

MAC to the futures

Andrew Webb tries out a low-budget, but effective, means of containing risk – Margin Account Calculator

When it comes to tracking margin requirements and keeping a handle on risk, banks, brokers and other larger derivatives market participants are usually spoiled for choice. However, at the other end of the market, it's a very different story. Unlike their equity trading counterparts, smaller derivatives traders looking for something with which to monitor their performance and margin requirements have hitherto faced something of a challenge in finding a suitable tool. It was precisely this gap that inspired independent trader Ian Brant to start developing his own solution in 1996. Because he was unable to find anything with the requisite functionality at an affordable price for futures and options on futures, he produced a set of Excel spreadsheets that he named MAC (Margin Account Calculator), which he has recently started selling as a commercial product.

The MAC workbook opens by default in the main screen which, as well as

detailing both open and closed trades, provides a summary of your account situation at the top right of the screen (see Figure 1).

If the funds in your account drop below the level necessary to maintain your current open positions, the 'Margin Available' label turns into a red 'Margin Call' label, while the figure in the 'Funds Available' cell displays the top-up margin necessary to bring your account back to the necessary minimum. A series of function buttons in the main screen allows you to alter the way in which your current position is displayed – the choices include Gross P&L, Net P&L, points per contract or points per trade.

Though MAC was originally designed as an end-of-day product for position traders, because it is Excel-based I found that it was perfectly happy to accept a DDE link from a live data-feed in the 'Closing Price' column (see the Excel Formula Bar in Figure 1), giving me real-time position and margin information.

MAC comes with a selection of screen resolution settings to ensure that it displays properly on your screen. Some of the program's functions are performed in separate worksheets, but several are actually performed on the main worksheet, with MAC automatically scrolling left and right to show the relevant information. Hence the need for a resolution setting – for example, if you deliberately set the resolution incorrectly at too low a resolution, you end up seeing half the Statement Check window alongside the main window.

Since it was originally conceived as a product for supporting position, rather than day trading, MAC normally reads the market data necessary to update your accounts from static data files. It can handle several different end-of-day data formats from various sources including plain text ASCII as exported by the Omega Research Downloader, Pinnacle and BriteFutures data, and ASCII files from Bohl Minot or Jack Carl.

Additional functionality includes the ability to automatically create stop-loss orders for any newly opened position

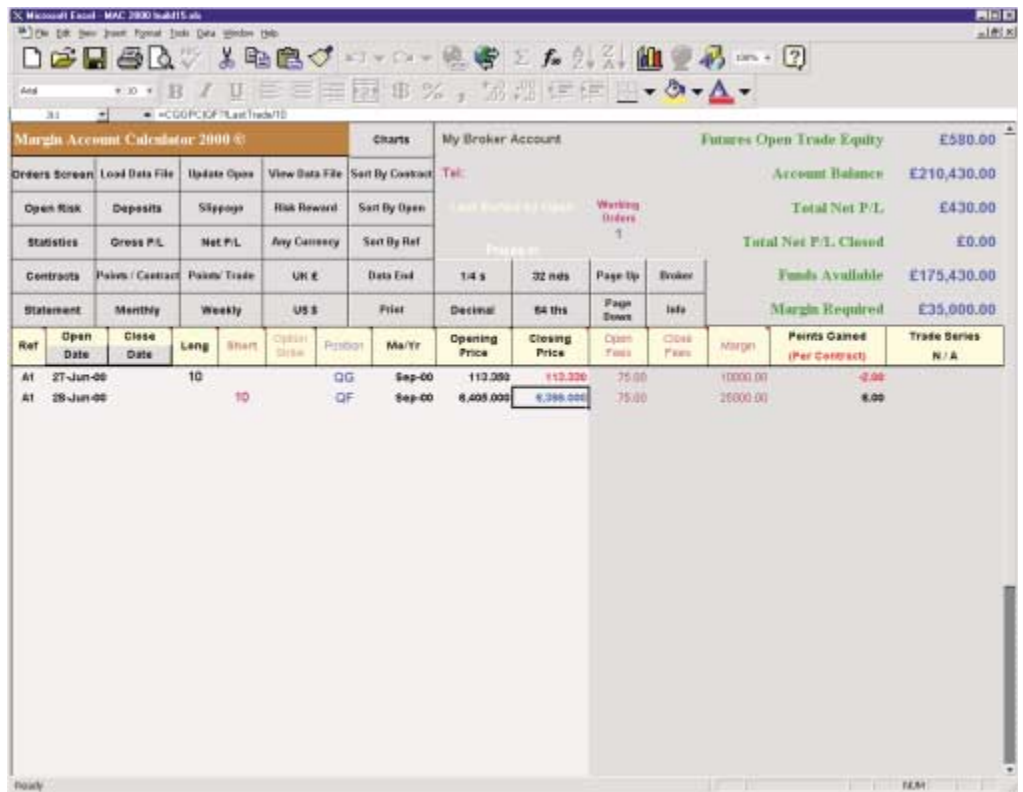


Figure 1. MAC main screen

Though I became used to it after a while, initially I found navigation within MAC less than straightforward. The main screen has a mass of identically formatted command buttons, some of which open different worksheets, while some perform functions within the main window. Though this isn't particularly intuitive, it is not an insuperable problem, especially since every screen in MAC includes a 'Home' button that will return you to the main window.

Trade details can be entered directly into the main screen, but it makes more sense to do so via the 'Orders Screen' as you then have access to additional functionality, which includes the ability to automatically create stop-loss orders for any newly opened position. To prevent the screen becoming cluttered, three delete buttons are

provided, which allow you to remove a selected row, any filled orders, and any old 'good for the day' orders. By the same token, a command button is provided for adding new rows. (Since the cells contain multiple hidden formulae this is by design the only way to add rows, and in fact MAC automatically disables most of the items on Excel's 'Insert' menu.)

Assets and withdrawals

Adding or withdrawing funds from your brokerage account is, unsurprisingly, done in a 'Deposits and Withdrawals' window. There are a couple of nice touches here. MAC assumes that you will open a separate workbook for each currency account you hold with your broker, but if you want to see the balance in sterling (or any other currency for that matter) you simply enter a conversion factor in a

cell at the top of the window. As the cell obviously already contains a formula, this conversion factor can only be a simple numeric input – so sadly there's no chance of being a poseur and adding a DDE link for real-time currency conversion. On the other hand, the raw account value displayed in the 'Deposits and Withdrawals' window will update in real time if you are using a live DDE link in the main screen.

The 'Open Positions' window provides a calculation of current funds at risk on open positions. In doing this it will take into account any stop-loss orders you have already entered with respect to those open positions. (The obvious caveat when looking at the calculated open risk figures in this window is that they make the assumption that it will be possible to execute your stop-loss order anywhere near the price

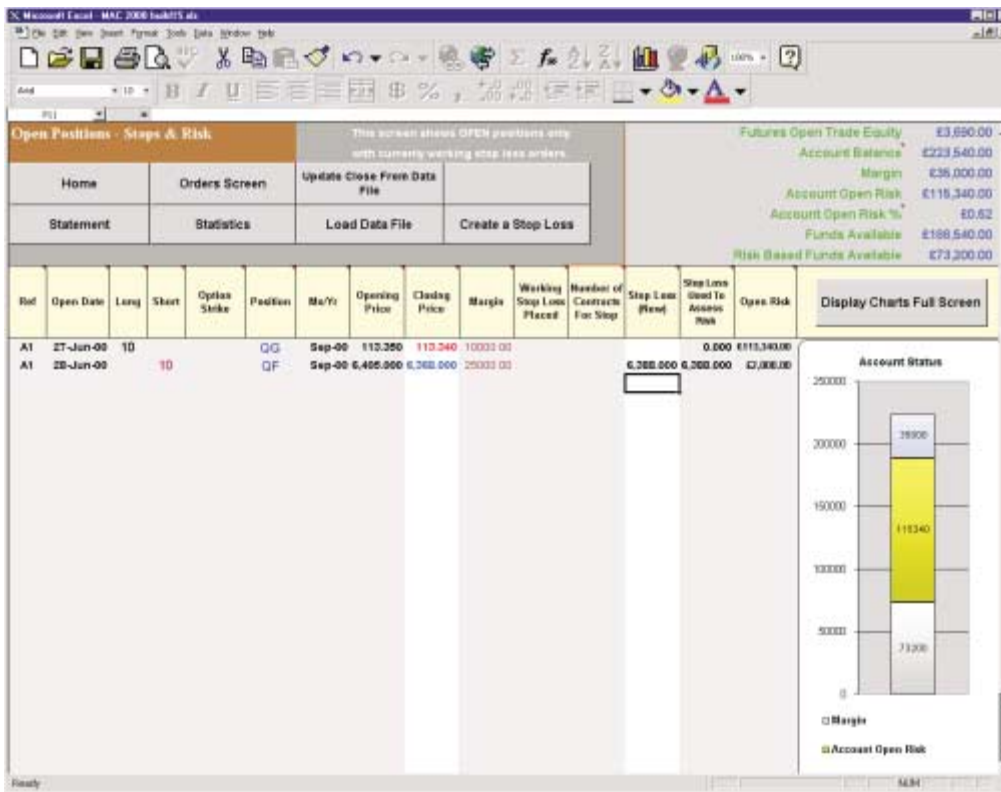


Figure 2. Temperature gauge – stay cool

Making accurate margin calculations is obviously dependent on accurate raw data, so there's a separate window where you can update and add contract details

you enter.) If you wish to add stop-loss orders, you can do so from within the window, without having to go back to the Orders Screen. Even if you only use 'mental' stop-losses, it is worth entering them here, otherwise MAC assumes a worst-case scenario, which predictably leads to some rather alarming open risk numbers. A graphical display of the current situation is also provided in the form of a temperature gauge (see Figure 2), which can be expanded to a full screen display.

A separate window provides risk/reward ratios for individual positions as well as an average figure either for all open and closed positions, or for just closed positions. If you feel that your brokers could be doing a better job, you can compile the data with which to browbeat them in the slippage window. Apart from individual statistics for

each trade, average slippage figures are also available categorised on an opening, closing, per trade, and per contract basis. To further harass your broker there's also a statement check window to help you pick up on any discrepancies.

Accuracy

Making accurate margin calculations is obviously dependent on accurate raw data, so there's a separate window where you can update and add contract details. Though MAC can cope perfectly happily with a mixture of futures and options trades, it doesn't include any margin concession rules for spreads or recognised option strategies. However, if you are using real-time data (and therefore don't need your symbols to tally with those in a historic data file) you can get around this fairly easily. This is done by

creating a synthetic spread or strategy contract in the contract specification window and entering the appropriate margin concession figure so that MAC's calculated output is realistic. If you don't do this, you'll find (for example) that MAC will assume full opening margin on all legs of trade as if they were all completely independent positions.

Apart from the minor navigational issues already mentioned, there is very little to find fault with in MAC. On a cost/reward basis there's nothing to find fault with, as the price tag is very low – £39.95 or \$69.95. The lag inherent in recalculating a large number of Excel cell formulae may make MAC unsuitable for hyperactive traders who open and close hundreds of positions per week, but for most independent traders it's an outright winner. ❖

*Margin Account Calculator is available from: Ian Brant, 599 Dewsbury Road, Leeds LS11 5LE
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