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Risk Disclosure Futures trading contains substantial risk and is not for every investor. An investor could potentially lose all or more than the initial investment. Risk capital is money that can be lost without jeopardizing ones' financial security or lifestyle. Only risk capital should be used for trading and only those with sufficient risk capital should consider trading. Past performance is not necessarily indicative of future results.

The Bet MACD PATs Auto Strategy, Specs & Requirements for NinjaTrader 8

MACD PAT is a strategy using the MACD indicator and our Price Action Trader module. When combined together the system becomes a very efficient and reliable auto strategy. This strategy is easy to understand and manage making ideal for beginners to expert traders.

MACD PAT auto strategy entries are generated by the MACD indicator and

- Chart angle "calculated angle in degrees and the relationship between price and daily highs and lows"
- MACD angle "calculated angle of the MACD line in degrees"
- Long momentum bar "price action long bar test"
- MACD Differential size "the difference between MACD and Avg lines"
- Congestion bars "price action bar size test"
- Entry lines, "percentage from the daily high to low as support and resistance"

The system will use this data and other filter settings to determine an entry.

Specifications and Minimum Requirements;

- NinjaTrader® 8 desktop
- High Speed Internet Connection
- Broker Account
- Developed and Tested for Futures Traders
- ES, MES, NQ, MNQ, RTY, M2K, YM, MYM, M2K & OTHERS
- *We have not tested for FOREX or Stocks*
- Live connection.
- **The BET MACD PATs Automated Strategy will work with;**
- **Chart only with greater than 20 bars running**
- *Tick Bars*
- *Time Bars*
- *Volume Bars*
- *And others*
- ***Tick replay must be enabled.***

Overview of BET MACD PATs Auto Strategy 2.5



1. Tool Bar Buttons

- Text Button; Clicking this button will move the Yellow Box Text Data #3 to each corner
- Arm Long; Clicking this button will arm the strategy for a long entry." turns green true and orange when false"
- Arm Short; Clicking this button will arm the strategy for a short entry." turns green true and orange when false"
- ATM Strategy Name; this area will display the current ATM that will be used for the entry and Strategy name.

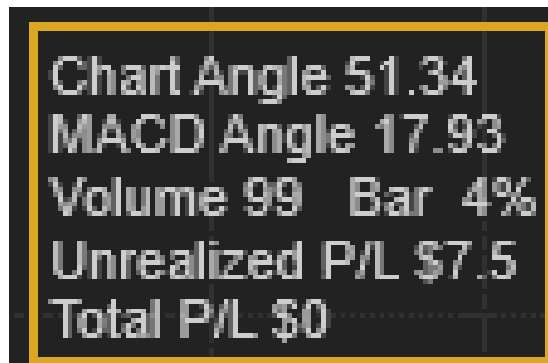
- Chart Button, Close ATM;** Clicking this button will close the ATM that has entered into the market without stopping and closing the strategy. Using the "system" close button will disable the strategy and close all positions.

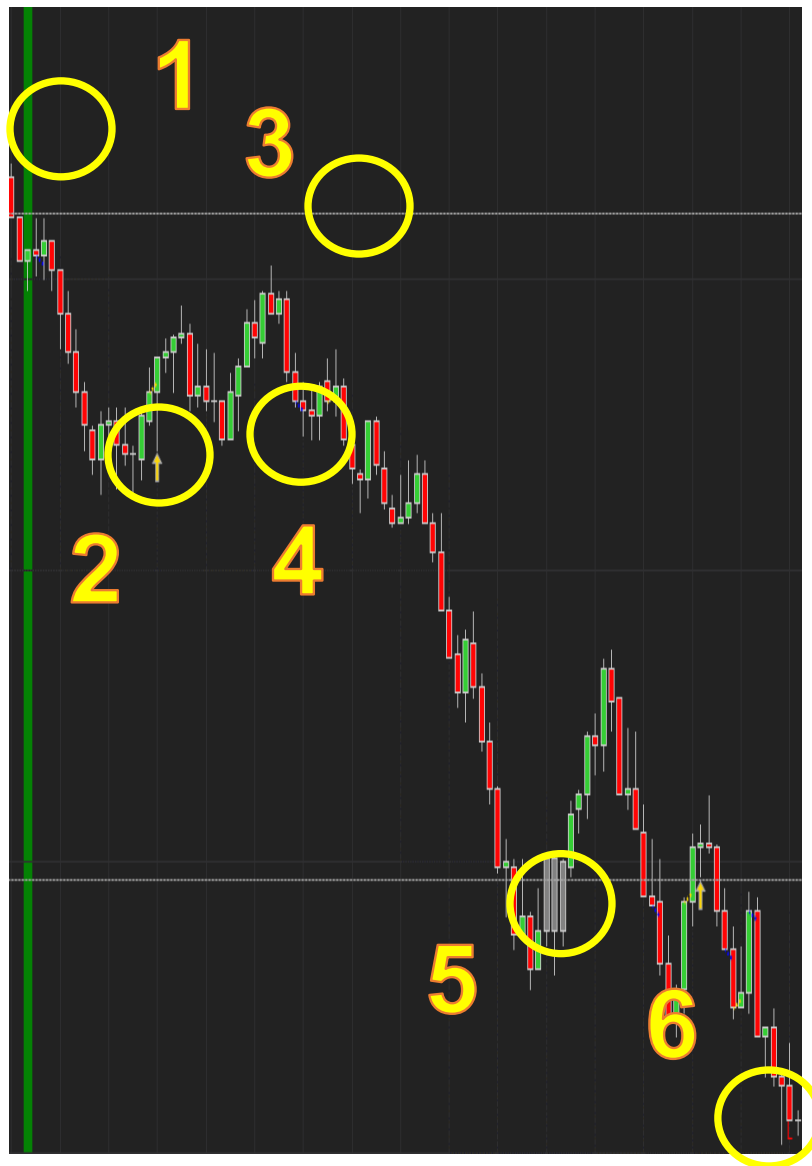
3. Yellow Information Box; This box displays information about the current bar.

Current Bar Chart Angle (90 to -90 degrees)
MACD Angle (45 to -45 degrees)
Volume, Bar percentage complete
Unrealized P/L \$
Total P/L \$

NOTE, Chart and MACD angle can equal 1 if the market is moving very slow, if you decrease the update time of the bars "make it faster" this may result in better setups.

Yellow Information Box

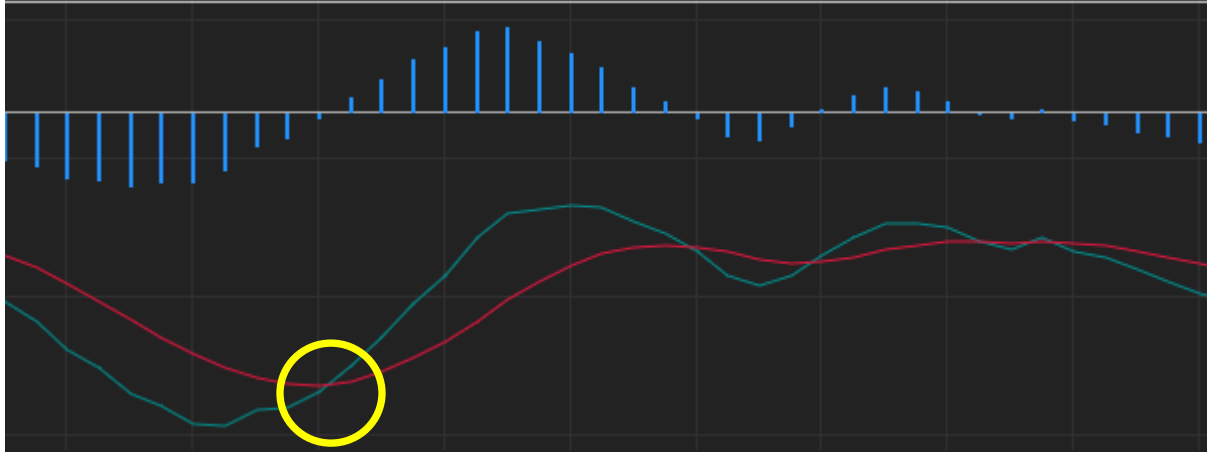




1. **Green Line & Red Lines**; Start & Stop Time Lines, the lines will be displayed whenever the start time and stop time has started.
2. **Entry Up & Down Arrows**; the arrows will be displayed whenever a long or short entry is made.
3. **Maximum Upper & Lower Entry Lines**, the lines act as Resistance and support and are calculated from the daily high and low.
4. **Entry Lines**, these lines are present whenever the MACD lines cross. The line distance is set by the user and typical are used as bounce support for entry.
5. **Congestion Bars**, if congestion is detected the bars will turn a new color and no entries will be made until x number of bars have passed.
6. **Daily High and Low markers**, these are calculated throughout the day.

So How Does It Work?

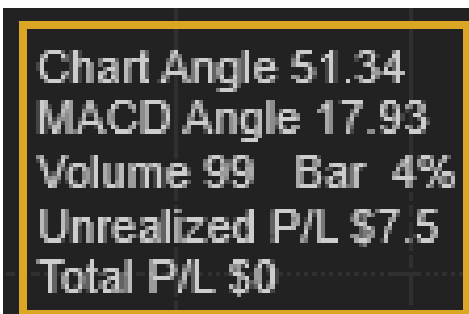
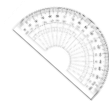
If the MACD line "Green Line" crosses over or under the Average line "Red Line" the auto strategy will mark this with an entry line on the next bar for an entry up.



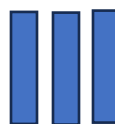
If the next green bar is a long bar and the chart angle, MACD angle are greater than your set point. And if there aren't any congestion faults and were within the resistance line then the system will enter long using the NinjaTrader ATM "Advanced Trade Manager". A similar logic for an entry short.

So Why Use Angles?

Using an angle calculation for the chart and MACD signal gives a dimensional advantage "Price and Momentum are both part of the angle calculation". If the angle stays the same or becomes sharper it may signal to stay in the market longer. The reverse may be said if the angle flattens out, it may signal to get out of the market.



Congestion patterns, Groupings of the same type or size of bars



Congestion patterns have a bad habit of reversing direction. With a MACD indicator these types of patterns can cause false crossover signals.



A long bar at the beginning of a trend almost always signals increased momentum in that direction. Detecting a long bar prior or during a MACD crossover increases the probability from a good entry to a great entry by double.

BET MACD PATs Properties, Presets for MES 5/24

Parameter	Value
ATM Template Name	None
Max Ticks for ATM Limit Entry	6
Use ATM Limit Entry	<input type="checkbox"/>
BackTest Only, Disable ATM Enable Strategy Analyzer Entry	<input type="checkbox"/>
Profit_Target BackTest Only	12
Stop_Loss_Target BackTest Only	8
Order_Quantity BackTest Only	1

1. ATM Parameters,

- a. ATM Template Name; the name of the ATM you want to use. This will display in the Text Box on the Tool Panel above the chart.
NOTE, You must spell the name exactly as it was spelled in the ATM manager or the system will not find it. TIP: you can leave the ATM name to *None*, the system will still operate and show entries, but it would be up to you to make that entry.
- b. Max Ticks for ATM Limit Entry (1-100); Tick setting for ATM limit entry, this will set the ATM limit X ticks away from the current market position.
- c. Use ATM Limit Entry; Checking this box will cause an ATM limit to entry at x tick away from market position. **NOTE, A limit entry may NOT go into the market depending on market position at the time of the limit entry and care should be taken to cancel the entry if needed.**

2. Back Test Parameters

- a. Back Test Only check box, check this box when you want to use the MACD-PAT Auto strategy with the System Analyzer. This will NOT work with the chart.
- b. Profit target back test, set the profit target here
- c. Stop loss back test, set the stop loss target here
- d. Order quantity back test, set the order quantity here

General Parameters	
Entry Line Long in Ticks	2
Entry Line Short in Ticks	2
Momentum Long Bar in Ticks	4
Chart Angle in Degrees Long	25
Chart Angle in Degrees Short	-30
MACD Angle in Degrees Long	10
MACD Angle in Degrees Short	-10
Congestion Trap Reset	4
MACD Bars Wait	2
MACD Differential Filter Long	0.01
MACD Differential Filter Short	-0.01
Max Entry Long Line % Resistance	25
Max Entry Short Line % Support	25

3. Entry Lines,

- a. Entry line long and short in ticks, "*bars bounce*", so set the entry line long enough "far enough from the entry bar" to wait for the bounce prior to entry, and if it doesn't make it, it wasn't worth it. **NOTE**, setting this to 0 will skip this filter.

4. Momentum Long Bar

- a. Set this in ticks to look for a momentum bar prior to entry. If the bar is too short no entry will occur. A higher probability for a good entry proceeds a long bar. **NOTE**, setting this to 0 will skip this filter.

5. Chart Angles Long and Short (90 to -90 degrees)

- a. Set these set points to the relationship of the actual angle on the chart. Yes, you can actually place a protractor vertically on the screen and see the bar slope angle. Positive for an upward slope and negative for a downward slope. When the slope is equal or greater than this setpoint the system will start the entry logic.

6. MACD Angles Long and Short (90 to -90 degrees)

- a. Set these set points to the angle needed for an entry, 2 degrees is flat and 10 degrees and more starts looking steep. But what we are looking for is a continued steep movement, the longer it continues the longer we can stay in the market.

7. Congestion Trap Reset the bars it takes to reset

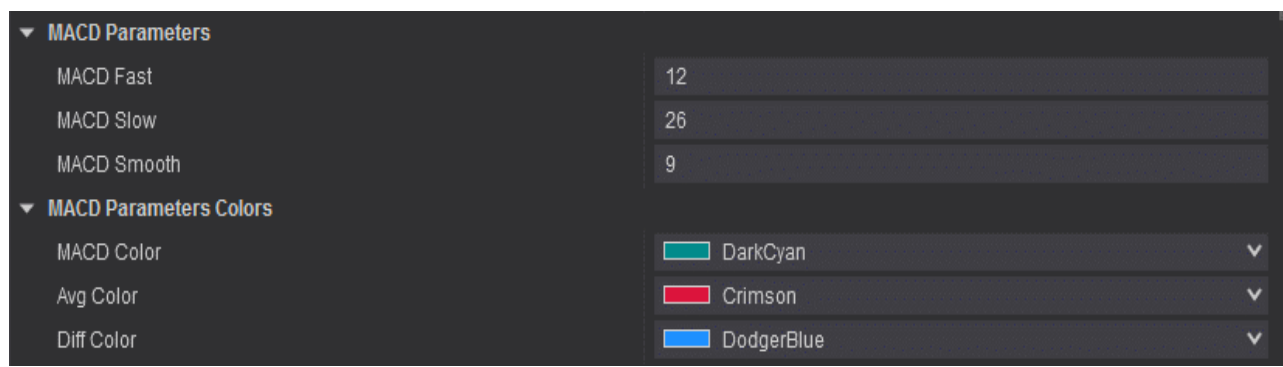
- a. If a congestion trap is found then wait x bars to reset so there is not an entry until the trap is cleared.

8. MACD Bars Wait, how many bars to wait for an entry.

- If an entry has occurred but the system is waiting for additional logic to clear how long do we wait? 1 bar work well on fast markets but slower markets may require more time. **NOTE**, setting this to 0 will skip this filter.

9. Maximum Entry Lines Long and Short "resistance and support"

- The lines are calculated as a percentage of the difference from the daily highs and lows. If an entry happens with the bar on or beyond this line the entry is cleared. A line that is 25% of the difference is fairly accurate for support and resistance, to often the market direction reverses here.



10. MACD Parameters

- MACD Fast, this sets the speed of the fast-moving average
- MACD Slow, this sets the speed of the slow-moving average.
- MACD Smooth, this sets the number of bars used to calculate the averages

11. MACD Colors

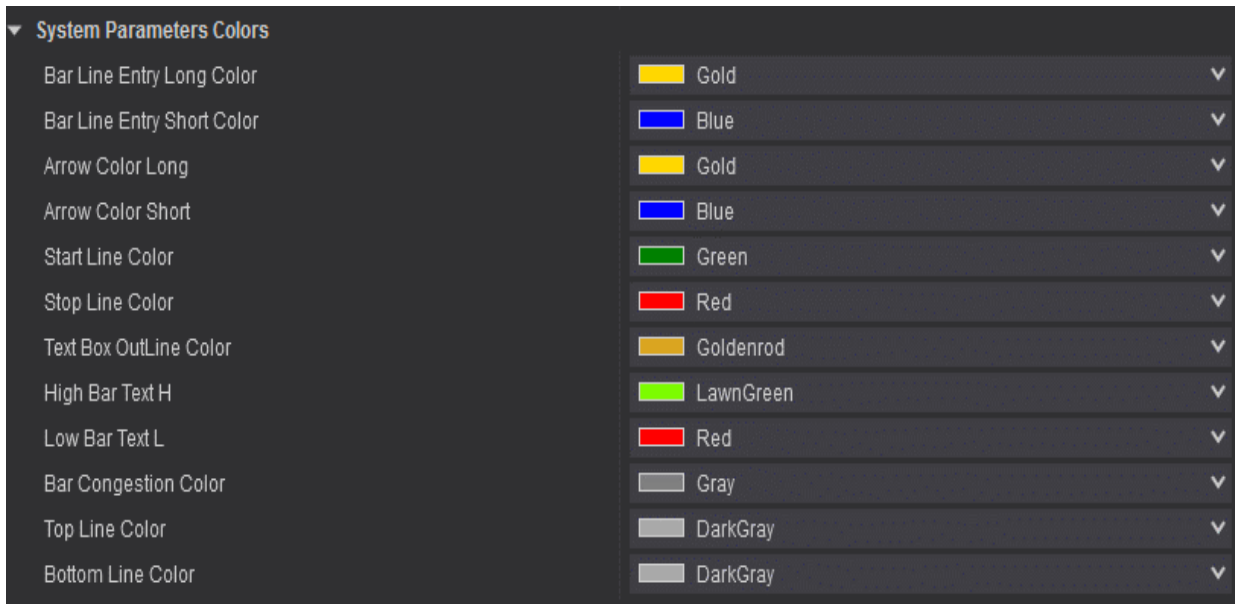
- Set the colors here, don't forget to save as a template.**

System Parameters	
Time Start	09:00 AM
Time Stop	02:30 PM
Max Profit \$	500
Max Loss \$	-500
Max Bars Entry Reset	1
Show Text box on chart	<input checked="" type="checkbox"/>
Monitor Congestion Traps	<input checked="" type="checkbox"/>

System Parameters,

- Time Start, preset 9:00 AM, this time setting is based on your time settings in Tools/General/Time Zone and is required for the strategy. When the start time has begun a vertical line is drawn on the chart as an indicator.
- Time Stop, preset 2:30 PM, this time setting is based on your time settings in Tools/General/Time Zone and is required for the strategy. When the stop time has begun a vertical line is drawn on the chart as an indicator.
- Max Profit, (raw market income) preset \$500, when the maximum profit has been reached or exceeded the strategy will stop all entries. When this happens a green text box will appear in the middle of the chart. You can reset this by disabling the strategy then re-enabling the strategy.
- Max Loss, (raw market loss) preset -\$500, when the maximum loss has been reached or exceeded the strategy will stop all entries. When this happens a red text box will appear in the middle of the chart. You can reset this by disabling the strategy then re-enabling the strategy.
NOTE, *Calculated Total P/L in the yellow data box is raw market income/loss and may not include commissions and broker fees.*
- Max Bars for Entry Reset (0-10) preset 1 (good for most slower markets), After an entry has finished the system needs to reset and will wait for x bars after the current bar to reset. Setting this to zero (0) will make the system reset immediately which can cause an additional entry. During a very choppy or high-volatility market waiting a bar or two will reduce the possibility of being spoofed or entering into a market that may quickly reverse.
- Show Text Box on the Chart, preset Checked, the text box displays the various calculations and market data which may be useful. Uncheck this box to hide the text box.

- g. Monitor Congestion Traps, when checked the system will look for congestion traps and stop any entries from happening when a trap occurs. Unchecked the system will ignore all congestion patterns.



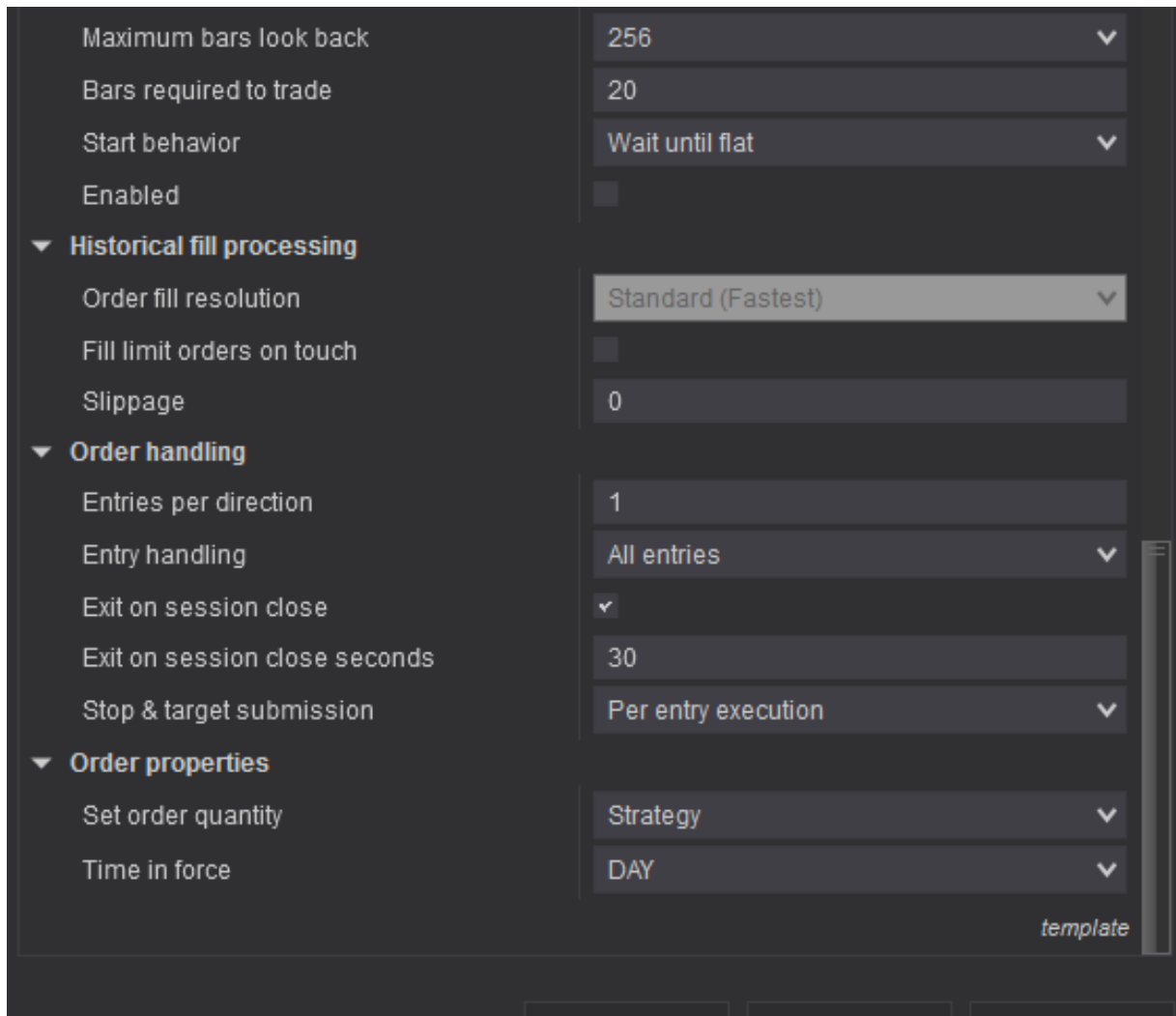
System Colors

- a. System Colors. Here colors for various indicators maybe changed to meet the specific needs and preferences. Don't forget to save changes to a template.
TIP: Setting these to Transparent to remove them from the chart.

System Parameters

1. Data Series, this is the instrument that has been picked for the chart and that the system will use for all entries and calculations.
2. Account, Simulated or Live accounts are picked here
3. **Calculate, preset **On Each Tick**, the system needs to be on each tick or it will not function correctly.**
4. Label, preset is the strategy name, and may be erased or changed. This will remove or change the text on the upper right-hand corner of the chart.

▼ Data Series	
Input series	MES 09-24 (2000 Tick) ▼
▼ Setup	
Account	Playback101 ▼
Calculate	On each tick ▼
Label	Bet.MACD.PAT2.0
Maximum bars look back	256 ▼
Bars required to trade	20
Start behavior	Wait until flat ▼
Enabled	<input type="checkbox"/>

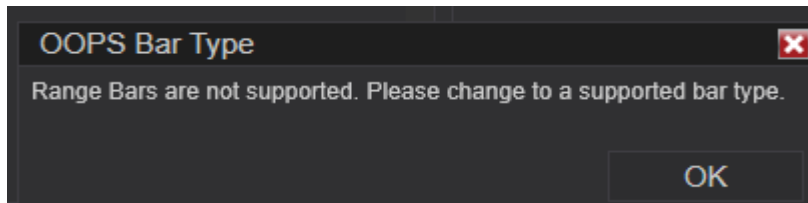


5. Maximum bars to look back, preset 256, Changing this will affect the way the system loads and how long it takes to update.
6. Bars required to trade, preset 20, 20 is a good number and there is not any reason that it should be changed.
7. Start behavior, preset Wait till Flat, it benefits the system to wait for all market entries to be done prior to running the automated strategy.
8. **Enable check box**, preset Unchecked, check this box and apply to start the strategy and run.

Order Properties

1. Set order quantity, preset Strategy, the quantity is part of the ATM system and should not be changed here.
2. Time in force, preset to Day, this is set internally, but you may change it to fit your needs, **don't forget to save your setting as a template.**

Errors



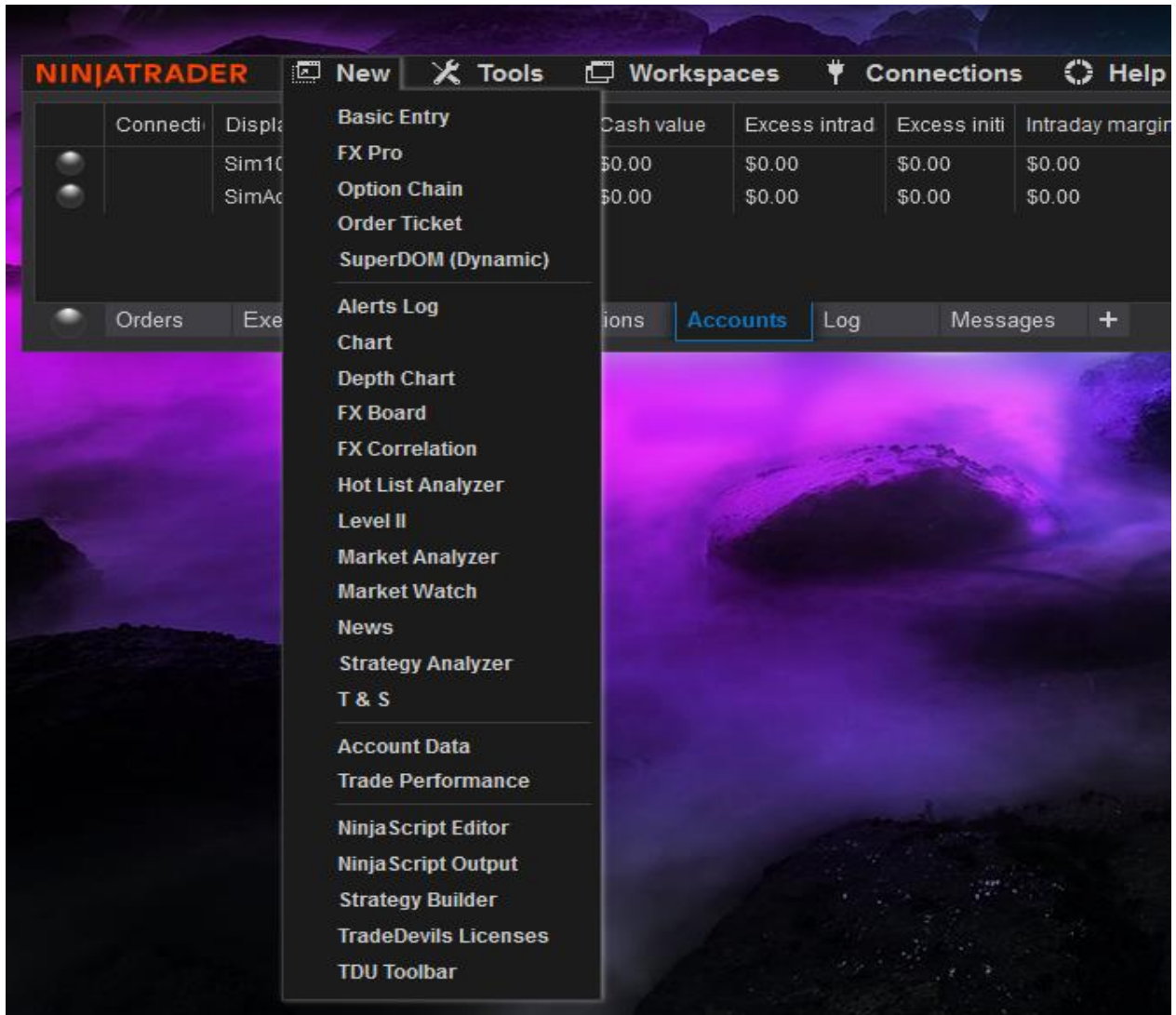
Error screens that may pop up,

If you try to run an unsupported bar type you will get the above error.

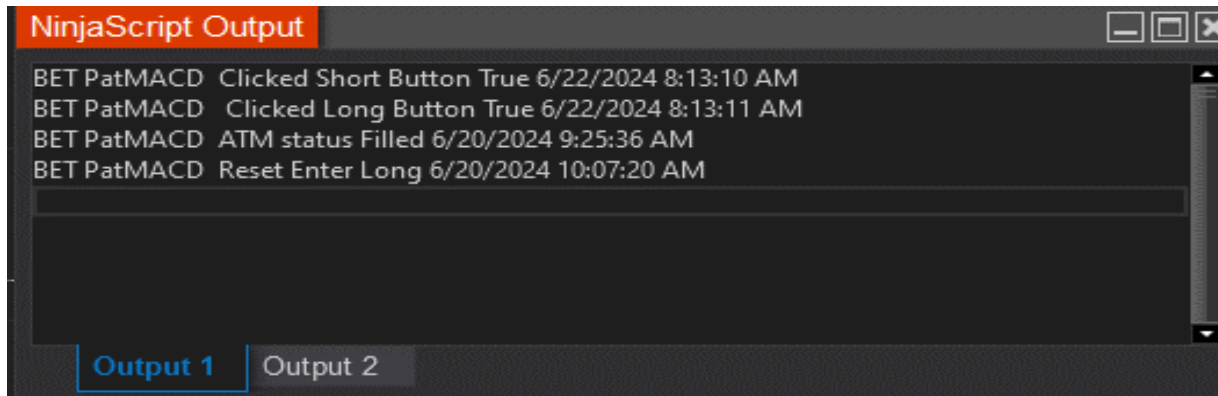
All other errors will be entry and ATM errors that will either be reported to the output screen or in the case of an ATM error Check ATM Spelling it will be both a pop up and reported to the output screen.

Monitor the System with NinjaScript Output

You can monitor the automated system functions and errors using the NinjaTrader 8 NinjaScript Output window.



On the NinjaTrader 8 main screen, go to New, then Ninja Script Output, select and click, this will open up the NinjaScript Output window.



Above is the NinjaScript Output window after the BET MACD has loaded.

Information that maybe displayed; all with time date stamp

BET PatMACD ATM status

BET PatMACD ATM errors

BET PatMACD Entry Long, when long button is armed

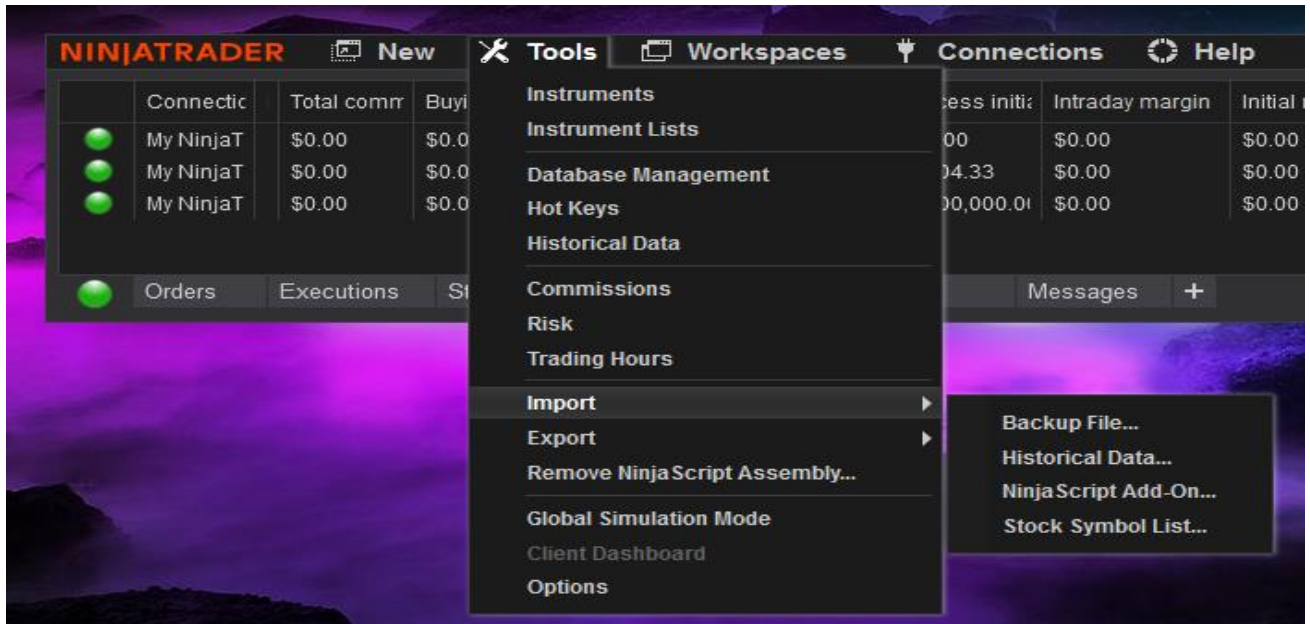
BET PatMACD Entry Short, when short button is armed

BET PatMACD Entry Long and Short Reset

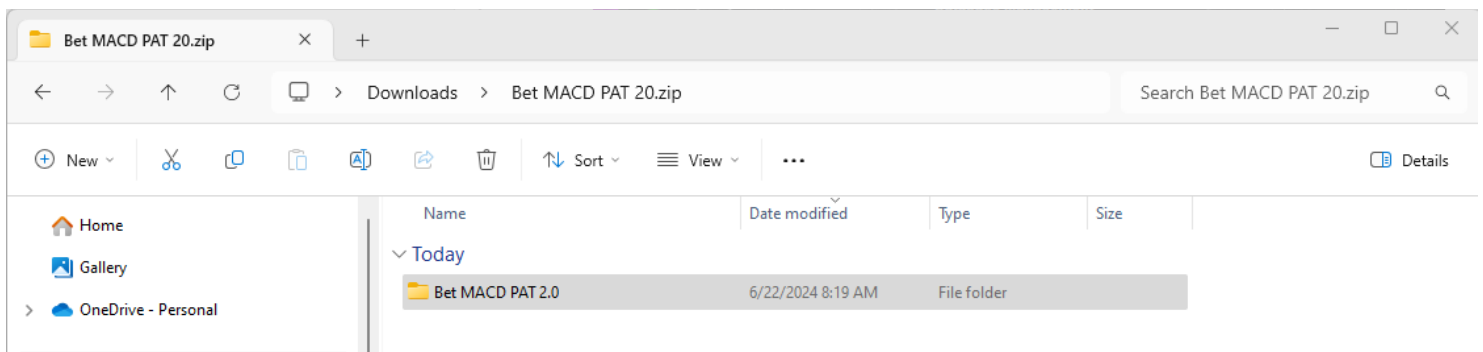
BET PatMACD Strategy Analyzer errors

TIP: Right click on the window and set "Always On Top" this will keep the window from being hidden.

Installation of Bet MACD PAT 2.0 Strategy



On the main window, Click Tools, go to Import, then click on Ninja Script Add-On



Next go to the file area where you downloaded the Bet MACD PAT 2.0 Strategy.

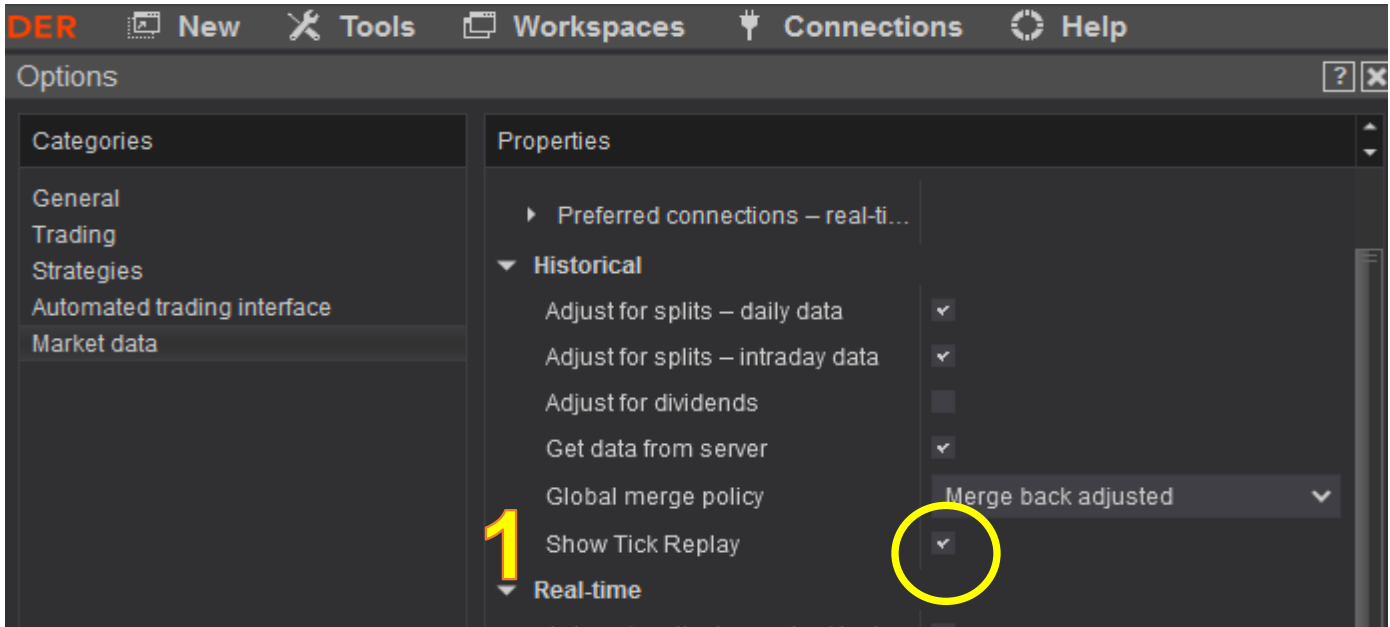
Then Click on the file name, this will open up the file to display a ZIP file. Next double click the zip file and this will start the installation process.

For more information on installing add-on; go to link below

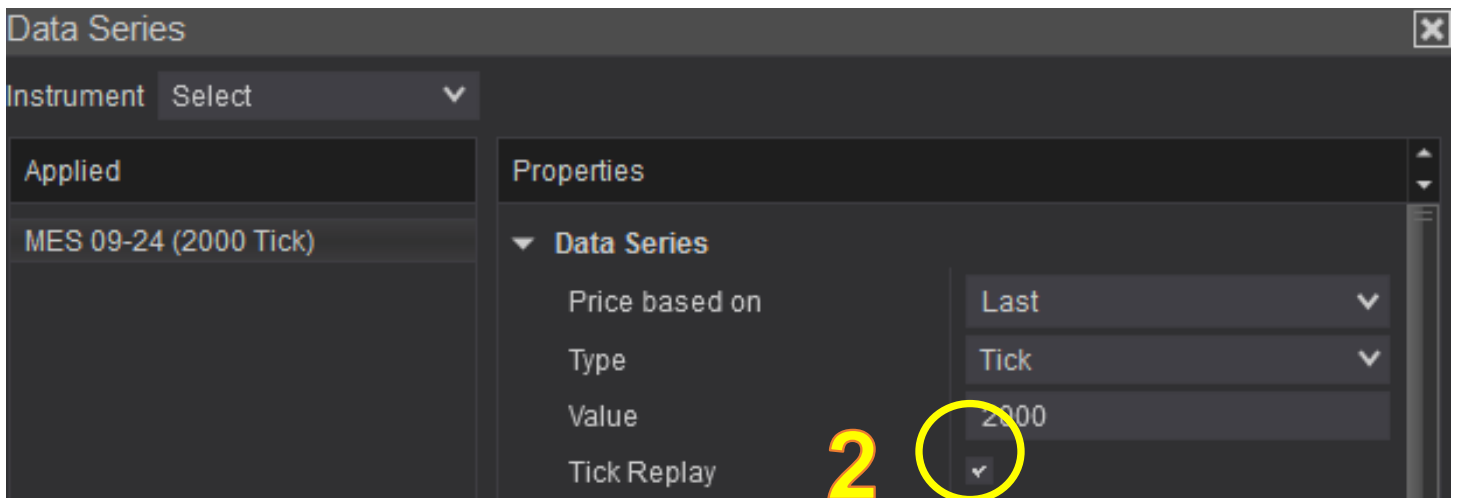
https://ninjatrader.com/support/helpGuides/nt8/NT%20HelpGuide%20English.html?using_3rd_party_add-ons.htm

Setting up Tick Replay

1. Main Menu Tools, Go to Options, Go to Market Data, Click on Show Tick Replay



2. Go to New, Chart, Data Series, select Instrument, then Check Tick Replay



NinjaTrader® Tick Replay Support

<https://ninjatrader.com/support/helpGuides/nt8/NT%20HelpGuide%20English.html?tick-replay.htm>

Using Strategy Analyzer

Strategy Analyzer

Display: Summary (\$) ▼

Performance	All trades	Long trades	Short trades
Total net profit	\$115.00	\$50.00	\$65.00
Gross profit	\$165.00	\$75.00	\$90.00
Gross loss	(\$50.00)	(\$25.00)	(\$25.00)
Commission	\$0.00	\$0.00	\$0.00
Profit factor	3.30	3.00	3.60
Max. drawdown	(\$25.00)	(\$12.50)	(\$25.00)
Sharpe ratio	1.86	2.31	1.85
Sortino ratio	1.00	1.00	1.00
Ulcer index	0.00	0.00	0.00
R squared	0.82	0.91	0.57
Probability	0.83%	5.81%	3.02%
Start date	6/3/2024		
End date	6/7/2024		
Total # of trades	15	7	8
Percent profitable	73.33%	71.43%	75.00%
# of winning trades	11	5	6
# of losing trades	4	2	2
# of even trades	0	0	0
Total slippage	0	0	0
Avg. trade	\$7.67	\$7.14	\$8.13
Avg. winning trade	\$15.00	\$15.00	\$15.00
Avg. losing trade	(\$12.50)	(\$12.50)	(\$12.50)
Ratio avg. win / avg. loss	1.20	1.20	1.20
Max. consec. winners	6	5	4
Max. consec. losers	2	1	2
Largest winning trade	\$15.00	\$15.00	\$15.00
Largest losing trade	(\$12.50)	(\$12.50)	(\$12.50)
Avg. # of trades per day	4.35	2.53	2.32
Avg. time in market	2.68 min	2.37 min	2.95 min
Avg. bars in trade	0.60	0.43	0.75
Profit per month	\$701.50	\$381.25	\$396.50
Max. time to recover	2.03 days	1.12 days	3.04 days
Longest flat period	1419.20 min	1.79 days	1.90 days
Avg. MAE	\$5.00	\$3.93	\$5.94
Avg. MFE	\$11.75	\$11.79	\$11.72
Avg. ETD	\$4.08	\$4.64	\$3.59

Settings

▼ General

Backtest type: backtest

Strategy: Bet.MACD.PAT2.0

▼ ATM Parameters

ATM Template Name: None

Max Ticks for ATM L...: 6

Use ATM Limit Entry:

▼ BackTest Paramet...

BackTest Only, Dis...:

Profit Target BackT...: 12

Stop Loss Target...: 10

Quantity Ba...: 1

▼ General Parameters

Entry Line Long in...: 2

Entry Line Short in...: 3

Momentum Long B...: 4

Chart Angle in Deg...: 25

Chart Angle in Deg...: -25

MACD Angle in Deg...: 10

MACD Angle in Deg...: -10

Congestion Trap...: 4

MACD Bars Wait...: 2

MACD Differential...: 0.01

MACD Differential...: -0.01

Max Entry Long Lin...: 25

Max Entry Short Lin...: 25

▼ MACD Parameters

MACD Fast: 12

MACD Slow: 26

MACD Smooth: 9

▼ MACD Parameters...

MACD Color: DarkCyan

template

Run

Page 19

1. Use the pull-down menu to find the strategy you want to test "Bet.MACD PAT 2.0"
2. Check the Back Test Only Box, and set your Profit Target and Stop Loss Target. (The Strategy Analyzer will not back-test ATM based strategies). For help using the Strategy Analyzer use the below link;

https://ninjatrader.com/support/helpGuides/nt8/NT%20HelpGuide%20English.html?backtest_a_strategy.htm

3 & 4 You can make whatever adjustments to these parameters and the analyzer will respond. If you are unsure what to do review the properties configuration settings for the basics.

NOTE, An open and running connection to the broker may be required to use the Strategy Analyzer. This will ensure all of the data is being downloaded NOT the data you may have in a PLAYBACK file. For more on this review the NinjaTrader Manual.

Strategy Analyzer
-
+
x

Display
Summary (\$) ▼

Performance	All trades	Long trades	Short trades
Total net profit	\$115.00	\$50.00	\$65.00
Gross profit	\$165.00	\$75.00	\$90.00
Gross loss	(\$50.00)	(\$25.00)	(\$25.00)
Commission	\$0.00	\$0.00	\$0.00
Profit factor	3.30	3.00	3.60
Max. drawdown	(\$25.00)	(\$12.50)	(\$25.00)
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# of even trades	0	0	0
Total slippage	0	0	0
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Largest winning trade	\$15.00	\$15.00	\$15.00
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Avg. MFE	\$11.75	\$11.79	\$11.72
Avg. ETD	\$4.08	\$4.64	\$3.59

Settings
↑
↓

High Bar Text H LawnGreen ▼

Low Bar Text L Red ▼

Bar Congestion Co... Gray ▼

Top Line Color DarkGray ▼

Bottom Line Color DarkGray ▼

▼ Data Series

Instrument MES 09-24 ▼

Price based on Last ▼

Type Tick ▼

Value 2000

Tick Replay

▼ Time frame

Start date 06/03/2024 ▼

End date 06/07/2024 ▼

Trading hours <Use instrument... ▼

Break at EOD

▼ Setup

Include commission

Maximum bars loo... 256 ▼

Bars required to tra... 20

▼ Historical fill proce...

Order fill resolution Standard (Fastest) ▼

Fill limit orders on t... 0

Slippage 0

▼ Order handling

Entries per direction 1

Entry handling All entries ▼

Exit on session close

▼ Order properties

Set order quantity Strategy ▼

Time in force GTC ▼

template

Run

1

2

1. Select the instrument you want to test and **type**, **"this is very important"**, the only types that will work are Seconds, Minutes, Ticks and Volume, any others may not work. You must use **Tick Replay** or it will not work correctly.
2. Start and end dates, the larger the span the longer it will take to process.
TIP; if you open Ninja Script Output window you will be able to see trade resets happening with long, short, time and dates of the trades. If you do not see anything you will need to change your configuration. This can take several minutes.

Properties configuration settings for Futures Markets, MNQ, NQ, MES, ES, RTY & YM

The default settings are for MES

The attached configuration settings are some we have used and are available for your reference. We wanted to give you a starting point for a few of the futures instruments so you may experiment and develop a configuration that best suits your needs and experience. **By no means do we guarantee the results of these settings.**

TIP: If you are not seeing the performance you were hoping for, try changing the Data Series Value of the chart "Time, Ticks or Volume" slightly e.g. **(from 2000 ticks to 1800 ticks)** this will change the frequency of the MACD and Chart angle in the series and may improve your performance. *We test this weekly!*

Risk Disclosure Futures trading contains substantial risk and is not for every investor. An investor could potentially lose all or more than the initial investment. Risk capital is money that can be lost without jeopardizing ones' financial security or lifestyle. Only risk capital should be used for trading and only those with sufficient risk capital should consider trading. Past performance is not necessarily indicative of future results.

Bet MACD PAT 2.0 Basic Properties Configuration for testing		6/10/2024					
Instrument		MNQ	NQ	MES	ES	RTY	YM
Data Series	Last						
Type	Tick						
Value		4000 ticks	5000 ticks	2000 ticks	5000 ticks	250 ticks	2000 ticks
ATM Target		75 ticks	70 ticks	12 ticks	16 ticks	16 ticks	60 ticks
ATM Stop		50 ticks	60 ticks	10 ticks	12 ticks	12 ticks	30 ticks
Arm Long		Yes	Yes	Yes	Yes	Yes	Yes
Arm Short		Yes	Yes	Yes	Yes	Yes	Yes
ATM Template Name	User						
Max Ticks for ATM Limit Entry	User	6	6	6	6	6	6
Use ATM Limit Entry	User						
Entry Line Long Ticks		5	10	2	2	2	5
Entry Line Short Ticks		5	10	2	2	2	5
Momentum Long Bar Ticks		30	40	4	4	4	12
Chart Angle Long		70	70	30	30	25	50
Chart Angle Short		-70	-70	-30	-30	-25	-50
MACD Angle Long		50	50	10	10	8	30
MACD Angle Short		-50	-50	-10	-10	-8	-30
Congestion Trap Reset #Bars		4	4	4	4	4	4
MACD Bars Wait		1	1	1	1	2	1
MACD Differential Filter Long		0.05	0.05	0.01	0.01	0.05	0.5
MACD Differential Filter Short		0.05	0.05	0.01	0.01	0.05	0.5
Maximum Entry Long Line %		25	25	25	25	10	25
Maximum Entry Short Line %		25	25	25	25	10	25
MACD Fast		12	12	12	12	12	12
MACD Slow		26	26	26	26	26	26
MACD Smooth		9	9	9	9	9	9
Time Start	User						
Time Stop	User						
Max Profit	User						
Max Loss	User						
Max Bars Entry reset		1	1	1	1	1	1
Show Text on Chart	User						
Average Total Entries per Day		3	3	2	7	3	3
Colors	User						
Calculate On each Tick		On Each Tick					