

THV v3

Expert advisor



© THV EA Team

THV Trading System basic rules:

Long signal:

- Price is above coral.
- Price is above ichimoku cloud.
- Fast Trix is above Slow Trix .
- Fast and Slow Trix go upwards. Optionally, Fast Trix is above zero.

Short signal:

- Price is below coral.
- Price is below ichimoku cloud.
- Fast Trix is below Slow Trix .
- Fast and Slow Trix are moving downwards, and optionally, Fast Trix is below zero.

Exits:

- When Fast Trix changes color (or imax cross) and/or price touches a known good resistance/support level.

The THV EA Team and contributors:

Development of THV trading system	cobraforex and THV Team
Programming	xux99, Karun, Caveman
Indicators	MissPips, DerkWehler
User guide	Karun, FX Dragon
Settings, bug fixing, features improvement	kaizasoze, WackyRacer, AZBOfin and many other members of Forexfactory and THV forum

Before installing this expert advisor go to Tools → Options → Expert Advisors and make sure that “Allow DLL imports” is enabled and “Confirm DLL function calls” is disabled.

Entry and Exit Conditions

An entry is valid if all conditions are met at the same time. Exits are handled by whichever rule comes first closes the trade. Indicator based exits are valid only once, so as an example if an exit signal of **iMaxCross** occurs, this triggers a partial exit. If the next signal that occurs is **MTFIchimokuDot1** which is again indicator based, it is ignored. Exit signals by **PriceTouchSRLevel**, **PriceTouchDailyPivot** or **PriceTouchPsychLevel** do not have this limitation.

*3 Digit Indicator Value Settings:

A substantial number of the settings within the THV EA use a 3 digit value as opposed to a user specified value of true/false. For those settings that use a 3 digit value, the first digit allows us to decide **how** a particular indicator will be used in a trade. The second digit is for trade **Entries** and the third digit is for trade **Exits** and they are used to define the candle (open or closed). The second and third digits can only take one of two values; either **0** for an unclosed candle or **1** for a closed candle.

The first digit only can take one of the following values:

- 0** means it is not used for entry or exit.
- 1** means it is used for entry only.
- 2** means it is used for exit only.
- 3** means it is used for entry and exit.

For example, an indicator with a value of the **210** means:

- 2** = Trade Entry/Exit: indicator is used for Exit only (the first digit, **2**)
- 1** = Entry Candle: Closed candle (the second digit, **1**)
- 0** = Exit Candle: Open candle (the third digit, **0**)

**Any 3 digit indicator with a value of 000 means that indicator is not used.*

PriceCrossCoral: EA will take a trade only if Price is above (long) / below (short) coral.

** See 3 Digit Indicator Value Settings.*

CrossCoralPips: Define how many pips Price should be above/below coral.

*For example, when **PriceCrossCoral** : 100 and **CrossCoralPips** : 10, for the EA to consider a valid entry signal the Price has to be at least 10 pips above/below the coral for long/short respectively.*

*If **PriceCrossCoral**: 000 this setting is ignored.*

PriceCrossIchimoku: EA will take a trade only if Price is above (long) / below (short) Ichimoku cloud.

*For example, when **PriceCrossIchimoku** : 100, **MinCrossIchimokuPips** : 5 and **MaxCrossIchimokuPips** : 10, for the EA to consider a valid signal the price has to be minimum 5 pips and a maximum of 10 pips, above / below the ichimoku cloud for long / short respectively. **MaxCrossIchimokuPips** could be used to avoid late entries, where there has been a fast run up.*

** See 3 Digit Indicator Value Settings.*

MinCrossIchimokuPips: Define how many pips Price should be above/below Ichimoku cloud.

*If **PriceCrossIchimoku** : 000 this setting is ignored.*

MaxCrossIchimokuPips: Price should not be beyond Ichimoku cloud plus the defined pips at the time of cross.

*If **PriceCrossIchimoku** : 000 this setting is ignored.*

FastSlowTrixCross: Fast Trix should be above/below Slow Trix for long/short signal.

** See 3 Digit Indicator Value Settings.*

FastTrixDirection: Fast Trix should have the same direction with the order.

** See 3 Digit Indicator Value Settings.*

SlowTrixDirection: Slow Trix should have the same direction with the order.

** See 3 Digit Indicator Value Settings.*

FastTrixZeroLevel: Fast Trix should be above/below zero line for long/short signal.

** See 3 Digit Indicator Value Settings.*

iMaxCross: Depending on settings used the iMax cross can trigger an Entry or Exit.

** See 3 Digit Indicator Value Settings.*

TrixOverboughtOversold: When true, if Trix is beyond Overbought/Oversold levels, no trades will be opened, even if there is a valid entry signal. This setting will avoid buying at OB and selling at OS levels.

Value is false or true

TrixOverboughtLevel: This value varies based on TF and setting a proper value is *critical* for **Trix OverboughtOversold** functionality. No long orders are opened above this level.

**See current time frame you will trade in for correct settings.*

TrixOversoldLevel: This value varies based on TF and setting a proper value is *critical* for proper **TrixOverboughtOversold** functionality. No short orders are opened below this level.

**See current time frame you will trade in for correct settings.*

TrixTimeframe: The defined timeframe is used for Overbought/Oversold levels. It should be 0 for current timeframe, 1 for M1, 5 for M5, 15 for M15, 30 for M30, 60 for H1, 240 for H4, 1440 for D1, 10080 for W1 and 43200 for MN.

For example, to identify the proper TrixOverboughtLevel / TrixOversoldLevel, load Trix to your desired pair/timeframe, where the EA will be running. Check the OB/OS level displayed by Trix, and enter those values in these settings. For M1, most of the pairs I watched had OB OS level as : 0.00011/ -0.00011, this could be different for M5 or M15.

MTFTrixDot#: # 1 means the 1st (top) dot, 2 means the next 2nd dot etc, as shown in MTF indicators.

** See 3 Digit Indicator Value Settings.*

MTFIchimokuDot#: # 1 means the 1st (top) dot, 2 means the next 2nd dot as shown in MTF indicators

** See 3 Digit Indicator Value Settings.*

For example, if we want to use MTF for entries and closed candle, then the MTF value would be 110.

If we want to use MTF for entries and current open candle, then MTF value would be 100.

We can use this in conjunction with Trix settings to derive a good edge for the EA to take trades. Used together, these settings give options when trying to find that edge. An example below for a long order.

Let's say these are the conditions for long on M1:

1. Trix cross should be there.
2. Fast Trix should be above zero.
3. Do not buy at overbought level.
4. M15 Fast Trix, M30 Fast Trix and M5 slow should agree with direction of the trade.
5. MTF Trix should use closed candle.
6. The candle close has to be above ichimoku cloud in M15 and M30.

This can be achieved by setting the following properties:

FastSlowTrixCross : 100

FastTrixZeroLevel : 100

TrixOverboughtOversold : true

** Remember for this to work properly, setting the correct **TrixOBLevel** values is *critical*.*

MTFTrixDot1 = 110

MTFTrixDot2 = 110

MTFTrixDot3 = 110

MTFTrixDot4 = 000

MTFIchimokuDot1 = 110

MTFIchimokuDot2 = 110

When all the above conditions match, the EA will open a long order. While this is not a complete possible combination, it should give you an idea on how and where to start.

ADXLevel: ADX should be above this value for a valid entry signal. 0 means this condition is ignored.

PrevCandleSameDirection: The previous candle should have the same direction with the order.

Value is false or true

EntryCandleMaxATR: Current candle length should not exceed the ATR multiplied by the defined number. 0 means this condition is ignored.

*For example, we can use **EntryCandleMaxATR** to avoid entries where there is a very fast run up/run down (which can happen easily during news times). Let's say we think that the ideal ATR for M1 on EURUSD is 6 pips. When an entry signal occurs and if the current candle is 15 pips length already, we may not want to enter. So, if we have set this value to 2, then the max length for the current candle cannot be more than $2 \times 6 = 12$ pips for a valid entry signal. Please remember the max number of pips completely depends on ATR value.*

EntryMinATR:

For an entry, real time ATR should be above the defined number. This is a filter for very slow moving periods.

SRDistance: For an entry, Price should differ from the nearest SR level more than the defined pips. If set to 0 this condition is ignored.

DailyPivotDistance: For an entry, price should differ from the daily pivot more than the defined pips. If it is set to 0 this condition is not taken into account.

PsychLevelDistance: For an entry, price should differ from the nearest psych level more than the defined pips. If it is set to 0 this condition is not taken into account.

PriceTouchSRLevel: Exit a profitable order when bid touches the nearest support/resistance level. Daily pivot is ignored. Set the number of levels that can trigger an exit.

Value is 0 (not used), 1, 2, 3, or 4 for partial exits

PriceTouchDailyPivot: Exit a profitable order when bid touches daily pivot.

Value is false or true

DailyPivotTouchPips: Exit occurs when bid comes close to daily pivot for the defined pips.

MidPivots: MidPivots are taken into account for entries and exits.

Value is false or true

PriceTouchPsychLevel: Exit a profitable order when bid touches the nearest psych level. Set the number of levels that can trigger an exit.

Value is 0 (not used), 1, 2, 3, or 4 for partial exits

For example, if you set **PriceTouchPsychLevel** to 2, only two partial exits can be triggered by psych levels. If bid touches a third psych level no exit occurs.

* The standard accepted psych levels are **.50** and **.00** but you can also change these values in the EA settings.

MinLevelDistance: The entry price and the nearest S/R, daily pivot or psych level should differ for at least the defined pips.

When an S/R level is very close to the order opening price an exit can occur almost immediately for a trivial profit. We use **MinLevelDistance** to avoid this and use the next S/R level as an exit, which should be at least **MinLevelDistance** away.

OppositeSignalExit: The entire order (or any remaining partial lots) is closed when an opposite Entry signal (defined by the entry settings) occurs.

Value is false or true

IndicatorsExitPriority: Indicator based exit can occur at the defined or greater exit stage.

Value is 0 (not used), 1, 2, 3, or 4 for partial exits

LevelsExitPriority: An S/R, daily pivot, or psych levels based exit can occur at the defined or greater exit stage.

Value is 0 (not used), 1, 2, 3, or 4 partial exits

TrailingStopDisablesExits: Once a trailing stop is active, all other exit options are disabled and the order can be closed by stop loss or take profit only.

Value is false or true

FreshSignal: An entry signal is valid only if there was not an entry signal at the previous bar. If only closed candle based MTF entries are used it should be false.

Value is false or true

MaxSpread: No orders are opened when spread is greater than the defined pips. 0 means this option is ignored.

Patterns

Please use patterns settings only if you are aware of their importance and have knowledge on how to use them to your edge. If you don't know about patterns, please avoid them.

0 Means the pattern is not taken into account for opening an order.

1 Means an order is opened by the presence of this pattern.

2 Means no order is opened by the presence of an opposite pattern.

(For example: If we have a double top, no longs are opened)

3 Means an order is opened by the presence of this pattern and no order is opened if there is an opposite instance of this pattern. It is like options 1 and 2 are both valid.

4 Means the presence of this specific pattern is an absolute prerequisite for opening an order.

PinBar: Pin bar pattern.

Value is 0, 1, 2, 3, or 4

EngulfingBar: Engulfing bar pattern.

Value is 0, 1, 2, 3, or 4

DoubleTopBottom: Double bottom pattern for long orders and double top pattern for short orders.

Value is 0, 1, 2, 3, or 4

InsideBar: Inside bar pattern confirmed by the close of the next bar above/below the high/low of the inside bar.

Value is 0, 1, 2, 3, or 4

TrixDivergence: Divergence of the Trix indicator.

Value is 0, 1, 2, 3, or 4

Harmonics: Harmonic patterns for entry.

Value is 0, 1, 2, 3, or 4

TrendlineBreak: A closed candle breaks a trendline.

Value is 0, 1, 2, 3, or 4

OutsideBar: Outside bar pattern confirmed by the close of the next bar above/below the high/low of the outside bar.

Value is 0, 1, 2, 3, or 4

PreviousBars: The pattern should have been formed within the defined number of past bars.

*When a desired pattern is selected, and when an entry signal is triggered, the EA will check for the selected pattern settings and will decide whether to open a trade or not. The pattern also has to be present within the “**PreviousBars**” setting for an entry signal to be triggered.*

Order Settings

BaseMagicNumber: The Base number is used for calculating the magic number - each timeframe is assigned a different magic number automatically. If more than one chart of the same pair and the same timeframe are opened, the **BaseMagicNumber** should be manually set different from one another. Do not change the last digit; the last digit in the **BaseMagicNumber** changes for each timeframe. Different pairs can have the same magic number.

*For example, if you have EURUSD M1, EURUSD M5, GBPUSD M1 and GBPUSD M5 you don't have to change the **BaseMagicNumber**. However, if you have two charts of EURUSD M5 then you will need to change the **BaseMagicNumber** in either one of them.*

TradeComment: Comment of the order as shown at the Metatrader terminal.

ClassicSL: True means a classic stop loss relative to opening price is used. All stop loss and take profit settings are hidden from the broker.

Value is false or true

HighLowSL: True means the stop loss is relative to the highest or lowest of the **BarsBack** setting.

Value is false or true

BarsBack: Number of past bars taken into account to calculate the highest or lowest point.

MinimumSLPips: If **HighLowSL** is selected, minimum stop loss should be at least the defined pips.

StopLossPips: Pips added to one of the above stop loss methods.

StopLossAtrMultiplier: If greater than zero, the stop loss is ATR based and the ATR is multiplied by this number.

Only one kind of stop loss can be selected (Classic or HighLow) but if by mistake both are selected then **ClassicSL** is used. **MinimumSLPips** is used only for **HighLowSL** setting. The number of bars to look for a High/Low is defined by **BarsBack** setting.

*For example, when **ClassicSL** is true, the stop loss is based on the open price of the trade. Let's say the open price is 1.3962 then if **StopLossPips** : 20, the stop loss would be 1.3942 for a long trade. If **StopLossAtrMultiplier** is greater than zero, then this will be used. If the ATR setting gives a value of 30, then the stop loss would be 1.3932. If **StopLossAtrMultiplier** is zero, this setting is ignored.*

*When **HighLowSL** is true, the stop loss is based on Highest or Lowest of the bars specified in **BarsBack** setting. Let's say if the **BarsBack** : 3 and order is a long, then the lowest of the 3 bars is taken and added with **StopLossPips** or ATR based stop loss. If this is less than **MinimumSLPips**, then **MinimumSLPips** is used. Whichever is lower for long and higher for short is used.*

VisibleSL: Visible stop loss in pips, it is used in case of disconnection but visible to brokers.

This setting is used a failsafe stop loss since all other stop loss settings are invisible to broker. This setting is visible to your broker, it is useful if there is a disconnect or an interruption where a connection is lost.

We can have one or two take profit levels. Both can be pip based, ATR based, or one pip based and the other ATR based.

TakeProfitPips1: Pips of the first take profit.

TakeProfitPips2: Pips of the second take profit.

TakeProfitAtrMultiplier1: If greater than zero, the first take profit is ATR based. ATR is multiplied by this number.

TakeProfitAtrMultiplier2: Multiplier for the second ATR based take profit.

VisibleTP: Visible take profit in pips, it is used in case of disconnection but visible to brokers.

If **TakeProfitAtrMultiplier** is specified then Take Profit will be based on that, otherwise the **TakeProfitPips** setting is used.

BreakEvenPips: The stop loss moves to the entry price after price is in profit for the defined pips.

BreakEvenAtrMultiplier: If greater than zero the break even is ATR based and the ATR is multiplied by this number.

*If **BreakEvenAtrMultiplier** is specified then the breakeven will be based on that, otherwise the **BreakEvenPips** setting is used.*

LockPips: The stop loss moves to the entry price plus the defined pips after price reaches **BreakEven** level.

*For example, long order is opened @ 1.3926, **BreakEvenPips** is 10 pips, **LockPips** is 5 pips, price moves to 1.3936 thus activating the breakeven. Now if the price starts to come back, the order will be closed at as soon as price reaches 1.3931 (1.3926 + 5).*

LockAtrMultiplier: If greater than zero, the lock level is ATR based and the ATR is multiplied by this number.

PSARTrailingStop: The stop is activated if bid goes beyond the PSAR value of the previous closed candle.
Value is false or true

ClassicTrailingStop: Classic trailing stop is used.
Value is false or true

TrailingStopPips: Pips of trailing stop loss.

TrailingStopAtrMultiplier: If greater than zero, the trailing stop is ATR based and the ATR is multiplied by this number.

TrailingStopStartPips: Trailing stop is activated when price goes above or below the entry price for the defined pips.

TrailingStepPips: The trailing stop loss is modified in steps of price moves.

A Trailing Stop can be based either on PSAR or Classic Trailing Stop or both. The settings **TrailingStopPips**, **TrailingStopAtrMultiplier**, **TrailingStopStartPips**, **TrailingStepPips**, and **ADXMultiplier** all are used only if **ClassicTrailingStop** is selected. **PSARTrailingStop** uses PSAR value to trail stops.

*When **ClassicTrailingStop** is used, the Trailing Stop can be defined in pips by **TrailingStopPips** or it can be ATR based. Trailing Stop can also be customized by setting **TrailingStopStartPips** and **TrailingStepPips**. When **TrailingStopStartPips** is used, the trailing starts after price reaches a predefined number of pips specified by this setting.*

*If we have a long order and **ClassicTrailingStop** is used and **TrailingStopPips**: 10 and **TrailingStepPips**: 3 and price is 10 pips above entry price, then the stop loss will not change if price goes in 11 pips profit, but when it reaches 10+3 pips then stop loss will change to 10 pips below current price.*

ADXMultiplier: The ATR based stop loss and take profit is multiplied by ADX and by the **ADXMultiplier** value. 0 means this setting is ignored.

*The purpose of the **ADXMultiplier** is to adjust ATR based values to the trend strength. In strong trends where ADX has a higher value, a bigger take profit or stop loss is desirable.*

Slippage: Max slippage of orders.

ClosetProfit: True means that if an opposite or exit signal occurs only profitable or breakeven trades are closed.

Value is false or true

Hedge: True means that a Long and Short order can be simultaneously opened.

Value is false or true

ScreenShots: Screenshots are saved in the files folder at the opening and closing of an order.

Value is false or true

LongColour: Arrow colour of long orders and patterns.

ShortColour: Arrow colour of short orders and patterns.

Alerts: 0 means no alerts, 1 alerts only when an order is opened, 2 alerts only when an order is closed, 3 alerts in both cases.

Value is 0, 1, 2, or 3

AlertSound: Play the defined sound file with an alert. The sound file should be placed in the sounds directory of Metatrader. Set it to blank for no sound.

Trading Hours Settings

All hour based settings are in *hhmmhhmm* format and refer to server time. The first four digits define the start time and the last four digits the end time. Up to three trading sessions can be used. Set it to "00002400" to trade all day.

TradingSession1: Trading hours restrictions for the first trading session.

TradingSession2: Trading hours restrictions for the second trading session.

TradingSession3: Trading hours restrictions for the third trading session.

NewsFilter: No new trades are opened during news period.

Value is false or true

MinutesBeforeNews: The **NewsFilter** is active for the defined number of minutes before news.

MinutesAfterNews: The **NewsFilter** is active for the defined number of minutes after news.

MondayOpen: True means trades are only opened after this hour of Monday.

Value is false or true

MondayOpenHour:

Monday open hour.

DailyClose: True means that all open orders are closed after a specified hour of each day.

Value is false or true

DailyCloseHour:

Hour of the daily close.

DailyCloseInProfit: False means only losing orders are closed. True means that profitable orders are closed as well.

Value is false or true

FridayClose: True means that all open orders are closed and no new orders are opened after a specified hour of Friday. This is to avoid the weekend gap.

Value is false or true

FridayCloseHour: Hour of Friday when all orders are closed.

Money Management Settings

Lots: The lot size if money management is not used.

Partial exits can occur in up to four stages.

PartialClose1: Percent of the initial lots that is closed when the first exit occurs.

PartialClose2: Percent of the initial lots that is closed when the second exit occurs.

PartialClose3: Percent of the initial lots that is closed when the third exit occurs. If there are any remaining lots, they are closed by the fourth exit.

An indicator based partial exit can happen only once, no matter which indicator caused it. An exit caused by a Level Touch has no such limit.

BreakEvenPartialClose: The stop loss is moved to breakeven at the defined exit stage. This doesn't interfere with the BreakEven function. This defines after how many partial exits the stop loss should be moved to breakeven.

Value is 0, 1, 2, or 3

For example, this setting will define whether the stop loss is moved to breakeven after 1st, 2nd or 3rd partial exit. This can have a value of 0 (not used), 1, 2 or 3. When the partial lot is closed in favor of the trade, the stop loss is moved to breakeven for the remaining lots.

StartTrailingPartialClose: Trailing stop is activated at the defined exit stage. **PSARTrailingStop** and/or **ClassicTrailingStop** should be set to true. This setting is similar to **BreakEvenPartialClose**; it gets activated based on the exit stage.

Value is 0, 1, 2, or 3

MinCloseDistance: Subsequent exits caused by take profit or level touch should differ for at least the defined pips.

MoneyManagement: True means that the lot size is defined by the money management.

Value is false or true

LeveragePercent: % of account equity to risk for each trade.

Martingale: True means the lot size increases after the whole lots of a trade hit stop loss.

Value is false or true

LotMultiplier: The lot size is multiplied by this number.

StartProgression: Lot increase starts after the defined number of consecutive losing trades.

MaxProgression: Maximum times of lot increase after consecutive losing trades. Then the lot size will remain the same after each consecutive losing trade. Set it to 0 to disable this restriction.

The settings after this point are all related to the indicators used by the THV EA. They are not covered here because it is assumed that you know the basics of the THV Trading System to set those values.

PSAR Settings

Step: 0.02
Maximum: 0.2

Trix Settings

Trix _A_t3_period: 20
Trix _B_t3_period_ac: 35

MTF Trix Histo Settings

MTF_A_t3_period: 20
MTF_B_t3_period_ac: 35
ePeriod1: 15
ePeriod1Type: 1
ePeriod2: 15
ePeriod2Type: 0
ePeriod3: 30
ePeriod3Type: 1
ePeriod4: 60
ePeriod4Type: 1

MTF IchimokuHisto Settings

MaPeriod1: 2
MaPeriod2: 3
MaPeriod3: 5
Shortperiod: 5
Longperiod: 15

THV3 SDX TzPivots v4 Settings

Local__HrsServerTZFromGMT: 0
Destination__HrsNewTzfromGMT: 0
Show_1Daily_2FibonacciPivots: 2

Ichimoku Settings

Tenkan_sen: 2

Kijun_sen: 3
Senkou_span_b: 5

iMax Settings

Ph2shiftRed: 1

Psych Levels Settings

PsychLevel1: 00
PsychLevel2: 50

FFCal Settings

IncludeHigh: 1
IncludeMedium: 1
IncludeLow: 0
IncludeSpeaks: 1