concerned with percentage movement, rather than the direction or whether it is a high or low. The targets in this model reflect potential turning points, but in volatility terms – thus, the low in volatility might form on the highest bar while the high in volatility could unfold on the lowest bar.</p> <p>Volatility is measured in three primary manners: internal (difference between high/low of trading session), overnight (previous close to open), and general volatility (close to close).</p>
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### Understanding the Arrays

**Twelve-time units:** Monthly, Weekly and Daily Array's generate a forecast for the upcoming 12-time units. There are several things to understand about this:

- First, in the example for the top-down approach, Monthly Arrays could be pointing to a major Turning Point in say, November. However, because Arrays generate only 12-time units of forecast, the weekly Array for November would not be generated until September. So, if you were first identifying this trade in the Spring or Summer, you would have to wait until September to see the weekly Array for November to determine which week had the highest peak.
- The reason that 12-time units are generated is because the Arrays can and do evolve with time as ongoing events shape things. Each Array's accuracy is greatest for the events that are nearest in time, and least for those that are 10-12-time units away. For this reason, you should not rely upon an Array to remain unchanged during the course of the 12-time units that make up the Array.



The model often refers to **Turning Points** as the same as Target Dates. A Turning Point is a point in time in which a market may "turn" up or down. The models and artificial intelligence engine within the Socrates platform projects the most likely Turning Points in all time frames. More specifically, the price bar for the date of a potential Turning Point will be the lowest (or highest) price bar on either a closing or intraday basis.



## Section 2: How to Consider Using Information in Socrates

This section will walk you through the application of the information available in Socrates, including the GMW, to identify potential market opportunities that may have a favourable risk-reward ratio. NOTE: the understanding and application of this section is contingent upon your understanding of the previous sections in this document (which will likely require additional studying beyond this document). And as previously mentioned, we recommend to always use various sources of information for your research and to inform your investment and trading strategies. We also highly recommend you work with a financial advisor with proven track record of success to evaluate, recommend, prepare and execute any and all financial investment or trade that are appropriate for your individual situation. We are not a financial advisory or management firm – the examples and information in this document are for informational and educational purposes only.

### High Level Summary

**Top-down approach:** When devising an investment or trading strategy, always conduct ample research to understand the risk you are taking on. The Socrates Platform offers several unique models designed for members to cross-reference when conducting research. As a best practice, we recommend members analyse Covered Markets in the Socrates Platform using a top-down approach (longer-to-shorter time frames). As an example, we suggest reviewing the Global Market Watch (GMW) pattern recognition on a regular basis – in particular, looking at the Yearly, Quarterly and Monthly trends it is identifying. While not a specific trading or investment recommendation tool, the GMW gives members an opportunity to identify new potential trends forming in a given Covered Market – helping take note of those worthy of conducting further research.

Once an opportunity is identified through the GMW, we then recommend studying the text analysis available for that Covered Market as this will give you contextual insights into market activity and trends our models are picking up on (while Basic Members are limited to Summary Analysis, we recommend Plus Members focus on Detailed Analysis text, and Pro Members focus on Premium Analysis text). For Pro Members, we highly recommend following analysis of GMW and Premium Analysis text by studying the Arrays and Reversals for a given Covered Market. Start by evaluating the longest time frame (\*Monthly) Arrays and Reversals and work your way down to the shorter time frames (Weekly and Daily) to find the most notable potential Turning Points. For example, if you see a Monthly Array where the Aggregate bar stands out, then look at the corresponding Weekly Array to see if a specific week stands out in the same month with the highest Aggregate bar peak. If you have identified a Monthly and Weekly Array that align, then look at the Daily to see if a particular day(s) also show the highest Aggregate bar peak within the same week and month you've identified. (Please note though, we highly recommend focusing primarily on Monthly Array time frames, supported by Weekly Arrays within that same month. While Daily Arrays are informative, we do not recommend individuals try to exactly time an investment or trade to the day). When the GMW and all three Array time trends are lining-up, and you've identified an attractive potential Turning Point and Reversal points supported by the corresponding Premium Analysis text, this represents the highest probability of a potential trading or investment opportunity according to our models. But always manage your risk, and work with financial advisors.

While alignment of all our models across timeframes is most ideal, one does not necessarily need to wait for this complete alignment if enough research supports your strategy (including research you may do with other tools outside of the Socrates Platform), however, for the vast majority of members we recommend avoiding any investment or trading decisions based solely on a single occurrence of an Aggregate peak in a single timeframe (e.g. Weekly) that does not corroborate on any other timeframes or across other models or information (e.g. GMW, Reversals, or Premium Analysis text) - this should be left to professional traders who are well versed and comfortable in the associated risks in such trading, and are very familiar and experienced with the Socrates Platform, along with other research tools, to validate such decisions.

Again, please keep in mind, and this is important – the Daily GMW, Arrays and Reversals can be a highly



volatile, and picking exact time and day is very difficult. This is why we don't make Daily GMW or any Reversals or Arrays available to Basic or Plus Membership. It is really designed for sophisticated, very experienced investors and traders. Making investment or trading decisions that are based solely or primarily on output generated for a Daily timeframe is not recommended. Once again, we recommend most members focus primarily on the Monthly timeframe (from Global Market Watch, to text analysis, Arrays, and Reversals), and use the other timeframes to primarily corroborate potential opportunities, as mentioned earlier.

### **Informing Strategy using a Socrates Basic or Plus Membership**

One of the very unique aspects of the Socrates Platform is the different versions of analysis text generated for each Covered Market. For Basic Members, the Summary Analysis text is intended to provide a general overview of market activity and possible trending of a given Covered Market, however there are key themes within the text analysis you should pay specific attention to. The Summary Analysis text can touch upon recent important highs and lows, the prior trading range, and when the system expects a possible event to occur. From this type of information, along with other research, an experienced investor may be able to determine that a monthly closing at a particular price point would confirm a potentially bullish or bearish trend.

By aligning current and historical price activity of a Covered Market, along with Global Market Watch (GMW) pattern comments and colors, and the Summary Analysis text, you may get a sense of which potential event (bullish or bearish) is more likely to happen. While never advisable to try to pick exact perfect timing and price of a given investment or trade, it is certainly beneficial to conduct ample research to devise an informed strategy appropriate for your situation.

For Plus Members, the Detailed Analysis is a step up by providing more specific price and timing considerations generated from the artificial intelligence engine behind the scenes (referencing select near-term Reversals when/where applicable). This may give you a greater degree of understanding as you devise your potential investment or trade strategy.

In addition to having the ability to obtain Detailed Analysis for a Covered Market, Plus Members also expand their GMW coverage across Weekly, Monthly, Quarterly and Yearly time levels (Basic Members have Monthly, Quarterly and Yearly).

### **Informing Strategy using the Socrates Pro Membership (and the Premium Market Tools)**

The following section will explain the process of potential decision making for Socrates Pro Members, who we advise to still start their research by monitoring the GMW, but also have ability to obtain the most comprehensive analysis text generated by our artificial intelligence engine – the Premium Analysis – as well as the Premium Market Tools (via Premium Market Subscription or a Premium Snapshot Report). This allows Pro Members to review GMW across all time levels, but also research the full list of current Reversals and Arrays of a given Covered Market available via the Socrates Platform.

*\*Note: As of the publishing of this user guide (January 2019), the new release of the standard Socrates platform offers access to Daily, Weekly and Monthly Arrays and Reversals, but does not offer Yearly or Quarterly Arrays or Reversals. While the platform may be updated in the future to accommodate this, for now the platform will focus on Daily through Monthly Arrays and Reversals. But we will continue to address certain Yearly and Quarterly Arrays and Reversals from time-to-time in select text analysis, as well as on select posts to the Socrates Private Blog, and within select Armstrong Economics Special Reports and/or live or recorded conferences. Important to keep in mind, the January 2019 release of the Socrates Platform standard version does offer Pro Members access to Daily, Weekly, Monthly, Quarterly, and Yearly Global Market Watch to help identify long-term patterns that may be forming, as well as the opportunity to research further through Premium Analysis text and Daily, Weekly and Monthly Arrays and Reversals.*

## **Step-by-Step Process to Consider**

This section will outline each of the following steps which are to be conducted in the order outlined:

- Monitor the GMW to identify potential changes in trend

- Review the chart to visualize the potential pattern identified through the GMW
- Review the Premium Analysis text for a deeper dive into market activity and considerations
- Review the Reversals to narrow down potential price levels to consider
- Review the Arrays to narrow down potential timing to consider
- Key points in the Step-by-Step Process

### ***Monitor the GMW to identify potential changes in trend:***

As noted earlier in this document, it is important to take note of both GMW color and caption / comment of for a given time period – keep an eye out for light blue and yellow in the GMW. Re-inserting some of the information from above into this section, given it is important:

- Light blue boxes indicate the potential for an impending sharp move. When the blue boxes have captions / comments suggesting larger one-directional moves, these are worthy of further consideration. Other blue boxes are important as well, but the ones indicating "crash," "breakout," "waterfall," "phase transition," "breaking through resistance," or the like tend to give better trading opportunities.
- Yellow boxes indicate potential highs and lows, and hence potential market Turning Points. When yellow boxes have captions indicating that a Turning Point is likely, they are particularly meaningful. While yellow boxes with other captions have significance, the captions "Turning Point", "Temp High", "Important Low" or "Topping Out" or the like, are more significant based on the patterns GMW is picking up on.

Remember, when the text is **bold** and/or ALL CAPS, as noted earlier in this document, it indicates that the impending move is potentially of greater importance or of greater magnitude, and these tend to indicate potentially better trade set-ups than when the caption is lower case and non-bold.

These blue and yellow boxes are ideal places to begin to look for favourable trade set-ups. Once you identify one or more financial instruments with impending big moves through GMW, you must follow the subsequent steps in this section to determine if there is a higher likelihood of that market move unfolding, and what might be possible market entry and exit points, along with potential timing for the opportunity to unfold. In other words, it is never recommended that you invest or trade based on GMW alone.

Using the example below to demonstrate (London IPE Gas Oil Futures), you can see various light blue and yellow GMW boxes which should be paid attention too. Keep in mind the example below is showing all GMW time levels (Daily, Weekly, Monthly, Quarterly, Yearly) – which requires Pro Membership.

Name	GMW Daily Trend	GMW Weekly Trend	GMW Monthly Trend	GMW Quarterly Trend	GMW Yearly Trend	Current Subscription
London IPE Brent Crude Cash	Getting Topp	Pressing Higher	Pushing Higher	Turning Back UP	Turning Back UP	Premium Analysis
London IPE Brent Crude Futures (B)	Getting Topp	Pressing Higher	Pushing Higher	Turning Back UP	Turning Back UP	Premium Analysis
London IPE Gas Oil Futures (G)	Pressing Higher	Moving Sharply Higher	Rally Underway	Preparing for Breakout	Knee Jerk High	Premium Analysis
NY Crude Oil Futures (CL)	Encountering Resistance	Still BULLISH	Pressing Higher	Turning Back UP	Moving Higher	Premium Analysis
NY Heating Oil Futures (O)	BULLISH	Temp High	Rally Underway	In Breakout Mode	Knee Jerk Reaction High	Premium Analysis
NY Natural Gas Futures (NG)	Turning BACK DOWN	Preparing to Breakout to Upside	Reaction High	TEMP LOW	Trading Sideways	Premium Analysis

From further investigation, we see that the Quarterly GMW color is light blue – with the caption / comment “Preparing for Breakout”, which is supported by Monthly and Weekly GMW comments.

From the colors of the GMW for London IPE Gas Oil Futures we can also determine that the daily, weekly and monthly indicators have 3 or more indicators which are predicting a bullish trend.

	Comments	There are one or two bearish indicators.
	Comments	Three or more indicators are predicating a bearish trend.
	Comments	There are one or two bullish indicators.
	Comments	Three or more indicators are predicating a bullish trend.
	Comments	The model is predicating a high or low maybe forming.
	Comments	The model is predicating an important event may occur.
	Comments	The indicators are predicting a neutral trend.

A historical view of the GMW is also worth considering when researching potential investment or trading decisions as this can give you a better view of the past historical trend behaviour – below example shows the Quarterly GMW trend to also be preparing for a breakout (this is taken from the data table underneath the price chart on the standard overview page for each Covered Market):

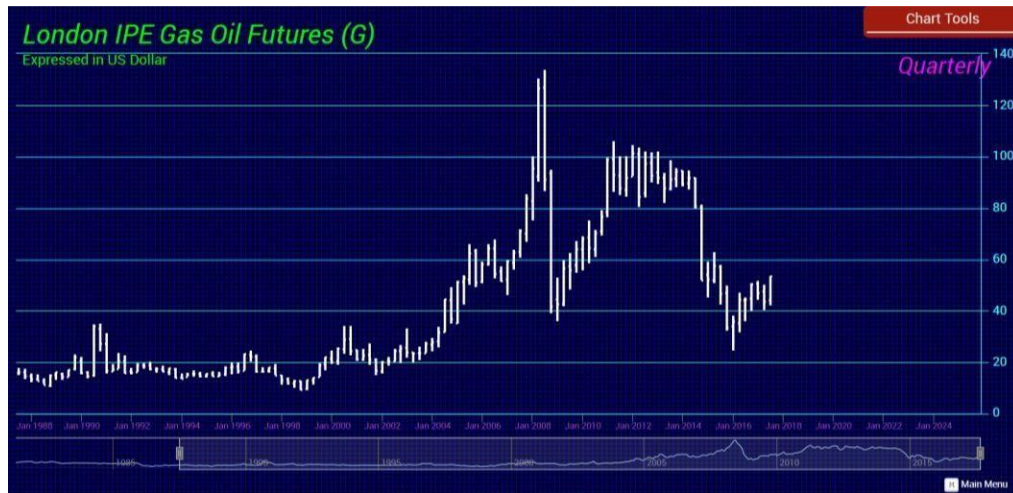
Monthly Market History, Indicators and GMW Trends																	
Date	Open	High	Low	Close	Center	Top Env	MA5	MA7	Bottom Env	Momentum	Trend	Long Term	Cycle Strength	S1	S2	S3	GMW Monthly Trend
01-May-2017	45.05	48.525	41.3	44.575	44.912	55.827	45.38	49.896	34.949	Bearish	Bearish	Bullish	Bearish	54	81	76	Pressing Lower
01-Jun-2017	45.125	45.475	40.25	43.6	42.862	55.66	43.96	49.804	34.844	Bearish	Bearish	Neutral	Bearish	48	72	74	New Pattern Forming
01-Jul-2017	44.2	50.175	42.3	48.75	46.238	56.05	42.7	49.693	35.088	Neutral	Neutral	Bullish	Bearish	80	66	72	Pressing Higher
01-Aug-2017	49.425	51.025	45.925	50.325	48.475	57.242	43.005	49.571	35.834	Bullish	Neutral	Bullish	Bearish	90	64	70	Temp High Still Bullish
01-Sep-2017	51.1	53.55	49.875	53.475	51.712	58.33	43.93	49.925	36.516	Bullish	Bullish	Bullish	Neutral	79	70	70	Rally Underway

Quarterly Market History, Indicators and GMW Trends																	
Date	Open	High	Low	Close	Center	Top Env	MA5	MA7	Bottom Env	Momentum	Trend	Long Term	Cycle Strength	S1	S2	S3	GMW Quarterly Trend
01-Jul-2016	44.225	45.1	36.025	44.775	40.562	77.136	33.43	51.471	48.288	Neutral	Bearish	Bearish	Bearish	27	14	18	HOLDING
01-Oct-2016	45.05	50.95	40.025	50.475	45.488	73.282	32.925	50.289	45.876	Bullish	Neutral	Bearish	Bearish	36	19	18	Pressing Higher
01-Jan-2017	50.725	51.875	44.4	46.95	48.138	68.798	35.335	48.725	43.068	Neutral	Neutral	Bearish	Bearish	32	25	20	Pushing Higher
01-Apr-2017	47.575	50.325	40.25	43.6	45.288	64.454	38.48	47.621	40.35	Neutral	Bullish	Bearish	Bearish	27	29	22	Turning BACK DOWN
01-Jul-2017	44.2	53.55	42.3	53.475	47.925	60.821	40.6	48.136	38.075	Bullish	Bullish	Bearish	Bearish	35	24	32	Preparing for Breakout

**Review the price chart to visualize the potential pattern identified through the GMW:**

For example, the below chart could be used by an experienced investor or trader familiar with technical analysis to visualize the “Preparing for Breakout” pattern identified through the GMW. Note, below is showing the technical chart in the Premium Market Tools (available only to Pro Members).



**Review the text analysis to further research the market activity and considerations:**

The Socrates Platform’s artificial intelligence engine generates three types of text analysis each day across the entire list of Covered Markets in our system. While you can gather some additional insights with Summary Analysis text, and even more through Detailed Analysis text, the Premium Analysis text (available exclusively to Pro Members) is the most comprehensive examination of potential price points and time frames of interest, along with market trend and risk considerations to keep in mind – as well as raising up any other key technical and cyclical insights our artificial intelligence engine may identify at a given point in time. As a reminder, each Pro Member has one Premium Market Subscription included with their membership – with the ability to assign it to any Covered Market at no additional charge. Pro Members can purchase additional recurring Premium Market Subscriptions, or one-time Premium Snapshot Reports, at any time, for any other Covered Market.

**Review the Reversals to narrow down potential price levels to consider:**

After you reviewed the applicable text analysis, the next step is to review the Reversals if you have access to them. In our example, the “Potential Breakout” identified through the Quarterly GMW needs to be confirmed by closing above the Quarterly Bullish Reversals (45.2 and 50.33) highlighted below. Note, below is showing the technical price chart and list of Reversals available in the Premium Market Tools (for Pro Members only).



Direction	Bullish Reversals	Bullish Reversals	Bearish Reversals	Bearish Reversals
Reversal 1	45.20	62.48 (Maj)	31.72	14.90 (Maj)
Reversal 2	50.33	62.83 (Maj)	25.94	14.30 (Maj)
Reversal 3	79.13	92.10 (Maj)	24.52	
Reversal 4	99.63	101.93 (Maj)	19.84	
Reversal 5	100.16		18.57	
Reversal 6			16.74	
Reversal 7			14.90	
Reversal 8			9.07	

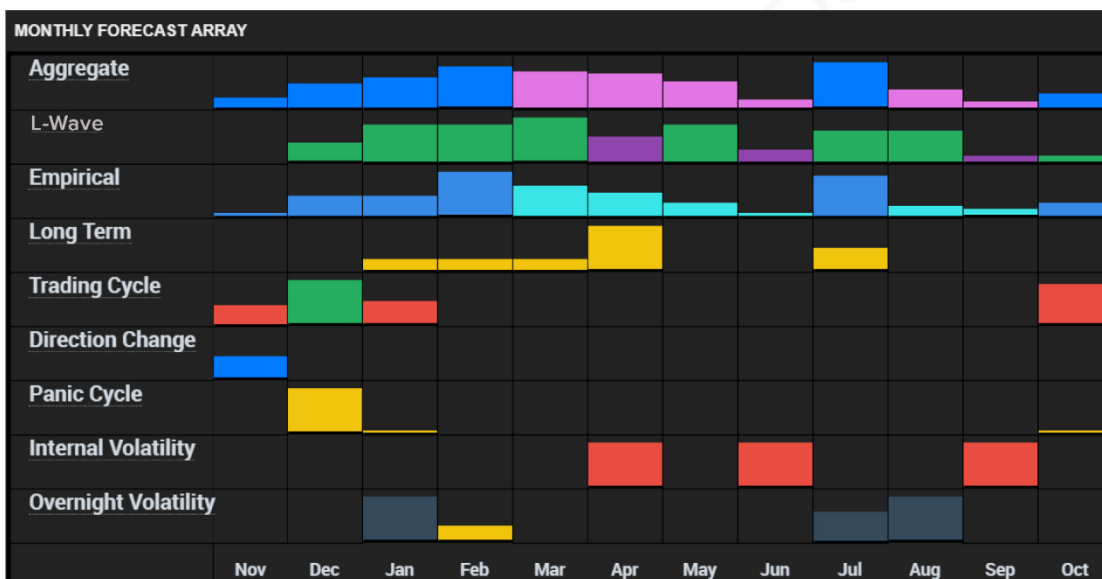


The next Quarterly Reversal objective would be the gap up to 62.48 (next nearest Bullish Reversal) as listed in the table above. Again, always a good idea to conduct detailed research in price history of the Covered Market you are considering making an investment or trade in, along the same time level (in this example, Quarterly).

**Review the Arrays to narrow down potential timing to consider:**

Once you are confident that the potential move in price is likely to unfold based on researching GMW trend patterns, text analysis and Reversals, another key step is to determine potential timing by investigating the next time level down in the Arrays (if you are working on Quarterly GMW pattern and Reversal points, you'd investigate Monthly Arrays within and around that same Quarter):

- When you are honing-in on the potential timing for an upcoming important event (blue/yellow box in GMW), you will be looking the highest Aggregate Bar in the Array's. Then see if other Array rows (such as Panic Cycle, Volatility and/or Directional Change) show activity around that same time period.
- As noted in the case of Turning Points, it is most useful to use the top-down approach (Monthly, down to Weekly), described earlier in this document.



In the above Array graphic, we can see if it was possible to run this long (bullish) position until Q1 – 2018, but you may have wished to liquidate if the price move was excessive ahead of February. Note, the above example is showing the Array graph available in the Premium Market Tools (for Pro Members only).

Investigating this further now to confirm a potentially more narrow entry point range by looking at Monthly Reversals within and around that Quarter.



Direction	Bullish Reversals	Bearish Reversals
Reversal 1	50.50	40.24
Reversal 2	51.88	37.12
Reversal 3	51.93	37.12
Reversal 4	60.26	36.02
Reversal 5	60.36	32.34
Reversal 6	65.30	

MONTHLY ELECTED REVERSALS				
Reversal 1	Reversal 2	Reversal 3	Reversal 4	Reversal 5
49.96	45.53	31.72	35.12	36.04
Bullish	Bullish	Bearish	Bearish	Bearish
Month of Dec 2016	Month of Dec 2016	Month of Jan 2016	Month of Dec 2015	Month of Dec 2015

We have returned to 2017 to highlight how this trade was originally set-up!

From the Monthly Reversals table, a closing above 50.50 would confirm its election. The market is currently in a Monthly bullish trend, having already Elected two previous Monthly Reversals 45.53 and 49.96 both in December 2016.



Next turning points will be October and January as indicated by the Aggregate bar. Other points of interest that should be mentioned from looking at the above Array are an increase in Volatility, Trading Cycles and Directional change all within the final quarter 2017.

### ***Key points in the Step-by-Step Process:***

- The GMW is used to screen financial instruments for potentially market moves that may be coming, but it should not be used as a standalone trading or investment system
- Be sure that the trend, text analysis, Arrays, and Reversals corroborate the anticipated move you are researching. If any one of these fails to corroborate your thesis, look for a different investment or trade.
- Market entry and exit should be informed by an Elected Reversal. For timing purposes, Arrays should be evaluated, and technical analysis should be conducted.
- Market risk, as expected, is determined by your entry point, your target, and your stop order, each of which you can use the Reversals to help define. Remember – the risk is always defined by the opposite Reversal. For example, if you enter a short (bearish) trade, you'd look at the nearest Bullish Reversal in the same time frame to help determine the stop order to minimize your risk of market going in opposite direction than you intend. Similarly, if you enter a long (bullish) trade, you'd look at the nearest Bearish Reversal in the same time frame to help determine the stop order to minimize your risk.
- Arrays tell you the time frame in which the move is likely to begin, unfold, and end. For example, if a Weekly Bearish Reversal is Elected but the Array has a Turning Point the next week, then expect to take profit quickly against the next target objective, be it a technical indicator or a Reversal point. Conversely, if the Aggregate row on the Array shows the next Turning Point is 3 weeks out, you can anticipate more time for the trade or investment to reach its objective (but as previously mentioned, good practice to mitigate risks with stop orders on your positions).
- The GMW, Reversals, and Arrays are three completely independent models, but are used together to help corroborate one another. When all three agree, there exists the greatest likelihood that a well-planned out and executed investment or trade may be favourable.
- Keep in mind, the Reversal System tends to work best under extreme volatility: the greater the perceived panic the system picks up on, the higher the potential accuracy of the related Reversals. Not all Reversals are created equal – you must do your research, look for Reversals at the top and bottom of larger price gaps, and corroborate as much as possible across the different points of information (GMW, text analysis, Arrays, additional technical analysis, other third-party tools, etc), and consider all market conditions.
- Of course, there is never a guarantee that any trade or investment will work, and financial losses are a risk (and reality in many cases). Again, we recommend to always use various sources of information for your research and to inform your investment and trading strategies. We also highly recommend you work with a financial advisor with proven track record of success to evaluate, recommend, prepare and execute any and all financial investment or trade that are appropriate for your individual situation. We are not a financial advisory or management firm – the examples and information in this document are for informational and educational purposes only.





A Reversal cannot be Elected by being crossed intraday - they can only be Elected at the close of that time-period (e.g. Daily, Weekly, Monthly) by closing above bullish Reversals or closing below bearish Reversals. Closing exactly on the reversal level, does not constitute an election of the Reversal. Please see the Reversal System section above for more information.

**REVERSALS:** Are all Reversals created equal?

NO. The Reversal System tends to work best under extreme volatility: the greater the perceived panic the system picks up on, the higher the potential accuracy of the related Reversals. Not all Reversals are created equal – you must do your research, look for Reversals at the top and bottom of larger price gaps, and corroborate as much as possible across the different points of information (GMW, text analysis, Arrays, additional technical analysis, other third-party tools, etc), and consider all market conditions.

## Section 3: Discipline

It is incumbent upon all investors and traders to develop and adhere to a healthy risk management approach. Doing so reduces the risk of major financial losses or draw-downs on your account, and will help you survive during the inevitable periods of loss which all investors and traders sustain at some point or another. Also, keep in mind when people are bored or lose patience and try to force an investment or trade in a market at a time or price that isn't based on appropriate research, the risk of financial loss may increase. To that end, our recommendations in using Socrates are as follows:

1. **Familiarize yourself with the system;** Prior to using the Socrates Platform to help inform any investing or trading strategy, ensure your knowledge of how to use the information within Socrates is sufficient. Use the Socrates Platform to confirm your thinking or in addition to your own research.
2. **We recommend you** work with a financial advisor with proven track record of success to evaluate, recommend, prepare and execute any and all financial investment or trade that are appropriate for your individual situation.
3. **Assess your results regularly, and honestly.** Each and every time after entering a financial position (investment or trade), never lose sight of where and why the investment or trade was made, and always remember what the initial objective was. Regardless of your research or changing market dynamics, stay disciplined – if an investment or trade is going against your strategy, know when to cut your losses. If it is going well, know when to take your profits. Don't be careless or make excuses for the sake of greed or pride. Let your research and data drive your decision making, not emotion.
4. **It is recommended to monitor your progress regularly.** Be disciplined and be aware of your previous investing or trading style, on both winning and losing transactions, so you can be better prepared on future transactions.
5. **Use multiple sources of information to devise your strategy.** While we believe the Socrates Platform is quite powerful and useful, it is always good practice to have more than one source of information to research.

Reminder, we are not a financial advisory or management firm – the examples and information in this document are for informational and educational purposes only.

### A Note from the Founder Martin Armstrong:

- **Trading or investing any market** be it cash, futures, securities, or simply making a business decision based upon economic data, **is one of the most difficult tests of human endurance that exists**. Far too many people take such decisions lightly and neglect to respect that it requires not merely a talent, but extensive research and **an extremely high level of self-discipline**.

- Economics itself is a social science because it is the study of human interaction. All markets from commodities to securities form a component of that economy because they too represent human interaction. Gold, for example would never move in price if it were not for human interaction. Each commodity moves in price as buyers and sellers thrash back and forth. The market becomes a battle ground for emotional stress. How much can one endure before he or she jumps in or throws in the towel. The market place is a proving ground for self-discipline. It demands not merely concentration, but the conviction and confidence in knowing when you are right but most importantly when you are wrong.
- With enough data and engineering, it is possible to develop a trading system that will be relatively accurate (but never 100%). It is another thing altogether to be in a position to emotionally trade a system blocking out the very component that makes any market move. That component is the human element of emotion. To become a successful investor or trader, one must master their emotions, being able to handle what comes their way and stand by the fundamental knowledge that he/she's own worst enemy will be themselves.
- **Trading or investment decisions are the ultimate test of human endurance - they try men's souls on a battle field of emotions and confidence.** Unfortunately, most traders lack the confidence that it takes, along with self-control, to truly become a successful and professional trader. Confidence to most is merely something they once had before a losing trade or investment. And when the next opportunity arrives, their confidence levels are far too low to permit a successful trade or investment.
- The proprietary models used by the Socrates Platform have been modelled precisely around the human element. It has been designed anticipating that self-control can be the worst enemy in becoming a successful trader or investor. It assumes that confidence is the key factor.
- We hope that you will participate and ask as many questions necessary to clarify any confusion for yourself. Everyone is in the same boat or we would not be here to start with. Knowledge is the key to success and the learning experience will be greatly enhanced by the full participation and sharing of your personal trading experiences. **No one is perfect because we are all human. It is the human element that makes markets move and thus we are all market movers in our own way.**
- See next page for important disclaimers.

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