

tlonFibotrader Handbook

Table Of Contents

Release notes	1
Introduction	2
Installation	2
Trading basics	4
Help & Quickstart	9
Quickstart	9
How To	26
Access Paths	28
Registration/Community benefits	29
Data handling & Data vendors	30
Example: Selecting a data source	30
Data sources	31
Data export	42
Securities administration	44
Artificial quote creation	45
Data links	45
Realtime data	46
Charts, signals and optimization	48
Chart window	48
Draw tools	62
Indicators	68
Chart analysis	79
Chart signals	102
Training Mode	110
Chart gallery	112
Optimization	112
Market Scan/Quickly checking chart template results	115
Portfolio management	116
Portfolio preferences	116
Portfolio manager	116
Commission models	120
Index	125

Release notes

Nearly a year has passed since the last major release. This time has been used to implement several hundreds of customer requests, improve the usability of the software and extend the underlying technical foundation.

The most eye-catching change is the redesigned user interface. The explorer has been replaced by a toolbar as the main application, which consumes less space and offers quick access to all major functions. At the same time it has been integrated into the chart to allow switching symbols quickly without opening additional windows. Many functions should be more accessible and better grouped as before.

A majority of the new functions concerns the chart windows as well as the charting technology and trading signals. Many often requested details have been integrated. These are for example the display of the last update time, individual colors for Fibonacci levels, individual decimal places, improved export, extended possibilities for strategy development and analysis as well as an increase in overall performance.

In addition there have been improvements to nearly all modules. The chart gallery and list are more powerful, CRB/Pro files can be read, the use of bis. data has been greatly improved and a speed assistant helps to prevent problems and many more.

We hope this new version will help you even better to be a successful trader. We are looking forward to your feedback and suggestions.

Your team from www.Fibotrader.com

Introduction

Fibotrader assists you with all your questions concerning securities. Many powerful tools offer both beginners and professional investors various opportunities for chart and portfolio analysis. Build, test and optimize your custom trading strategies including stops and profit targets. You can even create your own indices and have them update periodically.

Benefit from the wide range of supported [Data Providers](#) or from free quotes over the internet and teletext. View automatic updates through Realtime push data streams in all modules including charts.

The assistant as well as the extensive and substantial help will answer most of your questions. If you encounter problems which cannot be solved, you get quick and professional help via [E-Mail](#)!

The development of Fibotrader is a ongoing process. The [AutoUpdate Function](#) allows you to update Fibotrader automatically.

Installation

Notice: All data in the chosen folder will be deleted during the installation. Please save your data from previous versions if you want to continue using it! In order to backup your data, it is enough to copy the complete **data directory** to a new destination outside the program directory. After installation, copy it back into the new directory to continue using your old data. It might be necessary to start with the /reinit command line parameter to convert the database to the new version in case you experience strange behaviour.

If you own the CD version of Fibotrader, the installation will start automatically after inserting the CD into the drive. Otherwise start **Setup.exe** in your Windows Explorer.

We use the newest and most modern installation- and deinstallation technology available in order to ensure that you have no problems with the software. In addition, our own pre-installation program ensures a smooth procedure during the installation and deinstallation.

1. The Installation is being prepared

Just wait for the next screen.

2. Welcome

Choose **Continue** to go on.



3. License

Accept the license terms and press **Continue**.



4. Destination Folder

Choose a folder or just leave it to the default folder. Data in this folder will be deleted. Acknowledge with **Continue**.



5. Ready to Install

If you click **Install**, the program will be installed on your computer. If the install wizard completed click 'Finish'. You can start the program right now by having 'Launch the program' checked or by clicking the icon on your desktop or in the Start -> Programs menu.



Trading basics

The following chapters are small introductions to the stock market. They should be read in order, beginning with the general topics and followed by the more detailed introductions to the analysis of stocks.

What is the Stock Market

Companies need large financial resources to achieve their goals. The Stock or Securities Market gives them the opportunity to obtain these resources. The Investor has the chance to acquire shares of a company.

In return the investor can benefit from the future development of the company. If the company is successful, the investment can gain in value and be of higher value from what the investor invested. Additionally the investor participates in a profit of the company, which is distributed annually. This distributed profit is called a dividend. Dividends do not have to be distributed though.

Many people became rich by trading stocks, but also many people lost everything. Therefore, bear in mind that companies are not always successful and that you could lose the money invested.

Who trades at the stock market

For many people trading stocks has become a way to earn a living. There are many different groups of investors. Private investors have only a small influence on the chart-development of the stock, while bigger institutional investors like funds have several billion dollars to their disposal with which stock prices can be altered easily.

How is a quote generated

The quote is the price for a certain stock, which defines for how much money one stock can be bought or sold. Volatile stocks change their price all the time while small-caps sometimes don't change at all. The price is the result of the law of supply and demand. If more investors want to buy a stock than people who want to sell it, the price increases and vice versa.

The quote or price is not to be mistaken as the real value of a company. There have been times at which for example some internet companies had a higher value as traditional brands such as car manufacturers. The quote or price is the value which investors assign to the company.

There are different kinds of quotes, which refer to different points in time. The first quote of the day is called opening price. During the day there are Intraday quotes and the last quote of the day is the closing price. Furthermore, there is the lowest and the highest price.

Security types

Worldwide there are hundreds of thousands of securities traded at over 100 stock exchanges in different currencies with different characteristics. They have different levels of risk. The most common ones include:

Stocks/Shares - Part of a company

A form of security representing a portion of the nominal capital of a company. It entitles the owner to a proportion of distributed profits (dividend) and to vote at General Meetings. The purchase of stocks is a way to invest money by hoping that it can be sold at a later date at a higher price. For long term investors the dividend can also be a source of benefit.

Investment Funds - Professional Stock Management

Funds are being managed by professional traders who make the decisions which securities to choose. The assets are managed by the fund's management for the account of the investors. Depending on the type of investment fund, the assets may be invested in securities, money market instruments or in real estate. It is either a one time investment or can be paid monthly. Funds are good for unexperienced long term investors.

Bond issue - Fixed Interest

Medium- to long-term securities issued by different institutions during a specified period as a means of raising capital. Bond issues are being sold at a exercise price with a fixed-interest. At final maturity the exercise price is being paid back plus the fixed-interest. Bond issues contain a certain risk such that some bonds (usually with unusual high interest) are not being paid back.

Warrants - Option Trading

Type of security, usually issued together with a bond or preferred stock, entitling the holder to buy a proportionate amount of common stock at a specified price for a period of years. Warrants are being issued by different companies (Emittents) equipped with individual characteristics. Originally,

this type of security was developed to secure prices for contractors. Nowadays it is used to bet on the development of a stock price.

Investment options

You don't necessarily have to become active yourself to earn money at the stock market. The easiest way is to invest money in a fund. A fund is being managed by professional stock traders, who decide which stock to buy or sell. Another advantage is that you can start with a low amount of money. A disadvantage is that you cannot use your own ideas, if you see a chance to make money.

If you have the time and knowledge, you should get involved in stock trading.

How to start

At first you have to choose a bank over which you can trade at the stock market. A depot at a arbitrary bank is a requirement for trading stocks. If you have experience and don't need advice, Internet based banks are best. They do not offer any kind of advisory service but offer usually lower fees.

Pay attention to the different fees. There is not only the annual depot fee but also transaction fees for every trade you make. The transaction fees are the main cost factor if you trade often and should be as low as possible.

If all the paper work is done, get the necessary information how to trade. Even though telephone or fax trading is possible, it is highly recommended to use the internet to order stocks. If you now buy stocks, you are a shareholder of the company.

What is an Index

The share index is the average price of different shares. In Germany the most commonly used equity price index is the DAX, in the US it is the DOW. The DAX contains 30 of the biggest German companies and indicates the trend of the stock market.

There are many different indices for certain branches or services.

Golden Rules for Successful Trading

For successful trading the following rules should be considered.

1. Your depot should be composed of 5 to 10 different stocks

To limit the risk, your money should be spread into different investments. Choose stocks from different companies in different branches and countries. With this diversified portfolio, your investment will depend less on a certain economic development and you will have the chance to compensate for possible a loss.

2. Don't use leverage

Only invest money that is your own! In case of a heavy decline in prices you could get easily get a shortage in liquidity if you trade on a loan. This might cause problems with your bank. When people go broke, it's almost always because they were operating with borrowed money. If you handle all your business and investment affairs on a cash basis, there's practically no chance you could lose everything no matter what might happen in the world.

3. Your stocks should come from different branches and if possible from different countries

This rule belongs to the diversification rule, as described under 1. If you have chosen 5 to 10 different securities to invest in, make sure that they belong to different branches and if possible that they are traded in different countries. This diversification limits the risk if one branch underperforms. Also you are protected from political developments in one country, if you own securities in more than one country.

4. Cut your losses and let your profits ride

This is one of the most important rules and the essence of good investing. Never let your losses run. The basic failing of most speculators is that they put a limit on their profits and no limit on their losses. A man hates to admit he's wrong. Therefore, an individual will often let his loss ride, becoming larger and larger in hopes that eventually the market will turn around and prove him correct. Then after a while, he begins hoping for a small loss and gives up hoping for a profit. Human nature also dictates that an individual wants to take his profit right away and thus prove himself correct. There is an old saying, "You never go broke taking a small profit." But you'll certainly never get rich that way. Being satisfied with small profits is the wrong mental approach for making money in speculation. If you are correct when entering a speculative situation, you will know it almost immediately and will show a profit quickly. However, if you are wrong, you will show a loss and you should remove yourself from the situation quickly. Taking a small loss does not necessarily mean you were wrong in your thinking. It simply means that your timing was perhaps incorrect and that you should wait for the correct timing and situation to allow you to reenter the market. Remember, in any speculative situation, the market is the final judge. An individual must let the market tell him when he is wrong and when he is right. If you show a profit, ride it until the market turns around and tells you that you are no longer right, and, at that time, you should get out...but not before! The easiest way to limit a loss and to ensure a profit is to set up a stop-loss-limit, which will automatically sell, if the limit is reached.

5. Adjust your strategy to the market situation

This rule follows the rule about setting up stops. As soon as a limit is reached, have a look at the market situation and reinvest if there is a consolidation in prices. Adjust your strategy to the psychology of the market as explained in 7.

6. Invest long-term

The only way to seriously earn money by trading stocks is to invest long term. This is one of the rules of Andre Kostolany, the well known stock market guru, who was very successful obeying this rule.

7. Don't follow the crowd

Buy when people are selling and vice versa. Each person is unique, so is their trading style. Remember when people are selling in panic, it is someone else's buying opportunity. For example, during a bear market (falling prices), many investors panic and sell their stocks, while during bull markets (rising prices) everybody is crazy about stocks and the important fundamentals are forgotten. Psychology is very important in stock trading. Trade anti-cyclical, buy at the end of bear markets and sell before a bull market ends. To find the right timing is the key. People who buy too early often find that they have large losses. Those who have a little patience, and know the safest time to buy, can build large positions at comparatively low prices with a very high degree of safety.

8. Buy stocks from growing branches, which have a good market position

Invest only in top companies, who are leaders in their branches and performed well over the last years. Try to invest in branches which promise to grow in the future. Biotechnology and the pharmaceutical industry are for example interesting branches.

9. Invest only a small amount of your fortune into risky investments

If you want to maximize your gains, you also have to limit your losses. This is not only done by setting up stops, but also by only investing a small amount of money into very risky investments like warrants. Also many stocks from new branches such as the internet or biotechnology carry a

high risk. Many investors have lost huge sums by putting too much money in those sectors. The trader who wants to make money seriously should do everything to limit his risk of losing money!

How to use stops

Before buying a stock, assess how much money you are willing to risk. If the price falls below your limit, sell! It is a common mistake to hope on better prices or buying even more stocks, because now they are "cheaper". Greed and hope are the biggest enemies to the trader.

The following table is supposed to clarify how much a price has to rise to compensate for a loss.

Loss in %	Necessary gains in %
10	11,1
20	25,0
30	42,9
40	66,7
50	100,0
60	150,0
70	233,3
80	400,0
90	900,6

Help & Quickstart

A lot of questions our support team has to answer are basically the same. In this section you find a list of the frequently asked questions and their answers. If your questions is not listed here, please [contact our technical support](#).

Quickstart

Fibotrader assists you with all your questions concerning securities. Many powerful tools offer both beginners and professional investors various opportunities for chart and portfolio analysis. Build, test and optimize your custom trading strategies including stops and profit targets. You can even create your own indices and have them update periodically.

Benefit from the wide range of supported [Data Providers](#) or from free quotes over the internet. View automatic updates through Realtime push data streams in all modules including charts.

The extensive and substantial help will answer most of your questions. If you encounter problems which cannot be solved, you get quick and professional help via [E-Mail!](#)

The development of Fibotrader is a ongoing process. The [AutoUpdate Function](#) allows you to update Fibotrader automatically.

Introduction

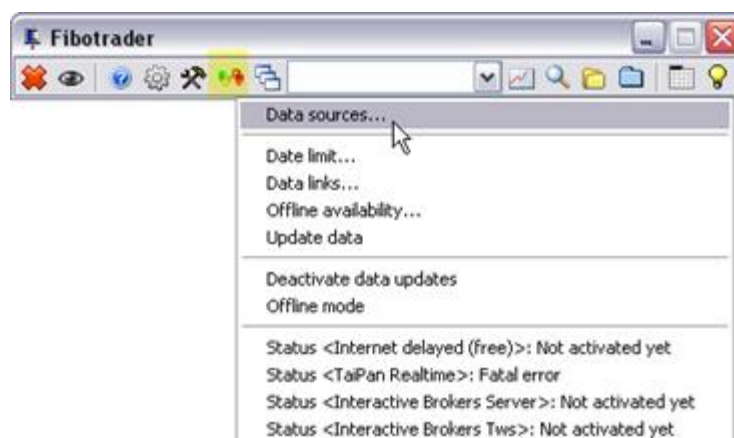
With Fibotrader you have a trading program which will help you in almost all parts of security management.



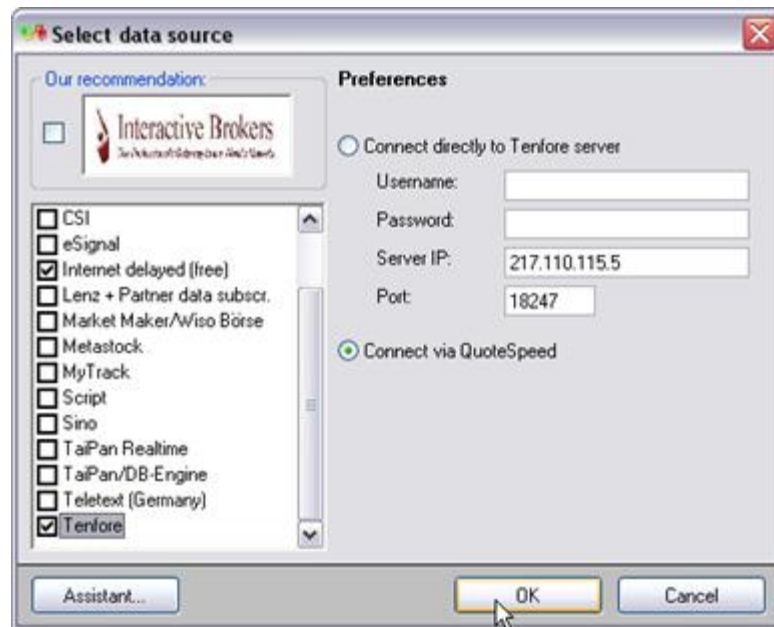
This introduction will give you an overview of the basic functions of the involved programs and inform you about the approach and different solutions for your tasks and fields of interest.

Data administration

Fibotrader offers a wide selection of data sources which is continuously enlarged. You reach it via Toolbar / icon Data management / Data sources.



Within the data source overview the desired source can be selected.

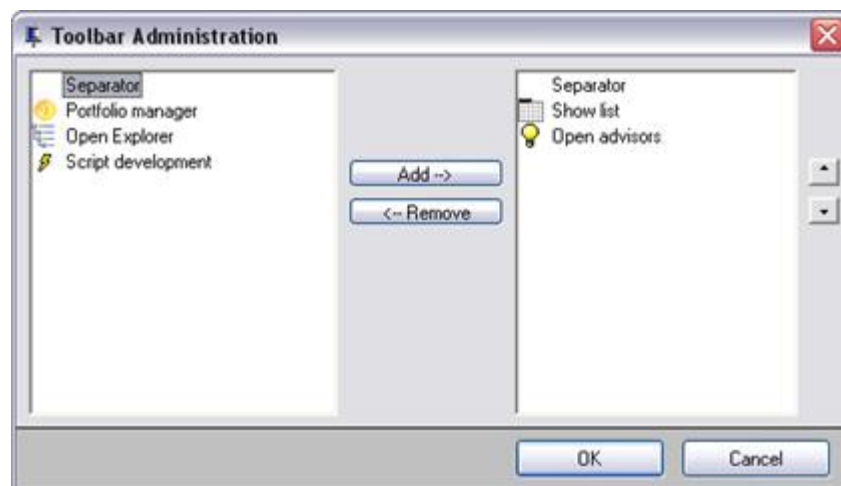


The Toolbar

The Toolbar contains the important core functions of this program. Here you can organize symbols and portfolios, as well as call the different modules and functions by clicking the icons.



You can configure the available icons by right-clicking the Toolbar and opening the Toolbar administration.



The functions from left to the right:

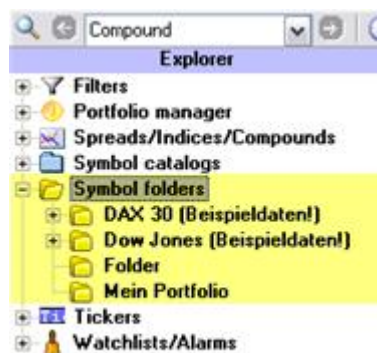
1. Close program
2. View mode: Here you can dock the Toolbar to the upper screen border or minimize or hide it temporarily. Additionally you can hide all open windows except the Toolbar to quickly access the desktop. This function is also available by right-clicking the eye.

3. Help
4. Preferences
5. Tools / Program modules
6. Data administration
7. Windows
8. Search
9. Chart
10. Start search or open search window
11. Folders (managed by yourself)
12. Catalogs (provided by the data vendor)
13. List module
14. Advisor

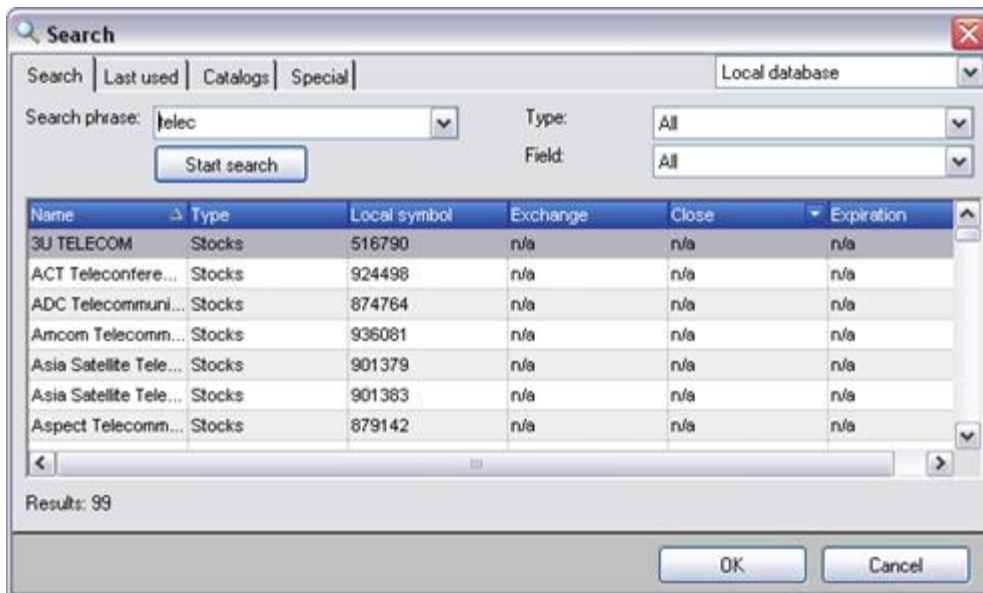
Securities management

The Symbol folders module in the Fibotrader explorer already contains the example folders DAX 30 and Dow Jones with EOD Data. You can create an unlimited number of folders and sub-folders. These can then contain your symbols.

Right click the module 'Symbol folders' within the explorer and choose 'New folder...' Enter a name and confirm. The folder is added.



You can add symbols to this folder by right clicking it. The options menu opens. Now select 'Add symbol', the search mask will be opened.



Enter a search word, start the search and select a hit. Click the button **OK**. The selected symbol is now copied to the new folder.

You also can copy symbols from other folders using two ways:

Choose the desired symbol and drag it into the new folder using the mouse. When you release the left mouse button a copy will be created in the folder.

Or right click the desired symbol and choose 'Copy to clipboard' (Alternative: Press F11). The clipboard window opens and shows the current content. You can copy more symbols or even folders to the clipboard the same way.



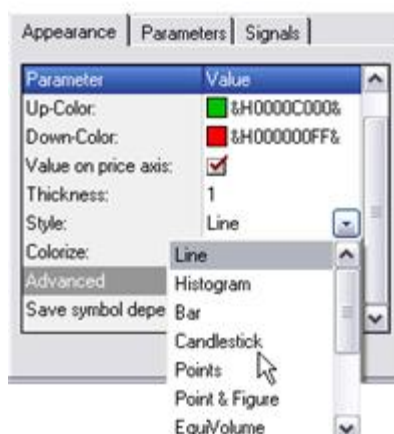
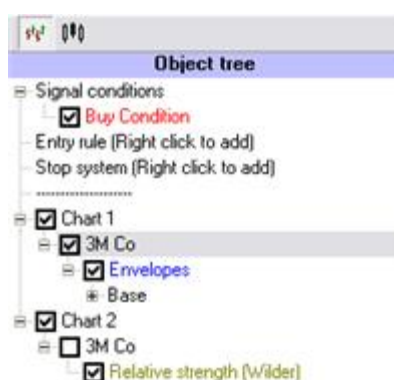
Now finish the process by right clicking the new folder and selecting 'Insert from clipboard'(Alternative: Press F12). All values from the clipboard are now copied to this folder.

Chart window structure

The chart window consists of three main components. In the middle is the big charting area, on the left the explorer and on the right the object tree where all the configuration can be done. There are vertical dividing buttons between the explorer, the object tree and the actual chart, which allows to show and hide the individual parts.

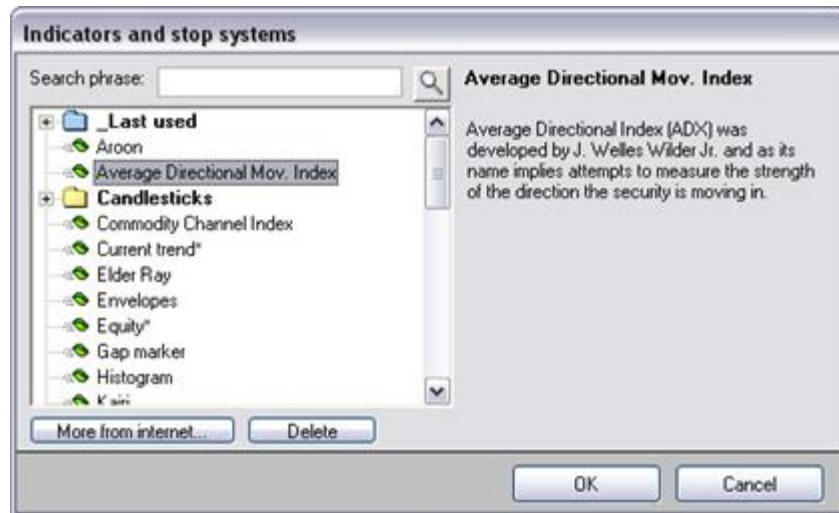


If you select an object in the object tree the configuration options of this object will be shown below. Here you can find e.g. the '**Appearance**' options with the available chart types.



Adding an indicator

Indicators can be added by right clicking an object in the object tree or by pushing the Add indicator button from the chart toolbar. A window opens showing all available indicators.



After selection of the desired indicator it will be calculated and shown in the chart.

Chart drawings

The chart module offers a wide variety of tools which allow to draw directly in the chart. These tools can also create signals in a lot of cases. From the draw tools menu you can choose the tool you want. In the chart window, press and hold the left mouse button, to start drawing. Release it, when done.

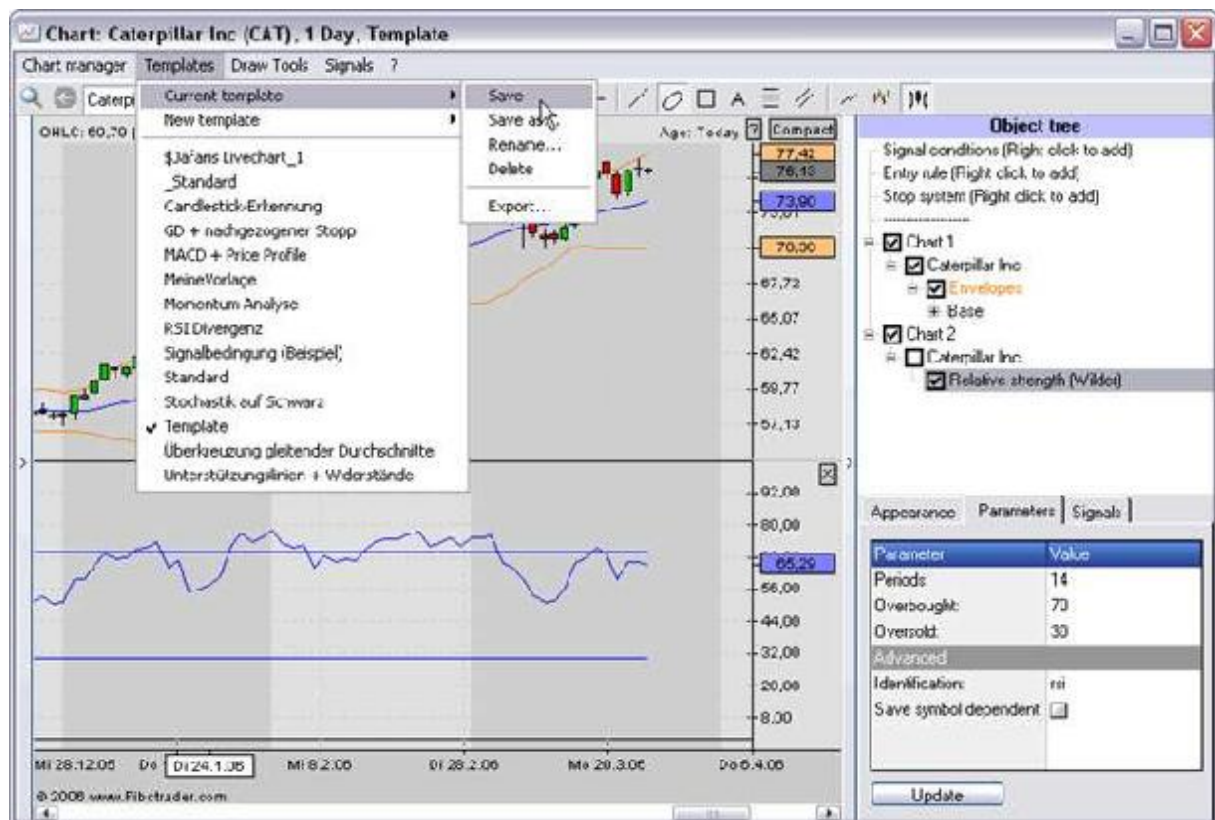


Drawings will be highlighted when moving the mouse above them. A couple of little circles will appear, which allow to modify, e.g. move, the drawing. Pressing the right mouse button on a highlighted drawing brings up a menu which shows additional options. To delete drawings either use this menu or press the delete key.

Drawings like the Phi-Ellipse have different adjustment options. These can be edited by right clicking the drawing or within the left configuration area by selecting the drawing in the object tree.

Saving chart templates

The current chart configuration can be stored for later use by using chart templates. Within a template all indicators, parameters and preferences are saved.



A template can be easily loaded with a single mouse click.

Trading signals

Many indicators can create trading signals. These represent buy and sell moments which are shown by green and red markings. If the mouse cursor is moved over a signal a dialog showing detail information appears.



The signal presentation can be configured for each indicator. Select the indicator in the object tree and change to the 'Signals' tab sheet. Here all signals can be (de-)activated. All signals from sub windows are always shown in the main chart and there combined.



In the lower right corner of the chart the result achieved with the current strategy is shown. This contains profit / loss as well as the number of trades. Details of the calculation can be configured in backtesting sets in the Signals / Backtesting / Manage menu. Here the calculation of short signals is controlled as well as the preferences for position sizes and transaction costs.

There are different stop systems available. These are automatically processed after the indicator calculation. There for it is often useful to deactivate the indicators signals.

By right clicking at 'Stop system' you can add stop systems and profit targets.



Stops generate cover signals which are marked yellow within the chart.



Additionally to the short summary of the strategy results you can request a detailed evaluation. This can be done in the menu Signals / Results.



The evaluation is divided into three parts: Reports show the important facts in compressed form, the signal list shows all signals of the current strategy with detailed information and the graphical

analysis offers a fast overview over the evolution of the equity chart and the profit / loss relation.

Optimization

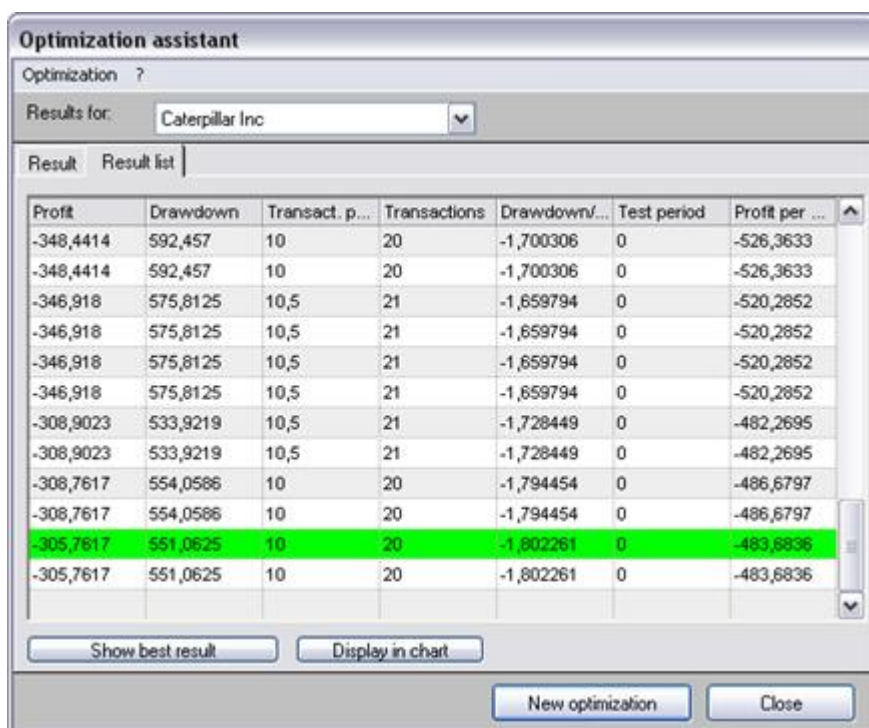
The optimization tries to change the parameters of all indicators in the chart that way historical the maximized profit would have been reached.

The optimization is started in the menu Signals / Optimize.



Fibotrader automatically offers limits within which an optimization makes sense. These limits can be adjusted in the 'Optimization parameters' tab sheet. All indicators and their parameters contained in the current template are listed here. For each parameter a start value, step width and end value can be set. In the lower part of this window the complete step count is shown. By clicking Start optimization the process is activated.

After the optimization is finished the evaluation shows each tested parameter combination with reached profit, number of trades and drawdown. This view is already filtered.



The filter preferences can be configured by selecting Optimization / Preferences. Here the minimum number of trades per year and other limits can be defined.

The best result is automatically marked green and loaded into the chart.

Using lists

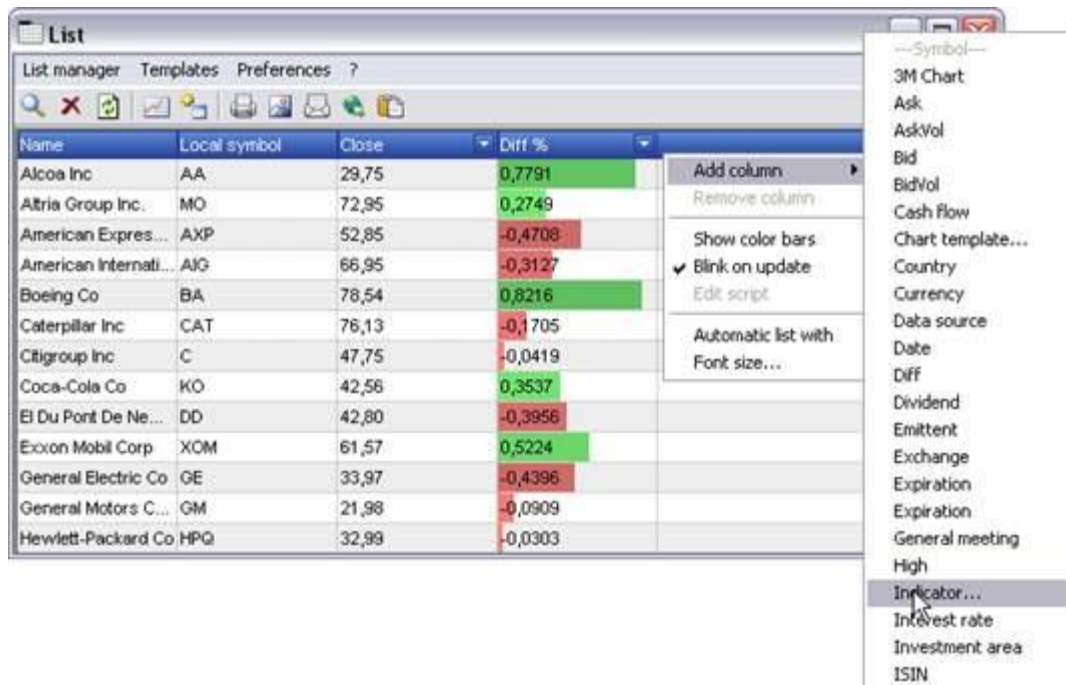
Lists are a useful tool giving a fast overview. Quotes and also the state of trading systems and their current signals can be watched.

List

List manager Templates Preferences ?

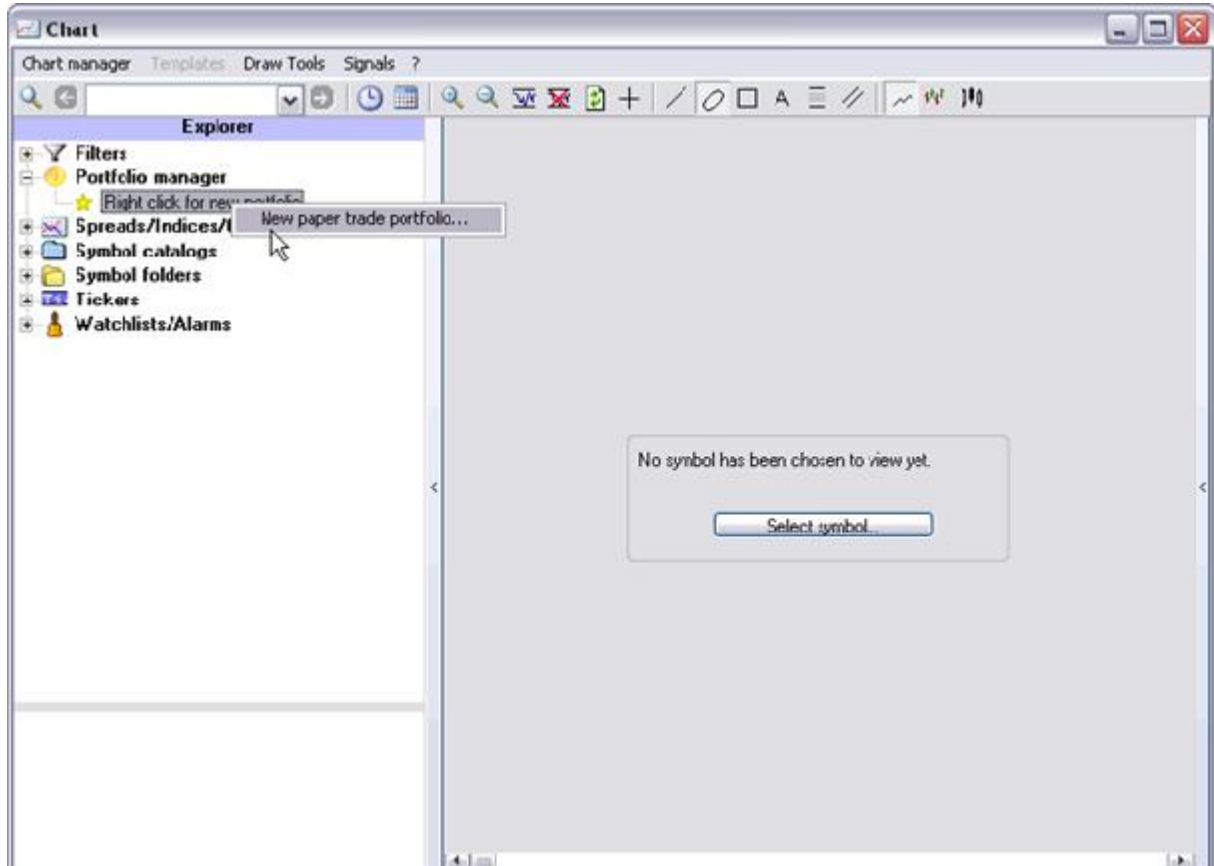
Name	Local symbol	Close	Diff %	RSI	MACD + Price ...
Alcoa Inc	AA	30,17	-0,5275	53,99	Buy
Altria Group Inc.	MO	72,03	-0,0278	43,44	Sell
American Express...	AXP	52,57	-1,4805	38,95	Sell
American Internati...	AIG	66,03	-1,6679	40,24	Sell
Boeing Co	BA	77,51	-1,1226	63,03	Buy
Caterpillar Inc	CAT	74,87	-0,6766	58,26	Sell
Citigroup Inc	C	47,80	-0,0840	59,66	Buy
Coca-Cola Co	KO	42,16	-0,5426	47,75	Sell
El Du Pont De Ne...	DD	42,39	-0,3994	57,79	Buy
Exxon Mobil Corp	XOM	60,95	-0,5547	53,31	Buy
General Electric Co	GE	33,60	-0,5623	46,40	Sell
General Motors C...	GM	22,75	-0,7850	60,25	Buy
Hewlett-Packard Co	HPQ	32,07	-3,1410	41,51	Sell

A new list column can be added by right clicking the head row. The selection of available columns appears.



Create a portfolio

Fibotrader allows to handle virtual papertrade portfolios. Right click on 'Portfolio management' in the Explorers object tree and choose 'New papertrade portfolio...'. You can use an unlimited number of portfolios.



An input dialog opens, requiring to enter a name. Enter a name, optionally you can add other data like owner and bank. Finish by clicking **OK**.



Name	Amount	Break-Even	Price	Profit
adidas-Salomon	180,00	175,20	165,34	-1.775,00
SAP AG St.	85,00	171,79	174,00	187,45

Balance: 54.520,48 EUR Portfolio value: 98.930,68 EL Open P/L: -1.587,55 EUR Transact. (open): 6 (2)

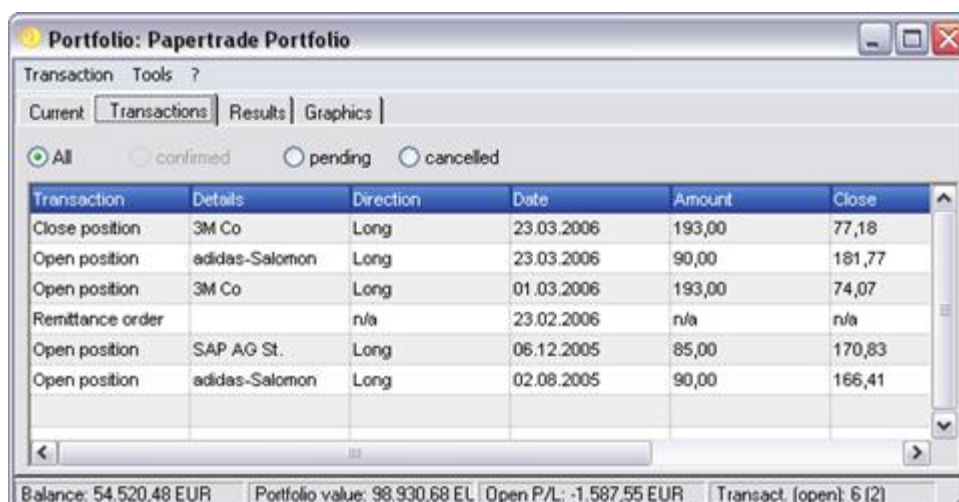
The portfolio is now created and you can book transactions. An initial transaction has been made to have some money available in the virtual portfolio.

Portfolio management

A detailed view of the portfolio with different evaluations offers the portfolio manager. Right click a portfolio and choose 'Portfolio manager'.



Here you can find the possibility to book different transactions. The order is not relevant because entries are automatically sorted by date.



Transaction	Details	Direction	Date	Amount	Close
Close position	3M Co	Long	23.03.2006	193,00	77,18
Open position	adidas-Salomon	Long	23.03.2006	90,00	181,77
Open position	3M Co	Long	01.03.2006	193,00	74,07
Remittance order		n/a	23.02.2006	n/a	n/a
Open position	SAP AG St.	Long	06.12.2005	85,00	170,83
Open position	adidas-Salomon	Long	02.08.2005	90,00	166,41

Balance: 54.520,48 EUR Portfolio value: 98.930,68 EL Open P/L: -1.587,55 EUR Transact. (open): 6 (2)

Buying securities

There are different possibilities to buy securities. To buy and sell securities you need a portfolio. If you haven't created a portfolio yet, proceed with creating a portfolio.

- Right click on your portfolio in the Fibotrader Explorer
- Select **Portfolio manager**
- Click on **Transaction**, then **New**, and select Buy/sell stock
- Select the security and enter the amount you want to buy/sell
- Acknowledge with OK

Another way to buy a security is to select and drag & drop it into your portfolio. Or just right click on the security and select **Buy**.

Get current quotes

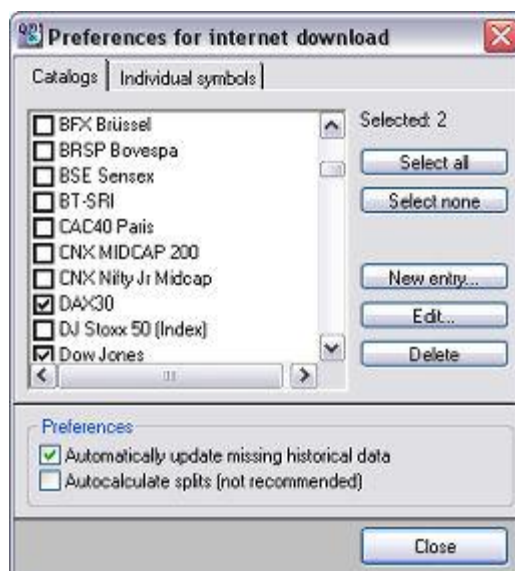
After the first start of QuoteMan you should start a data update. This can be done in Fibotrader by selecting Update data from the Data menu. The pre-selected data vendor is most often the free (delayed) internet service. You will be asked to select the catalogs to download.

After you chose these the download is started. You can open task manager from the 'Tools' Menu to watch the current state of the download. There are three progress bars in the QuoteMan main window. When the Intraday download is finished the missing historical data will be loaded. This process can be followed in the history assistant which can also be found in the 'Tools' menu.

The automatic download of Intraday data can be configured in the 'Data' menu by selecting 'Update automatically...' Here the interval can be chosen or deactivated.

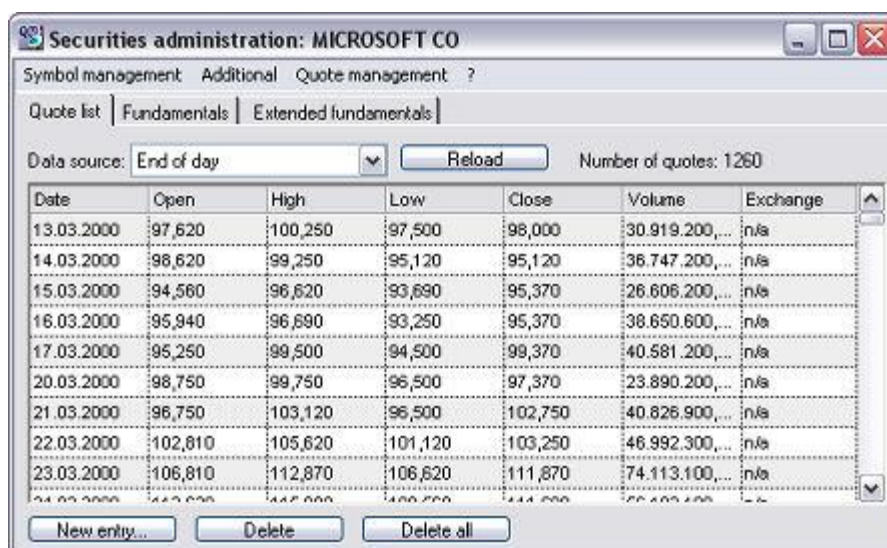


In QuoteMan select Program / Preferences / Internet download. A list of available indices opens which can be selected by setting the checkboxes. Select only the indices you're interested in. The next update will simply ignore the not selected data.



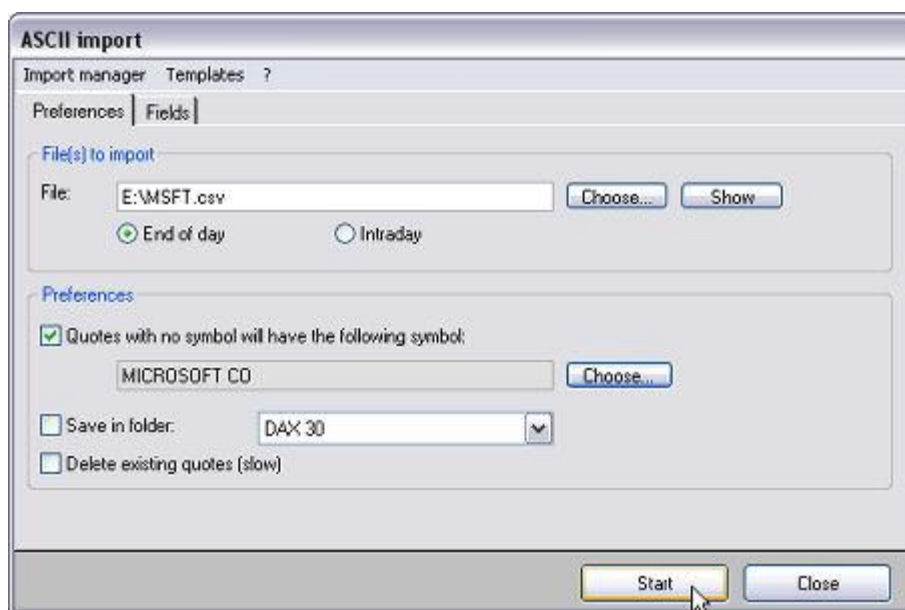
Securities administration

The securities administration can be found in the 'Tools' menu. Here you can change quotes manually, alter fundamental data, perform splits and much more.

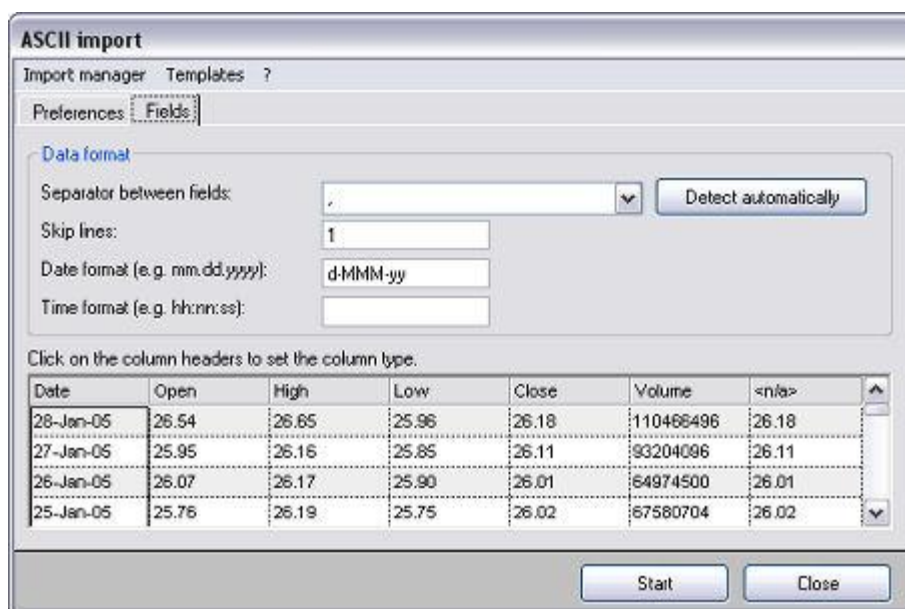


ASCII File Import

You can import price data easily from ASCII files with the import assistant of QuoteMan. This can be done in the menu Data / Import. Here select the file which contains the quotes and the target symbol. The data format is most often automatically recognized.

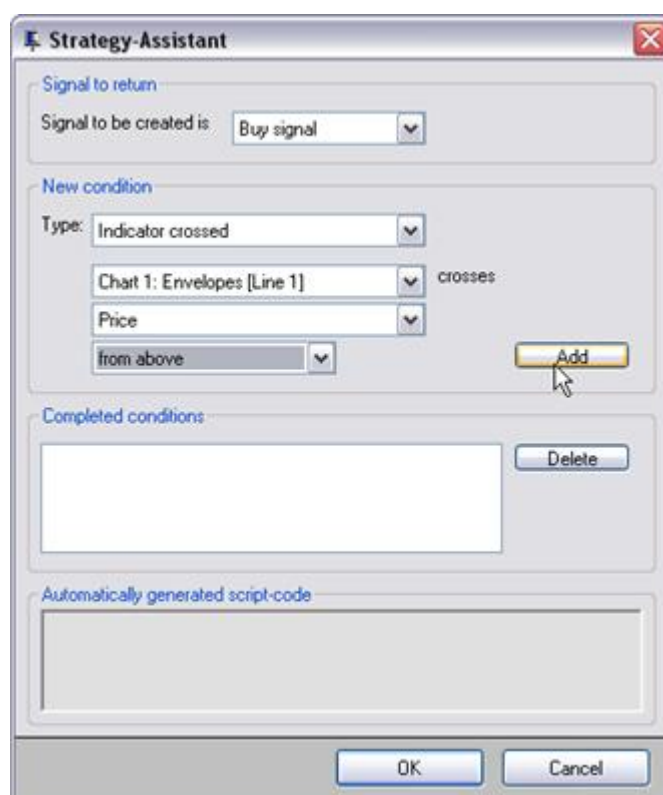


In most cases the recognition works flawless, beside that always check the result in the 'Fields' tab sheet to exclude mistakes.



Professionals: Creating signal conditions

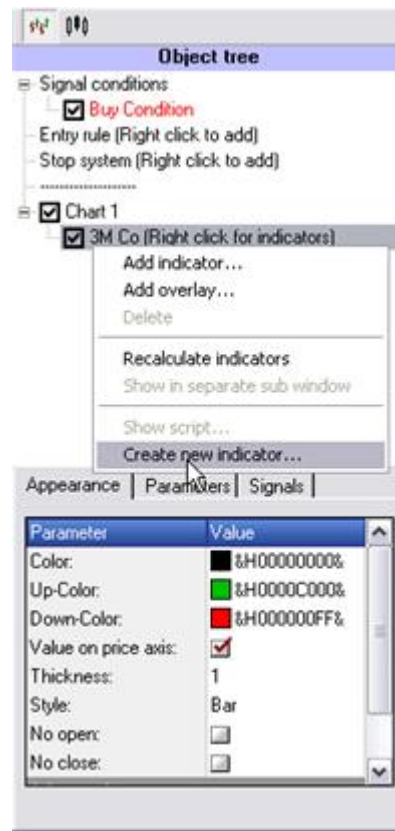
You can combine multiple indicators to one signal condition. Buy, sell, cover and signal filter conditions can be created.



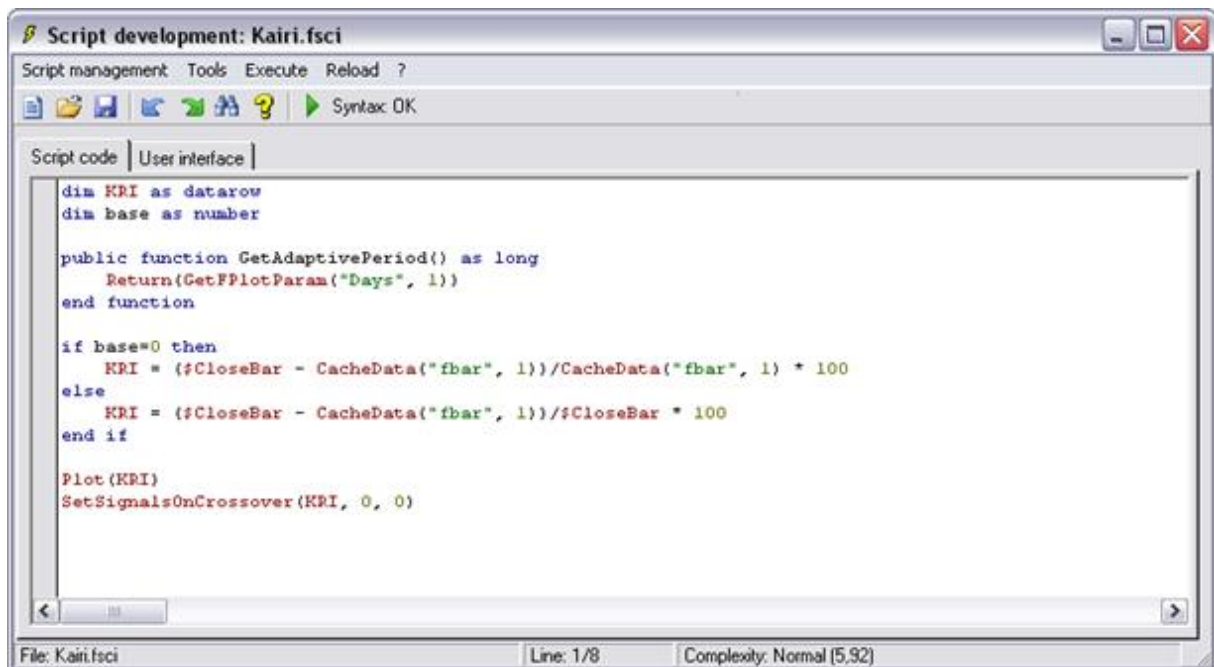
Create a new signal condition by right clicking at 'Signal conditions'. The Strategy assistant allows to define the desired combination of indicator values, signals and quote data. Afterwards the new condition can be edited in the tab sheet Parameters, based on the integrated script language.

Professionals: Creating custom indicators

In Fibotrader you can create your own indicators by right-clicking the symbol in the object tree and choosing 'Create new indicator...'. This way you can first enter a name for this new indicator.



After confirmation of the dialog the script assistant opens. Here the new script code can be added.



By using the integrated script language you can use all implemented functions and add you own. The most indicators are available as source code and give a helping hand at first questions.

How To

... add securities, which are not in the catalog

If you do not use a professional data subscription like Lenz + Partner which includes almost 100.000 securities, you can manage any number of your own securities.

- Start QuoteMan
- Select **Manual stock administration** in the **Tools** menu
- Press the **New** button in the **Stock management** menu, and add the name of the new security
- The security has now been added and you can insert the securities data

... deinstall the program?

To deinstall the software go to the windows control panel and select software. In the list which appears there will be an entry for Fibotrader. Select change and then remove in the installation assistant.

Tip: If you choose remove instead of change some elements will not be deleted.

... optimize signal systems based on an Intraday basis

- The procedure to optimize signal systems based on a Intraday basis is almost the same as the optimization on a daily basis
- The difference lies within the signal system
- Select a resolution in the chart and activate the option **Save resolution**.
- Save the signal system.
- From now on it will be optimizes in the chosen resolution.

... send the log-files to the technical support?

Log-files are created when an error occurred. At the next start after the error a message will appear stating that logs have been activated. You can also activate them manually [via command line](#) or through the Help/maintenance menu.

The log-files will be saved in the program directory with the extension .log. They contain information about the activities which led to the problems. The technical support can simulate problems this way and solve issues faster.

With the log files activated try to recreate the error. Only then the support team will be able to see the cause of the problem. There will be three files with the extension .log in the Fibotrader directory. Please send these files via [E-Mail to us](#).

... start programs with a parameter?

If you want to supply a parameter to the program you cannot just double-click on it or start it from the program menu:

- Choose Start and then "Run..."
- Click on "Browse..."
- Navigate to the program directory (e.g. C:\Program files\FFC\WinPhiTech)
- Double-click on the program file (.exe extension)
- Add a space behind the text in the run screen
- Add the parameter (/help shows a list of possible values) and start it



Access Paths

Below many help page topics you can see an access path, which explains where to find the module / function.

Example:

Located at: [Fibotrader](#) > [Toolbar](#) > [icon Data management](#) > [Date sources](#)

The first entry shows which program contains the function (Fibotrader / QuoteMan)

For Fibotrader the second entry names the window, within which the function can be found (Toolbar / Chart window / Explorer as part of the chart window or standalone window).

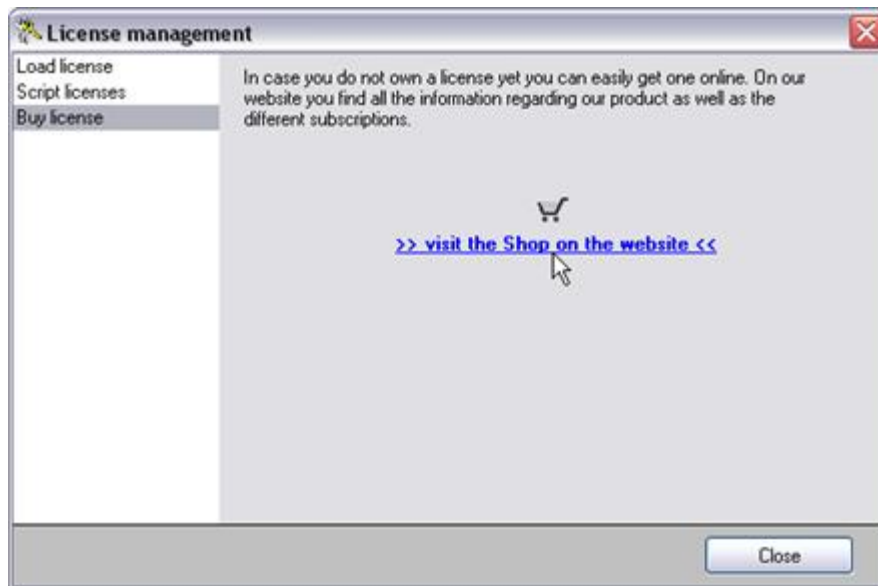
Afterwards follows a detailed path of menus and tab sheets to find the function.

Registration/Community benefits

Located at: [Fibotrader > Toolbar > icon Preferences > License management](#)

This software is completely free as long as just the ASCII import is needed. Registering this software allows you to update data from many other sources and to use the online services. The license key can be obtained online through our web site at www.fibotrader.com.

The Registration is done by selecting **Help/Registration assistant** from the help menu. Entering the user data and clicking **Download license** will install the obtained licenses. Included is the Fibotrader software, support and the unrestricted access to the weekly market letters of Robert Fischer. Visit our web page to find out about additional modules like [advisors](#).



Unregistered users will only be able to use the manual ASCII import.

Data handling & Data vendors

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

There are several ways to obtain data. You can download free quotes from the internet, use professional data from well known data vendors or import existing data via ASCII import or interfaces to other software packages. For some data sources another program, QuoteMan, is started which will perform all operations in the background.

You choose a data source by going to the Program/Data source menu. QuoteMan can be started manually through the Program/Linked programs.

We put a lot of effort in making you **independent from a single data vendor**. Through this you have an alternative should your main provider be down. In this case, you can switch to another vendor and continue your analysis. Should your internet connection terminate, you can still use teletext or even enter data manually.

We distinguish between two types of data: **Intraday** data, which is collected during the day and **End of Day** data, which contains the opening, high, low and close of one single day. You can choose a different provider for each data type. This makes sense when you have a data provider for EOD quotes which offers very long historical data but no or insufficient Intraday data.

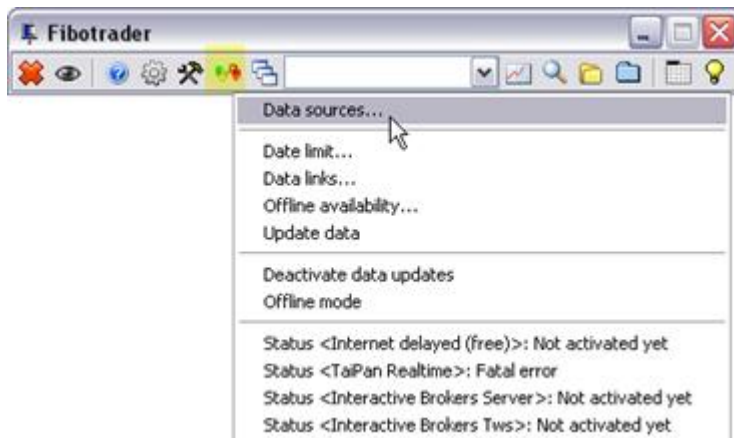
Some data vendors offer a catalog function. This is a very helpful tool. If available, there will be a new entry in the Fibotrader Explorer named **Symbol catalogs**. It is a much easier way to find and organize data. This way you do not have to hassle with data management and can concentrate on analysis.

Currently supported data sources:

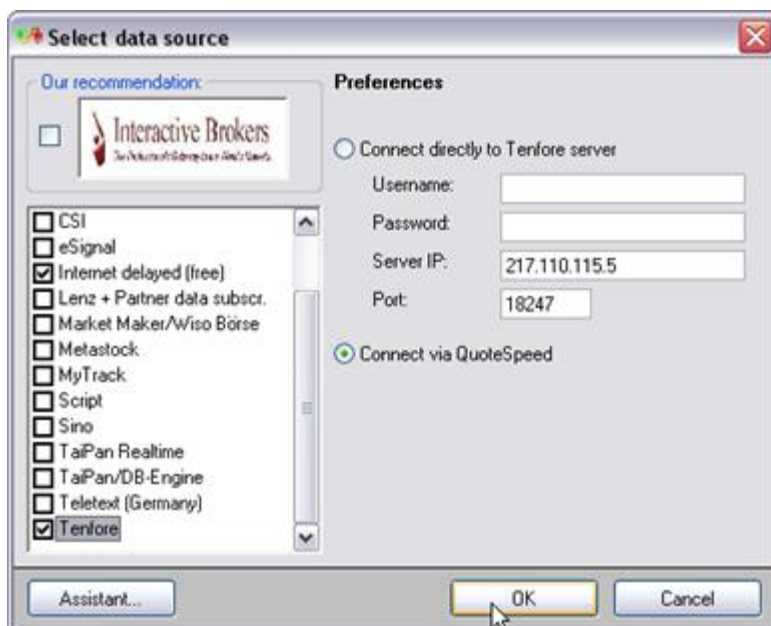
- [ASCII file import](#)
- [bis./Premium Trader](#)
- [CSI](#)
- Custom Script import (e.g. Sentix, Aktienscout24, c't Geld Spezial MxM quotes...)
- DP file import
- [Enter data manually](#)
- [eSignal](#)
- [Interactive Brokers](#)
- [Internet \(delayed, free\)](#)
- [Lenz + Partner data subscription](#)
- [Market Maker](#)
- [MetaStock](#)
- [Sino](#)
- [TaiPan/Database Engine interface](#)
- [TaiPan Realtime interface](#)
- [Teletext](#)
- [Tenfore](#)

Example: Selecting a data source

- You can reach the data source selection via the context menu of the Data management icon in the Fibotrader Toolbar.



- Within the data source overview the desired source can be selected.



Data sources

ASCII

ASCII data

The ASCII format is a special text file format, where price data is easily accessible line by line. There are several formats, which differ in the amount of data, date formats and separators between individual columns.

Example:

```
12/03/1990,83.17,83.17,83.17,83.17
12/04/1990,83.13,83.15,82.67,82.73
```

In this case, there are five columns separated by comma stating date, open, high, low and close.

This software supports two easy ways to read from ASCII data, either by **importing** it into the local database, or by **reading it directly**, without the need to import first.

ASCII file import

Located at: QuoteMan > menu Data > Import > ASCII File

The ASCII file import assistant helps to read text files into the local database. The format will be detected automatically in most cases. The only prerequisite is that the data is contained line by line.

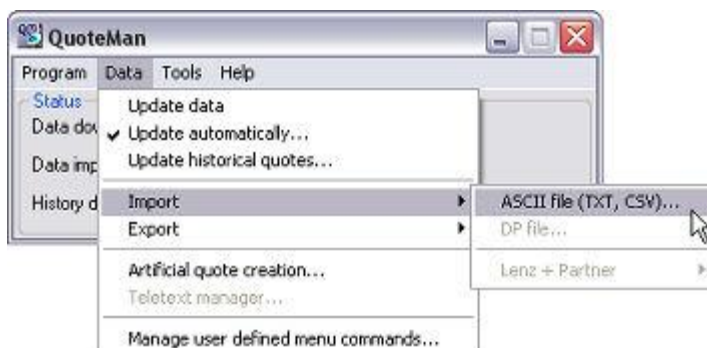


The data needs to be linked to a symbol from the local database. If the data does not contain a symbol column, it can be set manually in the preferences tab. If this is not done, a symbol with the name of the file will be created and the data will be saved there.

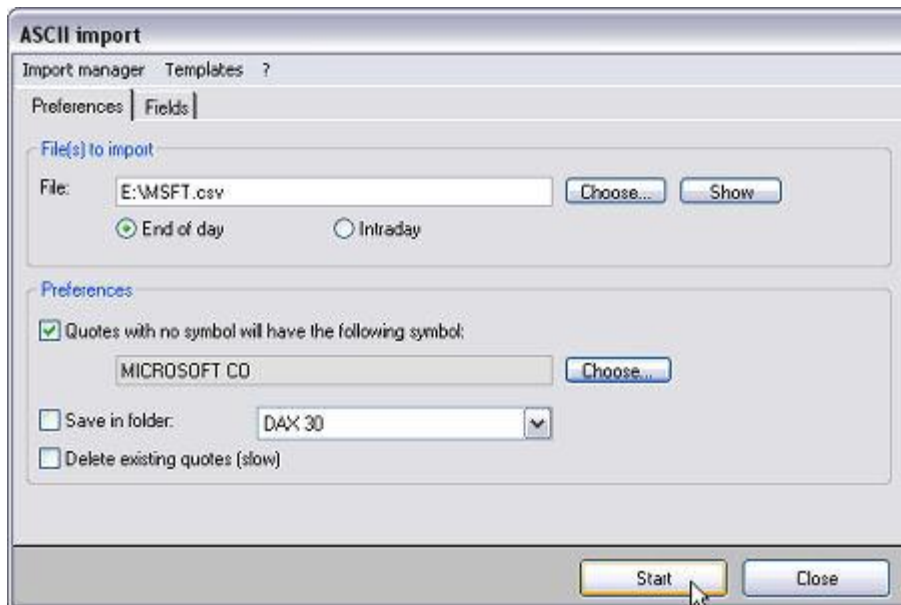
It is possible to use wildcards in the file text box to import multiple files at once. Example: c:\temp*.txt will import all files from the directory, assuming they all have the same format.

Example: Importing a CSV-file containing EOD-Data

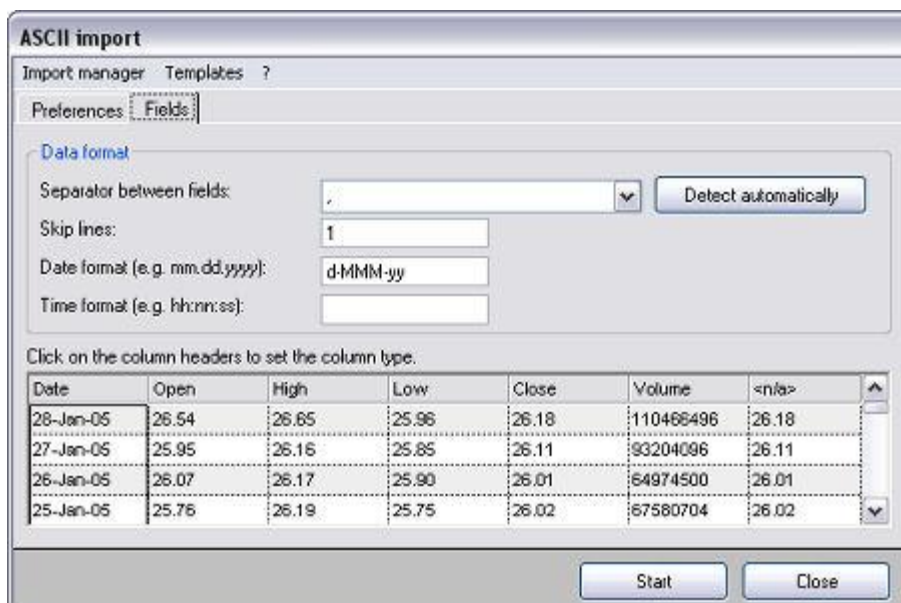
- Choose the menu data / import / ASCII file.



- The dialog for selecting of the CSV-file and the security data appears. You can add the ticks to an existing security or create a new security in a folder. In this case the file name is used as name.



- After selecting the file the automatic detection recognizes line breaks, column delimiters and can also interpret the file header as well as date and time formats. Furthermore it is capable of finding out, how many lines to skip at the beginning. Check the correct detection in the 'Fields' tab sheet.



- The fields tab allows to assign fields to columns, which were not or incorrectly recognized. Clicking on the column name opens a list with all available fields.
- After the configuration is done the import process is started by clicking the **Start**-button.

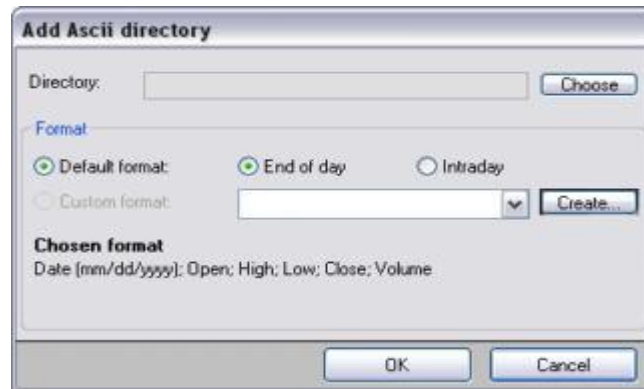
ASCII data directory

Located at: [Fibotrader > Explorer > menu Program > Preferences > Data sources](#)

The traditional way to read ASCII data is to import it into the local database. This has some disadvantages though. It is time consuming, can be slow and has to be repeated each time the ASCII file is updated. It is possible to skip this step completely.

In order to do this, there is a data vendor called ASCII. It allows to select directories, which contain ASCII files. Any format template from the ASCII import assistant can be used to adapt to custom file formats. The directories will be displayed as catalogs. In addition, as soon as a file is changed,

the system recognizes this and updates the data automatically. This way, ASCII data can be streamed into the Fibotrader software from another program exporting ASCII.



bis./Premium Trader

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Connects to an installed bis. or Premium Trader system through WBServer, TickServer and BTRDaten. EOD and ID data is supported as well as realtime push-news.

Attention: The slot for realtime data needs to be unlocked through the b.i.s. AG hotline. It can be configured through the data source preferences.

Link: www.bis.de

CSI

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Connects to an installed CSI software and loads data from CSI. CSI is one of the biggest end of day data vendors with a huge database and in-depth future support.

Link: www.csidata.com

eSignal

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Connects to an installed eSignal software and loads data from eSignal, which is one of the biggest data vendors and offers a big selection of stock market information.

Link: www.esignal.com

Interactive Brokers

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Fibotrader is able to collect realtime updates from the Trader Work Station. For some symbols even historical data will be added automatically. For a list of supported historical symbols please see our website.

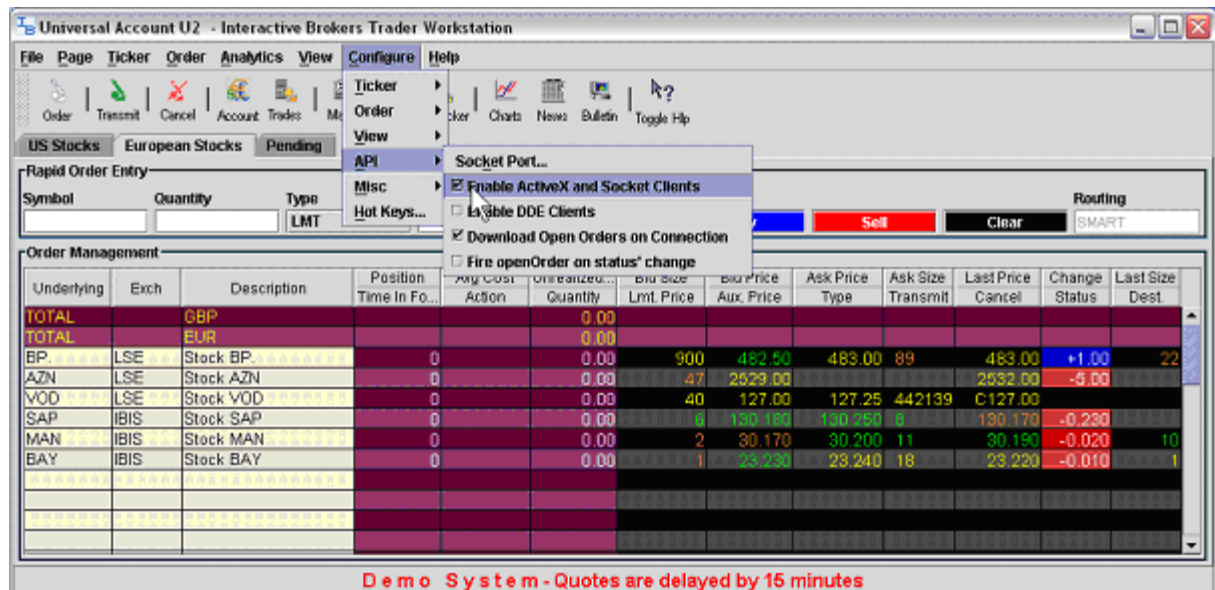
Link: www.interactivebrokers.com

How to configure your Interactive Brokers Trader Workstation to work with Fibotrader

1) Login to your Trader Workstation with your username and password. You can use either the standalone or browser based TWS.



2) In the 'Configure' Menu, choose the 'API' submenu and activate 'Enable ActiveX and Socket Clients' checkbox.



3) Only in case you changed the 'Socket Port' setting in your Trader Workstation, follow these additional steps:

- 1) Start Fibotrader
- 2) In the 'Program' menu, choose 'Preferences' and 'Data sources'
- 3) Left-click on the Interactive Brokers Logo
- 4) In the appearing window, you can adjust the Fibotrader settings to your needs
- 5) Restart Fibotrader

Internet (delayed, free)

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

QuoteMan can download free quotes from the internet, which contain most of the major indices (DAX, MDax, SDax, Nemax, Dow Jones, Nasdaq...) free of charge. Historical data is available and will automatically be kept up to date. Catalogs are also supported.

This is the recommended method for free quote updates. It can be used all over the world since QuoteMan supports international settings and time zones.

You can choose which data to load by opening QuoteMan (double-clicking on the QuoteMan Icon in the systray). There in the **Program/Preferences/Internet download** dialog check the entries to download. With the next update the catalogs will be created and historical data will be downloaded by the history assistant.

Lenz + Partner

Lenz + Partner data subscription

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

The German Lenz + Partner AG offers a variety of data subscriptions. QuoteMan can handle and update the EOD data. To perform an update, QuoteMan and the custom LP Online Manager is needed. Catalogs are supported. Before running this process the first time, the history CD should be imported.

Link: www.lp-software.de

Lenz + Partner daily updates

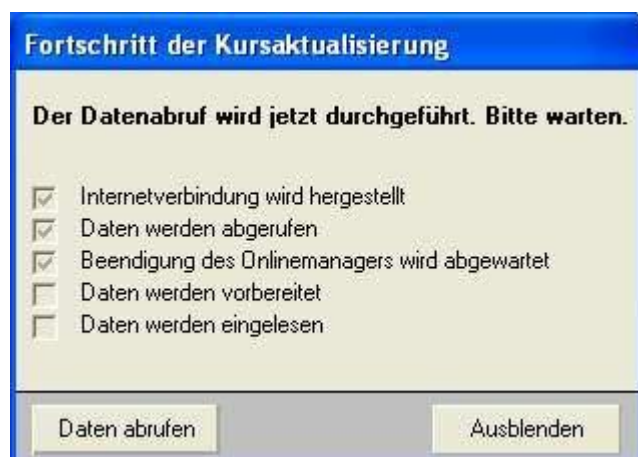
When updating Lenz + Partner data, a connection is established to their server and data is downloaded. Should several days be missing, they will be downloaded too so that gaps are closed automatically. During the day you can get 15 minute delayed data (Intraday Neartime).

You can watch the progress of the import by selecting **Tools menu/Quote update**.

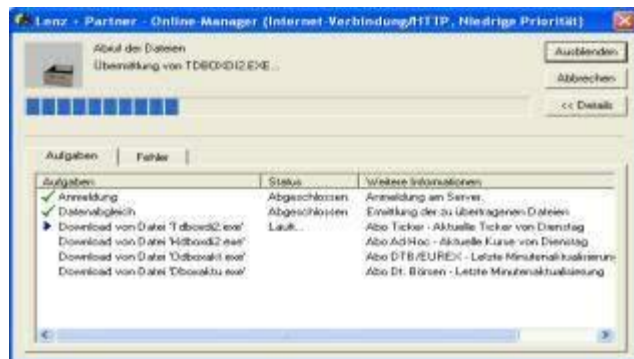
The download of the quotes is done by an additional software from LP called the (Online Manager), which QuoteMan uses. As soon as the download is done, the update starts. The time needed depends on the size of your data subscription.

The update is done in these steps:

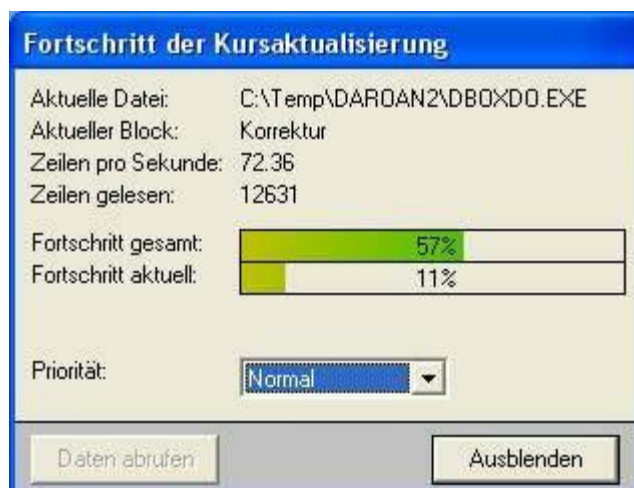
1. Preparation



2. Download



3. Import

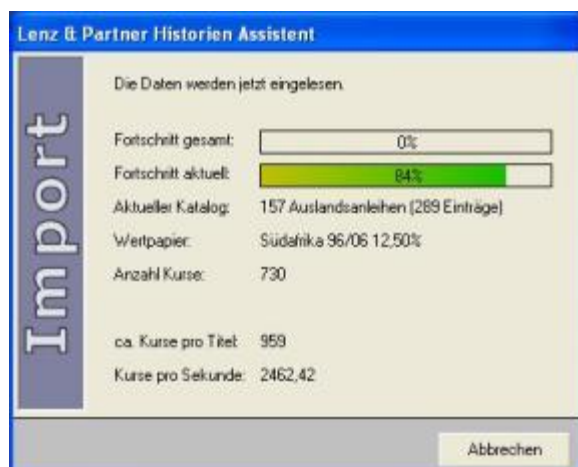


Lenz + Partner History CD Import

Located at: [QuoteMan > menu Data > Import > Lenz + Partner > History CD](#)

After signing up with Lenz + Partner you receive a CD with historical quotes. The import of this CD is done by this assistant. Consider that importing these quotes takes a long time. On a Pentium 450 the import of all modules takes about five hours.

We recommend doing this import over night. We estimate 2.7 Gb of needed hard disk space for the complete import (Premium Plus subscription). The assistant deletes all portfolios and other references to symbols. We recommend to do this the first time you install the CD.



Lenz + Partner TPW Import

Located at: [QuoteMan > menu Data > Import > Lenz + Partner > TPW File](#)

The TPW format is a special backup format of Lenz + Partner. It is used from time to time when new modules are released and have to be installed. The process is the same as for the History CD.

Background information to the Lenz + Partner Import

During the import process the following actions are performed:

- Downloading current quote data if necessary
- Copying the data from the CD to the local hard disk
- Expanding the data
- Importing the data in the main database
- Creating meta information about the data
- Importing current quote data
- Optimizing the database

The Lenz + Partner data format is totally different to our format. This conversion will take the longest time.

Requirements for Lenz + Partner subscription

QuoteMan supports the full Lenz + Partner data format. If you should be using TaiPan we recommend using the TaiPan link though. This way you do not need to import the History CD again. The following tips only apply to the import process without TaiPan.

The **import of the History CD** consumes a lot of time. On a modern computer this can take up to seven hours for a premium plus subscription. The basic subscription needs approximately two hours.

The **update process** for the last day takes around 20-30 minutes, for a blue chip subscription around 2 minutes. If you do not need all data you save time by not importing all catalogs.

Updating Intraday data is very fast and only needs around 2 minutes.

The data needs approximately three Gigabytes on your hard drive for the Premium Plus subscription and one Gigabytes for the base subscription. You should also have one Gigabyte available for temporary operations.

Market Maker/Wiso Börse

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Connects to an installed Market Maker or Wiso Börse software and loads EOD data. Data management is completely done by the German Market Maker company. This way no separate database is needed. Simple catalogs are supported.

Link: www.marketmaker.de

Link: www.buhl.de

MetaStock

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

MetaStock is a commonly used format for technical analysis. The directories will be shown as catalogs. There is an easy automatic search for MetaStock directories on your hard drive. You can access it in the Symbol catalogs where the entry **Add directory** is available. Double-click on the

entry to open the assistant. There you can either select a single directory or perform a search across all hard drives.

Sino

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Connects to an installed X-Trader Pro client to receive historical and Realtime push data.

Link: www.sino.de

TaiPan Realtime interface

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Users of the excellent German software and data package TaiPan Realtime can use TaiPan Realtime data. Catalogs are supported and long EOD history can be ordered.

Link: www.lp-software.de

TaiPan/Database Engine interface

located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

Users of the German software package TaiPan can use TaiPan data. This also applies to the TaiPan Database Engine which is available separately. Catalogs are supported.

Link: www.lp-software.de

Teletext (German only)

Teletext import

Attention: The following pages are only available in German at this point of time!

Sie haben die Möglichkeit, Kurse aus dem Videotext mittels der Schnittstelle zu VTPlus zu importieren, welches mit WinTV Karten zusammenarbeitet. Der Pfad zu VTPlus sollte im Einstellungsdialog eingetragen sein (und wird auch automatisch ermittelt).

Ist VTPlus noch nicht gestartet, kann dies QuoteMan für Sie übernehmen und auch wieder beenden. Hinweis: VTPlus hat manchmal einen Fehler in der Initialisierung, wenn vorher noch kein TV Programm gestartet wurde und zeigt dann keinen Videotext an. Starten Sie in diesem Fall zuerst kurz Ihr TV Programm.

Die Funktionsweise des Imports ist wie folgt:

- Videotextseite aufrufen
- Maske erstellen
- Beschreibung für einen Bereich erstellen (z.B. DAX 30)
- Testlauf (eventuell Namen in Aliasliste speichern)
- Eventuell nicht gefundene Namen in der Aliasliste Wertpapieren zuordnen

Fast allen Seiten im Videotext liegt ein Schema zugrunde, welches die Anordnung der Daten bestimmt. Das macht sich QuoteMan zunutze und stellt Ihnen Masken zur Verfügung. Diese Masken geben die Position und den Inhalt der Felder im Videotext an. Sie erstellen eine Maske einmal und können Sie dann aufgrund der Ähnlichkeit der Seiten auf einer Vielzahl von anderen Videotextseiten weiterverwenden.

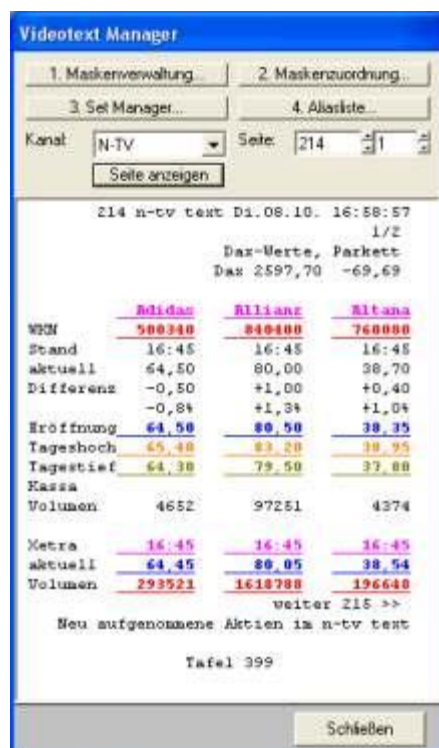
Wenn Sie eine Maske erstellt haben, ordnen Sie diese einem ganzen Bereich von Seiten zu, beispielsweise den Seiten 214-218 mit den unterseiten 1 und 2. Außerdem geben Sie an, wie die Maske verschoben werden soll.

Die einzelnen Bereiche können Sie zu Sets zusammenfassen, um später nur die Daten zu aktualisieren, welche Sie auch wirklich interessieren.

Seiten, welche die WKN des Wertpapiers mit angeben, werden nach der Definition der Masken und Bereiche völlig automatisch eingelesen. Fehlt die WKN, so ist es zuerst noch notwendig, in der Aliasliste dem Namen, der im Videotext erscheint, eine WKN zuzuordnen. Im Testlauf werden Wertpapiere ohne WKN automatisch der Aliasliste hinzugefügt. Sie brauchen dann nur noch die leeren Einträge in der Liste zuzuordnen.

Durch diese allgemeine Definition ist es völlig unproblematisch, auf welcher Seite oder Unterseite sich ein Wertpapier tatsächlich befindet. Sie geben nur den Bereich ein, in welchem es auftauchen kann, und QuoteMan erledigt den Rest für Sie.

Achtung: Da im Videotext ab und zu Übertragungsfehler auftreten, sind die Daten **nicht als zuverlässig** anzusehen. Sorgen Sie für sehr gute Empfangsqualität Ihrer Fernsehanlage, um akzeptable Ergebnisse zu erhalten.



Teletext Maskenverwaltung

Located at: [QuoteMan > Menu Data > Teletext Manager](#)

Masken können Sie sich wie Schablonen vorstellen, welche Sie beliebig über die Videotextseite bewegen können. Es werden alle Bereiche abgedeckt und nur bestimmte Felder freigelassen. Dort finden Sie dann wichtige Daten wie Kurs oder Volumen. Mit diesen Masken teilen Sie QuoteMan mit, wie er eine Videotextseite, welche für die Software ja nur aus einer Folge von Buchstaben besteht, korrekt einlesen soll.

Es gibt eine Reihe von Feldern, welche Sie zuweisen können. Es gibt dabei einige Schlüsselfelder. Nicht alle Felder müssen angegeben werden. Mindestanforderung ist aber entweder die **WKN oder der Name**. Wenn die WKN auf der Seite enthalten ist, sollten Sie dieser immer den Vorzug geben, da QuoteMan den Wert dann automatisch korrekt zuordnen kann. Wenn nur ein Name angegeben

wird, ist das nicht so einfach möglich. Dazu müssen Sie den Namen einmal in die [Aliasliste](#) aufnehmen.

Sie verwalten die Masken über die Liste am oberen Bildschirmrand. Hier können Sie auch neue Masken erstellen. Danach erhalten Sie eine leere Liste. Wenn Sie Felder zuweisen möchten, markieren Sie diese mit der Maus im Videotextmanager. Es wird automatisch die Anzeige der aktuellen Maske aktualisiert. Wenn Sie die Markierung abgeschlossen haben, klicken Sie auf den **Setzen** Knopf des jeweiligen Feldes und die Zuweisung ist abgeschlossen. Setzen Sie außerdem das Häkchen am Anfang der Zeile, wenn der Wert in Zukunft eingelesen werden soll.

Teletext Maskenzuordnung

Located at: [QuoteMan > Menu Data > Teletext Manager](#)

Wenn Sie eine Maske erstellt haben, können Sie diese hier einem Bereich von Seiten zuordnen, welcher damit eingelesen werden kann. Außerdem können Sie festlegen, wie die Maske verschoben werden soll, um alle vorhandenen Daten zu erfassen.

Seiten festlegen

In diesem Feld können Sie festlegen, welche Seiten und Unterseiten eingelesen werden sollen. Dabei ist das Schema "Seite/Unterseite;Seite/Unterseite", also zuerst die Hauptseite, danach ein Schrägstrich (/) und darauf folgend die Unterseite.

Beispiel:

214/1

214/1;214/2;215/1;215/2

Sie können die Angaben auch zusammenfassen und damit verkürzen. Bei den Hauptseiten können Sie ein Minus (-) verwenden, um einen ganzen Bereich von Seiten anzugeben, beispielsweise 214-218. Damit werden alle Seiten (214, 215, 216, 217, 218) eingelesen. Bei Unterseiten können Sie diese Schreibweise auch verwenden, beispielsweise 214/1-2, und zusätzlich auch das Komma. Die Angaben 214-218/1-2 sind daher identisch mit 214-218/1,2. Mit dem Komma können Sie aber dafür bestimmte Unterseiten ausschließen, beispielsweise 214/1,2,5-8,10.

Maske verschieben

Auf einer Videotextseite sind meist mehrere Wertpapiere untergebracht und entweder in Zeilen oder in Spalten angeordnet. Sie können angeben, wieviele Zeilen oder Spalten eingelesen werden sollen und wie groß die Abstände dazwischen sind. Im Videotext Manager sehen Sie immer sofort eine grafische Rückmeldung und können das Ergebnis so schon im Vorherein kontrollieren.

Teletext Set Manager

Located at: [QuoteMan > Menu Data > Teletext Manager](#)

Wenn Sie die Bereiche im Videotext definiert haben, können Sie diese zu Gruppen (Sets) zusammenfassen. Dadurch haben Sie die Möglichkeit, nur ausgewählte Bereiche zu aktualisieren und damit Zeit zu sparen. Sie können im QuoteMan Menü

Kursquellen/Einstellungen/Videotext festlegen, welches Set verwendet werden soll.

Teletext Aliasliste

Located at: [QuoteMan > Menu Data > Teletext Manager](#)

Wertpapiere werden in der Datenbank mit der WKN identifiziert. Im Videotext ist diese WKN aber nicht immer angegeben, sondern nur der Name oder Teile des Namens. In diesem Fall kann QuoteMan diese **Zuordnung nicht automatisch vornehmen**. Der entsprechende Name wird aber automatisch in der Aliasliste gespeichert. Hier können Sie dann selbst bestimmen, unter welchem Wertpapier die Daten abgelegt werden sollen. Dies muss nur einmal geschehen.

Teletext Hinweise

Die Zuordnung der Wertpapiere erfolgt im Gegensatz zu allen anderen Teilen des Programms mittels der Wertpapierkennnummer, damit die Definitionen nicht verloren gehen, wenn Sie einmal die Datenbank erneuern.

Tenfore

Located at: [Fibotrader > Toolbar > icon Data management > Date sources](#)

If you have a subscription to a Tenfore datafeed this datafeed can be used. There are two possibilities to connect depending on your Tenfore license:

- through QuoteSpeed (ClientAPI)
- directly with Tenfore server (ServerAPI)

Both versions offer the same functionality.

Link: www.tenfore.de

Data export

ASCII export

Located at: [QuoteMan > menu Data > Export > ASCII Format](#)

The ASCII export assistant supports you in selecting the desired format and data resolution as well as the count and order of the data fields.

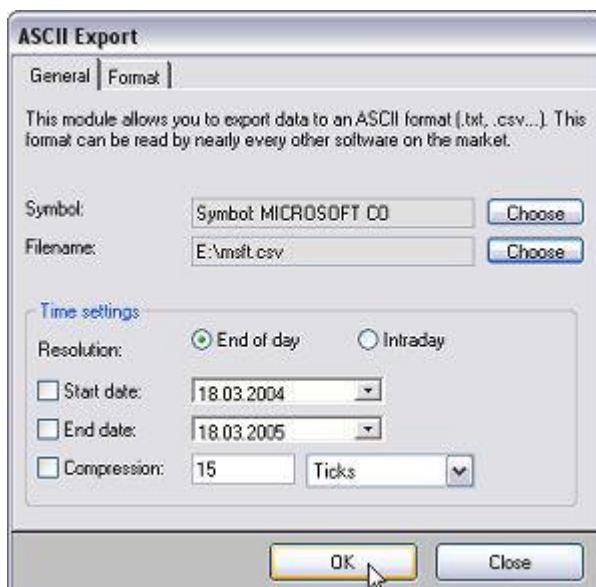


Example: Exporting a security to a CSV-file

- Select the menu Data / Export / ASCII Format.



- Within the appearing dialog the desired security and the target file can be defined. Also the date range and the compression can be chosen.



- In the tab sheet "Format" the data fields can be (de-)selected and the date format, time format and the separator can be configured.



- Clicking the **OK**-button starts the export process.

QuoteMan export

Located at: [QuoteMan > menu Data > Export > QuoteMan Format](#)

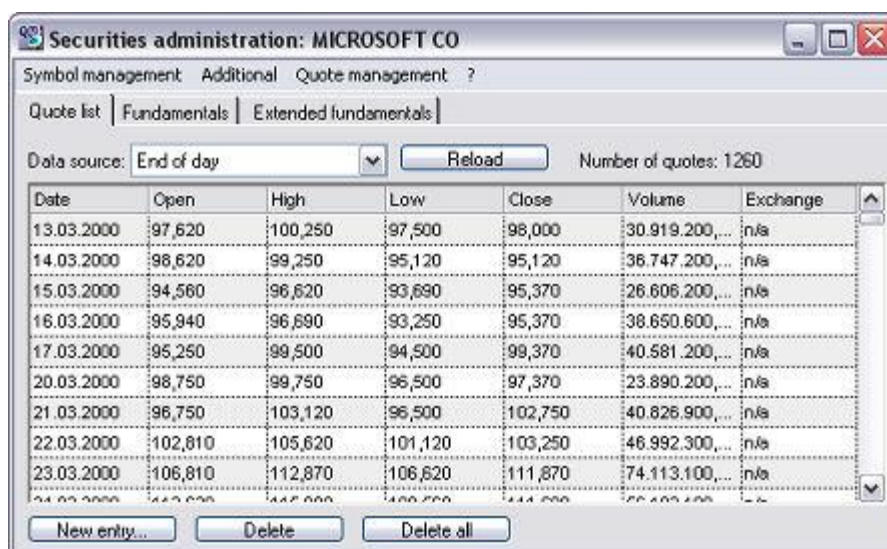


Securities administration

Located at: [QuoteMan > Menu Tools > Security administration](#)

All information for a specific security can be managed here. You can change fundamental data as well as price data.

Attention: In case you are using a [Data vendor](#) which supports catalogs, all changes are made **automatically**. It is not recommended to change anything here in this case.



Entering quotes

Located at: [QuoteMan > Menu Tools > Security administration](#)

It is easy to enter quotes manually. In the Custom stock administration, click on **New** to open the custom data dialog. Navigate with the tabulator or the return key through the individual text fields. The content will be selected to allow easy overwriting.

Pressing return in the volume field, the data will be saved and the date will be set to the next trading day, or, if in Intraday mode, to the next 15 minute time interval. This allows you to immediately continue with the next quote.

Unnamed symbols

Located at: [QuoteMan > Menu Tools > Security administration > Menu Symbol management > List of unnamed symbols](#)

If QuoteMan, while updating from the internet or teletext, encounters symbols which are not yet contained in the database, it will add them and mark them as **new**. The name and the symbol will be the same in this case. Use the list of unnamed symbols from the Custom stock administration to easily load and rename them manually.

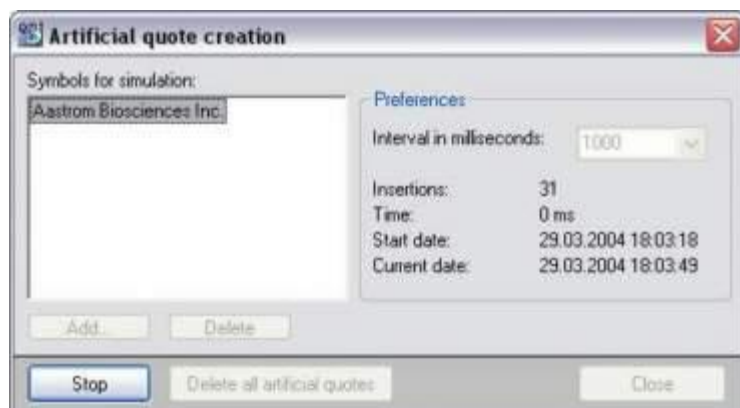


Artificial quote creation

Located at: [QuoteMan > menu Data > Artificial quote creation](#)

This module was created for internal use in the beginning. Over time, we realized that it makes a lot of sense to release it to all users. It allows you to simulate a steady flow of quotes for one or more symbols. This can help you to greatly enhance the test process for your strategies. You can freely experiment with this function, since all artificial quotes can easily be deleted by clicking the **Delete all artificial quotes** button.

This function is especially useful for testing trading strategies and their reaction to random scenarios. The charts created look extremely similar to real charts.



Data links

If you want to combine **data from several data sources** you create data links. They can also be used as a **backup** to store quote data from an external data vendor in the local database to use it when the main data vendor should not be available.

It is also possible to direct incoming price data to the local database. This will result in a significant speed up. Historical data will not be requested via internet but loaded directly from the local database. Intraday data will be added automatically.

This process can only in parts be done automatically. The reason for this are the different symbols the data vendors choose for the same stock. Microsoft from one vendor can have a totally different ID from another vendor and is therefore a different symbol for Fibotrader. Creating a data link solves this problem by linking both values which tells the system that MSFT is the same as MSFT.US for example. Right-click on a symbol and select **Data link** from the context menu to open the assistant.

Folders and catalogs also offer a data link option in the context menu. This allows you to link a whole list of symbols at once. Here you find the option to automatically scan for the link to a symbol. Internally a search is conducted and only if more than one possibility to link exists you get prompted to select one.

The typical steps for backing up an external data vendor in the local database are as follows:

- Right-click on the folder or catalog you want to save and choose **Data link**
- Let the automatic scan perform a search and ignore all symbols which were not found
- After the search, let all symbols which were not found be created automatically
- All symbols will have a link now
- Switch to QuoteMan and open the Data/Save external data dialog
- Select the folder or catalog you just linked and download the historical data, either EOD or Intraday or both, this may take a while
- If you want to save Realtime updates, activate the module to collect and save all ticks
- Your local database will now contain the same data

Attention: This module is currently under construction to simplify this process and will be available in an improved way in future versions.

Realtime data

All modules displaying quotes can do this in Realtime. This is available for:

- Charts
- Portfolios
- Lists
- Symbol details
- Explorer
- Ticker
- Watch lists
- Custom indices

The updates are done automatically. Currently, the TaiPan Realtime, Sino, Interactive Brokers, Tenfore and eSignal support the push method, which sends data to the application as soon as it is available. All other vendors use the pull method, which requires Fibotrader to actively request, if there is new data available. QuoteMan is not needed for push data, since all management is done by Fibotrader.

As soon as you select a symbol or create a list, the data is registered for the Realtime push data stream. You can view the list of currently registered symbols in the Realtime monitor, which you find in the Tools/Monitors menu.

Loading charts sometimes takes a little while, since the interface to the data vendor cannot be influenced by us. Once loaded, data will be show in Realtime. The data is buffered internally and will be available instantly for any consecutive calls.

Attention: In TaiPan RT mode, the message "Server busy" can appear when loading big blocks of data. Click on retry in this case.

Charts, signals and optimization

Charts show the historical development of a security. Fibotrader supports the analysis process with a wide variety of tools. A chart can be opened by either double-clicking on the name of the security in the Fibotrader explorer or by dragging it into the chart window. The chart will be updated automatically, as soon as price updates are available.

This software makes it very easy to develop custom trading strategy which can also be tested and optimized on historical data. You design your strategy in the chart window. This way, you get instant visual feedback on how the system performs in certain situations. The most simple system is probably a single moving average. You can, on the other hand, create far more complex systems, which consider a wide variety of key issues and generate exactly those signals you want.

Chart window

The chart window consists of three main components. On the right side the object tree is situated, which shows all objects contained in the chart. There all preferences can be adjusted.

There is a vertical dividing button between the object tree and the actual chart, which allows to resize, hide or show the whole object tree.



The middle area contains the chart, indicators and drawings. On the left side you can find the Explorer. He can be resized, shown or hidden with the dividing button.



The object tree

The object tree contains all elements which are shown in the chart window. Depending on the entry chosen, different preferences will be available. The hierarchy (except for drawings) is as follows:

- Signal conditions
 - Buy condition 1
 - Buy condition N
 - Sell condition N
 - Cover condition N
- Entry rules
 - Entry rule 1
 - Entry rule N
- Stop systems
 - Stop system 1
 - Stop system N
- Chart 1
 - Base
 - Indicator 1
 - Sub indicator 1
 - Sub indicator N
 - Indicator N
- Chart 2
 - Base

When adding new entries, they inherit the basic properties of the last object created. When selecting an entry in the object tree, the parameters can be changed in the parameters box below. All changes will be shown automatically except for indicators, which need to be recalculated, by either pressing the recalculate button or the return key after having made the changes.

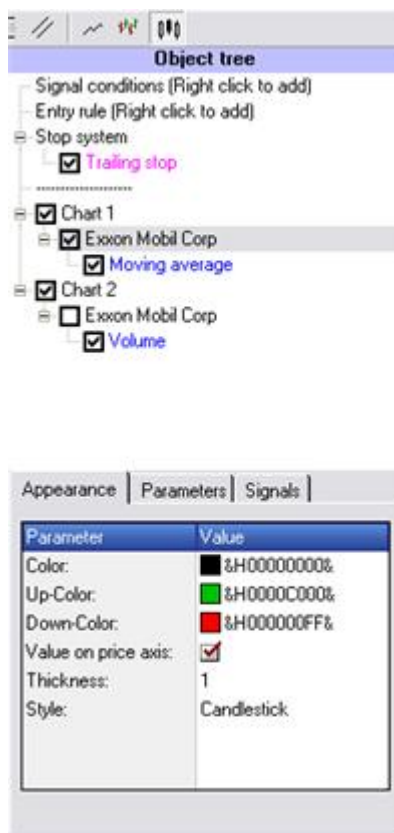
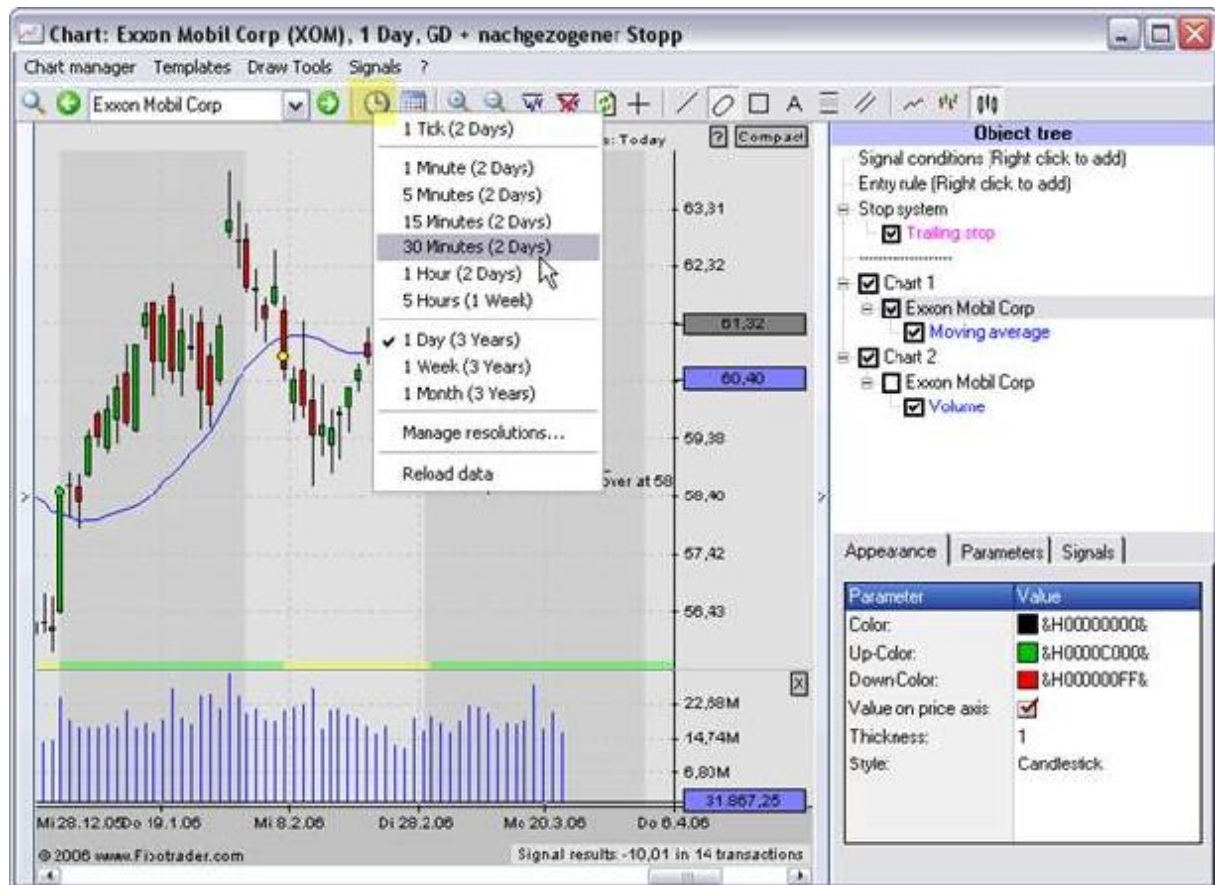


Chart resolutions

You can set the count and detail of the displayed data by selecting the appropriate entry from the drop down list using the icon Chart Resolution. Two values are important: The resolution, within which the data is loaded as well as in which interval backwards the data is loaded. Examples are 5 minutes for 1 week, 1 day for 5 years...



You can store multiple resolutions which are available later by one mouse click. The charts title bar always shows the current resolution.

You can set resolutions through direct input in the command line. The topic 'command line' contains more information about this.

days/weeks/months/years

The day resolution is the standard value. For this presentation the end of day data is used and completed with the last intraday quote.


hours/minutes/seconds/ticks

This mode presents quote changes within one day if these data is available.

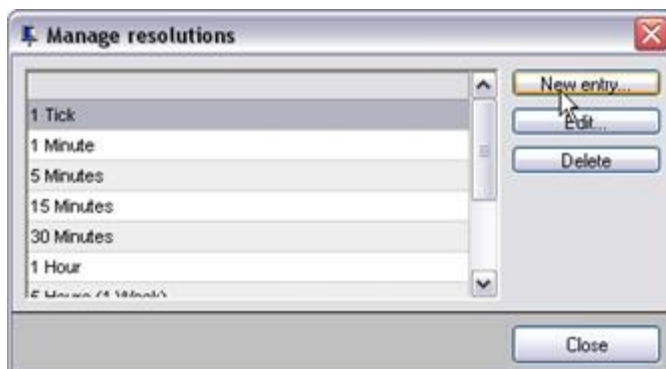
The data processing works as follows:

- If only one data point exists in the chosen interval, it is shown normally.
- If multiple data points exist within one resolution point. (e.g. multiple data points within one minute), the highest and lowest values are searched and used as high / low value of the final data point. The first and the last data point are the open and close values. The volume is added up within one data point.

Example: Adding a new chart resolution

- Within the chart click on the chart resolutions symbol and select 'Manage resolutions...'.


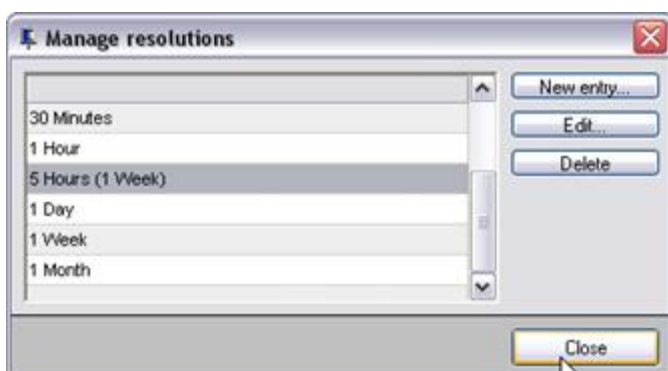
- The dialog to manage resolutions opens. Click **New entry** to create a new chart resolution.



- Here all adjustments can be made. After this is done click **OK**.



- The new resolution is shown in the list. Finish the creation by clicking **Close**.



- You can now select and use your new chart resolution.

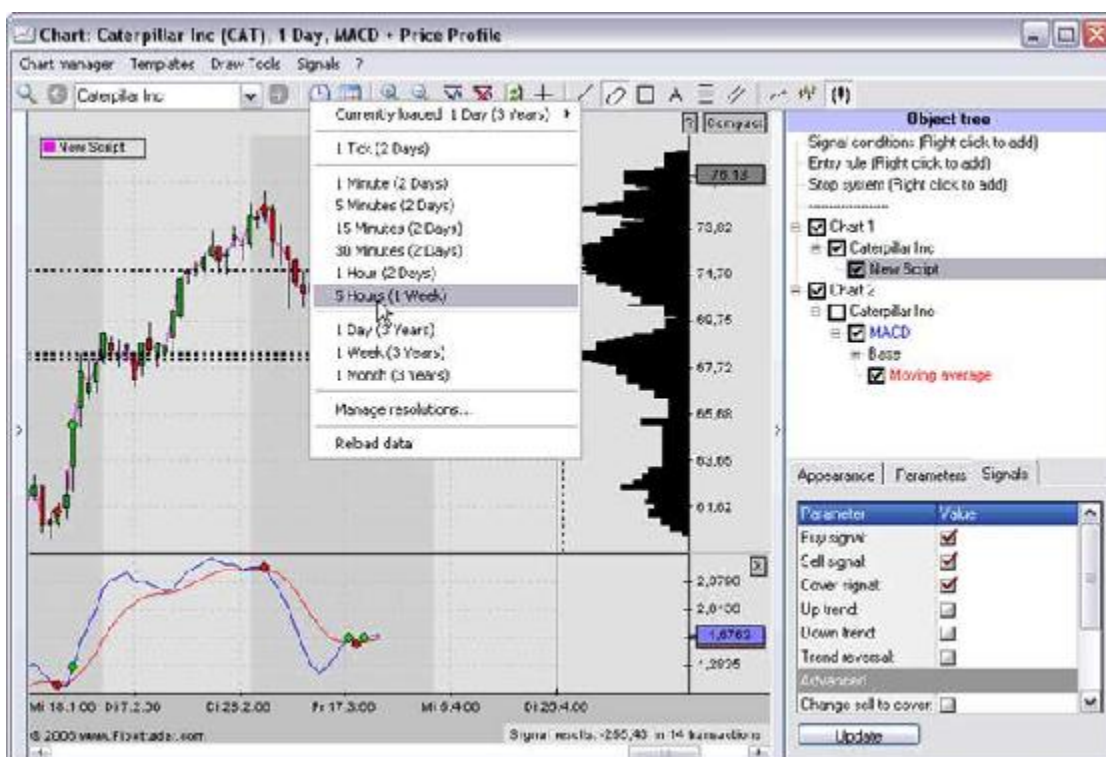


Chart properties

Additional chart windows can be created by using the **Chart management** menu and selecting **Create new chart window**. There is no limit to sub chart windows. Each chart window will contain the base symbol, which cannot be deleted (e.g. Microsoft). The size of the sub window can be changed by moving the horizontal separator between the chart windows. Each sub window has its own set of preferences. They can be accessed by selecting the appropriate chart entry in the object tree (e.g. Chart 1). The preferences section below the object tree will show the current settings.

Axis

In the Axis tab sheet you can adjust the axis presentation. Additional modules can be activated, like price volume chart, if provided by the data vendor also market depth, and the chart legend.



Background preferences

The background can be set to any color, gradient, color alternation or even to a picture. Pictures will be resized to fit the chart window. It should be considered that gradients take a little, pictures a lot of time to draw. For presentations this can be a nice feature though.

Color alternation shows different colors for odd and even periods. On an Intraday chart, hours will be marked for better navigation. On End of Day charts, weeks or months will be painted differently. In Point & Figure mode you can easily see the time period for each bar this way.



Scaling preferences

Linear and logarithmic scaling is supported. With logarithmic scaling, the distance between small values is bigger than between big values.

An important function here is the fixed axis ratio. If you often use round draw tools like the Phi ellipse you know that the intersection point with the quotes depend on the window size. This can be eliminated by using a fixed axis ratio. If you click the button within the edit field 'Ratio' the current view is fixed.

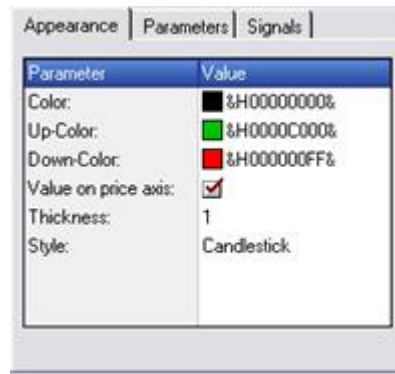


Object properties

Depending on the entry selected in the object tree, different preferences will be available. They can be accessed in the lower left corner of the chart.

Appearance

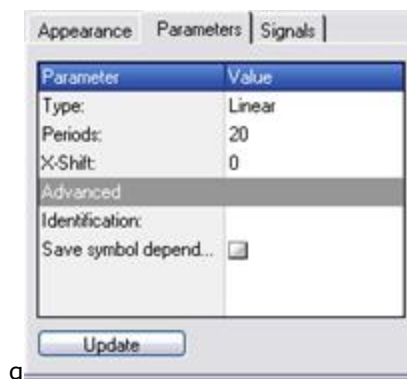
This pane contains all settings which modify the visible component of the entry, like the color. Also, the style can be set here to e.g. Candlestick or Point & Figure.



Parameters

Many indicators have parameters, which modify their behavior. The changes are made after clicking Update or pressing the Return key.

In addition, many drawings have parameters like fixed ratios, which can be modified here, too. Clicking on ratios with the right mouse button will bring up a menu to create custom ratios.



Signals

This view manages the signals which should be shown. Inverting signals switches buy and sell signals. This might result in interesting possibilities in down trends. Consider, that the graph needs to be recalculated, in order for the changes to take effect.

Most of the indicators generate buy and sell, but no cover signals. In a strategy, where you trade short signals, this can cause negative effects. If you actually want to cover a position instead of going short for this indicator, activate the option Sell->Cover. All sell signals will be changed to cover signals.



Navigating in the chart

The chart window is very dynamic and there are several ways to navigate in it. It can be moved, expanded, shrunken and zoomed. In addition, there is instant feedback about the current mouse position on the different axis.

Scaling

Charts in Fibotrader do have traditional scroll bars at the bottom of the chart. In addition, since charts are calculated in Realtime, the navigation offers more possibilities.

Moving the mouse over the axis (either time or price) causes the cursor to change. Holding down the left mouse button and moving it changes the current chart window size. The arrow in both directions allows to pan the chart without changing the width or height.



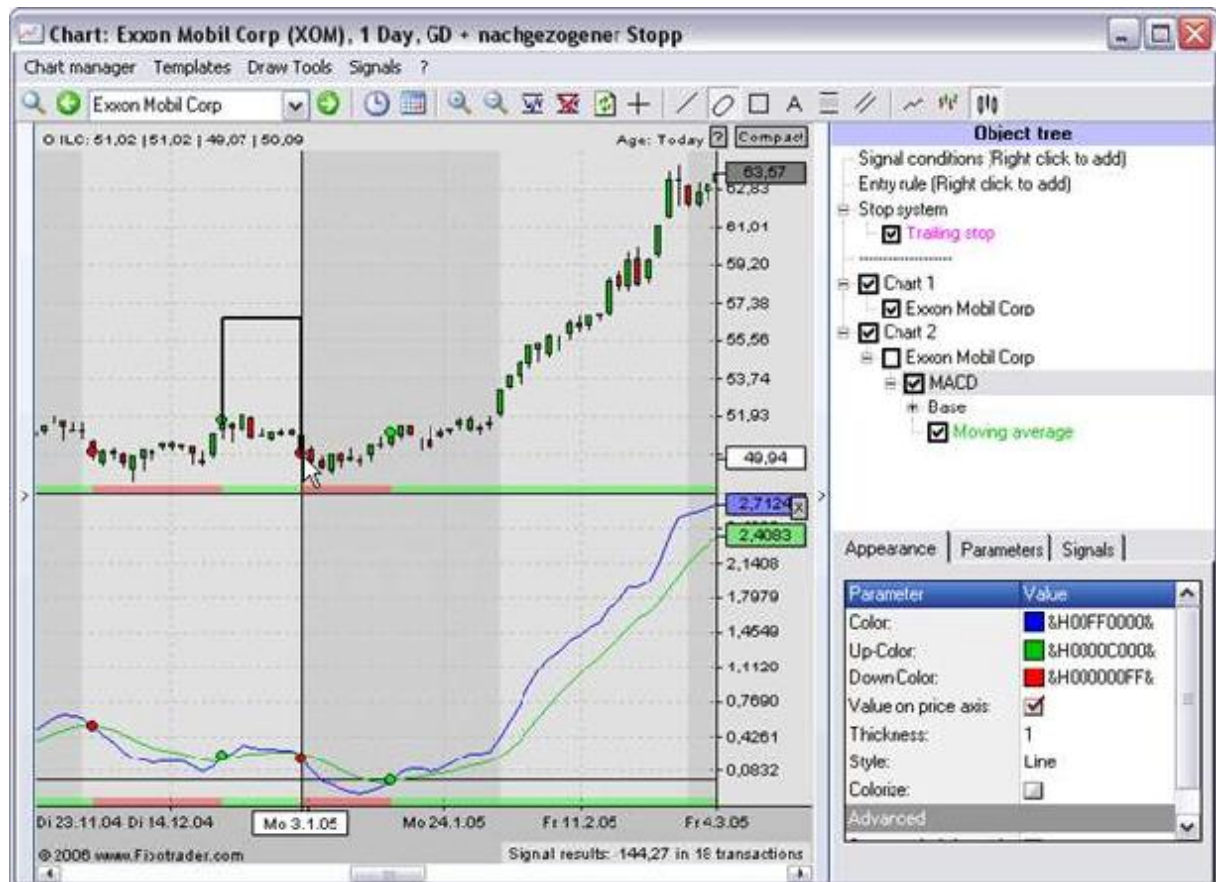
Information about the chart

Right above the chart the open/high/low/close of the current bar will be displayed. Holding down the **Shift key** will create a popup window, which shows additional information. If there are indicators, information to those will also be shown. Holding down the **CTRL key** in addition will display even more information, including the volume and the current position of drawings. The control key will also extend the daily dividers on Intraday charts all the way to the bottom of the chart. This way you can easily differentiate between days.

Moving the mouse over a signal will show information about it, including profit/loss. If an R is displayed behind the signal date, the signal is redundant and does not have impact on the overall signal result.

Reference point of signals

To see which signal and price is used when calculating profits, you can move the mouse over the signal and press the **CTRL key**. A line will be drawn and connected to the signal it references. Also, if an entry rule has been applied, the original position of the signal can be shown this way.



Show current mouse position in all chart sub windows

Pressing the **CTRL key** will draw a vertical line through all chart sub windows at the current mouse position.

Zooming

You can zoom into areas of the chart by holding the **right mouse button** and drawing a rectangle around the area. Releasing the right mouse button zooms in, pressing it one time afterwards zooms out again. The zoom out function can be used several times to undo all zoom operations.

Additional possibilities

- Double-clicking on any axis will fit the graph into the chart window.
- Using the scroll wheel of your mouse you can contract and expand the time axis.

Browse several symbols

You can browse through a list of symbols easily by dragging folders or even portfolios into the chart window. All symbols will be shown in a list in the top left corner. You can switch between them by using the drop down menu.



Chart time span

Located at: [Fibotrader > chart window > icon Time spans](#)

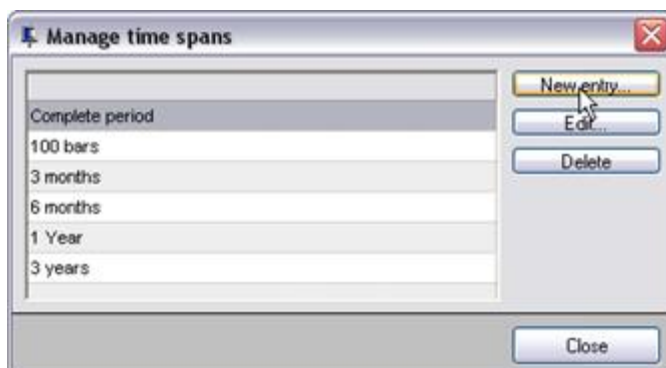
Time spans are a helpful tool for quickly selecting certain areas in the chart. Custom time spans can easily be defined. Selecting a time span from the Time spans menu will cause the time axis to change to the specified period. They have nothing to do with the actual data loaded though (this is set in the chart preferences).

Example: Creating a custom time span

- In the chart window click the arrow next to the calendar symbol and select 'Manage time spans'.



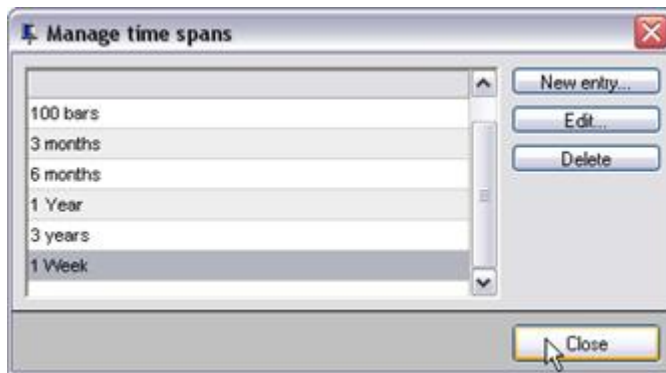
- Within the appearing dialog you can select another time span or create a new one by clicking 'New entry'.



- The new time span can now be configured, there can be defined spans of chart data or time periods. The entry **bars** is independent of the current data resolution. This way it is possible to define time periods, which work on Intraday as well as on End of Day charts.



- Back in the administration dialog the new time span is shown in the list. Select it and click 'Close' to activate it now.



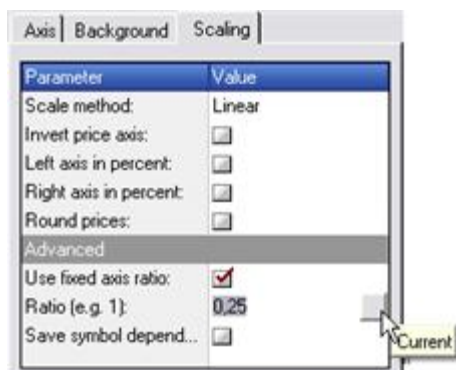
Fixed axis ratio

A problem of many analysis with round draw tools like the Phi ellipse is the point that the intersection points differ by the scaling of the chart window. In Fibotrader the possibility of fixing the current scaling and deactivate automatic scaling is implemented. This way analysis always stay consistent. This can be done by setting the fixed axis ratio in the chart scaling options.

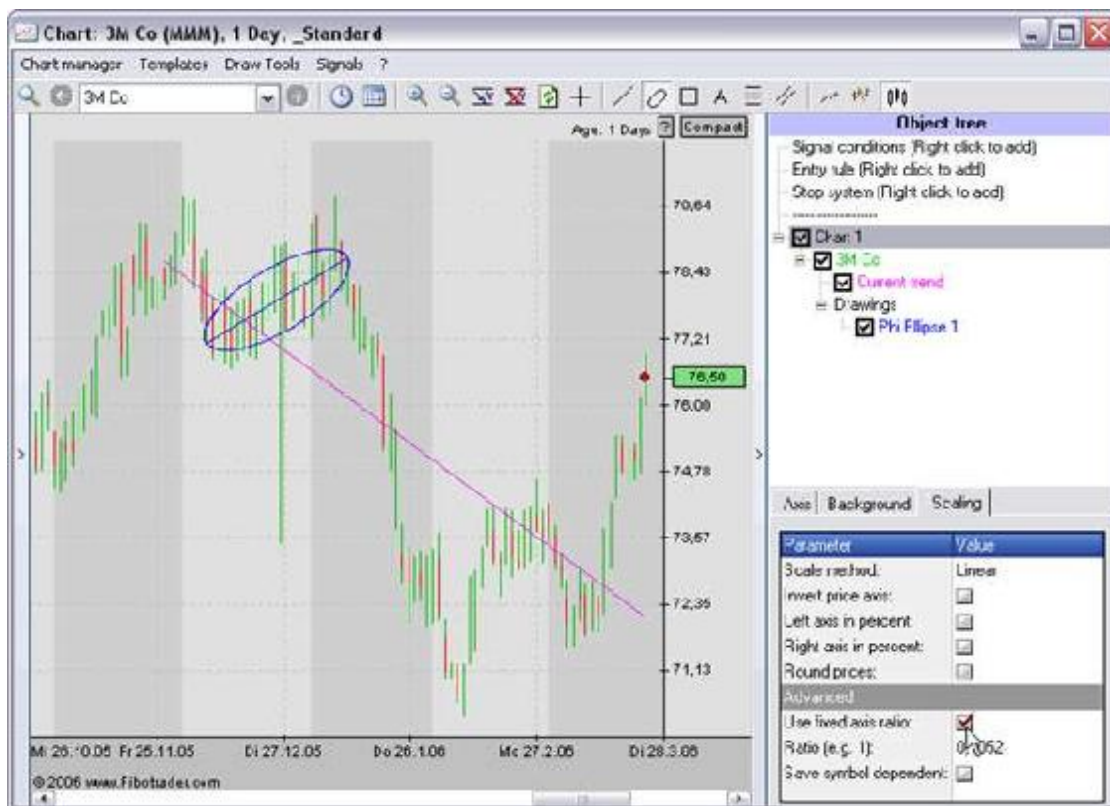


Example: Setting a fixed axis ration in the current chart window

- Choose the chart to fix from the object tree and select the tab sheet 'scaling'.
- Here a custom ratio can be specified and be activated by clicking the checkbox 'Fixed axis ratio'. Or you can click on 'Current' to have the current ratio selected.



- The chart will be scaled within the new ratio, deselecting the checkbox activates free scaling again.



Drawing in the chart

Drawing in the chart is done by holding the left mouse button and moving mouse. The drawing is only visible in the sub chartwindow it was drawn in.

When holding the Shift key while drawing, the endpoint of the drawing will be connected to the nearest closing price. Pressing the Shift key before drawing it is also possible to over existing drawings (instead of manipulating it).

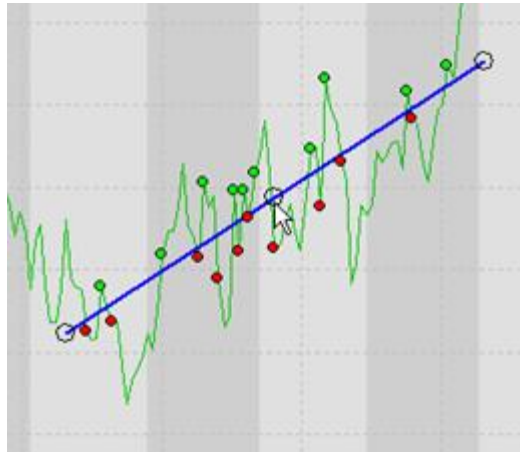
Draw tools can be selected in the **Draw tools** menu. In order to stop drawing at all, there is also a deactivate drawing option.

Signals

Some tools can generate signals. Most of the times, a buy signal is created when the close crosses the line from below and a sell signal when it crosses from above. Some tools like text do not generate signals, others obey additional rules like trend channels.

It should be considered that the signals depend on the scale mode of the chart. Linear scales generate different signals than logarithmic charts.

Normally the drawing will be placed under the base value (e.g. Microsoft) and signals will be generated depending on the quotes. If you want to calculate **intersection points with indicators**, deactivate the option "Put drawings under main graph" in the chart preferences. If done so, drawings will be put under the currently selected entry in the object tree.



Draw tools

Located at: [Fibotrader > chart window > menu Draw Tools](#)

The chart module offers a wide variety of tools which allow to draw directly in the chart. These tools can also create signals in a lot of cases. From the draw tools menu you can choose the tool you want. In the chart window, press and hold the left mouse button, to start drawing. Release it, when done.

Drawings will be highlighted, when moving the mouse above them. A couple of little circles will appear, which allow to modify, e.g. move, the drawing. Pressing the right mouse button on a highlighted drawing brings up a menu which shows additional options. To delete drawings either use this menu or press the delete key. The available draw tools include:

[Line](#)
[Trend channel](#)
[Regression](#)
[Text](#)
and many more

Fibonacci Tools

Some of the tools are based on the numbers and ratios of [Fibonacci](#), a mathematician.

[Fibonacci Arcs](#)
[Fibonacci Fanlines](#)
[Fibonacci Retracements](#)
[Fibonacci Time Relations](#)
[Fibonacci Time Zones](#)
[Phi Ellipse](#)
[Phi Channel](#)

The Fibonacci numbers

The 1170 born mathematician Leonardo da Pisa - known as Fibonacci - discovered a sequence of numbers which repeats in many different areas of life.

The formula

$$Z_n = Z_{n-1} + Z_{n-2}$$

results in the sequence:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233...

The ratios of two consecutive numbers approaches Phi with 0.618. Using Phi, we get the following sequence:

$$Z_n = Z_{n-1} / \text{Phi}$$

0.618, 1, 1.618, 2.618, 4.237, 6.656, 11.093...

Line

Located at: [Fibotrader > chart window > menu Draw Tools](#)

Lines connect two points. There are two special forms, the horizontal line to identify resistance and support areas and the vertical line.

Buy signal: Price crosses from below

Sell signal: Price crosses from above



Phi Ellipse

Located at: [Fibotrader > chart window > menu Draw Tools](#)

The Phi-Ellipse is very different to the normal ellipse. It can be rotated freely and it has a fixed Phi-Ratio.

There are no signals generated.

For detailed and in-depth information about the Phi-Tools please refer to the [books](#) of Robert Fischer!

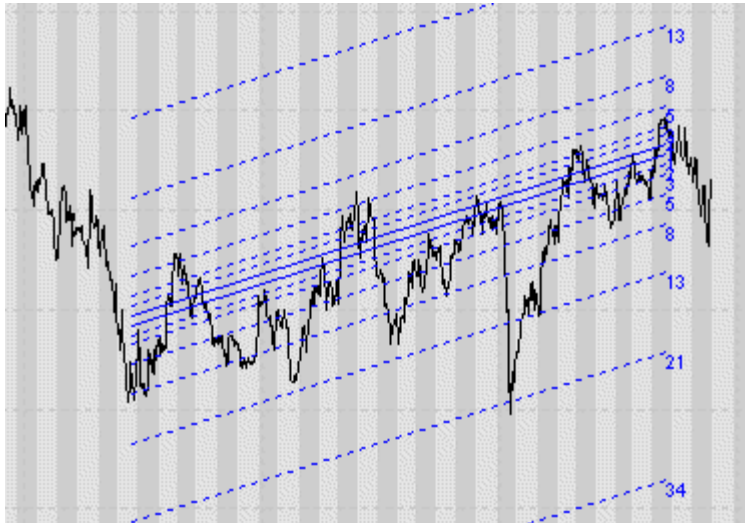
Phi Channel

Located at: [Fibotrader > chart window > menu Draw Tools](#)

Phi channels are drawn like normal trend channels. In addition on either side there are parallel lines in Phi-Ratios. The Phi ratios can be selected by either right clicking on the channel or through the object tree.

There are no signals generated.

For detailed and in-depth information about the Phi-Tools please refer to the [books](#) of Robert Fischer!

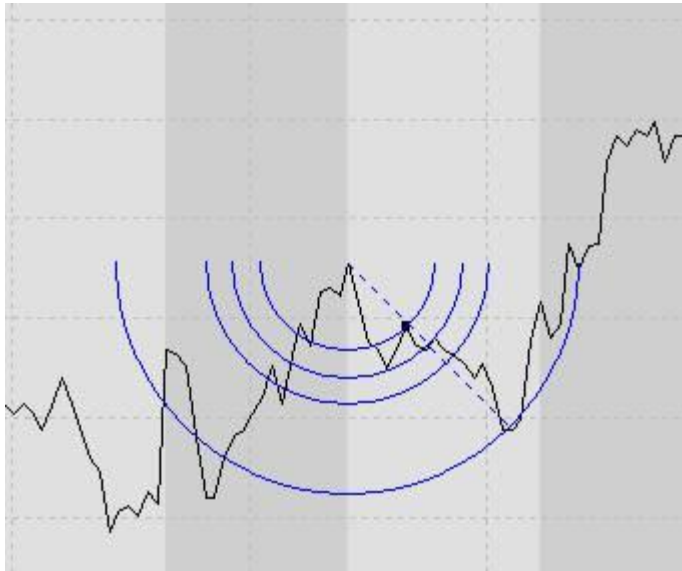


Fibonacci Arcs

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

Fibonacci arcs are drawn at fixed ratios on the base line. Through the parameters it is possible to also create a full circle instead of an arc.

There are no signals generated. The Fibonacci ratios can be selected by either right clicking on the Arcs or through the object tree.

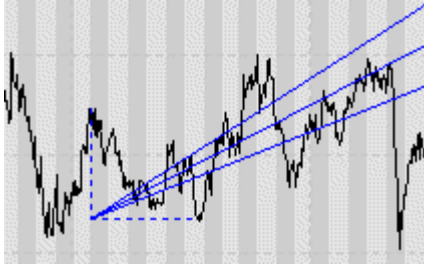


Fibonacci Fanlines

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

Fibonacci Fanlines are similar to Speedlines. Fibonacci ratios are used to draw the lines.

There are no signals generated. The Fibonacci ratios can be selected by either right clicking on the Fanlines or through the object tree.



Fibonacci Retracements

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

Fibonacci Retracements show possible turning points in up or down trends. Following the Fibonacci philosophy, important points are the 38.2%, 50% and the 61.8% levels.

There are no signals generated. The Fibonacci ratios can be selected by either right clicking on the retracements or through the object tree.

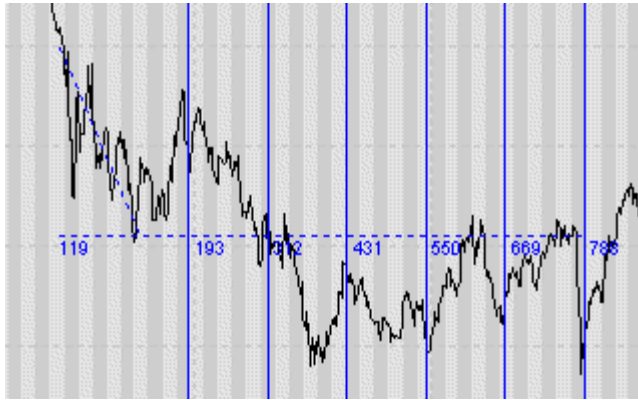


Fibonacci Time Relations

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

Fibonacci Time Relations show possible turning points. The initial distance is multiplied with Phi ratios to determine future points.

There are no signals generated. The Fibonacci ratios can be selected by either right clicking on the drawing or through the object tree.

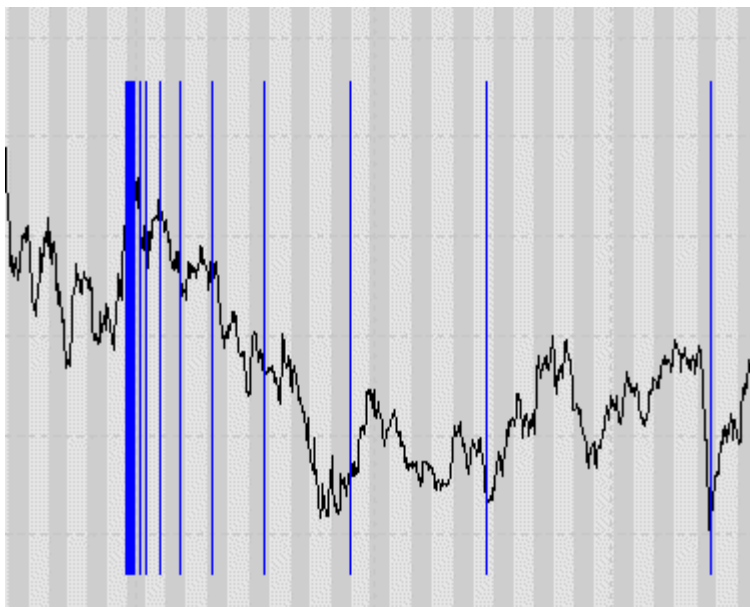


Fibonacci Time Zones

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

Fibonacci Time Zones show possible turning points. The sequence of the Fibonacci numbers is plotted into the future.

There are no signals generated.



Trend channel

Located at: [Fibotrader](#) > [chart window](#) > [menu Draw Tools](#)

The trend channel consists of a base line and a second parallel line. You can change the distance of the second line by using the little modifier at the end of it.

Buy signal: Price crosses upper line from below

Sell signal: Price crosses lower line from above



Linear Regression

Located at: [Fibotrader > chart window > menu Draw Tools](#)

The regression tries to draw a line in a chart in a way that it fits best in it (method of ordinary least squares). This shows the theoretical trend as the computer would recognize it.

The regression channel creates two additional lines, which form the channel. There are two modes: in normal mode, the system chooses a width which would touch the farthest point from the middle line and doubles it with the same distance below. Alternatively the standard deviation can be used. To set the number of standard deviations use the object tree preferences.

The signals of regression lines are created the same way as for normal lines. Regression channels obey the same rules like normal trend channels.



Text

Located at: [Fibotrader > chart window > menu Draw Tools](#)

Text allows you to annotate certain movements in the chart. You draw it the same way as the line. To change the text, select it in the object tree and go to preferences. There is a limit of 255 characters.

There are no signals generated.

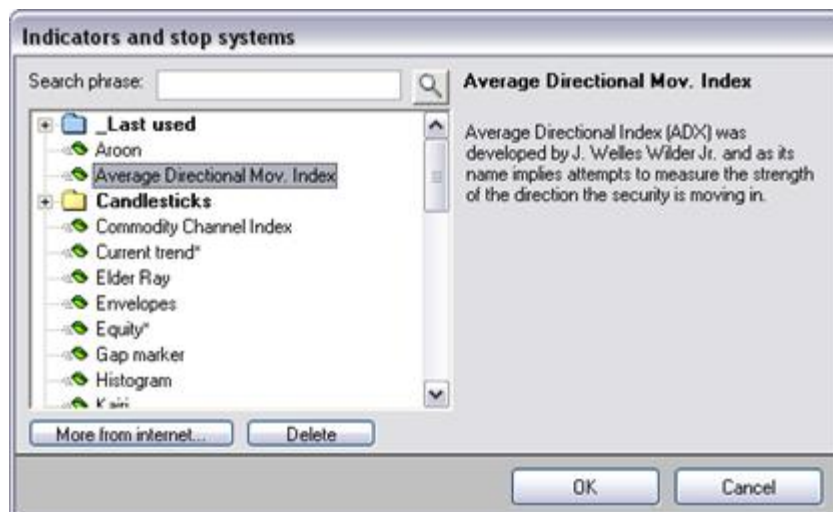


Indicators

Indicators can help in the process of making a buy or sell decision. There are a lot of different indicators with fixed interpretation. It is also possible to easily create custom indicators.

Indicators can either be drawn directly into the chart or they move around a center line, so called oscillators. Right-clicking on the base value in the object tree you can add indicators by selecting **Add indicator**. There is no limit to the number of indicators used in a single chart. Indicators can even be attached to indicators by right-clicking on an indicator and choosing Add indicator there.

The indicator window lists all available indicators. Entries marked with a star (*) are internal indicators and execute faster. In addition it is also possible to download indicators from the internet.



The preferences of the indicator are shown in the preferences section below the object tree. You can apply the changes you made by clicking on **Update** or pressing the return key.



Adding overlays

Overlays show how the base value performs compared to another symbol. The starting point is always the left border of the chart window. Indicators cannot be used on overlays.

Indicator types

There are different types of indicators. A first division can be made for **internal** and **external** indicators. The moving average is an example for an internal indicator. The reason for this is speed. Although scripts are extremely fast, it makes sense to implement indicators, which are used very often, directly in the main program. External indicators are scripts, which are called each time the calculation is made.

Furthermore indicators can be distinguished by the graph they reference:

- Using the graph right above (e.g. moving average)
- Using several foundation indicators to create a new one (e.g. Crossover)
- Creating only signals (e.g. Stop systems)
- Changing signals (e.g. Entry rules)
- Signal conditions
- ...

Indicators can return a variety of results:

- Draw new graphs
- Generate signals
- Draw objects (e.g. Trend lines)
- Change the format (e.g. colors)
- ...

If an indicator references other indicators, they will be shown under the **Base** entry in the object tree. They themselves refer to the entry above. The behaviour of the base depends on the indicator. Some indicators need a fixed amount of base graphs, which are created automatically and cannot be deleted. Others can use any number.

List of available indicators

_Testbedingung

Acc./Distr. Line

All Candlestick pattern

Recognizes important Candlestick patterns and generates the necessary signals.

All Point & Figure pattern

Recognizes important Point & Figure patterns and generates the necessary signals.

Aroon

The Aroon was developed by Tushar Chande, the oscillator will be high when the Aroon Up is high and the Aroon Down is low, indicating a strong upward trend. The Aroon Oscillator will be low when the Aroon Down is high and the Aroon Up is low, indicating a strong downward trend.

Ascending Triple Top

Recognizes Ascending Triple Top (3 ascending tops, 2 ascending bottoms) and sets buy signal.

Average Directional Mov. Index

Average Directional Index (ADX) was developed by J. Welles Wilder Jr. and as its name implies attempts to measure the strength of the direction the security is moving in.

Average True Range

The real bandwidth between High and Low und consideration of gaps. 0-no smoothing (TR), 1-X smoothing with X days (ATR).

Barros Swing

By Ramon Barros: The Barros Swing is a swing chart and like all swing charts identifies the trend of a specific timeframe. We all know that an uptrend is a series higher, highs and higher lows, a downtrend is a series of lower lows and lower highs, and a sideways trend is a series of about equal highs and equal lows. The trick is to differentiate the quarterly highs and lows from the monthly highs and lows and the monthly highs and lows from the weekly highs and lows etc. The Barros Swing is constructed using an algorithm that encompasses time and price. The yearly trend is seen using the 12-monthly swings, the quarterly trend is seen in the 13-week swings, the monthly trend distinguished by the 18-day swings and the weekly by the 5-day swings. The first setting, of any timeframe, need not be displayed e.g. for daily charts this is 3, for weekly charts this 4 and for monthly charts this is 3. The middle and final setting represent the trend of timeframe you want to display. For a full description read the Nature of Trends by Ray Barros, www.tradingsuccess.com

Bearish Belt-Hold

Recognizes important Candlestick patterns and generates the necessary signals.

Bearish Catapult

Recognizes Bearish Catapult (Triple Bottom + following Double Bottom) and sets sell signal.

Bearish Engulfing

Recognizes important Candlestick patterns and generates the necessary signals.

Bearish Signal

Recognizes Bearish Signal (2 descending bottoms + 3 descending Tops) and sets sell signal.

Bullish Belt Hold

Recognizes important Candlestick patterns and generates the necessary signals.

Bullish Catapult

Recognizes Bullish Catapult (Triple Top + following Double Top) and sets buy signal.

Bullish Engulfing

Recognizes important Candlestick patterns and generates the necessary signals.

Bullish Signal

Recognizes Bullish Signal (2 ascending Tops + 3 ascending Bottoms) and sets buy signal.

Buy Condition

Generates a buy signal as soon as the condition is true.

Börsengang

CCI Fibo Peak

Generates the Fibonacci Peak $(CCI(8)+CCI(13)+CCI(21))/3$ and the Peak Exploration with cross lines at +100 and -100.

Chaikin Oszillator

Chaikin Volatility

Chande Momentum Oscillator

The CMO is closely related to, yet unique from, other momentum oriented indicators such as Relative Strength Index, Stochastic, Rate-of-Change, etc. It uses data for both up days and down days in the numerator, thereby directly measuring momentum. The calculations are applied on unsmoothed data. Therefore, short-term extreme movements in price are not hidden.

Commodity Channel Index

The Commodity Channel Index (CCI), developed by Donald Lambert, was designed to identify cyclical turns in commodities. Lambert recommended using 1/3 of a complete cycle (low to low or high to high) as a time frame for the CCI.

Coppock

Cover at end of day

Covers open positions at the end of the day when used in Intraday charts. This way traders do not have positions over night.

Cover Condition

Generates a cover signal as soon as the condition is true.

Current trend

Draws the current trend into the chart. In an uptrend a buy signal is generated, in a downtrend a sell signal.

Dark Cloud Cover

Recognizes important Candlestick patterns and generates the necessary signals.

Demark's Range Expansion Index

DeMark's Range Expansion Index is a market-timing oscillator. The oscillator is arithmetically calculated and is designed to overcome problems with exponentially calculated oscillators, like MACD. The TD REI oscillator typically produces values of -100 to +100 with 40 or higher indicating overbought conditions and -40 or lower indicating oversold.

Descending Triple Bottom

Recognizes Descending Triple Bottom (3 descending Bottoms + 2 descending Tops) and sets sell signal.

Dienstag

Directional Movement Index (DMI)

DMI is an indicator which determines the rate of price change, if an instrument is moving in a trend.

Double Bottom

Recognizes Double Bottom (2 descending Bottoms) and sets sell signal.

Double Bottom with Resistance

Recognizes Double Bottom with Resistance (2 descending bottoms + 2 tops at same level) and sets sell signal.

Double Smoothed Stoch. (Blau)

Der Stochastic wurde von William Blau durch zwei exponentiell geglättete, gleitende Durchschnitte weiter entwickelt.

Double Smoothed Stoch. (Bressert)

Developed by Walter Bressert, Double Smoothed Stochastics is a variation on Slow Stochastics.

Double Top

Recognizes Double Top (2 ascending Tops) and sets buy signal.

Double Top with Support

Recognizes Double Top with Support (2 ascending Tops + 2 Bottoms at same level) and sets buy signal.

Elder Ray**Envelopes**

Creates envelopes around the underlying graph. If the graph reaches the upper line, the market is taken as oversold and a sell signal is generated and vice versa. Hint: Bollinger Bands only work on a moving average

Equity

Plots the equity curve in the chart, resulting from the transactions created by the current signals.

Evening Doji-Star

Recognizes important Candlestick patterns and generates the necessary signals.

Evening Star

Recognizes important Candlestick patterns and generates the necessary signals.

Expo1**Expo5****FiboCounterTrend**

Retracement after swing creates counter trend signal

FiTestSuperK13**FiTestSuperK4****Fixed stop (%)**

Creates a cover signal if the quote reaches a certain limit compared to the last buy signal.

Force Index**Gap marker**

Marks gaps in the chart. These appear when the low of the previous day is above the high of current day and vice versa.

haDiffCO & Mov

haDiffCO indicator, plots haClose - haOpen, apply to Heikin-Ashi chart only! Moving average creates Mov-HaDiffCO indicator, signals are set on crossover.

Hammer

Recognizes important Candlestick patterns and generates the necessary signals.

Hanging Man

Recognizes important Candlestick patterns and generates the necessary signals.

Harami

Recognizes important Candlestick patterns and generates the necessary signals.

Harami Cross

Recognizes important Candlestick patterns and generates the necessary signals.

HeikinAshi

High Pole

Recognizes High Pole (long bar up with following correction down of at least 50%) and sets downtrend.

High/Low Break

Creates an entry signal if the quote break through the last high or low in a given period of time.

Histogram

Plots the difference between two graphs.

Horizontal lines

Draws horizontal lines at user defined levels.

Ichimoku Kinko Hyo

Ichimoku Kinko Hyo is a Japanese charting technique which shows where a market is headed and provides entry and exit points. Ichimoku analysis is similar to Moving Average analysis. Buy and sell signals are given by cross-overs. A bullish signal is issued when the Tenkan Sen crosses Kijun Sen from below. Conversely, a bearish signal is given when Tenkan Sen crosses Kijun Sen from above.

IKH Chikou Span

n/a

IKH Kijun-Sen

n/a

IKH Senkou Span A+B

n/a

IKH Tenkan-Sen

n/a

In-Neck Pattern

Recognizes important Candlestick patterns and generates the necessary signals.

Inverted Hammer

Recognizes important Candlestick patterns and generates the necessary signals.

Kairi

The Kairi shows the percentage difference between price and moving average.

Kaufman's Adaptive MA

Developed by Perry Kaufman, this indicator is an EMA using an Efficiency Ratio to modify the smoothing constant, which ranges from a minimum of Fast Length to a maximum of Slow Length.

Keltner Channels

The Keltner Channel indicator is used to identify overbought / oversold conditions as well as the trend strength of a market.

kvgd (Custom)**Last Peak/Valley Break**

Creates an entry signal if the quote breaks through the last existing peak or valley.

Livermore Market Key

This representation of J. Livermore's Market Key shows the different states a security is in. Use it on line charts! For more details please read the provided HTML file.

Logarithmic Returns

Long Tail down

Recognizes Long Tail Down (O-Bar with at least 20 boxes and following reversal) and sets buy signal.

Low Pole

Recognizes Low Pole (long bar down with following correction up of at least 50%) and sets uptrend.

MACD

The Moving Average Convergence/Divergence study creates signals from the smoothed difference of two moving averages.

MACD Histogram

The Moving Average Convergence/Divergence study creates signals from the smoothed difference of two moving averages. This is the histogram of the study.

Majority Rule (MJR)

The Majority Rule calculates, which percentage of days within the period the price increased.

Midas**Midos**

Implementation of the Midos system of Dennis McNicholl in his book Taming complexity in Trading.

Modified Moving Average**Modified Moving Average (Joe Sharp)**

MA modified by Joe Sharp, described in 'More Responsive Moving Averages'

Momentum

Measures the speed of a quote movement. Values above 0 generate a buy signal and vice versa.

Money Flow**Morning Doji-Star**

Recognizes important Candlestick patterns and generates the necessary signals.

Morning Star

Recognizes important Candlestick patterns and generates the necessary signals.

Moving average

Smooths a graph over a given period of time.

Negative Volume Index**Net Trend Divergence (NTD)**

Positive indicator values represent an uptrend, negative values a downtrend. This way the NTD can show the trend speed: Values leaving the zero-line represent an accelerating trend, values moving towards zero represent the slow-down of a trend.

Notis %V**On Balance Volume****On-Neck Pattern**

Recognizes important Candlestick patterns and generates the necessary signals.

P&F horizontal count

Calculates the theoretical quote goal using the horizontal count method.

P&F vertical count

Calculates the theoretical quote goal using the vertical count method.

Parabolic SAR (Meyers)

Modification of the Parabolic SAR by Dennis Meyers. A position change only occurs if the price exceeds / falls of the stop level by a given value, not only if the price crosses the stop level.

Parabolic Stop & Reverse

The Parabolic SAR is based on the Stop And Reverse (SAR) method. It is calculated using both time and price, the result is a series of trailing stops on a curved line (like a parabola approaching the chart). Reaching the chart line means a trend change.

PeaksNValleys

Peaks and Valleys.

Piercing Pattern

Recognizes important Candlestick patterns and generates the necessary signals.

Pivot channel**Pivot lines**

Colors: Blue=Pivot, Positive=Pivot High/Low, Negative=Support/Resistance, Border=Additional Support/Resistance

Point of Balance Oscillator

n/a

Polarized Fractal Efficiency

Use the PFE indicator to measure how trendy or congested the price action is. PFE readings above zero indicate that the trend is up and the higher the reading the trendier and more efficient the upward movement. PFE readings below zero mean that the trend is down. The lower the reading the trendier and more efficient the downward movement. Readings near zero indicate choppy, less efficient movement and a balance between supply and demand.

Positive Volume Index**Price and Volume Trend****Pring's KST****Profit target**

Creates a cover signal if the profit reaches a predefined limit.

Psychological Line (PSL)

A psychological line is based on the number of time intervals the market was up during the preceding period.

PVC2**Quick formula**

Allows the user to enter a custom scripting formula to plot without the need to create a new indicator file first. This is perfect for quickly testing different easy strategies or typical One-Liners.

Random graph

Create a random graph. This way it is possible to test random walk theories.

Random quote development

Creates a random quote development at the end of the graph. This interesting for testing the reaction of trading systems as well as random walk tests. The original graph will be copied in order to allow other indicators to calculate signals.

Random signals

Generates random trading signals.

Range Action Verification Index

The Range Action Verification Index (RAVI) indicator, developed by Tushar Chande can be used to identify whether the market is trending. It attempts to improve on the Average Directional Index (ADX) and is claimed by the author to respond more predictably to price fluctuations than the ADX.

Rate of Change

Measures the rate of change of a quote movement. Values above 100 generate a buy signal and vice versa.

Relative Momentum Index

The Relative Momentum Index function determines the internal momentum of a field using the number of upward and downward price changes across a given number of bars over a given period of time.

Relative strength (Levy)

Relative strength (Wilder)

The market is supposed to be oversold when reaching the lower limit and vice versa.

Relative strength (Wilder) neu

The market is supposed to be oversold when reaching the lower limit and vice versa.

Relative Strength 3M3 (Bressert)

The RSI3M3 is a 3-bar RSI smoothed with a 3-bar moving average.

Relative strength Classic

The market is supposed to be oversold when reaching the lower limit and vice versa.

Relative Vigor Index

This indicator was developed based the January 2002 Stocks and Commodities article entitled Relative Vigor Index. This indicator is an oscillator built on the basic equation $(CL - OP) / (HI - LO)$. The oscillator is basically in phase with the cyclic component of the market prices.

RenkoLimits

Sell Condition

Generates a sell signal as soon as the condition is true.

Shooting Star

Recognizes important Candlestick patterns and generates the necessary signals.

Show portfolio transactions

Sets signals corresponding to the transactions in the current depot.

Signal filter

Shows only signals which are conform with a given condition.

Signal range

Triggers a buy signal when the graph crosses the upper boundary and a sell signal, when it crosses the lower boundary.

Single Doji

Recognizes important Candlestick patterns and generates the necessary signals.

Smoothed Rate of Change

Som**Standard Deviation**

Calculates the Standard Deviation of the Close values.

Stochastic

The Stochastic indicator is one of today's most widely known and used oscillators. It represents the relation of the difference of today's close and the used periods all time low calculated against its trading range. The Stochastic indicator always moves in the range 0% to 100%.

Support lines

Finds important support and resistance lines. The number next to the line indicates how many points this line crosses and can be used as a measure of importance.

Swingchart

Retracement after swing creates trend signal

Swingchart Breakout**Swingchart Retracements****SwingDoubleTop-Bottom****T3 Average**

By Bob Fulks, modified by Alex Matulich 4/2003.

TD Sequence

Recognizes the several phases of the DeMark sequence and generates the necessary signals. Countdown is cancelled if True High of Buy Setup is exceeded or True Low of Sell Setup is exceeded, or if new Setup starts. No Intersection used

TD-Trendlines

Detects major trend lines in a given time period.

Three Crows

Recognizes important Candlestick patterns and generates the necessary signals.

Three White Soldiers

Recognizes important Candlestick patterns and generates the necessary signals.

Thrusting Pattern

Recognizes important Candlestick patterns and generates the necessary signals.

Tick Stop

Sets a fixed stop when the loss is greater than the tick size times the number of ticks. These settings can be set individually.

Time Range Break

Enters a trade when the price exceeds the trading range of the beginning of the day. The range is calculated from the first X bars.

Time Series Forecast

Calculates a linear regression over a given time period. The end point of this line is the new value of the indicator.

Time stop

Generates a stop signal after a given period of time.

TimeUntilNextBar

Trading range

Shows the trading range as well as the mean value for a given period of time. A buy signal is generated when the quote is above the middle and vice versa.

Trailing stop

Simulates a trailing stop which moves up at rising quotes. A sell signal is generated at a drawdown of X percent.

Trend confirmation**Trend Continuation Factor (TCF)**

The Trend Continuation Factor (TCF) was introduced by M. H. Pee. It was created to help identify the trend, and its direction. Positive values of either the Positive Trend Continuation Factor (TCF+) and the Negative Trend Continuation Factor (TCF-) indicate the presence of a strong trend. Positive values of TCF+ indicate a strong uptrend, while positive values of TCF- indicate a strong downtrend. TCF+ and TCF- cannot both be positive at the same time, since both an uptrend and a downtrend cannot occur simultaneously. Both can be negative. If both are negative, this signifies consolidation, or the absence of a trend. It is recommended to enter long positions when the TCF+ value is positive, and enter short positions when the TCF- value is positive.

Trend Intensity Index (TII)

Trend Intensity Index (TII) is based on an article by M. H. Pee that will be available in the June 2002 issue of Stocks and Commodities Magazine. TII is used to indicate the strength of the current trend in the market. The stronger the current trend, the more likely the market will continue moving in the current direction. It is recommended to enter the market during a strong trend and ride it until TII shows signs of a reversal, at which time you should abandon your position and prepare to enter in the opposite direction.

Tri Star

Recognizes important Candlestick patterns and generates the necessary signals.

TriggerChannel

Creates signals when the trigger line is crossed.

TriggerLine

Creates signals when the trigger line is crossed.

Triple Bottom Breakout

Recognizes Triple Bottom (2 descending Bottoms or at same level + 1 following descending bottom) and sets sell signal.

Triple Top Breakout

Recognizes Triple Top (2 ascending Tops or at same level + 1 following ascending Top) and sets buy signal.

TRIX**Two Crows**

Recognizes important Candlestick patterns and generates the necessary signals.

Up/Down Visualizer

Creates a positive bar if the parent plot rises and a negative one if it falls.

Value Chart

Value Chart

Vertical Horizontal Filter**Volatility**

Calculates the volatility.

Volatility Index Dynamic Average

The VIDYA, developed by Chande, is a moving average derived from linear regression.

Volume

Plots the volume graph for the symbol.

Volume Oscillator**Wilder's Volatility****Williams %R****Williams Variable Acc./Distr.****X-CrossOver**

Generates signals of overlapping moving averages. Buy signals are generated when the shortest MA is above the second shortest MA and so on and vice versa.

Zig Zag

Chart analysis

Chart analysts try to predict future price movements by examining historical charts and patterns. They use a big toolset to draw trend lines, calculate indicators or optimize signals. All these features are available in Fibotrader.

Chart types

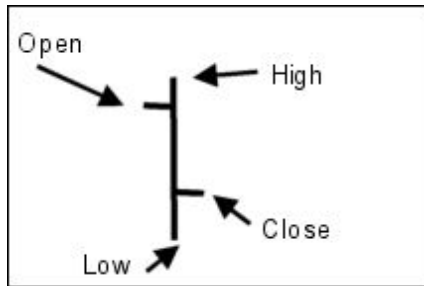
There are a lot of different chart types, which differ in the amount of information and the alignment over time.

Line

The line chart is the type most commonly used. All close quotes are simple connected with each other. Although this simplicity is nice in the beginning, you do not see high/low quotes which is a serious drawback.

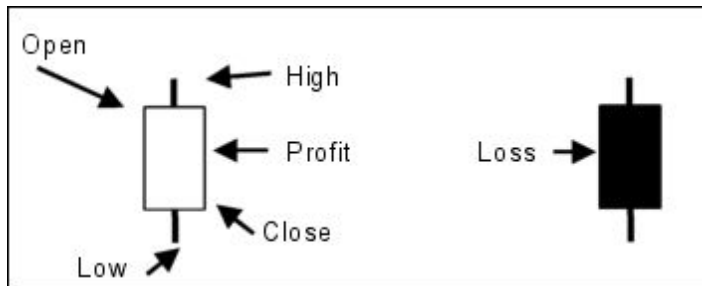
**Bar**

To get additional information in the chart, bar and candlestick charts were developed. Bar charts show the opening quote left and the close quote on the right of a vertical bar, which represents the trading range.



Candlestick

For candlesticks open and close quote are connected through a rectangle. This is called the **body**. This body is either white or black and shows in which direction the quotes moved.

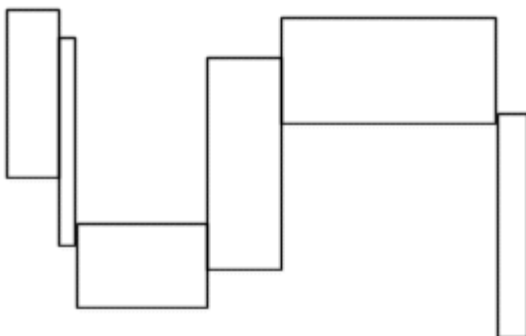


In candlestick charts it is possible to identify formations which show trends, risks and generate signals. Fibotrader can find them for you automatically through the Candlestick indicators.

Equivolume

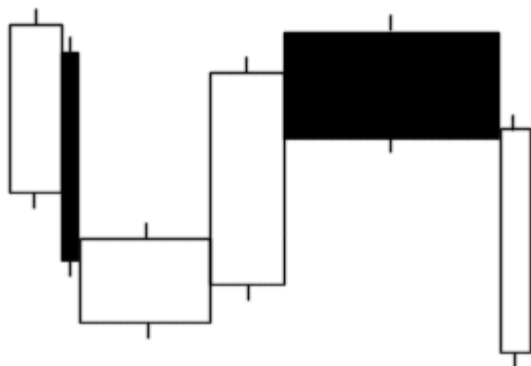
Equivolume charts draw a body just like candlesticks. In addition, the width is modified in respect to the trading volume. This way you can see directly where the high volatility bars are.

Consider that as with Point & Figure the X-Axis is not linear. Sub chart windows can differ.



Candle Power

The candle power chart is an improvement of the Equivolume chart. In addition to the volume adjusted body also the high and low is shown as a vertical line. You can see the differences by switching between the two chart types.



Point & Figure

Point & Figure charts were developed in Japan and are very different to traditional line, bar and candlestick charts. Now, the time axis is not linear anymore which means that the difference between two datapoints are not same but can be days or months. Also, the quotes will be drawn in columns of X and O, with X and O never being in the same column.

Construction

Starting with the first quote, an X is drawn when the price went up or an O when it went down. In this example we start with an X. We have one single X in the first column now. There is a setting called **box size** which determines how often new boxes are drawn. In the chart you can see many boxes of the specified size. Each X and O will be drawn in its own box

The chart module supports two methods of calculating Point & Figure charts.

1. Original method of Dorsey

Using this method the box size is not fixed but depends on the price. It is described in Thomas Dorsey's book "Sicher anlegen mit Point & Figure". It is not implemented for prices above 200 since it will create too many boxes then.

The box size is defined as follows, depending on the price:

- 0-5 : 1/4
- 5-20 : 1/2
- 20-100: 1
- >100 : 2

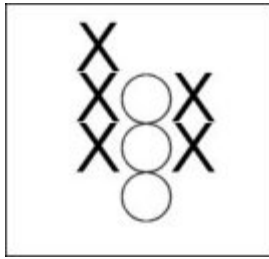
This means, between 3 and 4 are exactly 4 boxes ($4 \times 1/4$), between 19 and 21 there are 3 ($2 \times 1/2 + 1 \times 1$).

2. Fixed size

With this traditional method all boxes have the same size (e.g. 2 dollars).

If the price rises above the current box a new X will be drawn above. But what happens when prices go down? The second important parameter next to the box size is the **reversal**. A reversal of 3 means for example that if in an X column (uptrend) the price moves 3 boxes down, a new column begins which would be an O column.

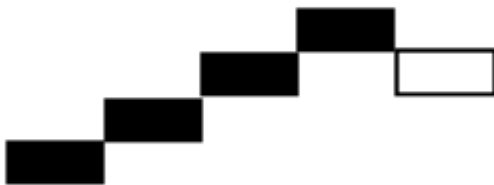
This way it is easy to see that a column could span over days, but even months given that the prices do not move too much or the reversal condition is not reached. This way the many small movements in charts are eliminated.



Point & Figure charts can generate buy and sell signals. These are based on certain formations. There is also a way to calculate price goals. Many of these formations and the price goals can be calculated automatically through the P&F indicators

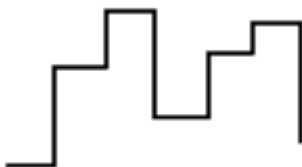
Renko

This chart type is very similar to the Point & Figure chart. Although it looks different the underlying concept is the same. So called bricks are drawn when a predefined limit is reached. Only one brick is allowed per column. This results in the typical Renko steps.



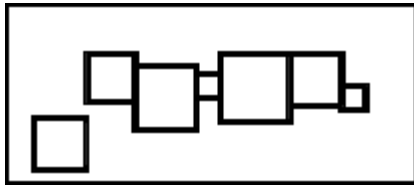
Steps

This chart type is very similar to the line chart. The difference lies in the way the close quotes are connected. Instead of directly connecting them, two lines are used. One shows the vertical change and the other one connects horizontally.



Symetrics

Symetrics Charts are especially qualified for analysis with Fibonacci, Gann and Phi Tools. The chart is created by drawing the price differences weighted on the time line. This way the chart is always constant and contained drawings always produce the same intersections.



Candlestick formations

Candlestick formations can consist of several candles. The more candles are needed, the more important a formation is. Formations marked with a star (*) are detected automatically through the candlestick indicators (plus some additional formations not listed here).

Attention: Explanations are only available in German at this time!

Formations consisting of one candle

White Block or Realbody
 Black Block or Realbody
 Doji*
 Hammer*
 Hanging Man*
 Inverted Hammer*
 Shooting Star*

Formations consisting of two candles

Dark Cloud Cover*
 Piercing Pattern*
 Negatives In-Neck Pattern*
 Positives In-Neck Pattern*
 Bullish Engulfing*
 Bearish Engulfing*
 Positive Harami*
 Negative Harami*
 Negative Thrusting Pattern*
 Tweezer

Formations consisting of three candles

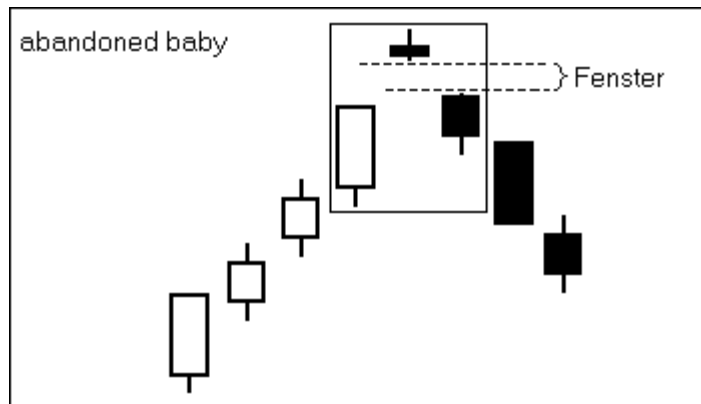
Two Crows
 Stalled Pattern
 Advanced Block
 Morning Star*
 Evening Star*
 Abandoned Baby
 Tri Star
 Rising Three Methods
 Falling Three Methods
 Three White Soldiers*
 Three Crows*

Abandoned Baby

Das "verlassene Kind" ist eine Spezialform von [Morning Star](#) oder [Evening Star](#).

Einziger Unterschied zum Morning Star (Evening Star) ist, daß zwischen 1. und 2. Tag sowie 2. und 3. Tag jeweils ein Fenster (=Gap/Kurslücke) auftritt. Die einzelnen Schatten berühren den Star somit nicht.

Das Kauf/Verkaufsignal wird hierdurch deutlich verstärkt !



Advanced Block (Vormarsch Block)

Voraussetzung

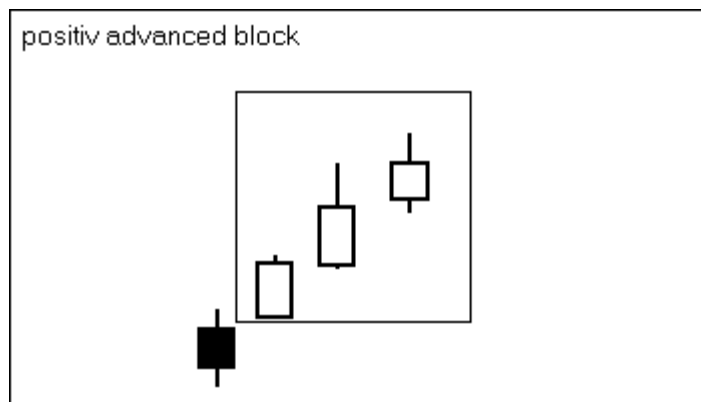
Hier treten bei den letzten beiden Kerzen größere Dochte auf. Außerdem ist der Anstieg vom 2. auf den 3. Tag deutlich geringer als beim 1. auf den 2. Tag.

Interpretation

Nach starken Gewinnen vom ersten auf den 2. Tag läßt nun die Dynamik etwas nach. Der dritte Tag verläuft zwar noch positiv, dennoch hat der Optimismus nachgelassen.

Prognosekraft

Der Advanced Block ist schwächer als die Three White Soldiers. Dennoch billigt auch er weiteres Aufwärtspotential zu. Die Hausse ist intakt, obwohl eine Verlangsamung des Aufwärtstrends zu erwarten ist.



Vergleich/Pendant

[Three White Soldiers](#) (stärker), [Stalled Pattern](#) (schwächer)

Bearish Engulfing

Voraussetzung

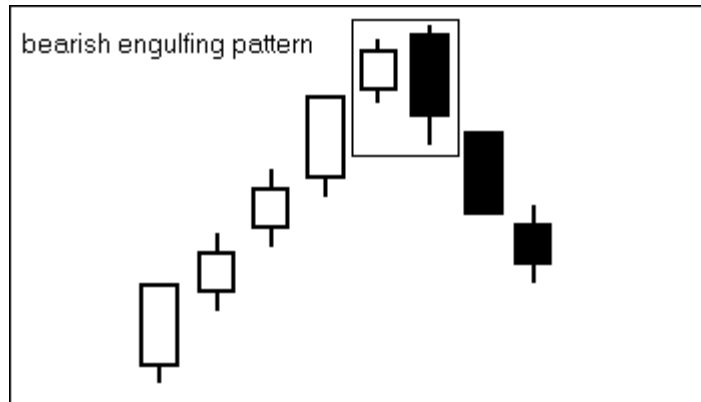
Die Formation besteht aus einer weißen und einer schwarzen Kerze. Hierbei hüllt letztere die weiße Kerze ein - d.h., dass der schwarze Kerzenkörper die komplette weiße Kerze "umschließt". Das negative engulfing pattern kommt am Ende einer Aufwärtsbewegung vor.

Interpretation

Nach anhaltend steigenden Kursen eröffnet der Markt am zweiten Tag noch höher. Im Tagesverlauf schwindet dann das Kaufinteresse. Verkaufsdruck kommt auf und drückt die Kurse unter das Vortagesniveau. Die Stimmung hat merklich gedreht.

Prognosekraft

Trendwende möglich! Verkaufssignal.



Gegenteil

Bullish engulfing pattern

Sind die Kerzen "umgekehrt" angeordnet, so handelt es sich um ein [negatives Harami](#)

Bullish Engulfing

Voraussetzung

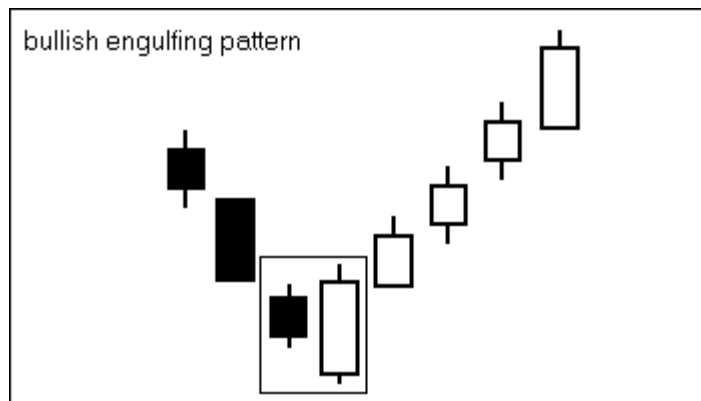
Die Formation besteht aus einer schwarzen und einer weißen Kerze. Hierbei hüllt letztere die schwarze Kerze ein - d.h., dass der weiße Kerzenkörper die komplette schwarze Kerze "umschließt". Das positive engulfing pattern kommt am Ende einer Abwärtsbewegung vor.

Interpretation

Nach anhaltend fallenden Kursen eröffnet der Markt am zweiten Tag noch schwächer. Im Tagesverlauf schwindet das Verkaufsinteresse und Käufer heben die Kurse an. Der Verkaufsdruck ist vorerst passé.

Prognosekraft

Trendwende möglich! Leichtes Kaufsignal.



Gegenteil

Bearish engulfing pattern

Sind die Kerzen "umgekehrt" angeordnet, so handelt es sich um ein [positives Harami](#)

Dark Cloud Cover

Voraussetzung

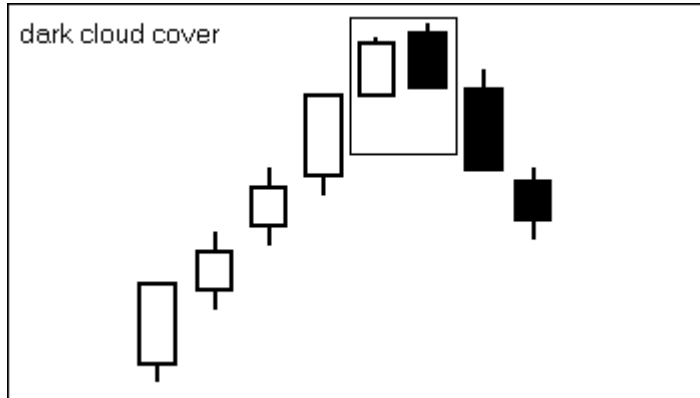
Beide Kerzen haben kurze Luntten/Dochte. Der Schlusskurs der weißen Kerze ist klar über dem Schlusskurs der schwarzen Kerze. Es kommt am Ende eines Aufwärtstrends vor!

Interpretation

Nach dem freundlichen Anstieg des Vortages (fast ein Block) kommt es am zweiten Tag zur Ernüchterung.

Prognosekraft

Trendwende möglich! Leichtes Verkaufssignal.



Vergleich/Pendant

Stärker als [Negative in Neck Pattern](#) und stärker als das [Negative Thrusting Pattern](#)

Doji

Voraussetzung

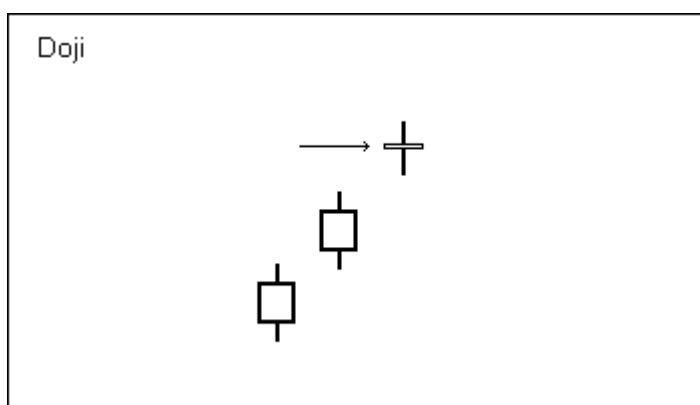
Der Doji besteht aus einer Kerze. Der Kerzenkörper ist minimal oder gar nicht ausgeprägt, der Schlusskurs liegt also sehr nahe am Eröffnungskurs.

Interpretation

Der Markt ist unentschieden.

Prognosekraft

Der Markt könnte drehen. Der Doji allein gesehen kann allerdings noch nicht als Signal verstanden werden. Beim Auftreten des Doji sollten Sie extrem "wachsam" sein! In Verbindung mit anderen Formation (z.B. [Morning Star](#)) ist der Doji als **Verstärkung des anderen Signals** zu sehen!



Evening Star (Abendstern)

Voraussetzung

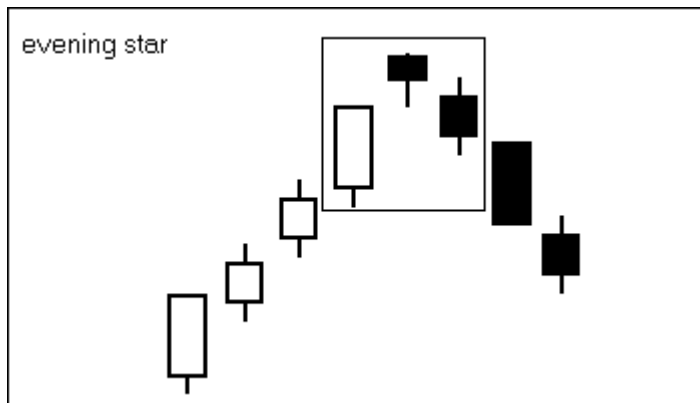
Der Evening Star ist eine Formation, welche aus drei Kerzen besteht. Sie kommt am Ende einer Aufwärtsbewegung vor. Die erste Kerze ist weiß, hat meist nur einen kurzen Docht/Lunte. Die 2. Kerze liegt deutlich über der Ersten. Abgeschlossen wird der Abendstern durch die 3. Kerze: Sie eröffnet (deutlich) unterhalb des Vortagesschlusskurses. Tagsüber fallen die Kurse weiter (=schwarze Kerze).

Interpretation

Der Optimismus des ersten Tages hält am zweiten Tag noch an, weshalb der Markt höher eröffnet. Im Handelsverlauf fehlt dann allerdings die Kraft weiter zuzulegen. (Dies stellt noch kein Verkaufssignal dar!). Am dritten Tag liegt die Eröffnung deutlich tiefer, was eine Zurückhaltung der Investoren gleichkommt. Die Gewinnmitnahmen im Tagesverlauf zeigen anschließend, daß der Optimismus nun dem Pessimismus klar gewichen ist.

Prognosekraft

Am Ende einer Aufwärtsbewegung stellt der Evening Star ein klares und nicht zu ignorierendes Verkaufssignal dar. Durch einen [Doji](#) am zweiten Tag kann das Signal noch verstärkt werden!

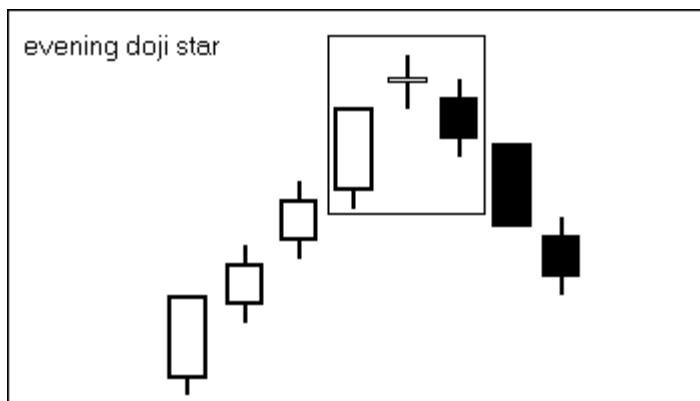
**Vergleich/Pendant**

Spezialformen sind der [Tri Star](#) und das [Abandoned Baby](#)

Gegenteil

[Morning Star](#)

Durch einen [Doji](#) am zweiten Tag kann das Signal noch verstärkt werden!

**Falling Three Methods****Voraussetzung**

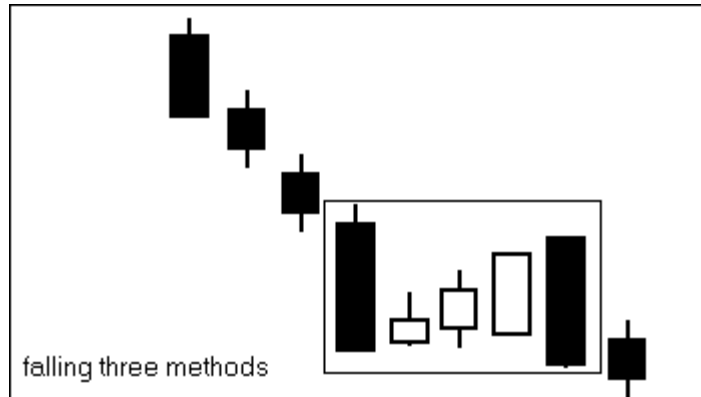
Die Formation besteht aus drei weißen Kerzen, welche jeweils ansteigen. (3. Kerze liegt über der 2., welche wiederum über der ersten liegt). Diese weißen Kerzen werden durch zwei schwarze Kerzen umrahmt. Hierbei muß die zweite schwarze Kerze unterhalb der Eröffnung der ersten weißen Kerze und unterhalb dem Schlusskurs der anderen schwarzen Kerze liegen.

Interpretation

Nach starken Kursverlusten kommt es drei Tage in Folge zu einer Erholung. Durch die erneuten Verluste am fünften Tag - der Markt geht extrem in die Knie - wird der Versuch einer Trendwende zunichte gemacht.

Prognosekraft

Die Falling Three Methods ist eine Bestätigung des Abwärtstrends. Für antizyklische Käufe ist es noch viel zu früh, da die Abwärtsdynamik sich nochmals beschleunigen dürfte.



Gegenteil

[Rising Three Methods](#)

Hammer (Sonnenschirm)

Voraussetzung

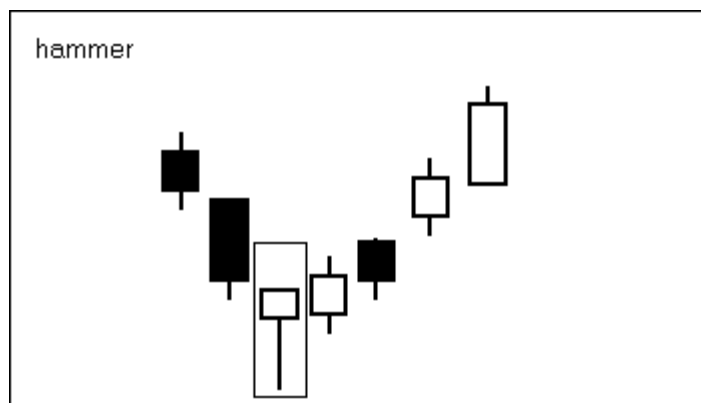
Eine Hammer besteht aus einem sehr kurzem Körper mit langer Lunte. Dabei sollte die Lunte mindestens die doppelte Länge des Kerzenkörpers besitzen. Die Farbe des Körpers ist hierbei fast egal. (Ein weisser Körper ist etwas positiver zu werten als ein schwarzer.) Er kommt am Ende eines Abwärtstrendes vor!

Interpretation

Der Wert konnte sich von seinen Tiefkursen bis zum Handelsende wieder deutlich erholen. Eine gewisse Unentschlossenheit ist im Markt.

Prognosekraft

Der Hammer gilt als leichtes Kaufsignal.



Vergleich/Pendant

Das Gegenteil stellt der [Hanging Man](#) (Kerze sieht genauso aus) dar, welcher eine mögliche Umkehr im Aufwärtstrend signalisiert.

Vergleiche

[Inverted Hammer](#)

Hanging Man

Voraussetzung

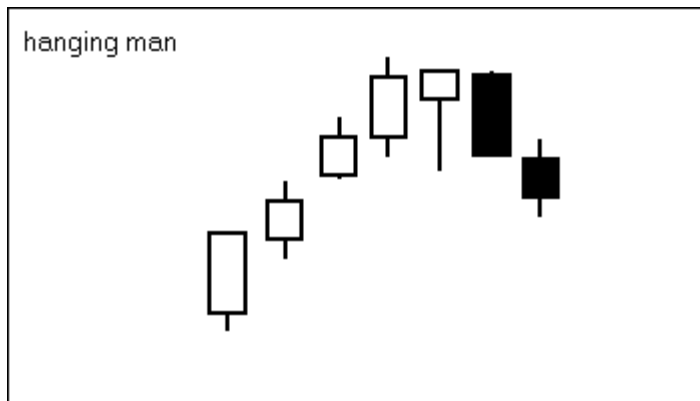
Eine Hanging Man besteht aus einem sehr kurzem Körper mit langer Lunte. Dabei sollte die Lunte mindestens die doppelte Länge des Kerzenkörpers besitzen. Die Farbe des Körpers ist hierbei fast egal. (Ein weisser Körper ist etwas positiver zu werten als ein schwarzer.) Er kommt am Ende eines Aufwärtstrendes vor!

Interpretation

Der Wert konnte sich von seinen Tiefkursen bis zum Handelsende wieder deutlich erholen. Eine gewisse Unentschlossenheit ist im Markt.

Prognosekraft

Der Hanging Man gilt als mögliche Trendumkehr.

**Vergleich/Pendant**

Das Gegenteil stellt der [Hammer](#) (Kerze sieht genauso aus) dar, welcher am Ende eines Abwärtstrends vorkommen kann.

Inverted Hammer**Voraussetzung**

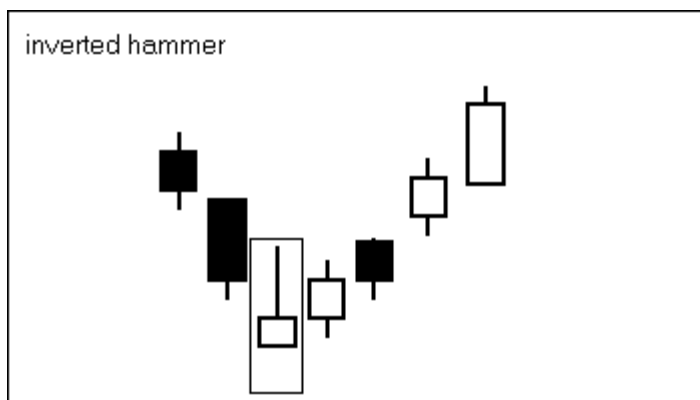
Ein Hammer besteht aus einem sehr kurzem Körper mit langem Docht. Dabei sollte die Docht mindestens die doppelte Länge des Kerzenkörpers besitzen. Die Farbe des Körpers ist hierbei fast egal. (Ein weisser Körper ist etwas positiver zu werten als ein schwarzer.) Er kommt am Ende eines Abwärtstrendes vor!

Interpretation

Der Wert versuchte im Tagesverlauf den Abwärtstrend zu brechen. Die Kraft liess gegen Ende allerdings nach.

Prognosekraft

Selten. Deutet eine mögliche Trendumkehr an



Vergleich/Pendant

Hammer

Morning Star (Morgenstern)

Voraussetzung

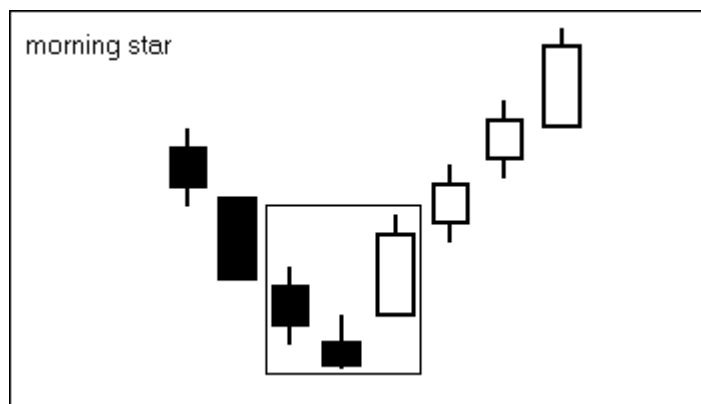
Der Morning Star ist eine Formation, welche aus drei Kerzen besteht. Sie kommt am Ende einer Abwärtsbewegung vor. Die erste Kerze ist schwarz, hat meist nur einen kurzen Docht/Lunte. Die 2. Kerze, massgeblich ist der Kerzenkörper, liegt deutlich unter dem Kerzenkörper der Ersten. Abgeschlossen wird der Morgenstern durch die 3. Kerze: Sie eröffnet (deutlich) oberhalb des Vortageschlusskurses. Tagsüber steigen die Kurse weiter (=weiße Kerze).

Interpretation

Der Pessimismus des ersten Tages hält am zweiten Tag noch an, weshalb der Markt tiefer eröffnet. Im Handelsverlauf fehlt dann allerdings der Verkaufsdruck. (Dies stellt noch kein Kaufsignal dar!). Am dritten Tag liegt die Eröffnung deutlich höher, woran Sie das Kaufinteresse erkennen. Die weiter steigenden Kurse zeigen im Tagesverlauf, daß der Pessimismus nun dem Optimismus klar gewichen ist.

Prognosekraft

Am Ende einer Abwärtsbewegung stellt der Morning Star ein klares und nicht zu ignorierendes Kaufsignal dar. Durch einen [Doji](#) am zweiten Tag kann das Signal noch verstärkt werden!



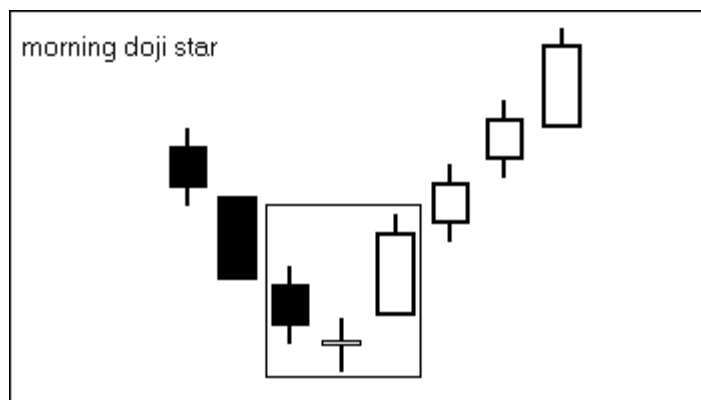
Vergleich/Pendant

Spezialformen sind der [Tri Star](#) und das [Abandoned Baby](#)

Gegenteil

Evening Star

Durch einen [Doji](#) am zweiten Tag kann das Signal noch verstärkt werden!



Negatives Harami

Voraussetzung

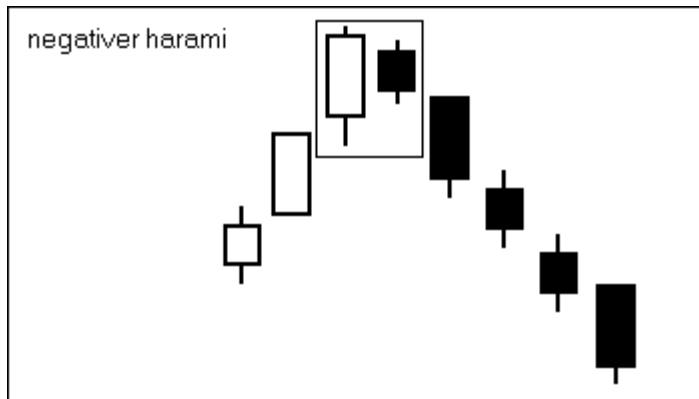
Die Formation besteht aus einer weißen und einer schwarzen Kerze. Hierbei liegt die zweite Kerze "im" Kerzenkörper der Ersten. Das Negative Harami kommt am Ende einer Aufwärtsbewegung vor.

Interpretation

Nach anhaltend steigenden Kursen eröffnet der Markt am zweiten Tag etwas "lustlos". Auch im Tagesverlauf geht es tendenziell nach unten.

Prognosekraft

Trendwende möglich! Leichtes Verkaufssignal.



Gegenteil

Positives Harami

Sind die Kerzen "umgekehrt" angeordnet, so handelt es sich um ein [Bearish Engulfing Pattern](#)

Negatives In-Neck Pattern

Voraussetzung

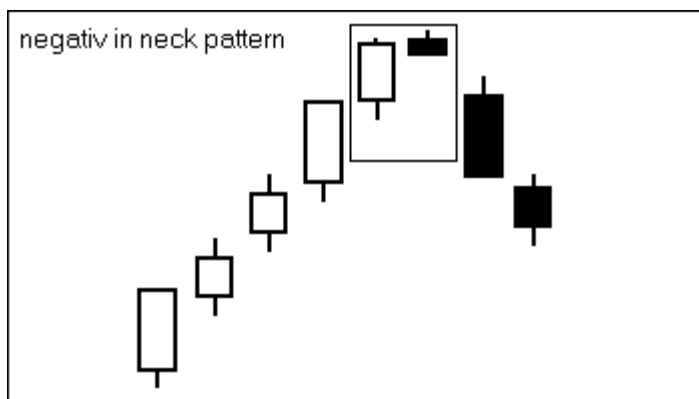
Beide Kerzen haben kurze Luntten/Dochte. Der Schlusskurs der weißen Kerze ist in etwa der Schlusskurs der schwarzen Kerze. Es kommt am Ende eines Aufwärtstrends vor!

Interpretation

Nach dem freundlichen Anstieg des Vortages (fast ein Block) kommt es am zweiten Tag zur Ernüchterung.

Prognosekraft

Warnsignal im Aufwärtstrend. Leichtes Verkaufssignal.



Vergleich/Pendant

Schwächer als das [Negative thrusting pattern](#), welches wiederum schwächer als das [Dark-Cloud-Cover](#) ist.

Negatives Thrusting Pattern

Voraussetzung

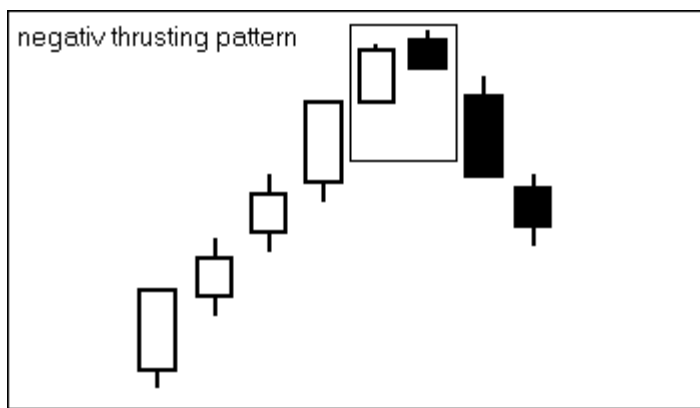
Beide Kerzen haben kurze Lunten/Dochte. Der Schlusskurs der weissen Kerze ist leicht über dem Schlusskurs der schwarzen Kerze. Es kommt am Ende eines Aufwärtstrendes vor !

Interpretation

Nach dem freundlichen Anstieg des Vortages (fast ein Block) kommt es am zweiten Tag zur Ernüchterung.

Prognosekraft

Kurzfristige Trendwende möglich. Leichtes Verkaufssignal.



Vergleich/Pendant

Stärker als [Negatives In-Neck Pattern](#), schwächer als das [Dark-Cloud-Cover](#)

Piercing Pattern

Voraussetzung

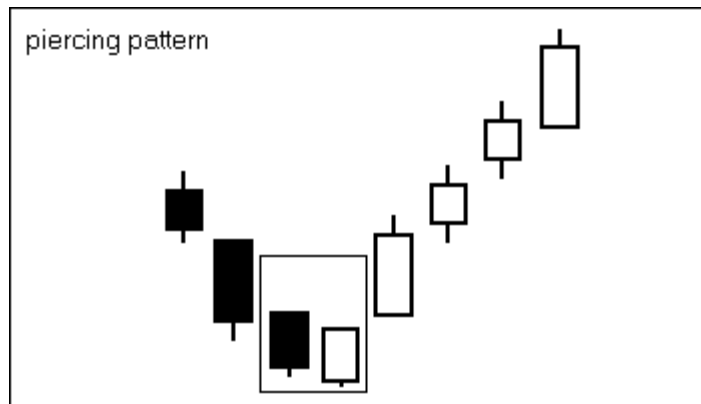
Besteht aus zwei Kerzen und kommt am Ende einer Abwärtsbewegung vor. Die erste Kerze ist schwarz. Die Zweite eröffnet tiefer, schließt aber über der Durchbruchlinie (Mitte des 1. Kerzenkörpers) der schwarzen Kerze.

Interpretation

Nach starken Verlusten ist der erste Tag schwach. Am 2. Tag herrscht anfangs noch Pessimismus vor, welcher sich im Tagesverlauf jedoch eindeutig verzieht. Die Stimmung hat also gedreht.

Prognosekraft

Das Piercing Pattern stellt ein Kaufsignal dar, mit einer Trendwende nach oben ist zu rechnen.



Vergleich/Pendant

Stärker als [positives in neck pattern](#)

Gegenteil:

[Dark Cloud Cover](#) (in Aufwärtsbewegungen)

Positives Harami

Voraussetzung

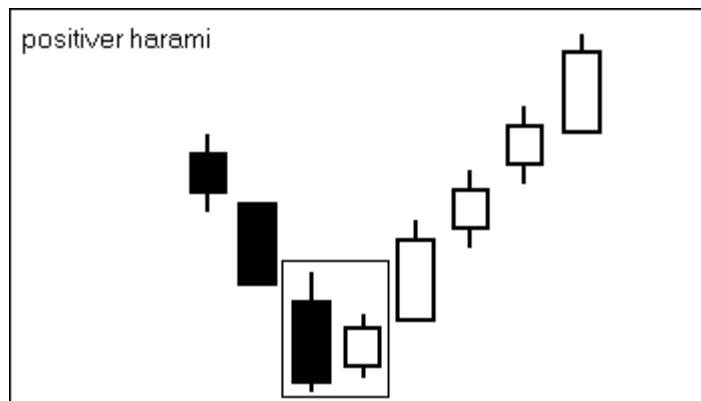
Die Formation besteht aus einer schwarzen und einer weißen Kerze. Hierbei liegt die zweite Kerze "im" Kerzenkörper der Ersten. Das Positive Harami kommt am Ende einer Abwärtsbewegung vor.

Interpretation

Nach anhaltend fallenden Kursen eröffnet der Markt am zweiten Tag etwas freundlicher. Im Tagesverlauf steigt der Markt dann leicht an. Die Stimmung hat etwas gedreht.

Prognosekraft

Trendwende möglich! Leichtes Kaufsignal.



Gegenteil

[Negatives Harami](#)

Sind die Kerzen "umgekehrt" angeordnet, so handelt es sich um ein [Bullish Engulfing Pattern](#)

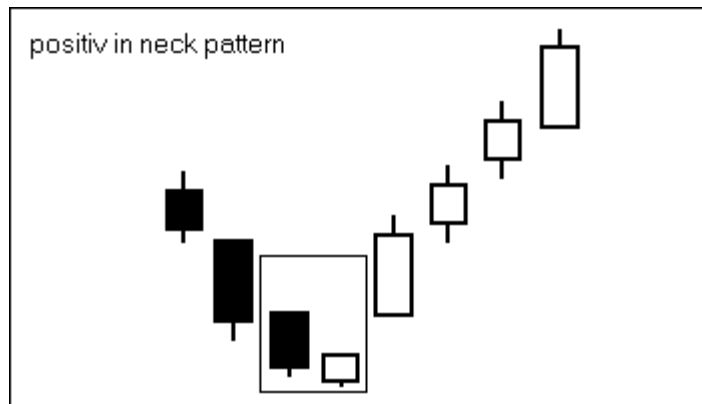
Positives In-Neck Pattern

Voraussetzung

Beide Kerzen haben kurze Luntten/Dochte. Der Schlusskurs der schwarzen Kerze ist in etwa der Schlusskurs der weißen Kerze. Es kommt am Ende eines Abwärtstrends vor!

Prognosekraft

Leichtes Kaufsignal.



Gegenteil

Negatives In-Neck pattern

Rising Three Methods

Voraussetzung

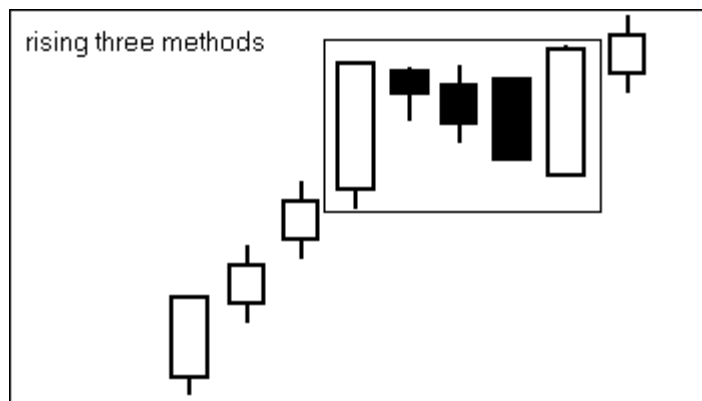
Die Formation besteht aus drei schwarzen Kerzen, welche jeweils abfallen. (3. Kerze liegt unter der 2., welche wiederum unter der ersten liegt). Diese schwarzen Kerzen werden durch zwei weiße Kerzen umrahmt. Hierbei muß die zweite weiße Kerze oberhalb der Eröffnung der ersten schwarzen Kerze und oberhalb dem Schlusskurs der anderen weißen Kerze liegen.

Interpretation

Nach starken Kursgewinnen kommt es drei Tage in Folge zu einer Konsolidierung. Durch die erneuten Gewinne am fünften Tag - der Markt steigt extrem an - wird der "Ausbruch" nach oben geschafft.

Prognosekraft

Die Rising Three Methods ist eine Bestätigung des Aufwärtstrends. Für antizyklische Verkäufe ist es noch viel zu früh, da die Aufwärtsdynamik sich nochmals beschleunigen dürfte.



Gegenteil

Falling Three Methods

Schwarzer Block oder Realbody

Voraussetzung

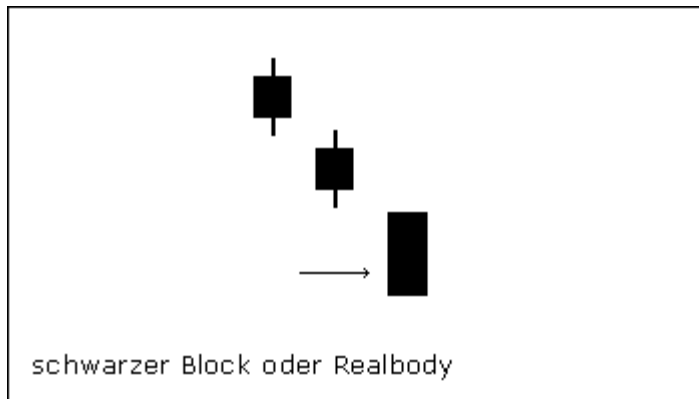
Ein Block entsteht, wenn der Eröffnungskurs gleich dem Tagestiefstkurs, sowie der Schlusskurs auch das Tageshoch darstellt. Es entsteht also weder Docht noch Lunte.

Interpretation

Der Markt ist pessimistisch. Die gute "Stimmung" zu Handelsbeginn verschlechtert sich bis Handelsende kontinuierlich.

Prognosekraft

Ist häufig in Abwärtsbewegungen zu finden, und stellt ein Indiz für weiter fallende Kurse dar. Ohne weitere Signale jedoch von geringerer Bedeutung. Insgesamt ist zu bemerken, daß je grösser die Handelsspanne ist (je länger der Kerzenkörper), desto grösser auch die Aussagekraft.

**Gegenteil**

Weißer Block/Real Body

Shooting Star**Voraussetzung**

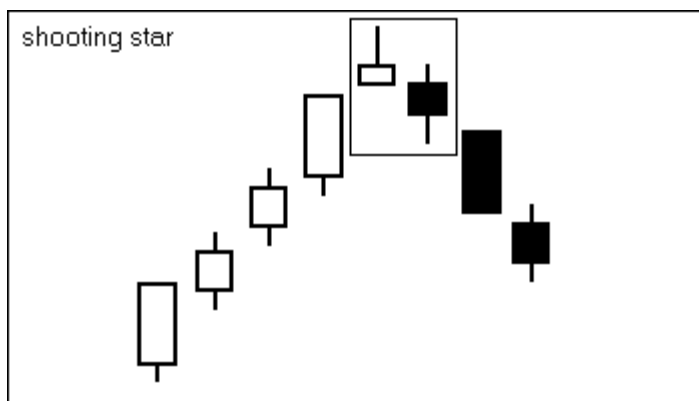
Ein Shooting Star besteht aus einem sehr kurzem Körper mit langer Lunte. Dabei sollte die Lunte mindestens die doppelte Länge des Kerzenkörpers besitzen. Die Farbe des Körpers ist hierbei fast egal. (Ein weisser Körper ist etwas positiver zu werten als ein schwarzer.) Er kommt am Ende eines Aufwärtstrends vor!

Interpretation

Der Wert versuchte im Tagesverlauf weiter zuzulegen. Die Kraft liess allerdings gegen Ende nach.

Prognosekraft

Deutet eine mögliche Trendumkehr an. -> schwaches Verkaufssignal

**Vergleich/Pendant**

Inverted Hammer

Stalled Pattern**Voraussetzung**

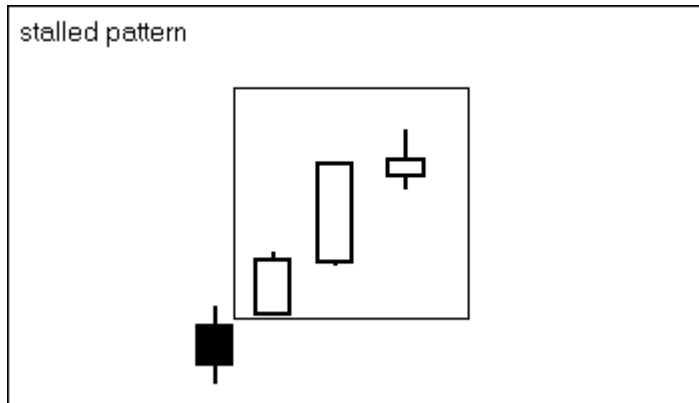
Die erste weiße Kerze ist relativ klein. Es folgt eine große weiße Kerze in Form eines Block/Realbody (kaum oder keine Lunte/Docht). Die dritte, kleine weiße Kerze schließt in etwa auf Vortagesschlusskurs.

Interpretation

Nach starken Kurssteigerungen am ersten und zweiten Tag, baut sich am dritten Tag die Dynamik ab. Der Tagesverlauf ist zwar noch positiv, der Markt kommt aber nicht (oder nur kaum) über das Vortagesniveau hinaus.

Prognosekraft

Das Stalled Pattern ist kein Verkaufssignal. Es zeigt lediglich, daß die Dynamik nachläßt.



Vergleich/Pendant

[Three White Soldiers](#) und [Advanced Block](#) (beide stärker)

Gegenteil

[Block/Realbody](#)

Three Crows (Drei Krähen)

Voraussetzung

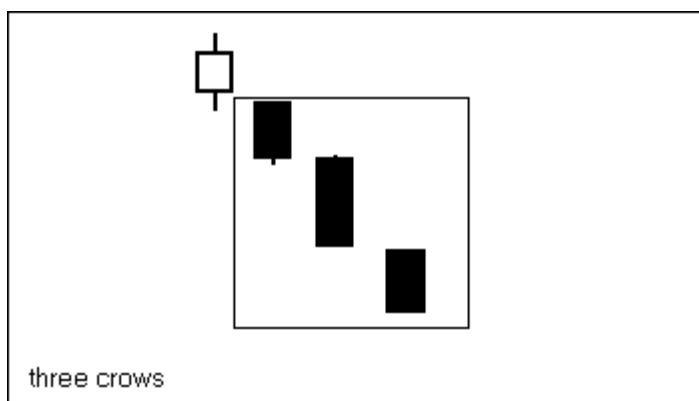
Die Formation besteht aus drei schwarzen Kerzen. Jede einzelne Kerze stellt einen [Block/Realbody](#) (keinen oder minimalen Docht oder Lunte) dar. Bei den Three Crows schließt die 1. Kerze deutlich unter dem Vortagesschluss. Gleiches gilt für die 2. und 3. Kerze.

Interpretation

Der Markt zeigt mehrfach Schwäche, und bröckelt kontinuierlich ab.

Prognosekraft

Die Formation ist häufig in einer Baisse zu finden. Sie deutet auf weiteres Abwärtspotential hin.



Gegenteil

[Three White Soldiers](#) (in einer Aufwärtsbewegung)

Three White Soldiers (Drei weisse Soldaten)

Voraussetzung

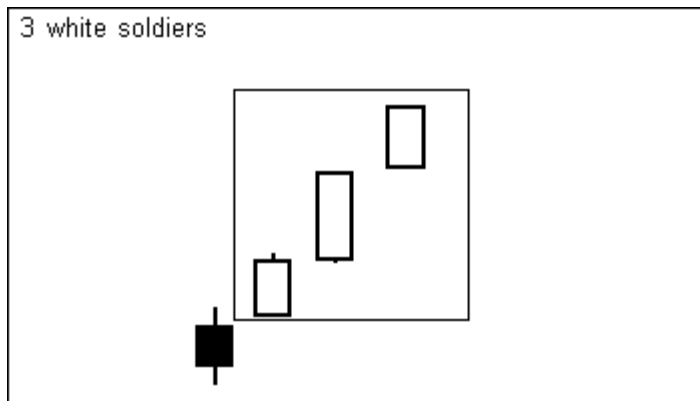
Die Formation besteht aus drei weißen Kerzen. Jede einzelne Kerze stellt einen [Block/Realbody](#) (keinen oder minimalen Docht oder Lunte) dar. Bei den Three White Soldiers schließt die 1. Kerze deutlich über dem Vortageschluss. Gleiches gilt für die 2. und 3. Kerze.

Interpretation

Der Markt zeigt mehrfach seine Kraft durch kontinuierlich anziehende Notierungen.

Prognosekraft

Die Formation ist häufig in einer Hausse zu finden. Sie deutet auf weiteres Aufwärtspotential hin.

**Vergleich/Pendant**

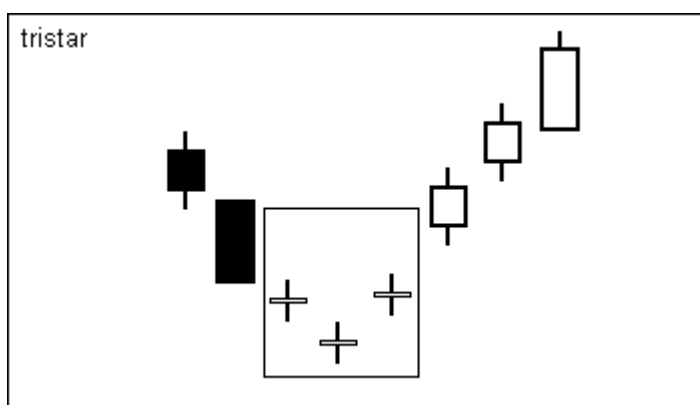
[Advanced Block](#) (schwächeres Signal), [Stalled Pattern](#) (noch schwächeres Signal), [Realbody/Block](#)

Gegenteil

[Three Crows](#) (in einer Abwärtsbewegung)

Tri Star

Der "Dreistern" ist eine selten vorkommende Form von [Morning/Evening Star](#). Hierbei bestehen die drei Kerzenkörper aus Dojis. Analog zum [Doji](#), welcher ja eine gewisse Unentschlossenheit im Markt anzeigt und somit als Verstärkung anderer Signale gilt, wertet auch der Tri Star die Aussagekraft des [Morning/Evening Star](#) auf.

**Tweezer****Voraussetzung**

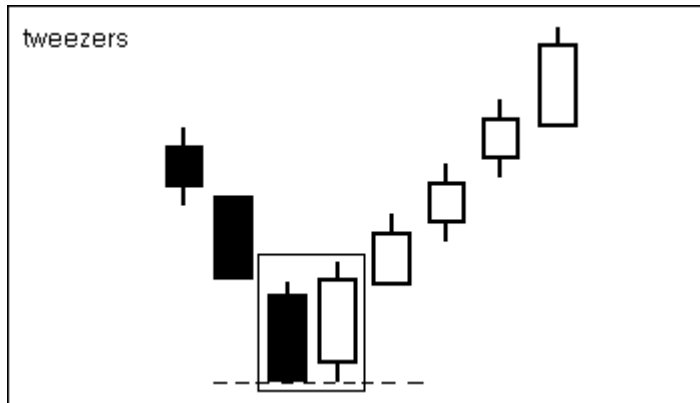
Ein Tweezer entsteht durch die besondere Lage zweier benachbarter Kerzen. Hierbei ist der Tageshöchst.- bzw. Tagestiefstkurs identisch. Der Markt konnte also zweimal in Folge eine bestimmte Marke nicht nehmen.

Interpretation

Ein Widerstand (Unterstützung) hat sich gebildet. Kurzfristig bestehen nur geringe Chancen diese Marke herauszunehmen.

Prognosekraft

Eine Trendwende könnte unmittelbar bevorstehen. Oft verstärkt ein Tweezer ein anderes Signal, was natürlich dessen Aussagekraft erheblich steigert.



Two Crows (Zwei Krähen)

Voraussetzung

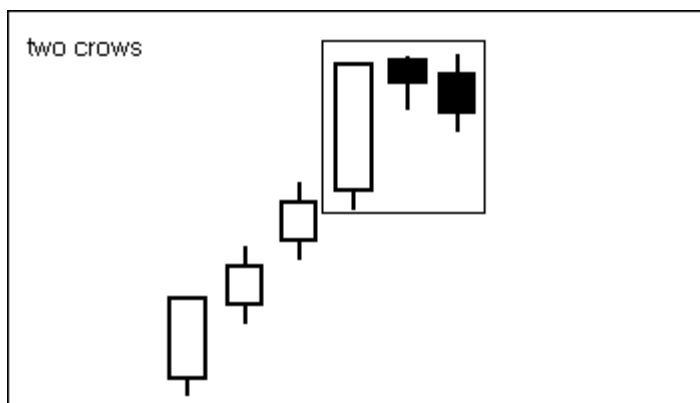
Die Formation besteht aus drei Kerzen, wobei die 1. Kerze einen langen weißen Körper hat. Docht und Lunte sind schwach oder gar nicht ausgeprägt. (entspricht einem [Block/Realbody](#)) Darauf folgen zwei, in der Regel kürzere schwarze Kerzen. Die erste schwarze Kerze schließt mit einem Fenster (Gap/Kurslücke) über der weißen Kerze. Die 2. schwarze Kerze hüllt dann die vorangegangene schwarze Kerze ein.

Interpretation

Der erste Tag ist sehr freundlich zu werten. Der zweite Tag beginnt optimistisch, wobei im Tagesverlauf Gewinnmitnahmen erfolgen. Auch am dritten Tag sind Anleger zu Beginn bereit weiter zu kaufen. Bis Handelende dreht sich das Blatt, wobei die Kurse sogar unter Vortageschluss schließen. Der Pessimismus ist also nicht zu übersehen.

Prognosekraft

Die Formation ist ein selten vorkommendes aber klares Verkaufssignal. Es ist in seiner Kraft etwa mit einem [Evening Star](#) vergleichbar.



Weißer Block oder Realbody

Voraussetzung

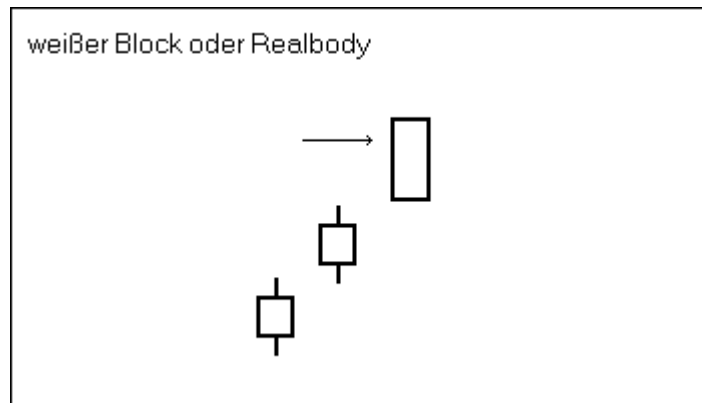
Ein Block entsteht, wenn der Eröffnungskurs gleich dem Tagestiefstkurs, sowie der Schlusskurs auch das Tageshoch darstellt. Es entsteht also weder Docht noch Lunte.

Interpretation

Der Markt ist optimistisch. Die schlechte "Stimmung" zu Handelsbeginn verbessert sich bis Handelsende kontinuierlich.

Prognosekraft

Ist häufig in Aufwärtsbewegungen zu finden, und stellt ein Indiz für weiter steigende Kurse dar. Ohne weitere Signale jedoch von geringerer Bedeutung. Insgesamt ist zu bemerken, daß je grösser die Handelsspanne ist (je länger der Kerzenkörper), desto grösser auch die Aussagekraft.

**Gegenteil**

Schwarzer Block/Real Body

Point & Figure formations

All formations marked with a star (*) are detected automatically through the P&F indicators:

Buy signals

- Double top*
- Bullish signal*
- Double top with support*
- Triple top*
- Ascending triple top*
- Bullish catapult*
- Long Tail Down*

Sell signals

- Double bottom*
- Bearish signal*
- Double bottom with resistance*
- Triple bottom*
- Descending triple top*
- Bearish catapult*

Up-trend

Low Pole*

Down-trend

High Pole*

Point & Figure price goal estimation

There are two main methods of estimating a price on a P&F chart. They both result in a rough estimate which does not necessarily present the beginning or end of a new movement. Both methods can be calculated automatically in the chart module.

Vertical Count

In this example we assume we are in an uptrend. After a buy signal and an upwards movement a pullback is made. Now we can calculate the price goal for the next rise by multiplying the number of boxes in the X-column with the reversal value and adding it to the bottom of the X-column.

Horizontal Count

The horizontal count calculates the price goal depending on the number of columns.

Analysis methods

To earn money by trading stocks, it can be vital to buy and sell the right stocks at the right time. Therefore, the following steps should be obeyed:

- Establishing criteria to reduce the amount of stocks
- Analysis of the specific stocks
- Determination of the time when to buy and sell

To determine criteria to reduce the stocks, it can be useful to know how the stocks will be analyzed. There are also more general criteria, which are independent of the used method.

Criteria for trading candidates

It is possible to trade securities all over the world. But in the majority of cases an account in the particular country is necessary. Because this is mostly not the case, the trading should be **limited to the country** where your depot is managed.

Because the main market (with the highest transaction volume in the world) for trading securities is the US, it should be considered to open an account there.

The **daily transaction volume** should be another filter for the long list of possible stocks. If the transaction volume is too small, it might be hard to sell a stock after being bought. A high daily transaction value allows the trader to react to news and buying or selling signals immediately and ensures that securities can be bought and sold any time during trading hours.

Analysis of individual stocks

There are two main ways to analyze and interpret given data and to derive a decision whether to buy or sell a certain stock. These two ways of analyzing data are nearly exclusive and are widely used.

Fundamental Analysis

Decisions based on the company's balance, news, profit development, economic situation, monetary policy, etc.

Technical Analysis

Analyzing of price development, usually done in the form of a chart, drawing trendlines, usage of indicators and automatic trading signals

Advantages and Disadvantages

- | | |
|---|---|
| <ul style="list-style-type: none">• cannot be handled automatically by a computer, therefore the analysis of the stocks is very time consuming• complete data is necessary, this is either expensive or has to be collected by oneself | <ul style="list-style-type: none">• needs only closing price data (and optional opening price, high, low, turnover)• almost completely automatic• expensive software necessary• fast analysis of thousands of stocks |
|---|---|

- doesn't need software for the analysis
- automatic signals

For both methods a high knowledge of the method is vital. That is probably the reason why many specialize in either fundamental or technical analysis.

Philosophy

Price development is random and therefore not predictable by technical methods.

Fundamental data is already included in the current price, because the price mirrors all this information in a number. Therefore, a analysis of fundamental data is unnecessary.

There are tools for both methods. Because of the necessary computer assistance, the tools for technical analysis are much more extensive.

Introduction to Technical Analysis

The biggest part in technical analysis is done by computer programs. Only in rare cases the available tools are mutually exclusive. On account of this, they should be used in combination to decrease the number of false signals.

Fields of application:

- [Trend Analysis](#) - Drawing trend lines
- [Indicator Analysis](#) - Calculating additional information
- Formation analysis - Recognition of typical price developments, which usually show the same pattern
- Alternative illustration of prices - Candlestick, Point & Figure, Equivolume
- Cycle analysis - Detection of periodic patterns
- Neural networks - Simulation of a brain in a computer and searching for a logic behind chart developments
- Elliott waves - Observation and identification of a repetitive pattern of waves in the movement of the stock market
- Moon cycles
- ...

Each of these methods use independent approaches but can be used in combination most of the time.

Trend Analysis

A trend represents a consistent change in prices and is often measured and identified by trend lines. A trend line is a line that is drawn between two or more prominent points on a chart. There are three main trend categories:

- short term
- medium term
- long term

It is reasonable to start the analysis with long term forecasts and then to go to shorter time intervals. Rising trends are defined by a trendline that is drawn between two or more valleys (low points) to identify price support. Falling trends are defined by trendlines that are drawn between two or more peaks (high points) to identify price resistance.

A principle of technical analysis is that once a trend has been formed (two or more peaks/valleys have touched the trend line and reversed direction) it will remain intact until broken. If the trend is broken, this signals a trend reversal or, especially when using short term trends, that the trend has to be adjusted, because it hasn't been significant enough.

A trend reversal in a long term trend is much more significant compared to a short term trend.

In case of a lower trend line with an appropriate parallel upper trend line, we speak of a trend channel.

Indicator Analysis

An indicator is a mathematical calculation that can be applied to a security's price and/or volume fields. The result is a value that is used to anticipate future changes in prices. The most famous indicators are the Moving Average, the Moving Average Convergence Divergence (MACD) and the Relative Strength. There is an unmanageable number of indicators. It is therefore advised to pick only a few and to get as much knowledge and information as possible about them.

Indicators do not always work properly. Many indicators are very useful as long as there is a trend. Others were developed for times of stagnation. In principle, indicators can be divided into three main groups:

- Moving averages
- Oscillators
- Others

Oscillators swing either around an average value or within a fixed interval. Moving averages smooth the price development and therefore eliminate many of the smaller movements, which are uninteresting concerning the main trend direction.

Chart signals

Indicators and many drawings can generate trading signals. These are buy, sell and cover as well as up-trend, down-trend and trend change signals. They can be chosen in the signal settings, when selecting an indicator or drawing in the object tree.

Covering a position means closing it (selling all positions, which are in the portfolio at this point of time). In markets, where you can only buy (only long side), this is equivalent to a sell signal, otherwise the rules for short signals apply.

Signals from sub chart windows will automatically be shown in the main chart window and merged with the rest.

Moving the mouse over a signal will display details for it. Also, the profit/loss will be shown. Holding down the CTRL key will draw a line to the signal it references.

In the lower right corner of the chart there is the **summary** of the current strategy. It states the profit/loss and the number of trades. You can choose between percentage and absolute values in the signal preferences dialog.



Signal conditions

Through the scripting language it is possible to easily connect different indicators to form signal conditions.

Example

A condition could be:

'Today's low should be the lowest low since nine periods and the MACD Histogram should rise.'

Translated to dScript this is

```
'$LowBar=Min($LowBar, 9) and $Hist > Lag($Hist)'
```

where 'Hist' is the identification of the MACD Histogram chosen.

Explanation

Signal conditions are created the same way as custom indicators. After right clicking on an entry in the object tree "New indicator/condition" can be chosen. The script will be saved in the "User" directory and the script environment will be opened. To not create a new script every time a condition is tested, there is an option Signal conditions in the object tree, where formulas can be entered directly in the parameters tab.

There are three possible conditions: BuyCondition, SellCondition and CoverCondition. These are responsible for generating signals. A condition, which returns a signal, when the Rate of Change (ROC) is greater than 5 could be realized with BuyCondition(ROC(\$CloseBar)>5). Here a default ROC is used.

It is possible to use existing indicators from the chart. This is done with IDs. An ID can be specified in the parameters tab of the indicator. After this, a Variable with the name of the ID will be available in the script. Assuming a ROC in the chart has the ID "ROC1", the above condition can be changed into BuyCondition(\$ROC1>5). This also has the big advantage of being able to optimize the condition since data is used dynamically from the ID and not through a rigid function like ROC(\$CloseBar).

The variable \$ROC1 contains the close prices. Other data types are available too. They can be accessed via \$ROC1_Low for example, which returns a datarow of lows (the ROC has no lows though). Possible extensions to the ID are _Close, _High, _Low, _Volume and _Signals. _Signals returns all signals in a datarow.

Assume, a condition should return a buy signal, when the ROC is greater than 5 and a moving average (MA) has a buy signal. The MA has the ID MA1 in this sample. The condition would be BuySignal(\$ROC1 > 5 and HasBuySignal(\$MA1_Signals)). HasBuySignal(), HasSellSignal() and HasSignal() return datarows, which only contain true/false values with true for every datapoint, where the signal is set.

If a condition depends on the signals of two indicators it can be very unlikely that their signals appear at exactly the same time. A condition like BuySignal(HasBuySignal(\$ROC1_Signals) and HasBuySignal(\$MA1_Signals)) would return only few signals. For this case there is another function called InSignal(). It returns true starting from the datapoint where a signal was set and not only for this specific datapoint. Using this the condition can be changed to BuySignal(InBuySignal(\$ROC1_Signals) and InBuySignal(\$MA1_Signals)) to work as wanted.

With these simple functions nearly all imaginable conditions can be created and tested very easily.

There is an easy way to create conditions by using the predefined Signal conditions entry in the chart object tree. This way you will not have to create new indicators every time you try out a new condition.

Example: Creating signal conditions within the chart

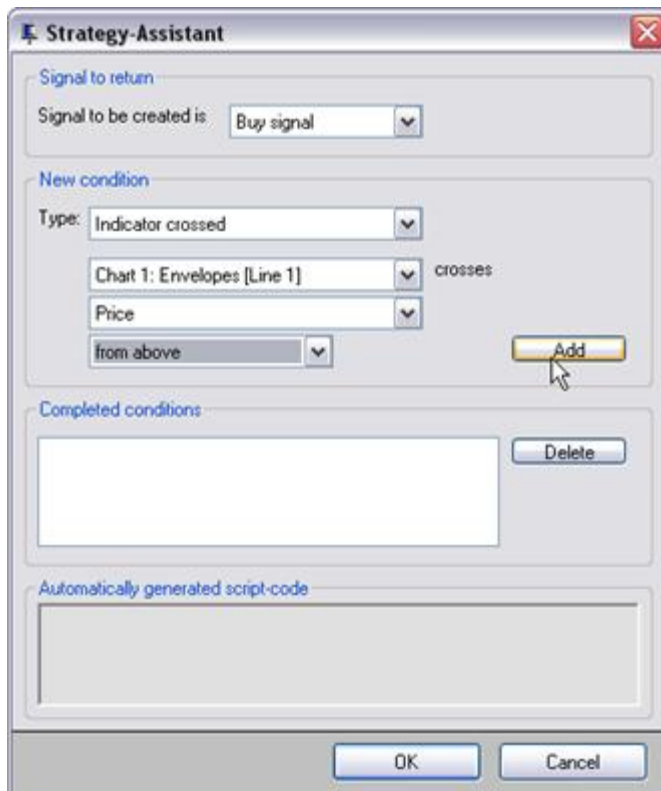
- After adding all necessary indicators to the chart you can deactivate all indicator signals for better overview within each indicators signal options.



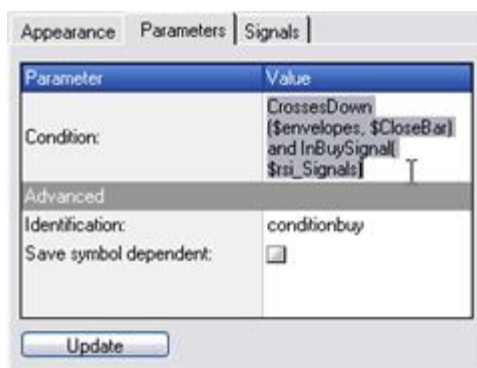
- Through right-clicking signal conditions in the object window new conditions can be added.



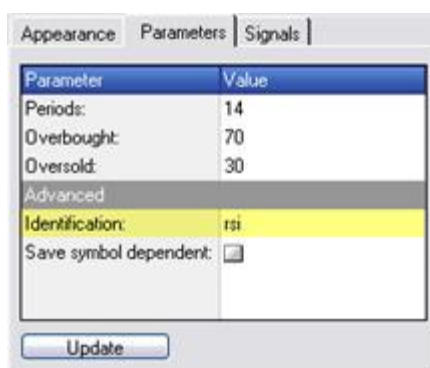
- Within the appearing dialog you can choose between the available condition types. Choose 'Buy signal' and combine your desired conditions, then click **OK**.



- The new buy condition is added, you can now adjust it by using the script language in the Parameters tab sheet.



- To create the condition you can use the indicators values by using the (unique) identification string which can be found and modified in the indicators 'Parameters' tab sheet. So in this example refer to the Relative Strength Index values by '\$rsi'.



- By clicking Update the signals generated by the new signal condition will be shown in the chart.



- Create a sell condition at the same way.

Explanation for short signal calculation

This example shows how short signals are handled in the calculation. The following table is in chronological order with the explanation next to it:

1. Buy	Buy is executed, Long
2. Cover	Position is sold, Flat
3. Buy	Buy is executed, Long
4. Sell	Position is sold, buy on the short side is executed, Short
5. Cover	Position is sold, Flat
6. Sell	Buy is executed on the short side, Short
7. Buy	Position is sold, buy is executed, Long
8. Cover	Position is sold, Flat

It is very important to understand the **difference between sell and cover**. After covering, you are without a position. Selling will always result in a short position (and a long position to be sold if applicable).

Backtesting

Located at: [Fibotrader > chart window > menu Signals > Backtesting](#)

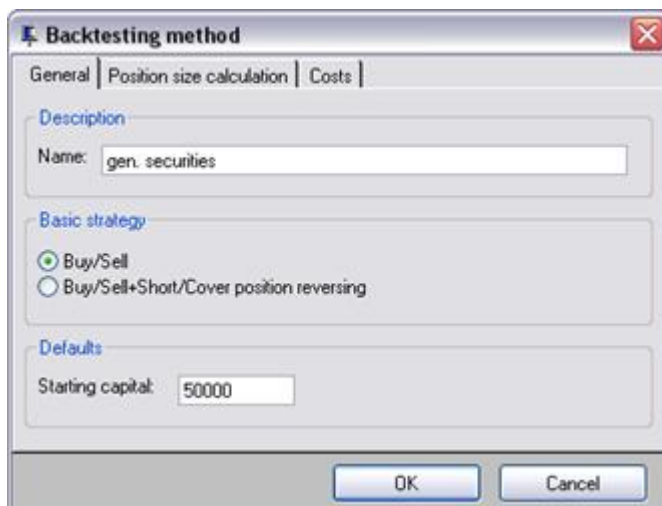
Calculating chart signal results on a historical basis and assigning a profit/loss to each of them as well as to the whole strategy is called backtesting. The method of how this task is performed by the program can be defined in backtesting sets. For each chart template a different backtesting set can be used.

Example: Creating a new backtesting set

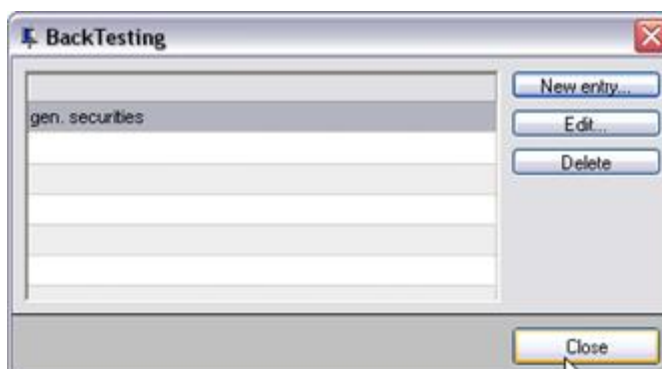
- In the chart window choose "Manage backtesting methods" in the signals menu.



- With the creation of the new set all important parameters like starting capital, basic strategy and costs can be adjusted.



- Finish the backtesting method creation by leaving the backtest administration dialog.



- The new method is available immediately. If the new set is the first one it's now activated as default. Other sets are not automatically activated!



Signal results

Located at: [Fibotrader > Chart window > Menu Signals > Results](#)

Choosing **Signal results** from the signals menu will open the signal results browser. Here, detailed information about every signal and also an overview of the strategy will be displayed.

There are several views to choose from, including reports, which offer general information about the strategy, a list of a signals and graphical representations of the equity as well as individual signal profit plots.

The menu Window contains the option 'Unlink from chart window'. By activating this the windows content is no longer automatically updated if new signals occur in the chart. This way you can compare multiple results, because the next signal report is opened in a new window.



Creating custom reports

The reports for the signal result browser are generated from HTML templates. This way it is possible to adapt them to fit your needs.

All files are saved in the Reports/Signals directory and are shown in a drop down list. These files contain predefined tags, which are replaced by the actual value at the time the template is shown. Available tags are:

```
days
tradedays
flatdays
startcapital
totalnetprofit
tradeamount
tradesprofitable%
winningtradeamount
losingtradeamount
```

The following ones can also be used with the % suffix (e.g. averagetrade%) for percentage reports

```
largestwinningtrade
largestlosingtrade
averagewinningtrade
averageloosingtrade
averagewinlossratio
averagetrade
maxconsecwinners
maxconseclosers
avgwinnerbars
```


avglooserbars
maxdrawdown

Training Mode

Located at: [Fibotrader > chart window > menu Chart manager > Start training mode](#)

The training mode is an useful tool to learn technical analysis and to test trading systems. In this mode all bar from a specified date aren't show. These then can be revealed gradually. That way own decisions can be trained without the knowing look into the future. Trading systems can be checked if signals are set after the event, signals shift unnaturally or other changes occur, which wouldn't have under real conditions.

Example: Start training mode

- In the Chart Window select 'Start training mode' from the Chart Manager menu.



- Below the chart the training mode options are shown. Click the dropdown field to select a new start date for training.



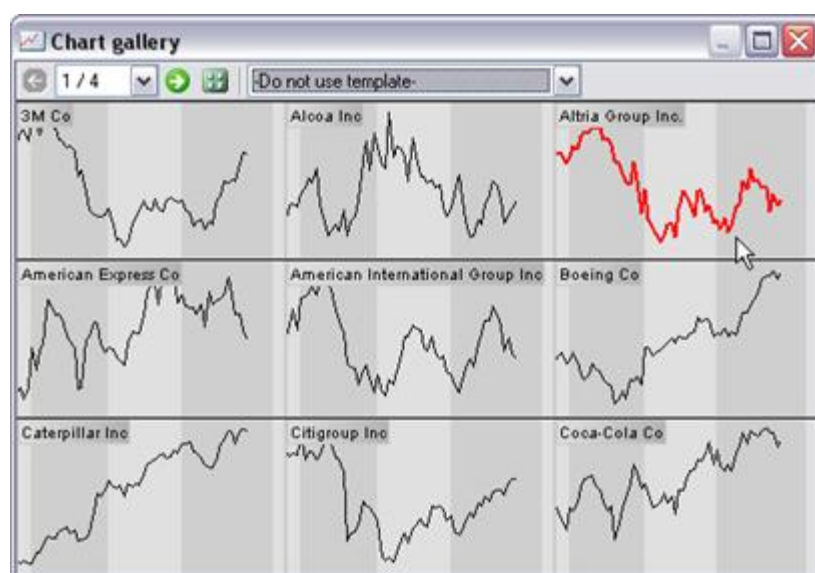
- The chart presentation is now limited to the selected date. Using the forward / backward buttons you can change the date to reveal more data step by step. Clicking 'Stop training mode' leaves the training mode and shows all available data again.



Chart gallery

Located at: [Fibotrader > Toolbar > icon Tools > Chart gallery](#)

The chart gallery can be found in the context menu of portfolios and folders. Charts for all symbols will be shown here for the last three months. Clicking on any chart will open the chart window to allow further analysis. If there is no data available for a chart, the spot will be left blank.



Optimization

Located at: [Fibotrader > chart window > menu Signals > Optimize](#)

Chart templates can be optimized on historical data as well as on Intraday data. As a result, the combination of parameters will be returned, which would have generated the most profit in the past.

The optimization assistant will offer a default setup, which in many cases is efficient for an optimization or at least a good start. It will automatically suggest restrictions and parameters. You can optimize individual symbols as well as folders and catalogs (portfolio optimization). It is also possible to add a test period, which provides some insight in how the strategy would have performed after it has been optimized.

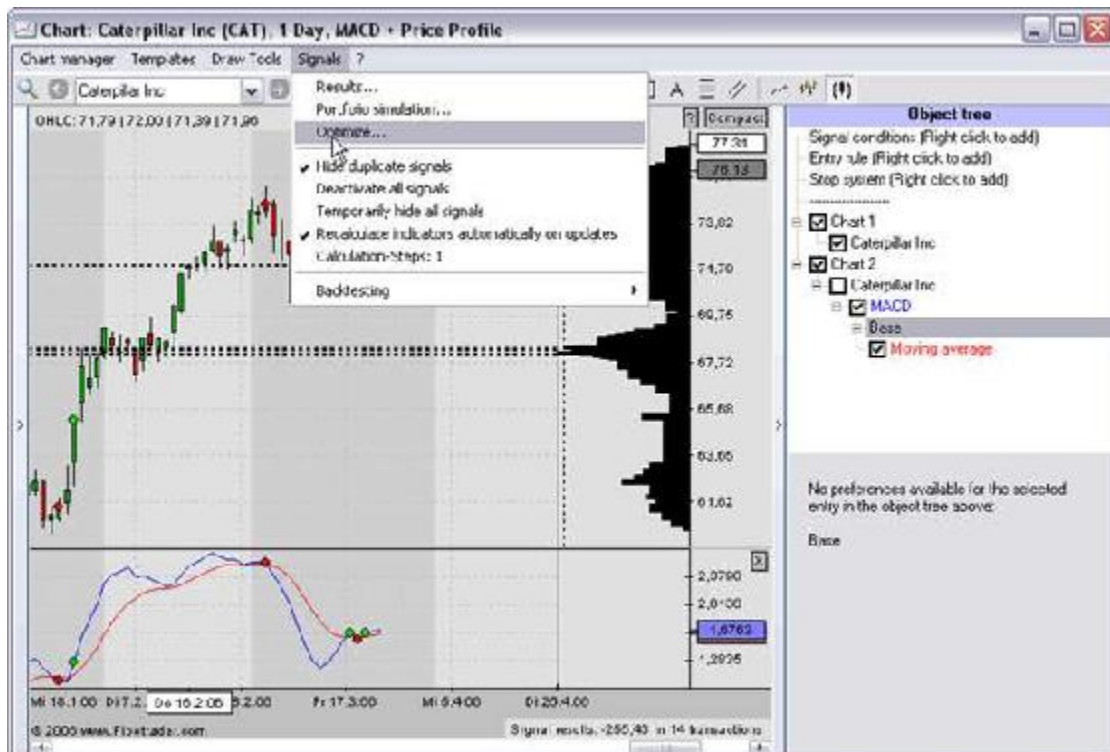
As soon as the optimization is started, the progress as well as the best intermediate result will be shown. When finished, all calculated optimization steps will be listed. If an entry is marked red, it does not fulfill the restrictions. By default, the red entries are invisible unless **Show all results** is checked.

It is recommended to keep an eye on the **optimization steps**. Many steps (above 100.000) can, depending on the computer, take a long time to calculate. If you want to do an extensive search for parameters, it might be a good idea to let this run over night.

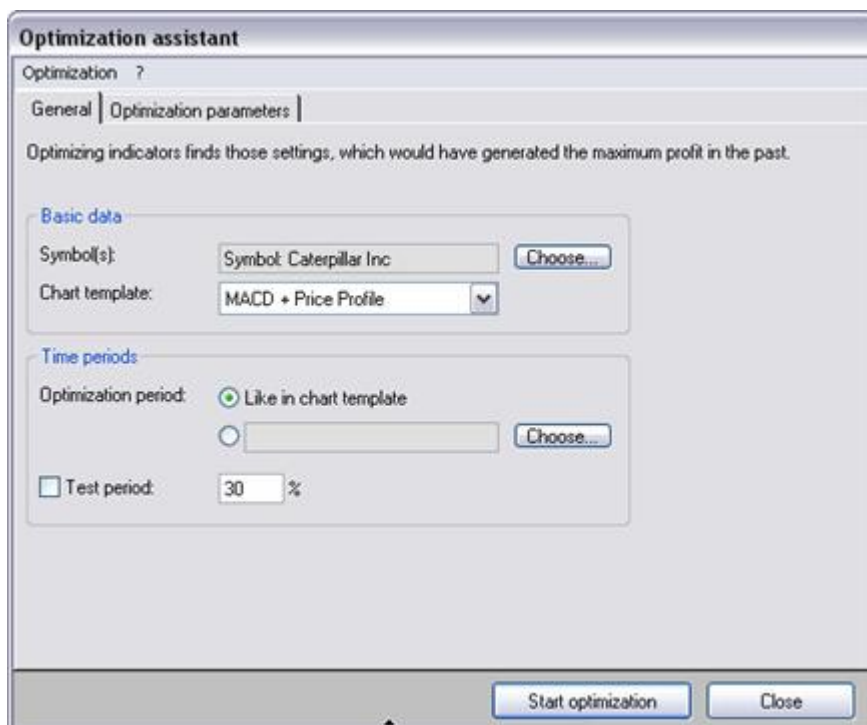
When the optimization is finished, the assistant will select the best step automatically, mark it green in the list and load it in the chart window. If you want to view different results, double-click on the entry in the result list.

Example: Running an optimization of the actual indicator

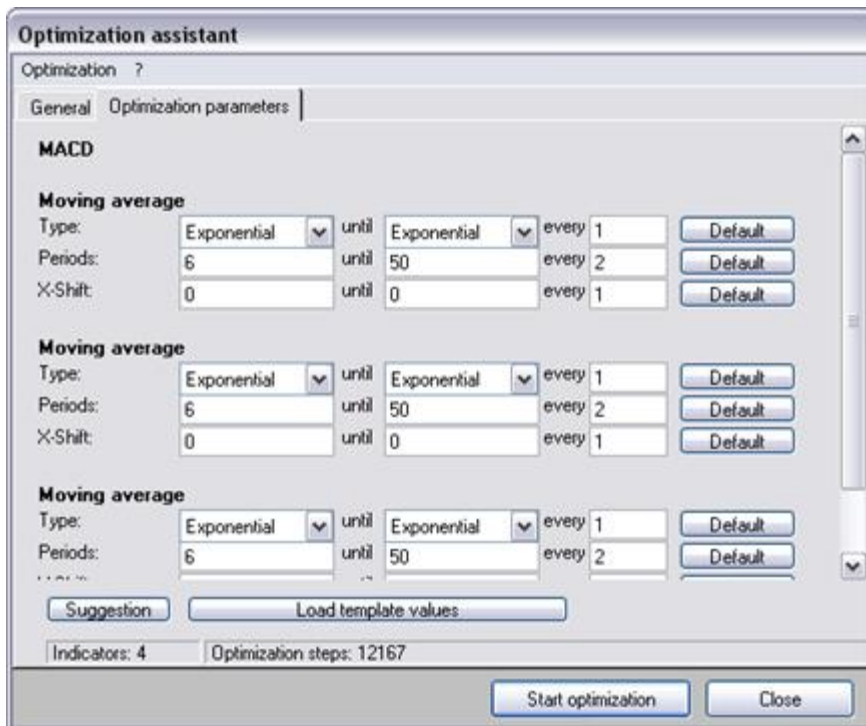
- Add the indicators you want to optimize to the chart and click 'Optimize...' in the Signals menu.



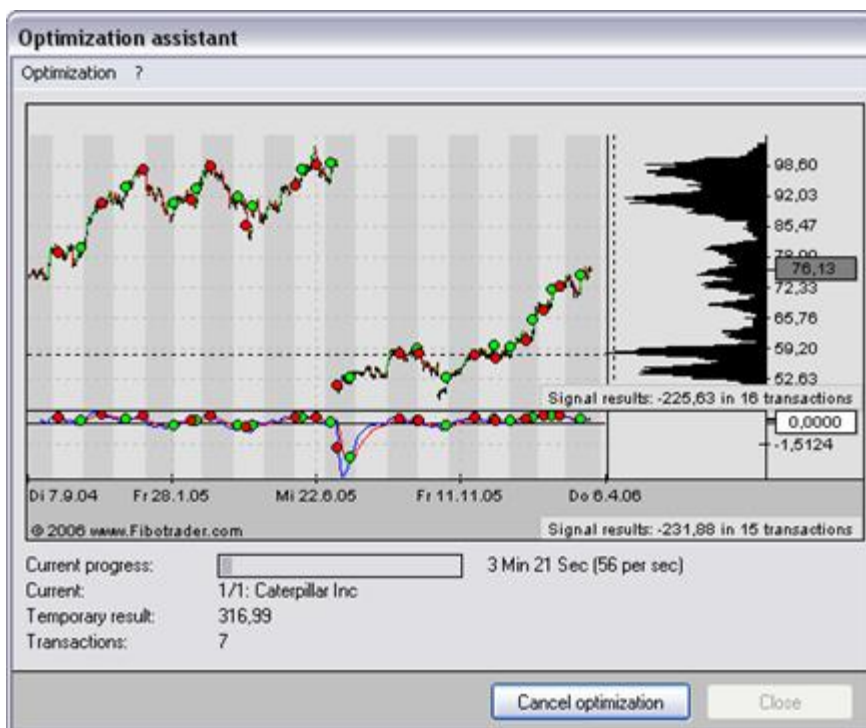
- Within this dialog other securities and chart templates can be selected, as standard the current settings are taken.



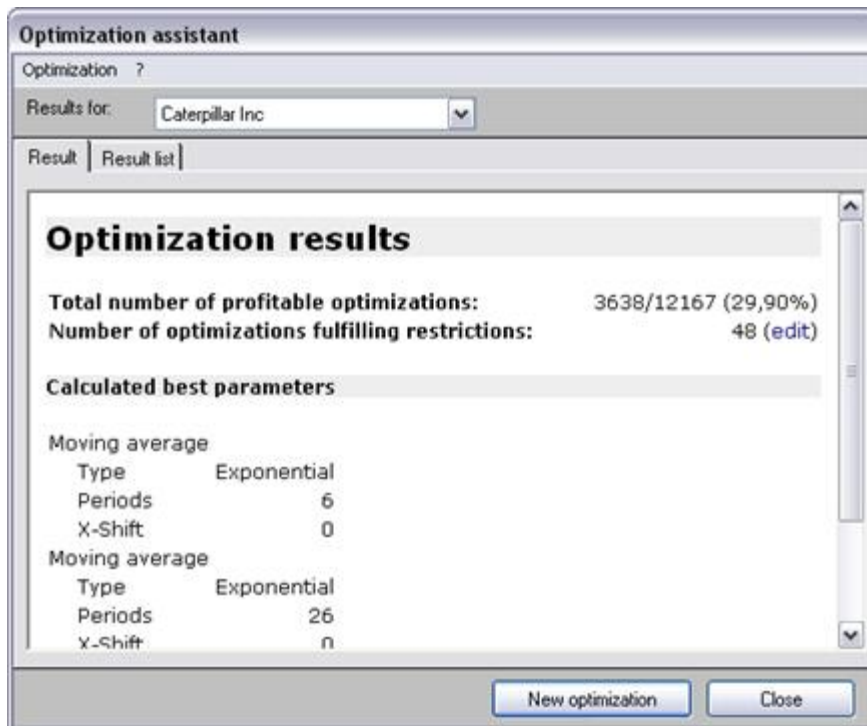
- In the 'Optimization parameters' tab sheet all parameters of all active indicators can be set in ranges and stepping. The status bar shows the count of optimization steps needed, the more steps, the longer the calculation will take.



- After clicking 'Start optimization' all Parameter combinations will be checked for their result.



- When the calculation is finished the optimization report shows the count of profitable configurations and the best parameters. The list of generated results can be displayed in the 'Result list' tab sheet.



Market Scan/Quickly checking chart template results

Through the list module it is easy to get a quick overview of the most recent trading signals of a chart template. Simply add a new column of the type "Chart template...". You can choose of either the last signal to be returned or the number of bars since this signal occurred.

This way no chart windows need to be open and you can see the results for many securities at once.

Portfolio management

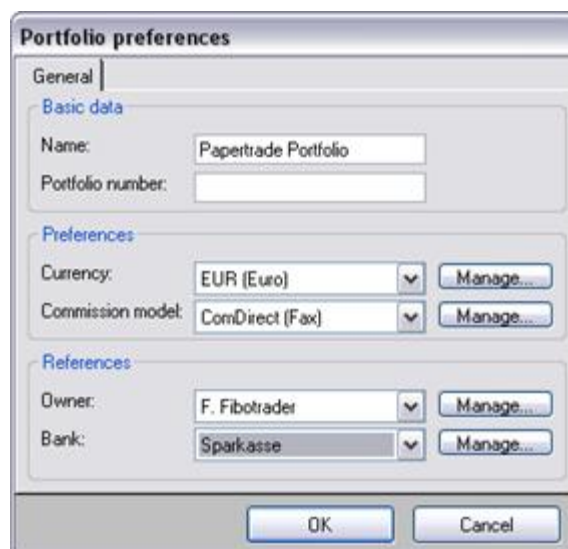
The portfolio contains all orders and money transfers made so far. This way you can manage your trading or simulate, how your decisions would have performed in reality.

There is no limit to the number of portfolios. You can create as many as you need, e.g. a paper trade portfolio, which only contains hypothetical trades and a live portfolio, which contains the actual transactions.

Portfolio preferences

Located at: [Fibotrader > Explorer > Portfolio manager > right-click Portfolio](#)

The portfolio will be managed using the selected currency and commission model. These settings can be changed at any point in the future.

The image shows a 'Portfolio preferences' dialog box with a 'General' tab selected. It contains three sections: 'Basic data' with 'Name' (Papertrade Portfolio) and 'Portfolio number' (empty); 'Preferences' with 'Currency' (EUR (Euro)) and 'Commission model' (ComDirect (Fax)), each with a 'Manage...' button; and 'References' with 'Owner' (F. Fibotrader) and 'Bank' (Sparkasse), each with a 'Manage...' button. 'OK' and 'Cancel' buttons are at the bottom.

Portfolio manager

Located at: [Fibotrader > Explorer > Portfolio manager > right-click Portfolio > Portfolio manager](#)

The portfolio manager lists all transactions and shows summaries and statistics of the current situation. Normally you will begin with a money transfer and then enter buy and sell orders, dividends and interests.

When buying, the integrated money management will make suggestions on how many stocks to buy. After you bought, you can assign stops and profit targets to the position.

One portfolio needs to be defined as the **default portfolio**. This is accomplished through the Preferences menu. This portfolio will be used, when executing orders through the context menu or executing transactions in scripts.

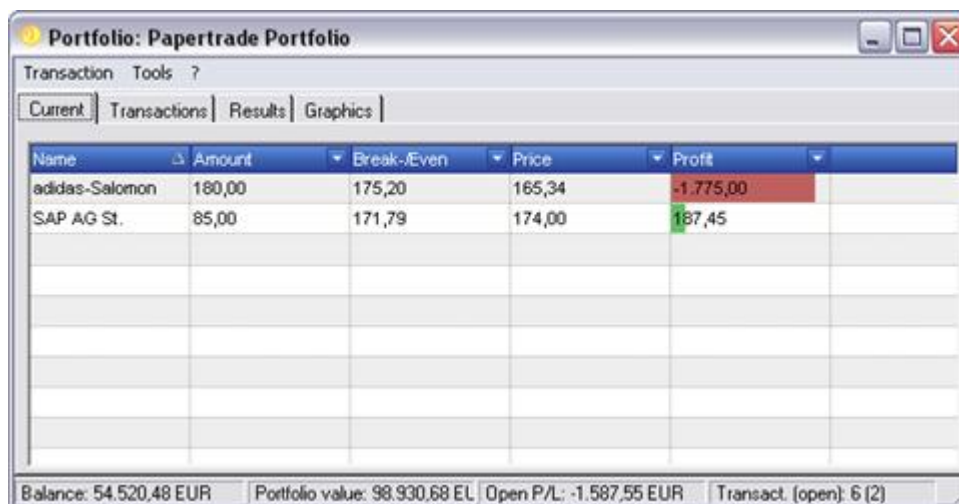
The lists in the portfolio manager can be customized by right-clicking on any column header. A menu will open, which allows to add and remove columns or to change the way they are displayed. Every list has its own set of possible columns, some of which cannot be deleted.

View: Current portfolio

Located at: [Fibotrader > Explorer > Portfolio manager > right-click Portfolio > Portfolio manager > tab sheet Current](#)

This view is probably the most important view of the portfolio manager. It lists all open positions and the respective profit/loss as well as the break-/even quote. Stops and profit targets can also be managed in this view. They can either be entered directly or, in the case the chart window is open, by dragging the green (profit) and red (stop) boxes to the desired points on the price axis.

Only confirmed open positions are shown in the current portfolio view. Pending or canceled orders will not appear here.



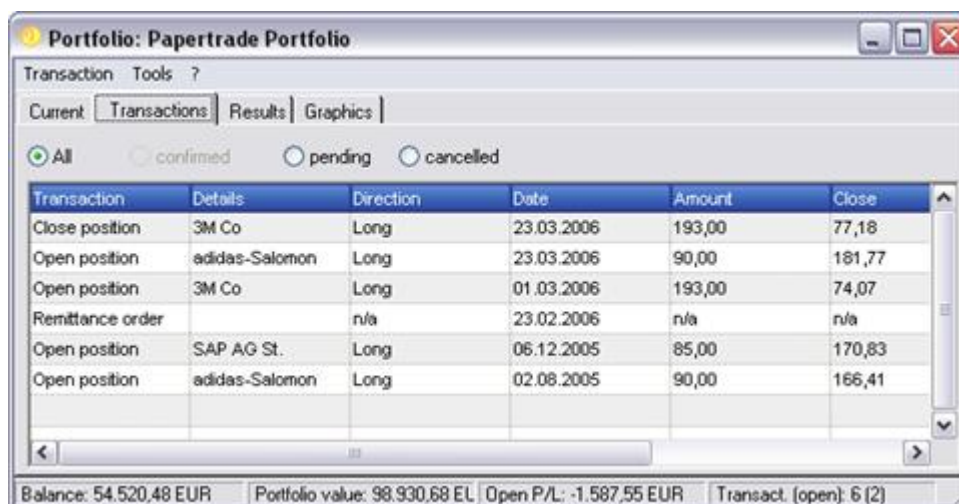
Name	Amount	Break-/Even	Price	Profit
adidas-Salomon	180,00	175,20	165,34	-1.775,00
SAP AG St.	85,00	171,79	174,00	187,45

Balance: 54.520,48 EUR Portfolio value: 98.930,68 EL Open P/L: -1.587,55 EUR Transact. (open): 6 (2)

View: Transactions

Located at: [Fibotrader](#) > [Explorer](#) > [Portfolio manager](#) > right-click [Portfolio](#) > [Portfolio manager](#) > tab sheet [Transactions](#)

The transaction view lists all orders, money movements, dividends and interests. It is important to use correct date values, since they are calculated in chronological order. Transactions can be filtered by transaction state by selecting either all, pending, canceled or confirmed orders.



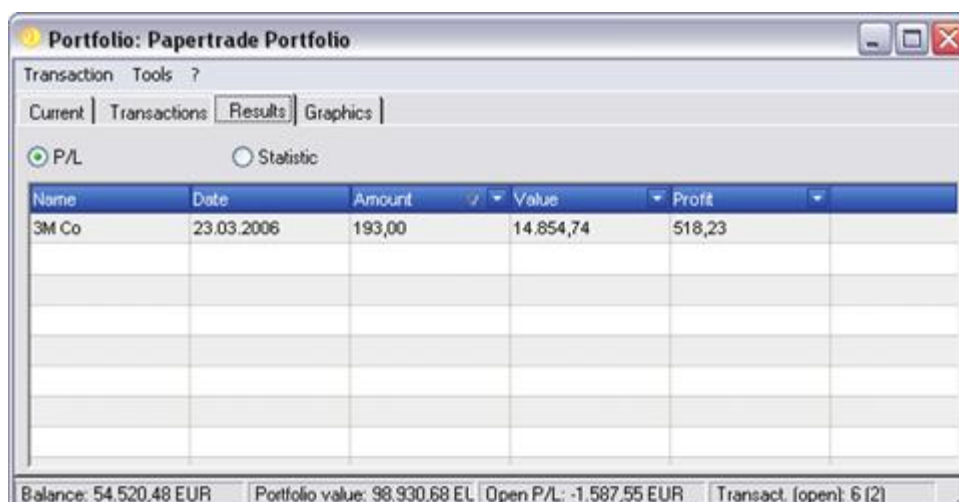
Transaction	Details	Direction	Date	Amount	Close
Close position	3M Co	Long	23.03.2006	193,00	77,18
Open position	adidas-Salomon	Long	23.03.2006	90,00	181,77
Open position	3M Co	Long	01.03.2006	193,00	74,07
Remittance order		n/a	23.02.2006	n/a	n/a
Open position	SAP AG St.	Long	06.12.2005	85,00	170,83
Open position	adidas-Salomon	Long	02.08.2005	90,00	166,41

Balance: 54.520,48 EUR Portfolio value: 98.930,68 EL Open P/L: -1.587,55 EUR Transact. (open): 6 (2)

View: Results

Located at: [Fibotrader](#) > [Explorer](#) > [Portfolio manager](#) > right-click [Portfolio](#) > [Portfolio manager](#) > tab sheet [Results](#)

This view contains is responsible for evaluating closed positions. After a position is closed, the profit or loss will be listed here. Dividends will be included in the calculation. Also, there are several statistical values like the overall profit or overall costs available.



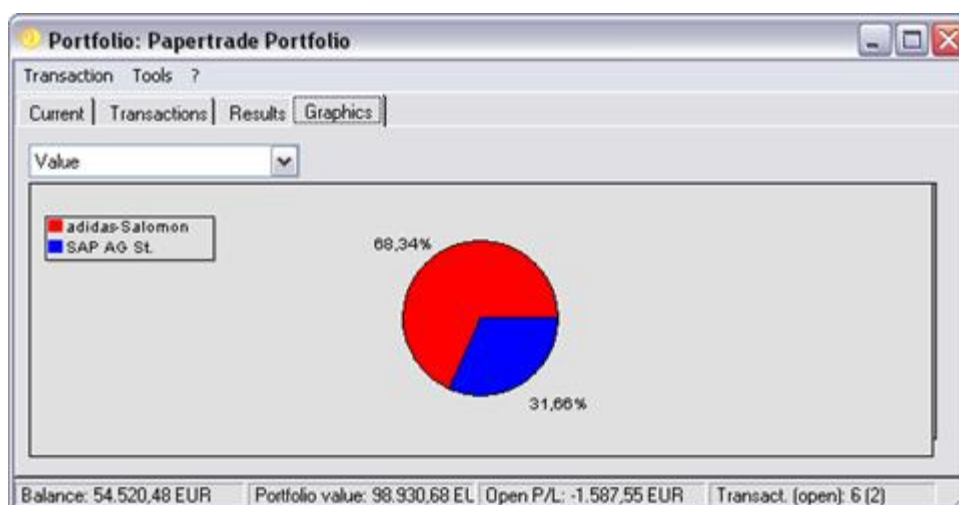
Name	Date	Amount	Value	Profit
3M Co	23.03.2006	193,00	14.854,74	518,23

Balance: 54.520,48 EUR Portfolio value: 98.930,68 EL Open P/L: -1.587,55 EUR Transact. (open): 6 (2)

View: Graphical analysis

Located at: [Fibotrader](#) > [Explorer](#) > [Portfolio manager](#) > right-click Portfolio > [Portfolio manager](#) > tab sheet Graphics

The graphical analysis shows a graphical representation of the portfolio including by components, value or quantity.



Buy/Sell stocks

Located at: [Fibotrader](#) > [Explorer](#) > [Portfolio manager](#) > right-click Portfolio > [Portfolio manager](#) > Menu Transaction > New Transaction

This module does everything nearly automatic. All you have to do is to select the symbol. Quotes and the amount as well as the costs will be entered for you. It is important to have selected the right commission scheme. The number of stocks depends on the money management settings.

You can book multiple transactions after each other without closing the window. Choose **OK/Next** instead of **OK/Close** to do this.

Status

When entering limit orders the executing is not guaranteed. You can set the state to pending to show that the trade was not executed yet. It will appear in the transaction list but not in the current portfolio view.

Documentation

We recommend to take some notes on why you bought and sold certain stocks. This way you can learn from mistakes and see if your expectations were correct.

Clearing date

The clearing date is the date when the bank has actually processed the transaction. For sell orders this is the point of time the money is received.

Dividends

Located at: [Fibotrader > Explorer > Portfolio manager > right-click Portfolio > Portfolio manager > right-click symbol](#)

Dividends are linked to stocks in your portfolio. Select the appropriate stock and enter the dividend value. It will be accounted as a profit in the result view.

Money Management

Located at: [Fibotrader > Explorer > Portfolio manager > right-click Portfolio > Portfolio manager > menu Tools > Money management](#)

One of the key figures to successful investing is money management and the correct position size. Investing too much into one stock might result in too much risk. You also need to consider the transaction costs. Sometimes it is also possible to buy in fixed packages (e.g. of 100 stocks) which can result in smaller costs.

It is useful to have a **money reserve** in the account. Also take a look at the diversification for different businesses and that symbols in your portfolio do not correlate too much, meaning that

they do not always move in the same direction. If this is the case, you do not have two small positions but actually one big one.

If you can use a **credit** at your bank you can enter it in the field minimum money reserve with a negative sign.

When trading with the [buy/sell dialog](#) an automatic suggestion will be made. If no position would be possible, 0 will appear in the quantity field.

Sample calculation

Assume there are different stocks in your portfolio and 14.000 (neglecting the currency) left in the account. The portfolio equity (sum of account and stocks) is 100.000. The stock to buy is at 10. The following calculations will be made:

- Position should be 15%, results in 15.000
- Only 14.000 are available, correcting to 14.000
- Maximum position size is 10.000, correcting again to 10.000
- For 10.000 you get 1000 stocks
- Only 500 stocks are allowed, correcting to 500
- Only packages to 100 are allowed. 500 can be divided by 100 with no remainder, so this is ok. Would only packages of 11 be valid, 500 would not be allowed. In this case only 45 packages with a total of 495 stocks would have been bought.

Now the other restrictions will be checked:

- 500×10 is 5000, minimum size is 500 and ok. If the lower boundary would have been reached, the position would have been declared invalid.
- $14.000 - 5000$ is 9000 and the minimum money reserve is still available (0 in this case).

Result: The position is valid for the rules above and will be suggested.

Money management...

Here you can define on which basis a size for a position will be recommend when buying stocks.

Size of on position: 15,00 % of total portfolio value

Minimum size: 500,00

Maximum size: 10000,00 (0 for unlimited)

Buy packages of 100,00 pieces.

Maximum pieces: 500,00 (0 for unlimited)

Money reserve: 5,00 % of total portfolio value

Minimum size: 0,00

Maximum size: 500,00

Min. portfolio value: 0,00

OK Cancel

Commission models

Located at: [Fibotrader > Toolbar > icon Preferences > Preferences > Commission models](#)

It is possible to automate the task of calculating transaction costs by creating a commission model. There are several models already provided with the software. They can be extended and new custom models can be created.

In many cases graduated prices are used. These prices can be calculated depending on the transaction volume or on the number of shares.

There is also a courtage for the broker. If you want to compare different schemes, switch to the **Test view**, enter a value and scroll through the list of available models. The costs will be updated automatically.

Base price

This price is always added to the final costs.

Minimum price

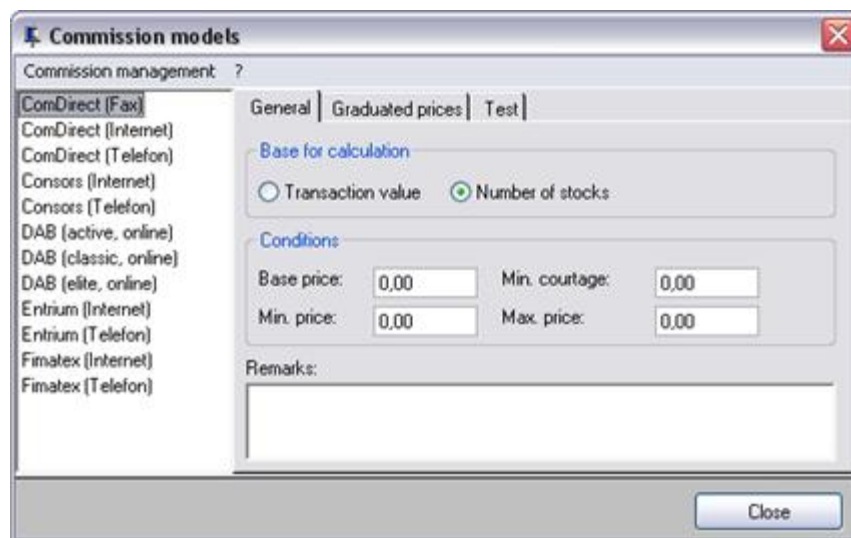
This is the minimum price you have to pay, even if the calculated costs should be smaller.

Maximum price

This is the maximum price you have to pay, even if the calculated costs are greater (enter 0 if no maximum price applies).

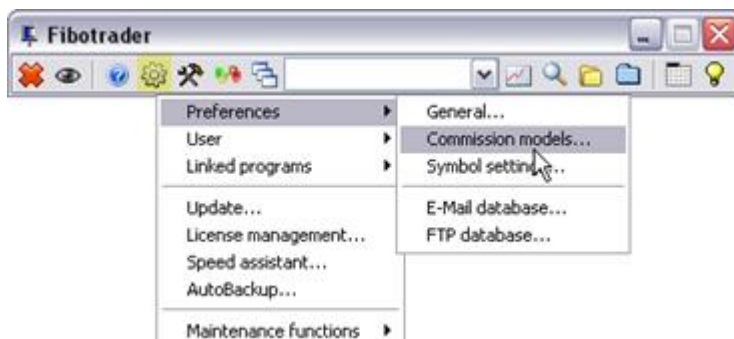
Minimum courtage

This is the minimum courtage you have to pay even if the calculated courtage should be smaller.

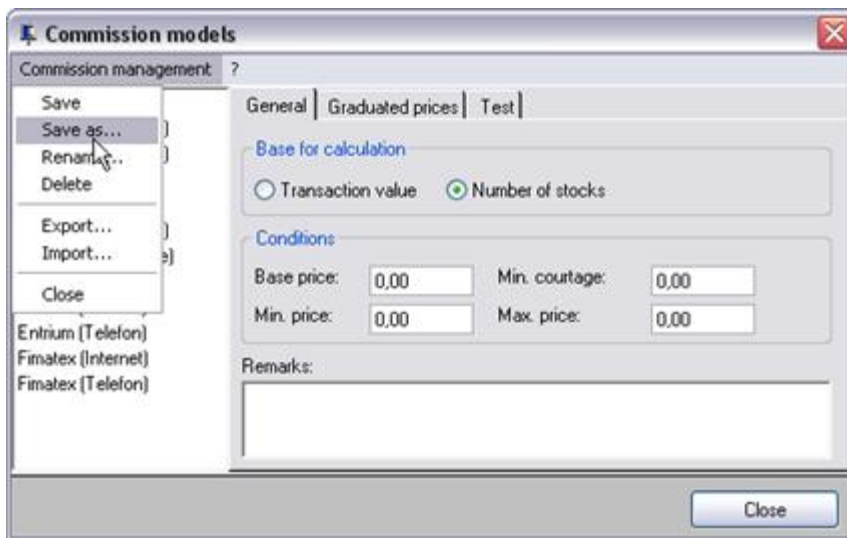


Example: Adding a new commission model

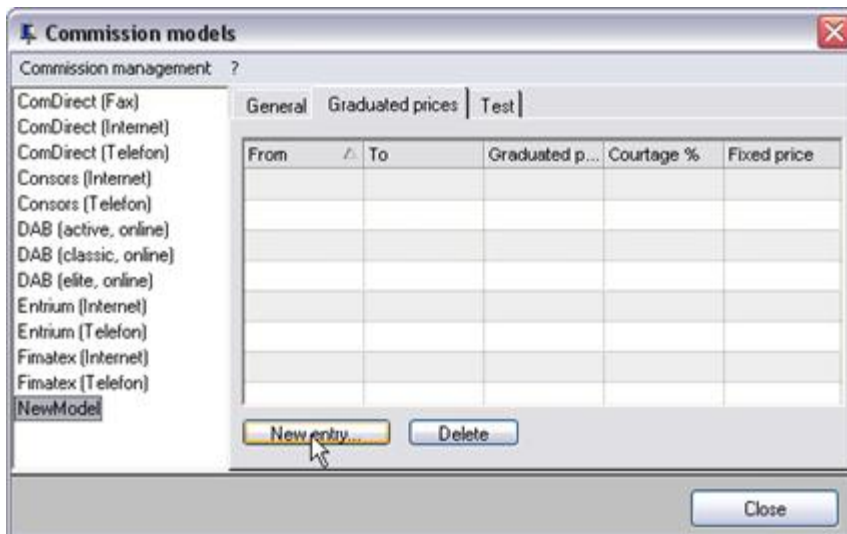
- In the Fibotrader Toolbar choose the 'Commission models' from the context menu of the Preferences Icon.



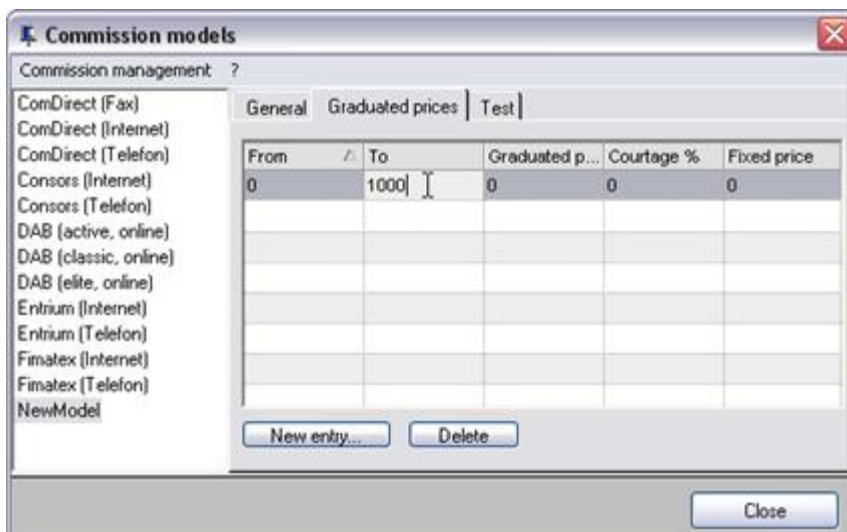
- The Commission management appears. Choose 'Save as...' in the menu.



- Enter a name for the new model and click **OK**.
- The new commission model is shown in the list. Select it and make the necessary adjustments in the 'General' tab sheet. After this change to the 'Graduated prices' tab sheet. By clicking the **New entry**-button a new graduated price is added to the list.



- Select the table fields to enter the individual values.



- Use the tab sheet 'Test' to check the values and compare the models.

Entering graduated prices

Located at: [Fibotrader > Toolbar > icon Preferences > Preferences > Commission models > tab sheet Graduated prices](#)

The graduated prices view allows you to enter graduated prices and the relevant costs.

Fixed price

Use this field if you want to define a fixed price which is not depended on a percentage value.

Commission models

Commission management ?

ComDirect (Fax) | General | Graduated prices | Test

From	To	Graduated p...	Courtage %	Fixed price
0	5000	0	0	14
5000,01	10000	0	0	23
10000,01	15000	0	0	41
15000,01	unlimited	0	0	59

New entry... Delete

Close

Index

A

Add securities	26
An Introduction	4
Analysis	
individual stocks	98
Analysis	98
Artificial quote creation	45
Ascii	31
ASCII file import	32, 33

B

Background information	
Lenz	37
Background information	37
Basics	
Trading	4
Basics	4
Browse several symbols	57
Buy/Sell stocks	117

C

Candle Power	78
Candlestick	78
Catalog	26
Chart	
Navigating	56
Chart	56
Chart analysis	77
Chart gallery	110
Chart resolutions	49
Chart signals	100
Chart window	47
Chart windows	53
Charts	
Different types	77
Charts	47
Charts	77
Chartzeiträume	58
Commission models	119
Comparison	119
Create custom reports	107
Criteria	
Establishing	97
Criteria	97
CSI	34, 38
Custom stock administration	44

D

Data	30
Data vendors	30
Datalinks	45
Deinstall	
program	27
Deinstall	27
Different types	

charts	77
Different types	77
Dividends	118
Draw	61
Draw tools	62

E

Enter quotes	44
Entering	
graduated prices	122
Entering	122
Equivolume	78
ESignal	34
Establishing	
Criteria	97
Establishing	97
Explanation	
short signal calculation	103
Explanation	103

F

Fibonacci Arcs	64
Fibonacci Fanlines	64
Fibonacci numbers	62
Fibonacci Retracements	65
Fibonacci Time Relations	65
Fibonacci Time Zones	66
Figure	79
Figure formations	96
Figure price goal estimation	97

G

Golden Rules	
Successful Trading	6
Golden Rules	6
Graduated prices	
Entering	122
Graduated prices	122

H

Help	9
------------	---

I

Index	6
Indicator Analysis	99
Indicator types	68, 69
Indicators	67
Individual stocks	
Analysis	98
Individual stocks	98
Installation	2
Internet	35
Intraday basis	
optimize signal systems based	27

Intraday basis.....	27
Introduction	
Stock Analysis.....	97
Technical Analysis.....	98
Introduction.....	2
Introduction.....	97
Introduction.....	98
Investment Options	5

L

Lenz	
Background information	37
Requirements.....	38
Lenz	36, 37
Lenz	37
Lenz	38
Line	63
Log-files	
send	27
Log-files.....	27

M

Market Maker.....	38
MetaStock	38
Money Management.....	118

N

Navigating	
chart.....	56
Navigating.....	56

O

Object properties	54
Object tree.....	48
Optimization	47
Optimize signal systems based	
intraday basis	27
Optimize signal systems based.....	27
Overview.....	115, 116, 117

P

Parameter	27
Partner daily updates.....	36
Partner data subscription.....	36
Partner History CD Import.....	37
Partner Import	37
Partner subscription.....	38
Partner TPW Import.....	37
Phi Channel	63
Phi Ellipse.....	63
Point.....	79, 96, 97
Portfolio management.....	115
Portfolio manager.....	115
Portfolio preferences.....	115
Program	
deinstall	27
Program.....	27

Q

Quickly	113
Quote generated.....	4

R

Realized profits/losses	116
Realtime data.....	46
Registration	29
Regression	66
Release notes.....	1
Renko	80
Requirements	
Lenz	38
Requirements.....	38

S

Security types	5
Send	
log-files	27
Send	27
Share Analysis.....	97
Short signal calculation	
Explanation	103
Short signal calculation.....	103
Signal conditions	100
Signal results	106
Signals	47
Sino	38
Start	5
Start programs.....	27
Steps	80
Stock Analysis	
Introduction	97
Stock Analysis	97
Stock Market.....	4
Strategy optimization	110
Strategy results.....	113
Successful Trading	
Golden Rules	6
Successful Trading	6

T

TaiPan Realtime interface	38, 41
TaiPan/Database Engine interface	39
Technical Analysis	
Introduction	98
Technical Analysis.....	98
Technical support.....	27
Text	67
Trades.....	4
Trading	
Basics.....	4
Trading.....	4
Trend Analysis.....	99
Trend channel	66
Tutorials	9

U

Unnamed symbols 44
Use stops 7

W

Which.....26