CheckGrid BETA v 0.9.5 FAQ

Warning! This is BETA software. Please test it in a demo account. This software version will expire in early July. Updates will be released periodically to all approved users.

This Expert Advisor can only place trade orders based on YOUR parameters. It does no market analysis or thinking on its own. That is YOUR job before you consider risking YOUR money.

Grids can earn substantial money in a range bound market, but may become prohibitively costly in a trending market. Protect your account by trading only with the market trend, with money you can afford to lose, and/or (preferentially) with a combination of option or spot limit order strategies. If you have questions about how to do this safely, contact John Beiler of the Winning Trader's Association at johnh@wtafx.com.

Installation

This EA works with Interbankfx **version 4.**

1. Place this EA in the following folder C Drive/Programs/Interbankfx/Experts.
2. Launch Interbankfx.
3. Select the desired currency pair.
4. From the Expert Advisor menu on the left, double-click CheckGrid.
5. Select the Inputs Tab and adjust the inputs below to suit your needs.
6. Right-click on the currency window to remove an Expert Advisor.
7. Double-click on user inputs to change defaults.
8. Save inputs for future use.

User Inputs

GridName   User can choose unique grid names for each currency or range. Multiple grids can be set up on one currency. Note that this program will not run in several grids simultaneously on the same currency. If this is done the user must manually call each grid to execute updates. IT IS IMPORTANT TO UNDERSTAND THIS MEANS THE PROGRAM WILL NOT TRACK DRAWDOWN IN THE NON-ACTIVE GRIDS OF A CURRENCY. IT ONLY TRACKS THE ACTIVE GRID DATA. FURTHER, THE HEDGE TRADER (SEE BELOW) ONLY LOOKS TO THE ACTIVE GRID DATA. YOU MUST MANUALLY TRACK THE DRAWDOWN OF ANY NON-ACTIVE GRID AND

MANUALLY PLACE ANY HEDGE TRADES TO PROTECT YOUR ACCOUNT. THEREFORE, MULTIPLE GRIDS IN ONE CURRENCY ARE INADVISABLE.

StopProgram	This value must be set to "false" to start the program. The default is "true" to eliminate unwanted execution at startup.
CloseOrders	Set to "false" to start the program. If set to "true" all orders in the named grid for the current currency chart will be closed. To execute, set StopProgram to false, and CloseOrders to "true." NOTE – the user must use CheckGrid in the correct currency window. For example, a grid named "MyGrid" opened in the USD/JPY currency window cannot be closed from the EUR/USD currency window.
CloseOnlyPending	Set to "false" to start the program. If set to "true" all pending orders in the named grid for the current currency chart will be closed. To execute set StopProgram to false; CloseOrders and Close Only Pending to "true."
CloseOnlyShort	Set to "true" to close all short orders and ALL pending orders. All long pending orders will need to be re-established.
CloseOnlyLong	Set to "true" to close all long orders and ALL pending orders. All short pending orders will need to be re-established.
LotsLong	This is the user's maximum exposure in long orders. Set to zero to prevent long orders. Note that long and short grids can be run independently and/or simultaneously.
LotsShort	This is the user's maximum exposure in short orders. Set to zero to prevent short orders.
OrderSize	This is the order size per trade. A setting of 0.01 is the equivalent of a 1K contract in a standard account. Further, if set to 0.1 and LotsLong is set to 1 then the user may execute up to 10 long orders.
StepSize	This is the "step" between orders. For example, a long grid with a step size of 2 starting at a currency price of 1.2400 would produce limit orders at 1.2400, 1.2402, 1.2406, etc.

TakeProfit | The take profit minimum with a particular order. For example, a long limit order of 1.2400 would have a take profit of 1.2406. A short order of 1.2400 would have a take profit of 1.2394.

StopLoss | This allows the user to set a stop loss on each order, which replaces the need for hedging positions to protect the account. See discussion later in this document.

StartLong | This allows the user to set a particular long grid bottom starting point. This grid can be above, below, or overlaid on a short grid. If this value is left at zero the program will build a long grid beginning at the current ASK price. Remember that the take profit target will be the entry price plus the take profit amount. If, for example, you want your last take profit on a long grid at 1.2500 and are using a 6-pip take profit, the last entry point should be 1.2494. Remember that the take profit target is offset from the entry orders by the take profit amount.

StartShort | This allows the user to set a particular short grid top starting point. This grid can be above, below, interleaved, or overlaid on a long grid. If this value is left at zero, the program will build a long grid beginning at the current BID price.

CrossOver | This value only works when StartLong and StartShort are left at zero. This is an offset per side. For example, if the current price is 1.2400 and 50 pip, 1 step long/short grids are established with a 10 pip cross over, the long grid will start at 1.2390 up to 1.2440 and the short grid will start at 1.2410 down to 1.2360. Note that 10 pips per side equal a twenty-pip zone (1.2390 – 1.2410) with both long and short trades. *CrossOver is ignored if a specific StartLong and/or StartShort grid price point is entered.*

EmailMonitor | This allows the user to set up email monitoring. At user-defined intervals, the program will send an update email. This provides the user with account and grid information. The absence of an update alerts the user that there may be a problem with the computer that requires attention. When the program is started and this feature enabled, an email is

immediately sent and the timer set to the previous hour mark. It will send emails at user-defined hourly intervals from that time.

EmailFrequency	The interval in hours between email alerts. The first email is sent as soon as the program is launched.
HedgeTrader	This feature enables the hedge trade feature. The purpose of this is to establish counterbalancing trades to limit drawdown as market price moves away from the grid parameters. This feature is discussed in more detail elsewhere in this document.
MaxDrawdown	This represents the maximum drawdown before a hedge position is activated.
DrawdownStep	This represents the dollar increment before additional hedge positions are activated.
CloseOutofGrid	If set to "true" this will suspend all activity once the price has moved out of grid range and close all orders.
Margin	This represents the lot margin dollar requirements and assumes 100:1 margin. This is needed for the margin available calculations and alerts. It is also the minimum value to have in the account for trading. If the available margin dips below this value, trading is suspended.

Saving Settings

When running multiple grids (or even one grid) consider using the "Save" button on the parameter input dialog box and giving each grid a unique and descriptive name, such as "GBPUSD_1850_1pip" to identify the characteristics of each grid. With these saved settings, it is simple to activate any grid in a moment without trying to remember settings.

Trade Order

Short trades are numbered from top to bottom. The topmost short trade in the grid is "1." Long trades are numbered from the bottom to the top. The bottommost long trade in the grid is "1." At a glance in the Alert window one can tell where the market price is in the grid.

Screen Data

When the CheckGrid EA is running the currency window displays the current open and pending trades as well as account balance, equity, margin and hedge trader data.

Report Window

The suggested settings for the Trade list is PROFIT in descending order, and the Account History by TIME (trade close time) with most recent activity first.

Email Capability

This EA will email major alerts if this feature is enabled. To set it up in Interbankfx go to the menu Tools/Options/Email and enter the appropriate information for your email address. Please contact your email provider if you need help to set this up.

Certain cell phones have the ability to receive email and may be used for the contact. One way to create cell phone alerts is to set up a yahoo account for these alerts. In that account, enable cell phone notification. In that way each time an email is sent, an alert is forwarded to a cell phone.

The value of this feature is that the computer does not need to be monitored constantly.

Program Operations and Warnings

When first launched, this program will attempt to fill the grid with the requested orders. Each time an order is placed, an alert message will identify that order. It may sound like a jackpot at a casino! On the first pass, not all orders will be placed. This is due to connectivity issues with the broker, and/or order rejection when a limit order is placed too close to the current market.

These rejected limit orders will be placed and the grid completed once the price has moved enough for these orders to be accepted. Each time the price moves an amount equivalent of "StepSize", the program will check the grid and attempt to fill in any unplaced orders, rejected orders, or orders closed for a profit.

The following warnings may be triggered by events.

Take profit minimum:	Interbankfx requires a 6-pip take profit minimum on limit orders.
Price out of grid:	If the price moves out of the grid range, the processing will cease. If CloseOutofGrid is set to "true," the program will automatically close all orders.
Maximum orders:	Each grid is limited to a maximum of 1600 long and/or short orders. If more are desired, set up multiple grids. See above under "GridName."

Too many orders: If the user sets up a second grid in the same currency with the same name, this error will result. This will also happen when the user lets the program automatically establish the grid range parameters. When these settings are reinstalled, the EA will establish new grid range parameters, resulting in too many trades, or duplicate trades. Once the grid is established, use those range settings when setting up the grid subsequent times.

Too many orders: If the program detects too many orders in the grid based on the lots and order size, the grid will be suspended. This event can occur if the user sets up one grid, then another with the same name in the same currency. The program calculates the total expected open orders based on lots and order size.

Margin requirements: This program will cease operations if it detects a low margin.

Hedge Trader or Stop Loss?

The user can choose between a hedge trader which activates when predefined drawdown limits are met, or a stop loss on each order which closes those orders when the stop loss is hit. Both have advantages and limitations.

A hedge position will leave trades hanging out at the edges until the grid is shut down, or the price returns to that area. The disadvantage here is that SWAP can accrue against these positions (or for them!) You may not want this interest to accrue. The advantage is that these trades are left open and may be closed for a profit when (if!) the market returns to that particular price range.

Stop losses will eliminate long-standing trades, which may be hundreds of pips away from the current price, as well as any long term SWAP both favorable and unfavorable. The disadvantage is that when the market runs hard in one direction, the stop-loss will hit your account with a series of actual losses. For example, using 0.01 order size with 100-pip stop loss and step size of 2, a run of 100 pips will cost $500 in losses.

The user could have protected the account with options, or with the hedge strategy. Both would have cost money in option premium or hedge positions. Ultimately, this is a matter of personal preference.

My advice is to test this strategy, as well as the hedge trader to see what fits your needs and the market.

Hedge Trader Limitations

As obvious as it may seem, this feature must be enabled to work. The program warns you if the Hedge Trader is not enabled. Further, the user must remember that this trade is placed dynamically in real time in response to the market. It is not a static trade at the broker waiting for execution. Therefore, the program MUST be running and a live connection to the broker's server MUST be in place for this feature to work.

It may be appropriate to place static limit order trades to protect the account in the case of a computer or connectivity failure.

Grid Trading Concepts

To maximize our cash return we need to remember several concepts.
- The market is always in motion and it must be somewhere. It can't disappear.
- As long as the price is in the grid, we are making money.
- As the spot price moves away from the grid center, the drawdown can increase dramatically.

To be effective we need to meet the following criteria:

- Wide grid to maintain profit stream. It is expensive to unwind a grid and restart. It is better to establish a wide grid and continue trading. See step size comments below.
- Bi-directional to profit as the market moves in either direction. If the market is NOT trending, a bi-directional grid is more profitable.
- Small step size to profit on the smallest moves. Consider this when selecting a step size. A 2-pip step size grid will be twice as wide as a 1-pip step size grid. While the profits will come more slowly, the price will stay in the grid much longer with a small drawdown.
- Computer controlled trading to replace completed trades.
- Small take profit targets to maximize the number of completed trades with minimal market movement. If the take profit is set to six and assuming $.10 per pip and step size of one, there will be six closed orders for $3 profit in a 10-pip move. A take profit of 10 will return only $1.
- Low interest currency pair to minimize interest losses. Choose a currency with low interest charges.
- Strong volatility within a range.
- High pip value.

In my opinion, the GBP/USD is an excellent currency choice for this system, when used with spot market hedging as done by my program.

Grid Trading and Hedging

Grids can generate profits day after day. The market is always in motion. However, the drawdown exposure can be dramatic if market price moves outside of the grid. To protect our accounts we need to understand how a grid develops.

Let's assume a 100-pip grid with .01 size trades on every pip both long and short. If the market price starts at zero and rockets straight to 100 our drawdown exposure (NOT closed trades) is suddenly $500. If we had set our take profit at 6 pips, we would have earned $56.40. This doesn't look very good. But, remember that as the price moves within this 100 pip grid, the drawdown will level off and remain somewhere in the $250 range, while we are earning money constantly on the grid. Shortly, the profits will exceed the standing drawdown and we will net real profits.

The size of the grid multiplied by total lots of exposure (in one direction) divided by two gives us the maximum drawdown exposure. Fore example, a 600 pip grid with .01 size orders would have a maximum theoretical exposure of 6 lots x 600 pips / 2 or $18,000. In reality, the practical exposure is less than half of that and it usually grows slowly before leveling off. It rarely rockets up like that. Using this math a 100, 200, 300, and 400 pip grid has a maximum exposure of $500, $2,500, $4,500, and $8,000 respectively. Note that the drawdown increases dramatically with each 100-pip exposure against the long or short orders.

This is important as the trader determines grid width. If the currency trades within a smaller range, a 1-pip step may be the best choice. If the currency trades in a larger range, a 2 or 3-pip step size may be more appropriate. This allows the trader to double or triple the width of the grid. Using the examples above, a 1-pip step size grid's maximum drawdown exposure is $2,000 at 200 pips. A 2-pip step size grid's maximum exposure is $2,000 at 400 pips, and a 3-pip step size is 600 pips. This will allow price to potentially stay within the grid range for a longer period of time generating profits.

However, a larger step size will slow the profit rate. It is up to the trader to determine potential trading range, and maximum drawdown tolerance.

Unless the spot price moves immediately and significantly away from the starting point, the profits should exceed the drawdown quickly. Further, price will likely stay within a wide grid far longer.

However, hedging is still needed and it is the trader's responsibility to protect themselves, and to choose a system. While there are many choices, here are a few to consider:

1. Pick the center of the grid and place a full lot long or short order, depending on the market price. If the market moves against the grid 100 pips, the long lot will carry $1,000 in unrealized profit. This exceeds the $500 drawdown exposure on the same grid. Two full lots at a 300-pip move will protect more than a 300-pip grid. Assuming that we have trades in both directions and switch the hedge position at the center between long and short, these two lots will actually protect a grid almost 700 pips wide. The only drawback is at the center of the grid where we can lose substantial money if the price flips back and forth at the centerline.

2. Buy call options at the 100 pip levels as the market moves in any direction. The advantage is that there are no stops and these can be held for longer periods. The disadvantages are the price of the options, that they expire and must be replaced, that the delta causes the option price to generally not move as much as the spot market, and that options are usually traded in a separate account and require balance adjustments.

3. Hedge positions can be placed at predefined drawdown values. This concept is a user option in Check Grid. This strategy assumes that as the price remains in the grid and profits increase, the trader is willing to accept a larger drawdown exposure. With the HedgeTrader enabled and the default values of $2,000 for initial maximum drawdown, 30 pip trailing stop, and $400 steps, the first hedge trade will be activated when the relevant drawdown reaches $2,000.

   For example, the program calculates the long and short drawdown separately. If the short drawdown reaches $2,000, a long position is activated with a 30-pip trailing stop and sets the new drawdown level to $1,400. This prevents the program from opening several hedge positions in rapid order. Further, it assumes that as time passes and profits increase, a larger drawdown is acceptable. If the price moves in the other direction, the hedge positions are activated based on the exposure, not on the spot market position in the grid. If the price has moved to the edge of the grid and is returning to center, a hedge position could be activated

before the center of the grid is reached. This is based on the accumulated drawdown in the short or long positions.

If the price moves back towards the center of the grid range, the trailing stop is activated with a possible loss or gain of the pips value in the hedge position. A loss is acceptable in this case as the market price is moving toward the middle of the grid and profits will continue to accumulate. If price continues to move to the grid edge, the next hedge position will be activated at intervals equal to the drawdown step. In this manner, a larger grid can be protected and the market itself will dictate the placement of the hedge trades by its activity.

NOTE: When the grid is restarted, the user must evaluate where the MaxDrawDown value should be placed. For example, in a mature grid, the MaxDrawDown value may have moved several times to over $3,000, and the current standing drawdown could be $2,500 at the time of restart. This may be acceptable to the user. However, if the MaxDrawDown is left at the default values, the program will immediately place hedge positions.

Exit Strategy

Never establish a grid without an exit plan in place. This is critical. What is the absolute drawdown exposure allowed? Will automatic shut-down be used? Remember that drawdown increases dramatically as price moves away from the starting point. Are hedge positions or options used to protect the account? Should the grid be re-centered and the only outlying negative positions closed? Should the entire grid be closed?

Trending Market

If the market appears to be trending, the trader can shut down the entire grid, or simply shut down one side of the grid until a new range is established. For example, if a report is expected to drive the market up, the trader may close all the short trades (see examples below), then restarting the expert advisor by establishing only a long grid by leaving LotsShort at zero. The reverse would be true if the market is expected to trend downward. This procedure would allow the user to potentially avoid a large a drawdown in a trending market.

Anticipating Dramatic Price Moves

To expand on the trending market idea, if the market is expected to move dramatically in one direction, the trader has several choices.

1. Close all trades and wait.

2. Suspend trading and wait to see what really happens. Turn trading back on if appropriate. Be aware that this procedure can still expose the trader to substantial drawdown on any open positions not in the direction of the price movement.

3. Stay in and keep trading. This assumes that the price will stay within the grid, and the grid is wide enough to handle large price movements.

4. Close only trades on the side expected to take a loss. Use CloseOnlyLong or CloseOnlyShort as appropriate. If this is done, all pending orders will be closed and a one-directional grid will need to be re-established.

Sample Set-ups

Double click on Check Grid. Click on "Common" on the upper left corner. Turn on live trading. The settings below will set up a 1,000-pip long and short grid centered on the current market price and completely overlapped. It will not shut down the grid if the spot price moves out of the grid range. If you are trading a live account, set CloseOutGrid to TRUE. It is a very BAD IDEA to experiment with any strategy with a live account.

Start program with bi-directional grid

Stop program	false
Close orders	false
Close pending	false
Close short	false
Close long	false
LotsLong	5
LotsShort	5
Order size	0.01
Step size	2
Take profit	6
Start long	0
Start short	0
Crossover	500
Email Monitor	true
Email Frequency	2
Hedge Trader	true
Max Drawdown	2000

Drawdown step   400
Trailing stop   30
Close out grid   false

Close all trades
Stop program   false
Close orders   true
Close pending   false
Close short   false
Close long   false

Close all pending trades
Stop program   false
Close orders   true
Close pending   true
Close short   false
Close long   false

Close all short trades (**including ALL pending trades**)
Stop program   false
Close orders   true
Close pending   false
Close short   true
Close long   false

Close all long trades (**including ALL pending trades**)
Stop program   false
Close orders   true
Close pending   false
Close short   false
Close long   true

Questions

I can be reached at pacificforexgroup@mac.com if you have any questions about the operation of this program, other programs to be released, monthly licensing, or grid trade theory.

Trade carefully, be patient,

Bill Barnsley