

# XP1. Introduction

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**X**PertTrader is a full-fledged trading system that integrates a rules composer, a stock screener and a backtester component seamlessly to provide you a unified trading platform for creating powerful rules to identify stocks that could be your winning buy/sell candidates.

Designed to work for traders, investors, brokers with some level of understanding of technical indicators, XPertTrader lets you create your own set of rules based on our pre-set indicators and then conduct simulated back-testing on these rules.

You define your own buy/sell signals, you create your own rules, you define your own success !

If you have any ideas or comments or feedback on how to improve XPertTrader, kindly contact us at [info@chartnexus.com](mailto:info@chartnexus.com).

Happy Charting & Learning ! :-)

Our Best,  
ChartNexus Team (Application & Website)

# XP1.1 System Requirements

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As XPertTrader is an advanced module of ChartNexus. Its minimum system requirements are the same as those for ChartNexus. Please check that your computer system meets the following requirements:

- (a) Java Runtime Environment (JRE) or (b) Java Development Kit (JDK). JDK 1.4 or higher.  
You will need to have either (a) or (b) installed on your computer if it is not yet installed. You can download from Sun Microsystem's website (<http://java.com/en/download/>).
- Pentium processor speed of at least 450Mhz or equivalent
- Memory of 128 megabytes (MB) RAM (256 MB recommended)
- Super VGA (800 x 600) or higher-resolution video adapter and monitor
- At least 50 MB of available hard disk space
- Mouse and keyboard

## **Additional Requirements :**

- Internet connection - Used for downloading/updating stock data. The connection can be broadband or dial-up

Please ensure that your computer system meets these requirements so that ChartNexus can perform optimally and properly.

# XP1.2 Downloading ChartNexus

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Once you have ensured that you have fulfilled the system requirements listed in 1.1, you are ready to download ChartNexus.

Please make sure that you have read and understood our software license agreement (<http://www.chartnexus.com/legal/software.php>). You can only proceed to download ChartNexus™ if you agree to the terms and conditions stated in the software license agreement.

After agreeing, kindly proceed to our download page (<http://www.chartnexus.com/products/index.php>).

There are two download package options you can choose from :

## **(A) Setup Program**

Download this package if you only want to download the program and stock data. This package does not include the Java installer which is required by ChartNexus. This option is encouraged if you already have Java installed on your computer.

## **(B) Setup Program + Java Installer**

Download this package if you are not sure if your system has Java installed. This package contains the program, stock data and Java installer

# **XP1.3 Installing ChartNexus and XPertTrader**

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**T**o use XPertTrader, you must install ChartNexus Standard Edition v1.2 or greater.

After installing ChartNexus, you need to subscribe to XPertTrader at [www.chartnexus.com](http://www.chartnexus.com) to start using this module.

# XP1.4 Getting Help

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**W**e, at FiNEX Solutions are always standing by to help you with any aspects or problems that you encounter while using ChartNexus and its modules. These are some of the avenues that you can use to help troubleshoot or resolve the problem :

## **Frequently Asked Questions (FAQs):**

We have prepared and maintained the FAQs list on the web (<http://www.chartnexus.com/support/faqs.php>). The page contains questions and answers that are commonly asked by our users. Answers to these questions are provided as well.

## **Online Form :**

<http://www.chartnexus.com/support/contactus.php#cform>

## **Email :**

support@chartnexus.com

## **Telephone :**

(65) 65606228 (10:00am to 5:00pm, GMT+8:00, Monday to Friday)

## **Fax :**

(65) 65607228

## **Mailing Address :**

1 North Bridge Road,  
High Street Centre #22-07,  
Singapore 179094

# **XP2.0 Getting to Know XPertTrader**

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**A** skillful master understands his/her tool well. In this section, we will explain to you on the various graphical user interface (GUI) components and windows in the XPertTrader module. XPertTrader comprises of the following three submodules which will be explained in detail.

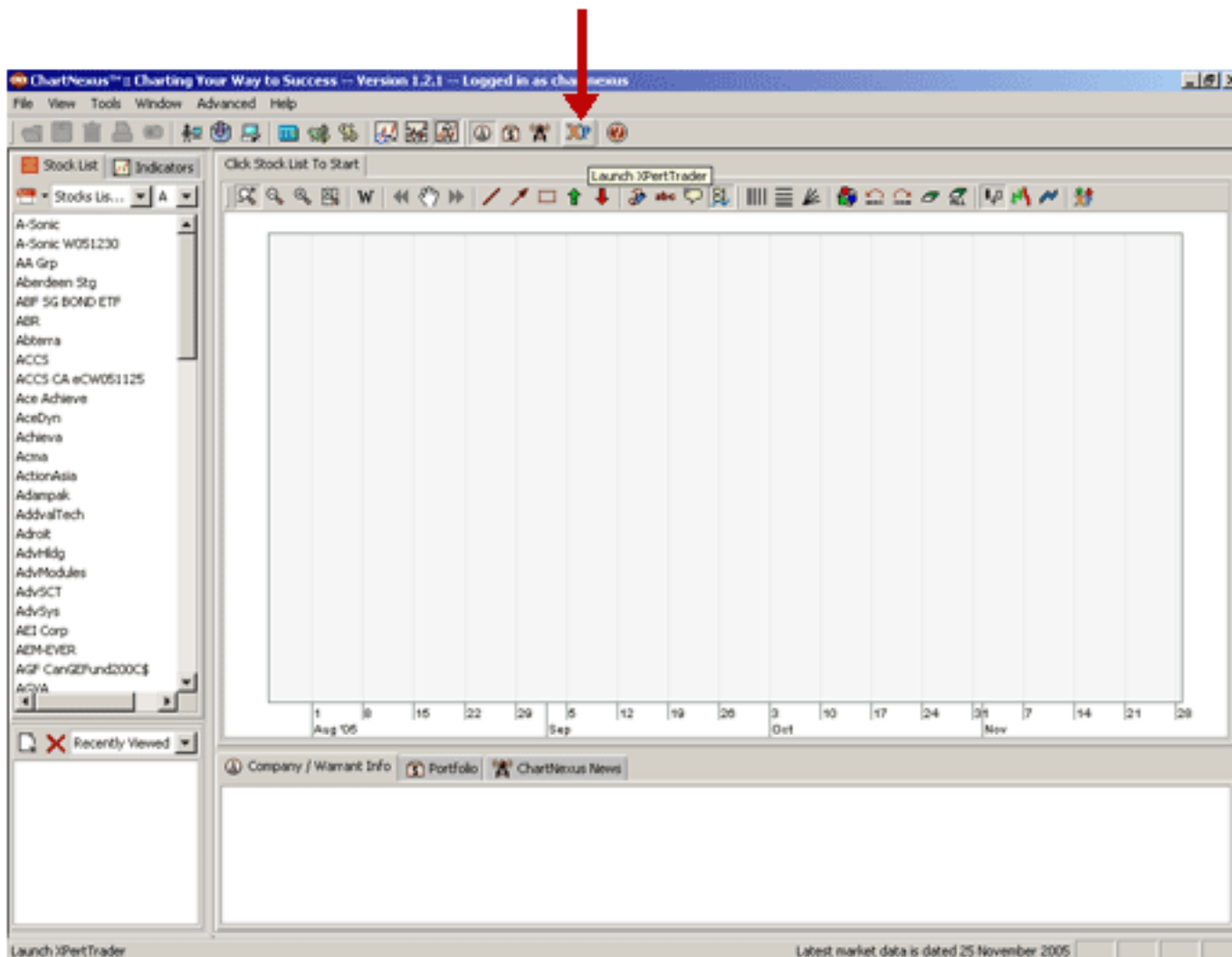
- Rules composer (RC)
- Stock Screener (SS)
- Backtester (BT)

# XP2.1 Starting XPertTrader

XPertTrader can be launched from ChartNexus by either of the following ways:

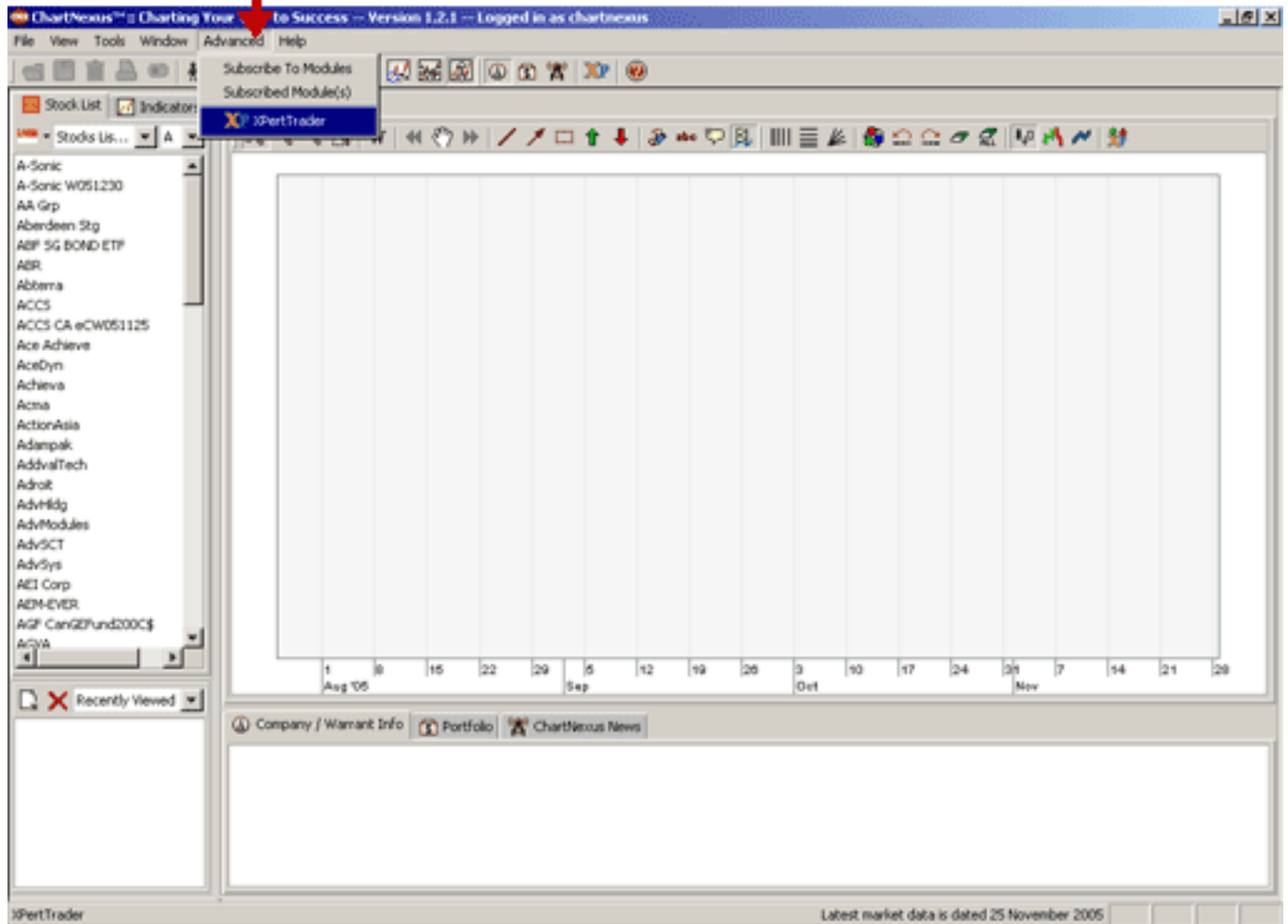
- Click on the XPertTrader icon in ChartNexus

**Click on this icon to launch XpertTrader**



- Click XPertTrader under the "Advanced" tab in ChartNexus

# Under 'Advanced', click and launch XpertTrader

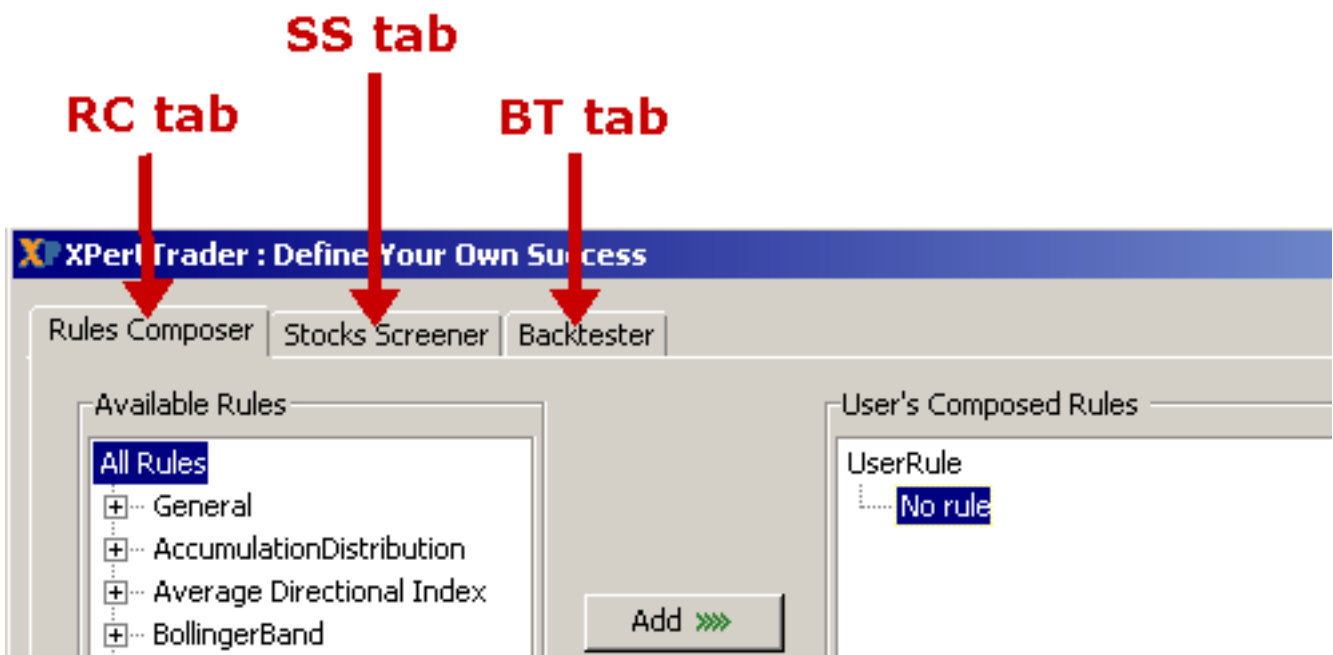


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# XP2.2 Navigating Between Rules Composer, Stock Screener, Backtester

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The three submodules of XPerTrader namely Rules Composer (RC), Stock Screener (SS) and Backtester (BT) are accessible on separate windows as illustrated below.



# XP2.3 Understanding Rules Composer Window

Rules Composer allows you to create systems of rules for both buy and sell signals. Complex systems of rules may be created by simply selecting the technical trigger on the "Available Rules" section and using either the operand "OR" or "AND" with existing triggers.

The screenshot shows the XPertTrader Rules Composer window. The window is titled "XPertTrader : Define Your Own Success" and has three tabs: "Rules Composer", "Stocks Screener", and "Backtester". The "Rules Composer" tab is active. It is divided into several sections:

- Available Rules:** A list of technical indicators including General, AccumulationDistribution, Average Directional Index, BollingerBand, ChaikinMoneyFlow, CommodityChannelIndex, Guppy MMAs, MACD, MoneyFlowIndex, MovingAverage, OnBalanceVolume, RelativeStrengthIndex, Stochastic, and Williams %R. This section is annotated with "List of available rules".
- Buttons:** "Add", "Remove", "AND", "OR", and "Clear" buttons are located to the right of the Available Rules list.
- Signal Diagram:** A section with "Buy" and "Sell" radio buttons and a placeholder for a chart. It is annotated with "Chart illustrating how signal is triggered".
- Parameters:** A table with columns "Param" and "Value" for editing rule parameters. It is annotated with "Default parameters of the rules can be changed in this window".
- User's Composed Rules:** A large text area where a rule is defined. It is annotated with "System of rules created is shown here".
- File Management:** "Load", "Delete", and "Save" buttons are located below the User's Composed Rules area. It is annotated with "Loading, saving and deleting of file".
- Details Of User's Selected Rule:** A text area at the bottom right for viewing the rule's mathematical notation. It is annotated with "Rules shown in mathematical notation".





# **XP3.0 XPertTrader Configuration**

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**W**ith XPertTrader, complex trading systems can be created, tested and used in a variety of ways. In this section we will explain in detail each and every setting that is used to configure XPertTrader.

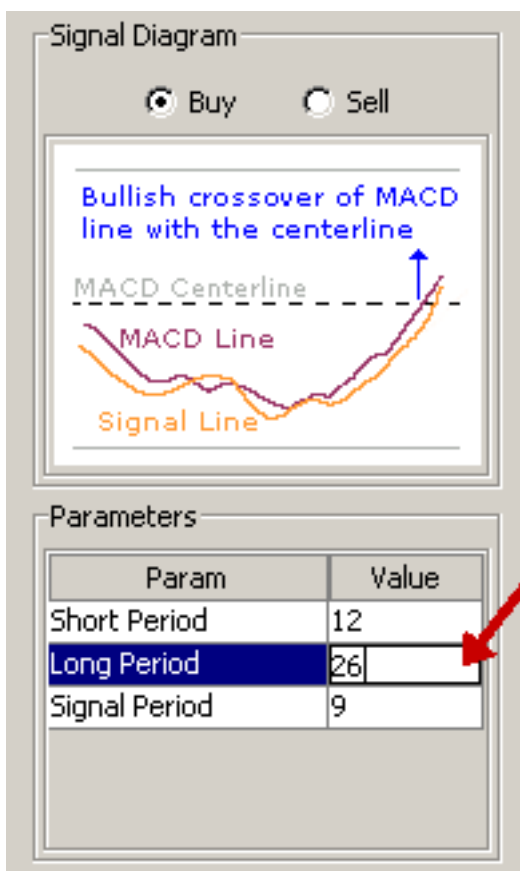
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# XP3.1 Settings in Rules Composer

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Each rule in the Rules Composer has its own set of parameters. While we provide default parameters, each and every one of those parameters can be manually changed by you according to your own trading system.

The parameters can only be changed after adding the rule to the "User's Composed Rules" and then clicking on the added rule.



The screenshot shows the 'Signal Diagram' section with 'Buy' selected. The diagram illustrates a 'Bullish crossover of MACD line with the centerline' with labels for 'MACD Centerline', 'MACD Line', and 'Signal Line'. Below it is the 'Parameters' table:

Param	Value
Short Period	12
Long Period	26
Signal Period	9

After adding the rule, double-click on the parameter to edit it.

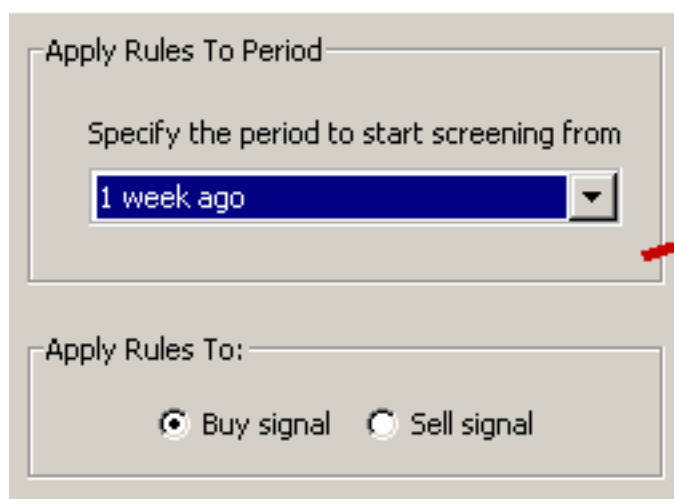
Remember to save the file after editing the parameters

## XP3.2 Settings in Stock Screener

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The Stock Screener allows you to screen the system of rules on either the whole market, a particular sector or a saved watchlist. In addition you may want to specify the screening to start from either of the following:

- Last trading day
- 1 week ago
- 1 month ago
- 3 months ago
- 6 months ago
- 1 year ago



Apply Rules To Period

Specify the period to start screening from

1 week ago

Apply Rules To:

Buy signal  Sell signal

After deciding to apply the rule to buy or sell signal, you can specify from how many days ago you would like to apply the rule to

Note that if you would like Stock Screener to return only stocks triggered in the last trading day, then set this field to "Last trading day"

## XP3.3 Settings in Backtester

The configuration settings in the backtester module needs to be carefully set as each of them may affect significantly the results of the backtest.

From the backtester window, the following are the important fields to configure properly:

- Buy & Sell Rules
- Capital Allocation
- Backtest Period
- Portfolio Strategy
- Brokerage fee

You can specify the period that you would like to simulate your buy and sell rules. This is important as for example, you may want to simulate your buy and sell rules over a period that you are very sure that the market is in an uptrend.

With the knowledge of how good your buy and sell rules are in various market conditions, you may want to apply different buy and sell rules in different market conditions

The screenshot shows a configuration window with two main sections. The 'Select Backtest Period' section has 'From:' and 'To:' labels, each followed by three dropdown menus for day, month, and year. The 'From:' dropdowns are set to '2', 'Dec', and '2004'. The 'To:' dropdowns are set to '2', 'Dec', and '2005'. Below this is the 'Brokerage Fee' section with a dropdown menu set to 'default' and an 'Edit' button. To the right is the 'Portfolio Strategy' section with three radio buttons: 'Long' (selected), 'Short', and 'Both'. A 'Configure' button is at the bottom of this section. Red arrows point from the text blocks to these specific areas: one from the 'Select Backtest Period' text to the 'From:' dropdowns, one from the 'Brokerage Fee' text to the 'default' dropdown, and one from the 'Portfolio Strategy' text to the 'Long' radio button.

For long strategy, backtester will look for buy signals to open a long position. A sell signal is only used to close the long position. For a short strategy, backtester will look for sell signals to open a short position. A buy signal is only used to close the short position

As the brokerage fee affects the profitability level, it is best to create a brokerage profile that best matches the actual brokerage charges you pay

# XP3.4 XPertTrader System Settings - General

By clicking on the "configure" button in either the Stock Screener or Backtester, the XPertTrader System Settings will be opened.

The XPertTrader System Settings under the "General" tab is shown below

The screenshot shows the 'XPertTrader System Settings' dialog box with the 'General' tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with four tabs: 'General', 'Market Trend', 'Capital Allocation', and 'Stops'. The 'General' tab is active and contains the following sections:

- Price Constraints**  
Used in Stock Screener to set the allowable minimum and maximum price.  
Minimum (\$)  Maximum (\$)
- Use this in Backtester to set the allowable minimum and maximum price.  
Minimum (\$)  Maximum (\$)
- Volume Constraints**  
Used in Stock Screener and Backtester to specify the minimum volume for x number of days  
Minimum volume  averaged over  days
- Bid/Lot Size**  
Specify the minimum allowable bid/lot size of shares
- Buy/Sell Price Trigger**  
Select the method used for calculating the buy/sell price trigger

At the bottom of the dialog are three buttons: 'Default...', 'OK', and 'Cancel'.

Default...

OK

Cancel

The following describe the various fields in this window

- Price Constraints - Stock Screener and Backtester will only initiate a trade on those stocks whose prices are within the minimum and maximum range
- Volume Constraints - Stock Screener and Backtester will only initiate a trade on those stocks whose average volumes over x days are within the minimum and maximum range
- Bid/Lot Size - This specifies the minimum allowable bid/lot size of shares
- Buy/Sell Price Trigger
  - if set to "Close price of triggering day", the backtester will take the trade price at the close price
  - if set to "Open price of next day", the backtester will take the trade price on the next day's open price

# XP3.5 XPertTrader System Settings - Market Trend

The XPertTrader System Settings under the "Market Trend" tab allows users to specify the specific types of trend condition to screen or to backtest.

The screenshot shows the "XPertTrader System Settings" dialog box with the "Market Trend" tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with "General", "Market Trend", "Capital Allocation", "Portfolio Strategy", and "Stops".

Inside the "Market Trend" tab, there is a text area that reads: "These settings are used in Stock Screener and Backtester. Use these parameters to define the trends that you want to detect, and the values used to define the trend. We have defined 3 preset values. You can define your own. *short-term=10 days, mid-term=21 days and long-term=50 days.*"

Below the text area, there are three sections, each with a checked checkbox and a radio button:

- Uptrend**:  Uptrend. Radio button:  Preset (dropdown: short-term)  User Define (input: 21) days.
- Downtrend**:  Downtrend. Radio button:  Preset (dropdown: short-term)  User Define (input: 21) days.
- Range-bound**:  Range-bound. Radio button:  Preset (dropdown: short-term)  User Define (input: 21) days.

At the bottom of the dialog, there are three buttons: "Default...", "OK", and "Cancel".

By checking the relevant checkbox, the user may specify to screen or backtest only stocks in any or all of the following conditions

- Uptrend
- Downtrend
- Range-bound

In addition the user can specify whether the trend is a short-, mid- or long-term

# XP3.6 XPertTrader System Settings - Capital Allocation

The XPertTrader System Settings under the "Capital Allocation" tab allows users to specify how the capital should be used when multiple stocks are triggered.

The screenshot shows the "XPertTrader System Settings" dialog box with the "Capital Allocation" tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with "General", "Market Trend", "Capital Allocation", "Portfolio Strategy", and "Stops".

Text: These settings are used in Backtester. These parameters let you define your capital allocation strategy.

**Allocation Method**  
This option allows you to specify the method that you want to allocate your capital.

Equal weightage

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**Profits Allocation**

Reinvest the profits and use as part of working capital.

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**Capital Allocated Per Stock**

Maximum:

System default i.e. MAXIMUM       User define      50

Minimum:

System default i.e. 50       User define      50

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**Maximum Number Of Shares Purchase Per Stock**

System default i.e. MAXIMUM       User define      100000

Buttons: Default...      OK      Cancel

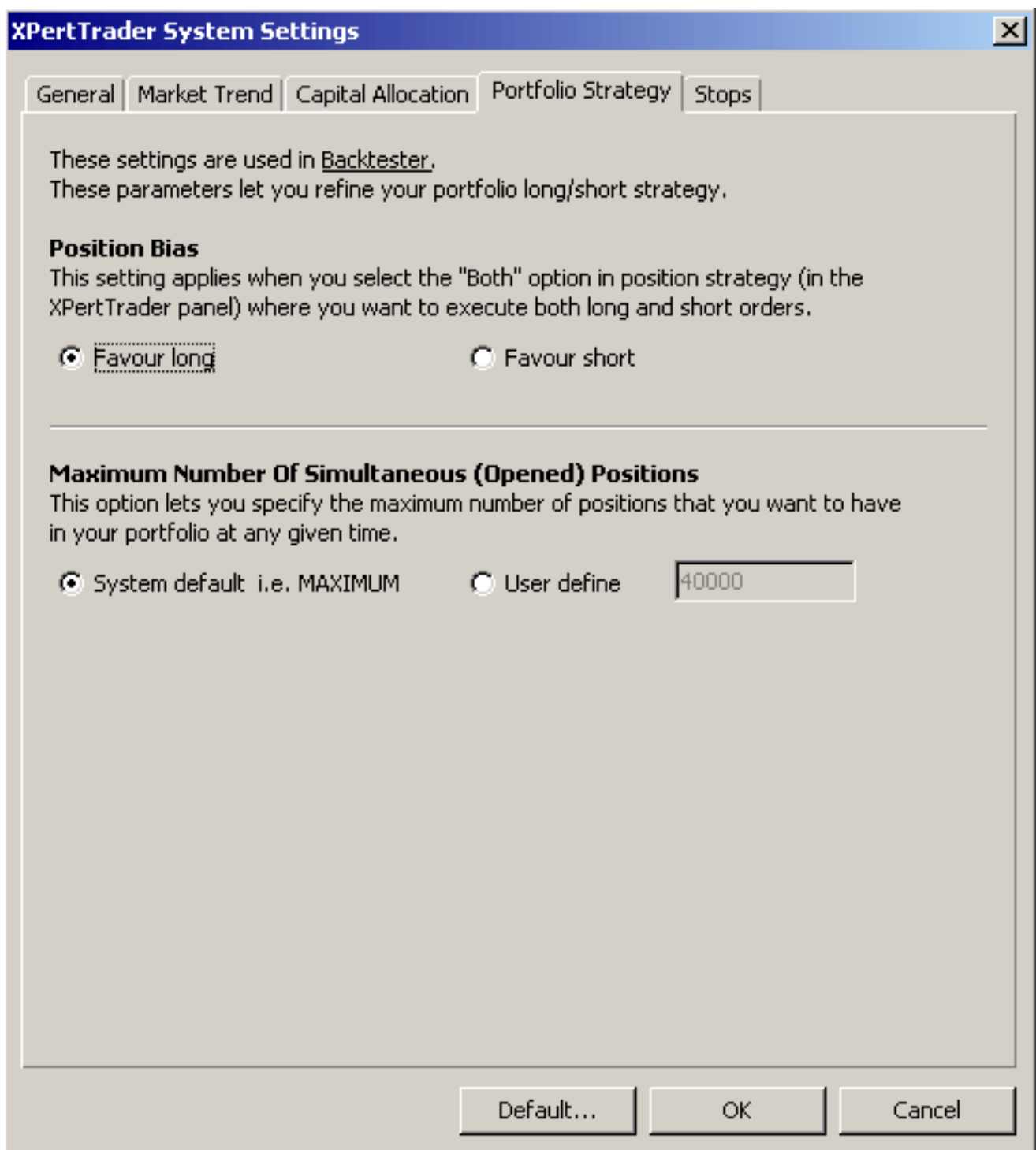
The Allocation Method can be set to:

- Equal Weightage - the amount of available capital is divided equally among all the stocks triggered
- Order of appearance - the amount of available capital is used to buy the stocks that are first triggered and returned

If the checkbox next to Profits Allocation is checked, the profit obtained from earlier trades will be used as part of the capital for future trades

# XP3.7 XPerTrader System Settings - Portfolio Strategy

The XPerTrader System Settings under the "Portfolio Strategy" tab allows users to specify whether they favour more long or short positions.



The screenshot shows a dialog box titled "XPerTrader System Settings" with a close button (X) in the top right corner. The dialog has five tabs: "General", "Market Trend", "Capital Allocation", "Portfolio Strategy" (which is selected), and "Stops".

Below the tabs, there is a text area containing the following text:

These settings are used in Backtester.  
These parameters let you refine your portfolio long/short strategy.

**Position Bias**  
This setting applies when you select the "Both" option in position strategy (in the XPerTrader panel) where you want to execute both long and short orders.

There are two radio buttons for position bias:

- Favour long
- Favour short

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**Maximum Number Of Simultaneous (Opened) Positions**  
This option lets you specify the maximum number of positions that you want to have in your portfolio at any given time.

There are two radio buttons for the maximum number of positions:

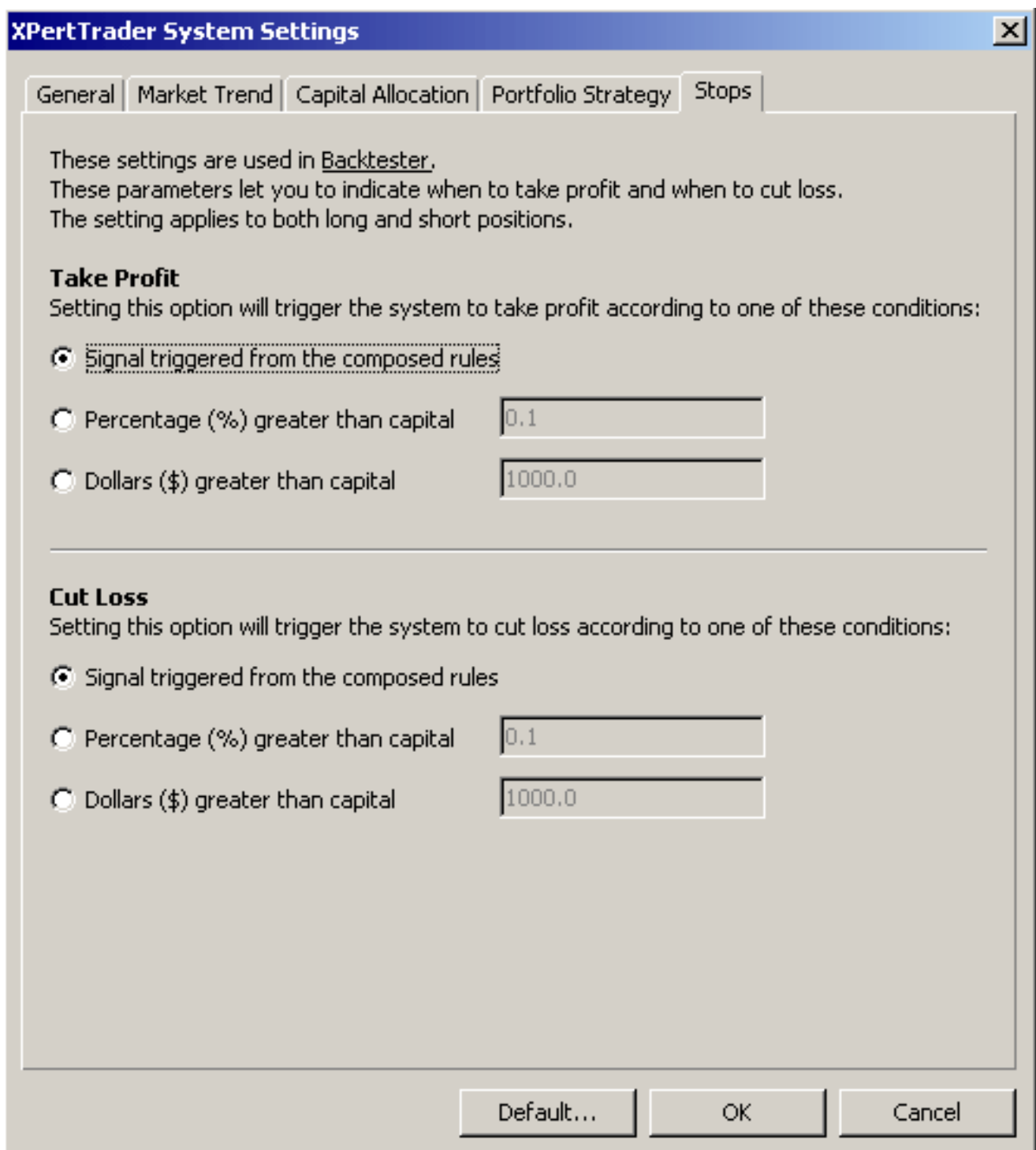
- System default i.e. MAXIMUM
- User define

Next to the "User define" radio button is a text input field containing the value "40000".

At the bottom of the dialog, there are three buttons: "Default...", "OK", and "Cancel".

# XP3.8 XPertTrader System Settings - Stops

The XPertTrader System Settings under the "Stops" tab allows you to specify your exit strategy.



The screenshot shows a dialog box titled "XPertTrader System Settings" with a close button (X) in the top right corner. The "Stops" tab is selected, and the following text is displayed:

These settings are used in Backtester.  
These parameters let you to indicate when to take profit and when to cut loss.  
The setting applies to both long and short positions.

**Take Profit**  
Setting this option will trigger the system to take profit according to one of these conditions:

- Signal triggered from the composed rules
- Percentage (%) greater than capital
- Dollars (\$) greater than capital

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**Cut Loss**  
Setting this option will trigger the system to cut loss according to one of these conditions:

- Signal triggered from the composed rules
- Percentage (%) greater than capital
- Dollars (\$) greater than capital

At the bottom of the dialog box, there are three buttons: "Default...", "OK", and "Cancel".

It is very important for you to have an exit strategy. Backtester allows you to specify how you want to exit from a winning position as well as a losing position.

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# **XP4.0 Understanding The Technical Rules And Their Parameters**

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**I**n this section, we will explain on the technical rules and their parameters listed in the Rules Composer.

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# XP4.1 Technical Rules - General

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The description of the rules and their parameters under "General" are as follows:

## Price Increase

Price has increased by at least  $p\%$  in the past  $t$  days

- $t$  is the number of days that the price increase is calculated
- $p$  is the minimum percentage value that the price has risen

## Price Decrease

Price has decreased by at least  $p\%$  in the past  $t$  days

- $t$  is the number of days that the price decrease is calculated
- $p$  is the minimum percentage value that the price has fallen

## Volume Increase

Average volume has jumped by at least  $v\%$

- $t1$  is the past number of days whose average volume is compared with the recent average volume
- $t2$  is the recent number of days whose average volume is compared with the past average volume
- $v$  is the increase in volume from period  $t1$  to  $t2$

## Volume Decrease

Average volume has fallen by at least  $v\%$

- $t1$  is the past number of days whose average volume is compared with the recent average volume
- $t2$  is the recent number of days whose average volume is compared with the past average volume
- $v$  is the decrease in volume from period  $t1$  to  $t2$

# XP4.10 Technical Rules - Moving Average

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The description of the rules and their parameters under "Moving Average" are as follows:

## MA Dual Crossover

Buy : Shorter MA crossed over longer MA

Sell : Longer MA crossed over shorter MA

- **Shorter Period** is the period of the shorter-duration moving average line
- **Longer Period** is the period of the longer-duration moving average line
- **Exp Factor** is the exponential factor used in the calculation of the moving average
- **Black Window** is the time frame where the MA lines may cross many times without affecting the triggering of the stock
- **t1** is the minimum number of days that the two MA lines did not cross before the Black Window
- **t2** is the minimum number of days that the two MA lines did not cross after the Black Window

## MA Triple Crossover

Buy : Shorter MA crossing over mid MA, the latter crossing long MA

Sell : Longer MA crossing over mid MA, the latter crossing short MA

- **Shorter Period** is the period of the shorter-duration moving average line
- **Middle Period** is the period of the mid-term moving average line
- **Longer Period** is the period of the longer-duration moving average line
- **Exp Factor** is the exponential factor used in the calculation of the moving average
- **Black Window** is the time frame where the MA lines may cross many times without affecting the triggering of the stock
- **t1** is the minimum number of days that the two MA lines did not cross before the Black Window
- **t2** is the minimum number of days that the two MA lines did not cross after the Black Window

## MA Price Crossover

Buy : Price crossed over MA

Sell : MA crossed over price

- **Period** is the period of the moving average
- **Exp Factor** is the exponential factor used in the calculation of the moving average
- **Black Window** is the time frame where the MA and price may cross many times without affecting the triggering of the stock
- **t1** is the minimum number of days that the two MA lines did not cross before the Black Window
- **t2** is the minimum number of days that the two MA lines did not cross after the Black Window

# XP4.11 Technical Rules - On-Balance Volume

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The description of the rules and their parameters under "On-Balance Volume" are as follows:

## OBV Divergence With Price

Buy : OBV is increasing with price still moving down

Sell : OBV is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and OBV diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **OBV Slope** is the minimum slope of the moving average of OBV
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **OBV MA Period** is the number of days used for the period of the moving average of the OBV
- If **OBV On Right** is set to '1', only divergences with OBV slope on the right side of price slope are triggered

## OBV Convergence With Price

Buy : OBV is increasing with price moving up

Sell : OBV is decreasing with price moving down

- **Max Divergence Days** is the maximum number of days during which the convergence occurs
- **Min Divergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and OBV converge
- **Price Slope** is the minimum slope of the moving average of the price
- **OBV Slope** is the minimum slope of the moving average of OBV
- **Price MA Period** is the number of days used for the period of the moving average of the price

- **OBV MA Period** is the number of days used for the period of the moving average of the OBV
- If **OBV On Right** is set to '1', only convergences with OBV slope on the right side of price slope are triggered

## OBV Trend

Buy : OBV is trending upwards

Sell : OBV is trending downwards

- **t** is the number of days that OBV has been trending
- **Slope** is the slope of the OBV when it is trending

# XP4.12 Technical Rules - Relative Strength Index

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The description of the rules and their parameters under "Bollinger Bands" are as follows:

## RSI Touched And Rebounded/Retreated From Limit

Buy : RSI rebounding from lower limit to XX

Sell : RSI retreating from upper limit to XX

- Period (Period of RSI )
- Lower Limit (Lower limit of RSI )
- Upper Limit (Upper limit of RSI )
- Limit Margin ('Limit Margin' = 1 means RSI touched and rebounded/retreated from limit +/- 1)
- x (x is the amount that RSI rebounded/retreated from limit)
- x Margin ('x Margin' = 3 means RSI rebounded/retreated within x +/- 3)
- t (t is the maximum number of days for the rebound/retreat to happen)

## RSI Crossing Limit

Buy : RSI just enters oversold region

Sell : RSI just enters overbought region

- Period (Period of RSI)
- Lower Limit (Lower limit of RSI)
- Upper Limit (Upper limit of RSI)

## RSI Limit Exceeded

Buy : RSI at XX is in oversold region

Sell : RSI at XX is in overbought region

- Period (Period of RSI)
- Lower Limit (Lower limit of RSI)

- Upper Limit (Upper limit of RSI)

### RSI Rebounding/Retreating In Oversold/Overbought Region

Buy : RSI rebounds from low in oversold region

Sell : RSI retreats from high in overbought region

- Period (Period of RSI)
- Lower Limit (Lower limit of RSI)
- Upper Limit (Upper limit of RSI)
- x (x is the amount that RSI rebounded/retreated from limit)
- t (t is the maximum number of days for the rebound/retreat to happen)

### RSI Rebounded/Retreated In Oversold/Overbought Region And Touching/Crossing Limit

Buy : RSI crosses back lower limit from oversold region

Sell : RSI crosses back upper limit from overbought region

- Period (Period of RSI)
- Lower Limit (Lower limit of RSI)
- Upper Limit (Upper limit of RSI)
- x (x is the amount that RSI rebounded/retreated from limit)
- x Margin ('x Margin' = 3 means RSI rebounded/retreated within x +/- 3)
- t (t is the maximum number of days for the rebound/retreat to happen)

### RSI at XX is in range (min, max)

- Period (Period of RSI)
- Min (Min value of the range)
- Max (Max value of the range)

### RSI Crossed 50% level

Buy : RSI crossed up 50% level

Sell : RSI crossed down 50% level

- Period (Period of RSI)
- Cross Value ('Cross Value' is the level RSI must cross)

## RSI Failure Swing

Buy : RSI bottom failure swing

Sell : RSI top failure swing

- Period (Period of RSI)
- Lower Limit (Lower limit of RSI)
- Upper Limit (Upper limit of RSI)
- x1 (x1 is the minimum amount below/above the recent peak/trough)
- x2 (x2 is the minimum amount RSI has moved above/below the recent peak/trough)

## RSI Divergence With Price

Buy : RSI is increasing with price still moving down

Sell : RSI is decreasing with price still moving up

- Max Divergence Days ('Max Divergence Days' is the maximum number of days during which the divergence occurs)
- Min Divergence Days ('Min Divergence Days' is the minimum number of days during which the divergence occurs)
- Min Overlap Length ('Min Overlap Length' is the minimum number of overlapping days during which price and RSI diverge)
- Price Slope ('Price Slope' is the minimum slope of the moving average of the price)
- RSI Slope ('RSI Slope' is the minimum slope of the moving average of RSI)
- Price MA Period ('Price MA Period' is the number of days used for the period of the moving average of the price)
- RSI MA Period ('RSI MA Period' is the number of days used for the period of the moving average of the RSI)
- RSI On Right (If 'RSI On Right' is set to 'YES', only divergences with RSI slope on the right side of price slope are triggered)

## RSI Convergence With Price

Buy : RSI is increasing with price moving up

Sell : RSI is decreasing with price moving down

- Max Convergence Days ('Max Convergence Days' is the maximum

- number of days during which the convergence occurs)
- Min Convergence Days ('Min Convergence Days' is the minimum number of days during which the convergence occurs)
  - Min Overlap Length ('Min Overlap Length' is the minimum number of overlapping days during which price and RSI converge)
  - Price Slope ('Price Slope' is the minimum slope of the moving average of the price)
  - RSI Slope ('RSI Slope' is the minimum slope of the moving average of RSI)
  - Price MA Period ('Price MA Period' is the number of days used for the period of the moving average of the price)
  - RSI MA Period ('RSI MA Period' is the number of days used for the period of the moving average of the RSI)
  - RSI On Right (If 'RSI On Right' is set to 'YES', only convergences with RSI slope on the right side of price slope are triggered)

## RSI Trend

Buy : RSI is trending upwards

Sell : RSI is trending downwards

- t (t is the number of days that RSI has been trending)
- Slope (Slope is the slope of the RSI when it is trending)

# XP4.13 Technical Rules - Stochastic

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The description of the rules and their parameters under "Stochastic" are as follows:

## Stochastic Crossover

Buy : %D crosses over smoothed %D

Sell : Smoothed %D crosses over %D

- **Lower Limit** is lower limit of Stochastic
- **Upper Limit** is upper limit of Stochastic
- **%K Period** is the period of %K
- **%D Period** is the period of %D
- **Smoothed %D Period** is the period of Smoothed %D Period
- **x** is the minimum distance between the %D line and Smoothed %D line
- **t** is the maximum number of days that x occurs

## Stochastic Divergence With Price

Buy : Stochastic is increasing with price still moving down

Sell : Stochastic is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and Stochastic diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **Stochastic Slope** is the minimum slope of the moving average of Stochastic
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **Stochastic MA Period** is the number of days used for the period of the moving average of the Stochastic
- If **Stochastic On Right** is set to '1', only divergences with Stochastic slope on the right side of price slope are triggered

## Stochastic Convergence With Price

Buy : Stochastic is increasing with price moving up

Sell : Stochastic is decreasing with price moving down

- **Max Divergence Days** is the maximum number of days during which the convergence occurs
- **Min Divergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and Stochastic converge
- **Price Slope** is the minimum slope of the moving average of the price
- **Stochastic Slope** is the minimum slope of the moving average of Stochastic
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **Stochastic MA Period** is the number of days used for the period of the moving average of the Stochastic
- If **Stochastic On Right** is set to '1', only convergences with Stochastic slope on the right side of price slope are triggered

# XP4.14 Technical Rules - Williams %R

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The description of the rules and their parameters under "Williams %R" are as follows:

## Williams %R Touched And Rebounded/Retreated From Limit

Buy : Williams %R rebounding from lower limit to XX

Sell : Williams %R retreating from upper limit to XX

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)
- Upper Limit (Upper limit of Williams %R)
- Limit Margin ('Limit Margin' = 1 means Williams %R touched and rebounded/retreated from limit +/- 1)
- x (x is the amount that Williams %R rebounded/retreated from limit)
- x Margin ('x Margin' = 3 means Williams %R rebounded/retreated within x +/- 3)
- t (t is the maximum number of days for the rebound/retreat to happen)

## Williams %R Crossing Limit

Buy : Williams %R just enters oversold region

Sell : Williams %R just enters overbought region

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)
- Upper Limit (Upper limit of Williams %R)

## Williams %R Limit Exceeded

Buy : Williams %R at XX is in oversold region

Sell : Williams %R at XX is in overbought region

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)

- Upper Limit (Upper limit of Williams %R)

### Williams %R Rebounding/Retreating In Oversold/Overbought Region

Buy : Williams %R rebounds from low in oversold region  
 Sell : Williams %R retreats from high in overbought region

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)
- Upper Limit (Upper limit of Williams %R)
- x (x is the amount that RSI rebounded/retreated from limit)
- t (t is the maximum number of days for the rebound/retreat to happen)

### Williams %R Rebounded/Retreated In Oversold/Overbought Region And Touching/Crossing Limit

Buy : Price rebounds from lower band  
 Sell : Price retreats from upper band

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)
- Upper Limit (Upper limit of Williams %R)
- x (x is the amount that Williams %R rebounded/retreated from limit)
- x Margin ('x Margin' = 3 means Williams %R rebounded/retreated within x +/- 3)
- t (t is the maximum number of days for the rebound/retreat to happen)

### Williams %R In Specified Range

Williams %R at XX is in range (min, max)

- Period (Period of Williams %R)
- Min (Min value of the range)
- Max (Max value of the range)

### Williams %R Crossed 50% level

Buy : Williams %R crossed up 50% level  
 Sell : Williams %R crossed down 50% level

- Period (Period of Williams %R)
- Cross Value ('Cross Value' is the level Williams %R must cross)

## Williams %R Failure Swing

Buy : Williams %R bottom failure swing

Sell : Williams %R top failure swing

- Period (Period of Williams %R)
- Lower Limit (Lower limit of Williams %R)
- Upper Limit (Upper limit of Williams %R)
- x1 (x1 is the minimum amount below/above the recent peak/trough)
- x2 (x2 is the minimum amount Williams %R has moved above/below the recent peak/trough)

## Williams %R Divergence With Price

Buy : Williams %R is increasing with price still moving down

Sell : Williams %R is decreasing with price still moving up

- Max Divergence Days ('Max Divergence Days' is the maximum number of days during which the divergence occurs)
- Min Divergence Days ('Min Divergence Days' is the minimum number of days during which the divergence occurs)
- Min Overlap Length ('Min Overlap Length' is the minimum number of overlapping days during which price and Williams %R diverge)
- Price Slope ('Price Slope' is the minimum slope of the moving average of the price)
- Williams %R Slope ('Williams %R Slope' is the minimum slope of the moving average of Williams %R)
- Price MA Period ('Price MA Period' is the number of days used for the period of the moving average of the price)
- Williams %R MA Period ('Williams %R MA Period' is the number of days used for the period of the moving average of the Williams %R)
- Williams %R On Right (If Williams %R On Right' is set to 'YES', only divergences with Williams %R slope on the right side of price slope are triggered)

## Williams %R Convergence With Price

Buy : Williams %R is increasing with price moving up

Sell : Williams %R is decreasing with price moving down

- Max Convergence Days ('Max Convergence Days' is the maximum number of days during which the convergence occurs)
- Min Convergence Days ('Min Convergence Days' is the minimum number of days during which the convergence occurs)

- Min Overlap Length ('Min Overlap Length' is the minimum number of overlapping days during which price and Williams %R converge)
- Price Slope ('Price Slope' is the minimum slope of the moving average of the price)
- Williams %R Slope ('Williams %R Slope' is the minimum slope of the moving average of Williams %R)
- Price MA Period ('Price MA Period' is the number of days used for the period of the moving average of the price)
- Williams %R MA Period ('Williams %R MA Period' is the number of days used for the period of the moving average of the Williams %R)
- Williams %R On Right (If 'Williams %R On Right' is set to 'YES', only convergences with Williams %R slope on the right side of price slope are triggered)

## Williams %R Trend

Buy : Williams %R is trending upwards

Sell : Williams %R is trending downwards

- t (t is the number of days that Williams %R has been trending)
- Slope (Slope is the slope of the Williams %R when it is trending)

# XP4.2 Technical Rules - Accumulation/Distribution

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The description of the rules and their parameters under "Accumulation/Distribution" are as follows:

## Acc/Dis Divergence With Price

Buy : Acc/Dis is increasing with price still moving do

Sell : Acc/Dis is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and Acc/Dis diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **Acc/Dis Slope** is the minimum slope of the moving average of Acc/Dis
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **Acc/Dis MA Period** is the number of days used for the period of the moving average of the Acc/Dis
- If **Acc/Dis On Right** is set to '1', only divergences with Acc/Dis slope on the right side of price slope are triggered

## Acc/Dis Convergence With Price

Buy : Acc/Dis is increasing with price moving up

Sell : Acc/Dis is decreasing with price moving down

- **Max Convergence Days** is the maximum number of days during which the convergence occurs
- **Min Convergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and Acc/Dis converge
- **Price Slope** is the minimum slope of the moving average of the price
- **Acc/Dis Slope** is the minimum slope of the moving average of Acc/Dis
- **Price MA** is the number of days used for the period of the moving average of the price

- **Acc/Dis MA Period** is the number of days used for the period of the moving average of the Acc/Dis
- If **Acc/Dis On Right** is set to '1', only convergences with Acc/Dis slope on the right side of price slope are triggered

### Acc/Dis Trend

Buy : Acc/Dis is trending upwards

Sell : Acc/Dis is trending downwards

- **t** is the number of days that Acc/Dis has been trending
- **Slope** is the slope of the Acc/Dis when it is trending

# XP4.3 Technical Rules - Average Directional Index

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The description of the rules and their parameters under "Average Directional Index" are as follows:

## ADX Below 20-Level

ADX line is below 20-level

- **Period** is the number of days used to calculate ADX

## ADX Above 40-Level

ADX line is above 40-level

- **Period** is the number of days used to calculate ADX

## ADX In Specified Range

ADX at XX is in range of (min, max)

- **Period** is the number of days used to calculate ADX
- **Min** is min value of the range
- **Max** is max value of the range

## ADX Crosses Up 20-Level

- **Period** is the number of days used to calculate ADX

## ADX Crosses Down 20-Level

- **Period** is the number of days used to calculate ADX

## ADX Crosses Up 40-Level

- **Period** is the number of days used to calculate ADX

## ADX Crosses Down 40-Level

- **Period** is the number of days used to calculate ADX

## ADX (+DI/-DI) Crossover

Buy : +DI crosses over -DI

Sell : -DI crosses over +DI

- **Period** is the number of days used to calculate ADX
- **x** is the minimum value +DI and -DI after the crossover
- **t** is the maximum number of days within which x is reached

# XP4.4 Technical Rules - Bollinger Bands

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The description of the rules and their parameters under "Bollinger Bands" are as follows:

## Bollinger Bands - Price Below/Above The Lower/Upper Band

Buy : Price is below lower band

Sell : Price is above upper band

- **Period** is period of moving average
- Lower and upper bands will be distanced at the value of the **Std Deviation** from the MA line

## Bollinger Bands - Price Just Touching/Crossing Band

Buy : Price just touches or crosses lower band

Sell : Price just touches or crosses upper band

- **Period** is period of moving average
- Lower and upper bands will be distanced at the value of the **Std Deviation** from the MA line

## Bollinger Bands - Price Touched Band And Rebounded/Retreated From Band

Buy : Price rebounds from lower band

Sell : Price retreats from upper band

- **Period** is period of moving average
- Lower and upper bands will be distanced at the value of the **Std Deviation** from the MA line
- **x** is the amount that price rebounds/retreats from band
- **x Margin** = 1 means price rebounded/retreated from band within  $x \pm 1$
- **t** is the maximum number of days that price rebounded/retreated

# XP4.5 Technical Rules - Chaikin Money Flow

---

The description of the rules and their parameters under "Chaikin Money Flow" are as follows:

## CMF Crossing Zero

Buy : CMF crosses above centerline

Sell : CMF crosses below centerline

- **Period** is period used for calculation of CMF
- **x** is the distance that price travelled above/below zero

## CMF Sustained Pressure

Buy : CMF above centerline for a long time

Sell : CMF below centerline for a long time

- **Period** is period used for calculation of CMF
- **x** is the distance that price travelled above/below zero
- **t** is the minimum number of days for CMF to stay above/below zero

## CMF Divergence With Price

Buy : CMF is increasing with price still moving down

Sell : CMF is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and CMF diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **CMF Slope** is the minimum slope of the moving average of CMF
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **CMF MA Period** is the number of days used for the period of the moving average of the CMF
- If **CMF On Right** is set to '1', only divergences with CMF slope on the

right side of price slope are triggered

## CMF Convergence With Price

Buy : CMF is increasing with price moving up

Sell : CMF is decreasing with price moving down

- **Max Convergence Days** is the maximum number of days during which the convergence occurs
- **Min Convergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and CMF converge
- **Price Slope** is the minimum slope of the moving average of the price
- **CMF Slope** is the minimum slope of the moving average of CMF
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **CMF MA Period** is the number of days used for the period of the moving average of the CMF
- If **CMF On Right** is set to '1', only convergences with CMF slope on the right side of price slope are triggered

## CMF Trend

Buy : CMF is trending upwards

Sell : CMF is trending downwards

- **t** is the number of days that CMF has been trending
- **Slope** is the slope of the CMF when it is trending

# XP4.6 Technical Rules - Commodity Channel Index

---

The description of the rules and their parameters under "Commodity Channel Index" are as follows:

CCI lies above/below +100/-100

Buy : CCI lies below -100

Sell : CCI lies above +100

- **Period** is the number of days used in the calculation of CCI
- **x** is the minimum amount CCI has to lie above +100 or below -100
- **t** is the maximum number of days for CCI to rise x above +100 or fall x below -100

CCI Centerline Crossover

Buy : CCI crosses over centerline

Sell : CCI crosses below centerline

- **Period** is the number of days used in the calculation of CCI
- **x** is the minimum amount CCI has to move above or below the centerline after a bullish or bearish crossover respectively
- **t** is the maximum number of days for CCI to rise x above or below the centerline after the bullish or bearish crossover respectively

CCI rebounding/retreating in the regions below/above -100/+100

Buy : CCI rebounds from low in region below -100

Sell : CCI retreats from high in region above +100

- **Period** is the number of days used in the calculation of CCI
- **x** is the amount that CCI has to rebound/retreat from its low/high in the regions below/above -100/+100
- **t** is the maximum number of days for CCI for x to develop

CCI Rebounded/Retreated Regions below/above -100/+100 And  
Touching/Crossing -100/+100

Buy : CCI crosses back -100 from low in the region below -100

Sell : CCI crosses back +100 from high in the region above +100

- **Period** is the number of days used in the calculation of CCI
- **x** is the minimum amount between the low and the -100 level or between the high and the +100 level
- **t** is the maximum number of days for x to develop

# XP4.7 Technical Rules - Guppy MMAs

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The description of the rules and their parameters under "Guppy MMAs" are as follows:

## GMMA Crossover

Buy : Bullish crossover of the EMA lines

Sell : Bearish crossover of the EMA lines

- **Black Window** the time frame where the EMA lines may cross many times without affecting the triggering of the stock
- **t1** is the minimum number of days that the EMA lines must not cross before the Black Window
- **t2** is the minimum number of days that the EMA lines must not cross after the Black Window

## GMMA Trend Outlook

Buy : GMMA shows trend is bullish with short- over mid- over long-term EMAs

Sell : GMMA shows trend is bearish with long- over mid- over short-term EMAs

- **d** is the minimum number of days that the short-, mid- and long-term EMA lines must not cross

# XP4.8 Technical Rules - Moving Average Convergence/Divergence

---

The description of the rules and their parameters under "Moving Average Convergence/Divergence" are as follows:

## MACD Centerline Crossover

Buy : MACD crosses over centerline

Sell : MACD crosses below centerline

- **Short Period** is the number of days used for the period of the short-term moving average in the MACD calculation
- **Long Period** is the number of days used for the period of the long-term moving average in the MACD calculation
- **Signal Period** is the number of days used for the period of the signal line

## MACD Crossing Signal Line

Buy : MACD crosses over signal line

Sell : MACD crosses below signal line

- **Short Period** is the number of days used for the period of the short-term moving average in the MACD calculation
- **Long Period** is the number of days used for the period of the long-term moving average in the MACD calculation
- **Signal Period** is the number of days used for the period of the signal line
- **x** is the minimum distance between the MACD line and the signal line
- **t** is the maximum number of days that x occurs

## MACD Divergence with Price

Buy : MACD is increasing with price still moving down

Sell : MACD is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs

- **Min Overlap Length** is the minimum number of overlapping days during which price and MACD diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **MACD Slope** is the minimum slope of the moving average of MACD
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **MACD MA Period** is the number of days used for the period of the moving average of the MACD
- If **MACD On Right** is set to '1', only divergences with MACD slope on the right side of price slope are triggered

## MACD Convergence With Price

Buy : MACD is increasing with price moving up

Sell : MACD is decreasing with price moving down

- **Max Divergence Days** is the maximum number of days during which the convergence occurs
- **Min Divergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and MACD converge
- **Price Slope** is the minimum slope of the moving average of the price
- **MACD Slope** is the minimum slope of the moving average of MACD
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **MACD MA Period** is the number of days used for the period of the moving average of the MACD
- If **MACD On Right** is set to '1', only convergences with MACD slope on the right side of price slope are triggered

## MACD Trend

Buy : MACD is trending upwards

Sell : MACD is trending downwards

- **t** is the number of days that CMF has been trending
- **Slope** is the slope of the CMF when it is trending

# XP4.9 Technical Rules - Money Flow Index

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The description of the rules and their parameters under "Money Flow Index" are as follows:

## MFI Touched And Rebounded/Retreated From Limit

Buy : MFI rebounding from lower limit to XX

Sell : MFI retreating from upper limit to XX

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI
- **Limit Margin** = 1 means RSI touched and rebounded/retreated from limit +/- 1
- **x** is the amount that MFI rebounded/retreated from limit
- **x Margin** = 3 means MFI rebounded/retreated within x +/- 3
- **t** is the maximum number of days for the rebound/retreat to happen

## MFI Crossing Limit

Buy : MFI at XX is in oversold region

Sell : MFI at XX is in overbought region

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI

## MFI Limit Exceeded

Buy : MFI at XX is in oversold region

Sell : MFI at XX is in overbought region

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI

## MFI Rebounding/Retreating In Oversold/Overbought Region

Buy : MFI rebounds from low in oversold region  
Sell : MFI retreats from high in overbought region

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI
- **x** is the amount that MFI rebounded/retreated from limit
- **t** is the maximum number of days for the rebound/retreat to happen

### MFI Rebounded/Retreated In Oversold/Overbought Region And Touching/Crossing Limit

Buy : MFI crosses back lower limit from oversold region  
Sell : MFI crosses back upper limit from overbought region

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI
- **x** is the amount that MFI rebounded/retreated from limit
- **x Margin = 3** means MFI rebounded/retreated within  $x \pm 3$
- **t** is the maximum number of days for the rebound/retreat to happen

### MFI In Specified Range

MFI at XX is in range (min, max)

- **Period** is period of MFI
- **Min** is minimum value of the range
- **Max** is maximum value of the range

### MFI Crossed 50% level

Buy : MFI crossed up 50% level  
Sell : MFI crossed down 50% level

- **Period** is period of MFI
- **Cross Value** is the level MFI must cross

### MFI Failure Swing

Buy : MFI bottom failure swing  
Sell : MFI top failure swing

- **Period** is period of MFI
- **Lower Limit** is lower limit of MFI
- **Upper Limit** is upper limit of MFI
- **x1** is the minimum amount below/above the recent peak/trough

- **x2** is the minimum amount MFI has moved above/below the recent peak/trough

### MFI Divergence With Price

Buy : MFI is increasing with price still moving down

Sell : MFI is decreasing with price still moving up

- **Max Divergence Days** is the maximum number of days during which the divergence occurs
- **Min Divergence Days** is the minimum number of days during which the divergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and MFI diverge
- **Price Slope** is the minimum slope of the moving average of the price
- **MFI Slope** is the minimum slope of the moving average of MFI
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **MFI MA Period** is the number of days used for the period of the moving average of the MFI
- If **MFI On Right** is set to '1', only divergences with MFI slope on the right side of price slope are triggered

### MFI Convergence With Price

Buy : MFI is increasing with price moving up

Sell : MFI is decreasing with price moving down

- **Max Divergence Days** is the maximum number of days during which the convergence occurs
- **Min Divergence Days** is the minimum number of days during which the convergence occurs
- **Min Overlap Length** is the minimum number of overlapping days during which price and MFI converge
- **Price Slope** is the minimum slope of the moving average of the price
- **MFI Slope** is the minimum slope of the moving average of MFI
- **Price MA Period** is the number of days used for the period of the moving average of the price
- **MFI MA Period** is the number of days used for the period of the moving average of the MFI
- If **MFI On Right** is set to '1', only convergences with MFI slope on the right side of price slope are triggered

### MFI Trend

Buy : MFI is trending upwards

Sell : MFI is trending downwards

- **t** is the number of days that MFI has been trending
- **Slope** is the slope of the MFI when it is trending

# XP5.0 Backtester Statistic Terminology

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All the terms used in Backtester Statistic are as follows:

Initial capital

The amount of money that you start-off with

Cash on hand

The amount of money that you have on hand

Final capital (all positions closed)

The amount of money that you have now after closing all the positions (i.e. sell all the stocks that are long (bought) and/or buy all the stocks that are short (sold))

Capital available (assume profit not-reinvest)

The amount of money that you have on hand assuming that you do not want to reinvest your profits

Note: Cash on hand and Capital available (assume profit not-reinvest) will be similar if either users do not untick the checkbox of Profits Allocation in Configure -> Capital Allocation or there is no profitable trade

Return on trades

The percentage gain/loss of all the trades done

Total number of trades

The amount of trades that have been done

Total net profit/loss

The amount of profit/loss of all the trades done

Percentage profits (%)

The percentage of profitable trades of all the trades done

Highest portfolio value

The highest transaction fee among all trades done

Open positions

number of long/short positions that are still not sold/bought

Open positions profit/loss

Profit/loss of the open positions as of the end of the Backtest Period

Total commission paid

The amount of commission paid for the trades made

Profit of winners

The amount of money gained for all profitable trades

Average profit

The average amount of money gained for all profitable trades

Largest profit

The largest amount of money gained in a profitable trade

Smallest profit

The smallest amount of money gained in a profitable trade

Largest winner commission

The commission paid for a particular profitable trade that contribute to the largest profit

Commission paid for winners

Total commission paid for all profitable trades

Average commission paid for winners

The average commission paid for all profitable trades

Loss of losers

The amount of money lost for all unprofitable trades

Average loss

The average amount of money lost for all unprofitable trades

Largest loss

The largest amount of money lost in an unprofitable trade

Smallest profit

The smallest amount of money lost in an unprofitable trade

Largest loser commission

The commission paid for a particular unprofitable trade that contribute to

the largest lost

Commission paid for losers

Total commission paid for all unprofitable trades

Average commission paid for losers

The average commission paid for all unprofitable trades

Total profitable trades

Total profitable trades within the Backtest Period

Profitable long trades

Total profitable long trades (i.e. buy, then sell) within the Backtest Period

Profitable short trades

Total profitable short trades (i.e. sell, then buy) within the Backtest Period

Total unprofitable trades

unprofitable trades within the Backtest Period

Unprofitable long trades

Total unprofitable long trades (i.e. buy, then sell) within the Backtest Period

Unprofitable short trades

Total unprofitable short trades (i.e. sell, then buy) within the Backtest Period