# Trade Manager (TM)
## Expert Advisor
**(May 22, 2011)**

The Expert Advisor (EA), **TM**, allows one to manage the Stop Loss (SL) and Take Profit (TP) points of a trade.  You are responsible for initiating the trades, either market orders and/or pending orders. You do not need to enter SL or TP points in the order window when you enter a trade, you can let TM set and manage those.  TM will only manage one trade at a time for a given chart symbol (if you have three charts open, with different symbols and TM is attached to each chart, all three pairs will be managed).  Which trades it manages, is dependent upon the value of the Magic_Number parameter, described in the parameters section below.  TM will handle fractional pricing (5 decimal prices, 3 for the Yen pairs)

The **TM** Expert Advisor runs on the MetaTrader4 trading platform.  If you don't already have the MT4 platform installed, please go to  the team site at **www.teamforex.info** to set up a demo or live account and download the trading platform.  Instructions for downloading and setting up your MetaTrader 4 platform are also available on the team site. Click on **MT4 Training** and download the *MT4 User Guide*.  Also, watch the *MT4 Training Video* there.

Now that you have the MT4 platform set up, you'll need to install the **TM** Expert Advisor file, which is contained online in the **.zip** file that you downloaded from either the Team Forex site or from the Forex Tool Shed site.

Here are the step by step instructions for downloading and installing the **TM** EA into your MT4 platform folders.

- Open your web browser and go to the download web page

- Click the **Trade Manager**  download link

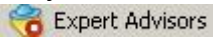- Then click on **Open** button in the pop-up window that appears.
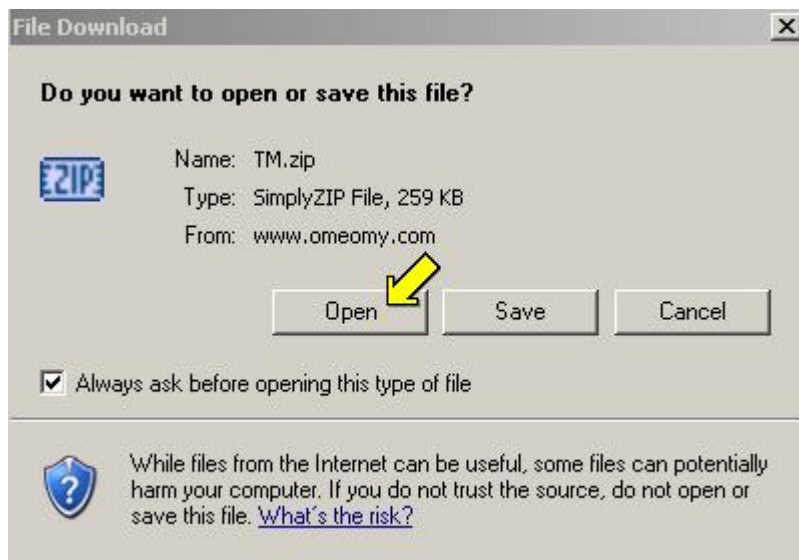
- A Windows Explorer window will open showing the **TM.ex4** file. If the window does not contain a **Folders** panel on the left, then click on the **Folders** icon on the toolbar, In the Folders panel of the window, click on the **+** sign to the left of the **C:\Program Files** folder, then find your MetaTrader4 folder within Program files and left click on the **+** sign by that folder (do not click on the name). You should now be able to see the **Experts** and **Sounds** folders within the MetaTrader4 folder.
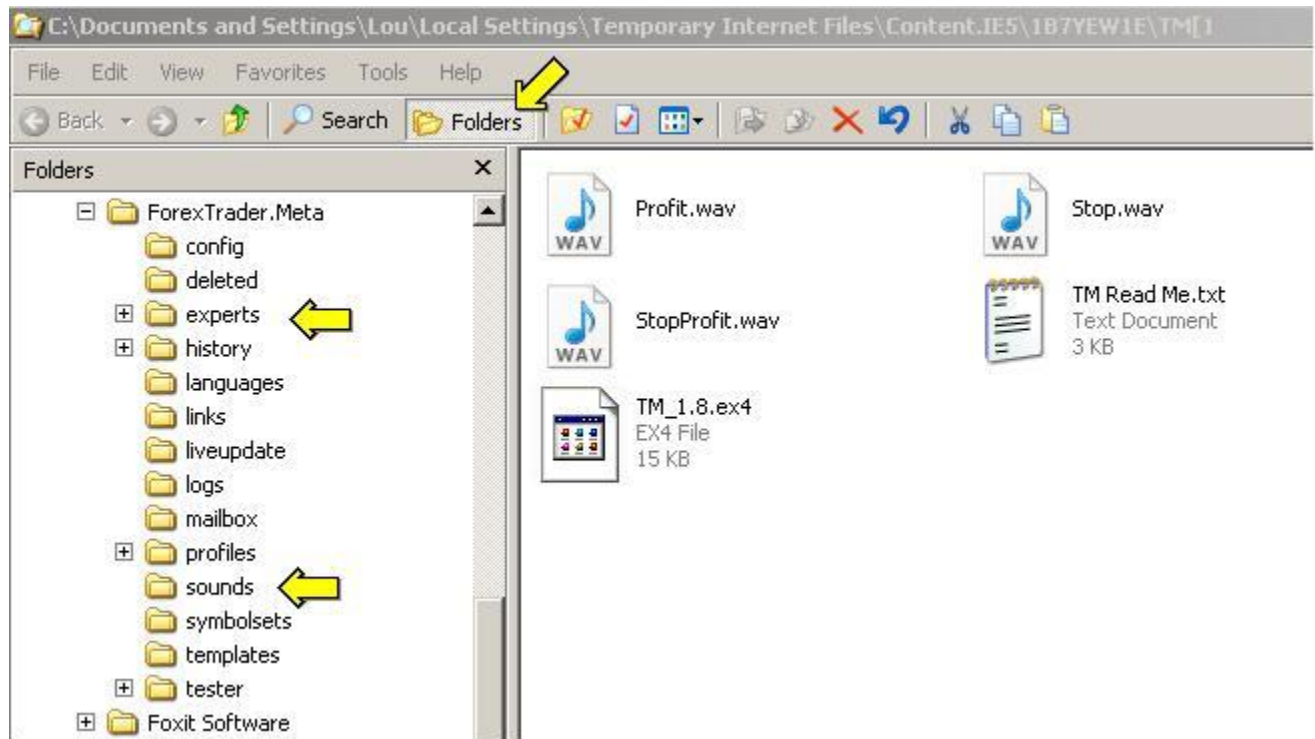


If you can no longer see the TM.ex4 file Icon, then that means that somewhere along the line, you clicked on a folder name instead of the **+** sign.

- Now, move your cursor over the **TM.ex4** icon, right click and drag the file onto the **Experts** folder name. Release the mouse key and click on the **Copy here** menu item that will appear.

- Holding your **Ctrl** key down, left click on each of the sound (**.wav**) files to highlight them. Release the **Ctrl** key, right click and hold down on any of the highlighted files and drag them onto the **Sounds** folder name. Release the mouse key and click on the **Copy here** menu item.

- You can dismiss the Explorer window now.

- If you currently have MT4 opened, close the program and restart it. The **TM** EA file is now in place and is available to your MT4 station.

**Attaching the EA:**  Open your platform and under the Navigator window, open the "Expert Advisors" group.  Right-click on the "**TM**" Advisor and select "**Attach to a chart**".  Choose "**Allow Live Trading**" under the **Common** tab and click **OK**. You'll see **TM** on the top right corner of your chart.  If the Advisor is live and running, you'll see a smiley face ☺.  If it is not live and working then you'll see a sad face ☹  or an **x**.  If it's an **x**, click the 🔴 Expert Advisors button at the top of your tool bar to activate (You'll see a green circle with an arrow on the button 🟢 Expert Advisors  if it is activated.)  If it was a sad face, then click on the **x**, click on the common tab and click on the **Allow live trading** box to leave a check mark.



I would suggest that you make this the default by going to the **Options** menu,  **Expert Advisors** tab, and checking the **Allow live trading** box.
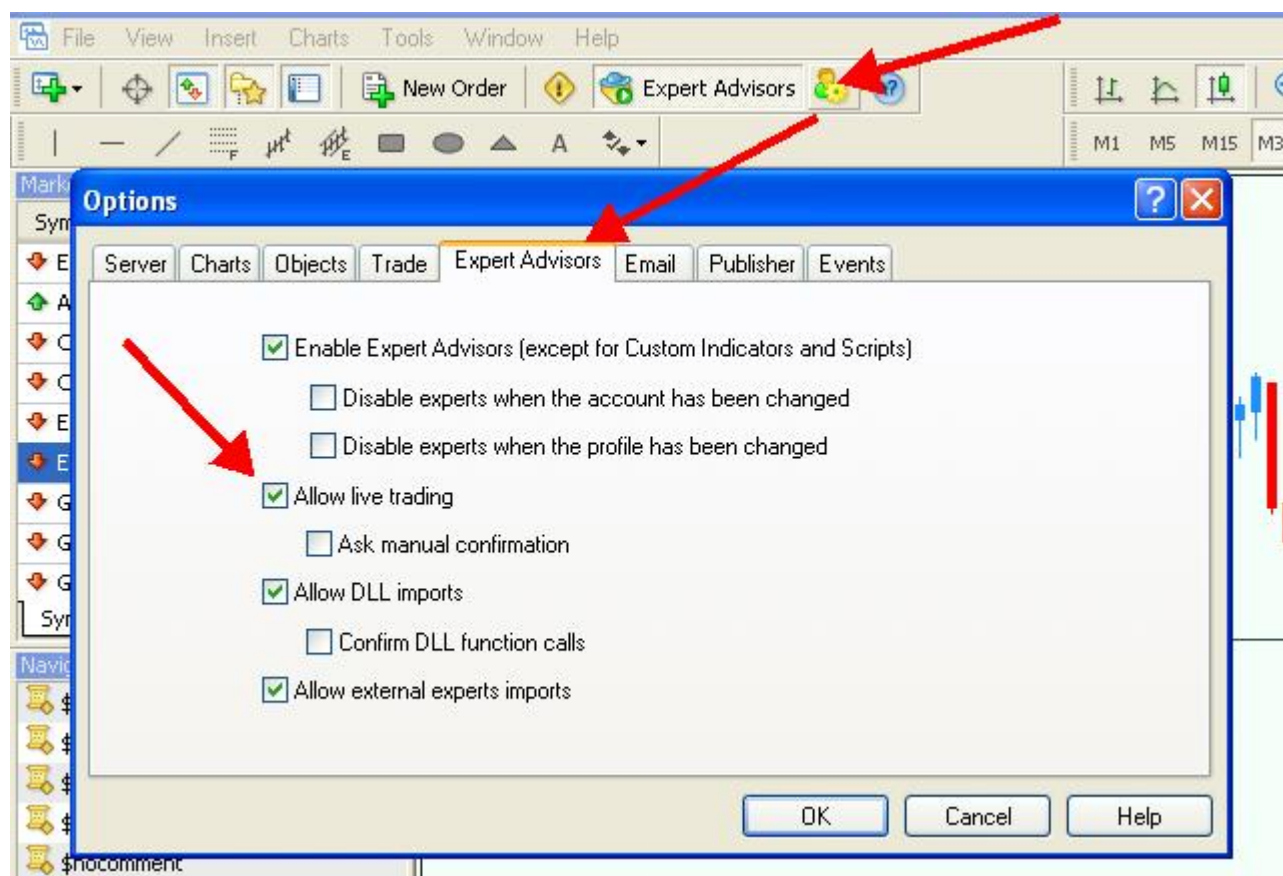


**Input Parameters**

The EA requires that you enter some parameters, so that it knows how you want it to manage the SL's (stop losses) and TP's (take profits).  The following screen shot shows the default parameters. To get to this window, right click anywhere on your chart, move your cursor to Expert Advisors, left click on Properties, and then left click on the Input tab.  (Or you can left click on the Smiley face in the upper right corner of your chart.)   Notice that except for lot sizes, numeric values are expressed in terms of the distance in pips away from break-even.

| Variable | Value |
| --- | --- |
| PreSet_Name | Default |
| First_TP | 0 |
| Second_TP | 0 |
| Third_TP | 0 |
| Fourth_TP | 0 |
| Fifth_TP | 0 |
| TP_Increment | 0 |
| Use_Percent_for_TP_Lots | false |
| First_TP_Lots | 0.0 |
| Second_TP_Lots | 0.0 |
| Third_TP_Lots | 0.0 |
| Fourth_TP_Lots | 0.0 |
| Fifth_TP_Lots | 0.0 |
| Close_Lots_Increment | 0.0 |
| First_Stop_Target | 0 |
| First_Stop | 0 |
| Second_Stop_Target | 0 |
| Second_Stop | 0 |
| Third_Stop_Target | 0 |
| Third_Stop | 0 |
| Fourth_Stop_Target | 0 |
| Fourth_Stop | 0 |
| Fifth_Stop_Target | 0 |
| Fifth_Stop | 0 |
| Trail_Stop_By | 0 |
| Trail_Stop_Trigger | 0 |
| Second_Trail_Stop_By | 0 |
| Second_Trail_Stop_Trigger | 0 |
| Max_Loss | 0 |
| Plus_Spread | false |
| Power_Out_Stop | 0 |
| Magic_Number | 0 |
| Profit_Alert_1 | 0 |
| Profit_Alert_2 | 0 |
| Profit_Alert_3 | 0 |
| Slippage | 10 |
| Alert_Sound | false |
| Alert_Popup | true |
| Alert_Email | false |
| Background_is_Dark | true |
| Screen_Shot | true |
| Show_Comments | true |
| Show_Balance | false |

To change the value of a parameter, double left click on the value box.  If it's a True or False parameter, click on the appropriate entry otherwise enter an appropriate numeric value.  To close the Value box, left click on any other entry in the list.

**PreSet_Name:**  Once you have the parameters set to your satisfaction, you can save the parameter set so that it can be loaded in the future.  This field contains the name you will give that saved file.  The name will appear in the upper left corner of the chart to which the EA is attached:
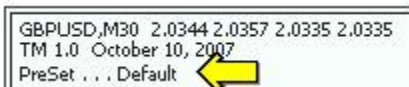


**First_TP:**  This TP Target is how many pips away from break-even (the entry point + spread) that you want your first Take Profit.  The EA knows how much your spread is, so this is the true number of pips profit.

**Second_TP:**  This is how many pips away from break-even that you want your second TP.

**Third_TP:**  This is how many pips away from break-even that you want your third TP.

**Fourth_TP:**  This is how many pips away from break-even that you want your fourth TP.

**Fifth_TP:**  This is how many pips away from break-even that you want your fifth TP.

**TP_Increment:**  Once all of your targeted TPs are hit, the EA needs to know where to set the next TP.  Each subsequent TP will be this number of pips beyond the last targeted TP.

**Use_Percent_for_TP_Lots:**  For the **First** thru **Fifth_TP_Lots** parameters below, you may specify either a fixed number of lots or the percentage of the total lots for the order--TM will calculate how many lots that actually is.  The advantage of using a percentage, is that as your account grows, you don't have to keep changing the number of lots to close.  If you wish to use percentage instead of fixed lots, set this parameter to true and in the TP_Lots fields below, enter the percentage as a decimal number, eg. .25 = 25%, 1.0 = 100%.

**First_TP_Lots:**  If you wish to close a just a portion of your total order at the first TP point, then enter the number of lots to close here--fractional lots (eg. **.2** or **.05**) are allowed—or enter a percentage of the total order.  If the First_TP parameter is zero, the First_TP_Lots parameter is ignored.

**Second_TP_Lots:**  If you wish to close a specific portion of your total order at the second TP point, then enter the number of lots (fixed or percentage) to close here.  If the Second_TP parameter is zero, the Second_TP_Lots parameter is ignored.

**Third_TP_Lots:**  If you wish to close a specific portion of your total order at the third TP point, then enter the number of lots (fixed or percentage) to close here.  If the Third_TP parameter is zero, the Third_TP_Lots parameter is ignored.

**Fourth_TP_Lots:**  If you wish to close a specific portion of your total order at the fourth TP point, then enter the number of lots (fixed or percentage) to close here.  If the Fourth_TP parameter is zero, the Fourth_TP_Lots parameter is ignored.

**Fifth_TP_Lots:** If you wish to close a specific portion of your total order at the fifth TP point, then enter the number of lots (fixed or percentage) to close here. If the Fifth_TP parameter is zero, the Fifth_TP_Lots parameter is ignored.

**Close_Lots_Increment:** This is the number of lots to close at your incremental TP points (after your targeted First thru Fifth TP points).

**First_Stop_Target:** This is how many pips away from break even that you want the move of your SL to be triggered. In our (default) example, the stop loss will be moved to break even plus 1, when the market moves our trade 20 pips into profit .

**First_Stop:** This is where you want your first SL to be placed when the **First_Stop_Target** is hit. If the market price never reaches the First_Stop_Target, but reverses and goes against you, then the trade will be stopped out at number of pips you've specified for Max_Loss--see below. (Our first stop move is to break even +1 pip). You may specify a negative number for First_Stop—if, for example, you want to move your stop to break-even minus 10 pips.

**Note:** Think of the First_Stop_Target as "**when**" to move the Stop, and the First_Stop as "**where**" to move the stop.

**Second_Stop_Target:** When this target is hit, your SL will be moved a second time. (Our 2$^{nd}$ move is when the market moves 40 pips).

**Second_Stop:** This is where you want your 2$^{nd}$ SL to be placed when the **Second_Stop_Target** is hit. If the market price never reaches the Second_Stop_Target, but reverses and goes against you, then the trade will be stopped out at the First_Stop.

**Third_Stop_Target:** When this target is hit, your SL will be moved a third time.

**Third_Stop:** This is where you want your 3rd SL to be placed when the **Third_Stop_Target** is hit. If the market price never reaches the Third_Stop_Target, but reverses and goes against you, then the trade will be stopped out at the Second_Stop.

**Fourth_Stop_Target:** When this target is hit, your SL will be moved a fourth time.

**Fourth_Stop:** This is where you want your 4th SL to be placed when the **Fourth_Stop_Target** is hit. If the market price never reaches the Fourth_Stop_Target, but reverses and goes against you, then the trade will be stopped out at the Third_Stop.

**Fifth_Stop_Target:** When this target is hit, your SL will be moved a fifth time.

**Fifth_Stop:** This is where you want your 5th SL to be placed when the **Fifth_Stop_Target** is hit. If the market price never reaches the Fifth_Stop_Target, but reverses and goes against you, then the trade will be stopped out at the Fourth_Stop.

**Trail_Stop_By:** If you want a trailing Stop Loss after the last targeted SL, or from the Max_Loss if you're not using targeted stops, then set this value to the number of pips that you want the Stop Loss to trail the current price. This Trailing Stop trails pip by pip.

**Trail_Stop_Trigger:** Leave this field zero if you want the trailing stop to trigger when the price is Trail_Stop_By pips beyond the last targeted stop. If you are not using targeted stops and wish to only use the trailing stop, the enter the profit point (pips) where you want to trigger the trailing stop.

**Note:**  You don't have to use all of the targeted stops.  The Trailing SL kicks in after the last non-zero targeted stop is reached.  If all Stop_Targets are 0, then the trailing SL kicks in when the price is "Trail_Stop_By" pips away from the current price or when the Trail_Stop_Trigger is reached.

**Second_Trail_Stop_By:**  If you wish to change the value of your trailing stop, enter a value in this field that indicates the number of pips you now wish to trail by.  Let's say your first TP is 100 pips and you've used a 40 pip trailing stop to get there.  Now you want to change the trail to 20 pips, because the likelihood of the price going much further without a 40+ pip retrace is seriously reduced.  Switching now would save 20 of the pips (for your remaining lots) that you've already achieved.

**Second_Trail_Stop_Trigger:**  This is the point (pips in profit) at which a switch to the Second_Trail_Stop_By occurs—in the above example, it would be 100 pips, the TP point.

**Max_Loss:**  This is maximum number of pips that TM  will allow the trade to go against you.  Think of it as the initial Stop Loss.  (Our default Max Loss is set for 30 pips).  **Note:  This is a positive, non-zero number! !!!**  If a Max_Loss of less than zero is encountered, it will be changed to a positive number.  If TM encounters a Max_Loss of zero, it will be changed to 999 (that's a pretty big loss!).

**Note:**  If you are not using target stops and you are using a trailing stop,  it does no good to have a Max_Loss greater than the trailing stop,  If you have a Max_Loss of 50 and a trail of 20, as soon as your trade is entered (detected), the stop is immediately moved from  -50 (Max Loss) to break-even minus 20 (the trail).

**Plus_Spread:**  If this parameter is set to true, TM will add the currency's spread to the Max_Loss value.  This feature is usefull if you want to have a really tight stop, like the spread + 2 pip Max_Loss.

**Power_Out_Stop:**  Just in case your power goes out or you lose your connection to the internet, you have the option to have TM send a command to the server to set a real (not imaginary) Stop Loss.  Just enter a value into this field--It can be the same value as Max Loss, or it can be greater.  The same rules as for Max Loss apply here.  If this field is zero, no SL request is sent to the server.  Once an SL request is sent to the server, TM takes no further action on this SL.  TM acts on the Max Loss.  You could, instead of using this field, enter an emergency SL when you enter your trade.

**Note:**  If the Trade Manager is managing a trade and the power goes out (or you close your trade station or turn off your PC, etc.), then when TM is re-started, it will remember if you had loaded a file of preset parameters and will use that file on the restart, but it will not remember anything about the trade it was in when the power went out--it will act as though it has encountered the trade for the first time.  For example, if TM had taken profit at the first TP point, it will now take profit at the first TP point again (if the current price is at or beyond that point).

**Magic_Number:**  This number is used to control which orders TM will manage.  There are 3 scenarios.

- If Magic_Number is 0, then TM will manage all trades—with or without magic numbers.
- If Magic_Number is greater than zero, then only orders with a matching number are considered.
- If Magic_Number is negative, then TM wil manage all trades except orders with this number.

A magic number can only be assigned to an order when it is created by a script or expert advisor.  You can not do it with MT4's Order window.  Our script, *$OpenMagic*, can place a market or pending Buy/Sell order with a magic number assigned to it.  It is available on the forextoolshed.com site--click

on the ***Downloads***. If you want Trade Manager to manage an order with a magic number, then TM's Magic_Number parameter must match the magic number of the order.

**Profit_Alert_1:**  If you wish to be alerted (sound, popup, email) when a specified  profit level (number of pips)  is achieved, enter the number of pips here.  Positive number only, please.

**Profit_Alert_2:**  If used, this second profit alert must be greater that Profit_Alert_1.

**Profit_Alert_3:**  If used, this third profit alert must be greater that Profit_Alert_2.

**Slippage:**  This is the maximum number of pips away from your specified price that you will allow a position to be closed.

**Alert_Sound:**  If you wish to be alerted with a sound when profit is taken (ka-ching) or when a trade is stopped out (siren), then set this value to **true**.  Default is True.

**Alert_Email:**  If you wish to be alerted with an email or text message, then set this value to **true**. Default is false.

**Alert_Popup:**  If you wish to be alerted with a pop-up alert message, then set this value to **true**. Default is true.  A popup alert will look like this:



**Background_is_Dark:**  If the background color of your chart is a light color, then set this parameter value to false, otherwise keep the default of true.  This is used to determine the color of label text (not comment text) at the top and bottom of the chart.

**Screen_Shot:**  If this parameter is set to **true**, a screen shot will be taken whenever TM sets or moves a stop, takes profit, or stops the trade out.  (See the description of Screen Shots, below.)  If you have a problem and want assistance, it is recommended that you have screen shots enabled so that you can send the picture to Support.

**Show_Comments:**  This parameter enables/disables the display of parameters and trade status text on the screen.  Disabling the comments is usefull when they would obscure or be in the way of indicators and lines for a particular strategy.

**Show_Balance:** This parameter enables/disables the display of your Account Balance and Equity fields in the lower right corner of your chart:



## A Note about Stops.

The First thru Fifth targeted stops are real stops and you will see them on your trade transaction in the MT4 Terminal window. TM issues a request to the server to set them in place. However, the Max Loss and Trailing stops are "invisible" stops. TM keeps track of where the stop is, but doesn't send a "move stop" request to the server. When the price hits this invisible stop, TM sends a request to the server to close the trade. You will not see these invisible stops in the MT4 Terminal window, nor as a line on your chart. You can track the locations (break-even +/- pips) of the invisible stops, as they change, in the "**Curr SL:**" line in the status text info on the left side of the chart window.

## Screen Shots

A picture will be taken of the screen when TM starts to process an order, each time a fixed stop is moved, each time profit is taken, and when the trade is done (last lot closed or stopped out).  The picture will be saved on your hard drive in the *platformname/experts/files* folder.  The file name will be **ss_TM_symbol_ymoddhhmm**, where "symbol" is the currency pair being managed, "ymoddhhmm" is a number representing the year, month, day, hour and minute  that the shot was taken.  The filename will be suffixed with a single lowercase letter:  "**o**" for open, "**m**" for moved stop, "**s**" for stopped out, "**t**" for take profit, and "**x**" if trade was closed externally.  You should purge these files periodically.

A frequently asked question is, "Why is there an expiration date shown in the upper left corner of the chart?".

> The expiration date is a feeble attempt to prevent piracy.  The EA expires every 6 months, on July 1st and January 1st.  A few weeks prior to the expiration, you will be sent a reminder email, with the new password.  You can then go to **www.forextoolshed.com** and click on the **Downloads** link to download the new version.  These renewals are free--you never pay another fee.  This also keeps you on the latest version of TM

## The Trade Manager  EA in Action

When you attach TM to a chart, a summary of your input parameters is displayed in the upper left corner of the chart.  Once TM detects an order, status information about the trade is displayed is displayed in the upper left corner and the parameters are shown below the status info text (below the dotted line).  The status information changes as the trade progresses.



Using the Input parameters as shown above, let's enter a trade with 3 mini lots and assume the market doesn't reverse at all.  When the price gets 20 pips into profit (First_Stop_Target), the SL is moved to break-even plus 1.  The price is also at the first TP where 1 mini lot is closed for a profit of 20 pips.  The price then moves to 30 pips of profit, where the second of the 3 lots is closed for a profit of 30 pips.  Now the price moves to 40 pips of profit, which is the Second_Stop_Target, where the SL is moved to BE+5 pips, which is 15 pips behind the current price.  The price then moves to 60 pips of profit, where the 3rd and last mini lot is closed for a profit of 60 pips.  Total profit for all 3 lots is 110 pips (20 + 30 + 60).

**Note:**  The Stop Target  and TP points do not have to be at the same place.

When TM sets a targeted SL, a red dot-dash line will be placed on the chart, and when the SL is moved, the red line is also moved (but not for the Trailing Stop—it is invisible to the Broker).

As TM closes lots to take profit it leaves an audit trail on the chart.  Note the white triangles, which indicate a Take Profit, and the dotted lines, which connect the Entry point with each of the take profits.

# Note:

TM will only process one trade at a time for any given currency pair (per account). If more than one trade exist for a currency, TM must finish with the first one before it can detect and manage the next one. Unless . . .

Unless you assign a magic number to one of the trades. A Magic Number can only be assigned to an order by using a script (or an EA). Here's a scenario for managing multiple trades (orders):

1. Let's say your first trade **does not** have a magic number and is being managed by TM on chart #1.
2. Open a second chart for the same currency and attach TM, modifying the Magic Number Input parameter to 2 ( or any number).
3. Create a new order by dragging the script, **$OpenMagic**, onto chart #2, entering the appropriate Input parameters to define the order, including the same magic number that you told TM to manage in step 2, above.
4. TM is now managing your second trade.
5. You can do the same thing with a third trade, using a new chart and a different Magic Number.

**Note:** You cannot attach more than one EA to a chart. The second EA will remove and replace the first EA.

**Note:** If you will be using TM to trade announcements, please give TM a helping hand by closing all unnecessary programs on your PC. You absolutely do not want your email program to be downloading mail, or Automatic Updates to be updating your system, or scanning programs to be

operating, when the announcement comes out, as it will slow the TM program down, making it less responsive to market conditions and prone to undesirable results.

**Note:**  Be aware that when you switch Profiles or change Accounts, Expert Advisors will be disabled.  To prevent this, you must **uncheck** a couple of boxes on the options menu.  On the toolbar, click on **Tools**, then **Options**.  Click on the **Expert Advisors** tab and remove the check marks as shown below:  **Your PC must be on and your trade station running for the EA to work.**



**Note:**  If you have a trade in progress that TM is managing  and one of several lots has been closed in profit (TP), or a Stop has been moved, and you then open the Input Parameters window, when you close that window by clicking OK, TM is re-initialized (even if you didn't change anything).  Stops could be set back to prior points, the Next TP point is set to First TP, etc.  So . . . once a stop has been moved or a profit taken, don't interrupt TM.  Parameters are also re-initialized when  the Time Frame (Periodicity) of the chart is changed, or if you switch profiles.  Don't do it.

## Trouble Shooting

If you believe you have discovered a problem with the Trade Manager and would like some help solving it, then perform the following:

- If your chart shows some aspect of the problem, take a screen shot of the chart, to include the parameters that TM shows on the left side of the chart.

- Compose an email, describing the nature of the problem and attach/include the screen shots that you took.  If you had the **Screen_Shot** parameter turned on, you should also attach the screen shots that TM made—they are in the ***[platformname]/experts/files*** folder.

- Attach/include the experts log file for the appropriate (server) day from the ***[platformname]/ experts/log*** folder, or excerpt the portion that relates to your trade problem.

- Do the same thing for the Journal log file, which is the ***[platformname]/logs*** folder.

- It's very important that you include, in some form, the TM Input Parameters that you used for the problem trade.

- Send the email to:  **fxools@forextoolshed.com**.


## Error Messages

Occasionally, when TM sends a request to the server, the server will return an error message,  which TM will display on the screen and in the **Experts** log.  TM will resend the request for some types of errors, like "Re-quote" or "Invalid Price", but for others, like "Market Closed", it doesn't.  Here is a list of possible errors:

| | | |
|---|---|---|
| ~ | COMMON_ERROR | 2 |
| ~ | INVALID_TRADE_PARAMETERS | 3 |
| ~ | SERVER_BUSY | 4 |
| ~ | OLD_VERSION | 5 |
| ~ | NO_CONNECTION | 6 |
| ~ | NOT_ENOUGH_RIGHTS | 7 |
| ~ | TOO_FREQUENT_REQUESTS | 8 |
| ~ | MALFUNCTIONAL_TRADE | 9 |
| ~ | ACCOUNT_DISABLED | 64 |
| ~ | INVALID_ACCOUNT | 65 |
| ~ | TRADE_TIMEOUT | 128 |
| ~ | INVALID_PRICE | 129 |
| ~ | INVALID_STOPS | 130 |
| ~ | INVALID_TRADE_VOLUME | 131 |
| ~ | MARKET_CLOSED | 132 |
| ~ | TRADE_DISABLED | 133 |
| ~ | NOT_ENOUGH_MONEY | 134 |
| ~ | PRICE_CHANGED | 135 |
| ~ | OFF_QUOTES | 136 |
| ~ | BROKER_BUSY | 137 |
| ~ | REQUOTE | 138 |
| ~ | ORDER_LOCKED | 139 |
| ~ | LONG_POSITIONS_ONLY_ALLOWED | 140 |
| ~ | TOO_MANY_REQUESTS | 141 |