

**Expert Advisors
PortfolioX single and multi
GridX single and multi
MetaTrader 5**

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Author: Mateus Mattos
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BASIC SETTINGS

Name	Type	Default	Range	Description
_setName	string		Any text	Any text you want to reference this set file
_OpenNewPositions	select	OPEN_ALL_POSITIONS	OPEN_NONE	The EA will keep all open positions and don't open any new ones.
			OPEN_ALL_POSITIONS	The EA will run in normal mode.
			OPEN_RECOVERY_POSITIONS_ONLY	The EA will only open recovery positions but not new main ones.
			CLOSE_ALL_POSITIONS_AND_STOP	The EA closes all positions and will not open new ones.
_MagicNumberPrefix	integer	11	From 1 to 20	These are the first two digits of the EA MagicNumber. It allows the EA to control its positions.
_OpenPositionMinutesDelayD1	integer	90	From 0	This EA evaluates the opening of new positions at some intervals. When using timeframe D1, the opening time could be at 00:00 on the day, at your broker's time. Normally at this time the spreads rise too much, as the broker is balancing his positions. This value delays the EA's processing for the timeframe bar D1, opening positions a few later when the spread is already normalized.
_ignoreMidnightNewBarMinutes	integer	70	From 0	Like OpenPositionMinutesDelayD1, this parameter allows the EA to ignore the first bar at midnight (00:00 broker time) for strategies on other timeframes than D1.
_customCommentStyle	select		CUSTOM_COMMENT	The EA will fill the position comment field with the _customComment text.
			STRATEGY_DETAILS	The EA will fill the position comment field with position details
			MAGIC_NUMBER	The EA will fill the position comment field with the position magic number.
_customComment	string	PortfolioX	A short text	The EA will fill the position comment field with this text when _customCommentStyle = CUSTOM_COMMENT
_ATR_SL_bars	integer	30	From 1	Number of bars used when calculating StopLoss and TakeProfit by ATR (SL_TP_By=SL_TP_BY_ATR)

_debugMode	select	DEBUG_NONE		This parameter is used only by the developer to improve the EA.
_GeneralSymbolSuffix	string			The EA concatenates this suffix on all symbols. Use it to make it easier to run on brokers with names like r.EURUSD.
_CommissionPerLot	number	0	From 0	_CommissionPerLot x NumLots = position commision. Used to calculate Real Profit on RAW accounts.
_SendImportantNotificationsToMetaQuotesID	True/False	TRUE		Notify on your MetaTrader mobile these events: _EquityAbortLimit_max and _EquityAbortLimit_min Reached. Certify you have it set up on mql5.com.

GENERAL RISK SETTINGS				
Name	Type	Default	Range	Description
_maxExposure_volume	number	0	From 0	As the EA has several strategies running simultaneously, many simultaneous positions may open, increasing your account's risk exposure. Here you can limit the maximum total volume that this EA can operate, considering the volume of each open position. Zero ignores this limit.
_maxExposure_leverage	number	0	From 0	As the EA has several strategies running simultaneously, many simultaneous positions may open, increasing your account's exposure risk. Here you can limit the maximum total leverage this EA can use, considering the volume of each open position. If you want to limit the exposure to a 5:1 leverage, enter 5. If you desire to limit the exposure to a 10:1 leverage, enter 10. Zero ignores this limit.
_maxExposure_IgnoreBreakEven	True/False	TRUE		If true, the EA calculations of maxExposure_volume and maxExposure_leverage will disregard open positions where the Stop Loss is beyond the Break Even limit. That is, there is no longer the possibility of loss in the position.

_maxNewPositionsPerBarGroupDirection	integer	1	From 0	With multiple strategies, more than one position can open simultaneously in the same direction. If this value is greater than zero, opening positions on the same timeframe bar, in the same direction, in the same parameter Group will be limited to this value. When using _SymbolList, each symbol counts as a group.
_maxPositionsPerSymbol	integer	0	From 0	With multiple strategies, more than one position can open simultaneously. If this value is greater than zero, opening positions on the same symbol will be limited to this value. This parameter exists only on "multi" versions.
_maxPositionsPerSymbolPerDirection	integer	0	From 0	With multiple strategies, more than one position can open simultaneously in the same direction. If this value is greater than zero, opening positions on the same symbol and same direction will be limited to this value. This parameter exists only on "multi" versions.
_maxPositionsPerSymbolPerDirectionUnlockedSL	integer	0	From 0	This parameter is similar to _maxPositionsPerSymbolPerDirection, but it will ignore any positions where the Stop Loss is beyond the entry price. That is, there is no longer the possibility of loss in the position.
_closeAllPositionsOnProfitPercent	number	0	From 0	This parameter configures the EA to close all open positions in all symbols when the EA profit reaches this percentage over the balance.
_closeAllPositionsOnLossPercent	number	0	From 0	This parameter configures the EA to close all open positions in all symbols when the EA loss reaches this percentage over the balance.
_ReserveMargin	number	0	From 0	When using _VolumeByRisk=true, _ReserveMargin will be deducted from FreeMargin so that the EA will calculate positions volume considering the available margin as (FreeMargin – _ReserveMargin). Ex: you have \$10.000 as FreeMargin and want \$8.000 as reserved. So the EA will calculate new positions volume considering only \$2.000 of margin.

_ReserveMarginPercent_AutoUpdateMonthly	number	0	From 0	_ReserveMarginPercent_AutoUpdateMontly enables the EA to auto-update the _ReserveMargin value at the beginning of each month to the percent here entered. Ex: A _ReserveMargin of 80 means that PortfolioX will update once a month the _ReserveMargin to 80% of your account FreeMargin.
_AllowHedgingOnSymbols	True/False	TRUE		If false, this option makes it easier for US residents to run this EA on US FOREX rules.
_minPositionRunMinutes	number	0	From 0	This parameter avoids an exit signal to close a position too fast. Some funded accounts have rules that deny this behavior.
_globalVolumeCoefficient	number	1	From 0	Let us change the volume of all strategies at once to simplify some adjustments and backtests. Default = 1.0 if set as 0.5, so every new position will open with 50% of the default volume. Note that there is a minimum lot value on symbols. Consider using cent accounts to trade with a low balance below USD \$10,000. This parameter exists only on "multi" versions.
_EquityAbortLimit_max	number	0	From 0	The EA will close all trades and suspend new ones since the account equity reaches this limit.
_EquityAbortLimit_min	number	0	From 0	The EA will close all trades and suspend new ones since the account equity reaches this limit.
_minTradeHoursIntervalPerSymbolDirection	number	0	From 0	Use his parameter to configure a global interval between positions of the same symbol and direction. This feature is excellent for multiple groups trading on the same symbol.
_tradeMinLotOnRiskReached	True/False	FALSE		If trading with a low balance and RISK_BY_TRADE, you may want to trade the minimum lot even if the set risk doesn't allow the trade. To do so, set it to true.
_closeSymbolPositionsOnLossPercent	number	0	From 0	This control is cross-group protection, valuable when you run multiple strategies on the same symbol.
_hoursToSuspendAfterSymbolLossPercentReached	number	168	From 0	This parameter delays starting the trades again after the EA triggers _closeSymbolPositionsOnLossPercent.

_maxBalancePercentOnSL		number	0	From 0	This parameter informs the EA to skip opening a position if the new position stop loss can decrease the balance on the percentage entered here.
_minSwapValue		number	-99	Any positive or negative value.	Avoid opening a position if the current swap rate is lower than this value. Note: Below zero means a negative swap, which charges your balance. A positive value sums up your balance. Check your broker swaps and try trading using this parameter higher than zero.
_maxDDToOpenNewPositionsPerc		number	5	From 0	Avoid opening a position if the current drawdown exceeds this percentage. This parameter is an excellent feature to control exposure.
_GridPositionMustObeyGlobalLimits	GridX	True/False	FALSE		This parameter defines if the EA recovery engine has to obey these limits: _maxNewPositionsPerBarGroupDirection, _maxPositionsPerSymbol, _maxPositionsPerSymbolPerDirection, _maxDDToOpenNewPositionsPerc.
	GridX				
_maxDDToOpenNew_GRID_PositionsPerc	GridX	number	0	From 0	Avoid opening GRID positions if the current drawdown exceeds this percentage.
	GridX				
_use_SL_onGrid	GridX GridX	True/False	FALSE		Force to set a stop loss even on grid positions.
_partialClosingVolumeCoef	GridX	number	1	From 0	When using the recovery engine with a partial closing feature, the volume of grid positions will be multiplied by this number. For example, using 0.2, we will have the first grid position opened as 20% of the father position. This feature allows a safer grid but demands a higher balance due to the minimum volume per position typically as 0.01. Consider using cent-accounts to trade with a low balance.

STRATEGIES GROUP (All groups, from A to L)					
Name		Type	Default	Range	Description
_notes		string		Any text	Any text you want to reference this group strategy
_group	multi	select		TRADE_BY_FILTERS UNUSED_GROUP	Enable this strategy to run. Disable this strategy to run.
_symbol		select		CHART_SYMBOL	Run this group using the symbol currently selected on the chart.

			CUSTOM_SYMBOL From AUDCAD to USDSGD	Run this group using the symbol from the _CustomSymbol field. Run this group using the symbol selected.
_CustomSymbol	string			Run this symbol when selecting _symbol = CUSTOM_SYMBOL
_SymbolList	string		A symbol list separated by commas	This parameter is a powerful feature to optimize your strategy, avoiding overfitting. Enter a list of symbols, like URUSD,AUDCAD,AUDNZD,AUDUSD,CADCHF,EURAUD,EUR CAD,EURJPY,EURNZD,GBPAUD,GBPUSD,NZDUSD,USDCAD, USDCHF. The EA will run each symbol as an individual group, like the "multi" version, and give you the combined result at the backtesting panel. Note that using this feature, the EA will ignore the _symbol field.
_maxPositionsPerDirection	integer	1	From 1 to 50	This parameter controls the maximum positions the EA will open simultaneously per direction.
_VolumeFormula	select		FIXED_LOT RISK_BY_TRADE LOT_PER_1000	Configure the EA to trade using fixed volumes. Configure the EA to trade using volumes automatically calculated by the risk settings. Configure the EA to trade using volume based on each 1,000 on the account balance.
_VolumeValue	number	0.01	From 0.01	This number is used with the _VolumeFormula option to calculate the position's volume.
_StrategyTimeframe	select		Timeframes	Controls events based on "On New Bar" and "Per Bar."
_MaxSpread	integer	30	From 0	Configure the EA not to open positions when the symbol spread is higher than this value.
_OpenPositionType	select	BOTH	BOTH LONG SHORT BEST_SWAP WORST_SWAP _BOTH	This option allows the EA to trade in any direction. This option allows the EA to open only LONG positions. This option allows the EA to open only SHORT positions. This option allows the EA to open only the position with the highest swap rate. This option allows the EA to open only the position with the lowest swap rate. Same as BOTH
_ReadSignalInterval	select	ON EVERY TICK	ON EVERY TICK	Read data and search for the entering position signal on every tick.

			ON_M1	Read data and search for the entering position signal once a minute.
			ON_NEW_BAR	Read data and search for the entering position signal once per bar (candle).
_MinDistanceSameDirectionPositionsPts	integer	0	From 0	It prevents the EA from opening positions too close to each other to restrict exposure. It allows opening a new primary position only if the price is at a distance in points higher than _MinDistanceSameDirectionPositionsPts from any existing position. The EA evaluates SHORT positions separately from LONG.
_BETrigger_pts	integer	0	From 0	These parameters control the BreakEven feature that sets the position Stop Loss at (Current_Price -
_BEGap_pts	integer	0	From 0	
_ts_Trigger_pts	integer	0	From 0	These parameters control the Trailing Stop feature that sets the position Stop Loss at (Current_Price -
_ts_Gap_pts	integer	0	From 0	
_BE_Trailing_Triggers	select	ENTER_PRICE	ENTER_PRICE	Default behavior of Break Even and Trailing features.
			SL_PLUS_SPREAD_DISTANCE	It replaces the ENTER_PRICE on Break Even and Trailing features, by the (StopLoss_price + Spread)
			STRATEGY_TP	It replaces the ENTER_PRICE on Break Even and Trailing features, by the strategy TakeProfit price.
_SL_TP_By	select		SL_TP_BY_ATR	Defines if the EA will use ATR to calculate StopLoss and TakeProfit.
			SL_TP_BY_POINTS	Defines if the EA will use points to calculate StopLoss and TakeProfit.
			SL_TP_BY_PERMILLE	Defines if the EA will use ‰ (per mille - https://en.wikipedia.org/wiki/Per_mille) to calculate StopLoss and TakeProfit.
_SL_by_OP	number	0	From 0	The number used to calculate the StopLoss, using the option selected in SL_TP_By. Zero means no SL.
_TP_by_OP	number	0	From 0	The number used to calculate the TakeProfit, using the option selected in SL_TP_By. Zero means no TP.
_OpenPositionFilter1 to _OpenPositionFilter4	select		Several signals	Select the signals to build your strategy. All filters selected must be true to trigger an Enter signal. If none is selected, an EnterSignal will be triggered if no ExitFilters denies.
_OpenPositionFilter1_bars to _OpenPositionFilter3_bars	integer	0	From 0	When bars=0, the filters will use default values of 10 bars on Moving Average (MA) and 5 bars on Stochastic.
_closeGroupPositionsOnLossPercent	number	0	From 0	The EA will close all group positions when the drawdown reaches this percentage.

_hoursToSuspendAfterLossPercentReached	number	72	From 0	When _closeGroupPositionsOnLossPercent is triggered, the group will suspend trades for these hours.
_closeGroupPositionsOnProfitPercent	number	0	From 0	The EA will close all group positions when the profit reaches this percentage.
_StartTradingSessionGMThrs	number	0	From 0	Set a time of the day to start trading. It accepts decimals.
_EndTradingSessionINTERVALhrs	number	0	From 0	Set a time of the day to stop opening new trades. It accepts decimals.
_ExitPositionTrigger 1 to G	select	Several signals		
_ExitTriggerType	select	<div><div><div>_ANY_CONDITION</div><div>_1to9_OR_ANY_OTHER</div><div>_12_OR_34_OR_56_OR_ANY_OTHER</div><div>_123_OR_456_OR_ANY_OTHER</div><div>_1234_OR_ANY_OTHER</div><div>_1234_OR_56_OR_ANY_OTHER</div><div>_12_OR_ANY_OTHER</div><div>_123_OR_ANY_OTHER</div><div>_12_OR_34_OR_ANY_OTHER</div><div>_ANY_1to9_OR_OnProfit_ANY_OTHER</div><div>_ANY_1to9_OR_OnProfit_ANY_OTHER_AlsoOnEnter</div><div>_ANY_1toD_OR_OnProfit_ANY_OTHER</div><div>_ANY_1toD_OR_OnProfit_ANY_OTHER_AlsoOnEnter</div></div><div>If any of this signals trigger, na ExitSignal will be triggerred. 1to9 means that all signals from 1 to 9 must trigger to trigger na ExitSignal. Or any other. (1 and 2) or (3 and 4) or (5 and 5) or any other needs to trigger. (1 and 2 and 3) or (4 and 5 and 6) or any other needs to trigger. (1 and 2 and 3 and 4) or any other needs to trigger. (1 and 2 and 3 and 4) or (5 and 6) or any other needs to trigger. (1 and 2) or any other needs to trigger. (1 and 2 and 3) or any other needs to trigger. (1 and 2) or (3 and 4) or any other needs to trigger. (1 or 2 ... Or 8 or 9) or, if the strategy is on profit, any other signal. Same above, but all signals will be evaluated prior to Enter a position and can deny it. (1 or 2 ... Or 8 or 9 ... Or D) or, if the strategy is on profit, any other signal. Same above, but all signals will be evaluated prior to Enter a position and can deny it.</div></div>		

RECOVERY ENGINE					
Name	Type	Default	Range	Description	
_Recovery_mode	GridX	select	NO_RECOVERY		Don't use the Recovery Engine.
				PURE_GRID	The EA will try to recover from a loss position using grid (averaging). Stop Loss and Take Profit are removed by default.
				HYBRID_MODE	The EA will run like no recovery was beeing used, but if a position trigger the recovery condiction, it will switch to grid mode.
				PURE_GRID_PARTIAL_CLOSING	Grid, but gradually amortizing the position to be recovered, using partial closings.

HYBRID_MODE_PARTIAL_CLOSING

Hybrid, but gradually amortizing the position to be recovered, using partial closings.

_Recovery_LotMultiplier	GridX	number	1	From 1	The grid positions will be multiplied by this number, from the last position. See _partialClosingVolumeCoef
Recovery_StepMultiplier	GridX	number	1	From 1	The minimum distance between grid positions will be multiplied by this number, from the last position.
_Recovery_MinStepDistancePts	GridX	number	400	From 1	The minimum distance between grid positions.
_Recovery_MaxOrders	GridX	integer	4	From 1	The maximum number of grid positions.
_Recovery_ProfitTarget	GridX	number	0.2	From 0	All positions will be closed after the grid reaches this profit using PURE_GRID or when HYBRID_MODE has at least one grid position opened. This profit is calculated based on the position volume and the price of the symbol, not related to the account balance.
_Recovery_StartGridFrom	GridX	select	ENTER_PRICE_	ENTER_PRICE_ SL_DISTANCE	Set the Recovery Engine to calculate the starting point of a grid as the entry price or the Stop Loss price—the
_Recovery_GridPositionsFilter 1 to 4	GridX	select		Several signals	Enter signal filter for grid positions. All filters selected must be true to trigger an Enter signal.
_Recovery_Use_ExitPositionTrigger_AsDeny	GridX	True/False	FALSE		If true, new positions on RecoveryEngine needs to pass on ExitTriggers to be opened.
_Recovery_GiveUpAfterPts	GridX	integer	0	From 0	If the last position, grid or main, reaches a distance higher than GiveUpAfterPts, then PortfolioX will close all the grid and main positions. Depending on your filters this can happen to protect your account balance.
Recovery_MinGridIntervalHrs	GridX	number	24	From 0	Here we can prevent the Recovery Engine from starting a grid in the first hours of an open position, as well as preventing any subsequent positions from this grid from being opened in a shorter time interval than this value.