

tradesignal[®]
enterprise edition

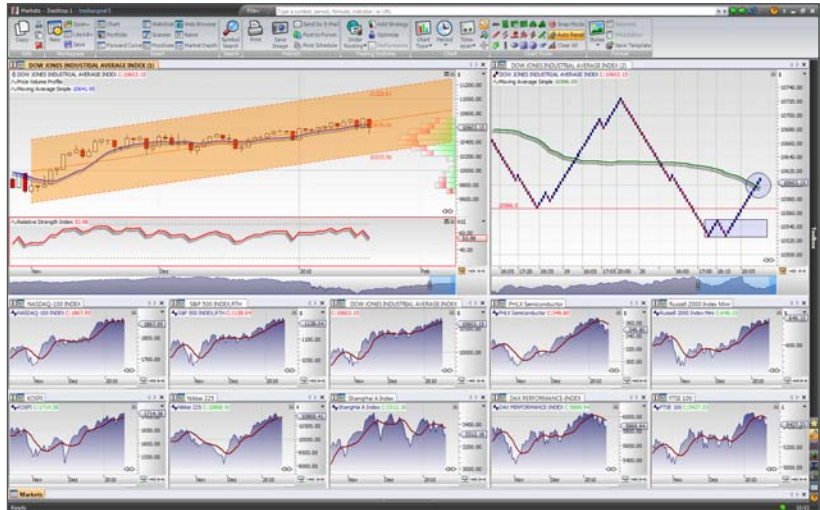
Tradesignal Enterprise Edition – Bringing maximum advantage to professional trading

Successful trading in fast-moving markets requires sophisticated software which provides both rich functionality and easy-to-tailor flexibility while guaranteeing reliable performance. It is for this reason that professional traders in equity, currency, futures and energy markets around the world rely on Tradesignal Enterprise Edition, the leading-edge platform for technical chart analysis.

Tradesignal Enterprise Edition offers 18 chart styles, more than 170 indicators and a wide range of charting tools to help you quickly and easily recognise emerging trends, resistance levels and reversals, and to factor these into your trading strategy. Thanks to its automatic alert feature, which reliably provides you with up-to-the-minute analyses of current market situations using visual and acoustic alarms as well as e-mail alerts, you won't miss any more trading opportunities.

Rules-based trading: The key to success in fast-moving markets

You want to follow a rigorous rules-based trading strategy, avoiding all the classic pitfalls of human emotions? Tradesignal Enterprise Edition can help you to better implement and successfully apply your strategy. Tradesignal Enterprise Edition is comprised of more than 500 trading system modules from which you can easily put together your own proprietary trading system using its easy Assistant function, without the need for complicated computer programming. In just seconds you can define position limits, determine signals to open and close out trading positions,



and configure settings for your money and risk management. You can enjoy even more flexibility and functionality by using the Equilla formula language. Because all the functions, indicators and trading systems within Tradesignal are themselves written in Equilla, this easy-to-learn language provides you with the power to change and adapt individual components to meet your specialised needs. With the Equilla Editor and extensive online help, you have the resources at your fingertips to make maximum use of this powerful tool.

Optimise your trading results

Tradesignal Enterprise Edition also offers full capabilities for backtesting against historical market data, optimisation of trading strategies, and any other kind of freely definable portfolio trading strategy. A wide range of optimisation tools with full graphic support is available at all times to further boost your trading performance. The rich graphic functions

"For our technical analysis we have relied on Tradesignal for years. Tradesignal is an established product and an international standard."

Jörg Scherer,
HSBC Trinkaus & Burkhardt



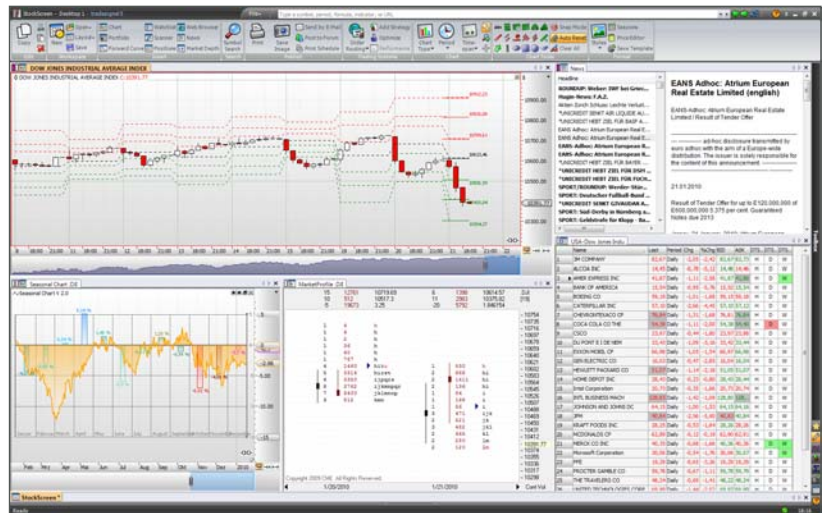
will give you a clear, easy-to-understand snapshot of your trading results, whether at the overall portfolio level or down to individual trades.

Take full advantage of the best financial and energy market data

A reliable and comprehensive source of live market data is absolutely essential, whether you are an equities trader, a bond trader or an energy trader. Tradesignal Enterprise Edition provides for seamless integration of best-in-class data feeds from Bloomberg, Thomson Reuters, TeleTrader, TradeSpark, Morningstar and Trayport. With this extraordinarily broad range of financial and energy market data, you'll have immediate access to all of the information needed to support your trading strategy.

Tradesignal Enterprise Edition - a perfect fit for your traders, precisely tailored to their needs

One size does not fit all. What you specifically need from your technical chart analysis software depends on the markets in which you trade and the data sources which you use. Tradesignal Enterprise Edition enables you to precisely tailor individual trading strategies for every market, giving you the flexibility to gain maximum advantage. Are you a futures trader? You can, for example, create continuous contracts according to your own individual criteria with just a few mouse clicks by selecting the contract, roll-over method and adjustment type. Within seconds, you can construct complex spreads with automatic unit and currency conversions, individualising the design and colour of your charts to make them stand out. You will quickly discover that Tradesignal Enterprise Edition includes the perfect tool set



and ideal features for every professional trader. With our unique Market Scanner feature, we can help you seek out the most profitable trading opportunities from across thousands of market prices, automatically scrutinising these for trading patterns, gaps and other characteristics. By using our Watchlist function, with its full capabilities to display your preferred indicators and trading system parameters, you can keep a real-time watch on the most important markets and the most lucrative trading opportunities.

Tradesignal Enterprise Edition will convince you

Like so many other traders, you will quickly come to appreciate not only the functionality and flexibility of Tradesignal but also its clearly structured, easy-to-learn user interface. With its intuitive controls and graphics, it will save you valuable time day in and day out. Our committed support team stands ready to provide you with instant expert help, sharing their experience and tips on how to get the most out of Tradesignal and enabling you to gain competitive advantage in your trading. In short, we make market information available for you to use, so you can concentrate on what you do best - make profits!

Interested? Then give us a test drive!
Contact us, and we will be happy to provide your company with a four-week free trial.



Tradesignal for energy traders

Because information is power

Technical chart analysis is a powerful tool when applied to energy market data. With Tradesignal Enterprise Edition, professional energy traders like you can enjoy all the advantages of a state-of-the-art chart analysis platform which empowers you with instant expert evaluation of energy data. Energy traders face uniquely high demands and expectations with regard to their own performance, particularly when considering the amount and complexity of market and fundamental data they must consider. Rigorous rules-based trading provides them with the maximum degree of security, even in stressful and fast-moving situations. With Tradesignal Enterprise Edition, you can easily build your own rules-based trading strategies into your trading systems, gaining maximum value from market and fundamental energy data as well as your own internal trading data, supported with easy-to-grasp graphics. In addition to its support for trading systems, Tradesignal Enterprise Edition provides a wide range of powerful functionality for backtesting against historical data and optimising your trading strategy. Many of Europe's largest energy corporations have already come to rely on the rich functionality and easy-to-tailor flexibility of Tradesignal Enterprise Edition.



extensive library of indicators and trading systems available for your immediate use. As just a simple example, you can instantly and automatically convert units (e.g. gallons to litres) or currencies (Natural Gas to Euro). The software provides a number of features specially conceived for energy traders, including:

Forward curves

In addition to showing multiple forward curves in a single chart, spreads between forward curves can also be dynamically graphed - in real time. Forward curves based on historical data can also be readily pulled up and analysed.

Spreads

What would energy trading be without spread calculations? Tradesignal Enterprise Edition comes with many of the spread calculations most used by energy traders already defined and ready for use, including crack spreads, crush spreads, spark spreads and clean spark spreads.

Charting what you want, when you want it, how you want it

For more than ten years, professional traders in a wide range of financial and energy markets around the world have been associating the Tradesignal name with high-performance technical chart analysis solutions. Tradesignal Enterprise Edition, our top-of-the-line platform, offers not only a wide selection of chart styles and charting tools but also makes an

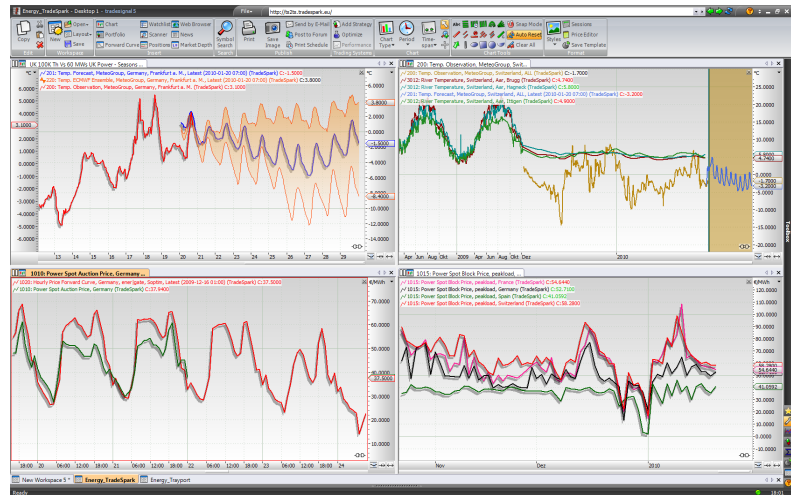
Data providers and interfaces

- Thomson Reuters
- Bloomberg
- Trayport
- RORC
- TradeSpark
- FameConnect (FAME by SunGard)
- TMDS OpenConnect SDK
- TXML API
- CSV data files



Combining symbols

When you combine data from two different sources, it often happens that the data don't quite match, even for the same ticker symbol. This can complicate your analysis. For example, you may want to combine data for certain EEX energy contracts provided by Thomson Reuters with data from your Trayport GlobalVision server (provided by brokers such as GFI, Spectron or Tullet Prebone) for the same contracts into a single chart to analyse these as a combined time series. Tradesignal Enterprise Edition offers the Combine Symbols function for situations exactly like this, creating a synthetic symbol which seamlessly merges contract data from two or more data sources. The Combine Symbols function works not only for historical data but also for real-time trading, providing you with reliable, up-to-the-minute information. Combine Symbols can be easily used for your indicators and trading systems, as well as for backtesting and optimisation of your trading strategies.



User-defined continuous contracts

Individual contracts are inherently limited to a particular term. In order to perform technical analysis and thus to facilitate rules-based trading strategies, you invariably require a far greater base of historical data than is available for the individual contract of interest. With user-defined continuous contracts, you as a Tradesignal user can quickly and easily define and create your own derived contract data. You simply choose a contract and rollover method, then select the needed data adjustments. With just a few mouse clicks, you have precisely the contract you require.

Extensive real-time energy data

In order to perform meaningful analysis of energy data and thus to have an edge in your trading, you need to have a

broad selection of high-quality, real-time data. Tradesignal Enterprise Edition provides seamless integration of energy and financial market data from Trayport / RORC (with e.g. Bid/Ask-Data) as well as from Thomson Reuters, Bloomberg and other leading data providers. In addition, you will have access to the extensive, powerful data warehouse from TradeSpark, designed specially for the needs of energy traders or with FameConnect of FAME by SunGard. Tradesignal Enterprise Edition automatically generates catalogues of all available data series from Trayport, sorted by open contracts, rolling (near, +1, +2, etc.) and expired contracts. With its reliable server-client infrastructure, Tradesignal will make it easy for your systems administrator to maintain control over tick filters, data collection, data corrections and backups and to connect your own proprietary data with an open API.

Try Tradesignal Enterprise Edition yourself, and experience the difference

Tradesignal Enterprise Edition, long trusted by financial traders, has been successfully extended to energy traders in our home market of Germany and increasingly elsewhere in Europe. We have listed some of our customers who actively use Tradesignal for their energy trading in the following box.

Reference customers in energy trading

- Alpiq AG
- actogas GmbH
- CKW, Centralschweizerische Kraftwerke AG
- Credit Suisse
- EGL, Elektrizitäts - Gesellschaft Laufenburg AG
- E.ON Trading GmbH
- EOS Trading

- EHA Energie-Handels-Gesellschaft mbH & Co. KG
- Energiehandelsgesellschaft West mbH
- Nordostschweizerische Kraftwerke AG
- Pfalzwerke AG
- Trianel European Energy Trading GmbH
- Vattenfall Energy Trading GmbH



Data connectivity

Working with the best

Tradesignal Enterprise Edition makes it easy for you to integrate financial and energy market data from leading data providers throughout the world together with your own internal trading data.

Technical chart analysis and rules-based trading are fundamentally based on the assumption that you have comprehensive access to relevant market data.

Otherwise, you put yourself at a disadvantage to other market participants. Tradesignal Enterprise Edition is a sophisticated add-on application for your trading room which manages historical and real-time data from these many different sources, providing you with unparalleled flexibility to use the widest possible range of available data in your analysis. It also relieves your in-house system resources of this considerable data management burden. Do you also have your own internal data which you use for trading? No problem. Tradesignal Enterprise Edition and the tick server which supports it offer a number of different standard interfaces.



Plug-in data adapters are currently available for:

- Thomson Reuters
- Bloomberg
- Morningstar Real-Time Data
- TeleTrader

Seamless integration of financial data

Do you trade E-mini futures on the CME, or equity baskets on the LSE? Do you need not only high-quality real-time market data but also several decades of intraday historical data to support your trading strategy? Plug-in data adapters are already available to link Tradesignal Enterprise Edition to leading sources of financial market data, and we are constantly improving these and developing new interface adapters, backed by full maintenance and support to ensure that you always have the data you need to have an edge in the markets.

Specialised energy data? We have that, too!

Relevant energy data may range from winter temperatures and weather forecasts all the way to trading in specialised contracts, and these must generally be put together from a number of different data sources. In order to meet the demanding data needs of energy traders, Tradesignal Enterprise Edition offers additional interfaces to the most important sources of energy-related data, including data feeds from Trayport and the extensive data warehouse of TradeSpark, or with FameConnect of FAME by SunGard.

"I worked with several well-known products, but Tradesignal is still the best software I have used for technical analysis."

Ivo Pelzmann,
West LB International S.A.



Specialised energy data is currently available from:

- Trayport
- RORC
- TradeSpark
- FameConnect (FAME by SunGard)
- and more to come

Custom interfaces tailored to your exact needs

Large trading rooms, such as those in major energy corporations, typically collect and use their own internal trading data. Tradesignal Enterprise Edition provides a number of standard interfaces to integrate these internal data sources into your analysis and charting. In this way, you can easily include your own proprietary data to maximize your advantage in the markets.

TXML API

A basic interface to pull data from a data source in XML format. Because of the time delay, this is typically used to query historical data.

TXML Server

This web-based server is particularly suitable for efficiently serving queries to your in-house database. The TXML Server includes a cache memory and can be extended to serve a large number of clients. Like XML API, it is a "pull" interface and is thus not suitable for real-time information.

Standard interfaces:

- TXML API
- TXML Server
- TMDS Open Connect SDK
- CSV
- RSS

TMDS Open Connect SDK

Tradesignal Market Data System (TMDS) is a more complex "push" interface which is also suitable for real-time data. This sophisticated module includes a wide range of interface functionality such that, in addition to transferring and updating both real-time and historical data, it can transfer master data (e.g. general securities or contract data) as well as support searches and symbol lists.



CSV

Historical data stored as CSV files can be easily imported into Tradesignal Enterprise Edition as symbol lists. For example, your in-house data can be used to generate charts which are regularly updated.

RSS

Finally, you can set up RSS news tickers to display your own customised news stream in Tradesignal Enterprise Edition.

Interested? Then give us a test drive!

Contact us, and we will be happy to provide your company with a four-week free trial.

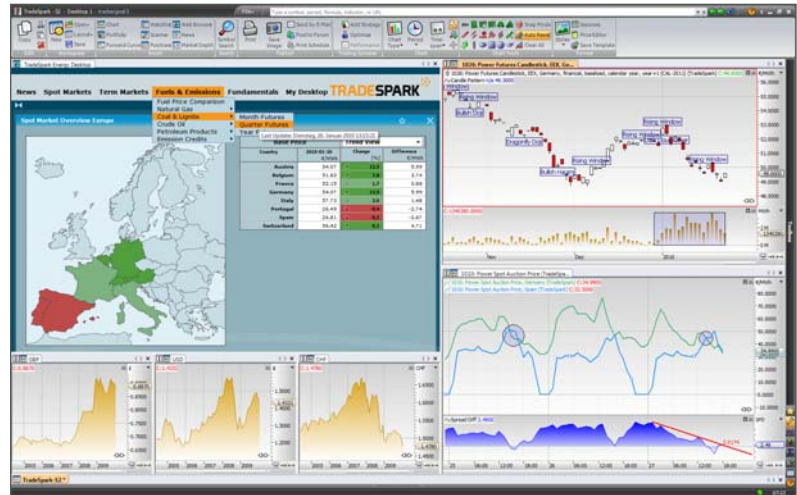


Tradesignal and TradeSpark

Energy data and advanced analysis in perfect symbiosis

Technical chart analysis is a powerful tool when applied to energy market data. With Tradesignal Enterprise Edition, professional energy traders can enjoy all the advantages of a state-of-the-art chart analysis platform which empowers them with instant expert evaluation of energy data.

In order to make it easier for traders to integrate comprehensive energy data into these analysis and charting capabilities, we have introduced the new TS2TS interface, linking the Tradesignal trading analysis platform with TradeSpark, the solution provider for efficient management of energy data. Using this new interconnection, you can seamlessly access a vast range of fundamental energy data along with your own proprietary data from a single central data warehouse, using the sophisticated analysis functions of Tradesignal Enterprise Edition to gain competitive advantage in the market. The market information system from TradeSpark is based on several standard software components which work together to optimise certain important process elements of energy market analysis. These components can be flexibly configured and precisely tailored to individual customer needs. TradeSpark also offers a broad range of predefined interfaces to leading data providers of specialised energy data - for example, in contract trading, energy production and distribution, business news, meteorology and hydrology. The TradeSpark market information system can also be readily adapted to your company data infrastructure, allowing your own internal data to be quickly and easily integrated into a single integrated data warehouse for comprehensive trading analysis and decision support. This provides you with a complete overview at all times, allowing you to optimise your



Complete market and fundamental energy data in a single data warehouse

The data warehouse from TradeSpark provides a single source for all the facts and figures which energy traders need. It includes not only real-time and historical market data from the trading of energy and other commodity contracts but also production and distribution statistics, financial data, news and reports, and weather and hydrology information. Further-more, it can be readily supplemented with your own internal data.

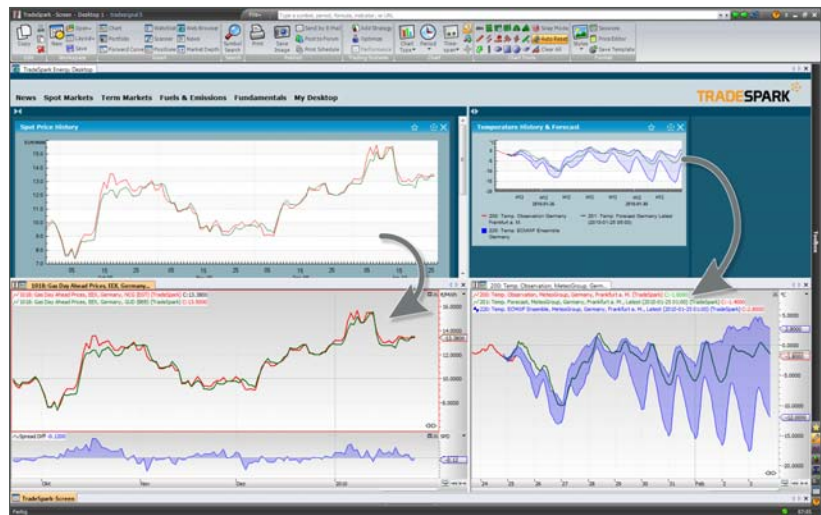
trading strategy and make best use of your information.

Technical analysis is just a click away

With Tradesignal Enterprise Edition and TradeSpark, all of the relevant information which you need for your energy trading is in your own data warehouse. If you want to take



a closer look at a data series - for example, to recognise a pattern in historical prices - you just click on the screen, and the chart is immediately generated in the Tradesignal user interface. Tradesignal Enterprise Edition, our top-of-the-line platform for professional traders, provides 18 different chart styles, more than 170 indicators, and a powerful range of charting tools. On top of this, we offer advanced features and functions to meet the special needs of energy traders, such as automatic calculation of energy spreads. By bringing together the energy-related data management system from TradeSpark with the sophisticated technical analysis and charting capabilities Tradesignal, we now offer energy



traders a uniquely integrated information solution to support their trading decisions.

Your benefits from the combination of TradeSpark data management and Tradesignal Enterprise Edition:

- Fast, easy access to an unparalleled range of high-quality data sources.
- Complete market and fundamental energy data which can be directly applied to advanced technical analysis.
- Powerful, instant expert analysis and forecast capabilities.
- 170 indicators and more than 500 trading system modules available for your immediate use.
- An automatic Market Scanner function which can search across up to 5,000 market prices for trading patterns, gaps or other characteristics.
- Using the Equilla formula language, you have complete flexibility to put your own ideas for trading strategies into action.
- Alternatively, you can quickly configure your own trading system using a wizard-based Assistant feature, without the need for programming knowledge.
- Trading systems and indicators written in EasyLanguage[®] can be directly imported, as well as modified or enhanced.
- An Optimiser function can be used to find the ideal combination of parameters, such as to maximise profit or minimise drawdowns.
- Portfolio trading and backtesting capabilities along with flexible risk management and money management settings help you keep losses to a controlled minimum.

For more information on the market information systems from our partner TradeSpark, please visit www.tradespark.eu



Tradesignal for system traders

Discovering new opportunities in the global markets

With Tradesignal Enterprise Edition, you're just a few mouse clicks away from developing your own rules-based trading system

The human emotions of market participants - greed, fear, and wishful thinking - have long been identified as major drivers of financial market behaviour. Every trader learns from hard experience: Only those who don't allow these emotions to guide their trading decisions are successful over the long term.

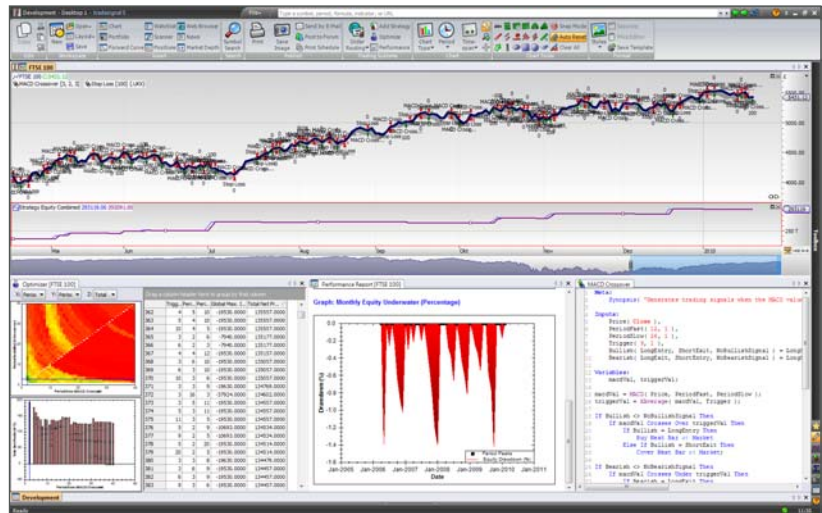
Rules-based trading systems are thus an essential tool for traders, providing not only reliable performance and protection against losses but also peace of mind.

Tradesignal Enterprise Edition, the leading-edge platform for technical chart analysis, provides comprehensive functionality to let you develop your own sophisticated trading systems, to backtest these against historical market data, and to successfully put them into action.

Setting up your own trading system: It's easier than you think

Tradesignal Enterprise Edition includes more than 500 trading system modules which you can use as a basis for your own trading strategy.

Alternatively, you can use the Assistant function to create your own individual trading system. This wizard-type



feature allows you to create, modify and fine tune your trading ideas - quickly, easily, and without the need for any programming knowledge. Using the Assistant, trading rules can be precisely defined on the basis of indicators, chart patterns, or other criteria. You can set up signals to enter or close out positions, with your choice of charting units, weighting factors and calculation periods. Charts can also be customised to suit preferences such as colour and graphical elements.

You can enjoy even more flexibility by using our Equilla formula language, which gives you complete freedom to create more complex trading systems with its broad library of commands. Because all the indicators, trading system modules and other trading-related functions within Tradesignal are themselves written in Equilla, this easy-to-learn language provides you with the power to change and adapt individual components to meet your specialised

"Tradesignal is clearly the S-Class of technical analysis products. The software offers everything that a professional user needs for successful technical analysis."

Erich Florek
Author and Trading Coach



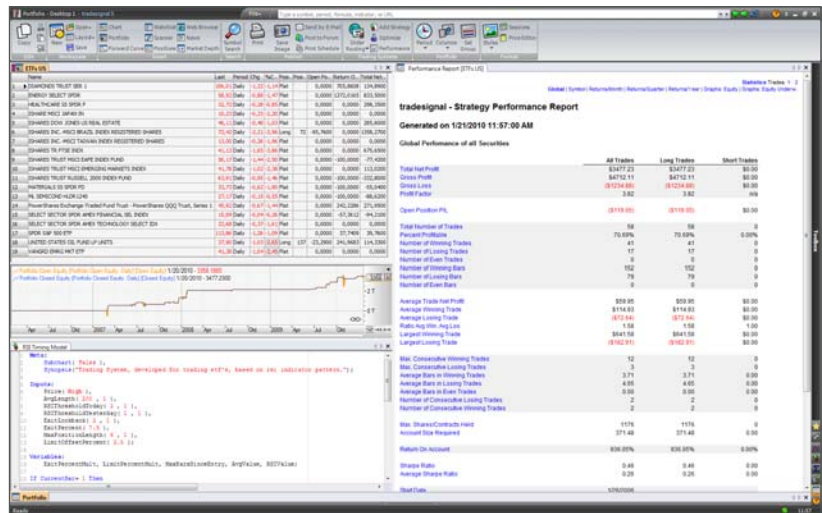
needs. With the Equilla Editor and extensive online help, you have the resources at your fingertips to make maximum use of this powerful tool.

Tradesignal Enterprise Edition is also highly compatible, so trading systems written in EasyLanguage® can be easily imported from other platforms, such as TradeStation®.

Backtesting and optimising your trading system

Before you risk your trading capital in the market, you will undoubtedly want to backtest your new rules-based trading system against historical market data to assess its profitability and reliability in a range of different environments. Our predefined Performance Report brings together all the key statistics to provide an overview assessment of your trading idea, including both tables and easy-to-understand graphics. For example, you can recognise at a glance the number of profitable vs. unprofitable trades, the biggest winners and losers, the maximum drawdown over the period, the equity curve of your trading account, and many other useful metrics.

Using the results of your backtesting, you can then go on to maximise the performance of your trading system using the Optimiser. Once again, a wizard-based Assistant makes it easy, offering you several optimisation methods to choose from, with which you can adjust your trading parameters to your specific objectives. The Optimiser function also allows you to backtest and improve entire portfolios. Last but not certainly not least, Tradesignal Enterprise Edition lets you define precise settings for risk management and money management, so that you make the best possible use of your trading capital. You always have complete control over your stop limits and full information on your starting capital, current capital position, and transaction costs.



Putting your trading system into action

Are you satisfied with the results of your backtesting? Then you're ready to put your trading system to work in the markets.

Tradesignal Enterprise Edition lets you define visual or acoustic alarms so that you never again miss a trading opportunity. With our Position Manager, you have one central information hub which provides you a comprehensive overview of all your positions, both open and closed, as well as outstanding, executed and cancelled orders. You'll be able to watch everything which your trading system does, so you can step in and intervene whenever you need to.

In sum, Tradesignal Enterprise Edition offers you the advanced functionality, the flexibility and the proven reliability which you need for successful system trading. Our committed support team stands ready to provide instant expert help when you need it, along with training programmes and seminars to expand your knowledge. We make rules-based system trading easy so you can concentrate on what you do best - make profits!

Interested? Then give us a test drive!

Contact us, and we will be happy to provide your company with a four-week free trial.



Let the facts speak for themselves!

To provide you with a comprehensive overview, we have put together a list of the most important features of Tradesignal Enterprise Edition:

General

- Operation System Windows
- Product Language German
- Product language English
- Product Language Japanese
- Floating license (Reuters)
- Product Updates free of charge

Add-on Data Feed Connections

- Add-on Data Feed Connection – Thomson Reuters
- Add-on Data Feed Connection – Bloomberg
- Add-on Data Feed Connection – Morningstar/Tenfore
- Add-on Data Feed Connection – TeleTrader
- Add-on Data Feed Connection – Trayport
- Add-On Datenanbindung – RORC
- Add-On Datenanbindung – TradeSpark
- Add-on Data Feed Connection – CSV-Files
- Add-On Connection - FAME (SunGard)
- Open Data API
- Open XML-Data API

Data

- Realtime-Push System
- Long Data History (500,000)
- Save Chartdata as History-File
- History Data as plane List
- Edit historical Data
- Manual Split- or Dataadjustment
- Modifying Session setting for Instruments
- Modifying Holiday settings for Instruments
- Edit Security Properties, like Lotsize, Ticksiz etc.
- Currency Conversion (Reuters, Bloomberg & TeleTrader)
- Unit Conversion (Reuters, Bloomberg TeleTrader & Trayport)
- Userdefined Adjusted Contracts / Futures (Reuters & TeleTrader)
- Composite-Instrument
- Combined Symbol

User Interface

- commandline for quick symbolenty
- Commandline with predefined targets (Chart, Lists, Websites etc)
- Commandline for entering Formulars
- Document Linking for Charts and Lists for quick symbol change
- Document Linking for Charts and Lists for quick period change
- Multiple Workspaces at the same time
- auto layout options for instant layout changes
- Multiple Monitors (10)
- User defined shortcuts for opening Workspaces
- User defined shortcuts controlling the application
- Open multiple workspaces at the same time
- User friendly wizard to create indicator output
- Quick serach for indicators and strategies
- Password protected workspaces
- Password protection to prevent editing workspaces
- Open selected workspaces at application start

Charting

- dynamic usage of date and value axis
- Panoramic' Date Scale Scrollbar
- Zoom Function
- Targetcursor
- Predefined Timespans
- Freedefined Timespans
- linear scale for value axis
- Logarithmic Display for value axis
- save Chart as Template
- Subcharts (11)
- Show Currency in the Chart
- Contract series
- Predefined Periods
- Userdefined Periods
- Tick Bars - Userdefined Tick Bars
- Tick-Volume Bars - Userdefined Tick-Volume Bars
- Tick Charts (11)
- Period Mix in one Chart (Multiple time frame)
- Show Gaps
- Show net and percent change in the chart
- Invert chart view
- Show Spreads as OHLC-Chart
- Scroll or Zoom with mouse wheel



Chart types

- Various Charttypes (19)
- Line Chart
- Stepped Line
- Bar Chart
- Candlestick
- Filled Area
- Linked Forrest
- Histogram
- Symbol Chart
- Candle Volume
- Equi Volume
- Kagi
- Renko
- Three Line Break
- Heikin Ashi
- Point & Figure
- Seasonal
- Market Profile®
- Forward Curves
- Percent Performance Chart

Drawing Tools

- Various Drawing Tools (18)
- Draw Tools into the future
- Extent Line Tools
- Snapmode for Tools
- Trendlinie
- Measurement for Trendlines (Number of Candles, Deviation absolute or percent)
- Trend Channel
- Regression Channel
- Stopline
- Gann Linie
- Fibonacci Retracement
- Fibonacci Timeprojection
- Fibonacci Timezones
- Fibonacci Arcs
- Fibonacci Fans
- Square
- Circle
- Ellipse
- Arc
- Guideline
- Andrews' Pitchfork
- Text
- Arrow

Indicators

- Various Indicators (178)
- Adding Indicators via Onlineservice
- Creating own Indicators
- Indicator calculation for all FIDs
- Indicator on Indicator possible
- Different Charttypes for Indicators
- Paint Bars
- ShowMe Studies
- Automatic Trendlines with Formular language

Strategies

- Various Strategies (545)
- Adding Strategies via Onlineservice
- Creating own Strategies
- Creating Strategies with a wizard (no programming knowledge needed)
- Shipped Stop-Strategies
- Shipped Positionsizeing Strategies
- Easy Risk- and Moneymanagement Settings
- Historic Trades shown in Chart
- Realtime-Live Trades in Chart
- Equity Curve for Open and Closed Equity
- Realtime Equity Calculation
- Multi Instrument Trading out of a single Chart
- Multiple Time Frame Trading
- Multiple Strategies in one Chart
- Portfolio Trading
- Strategies on Indicators
- Strategies on Equity Curve
- Start and Enddate that stop the order generation

Position Manager

Show centralized the current Positions of all Charts in the Workspace

Strategy Performance Report

- Graphic Display for performance
- Graphic Display for Draw down
- Userdefined Statistics for Strategies
- statistical key figures incl. Profit, Drawdowns and profit factor (48)
- Earning per Month, Quarter, Year
- Export Performance Report to CSV-File

Quote List / Watchlist

- Various Instruments in one Quotelist (500)
- Change Period
- mixed Period in one List
- Various own Indicators in Watchlist
- Own Strategies in Watchlist
- Grouping in Watchlist

Scanner/Screener

- Various Instruments in one Scanner
- Change Periode
- Various own Indicators in Scanner
- Own Strategies Scanner
- Userdefined Filter criterias
- Filter wizard
- Show and hide filtered Symbols



Portfolio Trading

- Various Instruments in a Portfolio (500)
- Change Period
- mixed Period in one List
- Various own Indicators in Portfolio
- Various own Strategies in Portfolio
- Combined Open and Closed Equity

Market depth

- Level II
- Level II - Priceladder
- Times and Sales list
- Level II in Chart
- Historical Ask/Bid ratio
- Level II Data Access via Formular language

Alerts

- Alert with acoustically output
- Alert with optically output
- Alerts via Email
- Alerts on tools
- Alerts on Indicators
- Alerts for Trades
- Alert History

News (Tenfore & TeleTrader)

- Newsticker (always the latest News in a window)
- Filterfunction for Keywords
- RSS-Feed Newsreader
- News in the Chart
- Open News directly out of a chart and automatically Newsfilter for the depending Symbol
- News Data access via Formular language

Backtesting / Optimizer

- Brut-Force optimizing (all combinations)
- Genetic optimizing (only the best combinations)
- Walk-Forward optimizing (Brute-Force)
- Walk-Forward optimizing (Genetisch)
- Optimize with In- / Out-Sample
- User defined Optimizer Targets
- Optimize Strategies in Charts
- Optimize Strategies on Symbollists
- Optimizerresults as list
- Optimizerresults as graphic
- Multiprocessor Support

Code Develop

- Formula language for creating own Indicators and Strategies
- Compatible with EasyLanguage[®]
- Syntax Highlighting
- Auto completion and quick select in the Editor
- Undo & Redo in the Editor

Orderrouting

- Orderrouting - Interactive Broker

Full- and halfautomatic Orderrouting [Add-on]

- Manually Order confirmation
- Automatic orderrouting without confirmation
- Account synchronizing when Orderrouting is started
- Synchronizing between Broker and Application
- Automatic Symbollinking
- Orderrouting - Interactive Broker



Interactive Orderrouting [Add-on]

- Manual Buy/Sell Order
- Manual Ordertype change
- Manual setting of Stop- or Limitorders

Symbol lists

- Predefined Symbol lists for different Exchanges
- Create own Symbol lists
- Export Symbol lists as CSV-File
- Export Symbol lists as XML-File
- Printing of complete symbol lists

Instrument Search (Bloomberg, Morningstar & TeleTrader)

- Symbol Type Filter
- Exchange Filter

Integrated Web browser

- Access to Browser Bookmarks (MS Internet Explorer)
- Integrated HTML Editor

Publishing and collaboration

- Printing of Charts and Workspaces
- Printscheduling for Printouts
- Publish Charts or Workspaces into a Forum
- Publish Indicators or Strategies into a Forum
- E-Mail sending with Workspaces
- Save Charts or Workspaces as Graphic
- Copy Charts as List or Graphic into the Clipboard (Reuters, Morningstar, TeleTrader & Trayport)
- Export Charts to CSV-File
- Graphic Exportformat - Bitmap BMP (.bmp)
- Graphic Exportformat - Portable Network Graphics PNG (.png)
- Graphic Exportformat - Graphics Interchange Format GIF (.gif)
- Graphic Exportformat - Joint Photographic Expert Group JPEG (.jpg)
- Graphic Exportformat - Tagged Image File Format TIFF (.tif)
- Graphic Exportformat - Windows Enhanced Metafile EMF (.emf)

APIs

- DLL Interface for Equilla extensions
- JavaScript API

Special features

Drag & Drop symbols to and from Reuters XTra3000 (Reuters)

Support

- Hotline
- E-Mail
- Forum
- Online help
- Educational Films online available

Community

- File exchange for User
- Exchange board for offering Indicators and Strategies

Administration

- Central administration of connection setting
- Central update information for newer product versions



All indicators and trading strategies

List of indicators

Accelerator	High Low Oscillator	Price Volume Profile
Accumulation Distribution Line	Highest High	Prices of Yesterday
Accumulation Distribution Oscillator	Hilbert Channel Breakout	Psychological Line
Accumulation Distribution	Ichimoku Kinko Hyo	Rank Correlation Index
ADX bars	Inversion	Rapid Adaptive Variance
ADX MA	Kairi MA MA	Rate Of Change
Alexander's Filter	Kairi Stockprice MA	Ratio of Strength
Aroon Oscillator	Kairi	Ratiocator
Aroon	Keltner Channel	Relative Momentum Index
Average Balance Volume	Kurtosis	Relative Performance
Average Directional Index	Local Highs & Lows	Relative Strength Index Classic
Average True Range	Logarithm	Relative Strength Index Inv Fisher
Back Color	Lowest Low	Relative Strength Index MA
Balance of Market Power	MACD All	Relative Strength Index
Base Relative	MACD Forest	Relative Strength Levy
Beta	MACD Momentum Oscillator	Relative Vigor Index
Bid Ask Channel	MACD Relative Strength	Seasonal Average Symbol
Bollinger Bands	MACD	Seasonal Average
BRIN	Majority Rule	Spark Spread
Bull and Bear Balance Histogram	Mike Base	Speed
Bull and Bear Power	Mike Medium	Spread Add
Candle Pattern	Mike Strong	Spread Diff MA
Candle Patterns	Mike Weak	Spread Diff
Center of Gravity	Momentum	Spread Mult
Chaikin Oscillator	Money Flow Index	Spread Quot
Chaikin's Volatility	Monthly Highest	Standard Deviation
Chande Momentum Oscillator	Monthly Lowest	Starc Bands
Clean Spark Spread	Moving Average Adaptive	Stochastic Fast
Close Range	Moving Average Double	Stochastic Momentum
Commodity Channel Index	Moving Average Elastic Volume Weighted	Stochastic S&C
Constant	Moving Average Exponential Modified	Stochastic Slow
Coppock	Moving Average Exponential	Stochastics (Price Breakout)
Correlation	Moving Average Fractal Adaptive	Strategy Equity Combined
Crack Spread	Moving Average Gap	Strategy Equity
Crush Spread	Moving Average Index Dynamic	Strategy Market Position
Cup & Handle	Moving Average Median Adaptive Filter	Summation
Cyber Cycle Inv Fisher	Moving Average Modified	Time and Money
Cyber Cycle	Moving Average Monthly	Trend Trigger Factor
Darvas Boxes Modified	Moving Average Simple	TRIX
Dashboard RSI	Moving Average Triangular	True Range specified Volume
Dashboard Trend Strength	Moving Average Triple	Turtle Donuts
Day Range	Moving Average Weighted	Ulcer Index
Depth Volume Profile	Natenberg's Volatility	Ultimate Oscillator
Directional Movement Index MA	Negative Volume Index	Universal Cycle Index
Directional Movement Index	Net % Change	Vertical Horizontal Filter
Directional Movement Oscillator	Net Change	Volatility Historical
Disparity Index	News	Volatility Index
Displacement	Notis %V	Volatility Ratio
DSS Blau	On Balance Volume	Volume Accumulated
DSS Bressert	Open Interest	Volume Flow (Volume)
Dynamic Momentum Index	Opening Gap	Volume Flow IPO
Ease Of Movement	Oscillator	Volume Flow Price Divergence
Ehlers Filter	P&F Support & Resist	Volume Flow
Elder Ray	P&F Trendlines	Volume Market
Envelopes	Parabolic SAR	Volume Price Trend
Fibonacci RSI	Percent Change Index	Volume Ratio
Force Index	Percent Performance	Volume
Forward Curve Label	Pivot Point Analysis	Week Range
Forward Curve	Polarized Fractal Efficiency	Weighted Close
Heikin-Ashi	Price Band Oscillator	Williams %R
High Low Channel	Price Channel	ZigZag



List of trading strategies

- Accelerator - Entry
- Accelerator - Exit
- Account Orders
- AccumDist - Entry
- AccumDist - Exit
- AccumDist Oscillator - Entry
- AccumDist Oscillator - Exit
- Active Orders
- Adaptive MA Cross - Entry
- Adaptive MA Cross - Exit
- Adaptive MA Slope - Entry
- Adaptive MA Slope - Exit
- Adaptive Moving Average Simple
- Alexanders Filter - Entry
- Alexanders Filter - Exit
- Anti-breakout
- Aroon Oscillator - Entry
- Aroon Oscillator - Exit
- Aroon Up Down - Entry
- Aroon Up Down - Exit
- Average Balance Volume - Entry
- Average Balance Volume - Exit
- Average Deviation - Entry
- Average Deviation - Exit
- Average Directional Index - Entry
- Average Directional Index - Exit
- Average Price Breakout - Entry
- Average Price Breakout - Exit
- Average True Range - Entry
- Average True Range - Exit
- Balance of Market Power - Entry
- Balance of Market Power - Exit
- Bollinger Band Breakout
- Bollinger Bands Reversal
- Bollinger Lower Band - Entry
- Bollinger Lower Band - Exit
- Bollinger Upper Band - Entry
- Bollinger Upper Band - Exit
- Breadth Momentum with CCI
- Breadth Momentum
- Breakeven Stop
- Breakout Long
- Breakout Short
- Bull and Bear Balance Histogram - Entry
- Bull and Bear Balance Histogram - Exit
- Bull and Bear Power Cross Over - Entry
- Bull and Bear Power Cross Over - Exit
- Candle Bearish Engulfing - Entry
- Candle Bearish Engulfing - Exit
- Candle Belt Hold Bearish - Entry
- Candle Belt Hold Bearish - Exit
- Candle Belt Hold Bullish - Entry
- Candle Belt Hold Bullish - Exit
- Candle Big Black Beartrend - Entry
- Candle Big Black Beartrend - Exit
- Candle Big Black Candlestick - Entry
- Candle Big Black Candlestick - Exit
- Candle Big White Bulltrend - Entry
- Candle Big White Bulltrend - Exit
- Candle Big White Candlestick - Entry
- Candle Big White Candlestick - Exit
- Candle Bullish Engulfing - Entry
- Candle Bullish Engulfing - Exit
- Candle CounterAttack Bearish - Entry
- Candle CounterAttack Bearish - Exit
- Candle CounterAttack Bullish - Entry
- Candle CounterAttack Bullish - Exit
- Candle Dark Cloud Cover - Entry
- Candle Dark Cloud Cover - Exit
- Candle Deliberation - Entry
- Candle Deliberation - Exit
- Candle Doji - Entry
- Candle Doji - Exit
- Candle DragonFly Doji - Entry
- Candle DragonFly Doji - Exit
- Candle Dumpling Top - Entry
- Candle Dumpling Top - Exit
- Candle Evening Star - Entry
- Candle Evening Star - Exit
- Candle Failed Bearish Engulfing - Entry
- Candle Failed Bearish Engulfing - Exit
- Candle Failed Belt Hold Bearish - Entry
- Candle Failed Belt Hold Bearish - Exit
- Candle Failed Belt Hold Bullish - Entry
- Candle Failed Belt Hold Bullish - Exit
- Candle Failed Bullish Engulfing - Entry
- Candle Failed Bullish Engulfing - Exit
- Candle Failed Dark Cloud Cover - Entry
- Candle Failed Dark Cloud Cover - Exit
- Candle Failed Deliberation - Entry
- Candle Failed Deliberation - Exit
- Candle Failed DragonFly Doji - Entry
- Candle Failed DragonFly Doji - Exit
- Candle Failed GraveStone Doji - Entry
- Candle Failed GraveStone Doji - Exit
- Candle Failed Hammer - Entry
- Candle Failed Hammer - Exit
- Candle Failed Hanging Man - Entry
- Candle Failed Hanging Man - Exit
- Candle Failed Harami Bearish - Entry
- Candle Failed Harami Bearish - Exit
- Candle Failed Harami Bullish - Entry
- Candle Failed Harami Bullish - Exit
- Candle Failed Harami Cross Bearish - Entry
- Candle Failed Harami Cross Bearish - Exit
- Candle Failed Harami Cross Bullish - Entry
- Candle Failed Harami Cross Bullish - Exit
- Candle Failed In Neck - Entry
- Candle Failed In Neck - Exit
- Candle Failed Inverted Hammer - Entry
- Candle Failed Inverted Hammer - Exit
- Candle Failed On Neck - Entry
- Candle Failed On Neck - Exit
- Candle Failed Piercing Line - Entry
- Candle Failed Piercing Line - Exit
- Candle Failed RainDrop - Entry
- Candle Failed RainDrop - Exit
- Candle Failed Shooting Star - Entry
- Candle Failed Shooting Star - Exit
- Candle Failed Star - Entry
- Candle Failed Star - Exit
- Candle Failed Thrusting - Entry
- Candle Failed Thrusting - Exit
- Candle Failed TW Lines Bearish - Entry
- Candle Failed TW Lines Bearish - Exit
- Candle Failed TW Lines Bullish - Entry
- Candle Failed TW Lines Bullish - Exit
- Candle Failed Tweezers Bottom - Entry
- Candle Failed Tweezers Bottom - Exit
- Candle Failed Tweezers Top - Entry
- Candle Failed Tweezers Top - Exit
- Candle Failed Two Little Bullets - Entry
- Candle Failed Two Little Bullets - Exit
- Candle Failed Two Little Spinnings - E
- Candle Failed Two Little Spinnings - X
- Candle Falling Three Methods - Entry
- Candle Falling Three Methods - Exit
- Candle Falling Window - Entry
- Candle Falling Window - Exit
- Candle Falling Window BearTrend - Entry
- Candle Falling Window BearTrend - Exit
- Candle GraveStone Doji - Entry
- Candle GraveStone Doji - Exit
- Candle Hammer - Entry
- Candle Hammer - Exit
- Candle Hanging Man - Entry
- Candle Hanging Man - Exit
- Candle Harami Bearish - Entry
- Candle Harami Bearish - Exit
- Candle Harami Bullish - Entry
- Candle Harami Bullish - Exit
- Candle Harami Cross Bearish - Entry
- Candle Harami Cross Bearish - Exit
- Candle Harami Cross Bullish - Entry
- Candle Harami Cross Bullish - Exit
- Candle In Neck - Entry
- Candle In Neck - Exit
- Candle Inverted Hammer - Entry
- Candle Inverted Hammer - Exit
- Candle Morning Star - Entry
- Candle Morning Star - Exit
- Candle On Neck - Entry
- Candle On Neck - Exit
- Candle Pan Bottom - Entry
- Candle Pan Bottom - Exit
- Candle Patterns
- Candle Piercing Line - Entry
- Candle Piercing Line - Exit
- Candle Pitfall Bearish - Entry
- Candle Pitfall Bearish - Exit
- Candle Pitfall Bullish - Entry
- Candle Pitfall Bullish - Exit
- Candle RainDrop - Entry
- Candle RainDrop - Exit
- Candle Rising Three Methods - Entry
- Candle Rising Three Methods - Exit
- Candle Rising Window - Entry
- Candle Rising Window - Exit
- Candle Rising Window BullTrend - Entry
- Candle Rising Window BullTrend - Exit
- Candle Separating Bearish - Entry
- Candle Separating Bearish - Exit
- Candle Separating Bullish - Entry
- Candle Separating Bullish - Exit



List of trading strategies

Candle Separating Bullish - Exit	DSS Blau - Exit	MACD Crossover
Candle Shooting Star - Entry	DSS Bressert - Entry	MACD Forest - Entry
Candle Shooting Star - Exit	DSS Bressert - Exit	MACD Forest - Exit
Candle Star - Entry	Dynamic Breakout System	MACD Momentum - Entry
Candle Star - Exit	Ease of Movement - Entry	MACD Momentum - Exit
Candle SunRise Bullish - Entry	Ease of Movement - Exit	MEAAF Double Cross Over - Entry
Candle SunRise Bullish - Exit	Ehlers Filter - Entry	MEAAF Double Cross Over - Exit
Candle SunSet Bearish - Entry	Ehlers Filter - Exit	MEAAF Single Slope - Entry
Candle SunSet Bearish - Exit	Elastic MA - Entry	MEAAF Single Slope - Exit
Candle Tasuki Gap Bearish - Entry	Elastic MA - Exit	Momentum Zero Line Crossover
Candle Tasuki Gap Bearish - Exit	Elder Ray - Entry	Money Flow Index - Entry
Candle Tasuki Gap Bullish - Entry	Elder Ray - Exit	Money Flow Index - Exit
Candle Tasuki Gap Bullish - Exit	End Date Exit	Moving Average Double Crossover
Candle Three Black Crows - Entry	Entry-price Time Stop	Moving Average Double Slope - Entry
Candle Three Black Crows - Exit	Envelopes - Entry	Moving Average Double Slope - Exit
Candle Three White Soldiers - Entry	Envelopes - Exit	Moving Average Pullbacks
Candle Three White Soldiers - Exit	Envelopes Lower Band - Entry	Moving Average Single Crossover
Candle Thrusting - Entry	Envelopes Lower Band - Exit	Natenbergs Volatility - Entry
Candle Thrusting - Exit	Envelopes Upper Band - Entry	Natenbergs Volatility - Exit
Candle Tweezers Bottom - Entry	Envelopes Upper Band - Exit	Notis Volatility Breakout - Entry
Candle Tweezers Bottom - Exit	Exit On Bar Close	Notis Volatility Breakout - Exit
Candle Tweezers Top - Entry	Exponential MA Cross - Entry	On Balance Volume - Entry
Candle Tweezers Top - Exit	Exponential MA Cross - Exit	On Balance Volume - Exit
Candle Two Little Bullets - Entry	Exponential MA Slope - Entry	Open Close Pattern
Candle Two Little Bullets - Exit	Exponential MA Slope - Exit	Open Price Gap
Candle Two Little Spinnings - Entry	Fast Profit Exit	Open Range Breakout
Candle Two Little Spinnings - Exit	Force Index - Entry	Oscillator - Entry
Candle Two White Lines Bearish - Entry	Force Index - Exit	Oscillator - Exit
Candle Two White Lines Bearish - Exit	Fractal Adaptive Band Breakout	Parabolic Reversal
Candle Two White Lines Bullish - Entry	FRAMA Double Cross - Entry	Parabolic SAR - Entry
Candle Two White Lines Bullish - Exit	FRAMA Double Cross - Exit	Parabolic SAR - Exit
Candle Upside Gap Two Crows - Entry	FRAMA Slope - Entry	Pattern 1234 Long Entry
Candle Upside Gap Two Crows - Exit	FRAMA Slope - Exit	Pattern 1234 Long Exit
Center of Gravity - Entry	High Low Oscillator - Entry	Pattern 1234 Short Entry
Center of Gravity - Exit	High Low Oscillator - Exit	Pattern 1234 Short Exit
Chaikin Oscillator - Entry	Hilbert Channel (Signal)	Pattern 180 Long Entry
Chaikin Oscillator - Exit	Ichimoku Cross Over - Entry	Pattern 180 Long Exit
Chaikin Volatility Breakout - Entry	Ichimoku Cross Over - Exit	Pattern 180 Short Entry
Chaikin Volatility Breakout - Exit	Ichimoku Kumo Cross Over - Entry	Pattern 180 Short Exit
Chande Momentum - Entry	Ichimoku Kumo Cross Over - Exit	Pattern 2 Day Reversal Long Entry
Chande Momentum - Exit	Ichimoku Support Resistance - Entry	Pattern 2 Day Reversal Long Exit
Channel Breakout High - Entry	Ichimoku Support Resistance - Exit	Pattern 2 Day Reversal Short Entry
Channel Breakout Low - Entry	Intraday Level Breakout - Entry	Pattern 2 Day Reversal Short Exit
Channel Breakout	Intraday Long Breakout - Exit	Pattern 3 Day Reversal Long Entry
Commodity Channel Index - Entry	Intraday Reversal	Pattern 3 Day Reversal Long Exit
Commodity Channel Index - Exit	Kairi - Entry	Pattern 3 Day Reversal Short Entry
Coppock Line - Entry	Kairi - Exit	Pattern 3 Day Reversal Short Exit
Coppock Line - Exit	Keltner Lower Channel - Entry	Pattern Boomers Long Entry
Cyber Cycle - Entry	Keltner Lower Channel - Exit	Pattern Boomers Long Exit
Cyber Cycle - Exit	Keltner Upper Channel - Entry	Pattern Boomers Short Entry
Cyber Cycle Fisher - Entry	Keltner Upper Channel - Exit	Pattern Boomers Short Exit
Cyber Cycle Fisher - Exit	Kurtosis - Entry	Pattern Expansion Breakout Long Entry
Cyber Cycle Inv Fisher	Kurtosis - Exit	Pattern Expansion Breakout Long Exit
Cyclical System	LinRegAngle - Entry	Pattern Expansion Breakout Short Entry
Disparity Index - Entry	LinRegAngle - Exit	Pattern Expansion Breakout Short Exit
Disparity Index - Exit	LinRegSlope - Entry	Pattern Expansion Pivot Long Entry
DM Oscillator - Entry	LinRegSlope - Exit	Pattern Expansion Pivot Long Exit
DM Oscillator - Exit	LinRegValue - Entry	Pattern Expansion Pivot Short Entry
DMI Cross Over - Entry	LinRegValue - Exit	Pattern Expansion Pivot Short Exit
DMI Cross Over - Exit	MACD - Entry	Pattern Giligans Island Long Entry
DSS Blau - Entry	MACD - Exit	Pattern Giligans Island Long Exit



List of trading strategies

Pattern Giligans Island Short Entry	Pivot Support 3 - Exit	Stochastic Momentum - Exit
Pattern Giligans Island Short Exit	Polarized Fractal Efficiency - Entry	Stochastic RSI System
Pattern Inside Bar Long Entry	Polarized Fractal Efficiency - Exit	Stochastic S&C System
Pattern Inside Bar Long Exit	Portfolio Top Dogs Picker (ROC)	Stochastic Slow - Entry
Pattern Inside Bar Short Entry	Portfolio Top Dogs Trader	Stochastic Slow - Exit
Pattern Inside Bar Short Exit	Pos Sizing - Fixed Fractional - Percent	Stochastic Zellner - Entry
Pattern Island Bottom Long Entry	Pos Sizing - Fixed Fractional	Stochastic Zellner - Exit
Pattern Island Bottom Long Exit	Pos Sizing - Fixed Percent	Stop Loss
Pattern Island Top Short Entry	Pos Sizing - Fixed Risk	Timed Exit (Bars)
Pattern Island Top Short Exit	Pos Sizing - Market's Money	Timed Exit
Pattern Jack In The Box Long Entry	Pos Sizing - Percent Volatility	Trend Trigger - Entry
Pattern Jack In The Box Long Exit	Price Band Oscillator - Entry	Trend Trigger - Exit
Pattern Jack In The Box Short Entry	Price Band Oscillator - Exit	Trend Trigger Factor
Pattern Jack In The Box Short Exit	Price Channel LowerBand - Entry	Triangular MA Slope - Entry
Pattern Key Reversal Down - Entry	Price Channel LowerBand - Exit	Triangular MA Slope - Exit
Pattern Key Reversal Down - Exit	Price Channel UpperBand - Entry	Trix - Entry
Pattern Key Reversal Up - Entry	Price Channel UpperBand - Exit	Trix - Exit
Pattern Key Reversal Up - Exit	Profit Target Exit	True Range specified Volume System
Pattern Lizzard Long Entry	Profit Trailing Stop	Ulcer Index Breakout - Entry
Pattern Lizzard Long Exit	Psychological Line - Entry	Ulcer Index Breakout - Exit
Pattern Lizzard Short Entry	Psychological Line - Exit	Ultimate Oscillator - Entry
Pattern Lizzard Short Exit	Rapid Adaptive Variance - Entry	Ultimate Oscillator - Exit
Pattern NR3 Long Entry	Rapid Adaptive Variance - Exit	Universal Cycle Index - Entry
Pattern NR3 Long Exit	Rate Of Change - Entry	Universal Cycle Index - Exit
Pattern NR3 Short Entry	Rate Of Change - Exit	Universal Cycle Index Zone System
Pattern NR3 Short Exit	Ratio Of Strength - Entry	Vertical Breakout - Entry
Pattern NR4 Long Entry	Ratio Of Strength - Exit	Vertical Breakout - Exit
Pattern NR4 Long Exit	Relative Momentum Index - Entry	VIDYA Cross Over - Entry
Pattern NR4 Short Entry	Relative Momentum Index - Exit	VIDYA Cross Over - Exit
Pattern NR4 Short Exit	Relative Strength Index - Entry	VIDYA Lower Channel - Entry
Pattern Outside Bar Long Entry	Relative Strength Index - Exit	VIDYA Lower Channel - Exit
Pattern Outside Bar Long Exit	Relative Strength Index Slope - Entry	VIDYA Upper Channel - Entry
Pattern Outside Bar Short Entry	Relative Strength Index Slope - Exit	VIDYA Upper Channel - Exit
Pattern Outside Bar Short Exit	Relative Strength Index Zone System	Volatility Breakout
Pattern Turtles Orig Long Entry	Relative Strength Index - Entry	Volatility Historical Breakout - Entry
Pattern Turtles Orig Long Exit	Relative Strength Index - Exit	Volatility Historical Breakout - Exit
Pattern Turtles Orig Short Entry	Relative Strength Levy - Entry	Volatility Index Breakout - Entry
Pattern Turtles Orig Short Exit	Relative Strength Levy - Exit	Volatility Index Breakout - Exit
Pattern Turtlesoup Long Entry	Relative Vigor Index - Entry	Volatility Ratio Breakout - Entry
Pattern Turtlesoup Long Exit	Relative Vigor Index - Exit	Volatility Ratio Breakout - Exit
Pattern Turtlesoup Short Entry	Resistance Breakout - Entry	Volatility System
Pattern Turtlesoup Short Exit	Resistance Breakout - Exit	Volume Accumulated - Entry
Patterns	RSI Classic - Entry	Volume Accumulated - Exit
Peak Exit	RSI Classic - Exit	Volume Flow - Entry
Penny Stock Breakout	RSI Classic Slope - Entry	Volume Flow - Exit
Percent Change Index - Entry	RSI Classic Slope - Exit	Volume Flow Break From Base
Percent Change Index - Exit	RSI Fisher Transform - Entry	Volume Flow Divergence
Percent Trailing Stop	RSI Fisher Transform - Exit	Volume Flow Zero Line Crossover
Pivot Line Breakout - Entry	Sell in May and Go Away	Volume Price Breakout - Entry
Pivot Line Breakout - Exit	Simple Trend Change - Exit	Volume Price Breakout - Exit
Pivot Resist 1 - Entry	Speed Breakout - Entry	Weighted MA Cross - Entry
Pivot Resist 1 - Exit	Speed Breakout - Exit	Weighted MA Cross - Exit
Pivot Resist 2 - Entry	Speed Down Crossover	Weighted MA Slope - Entry
Pivot Resist 2 - Exit	Speed Up Crossover	Weighted MA Slope - Exit
Pivot Resist 3 - Entry	STARC LowerBand - Entry	Williams PCR - Entry
Pivot Resist 3 - Exit	STARC LowerBand - Exit	Williams PCR - Exit
Pivot Support 1 - Entry	STARC UpperBand - Entry	
Pivot Support 1 - Exit	STARC UpperBand - Exit	
Pivot Support 2 - Entry	Std Dev Breakout - Entry	
Pivot Support 2 - Exit	Std Dev Breakout - Exit	
Pivot Support 3 - Entry	Stochastic Fast - Entry	
	Stochastic Fast - Exit	
	Stochastic Momentum - Entry	



Importing Instruments

Instruments

When writing an indicator or a strategy, Equilla provides multiple ways to reference price data from different data inputs. Beside the standard and inline instruments, you can import instruments dynamically based on runtime information.

List

Returns a list of imported instruments.

ExpiredList

Imports a list of instruments for expired future contracts.

SeasonalList

Imports a list of instruments representing future contracts and performs a seasonal transformation.

ForwardCurve

Imports a forward curve instrument build from a list of future contracts.

Extending Equilla

Import

Imports a function from an extension DLL so that it can be used in the script.

Meta Properties

Meta

An indicator, strategy or function consists of equilla code and a number of properties that describe its behaviour in a chart. These properties can be defined using the Meta statement.

AlertEnabled

Defines whether alerts should be generated.

Author

Sets the scripts author. This field is informational only.

AutoScale

Defines whether an indicator influences the scaling of the value axis (only applies if the axis is shared with other outputs). This meta property may be helpful, when you do not want an indicator to have any effect on the automatic scaling of the value axis (e.g. when drawing constant lines).

BackBuffer

Sets the initial number of historic values stored by series variables.

DataOptions

Specifies the runtime behaviour of the script.

DisplayUnit

Sets the display unit for the output data. The default value is DisplayUnitDefault.

DynamicInlineSymbols

Sets whether the script is supporting semi dynamic inline symbols.

EnhancedBufferDetection

Sets whether the required back buffer sizes should be determined by analysing the code at compile time.

WarningForAutoConversionToSeries

This property allows you to disable warning W2008. It is generated if a variable is automatically converted to a series type to be usable by the crosses-operator.

Legend

Overrides the default legend for the script.

MoveWithParent

Sets whether script instances are moved with the parent when it is dragged into another sub chart.

OutputLotSize

Sets the lot size value for the output data. The default value is 1.

OutputTickSize

Sets the tick size value for the output data. The default value is 0.0001.

EvaluateOnHistoricUpdates

Specifies if historic updates for any of the referenced data inputs have to be processed.

OutputTimeStamps

Sets output timestamps for an indicator or strategy using multiple instruments. Its default depends on the instruments used by the indicator or strategy. If the indicator or strategy uses data inputs Data1 through DataN, the timestamps of the first data input are used. If the script uses inline instruments, the first inline instrument provides the timestamps to be used. If only dynamic inline instruments are used, a union of the timestamps of all dynamic inline instruments is used.

ShareValueScale

Sets whether an indicator shares the value scale with its parent.

ShortCode

Sets a shortcode for the script, the shortcode can be entered on the command line to quickly add the script to a chart.

ShowLegend

Sets whether the legend for an object should be visible by default.

SubChart

Sets whether the indicator is opened in its own subchart (true by default).

Synopsis

Sets the description of the script, the description will be used to provide informatio-

nal tooltips. Use
 to insert a forced new line.

TrigMode

Sets the mode for trigonometric functions.

ValueAxisLabel

Override the default label at the top of the value scale.

WebLink

Specifies an external URL pointing to additional information for the indicator or strategy.

Drawing

DrawLine

Plots a line chart.

DrawArea

Plots a filled area chart.

DrawForest

Plots a forest, linked forest or histogram chart.

DrawSymbol

Plots a sequence of symbols (Arrows, Triangles, etc.) into a chart.

DrawBar

Plots a bar chart.

DrawText

Plots a sequence of text labels into a chart.

DrawCandleStick

Plots a candlesticks chart.

DrawPriceMarker

Draws a horizontal marker at the given price next to the price scale or aligned to the last bar.

Plot1

1: Plots a line chart as the first output of the indicator. 2: Returns the value of the first output of the indicator for the current bar when called with no arguments. This method will overwrite the value of an existing plot drawn with DrawLine or Plot1.

Plot2

1: Plots a line chart as the second output of the indicator. 2: Returns the value of the second output of the indicator for the current bar when called with no arguments. This method will overwrite the value of an existing plot drawn with DrawLine or Plot2.

Plot3

1: Plots a line chart as the third output of the indicator. 2: Returns the value of the third output of the indicator for the current bar when called with no arguments. This method will overwrite the value of an existing plot drawn with DrawLine or Plot3.



Plot4

1: Plots a line chart as the fourth output of the indicator. 2: Returns the value of the fourth output of the indicator for the current bar when called with no arguments. This method will overwrite the value of an existing plot drawn with DrawLine or Plot4.

Plot5

1: Plots a line chart as the fifth output of the indicator. 2: Returns the value of the fifth output of the indicator for the current bar when called with no arguments. This method will overwrite the value of an existing plot drawn with DrawLine or Plot5.

NoPlot

Clears a previously plotted data point.

Alerts and Output

Alert

Raises an alert with the specified message.

AlertEnabled

Returns true if alerts are enabled for the current script, false otherwise.

CancelAlert

Cancels a pending alert.

CheckAlert

Checks if alerts are enabled for the current script and if the currentbar is the last one.

ClearOutput

Clears the contents of the output window.

Print

Writes each of functions arguments to the output window.

PrintToFile

Writes each of functions arguments to a file.

RemoveFile

Removes a file (usually one created by PrintToFile()).

Colors

All Colors

There are several ways to specify a color in Equilla: Use a color constant, use the RGB or HSV functions to compose a color, use the TransparentColor function to add transparency to an existing color, or use the Gradient function to create a fill effect (for example for a filled area chart) that graduates from one color to another.

Color Functions

RGB

Returns a custom color defined by red, green and blue components.

HSV

Returns a custom color defined by hue, saturation and brightness.

Gradient

Returns a color gradient which will blend one color into another when drawn.

TransparentColor

Returns a transparent version of an existing color.

RGBRed

Returns the RGB red component of the given color in the range 0 (missing red part) to 255 (max. red part).

RGBGreen

Returns the RGB green component of the given color in the range 0 (missing green part) to 255 (max. green part).

RGBBlue

Returns the RGB blue component of the given color in the range 0 (missing blue part) to 255 (max. blue part).

RGBAlpha

Returns the RGB alpha (transparency) component of the given color in the range 0 (opaque) to 255 (transparent)

HSVHue

Returns the HSV hue component of the given color in the range 0 to 360.

HSVSaturation

Returns the HSV saturation (vibrancy) component of the given color in the range 0 to 100.

HSVValue

Returns the HSV value (brightness) component of the given color in the range 0 to 100.

HSVAlpha

Returns the RGB alpha (transparency) component of the given color in the range 0 (opaque) to 255 (transparent)

Standard Color Constants

Black

Returns the color black.

Red

Returns the color red.

Green

Returns the color green.

Blue

Returns the color blue.

Cyan

Returns the color cyan.

Magenta

Returns the color magenta.

Yellow

Returns the color yellow.

White

Returns the color white.

DarkBlue

Returns the color dark blue.

DarkCyan

Returns the color dark cyan.

DarkGreen

Returns the color dark green.

DarkMagenta

Returns the color dark magenta.

DarkRed

Returns the color dark red.

DarkBrown

Returns the color dark brown.

DarkGray

Returns the color dark gray.

LightGray

Returns the color light gray.

Transparent

Returns a color that is transparent.

Auto

Returns a color chosen from a color pool.

Extended Color Constants

ColorAliceBlue

Returns the color AliceBlue.

ColorAntiqueWhite

Returns the color AntiqueWhite.

ColorAqua

Returns the color Aqua.

ColorAquamarine

Returns the color Aquamarine.

ColorAzure

Returns the color Azure.

ColorBeige

Returns the color Beige.

ColorBisque

Returns the color Bisque.

ColorBlack

Returns the color Black.

ColorBlanchedAlmond

Returns the color BlanchedAlmond.

ColorBlue

Returns the color Blue.

ColorBlueViolet

Returns the color BlueViolet.

ColorBrown

Returns the color Brown.

ColorBurlyWood

Returns the color BurlyWood.

ColorCadetBlue

Returns the color CadetBlue.

ColorChartreuse

Returns the color Chartreuse.



ColorChocolate
Returns the color Chocolate.

ColorCoral
Returns the color Coral.

ColorCornflowerBlue
Returns the color CornflowerBlue.

ColorCornsilk
Returns the color Cornsilk.

ColorCrimson
Returns the color Crimson.

ColorCyan
Returns the color Cyan.

ColorDarkBlue
Returns the color DarkBlue.

ColorDarkCyan
Returns the color DarkCyan.

ColorDarkGoldenRod
Returns the color DarkGoldenRod.

ColorDarkGray
Returns the color DarkGray.

ColorDarkGreen
Returns the color DarkGreen.

ColorDarkKhaki
Returns the color DarkKhaki.

ColorDarkMagenta
Returns the color DarkMagenta.

ColorDarkOliveGreen
Returns the color DarkOliveGreen.

ColorDarkOrange
Returns the color DarkOrange.

ColorDarkOrchid
Returns the color DarkOrchid.

ColorDarkRed
Returns the color DarkRed.

ColorDarkSalmon
Returns the color DarkSalmon.

ColorDarkSeaGreen
Returns the color DarkSeaGreen.

ColorDarkSlateBlue
Returns the color DarkSlateBlue.

ColorDarkSlateGray
Returns the color DarkSlateGray.

ColorDarkTurquoise
Returns the color DarkTurquoise.

ColorDarkViolet
Returns the color DarkViolet.

ColorDeepPink
Returns the color DeepPink.

ColorDeepSkyBlue
Returns the color DeepSkyBlue.

ColorDimGray
Returns the color DimGray.

ColorDodgerBlue
Returns the color DodgerBlue.

ColorFeldspar
Returns the color Feldspar.

ColorFireBrick
Returns the color FireBrick.

ColorFloralWhite
Returns the color FloralWhite.

ColorForestGreen
Returns the color ForestGreen.

ColorFuchsia
Returns the color Fuchsia.

ColorGainsboro
Returns the color Gainsboro.

ColorGhostWhite
Returns the color GhostWhite.

ColorGold
Returns the color Gold.

ColorGoldenRod
Returns the color GoldenRod.

ColorGray
Returns the color Gray.

ColorGreen
Returns the color Green.

ColorGreenYellow
Returns the color GreenYellow.

ColorHoneyDew
Returns the color HoneyDew.

ColorHotPink
Returns the color HotPink.

ColorIndianRed
Returns the color IndianRed.

ColorIndigo
Returns the color Indigo.

ColorIvory
Returns the color Ivory.

ColorKhaki
Returns the color Khaki.

ColorLavender
Returns the color Lavender.

ColorLavenderBlush
Returns the color LavenderBlush.

ColorLawnGreen
Returns the color LawnGreen.

ColorLemonChiffon
Returns the color LemonChiffon.

ColorLightBlue
Returns the color LightBlue.

ColorLightCoral
Returns the color LightCoral.

ColorLightCyan
Returns the color LightCyan.

ColorLightGoldenRodYellow
Returns the color LightGoldenRodYellow.

ColorLightGrey
Returns the color LightGrey.

ColorLightGreen
Returns the color LightGreen.

ColorLightPink
Returns the color LightPink.

ColorLightSalmon
Returns the color LightSalmon.

ColorLightSeaGreen
Returns the color LightSeaGreen.

ColorLightSkyBlue
Returns the color LightSkyBlue.

ColorLightSlateBlue
Returns the color LightSlateBlue.

ColorLightSlateGray
Returns the color LightSlateGray.

ColorLightSteelBlue
Returns the color LightSteelBlue.

ColorLightYellow
Returns the color LightYellow.

ColorLime
Returns the color Lime.

ColorLimeGreen
Returns the color LimeGreen.

ColorLinen
Returns the color Linen.

ColorMagenta
Returns the color Magenta.

ColorMaroon
Returns the color Maroon.

ColorMediumAquaMarine
Returns the color MediumAquaMarine.

ColorMediumBlue
Returns the color MediumBlue.

ColorMediumOrchid
Returns the color MediumOrchid.

ColorMediumPurple
Returns the color MediumPurple.

ColorMediumSeaGreen
Returns the color MediumSeaGreen.

ColorMediumSlateBlue
Returns the color MediumSlateBlue.

ColorMediumSpringGreen
Returns the color MediumSpringGreen.

ColorMediumTurquoise
Returns the color MediumTurquoise.

ColorMediumVioletRed
Returns the color MediumVioletRed.

ColorMidnightBlue
Returns the color MidnightBlue.



ColorMintCream

Returns the color MintCream.

ColorMistyRose

Returns the color MistyRose.

ColorMoccasin

Returns the color Moccasin.

ColorNavajoWhite

Returns the color NavajoWhite.

ColorNavy

Returns the color Navy.

ColorOldLace

Returns the color OldLace.

ColorOlive

Returns the color Olive.

ColorOliveDrab

Returns the color OliveDrab.

ColorOrange

Returns the color Orange.

ColorOrangeRed

Returns the color OrangeRed.

ColorOrchid

Returns the color Orchid.

ColorPaleGoldenRod

Returns the color PaleGoldenRod.

ColorPaleGreen

Returns the color PaleGreen.

ColorPaleTurquoise

Returns the color PaleTurquoise.

ColorPaleVioletRed

Returns the color PaleVioletRed.

ColorPapayaWhip

Returns the color PapayaWhip.

ColorPeachPuff

Returns the color PeachPuff.

ColorPeru

Returns the color Peru.

ColorPink

Returns the color Pink.

ColorPlum

Returns the color Plum.

ColorPowderBlue

Returns the color PowderBlue.

ColorPurple

Returns the color Purple.

ColorRed

Returns the color Red.

ColorRosyBrown

Returns the color RosyBrown.

ColorRoyalBlue

Returns the color RoyalBlue.

ColorSaddleBrown

Returns the color SaddleBrown.

ColorSalmon

Returns the color Salmon.

ColorSandyBrown

Returns the color SandyBrown.

ColorSeaGreen

Returns the color SeaGreen.

ColorSeaShell

Returns the color SeaShell.

ColorSienna

Returns the color Sienna.

ColorSilver

Returns the color Silver.

ColorSkyBlue

Returns the color SkyBlue.

ColorSlateBlue

Returns the color SlateBlue.

ColorSlateGray

Returns the color SlateGray.

ColorSnow

Returns the color Snow.

ColorSpringGreen

Returns the color SpringGreen.

ColorSteelBlue

Returns the color SteelBlue.

ColorTan

Returns the color Tan.

ColorTeal

Returns the color Teal.

ColorThistle

Returns the color Thistle.

ColorTomato

Returns the color Tomato.

ColorTurquoise

Returns the color Turquoise.

ColorViolet

Returns the color Violet.

ColorVioletRed

Returns the color VioletRed.

ColorWheat

Returns the color Wheat.

ColorWhite

Returns the color White.

ColorWhiteSmoke

Returns the color WhiteSmoke.

ColorYellow

Returns the color Yellow.

ColorYellowGreen

Returns the color YellowGreen.

Instrument Properties

CurrencyName

Returns the currency of the referenced instrument.

Category

Returns the instrument category of the referenced instrument.

ExchangeName

Returns the exchange id of the referenced instrument.

TickSize

Returns the minimum price movement of the instrument.

LotSize

Returns the contract lot size of the instrument.

ExpiryDate

Returns the contract expiry date of the instrument.

SymbolName

Returns the ticker symbol of the referenced instrument.

DisplayName

Returns the display name of the referenced instrument.

Reversal

Returns the reversal size of a point and figure chart.

AddBoxes

Returns a price value increased by a given number of box sizes on a Point & Figure chart.

BoxSize

Returns the box size of a point and figure chart.

ContractName

Returns the current contract name of the referenced instrument. In case of a forward curve symbol, the underlying contract represented by the current bar will be returned.

BrickSize

Returns the brick size of a Renko chart.

UnitName

Returns the name of the unit of the referenced instrument.

Timebase

Returns the timebase (interval, period) of the referenced instrument.

BarType

Returns the type of the current bar: BarTypeTickBar, BarTypeIntraday, BarTypeDaily, BarTypeWeekly, BarTypeMonthly, or BarTypePointAndFigure.

MinMove

Included for backward compatibility (use TickSize for the smallest possible price movement).



DeliveryMonth

Returns the delivery month of the contract.

DeliveryYear

Returns the delivery year of the contract.

PointValue

Included for backward compatibility.

Margin

Included for backward compatibility.

Series Data Fields

Date

Returns an integer representation of the date of the bar currently being evaluated.

Time

Returns an integer representation of the time of the bar currently being evaluated.

DateTime

Returns the date and time of the bar currently being evaluated.

Open

Returns the open value of the current bar.

High

Returns the high value of the current bar.

Low

Returns the low value of the current bar.

Close

Returns the close value of the current bar.

Volume

Returns the volume of the current bar.

OpenInt

Returns the open interest of the current bar.

Portfolio Support

PortfolioSize

Returns the number of instruments if executed in a portfolio (scanner/watchlist) or 0 (zero) otherwise.

PortfolioItemNumber

Returns the instrument number (row index) for the current script if executed inside a portfolio (scanner/watchlist) or 0 (zero) otherwise.

PortfolioGroup

Returns the name of the portfolio (scanner/watchlist) group the instrument is attached to.

Quote Fields

Ask

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskDate

A quote field that returns the corresponding value from the data feed. The availability of

the value depends on the current instrument and data feed.

AskDatetime

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskDateEx

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskExchange

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskSize

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskTime

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

AskTimeEx

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

Bid

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidDate

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidDatetime

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidDateEx

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidExchange

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidSize

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidTime

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidTimeEx

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

BidDirectionNNM

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysClose

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysHigh

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysLow

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysOpen

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysTrades

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysTradesDown

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysTradesUnchanged

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

TodaysTradesUp

A quote field that returns the corresponding



value from the data feed. The availability of the value depends on the current instrument and data feed.

TradeVolume

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

Underlying

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

CallOpenInt

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

CallVolume

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

q_IVolatility

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

PutOpenInt

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

PutVolume

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

StrikePrice

A quote field that returns the corresponding value from the data feed. The availability of the value depends on the current instrument and data feed.

Level II

Level2GetBidCount

Returns the number of level II bid records.

Level2GetBidPrice

Returns a level II bid price.

Level2GetBidSize

Returns a level II bid size.

Level2GetBidDate

Returns the date of a level II bid record.

Level2GetBidTime

Returns the time of a level II bid record.

Level2GetBidDateTime

Returns the date and time of a level II bid record.

Level2GetBidSource

Returns the source of a level II bid record.

Level2GetAskCount

Returns the number of level II ask records.

Level2GetAskPrice

Returns a level II ask price.

Level2GetAskSize

Returns a level II ask size.

Level2GetAskDate

Returns the date of a level II ask record.

Level2GetAskTime

Returns the time of a level II ask record.

Level2GetAskDateTime

Returns the date and time of a level II ask record.

Level2GetAskSource

Returns the source of a level II ask record.

Sessions and Holidays

IsInSession

Checks if a date and time value is in the trading sessions specified for an instrument.

IsOutOfSession

Checks if a date and time value is out of the trading sessions specified for an instrument.

IsHoliday

Checks if a date and time value is a holiday.

IsTradingDay

Checks if there is any trading on the specified day.

IsFirstTradingDay

Checks if the given date and time value is the first trading day for the specified interval.

IsLastTradingDay

Checks if the given date and time value is the last trading day for the specified interval.

GetFirstTradingDay

Returns the Datetime representation of the first trading day for the specified interval.

GetLastTradingDay

Returns the Datetime representation of the last trading day for the specified interval.

News

NewsGetCount

Returns the number of related news stories that are available for the timestamp of the current bar.

NewsGetHeadline

Returns the news headline string of the story the given index relates to.

NewsGetStory

Returns the news story string the given index relates to.

NewsGetDate

Returns the news date of the story the given index relates to.

NewsGetDateTime

Returns the news date and time of the story the given index relates to.

NewsGetTime

Returns the news time of the story the given index relates to.

NewsGetSource

Returns the numerical news source ID of the story the given index relates to.

NewsGetSourceName

Returns the news source name of the story the given index relates to.

NewsGetID

Returns the numerical news ID of the story the given index relates to.

Date and Time

Now

Returns the current date and time as available on the local workstation.

CurrentTime

Returns the current time as available on the local workstation.

CurrentDate

Returns the current date as available on the local workstation.

EL_DateStr

Returns an 8 character date string.

Year

Returns the year component of a date.

Month

Returns the month component of a date.

Day

Returns the days component of a date.

Hour

Returns the hours component of a time.

Minute

Returns the minutes component of a time.

Second

Returns the seconds component of a time.

MilliSecond

Returns the milliseconds component of a time.

DayOfWeek

Returns the day of the week represented by a date.



DatePart

Returns a numeric value containing the specified component of a given DateTime value.

DateAdd

Adds a specific time interval to a DateTime value.

DateSerial

Returns a DateTime value based on individual parameters for the parts of the datetime.

DateToJulian

Returns the Julian date equivalent to the input date.

JulianToDate

Returns the date equivalent to an input Julian date.

FormatDateTime

Converts a date and time value into a string.

FormatDate

Converts a date value into a string.

FormatTime

Converts a time value in a string.

NextMonth

Calculates the next month number from a date.

PreviousMonth

Calculates the previous month number from a date.

Math Functions

Atn

Returns the arc tangent of the expression.

Abs

Returns the absolute value of the expression.

Ceiling

Returns the lowest integer greater than the expression.

Cos

Returns the cosine value of the expression.

Cot

Returns the cotangent value of the expression.

Exp

Returns the exponential value of the expression.

Floor

Returns the highest integer less than the expression.

Frac

Returns the fractional portion of the expression while retaining the sign.

Int

Returns the integer portion of the expression.

Log

Returns the logarithm of the expression.

Mod

Divides two numbers and returns the integral remainder (the Modulo).

Neg

Returns the absolute negative value of a number.

Not

Performs the bitwise not negation operation on its argument. Useful with boolean arguments, returns true, if the argument is evaluated to false and returns false if the argument is evaluated to true.

Pwr

Returns the number raised to the specified power.

Random

Returns a random real number between 0 and the expression.

Round

Returns a number rounded to a specified number of decimal places.

Sign

Returns 1 for a positive number, -1 for a negative number, and 0 if the number is zero.

Sin

Returns the sine value of the expression.

Sqr

Returns the square of an expression.

Sqrt

Returns the square root of the expression.

Tan

Returns the tangent value of the expression.

LogBaseN

Returns the logarithm of the expression to a specified base.

Inc

Returns the value of the expression increased by 1.

AvgItems

Returns the average value computed from the list of function arguments.

SumItems

Returns the sum of values in the list of function arguments.

MaxItems

Returns the maximum value from the list of function arguments.

MinItems

Returns the minimum value from the list of function arguments.

MaxItemsN

Returns the Nth maximum value from the list of function arguments.

MinItemsN

Returns the Nth minimum value from the list of function arguments.

MaxItems2

Returns the second maximum value from the list of function arguments.

MinItems2

Returns the second minimum value from the list of function arguments.

PricelsAvailable

Returns true if all arguments are valid values, otherwise it returns false.

PricelsNotAvailable

Returns true if none of the arguments are valid values, otherwise it returns false.

Invalid

Returns the invalid value.

Pi

Returns the value of PI (3.1415926535...).

True

Returns the Boolean true value.

False

Returns the Boolean false value.

Mov

Returns the mean value of a data series over a specified range.

Sum

Returns the sum of values over the specified range.

HHV

Returns the highest value in a data series over a specified range.

LLV

Returns the lowest value in a data series over a specified range.

StDev

Returns the standard deviation of a data series over the specified range.

String Functions

Format

Formats a value according to a user-defined format string.

CStr

Returns an expression converted to a string (to an optional precision).

InStr

Returns the position of a sub-string within in String.



Join

Joins two or more strings using a separator and returns the result.

Left

Returns a string containing a specified number of characters from the left side of a string.

Len

Returns the length of a string.

Lower

Returns a string with all characters converted to lowercase.

Mid

Returns a sub-string found withing another string.

Right

Returns a specified number of characters from the right side of a string.

Space

Returns a string of repeated spaces.

Trim

Returns a string with leading and trailing whitespace removed. You can also specify different characters to remove from the start and end of the string by passing in a second string containing all these characters.

Upper

Returns a string with all characters converted to uppercase.

String Constants

NewLine

Returns a newline character.

DoubleQuote

Returns the double quote character (").

SingleQuote

Returns the single quote character (').

Tab

Returns the Tab character that can be used to lay-out text in a table like way.

EURSymbol

Returns the European Union Euro currency symbol (€).

USDSymbol

Returns the United States Dollar currency symbol (\$).

GBPSymbol

Returns the Pound Sterling currency symbol (£).

JPYSymbol

Returns the Japanese Yen currency symbol (¥).

Bar Information

CurrentBar

Returns the number of the bar that is currently being processed.

LastBar

Returns the bar number of the last bar of an instrument.

FirstBar

Returns the bar number of the first bar of an instrument.

IsLastBar

Returns true if the current bar is the last bar.

TotalBars

Returns the total number of bars.

BarStatus

Returns the status of the bar:

BarStatusOpeningTick, BarStatusIntrabar, BarStatusClosingTick or BarStatusError.

BackBuffer

Returns the number of historic values stored by series variables.

ForwardBuffer

Returns the number of bars the script is drawing into the future.

SetBackBuffer

Sets the back buffer size. Use of this function can significantly enhance evaluation time because the buffer size will not need to be dynamically determined.

SetForwardBuffer

Sets the forward buffer size. Use of this function can significantly enhance evaluation time because the buffer size will not need to be dynamically determined.

ExecOffset

Returns the function execution bar-offset amount relative to the current bar.

OutputDateTime

Returns the DateTime value used for the output. This is only useful if the Meta property OutputTimeStamps is used to combine the timestamps of multiple data inputs. See Instruments for more details.

OutputDate

Returns the Date value used for the output. This is only useful if the Meta property OutputTimeStamps is used to combine the timestamps of multiple data inputs. See Instruments for more details.

OutputTime

Returns the Time value used for the output. This is only useful if the Meta property OutputTimeStamps is used to combine the timestamps of multiple data inputs. See Instruments for more details.

Order Commands

Buy

Places an order to buy a number of shares using a given trade mode.

Sell

This is an exit signal. It places an order to go close a long position or reduce it by a number of shares using a given trade mode.

Short

Places an order to sell short a number of shares using a given trade mode.

Cover

This is an exit signal. It places an order to go close a short position or reduce it by a number of shares using a given trade mode.

ExitPosition

Places an order to exit, or partially exit, the current position irrespective of whether the position is currently long or short.

Position Management

BarsSinceEntry

Returns the number of elapsed bars since the specified position was entered.

BarsSinceExit

Returns the number of bars that have elapsed since the specified position was exited.

EntryDate

Returns the date on which the specified position was entered.

EntryDateTime

Returns the datetime at which the specified position was entered.

EntryPrice

Returns the price at which the specified position was entered.

EntryAmount

Returns the number of shares that were traded to enter the specified position.

EntryCount

Returns the total number of entry orders for the specified numbered position, even if it has already been closed.

ExitCount

Returns the total number of exit orders for the specified numbered position.

ExitLabel

Returns the label of an exit order of the specified numbered position.

ExitAmount

Returns the quantity of an exit order of the specified numbered position.

FilledOrderAmount

Returns the quantity of a filled order of the



specified numbered position.

FilledOrderCount

Returns the number of filled orders of the specified numbered position.

FilledOrderDate

Returns the date at which a order of the specified numbered position was filled.

FilledOrderDateTime

Returns the date and time at which a order of the specified numbered position was filled.

FilledOrderIsEntry

Returns true if the filled order of the specified numbered position with the given index is an entry order.

FilledOrderIsExit

Returns true if the filled order of the specified numbered position with the given index is an exit order.

FilledOrderLabel

Returns the label of a filled order of the specified numbered position.

FilledOrderPrice

Returns the price of a filled order of the specified numbered position.

FilledOrderTime

Returns the time at which the order of the specified numbered position was filled.

EntryLabel

Returns the label of the order that entered the specified numbered position. If the order was not explicitly labelled (unlike: buy ("myOrder")), the name of the current script will be returned.

EntryTime

Returns the time at which the specified position was entered.

ExitDate

Returns the date on which the specified position was exited.

ExitDateTime

Returns the datetime at which the specified position was exited.

ExitPrice

Returns the price at which the specified position was exited.

ExitTime

Returns the time at which the specified position was exited.

InitialCapital

Returns the initial capital.

MarketPosition

Returns a constant represented the current market position: MarketPositionLong, MarketPositionFlat or MarketPositionShort.

MaxContracts

Returns the maximum contracts held in a selected position.

MaxEntries

Returns the maximum number of entries in the specified position.

MaxPositionLoss

Returns the maximum position loss for a specified position.

MaxPositionProfit

Returns the maximum position profit for a specified position.

PositionProfit

Returns the profit from a position.

AvgEntryPrice

Returns the average entry price. Same as AllTrades::AvgEntryPrice.

CurrentContracts

Returns the number of contracts/shares held. Same as AllTrades::CurrentContracts.

CurrentEntries

Returns the number of entries open within the current position. Same as AllTrades::CurrentEntries.

GetDefaultQuantity

Gets the default amount of shares/contracts to trade.

SetDefaultQuantity

Set the default amount of shares/contracts to trade.

Profit and Loss

Slippage

Returns the slippage on the input price. If no input is provided the returned value is the slippage modifier which may be percentile or absolute.

Commission

Returns the commission for the input price. If no input is provided the returned value is the commission modifier which may be percentile or absolute.

ClosedEquity

Returns the closed equity of the position which is defined as the Equity minus the OpenPosition. This value does not contain slippage and/or commission for open entries.

GlobalClosedEquity

Returns the global closed equity which is the balance of all finished transactions. Commission and slippage for open entries are taken into account.

OpenEquity

Returns the current open equity.

GlobalOpenEquity

Returns the current global open equity. Slippage and commission values for open entries are taken into account.

OpenPosition

Returns the profit of the current position or zero (0) if there is none. This value is already adjusted by the commission and/or slippage for open entries.

Risk Management

SetStopBreakEven

Sets an order to exit a position at breakeven once the position crosses a profit threshold.

SetStopLoss

Sets the amount that must be lost either per share/contract or per position before closing out the position (using the difference between the price when entering the position and the open profit).

SetStopMode

Sets the evaluation mode for any stops that are set so that they are evaluated either on the entire position or per contract or share.

SetStopContract

Sets the evaluation mode for any stops that are set so that they are evaluated per contract or share.

SetStopPosition

Sets the evaluation mode for any stops that are set so that they are evaluated on the entire position profit.

SetStopProfitTarget

Sets the amount of profit that must be reached either per share/contract or per position in order to close out the position (using the difference between the price when entering the position and the open profit).

SetStopPercentTrailing

Sets the percentage of the current open profit that must be lost after a specific profit target is reached before closing out the position.

SetStopProfitTrailing

Sets the amount that must be lost relative to the maximum open profit before closing out the position.

SetTradingStatus

Controls how the trading engine is handling orders.

GetTradingStatus

Returns the current state of the trading engine: AllowOnlyEntryOrders, AllowOnlyExitOrders, AllowAllOrders, or AllowNoOrders.



Statistics

GetStrategyName

Returns the name of the current strategy.

TotalTrades

Returns the total number of trades made to date. Same as AllTrades::TotalTrades.

NumLosTrades

Returns the number of losing trades. Same as AllTrades::NumLosTrades.

NumWinTrades

Returns the number of winning trades. Same as AllTrades::NumWinTrades.

PercentProfit

Returns the percentage of closed-out trades that were profitable. Same as AllTrades::PercentProfit.

GrossProfit

Returns the total amount of all closed winning trades. Same as AllTrades::GrossProfit.

GrossLoss

Returns the total amount of all closed losing trades. Same as AllTrades::GrossLoss.

AvgBarsLosTrade

Returns the average number of bars that elapsed during losing trades for all closed trades. Same as AllTrades::AvgBarsLosTrade.

AvgBarsWinTrade

Returns the average number of bars that elapsed during winning trades for all closed trades. Same as AllTrades::AvgBarsWinTrade.

LargestLosTrade

Returns the amount of the largest closed losing trade. Same as AllTrades::LargestLosTrade.

LargestWinTrade

Returns the amount of the largest closed winning trade. Same as AllTrades::LargestWinTrade.

MaxConsecLosers

Returns the largest number of consecutive losing closed trades. Same as AllTrades::MaxConsecLosers.

MaxConsecWinners

Returns the largest number of consecutive winning closed trades. Same as AllTrades::MaxConsecWinners.

MaxContractsHeld

The maximum number of shares/contracts held at any one time. Same as AllTrades::MaxContractsHeld.

TotalBarsLosTrade

Returns the total bars that elapsed during losing trades for all closed trades. Same as

AllTrades::TotalBarsLosTrade.

TotalBarsWinTrade

Returns the total bars that elapsed during winning trades for all closed trades. Same as AllTrades::TotalBarsWinTrade.

AvgLosTrade

Returns the average losing trade. Same as AllTrades::AvgLosTrade.

AvgWinTrade

Returns the average winning trade. Same as AllTrades::AvgWinTrade.

TotalPositions

Returns the total number of position changes to date. A position may be either flat, short, or long. Every transition between one of these states to another one increments the TotalPositions counter by one (note that there is no direct transition between short and long and vice versa: short <-> flat <-> long). Note that this is similar to the TotalClosedPositions functions, however TotalClosedPositions differs in that it will not count any presently non-flat position. Same as AllTrades::TotalPositions.

TotalClosedPositions

Returns the total number of position changes to date, counting up the most recent flat position. A position may be either flat, short, or long. Every transition between one of these states to another one increments the TotalClosedPositions counter by one (note that there is no direct transition between short and long and vice versa: short <-> flat <-> long). If the current position is short or long, it will not be taken into account. Note that this is similar to the TotalPositions functions, however TotalPositions differs in that it will take the current position into account even if it is a flat one. Same as AllTrades::TotalClosedPositions.

Active Order Tracking

GetActiveOrderCount

Returns the number of active orders (visible in the position manager's active orders tab) for the current instrument.

GetActiveOrderCommand

Returns the command of an active order: OrderCommandBuy, OrderCommandSellShort, OrderCommandSell, OrderCommandCover, or OrderCommandInvalid.

GetActiveOrderType

Returns the type of the active order at the one based index: OrderTypeMarket, OrderTypeStop, OrderTypeLimit, or OrderTypeInvalid.

GetActiveOrderPrice

Returns the price attached to the order. This is valid for stop and limit orders only.

GetActiveOrderQuantity

Returns the number of shares set in the order.

GetActiveOrderDetails

Returns the signal introducing this order.

GetActiveOrderDateTime

Returns the date/time when this order has been created.

GetActiveOrderDate

Returns an integer representation of the order's creation date.

GetActiveOrderTime

Returns an integer representation of the order's creation time.

IsActiveImplicitExitOrder

Returns a boolean indicating if the specified index identifies an implicit exit order.

Order Generation

IsStrategyOrdersActive

Checks if orders can be generated.

TradingStartDate

Returns the date at which the trading engine starts trading.

TradingEndDate

Returns the date at which the trading engine stops trading.

Order Routing

GetFilledAccountOrderCount

Returns the total number of orders booked for a symbol on your account. Note that an active order routing account is a prerequisite for this function (otherwise 0 will be returned).

GetFilledAccountOrderCommand

Returns the order command attached to a filled order from your account. Note that an active order routing account is a prerequisite for this function.

GetFilledAccountOrderPrice

Returns the fill price attached to an order from your account. Note that an active order routing account is a prerequisite for this function.

GetFilledAccountOrderQuantity

Returns the number of shares/contracts traded by an order from your account. Note that an active order routing account is a prerequisite for this function (otherwise 0 will be returned).

GetFilledAccountOrderDetails

Returns the descriptive text attached to an order from your account. Note that an active order routing account is a prerequisite



for this function.

GetFilledAccountOrderDateTime

Returns the date and time an order from your account has been filled. Note that an active order routing account is a prerequisite for this function.

GetFilledAccountOrderDate

Returns an integer representation of the date an order from your account has been filled. Note that an active order routing account is a prerequisite for this function.

GetFilledAccountOrderTime

Returns an integer representation of the time an order from your account has been filled. Note that an active order routing account is a prerequisite for this function.

GetBarFilledAccountOrderCount

Returns the number of orders booked for a symbol on the current bar. Note that an active order routing account is a prerequisite for this function (otherwise 0 will be returned).

GetBarFilledAccountOrderCommand

Returns the order command attached to an order filled on the current bar.

GetBarFilledAccountOrderPrice

Returns the fill price attached to an order filled on the current bar.

GetBarFilledAccountOrderQuantity

Returns the number of shares/contracts traded by an order filled on the current bar.

GetBarFilledAccountOrderDetails

Returns the descriptive text attached to an order filled on the current bar.

GetBarFilledAccountOrderDateTime

Returns the date and time an order on the current bar has been filled.

GetBarFilledAccountOrderDate

Returns an integer representation of the date an order on the current bar has been filled.

GetBarFilledAccountOrderTime

Returns an integer representation of the time an order on the current bar has been filled.

GetPendingAccountOrderCount

Returns the number of orders that have not been filled yet. Note that an active order routing account is a prerequisite for this function (otherwise 0 will be returned).

GetPendingAccountOrderCommand

Returns the order command attached to a pending order.

GetPendingAccountOrderPrice

Returns the price attached to a pending order.

GetPendingAccountOrderQuantity

Returns the number of shares/construct attached to a pending order.

GetPendingAccountOrderDetails

Returns the descriptive text attached to a pending order.

GetPendingAccountOrderDateTime

Returns the date and time a pending order has been reported.

GetPendingAccountOrderDate

Returns an integer representation of the date a pending order has been reported.

GetPendingAccountOrderTime

Returns an integer representation of the time a pending order has been reported.

CreateAccountOrder

Generates an order that is directly passed to the connect order routing library.

GetAccountPosition

Returns the current number of shares booked for a symbol.

IsAccountConnected

Returns true if an order routing library is connected to the chart.

BarsSinceAccountUpdate

Returns the number of bars ago that an order in a live trading account was filled or modified. Use this function to determine how many recent bars must be checked for account order updates.

Tools

DrawTrendline

Draws a trendline into the chart.

DrawRectangle

Draws a rectangle into the chart.

ToolDelete

Removes a trendline or rectangle from the chart.

ToolGetType

Returns the type of a tool previously created using one of the DrawTrendline or DrawRectangle functions.

ToolGetFlags

Returns the flags currently set for a tool.

ToolSetFlags

Sets the flags for an existing tool.

ToolGetStartDate

Returns the start date specified for a tool.

ToolGetStartDateTime

Returns the start date and time specified for a tool.

ToolGetStartTime

Returns the start time specified for a tool.

ToolGetStartValue

Returns the start price value specified for a tool.

ToolGetEndDate

Returns the end date specified for a tool.

ToolGetEndDateTime

Returns the end date and time specified for a tool.

ToolGetEndTime

Returns the end time specified for a tool.

ToolGetEndValue

Returns the start price value specified for a tool.

ToolSetStart

Sets the start point of a tool

ToolSetEnd

Sets the end point of a tool.

ToolGetColor

Returns the display color specified for a trendline.

ToolGetWidth

Returns the line width of a trendline tool.

ToolGetStyle

Returns the style of a trendline tool.

ToolSetColor

Sets the display color of a trendline.

ToolSetWidth

Sets the line width of a trendline.

ToolSetStyle

Sets the line style of a trendline.

ToolGetFirst

Returns the identifier of the first tool created by the script.

ToolGetNext

Returns the identifier of the tool created next after the specified one.

ToolGetExtLeft

Returns true if the specified tool is expanded into the past, false otherwise.

ToolSetExtLeft

Specifies if the tool is expanded into the past.

ToolGetExtRight

Returns true if the specified tool is expanded into the future, false otherwise.

ToolSetExtRight

Specifies if the tool is expanded into the future.

ToolGetExtTop

Returns true if the specified tool is expanded to the upper border of the chart, false otherwise.

ToolSetExtTop

Specifies if the tool is expanded to the



upper border of the chart.

ToolGetExtBottom

Returns true if the specified tool is expanded to the lower border of the chart, false otherwise.

ToolSetExtBottom

Specifies if the tool is expanded to the upper border of the chart.

Arrays

ArrayLength

Returns the length (and maximum valid index) of an array. For multidimensional arrays the dimension can be specified as well.

SetArrayLength

Resizes a dynamic array to a given length. New values get initialized with the default value specified at declaration.

GetArrayDimensions

Returns the number of dimensions of an array.

SetValRangeArray

Sets a range of elements inside an array to a specified value. Returns 0 if everything is ok, returns -3 if indices are invalid.

FillArray

Fills an array with the given values. Dynamic arrays get resized to the number of values prior to filling. Fixed-size arrays reset any element not filled to the declared default value of the array. If the number of values exceeds the fixed-size array's maximum length, a runtime error (E3044) is raised.

InsertAtArray

Inserts a value into an array at a given position. This increases the array's size by one and can thus only be used on dynamic arrays.

InsertSortedArray

Inserts a value into an array which is assumed to be sorted in a given order and returns the index at which the value was inserted. The value is inserted so that the sort order is kept intact. Since this function increases the size of the array by one, it can only be used on dynamic arrays.

RemoveAtArray

Removes the element at the given index from the array. This decreases the array's size and may only be used on dynamic arrays.

ClearArray

Resets an array to its initial state. For dynamic array this is equivalent to setting their length to zero (0). Fixed-size arrays use their declared default value to overwrite all

of their elements.

CopyArray

Copies some or all elements from one array to another. If the target array is dynamic, it will get resized if necessary to hold all copied elements.

Array_Copy

Copies some elements from one array to another and returns a value with 0 indicating success and negative values various reasons for failure. It will return -2 if SourceArray or TargetArray is not an array variable, -3 if one of the indices SourceStart or TargetStart is invalid and -5 if NumElements is invalid.

AppendArray

Appends the contents of one array or a single value onto the end of another array. The TargetArray must be dynamic since it will be resized to fit all elements.

HighestArray

Returns the highest value in an array. If the array is empty, its default value will be returned.

LowestArray

Returns the lowest value in an array. If the array is empty, its default value will be returned.

IndexOfHighestArray

Returns the index of the highest value in an array. If the array is empty, the function returns -1.

IndexOfLowestArray

Returns the index of the lowest value in an array. If the array is empty, the function returns -1.

SortArray

Sorts the elements of the array. If the order is not specified, they are sorted in ascending order.

Array_Sort

Sorts the elements of the array. In addition to the start and end index of the elements to be sorted the sorting order must be specified.

SearchArray

Returns the position of the first element with a specific value in an array using a linear search starting from either the first or last element. Returns -1 if the element could not be found.

BinarySearchArray

Returns the position of the first element with a specific value in an array using a binary search, or -1 if the element could not be found. The vector must be sorted in ascending order for this search to work

correctly. This search is significantly faster for large arrays than the normal SearchArray function, the limitation is the vector must be sorted. If the array is not sorted or the wrong sort order is given, the function may not find the value even if it is in the array.

CompareArray

Compares the elements in one array to those in another array. Returns 0 if they are equal, -1 if the first difference in the first array is less than the same element in the second element, and 1 if the first different element is greater. -2 is returned if the parameters are invalid.

Array_GetType

Returns the type of the elements of an array as an integer value. Returns 1 if the type is unknown, 2 for boolean, 3 for string, 4 for integer and 7 for float-based values.

Sort2DArray

Sorts a 2-dimensional array by columns by sorting NumColumns columns in the specified order and moving NumRows elements in each column. The sorting algorithm applied is stable, i.e. columns with identical first element will keep their position relative to each other.

CreateSortedIndexArray

Creates a sorted index into an array. The array containing the actual data will remain unchanged. If IndexArray is a dynamic array, it gets resized to the length of DataArray. If IndexArray is fixed-size and the length of DataArray exceeds its length then a runtime error will be raised, otherwise all elements not containing an index into DataArray will be reset to the declared default value of IndexArray.

Array_Sum

Returns the sum of the elements in an array using the elements' type. For numeric types, this is equal to the sum of all elements, for boolean types it is equal to the number of elements with the value true. If the type cannot be recognized or there are strings in the array, 0 will be returned.

SummationArray

Returns the sum of all or some elements in an array.

SummationRecArray

Returns the sum of reciprocals of all or some elements in an array.

SummationSqrArray

Returns the sum of squares of all or some elements in an array.

MedianArray

Returns the median of the elements in an



array.

AverageArray

Returns the (mean) average value of the elements in an array.

AvgDeviationArray

Returns the average deviation of the elements in an array.

HarmonicMeanArray

Returns the average deviation of the elements in an array.

KurtosisArray

Returns the Kurtosis value of the elements in an array.

SkewnessArray

Returns the skewness (the degree of asymmetry) of the elements in an array.

StdDeviationArray

Returns the standard deviation of the elements in an array.

StdErrorArray

Returns the standard error of the elements in an array.

VarianceArray

Returns the variance of the elements in an array.

Vectors

Vector

Returns a newly created vector (a vector is a one-dimensional array). Vector indices start at zero.

GlobalVector

Returns a newly created vector (a vector is a one-dimensional array) that can be shared between scripts. Vector indices start at zero.

ReadVector

Returns the value stored at a specific index within a vector. Vector indices start at zero.

WriteVector

Writes a value to a specific index within a vector. Vector indices start at zero.

ReadVectorIndirect

Returns the value stored at a certain index within the data vector. The index into the data vector will be looked up via the index vector. Vector indices start at zero.

WriteVectorIndirect

Writes a value to a specific index within a vector. The index into the data vector will be looked up via the index vector. Vector indices start at zero.

CreateSortedIndexVector

Creates a sorted index to a vector. The vector containing the actual data will remain unchanged.

VectorLength

Returns the number of elements stored in a vector.

SortVector

Sorts the contents of the vector.

CopyVector

Copies some or all of the elements from one vector to another.

CompareVector

Compares the elements in one vector to those in another vector. Returns 0 if they are equal, -1 if the first difference in the first element is less than the same element in the second vector, and 1 if the first different element is greater. -2 is returned if the vectors have differing sizes.

SetValRangeVector

Sets a range of elements in a vector to a specified value

SetMaxIndexVector

Sets the largest index value for this vector. Can be used to expand or shrink a vector. Vectors are zero based, so setting a value of 0 will reduce the vector to one element. Use ClearVector to remove all elements from a vector.

SummationVector

Returns the sum of all, or a range of elements in the vector.

SummationSqrVector

Returns the sum of squares of each element in a vector.

SummationRecVector

Returns the sum of reciprocals of each element in a vector.

VarianceVector

Returns the variance of the elements in a vector.

StdErrorVector

Returns the standard error of the elements in a vector.

StdDeviationVector

Returns the standard deviation of the elements in a vector.

MedianVector

Returns the median of the elements in a vector.

LowestVector

Returns the lowest element in a vector.

IndexOfLowestVector

Returns the zero based index of the first occurrence of the lowest element in a vector

HighestVector

Returns the highest element in a vector.

IndexOfHighestVector

Returns the zero based index of the first occurrence of the highest element in a vector.

AverageVector

Returns the average value (mean) of the elements in a vector.

AvgDeviationVector

Returns the average deviation of the elements in a vector.

KurtosisVector

Returns the Kurtosis value of the elements in a vector.

SkewnessVector

Returns the skewness (the degree of asymmetry) of the elements in a vector.

HarmonicMeanVector

Returns the harmonic mean of the values in a vector.

SearchVector

Returns the position of an element with a specific value in a vector, or -1 if the element could not be found. The search starts with index 0. Vector indices start at zero (0).

BinarySearchVector

Returns the position of an element with a specific value in a vector using a binary search, or -1 if the element could not be found. Vector indices start at zero (0). The vector must be sorted in ascending order for this search to work. This search is significantly faster for large vectors than the normal SearchVector function, the limitation is the vector must be sorted.

FillVector

Fills a vector with the specified elements. Each call to this function clears any data already in the vector.

AppendVector

Appends the contents of one vector onto the end of another vector.

ClearVector

Clears the contents of a vector and sets its size to zero (0)

