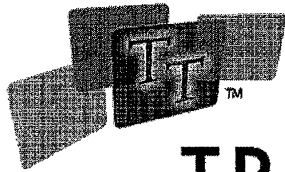


# Exhibit 2



# TRADING TECHNOLOGIES®

## X\_TRADER® USER MANUAL

**Version 6.11**

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# What's New in X\_TRADER® 6.11

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 **Warning: Be aware that new properties in the Properties dialog box Spread Matrix Tab default to ON. These new properties include:**

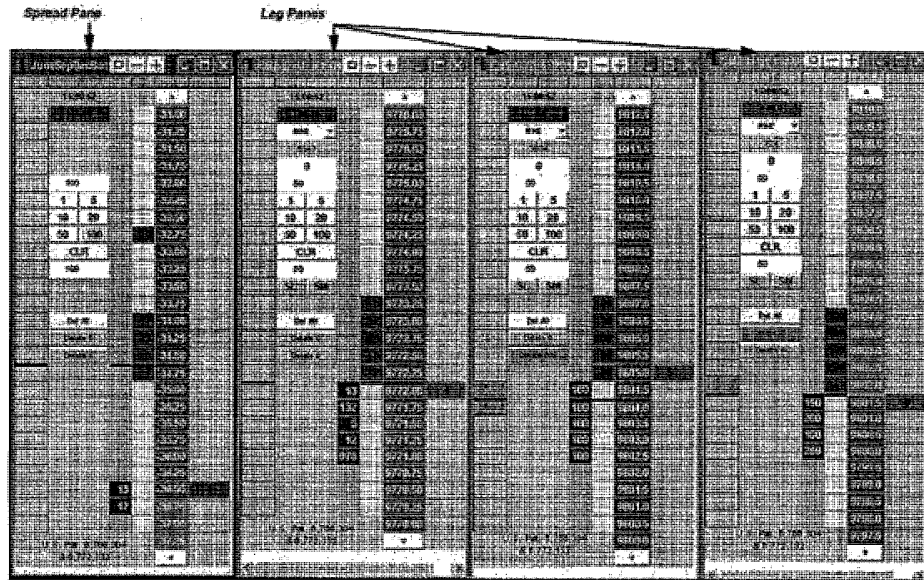
- Use Minimum Highlighting Mode defaults to ON
- Show Last Traded Price/Net Change defaults to ON
- Spread Matrix: Show Net Position defaults to Along the Diagonal
- Butterfly Condor Matrix: Show Net Position defaults to ON

This document describes the new features and functionality released with X\_TRADER® 6.11. Enhancements to X\_TRADER® impact the following components:

- Autospreader™
- Spread Matrix
- Butterfly Condor Matrix
- MD Trader™



# Autospreader™

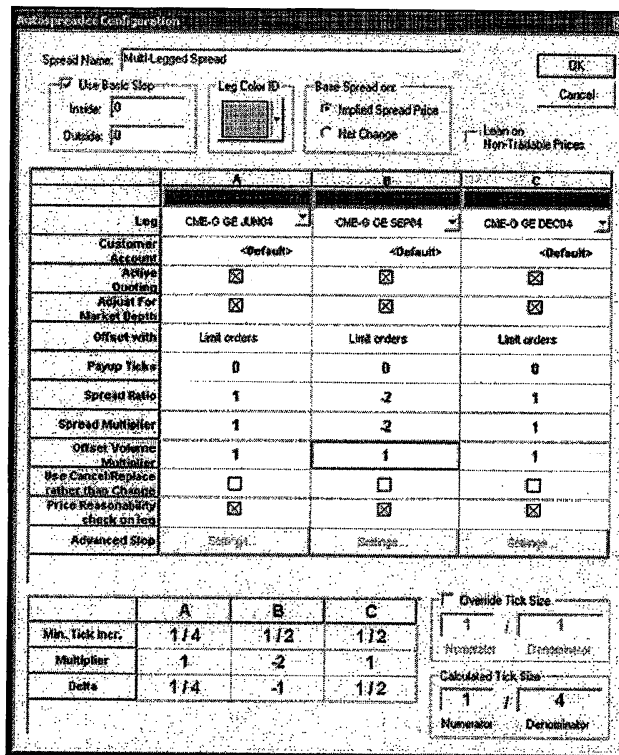


Note: MD Trader™ is protected by U.S. Patents Nos. 6,766,304 & 6,772,132.

Autospreader™ now allows multi-legged spreads that consist of the following features and characteristics:

- Allows up to ten legs per spread.
- Allows Active Quoting on one to three legs of the spread.

- Ability to add columns to the **Configuration** dialog box.



- Ability to delete legs of multi-legged spread by clicking the **Delete** button in the specified leg column in the **Configuration** dialog box.

**Note:** If a leg is deleted, the MD Trader™ window for that spread leg is not closed.

- If the market for any of the legs is *illiquid* at the time of the order, the order is rejected. If the market for any of the legs becomes illiquid while the order is working, the order is pulled. Once a spread quoting order has been filled, no hedge orders are pulled, regardless of market liquidity.

- Hedging logic for multi-legged spreads:
  - If you use limit orders on non-quoted legs and a quoted leg is filled, the prices at which the orders go in on the remaining legs are based on the current market in the remaining legs at the time of the fill confirm from the exchange.
  - Hedging logic for partial fills on multi-legged spreads is the same as for two-legged spreads.
- Hedge orders are color-coded in a non-standard orange color. This color is *not* configurable.

## Spread Matrix and Butterfly Condor Matrix

The new properties in the **Properties** dialog box **Spread Matrix** tab that impact *both* the Spread Matrix and the Butterfly Condor Matrix include:

- Use Minimum Highlighting Mode.
- Use Net Change Color Scheme With Actual Prices.
- Show Last Traded Price/Net Change.

**Note:** Be aware that new properties in the **Properties** dialog box **Spread Matrix** tab default to ON. These new properties include:

- Use **Minimum Highlighting Mode** defaults to ON
- **Show Last Traded Price/Net Change** defaults to ON
- Spread Matrix: **Show Net Position** defaults to **Along the Diagonal**
- Butterfly Condor Matrix: **Show Net Position** defaults to ON

# Spread Matrix

Use Net Change Color Scheme with Actual Prices Property:  
 - Pink background display negative prices  
 - Light green background display positive prices

Last Traded Price or Net Change and Position Rows

Context Menu Options

- Click Trade
- Show Top Outrights as Net Change
- Show Spread Priced as Net Change
- Show Outright Last Traded Price as Net Change

Enhancements to the Spread Matrix allow you to customize the spread matrix and easily identify trade data. These features include:

- New context menu options
- New property settings

## Context Menu

New options in the context menu include:

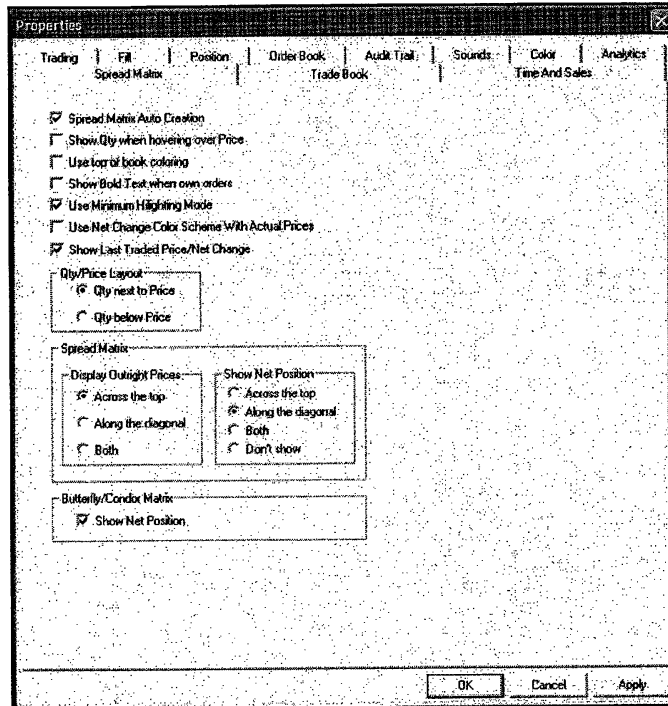
- **Hide Header Rows:** When you enable this option, the Header rows displaying **Bid Prc/ Ask Prc** and **Bid Qty/ Ask Qty** are hidden.
- **Display Prices** option: You have the ability to display Spread Matrix prices as **Net Change** (versus actual prices). Select one or more of the following Net Change **Display Price** options:
  - Show Top Outrights as Net Change
  - Show Bottom Outrights as Net Change
  - Show Spread Prices as Net Change
  - Show Outright Last Traded Price as Net Change

When you choose these display price options, a new default color scheme is used. The new color scheme displays the following:

- Negative prices display pink
- Positive prices display light green
- Prices with no change display white

## Properties: Spread Matrix Tab

New features and functionality in the **Properties** dialog box **Spread Matrix** tab.



These new properties include:

- **Use Minimum Highlighting Mode.** The behavior of the Spread Matrix depends on the following market characteristics:
  - Spread Matrix only highlights when both the quantity and price change.
  - Highlighting of the bid or ask depends on whether the Last Traded Price is on the bid or ask.
  - If the last traded price was not on the bid or ask, the Spread Matrix does not highlight.
  - This property is **ON** by default.

- **Use Net Change Color Scheme with Actual Prices:** When you enable this option, **Net Change Color Scheme** colors are used when prices display in the standard format (actual prices). The color scheme follows:
  - Negative prices display pink
  - Positive prices display light green
  - Prices with no change display white

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**Note:** Customize these net change colors in the Properties **Color** tab.

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- **Show Last Traded Price/Net Change:** A row designated by an [ L ] displays at the top of your Spread Matrix. This property is **ON** by default.

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**Note:** If you display Spread Matrix prices in the standard format using actual prices, this row displays **Last Traded Price**.

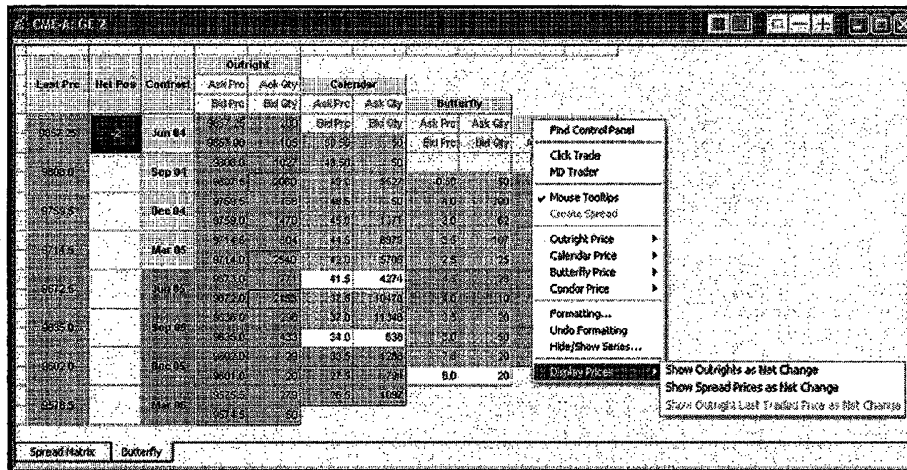
**Or:**

If you display Spread Matrix prices as **Net Change** (using the context menu options), this row displays prices in net change.

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- You can **Show Net Position** in the Spread Matrix. Choose from one of the following display choices:
  - **Across the top:** Displays a row designated by a [ P ] across the top.
  - **Along diagonal:** Default. Displays a cell at the bottom of each contract.
  - **Both:** Displays both the [ P ] row and bottom cell.
  - **Don't Show:** Does not display net position.

# Butterfly Condor Matrix



Enhancements to the **Butterfly Condor Matrix** allow you to customize the Butterfly Condor Matrix and easily identify trade data. These features include:

- New context menu option
- New property settings



## Context Menu

The context menu includes a **Display Prices** option. You now have the ability to display Butterfly Condor Matrix prices as **Net Change** (versus actual prices).

Select one or more net change **Display Price** options:

- Show Outrights as Net Change
- Show Spread Prices as Net Change
- Show Outright Last Traded Price as Net Change

When you choose these display price options, a new default color scheme is used. The new color scheme displays the following:

- Negative prices display pink
- Positive prices display light green
- Prices with no change display white

## Properties: Spread Matrix Tab

The properties found in the **Properties** dialog box **Spread Matrix** tab that impact the Butterfly Condor Matrix include:

- **Use Minimum Highlighting Mode.** The behavior of the Butterfly Condor Matrix depends on the following market characteristics:
  - Butterfly Condor Matrix only highlights when both the quantity and price change.
  - Highlighting of the bid or ask depends on whether the Last Traded Price is on the bid or ask.
  - If the last traded price was not on the bid or ask, the Butterfly Condor Matrix does not highlight.
  - This property is ON by default.

- **Use Net Change Color Scheme with Actual Prices:** When you enable this option, **Net Change Color Scheme** colors are used when prices display in the standard format. The color scheme follows:
  - Negative prices display pink
  - Positive prices display light green
  - Prices with no change display white

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**Note:** Customize these net change colors in the Properties **Color** tab.

- **Show Last Traded Price/Net Change:** A **Last Prc** column displays in your Butterfly Condor Matrix. This property is ON by default.

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**Note:** If you display Butterfly Condor Matrix prices in the standard format using actual prices, this row displays **Last Traded Price**.

**Or:**

If you display Butterfly Condor Matrix prices as **Net Change** (using the context menu options), this row displays prices in net change.

- Display **Net Position** in the Butterfly Condor Matrix using the Properties **Spread Matrix** tab. A **Net Pos** column displays in the Butterfly Condor Matrix. This property is ON by default.

## MD Trader™

MD Trader™ contains new features that include:

- Ability to rename MD Trader™ window.

**Note:** When you rename your MD Trader window, you may only use letters, numbers, and the underscore symbol. The dialog box does not allow you to use special characters or the space bar.

- Allow you to continually send GTC orders using the GTC checkbox. This checkbox resembles the IOC checkbox. When you enable the GTC checkbox, all your orders enter the market as GTC orders.



- Ability to globally re-center all MD Trader™ windows using the **Participate in Global Recentering** property. When you recenter one MD Trader window by clicking the center mouse button, all MD Trader windows automatically recenter.

**Note:** The property for this setting defaults to ON. New and existing workspaces are automatically affected by the property.

If you manually disable this property for a particular window, that window does not recenter when your other MD Trader windows recenter and will only recenter when you manually recenter it.

The following MD Trader™ property setting defaults have changed:

- The **Enable Drag/Drop of Working Orders** property is now a standard feature for MD Trader windows. Therefore, the property has been eliminated. Using a right-click, you drag and drop working orders on either side of the market. Doing so pulls the existing order from the market and replaces it with a new order.

**Note:** This change impacts existing workspaces.

- **Volume by Price** now defaults to OFF.
- **Bid-Ask Text Justification:** Ask text justification defaults to RIGHT ®.

**IMPORTANT:** The "Enable Drag/Drop of Working Orders" property has been REMOVED. This option is now a standard feature with MD Trader.

"Participate in Global Recentering" defaults to ON

"Volume By Price" now defaults to OFF

"Bid/Ask Text Justification:" Ask text justifies to RIGHT (R)

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# About This Manual

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## Introduction to X\_TRADER® 6.11 User Manual


This X\_TRADER documentation contains both general and specific information about the application. It also includes procedures designed to aid you in learning how to use and interact with the application. This is not intended as a tutorial to every function and option available in X\_TRADER, nor does it substitute for the training you receive from your Trading Technologies representatives.

**Note:** TTM™ recommends that you practice trading with TTM™ products in a simulated environment before actually performing live trades.

## Conventions

This guide uses a set of terms, symbols, and typographic conventions to categorize specific information. Familiarity with these conventions will help you use this guide more effectively.

The following icon is used in this guide:

: A procedure that you should follow to complete a task.

## About This Manual

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This guide uses the following text conventions:

Convention	Use
ALL CAPITALS	Indicates operating system commands, and acronyms.
Courier	Indicates examples and anything that you must type exactly as it appears. For example, if you are asked to type <code>show version</code> , you would type all the characters shown in Courier exactly as they are printed.
<b>Bold</b>	Indicates menu items, command buttons, folder/directory names, file names, window names, dialog box names and field names.  Procedures contain bolded items as well.
<i>Italic</i>	Indicates variables, including variable text. Variable text is used when dialog boxes or their components are not labeled.  Variable text is also used for labels that change dynamically based on their current context. The wording of variable text does not exactly match what you see on your screen.

## Keyboard Formats

All key names are shown using small capital letters. For example, the Control key is shown as CTRL. The UP ARROW, DOWN ARROW, LEFT ARROW, and RIGHT ARROW KEYS are collectively referred to as the arrow keys.

Key combinations and key sequences appear in the following formats:

Format	Meaning
Key1+Key2	A plus sign (+) between key names means to press and hold down the first key, while pressing the second key. For example, "Press ALT+TAB" means to hold down the ALT key while pressing the TAB key.
Key1, Key 2	A comma between key names means to press and release the keys one after another. For example, "Press ALT, F, O" means to press and release the ALT key, press and release the F key, and then press and release the O key.

## Related Documentation

This guide is part of comprehensive Trading Technologies® documentation and online Help systems that include:

- Guardian™ Help
- X\_RISK® Plus™ Help and User's Guide
- X\_TRADER® Help

## X\_TRADER® Trading System

Trading Technologies®' X\_TRADER® Trading System gives you and your customers the best technological edge in the business. X\_TRADER® is the fastest, most adaptable front-end trading screen for stock, futures, and options trading. Combining universal exchange access, high performance, and full customization, X\_TRADER®, with its sophisticated trading tools, enhances your presence in all the world's open-access electronic markets.

X\_TRADER® is designed to meet the demands of institutional brokers and professional traders globally. It facilitates easy order entry, order routing, and position management. X\_TRADER®'s customizable windows allow you to execute and track the complete life cycle of a trade:

- Flexible market window for easy order entry and depth of market
- Extensive order book displaying working orders and editing functions
- Real-time position management window including fill details and real time P&L
- Comprehensive audit trail detailing transactions over a ten-day period

X\_TRADER® enables its users to execute trades fast. Speed combined with flexibility gives X\_TRADER® users a distinct advantage in today's fiercely competitive global market.

**X\_TRADER® Pro** is an add-on to the standard X\_TRADER® software package. This add-on automatically installs with X\_TRADER®, but can only be activated by the purchase of an X\_TRADER® Pro license. X\_TRADER® Pro consists of the **Autotrader™** and **Autospreader™** tools.



## Global Client Support Center

Trading Technologies' Global Client Support Center (CSC) has offices in both England (London) and the US (Chicago, Illinois). Support personnel can be dispatched to client sites from all of our offices worldwide. The CSC offers assistance over the phone and via remote dial-in equipment.

Calls received by the USA center are automatically forwarded to London between the hours of 11PM and 6AM CST, Sunday through Friday.

### Telephone Numbers:

877.424.8844 (This number can be used 24 hours.)

+1.312.476.1002 (USA)

+44.20.7397.1500 (Europe)

### Fax Numbers:

+1 312.312-476-1001 (USA)

+44.20.7600.5050 (Europe)

**Global E-mail Support:** [support@tradingtechnologies.com](mailto:support@tradingtechnologies.com)

## Automated Phone Menu

To provide the fastest service, it is important to select the correct option for the particular issue to be addressed by the CSC. This menu option determines the specific CSC staff member to which the call is routed. Callers selecting the incorrect option are informed of the proper option and transferred back to the menu to route their call appropriately.

Below you find the new phone system options, their description and examples of issues to be addressed with the option. The option to be requested can be connected immediately after hearing the mandatory "Calls may be recorded" message.

Upon calling the main line, you now hear the prompts listed below.

- **Greeting:** TT Support, calls may be recorded for quality assurance purposes.
- **Option 1:** For front end software assistance, push 1.
- **Option 2:** For server software assistance, push 2.

During periods of high call volume, callers may receive an information notification message or a "no lines open" message.

- **Information Notification:** Any time there is a problem, which affects multiple customers; the CSC places a message on this line explaining the current situation. It plays prior to the above options.
- **No lines open:** "Thank you for calling, all agents are busy, please stay on the line for the first available agent." (Repeats every 15 seconds).

## Examples

Select Option 1 (front end software assistance) for issues relating to X\_TRADER® - including Autotrader™ and Autospreader™, X\_Risk™, and Guardian.

Select Option 2 (server software assistance) for issues relating to TT Gateways – including TTSim/Trainer, Wan Routers, Remote Host Servers and TTM or Tibco

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# Chapter 1

## Getting Started

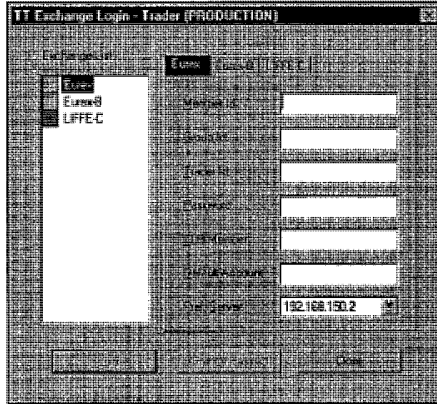
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This section lists the minimum number of steps necessary to begin using X\_TRADER®. In addition, your particular trading environment (e.g., back office requirements or quoting) may require that you set up additional parameters. Advanced features and functionality are described in their respective sections, while advanced customization is explained in the topics listed under **Common Administrative Tasks**.

To begin working with X\_TRADER®:

- Log in to X\_TRADER.
- Create a customer profile.
- Pick a product from the **Market Explorer** to populate the **Market Grid**.
- Send an order to market.
- Track messages using the **Audit Trail**.
- Track orders using the **Order Book**.
- Track fills using the **Fill** window.
- Save your workspace.

## Logging into X\_TRADER®

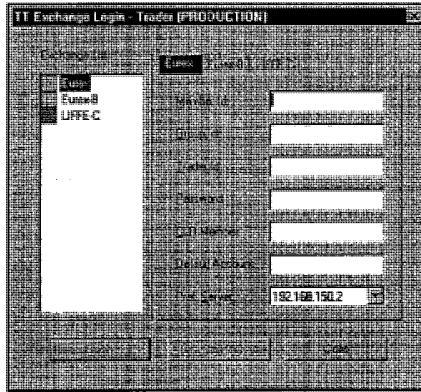


To begin trading you must first log into X\_TRADER®.

► **To log into X\_TRADER®:**

1. On your Windows desktop, double click the X\_TRADER icon.
2. At the **TT™ Exchange Login** window, double-click the **Exchange** name from the **Exchange List** or select the appropriate exchange tab (for example, LIFFE).
3. Enter the login data provided by your X\_TRADER® Administrator. Login data includes the **Member ID**, **Group ID** (if applicable), and **Trader ID**. Your login data may also include your clearing member and default account. The preferred server is usually automatically chosen based on availability. After your first log in all data excluding the password is retained.
4. Memorize or keep a record of your login data. This data is not retained after an X\_TRADER® software upgrade.
5. Click the **Login** button. If your password is authenticated, a check mark appears in the box on the left of the exchange name.
6. Repeat Steps 3 and 4 for each exchange/marketplace on which you want to trade.
7. Click the **Close** button.
8. After a short delay, while your workstation establishes a connection to the server and loads any undelivered fills, the X\_TRADER® **Control Panel** becomes fully enabled. The gray icons now display in full color.




## Logging into an Exchange



The first time you log in (or after your workstation is rebooted), you must enter your Member, Group, and Trader Ids, and Password. There are also areas available to enter the Clearing Member, Default Account, and Preferred Server. Your System Administrator will supply the Login data.

The TT™ Exchange Login dialog box has a “tab” for each exchange available in your environment. The Exchange List displays all available exchanges, as well as Guardian™ status.

The status lights can vary in each environment. Your System Administrator or your provider will inform you of what to expect in your environment.

- A green  box next to the exchange indicates that the services are all running.
- A red  box next to the exchange indicates that one or more services are not running (“down”).
- A yellow  box indicates that one or more services may be running but not active. This may be normal for your trading network.

Memorize or keep a record of your login data. The data is not retained after a X\_TRADER® software upgrade.

▶ **To log in into an exchange, use the following steps:**

1. Select the appropriate exchange tab or double-click the name from the **Exchange List**.
2. Enter the login data provided by your System Administrator.
3. Click the **Login** button. After your password has been authenticated, a check mark appears in the box next to the exchange name.
4. If you want to log in to another exchange, select the appropriate exchange tab and enter the login information.
5. Click the **Close** button to close the **TT™ Exchange Login** dialog box.

**Change Password** on the **Exchange Login** dialog box is not functional at this time.

When you are working with X\_TRADER® you may want to open more than one exchange during a session.

▶ **To log into another exchange:**

1. Locate the system tray in the bottom right-hand corner of your desktop. Double-click the TT icon.
2. From the **Guardian** menu bar, open the **File** menu and click **Trader Login**. The **Exchange Login** dialog box opens.
3. Select the appropriate exchange tab, and enter your login data.
4. Click **Login**. After a successful login, a check mark (√) displays in the exchange's status box.
5. Repeat the above steps for any additional exchanges.
6. Click **Close** to exit the dialog box.

▶ **To log into X\_TRADER® with a different trader ID:**

**Note:** If you attempt to log in via the **Guardian Trader Login** option without closing X\_TRADER®, the login appears successful and the **Guardian** window **Status** column changes to reflect the 'new' trader ID. However, all subsequent trades are still be attributed to the original trader's account.

To log in with a different **Trader ID**, you must close X\_TRADER®. When you restart X\_TRADER, you must enter the new **Trader ID** in the **Exchange Login** dialog box.

## X\_TRADER® Pro License

Autospreader™ and Autotrader™ are add-on tools only available with X\_TRADER® Pro. Although both modules install during the regular X\_TRADER® installation process, they require a separate X\_TRADER® Pro license to function. These tools are not available for use unless you purchase this separate license. Contact a Trading Technologies representative for further details.

Once you obtain an X\_TRADER® Pro license, you must activate the license in X\_TRADER® to access the functionality. Once activated, Autospreader™ and Autotrader™ work as long as the license remains current and you continue to log into the host machine with the same user name. If you upgrade to a different version of X\_TRADER®, you must re-activate the license.

If you currently do not have an X\_TRADER® Pro license, you may still use X\_TRADER®. Although the Autotrader™ and Autospreader™ features are not available to you without the license, all other features are activated.

If you receive a message that you do not have an X\_TRADER® Pro license, close X\_TRADER® and RESTART it. You can now use it in "norm" mode.

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**Note: Order Block** does not require an X\_TRADER® Pro license.

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▶ **To activate an X\_TRADER® Pro license:**

1. Have your TT™ representative enable the X\_TRADER® Pro option in the **Settings** menu.
2. Open X\_TRADER® from the desktop icon and log onto an exchange.
3. In the X\_TRADER® **Control Panel**, on the **Settings** menu, click **X\_TRADER® Pro**.

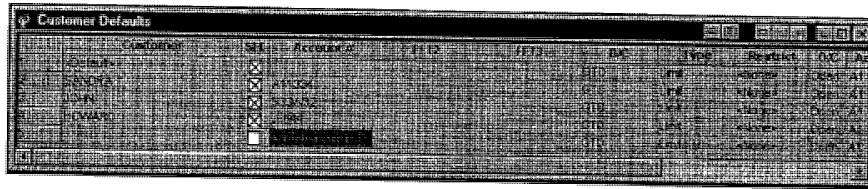
A prompt appears informing you that you must close X\_TRADER® and restart it to access X\_TRADER® Pro.

4. Quit X\_TRADER®.
5. Open X\_TRADER® from the desktop icon and log onto an exchange.

The X\_TRADER® Pro license is now activated, and you can access Autotrader™ and/or Autospreader™.



## Creating a Customer Profile



You define a **Customer Defaults** profile to establish all of the most common order variables by customer name.

▶ **To define a Customer Defaults profile:**

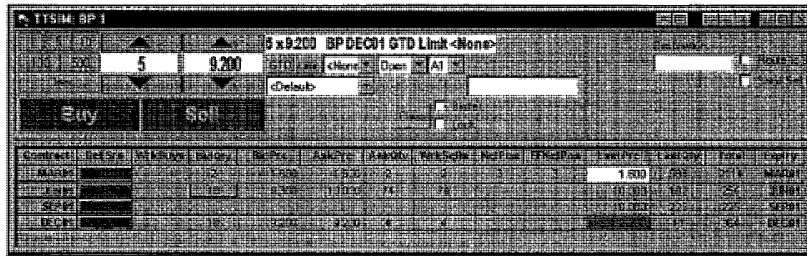
1. From the **Control Panel**, open the **Settings** menu and click **Customer Defaults**.
2. Enter the customer profile information in the **Customer Defaults dialog box**. The first profile has a customer name of **Default** which you cannot change.
3. When changing **Customer Default** data, make sure that you tab to the next field, or press **ENTER** to save your changes. If you enter your change without using the tab key to advance to the next field, or if you do not press **ENTER**, your changes will not be saved. This is a safeguard to ensure that no data is inadvertently changed and then saved in the customer profile.
4. Close the **Customer Defaults** window.
5. The new customer name will be added to the **Customer List** dialog box.

## Introduction to the X\_TRADER® Workspace

Your X\_TRADER® workspace is a file that holds "snapsh"t" of your X\_TRADER® desktop. This file records all your open windows, the spatial relationships among those windows, and all customized settings from the last time that you saved the workspace. This includes all open and minimized windows, as well as color, font, column/row sizing, placement, selection, and many other formatting preferences.

You create one or more workspaces to fully customize X\_TRADER® to fit your particular trading style and environmental requirements. For example, you may have a morning and afternoon workspace to reflect the opening and closing of different exchanges. You may also have a report printing workspace in order to avoid reformatting your windows to display needed data. Refer to the workspace topics in the Index for a further discussion of this feature.

## Manually Entering a Market Order



New traders or those who are new to electronic trading may want to use the **Lock** safety feature until accustomed to using X\_TRADER®. Every **Order Entry** pane and **Order Book** window has a **Lock** check box.

When enabled, this feature requires you to confirm the action you want to take before sending the order to market. For example, if there is a check in the **Lock** check box, when you chose the **Sell** button, the button title changes to **Apply Sell**. You must click the **Apply Sell** button to confirm your sell order, and only then will it be sent to market.

If the Use Default Qty feature is enabled, clicking in the BidQty or AskQty cells does not populate both the Order Entry Quantity and Price fields. The BidQty or AskQty cells populate with the default quantity.

► **To enter a manual order:**

1. From the **Market Grid**, in the appropriate strike/expiry row on the bid or ask side of the screen, click any cell. Clicking in the **BidPrc** or **AskPrc** (Price) cell feeds the **Order Entry** pane **Price** field. Clicking in the **BidQty** or **AskQty** cells feeds both the **Order Entry** **Quantity and Price** fields. Add or change the order information as necessary: for example, quantity, price, and order type information.
2. Click **Buy** or **Sell**.
3. If you have entered valid data, the order is sent to market. The **Audit Trail** window message displays a status of **OK** and an Action of **Add**.

## Sending an Order to the Market

You can enter orders manually using a mouse or on the keyboard, or use the click trading feature through the **Market** window. The **Order Entry** pane is used to enter order information for contracts chosen in the **Market Grid**.

The topics discussed under **Order Entry** and **Market Grid** contain complete descriptions of the **Market** window functionality.

## Order Messages in the Audit Trail Window

Time	OK	Status	Action	Exchange	P/L	GM	P/L	Qty	Product	MMMA	Status	Exch	StopPr
10:00:00.000		ACCEPT	ADD	NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			
10:00:00.000		OK		NYSE				100	IBM	MMMA			

The **Audit Trail** window displays messages relating to X\_TRADER® actions and exchange announcements.

The **Audit Trail** displays the following three lines of messages for successful buy (blue background) or sell (red background) orders:

- The first message details the order information, including the time the order was sent from the workstation (Time column) to the TT Gateway (i.e., server), an order Status of **ACCEPT**, and an Action of **Add**.
- The second message immediately follows the first and indicates acceptance by the TT Gateway. The order has been routed to the exchange trading host.
- The third message displays sometime after the previous two. This message is the confirmation received from the exchange's trading host. The information detailed includes the time the confirmation was received by the workstation (Time), an order Status (**OK**), and the time the confirmation was sent by the exchange's host machine (Exch Time).

When the order is filled, the fill notification message displays a Status of **OK** and an Action of **Fill**, and provides detailed information about the order.

Refer to the **Audit Trail** topics for a further discussion of this feature.

## Exiting X\_TRADER®

Close X\_TRADER® at the end of each trading session.

► To exit X\_TRADER® use one of the following methods:

From the **Control Panel**, open the **File** menu and click **Exit**.

**Or:**

In the top left-hand corner of the **Control Panel**, double-click the X\_TRADER® icon.

**Or:**

In the top right-hand corner of the **Control Panel**, click the **Windows Exit** button.

## Automatic Shutdown of X\_TRADER®

X\_TRADER® automatically closes after eight hours of inactivity when there are no orders in the **Order Book** and no new fills or price updates have been received.

X\_TRADER® displays a message informing you that it is closing. If you do not take any action, or if you click **OK**, the X\_TRADER® application closes.

At this time this feature is not configurable.

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# Chapter 2

## Common Administrative Tasks

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### Populating Windows with Contracts

► **To populate Various X\_TRADER® Windows:**

1. Open your **Market Explorer**, select the products you want to trade, and open a **Market** window with these products.

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**Note:** You may also drag and drop contracts directly from **Market Explorer**.

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2. Open the window that you want to populate with contracts (e.g., **Autotrader™**, **Autospreader™**, **Market Grid**, etc.) by:

Clicking the appropriate button in the **Control Panel**.

**Or:**

Using the appropriate menu item in the **Control Panel**.

3. In the **Market** window, click on a contract you want to transfer to the other X\_TRADER® window.
4. If you want to transfer more than one contract, press and hold down the **CONTROL** key. Click all of the contracts you want to transfer to the window and then release the **CONTROL** key.
5. Click and hold down the mouse button on a selected (i.e., highlighted) contract.
6. Drag the contract(s) to the appropriate window that you want to populate, and release the mouse button.

The contracts now populate the appropriate window.

## Filtering Overview

Filters are used to control the amount of data displayed in the various windows used in X\_TRADER®. Filters are available for the following windows:

- **Fill** window
- **Audit Trail** window
- **Order Book** window
- **Trade Book** window

You can set and clear filters at any time and, once the workspace is saved, the filters remain for that particular workspace. Filters can be set in several ways and you can use any combination of them to customize your workspace. Filters can be set using two methods:

- **Individually** (or in multiple combinations) on one or more columns in the **Fill**, **Trade Book** and **Audit Trail** windows. (The **Order Book** does not support filters using multiple variables.) These types of filters affect only the individual window in which you set them, and must be set for every individual window. Individual filters are saved as part of the workspace.
- **Globally**, using the **Auto Filter** option in the individual window's context menu. This filters the **Order Book**, **Fill**, **Trade Book**, and **Audit Trail** windows by a particular customer (trader). Global filters are saved as part of the workspace.

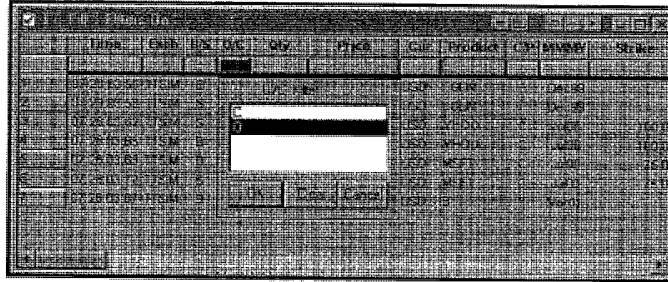
Use filters to narrow the range of orders that display. For example, opting to filter on a product (**FGBL**) and action (**Sell**) eliminates extraneous orders from the grid. You can set and clear filters at any time.

**Notes:**

- If you use **Fill** window filters, you do not receive **Fast Fills** from supporting Exchanges. A message reminding you that **Fast Fills** are disabled automatically displays in the **Fast Fills** pane. In addition, the **Fill** window filters carry over to the **Position** pane. The position information includes only the data displayed in the **Fill** pane. To start fresh, simply remove the filter settings. This returns every fill record to the grid.
- A **Filters On** notice appears in the **Title** bar of the window when a filter has been applied to one or more columns. This visually notifies you in case the filtering column has been applied. If you hide a column using the context menu's **Hide Column** selection, this notice changes to **Filters On (Hidden)**. This informs you that the grid still has one or more individual column filters applied to it.
- If you select **<EMPTY>** in the column filter in the **Audit Trail**, the filter applies to all cells that are empty. This is unique behavior to the **Audit Trail** window.
- The **Order Book** does not support filters using multiple variables.



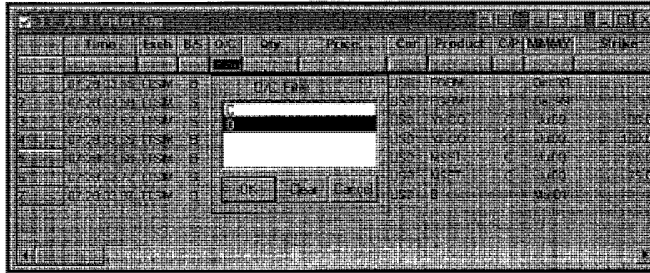
## Setting a Column Filter



▶ **To set a column filter:**

1. Open the box immediately below any column heading. A list of all currently referenced variables for the selected column displays.
2. Select one or more of the variables to set the filter.
3. Click **OK** to activate the filter.
4. When you set a filter, the box below the column heading turns red and displays the filter you selected. If you selected multiple filter variables, a row of asterisks displays.

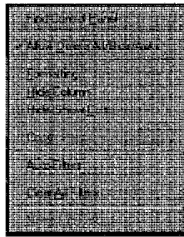
## Clearing a Column Filter



### ► To clear a column filter:

1. Left-click the red column box. A list of all currently referenced variables for the selected column displays.
2. Select one or more of the variables to remove the filters.
3. Click **Clear** and **OK** to remove the filter. The filters box changes from red to gray.

## Clearing All Filters



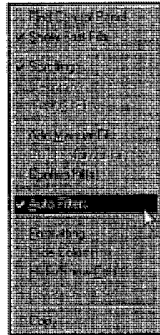
**Note:** Use of the **Clear All Filters** context options clears only the filters from the particular window in which you enable it. In other words, if you enable **AutoFilters** (or individual column filters) in other windows, clearing all filters from the one window only removes that window's filters. Any other filters, which have been enabled, remain in effect.

### ► To clear all filters:

1. Right-click any grid cell to access the context menu.
2. Click **Clear All Filters**.

## Setting Auto Filters in X\_TRADER®

The following screen is taken from the **Fill Window**.



You can set **Auto Filters** in a number of X\_TRADER® windows:

- **Order Book** window
- **Fill** window
- **Trade Book** window
- **Audit Trail** window

The **Auto Filters** option sets filters for a particular customer's (trader) account number. If there are numerous working orders for an account shared by a number of traders, it can be difficult to sort and review the orders for a particular trader. Filtering by customer name, as it appears in the **Customer List** window, displays all orders for that particular customer.

► **To set the Auto Filter by customer:**

1. Right-click in the window grid to access the context menu.
2. Click **Auto Filters**. A check mark indicates that the filter is applied for this customer's account number.
3. From the **Control Panel**, open the Window menu and click **Customer List**.
4. Select a customer from the list.

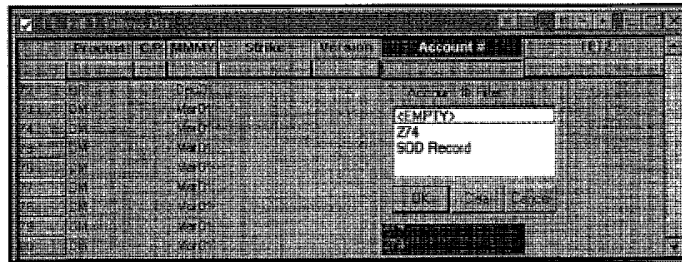
This provides the filter definition. The top heading on the list, **<Default>** is the equivalent to no filter. The **Title** bar now contains a **Filters On** message.

► To remove the customer Auto Filter, use one of these options:

**Note:** Use of the **Clear All Filters** context option clears only the filters from the particular window in which you enable it. In other words, if you enable **Auto Filters** (or individual column filters) in other windows, clearing all filters from the window only removes that window's filters. Any other filters that have been enabled remain in effect.

1. Click on the red push button directly below the **Account #** column heading in the window pane.

The following screen is taken from the **Fill** window:

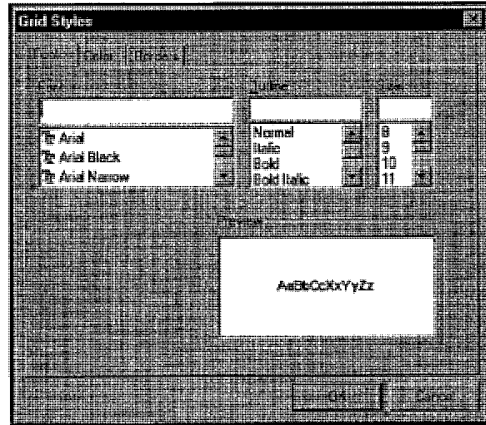


2. Click **<EMPTY>** to remove the **Auto Filter** by customer account. (For any window except the **Audit Trail**.)

**Or:**

To display the context menu, right-click within the grid pane and click **Autofilters**. The filter is automatically deleted and the checkmark no longer appears.

## Font Control Overview



A variety of formatting options are available within X\_TRADER®, including a typeface option. You can change the font, outline, and size of the typeface displayed in your windows. You make these changes to your workspace by accessing the **Formatting** option on the context menu of the window in which you want to have the changes appear.

## Changing the Font (Text) Style in Workspace

You can change the font, outline, and size of the typeface displayed in your windows.

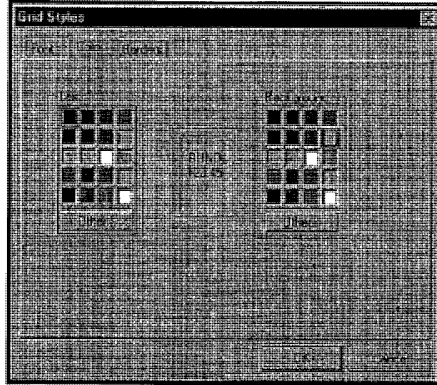
### ► To change the typeface characteristics:

1. Select the area you want to change or click the top left-hand column heading to select the entire grid.
2. Right-click in the window to access the context menu.

**Note:** If you are using **Click Trading**, do not click in the **Bid/Ask Price** columns.

3. Click **Formatting**. The **Grid Styles** dialog box appears.
4. Select the **Font** tab and make your changes. The results display in the **Preview** box.
5. Click **OK**. The new font options appear in your workspace.
6. To retain these font style changes, save your workspace.

## Changing Grid Text and Background Colors



You can change the color of text and window backgrounds. You can also change the color of rows, columns, or individual cells.

**Note:** In the **Market Grid** window, when you have enabled **Use Last Traded Price Background Coloring**, the **Last Prc** column colors cannot be changed.

► **To change grid text and background colors:**

**Note:** Color-coding for buy/sell is enabled by default in the **Fill, Order Book, and Audit Trail** windows. As a result, selecting colors using the **Formatting** option is disabled. To re-enable the context menu's **Formatting** option, disable the **Color Code Buy/Sell** option for the appropriate window in the **Properties** dialog box.

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1. If you want to apply the same text and background colors to the entire grid for all windows, select the window area you want to change, or click the top left-hand column heading to select the entire grid.
2. Right-click in the window to access the context menu

**Note:** If you are using **Click Trading**, do not click in the **Bid/Ask Price** columns

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3. Click **Formatting**.
4. Select the **Color** tab.
5. Text colors display in the left palette; while background colors display in the right. Click a color in the displayed palette or click **Other** to see additional colors. You can also create custom colors. The color preview window displays the specified colors.
6. Click **OK** to exit.
7. To retain these changes, save your workspace.

## Grid Formatting Overview

X\_TRADER® includes a number of useful methods for customizing its look and feel. You can customize your windows and save them in a workspace so that each time you launch X\_TRADER®, you open the workspace and avoid having to customize each individual window's appearance.

You may customize windows by:

- Changing column and row width
- Hiding and showing columns and
- Moving columns and
- Filtering for a specific Customer Account
- Changing font type, style, and size
- Changing the color of text and/or grid backgrounds
- Changing the width, appearance, and type of grid borders
- Resizing a Window Font Using the Frame Buttons

To customize X\_TRADER® features including such items as default visible grid columns, click trading, quoting, and cross trading, use the **Properties** dialog box. Click the tab associated with the window you are customizing.



## Setting the Default Column Selection

You can use the **Properties** dialog box to customize the default columns that display with a new **Market Grid**, **Fill** pane, **Position** pane, **Order Book**, **Trade Book**, or **Audit Trail** windows.

▶ **To set the default column selection using the Properties dialog box:**

1. From the **Control Panel**, open the **Settings** menu and click **Properties**.
2. Select the appropriate tab: (**Trading**, **Market Grid**, **Fill**, **Position**, **Order Book**, or **Audit Trail**, etc.) depending on the window and columns you want to set.
3. Click the **Default Visible Columns** button.
4. All checked columns are visible when you open a new window. Left-click in the boxes to select or de-select the column
5. Click **OK** to exit and save.

## Moving Rows or Columns

You can customize the order in which the columns and rows are displayed in some windows.

▶ **To reorganize your display by using the drag-and-drop technique:**

1. Select the entire column or row by left-clicking the column or row heading, or select multiple columns or rows while pressing the **CONTROL** key.
2. Click and hold the left mouse button on the header and drag the row/column to its new position. A red line appears to indicate where the column or row will be dropped.
3. Release the left mouse button to complete the move.
4. To retain your new column settings, save your workspace.

## Hiding Rows or Columns

▶ **To hide a row or column - Procedure 1:**

1. Select the entire column or row by left clicking the column or row heading.
2. Right-click a grid cell to access the context menu.
3. Click **Hide Column** or **Hide Row(s)**.
4. To retain these settings, save your workspace.

▶ **To hide a row or column - Procedure 2:**

1. If you want to customize a single window, select the column(s) or row(s).
2. Move the cursor over one border until the double-headed arrow displays.
3. With the arrow still displayed, hold the left mouse button down while contracting the column/row until it is no longer visible. This automatically de-selects the columns/rows from the **Hide/Show Columns/Rows** options.
4. To retain these settings, save your workspace.

## Restoring Hidden Rows or Columns

▶ **To restore a hidden row or column:**

1. To restore hidden rows, right-click any grid cell in a window to access the window's context menu.
2. Click **Hide/Show Row(s)** or **Hide/Show Cols**, and select the columns to display.

**Or:**

Columns or rows hidden by "sliding" the borders closed cannot be restored in the same manner. You must select the row or columns from the **Hide/Show Row(s) or Cols** option.

## Changing the Width or Height of one Column or Row

► **To change the width/height of one column or row:**

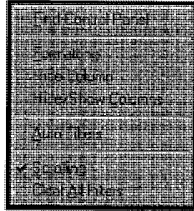
1. Select the entire column or row by left clicking the column or row heading.
2. Move the cursor over one of the column or row borders until a double-headed arrow displays.
3. With the double-headed arrow displayed, hold the left mouse button down and move the mouse to expand or contract the width/height.
4. Release the left mouse button when you are satisfied with the width/height of the column or row.

## Changing the Width or Height of Multiple Columns or Rows

► **To change the width/height of multiple columns or rows:**

1. Hold the left mouse button down while moving the mouse over the heading of the columns or rows you want to change.
2. Release the left mouse button.
3. Move the cursor over one of the column or row borders until a double-headed arrow displays.
4. With the double-headed arrow displayed, hold the left mouse button down while moving the mouse and changing the width/height.
5. Release the left mouse button when you are satisfied with the width/height. All selected columns/rows have changed.

## Using the Context Menu to Show/Hide Columns or Rows



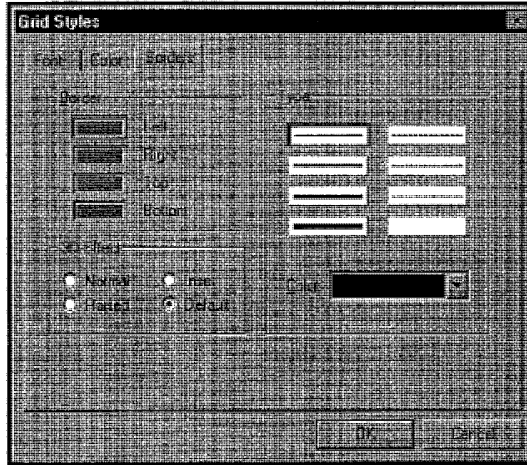
► To select which columns and rows display from the Context menu:

1. Right-click in the window you want to customize to access the context menu.

**Note:** If Click Trading is enabled, do not click in the Bid/Ask price columns.

2. Click **Hide/Show Row(s)** or **Hide/Show Cols**.
3. Left-click in the boxes to select or de-select the column/row, and click **OK** to exit.
4. To retain the settings for this window, save your workspace.

## Changing Border Styles



► To change the grid border type, select a 3D Effect, or choose a border color:

1. Select the area you want to change or click the top left-hand column heading to select the entire grid.
2. Right-click in the window to access the context menu.

**Note:** If you are using **Click Trading**, do not click in the **Bid/Ask Price** columns.

3. Click **Formatting**.
4. Select the **Borders** tab, make your changes, and click **OK**.
5. Click **OK** to exit.
6. To retain the changes, save your workspace.

## Workspace Overview

Your X\_TRADER® workspace is a file that holds a "snapshot" of your X\_TRADER® Desktop. This file records all your open windows, the spatial relationships among those windows, and all customized settings from the time that you last saved the workspace. This includes all open and minimized windows, as well as color, font, column/row sizing, placement, and selection.

Create one or more workspaces to fully customize X\_TRADER® to fit your trading style and environmental requirements.

### Multiple Workspace Suggestions:

- Use multiple workspaces to reflect your changing trading environment.
- You can create separate workspaces for different markets.
- If you print reports, you may want to create a workspace that has a preformatted Fill window that prints only specific information.
- You can create as many workspaces as you want. Each one is saved on your workstation's hard drive. These files are retained even if your X\_TRADER® software is upgraded. Workspace files are saved in a sub directory of <installation drive>\TTX\_TRADER\TTConfig, and are named the same as your workspace.

If you name a window in a workspace and put an invalid DOS filename character into the name, you will not be able to save that window as part of your workspace. Invalid characters such as "%", "\*", "|", "?," etc. cannot be saved because the actual name of the workspace is used as the file name after the workspace is saved. If you get the following message: "Workspace contains an invalid path" when saving a workspace, look at the window titles (or names). At least one of them will have invalid characters. Simply rename the window without the invalid characters and save the workspace again.

## Creating a Workspace

► To create a personalized workspace:

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**Note:** Close **Market Depth** before saving the workspace. Leaving **Market Depth** open may render the feature temporarily inoperable when you reopen the workspace.


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1. Before creating your first workspace, you can immediately set your default column preferences using **Properties** dialog box tabs. If you plan to set up multiple workspaces, pre-selecting your default columns saves you time.
2. To create your own workspace, decide which products and windows you want open on your Desktop. Your saved workspace also remembers the windows that you minimized. Customize your workspace—adjust such items as window sizing, displayed columns/rows, colors, sounds, and window placement.
3. To save the workspace under the name of your choice, use either the **Control Panel Save Workspace** button or the **File** menu **Save Workspace** option. You can re-open this workspace at any time in the form in which it was last saved. If you make any subsequent changes, save your workspace.

## Saving a Workspace

► **To save a new or altered workspace:**

**Note:** If you name a window in a workspace and put an invalid DOS filename character into the name, you will not be able to save that window as part of your workspace. Invalid characters such as "%", "\*", "|", "?", etc. cannot be saved because the actual name of the workspace is used as the file name after the workspace is saved. If you get the following message: "Workspace contains an invalid path" when saving a workspace, look at the window titles (or names). At least one of them will have invalid characters. Simply rename the window without the invalid characters and save the workspace again.

On the **Control Panel**, click the **Save Workspace** button .

If this is your first workspace, you will be asked to enter a workspace name. If you have already named your workspace, any changes are automatically saved under the same name. The workspace name is displayed in the **Control Panel Title** bar.

**Note:** Close **Market Depth** before saving the workspace. Leaving **Market Depth** open may render the feature temporarily inoperable when you reopen the workspace.

► **To save your current workspace under a new name:**

1. From the **Control Panel**, open the **File** menu and click **Save As**.
2. In the **Save As** dialog box, enter the new workspace name.
3. Click **OK**.



## Opening an Existing Workspace

If any part of a workspace is corrupt, an error message informs you that not all windows could be opened. For example, this may happen if a **Market** window displays an expired contract. The unopened window is deleted from the workspace, and the message does not reappear. All valid (uncorrupted) windows are still saved under the existing workspace name.

Changing the NT windows display resolution affects the size of the workspace. If you increase the resolution, this results in more Desktop space because such items as window size and fonts appear smaller. If you decrease the resolution, the opposite is true. In this case, you can resize windows and adjust the font size by using the grid formatting options. However, depending on the resolution you selected, you may have to reverse the resolution change to properly display the workspace.

▶ **To open a previously saved workspace:**

**Tip:** Save any changes in the existing workspace before opening a new workspace or all changes will be lost.

1. From the **Control Panel**, click the **Open Workspace** button
2. Select a workspace's name from the list and click **OK**.

## Deleting a Workspace

▶ **To delete an existing workspace:**

1. From the **Control Panel**, click the **Open Workspace** button.
2. In the **Open Workspace** dialog box, select the workspace you want to delete.
3. Click **Delete**. The workspace is deleted from the list.

## Frame Command Bar



Many of the windows within the X\_TRADER® application have a set of frame command and printing controls at the top of the window. These buttons permit you to control printing functions and sizing options using your mouse. The frame command buttons are located to the immediate left of the standard Windows **Close Window**, **Minimize**, and **Maximize** buttons.

► **To use the frame command buttons to resize the grid of a window:**

1. Make the grid active by left clicking in the grid.
2. Left click on the **Reset**, **Zoom Out** or **Zoom In** button.

Button Command	Action
<b>Print Preview</b>	Brings up the standard Print Preview dialog box. Here you can preview the information before printing it.
<b>Print</b>	Brings up the Print dialog box. Here you can select your printer and other options, as well as submitting the document to the print queue.  All X_TRADER® windows do not contain Print or Print Preview buttons.
<b>Reset</b>	Resets the window view back to the original (default) size.
<b>Zoom Out</b>	Expands the contents of the active window, making less of the grid visible in the window.
<b>Zoom In</b>	Contracts the contents of the active window, making more of the grid visible in the window.

## Resizing a Window Font Using the Frame Buttons



You can quickly resize the window font by using the **Reset**, **Zoom Out** and **Zoom In** frame buttons in the graphic above. Continual clicking on the selected **Zoom** button repeats the **Zoom** action. The **Reset** button sets the window back to its original (default) size.

**Note:** In certain instances, it is possible to also use the mouse wheel to perform a zoom function. See **Using the Mouse Wheel to Control the Zoom** feature to see the procedure for this.

## Printing from X\_TRADER®

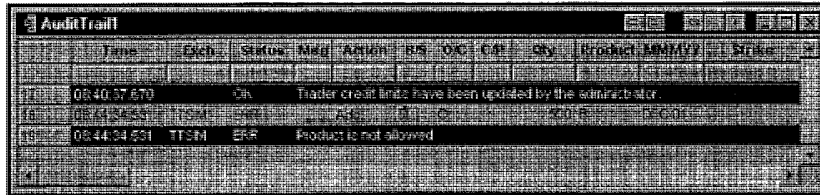
All X\_TRADER® windows do not contain **Print** or **Print Preview** buttons.

### ▶ To print data from any X\_TRADER® window:

1. Click anywhere in the pane or window. For example, to print your fills, click in the top **Fills** pane of the **Fill** window.
2. Click the **Print** frame button.
3. The **Print** dialog box displays if you have printer services installed through Windows NT\*. You can choose a printer, print range, and number of copies, or you can print to a file. Additional print settings are available by choosing the **Properties** button, located to the right of the **Printer Name** list. The additional print settings include such items as paper size, orientation, and reduction.
4. Click **OK**.

\* Your System Administrator or network support department must have already installed a printer (usually a shared network printer) on your workstation.

# Chapter 3 Audit Trail



Use the **Audit Trail** to track daily activity through messages received from X\_TRADER®, the TT™ Gateways, and messages from the exchanges that the trader was logged on to during the session.

The **Audit Trail** displays the following information for the current day:

- **Order related messages:** Messages to and from the exchange including fills, add/change/delete orders, and inquiries. Messages related to all members of your Group ID (e.g., Login ID = AAAAABBB###, where BBB represents the Group ID) appear in the **Audit Trail**.
- **Exchange Announcements:** These announcements include busted trades and pre/post opening/closing product activity.
- **Gateway Alerts:** Information concerning the status of server/host processes.
- **Error messages:** Notification of an invalid action.

## Audit Trail Message Types

The **Audit Trail** displays messages regarding **Changes, Errors, Fills, and Exchange Announcements**.

Changes include successful buy, sell, change, Cancel-Replace, or delete of orders:

- The **first line of messages** details the order information, including the time the order was sent from the workstation (Time column) to the TT™ Gateway (server), an order Status of ACCEPT, and an **Action** of Add, Change, or Delete.
- The **second line of messages** immediately follows the first and indicates acceptance by the TT™ Gateway. The order has been routed to the exchange host.
- The **third line of messages** displays sometime after the previous two. This message confirms receipt from the exchange. The information detailed includes the time the confirmation was received by the workstation (Time), an order **Status** (OK), and the time the confirmation was sent by the exchange's host machine (Exch Time).

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**Note:** When you use **Cancel/Replace**, the confirmation from the exchange host reflects a new order number.

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Error messages occur when the TT™ Gateway rejects a buy, sell, change, Cancel/Replace, or delete order:

- The **first line** details the order information, including a **Status** of ERR to indicate that the order was rejected by the TT™ Gateway and was not sent to the exchange host.
- The **second line** immediately follows the first and reflects a status of ERRS; a message (Msg) explains the error.


Fill messages display a one-line message. The message shows a **Status** of OK, an **Action** of Fill, and provides detailed information about the order.

**Exchange Announcements:** One-line messages display a status of **Alert, Info, or Warning** and reflect general information sent by the exchange host or the TT™ Gateway.


## Audit Trail Exchange Announcements

The **Audit Trail** window displays all announcements released by the exchanges. These exchange-specific announcements include host activity, busted trades, and pre/post opening/closing product activity. Each announcement details the time issued (exchange time), time received (local time), exchange name, severity, and the announcement.

If speakers and audio drivers are installed on your workstation, X\_TRADER® "beeps" when an announcement is added to the **Audit Trail**. You can associate any sound file with this event from the **Properties** dialog box **Sounds** tab.

 **Tip:** If you are using **Audit Trail** filters, open two **Audit Trail** windows to ensure receipt of all Exchange and Gateway announcements. Use one **Audit Trail** window to display order-related data with the desired filters. You should set the **Status** column filter for the second window to capture alerts and general information.

## Audit Trail Column Descriptions

The **Audit Trail** displays information related to all order transactions sent to the exchange. You open the **Audit Trail** window from the **Control Panel** by clicking the **Audit Trail**  button, or by opening the **Window** menu and choosing **Audit Trail**.

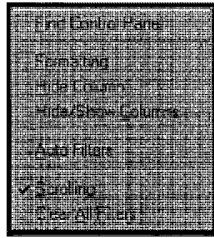
An appropriate **Audit Trail** message results from all normal order functions performed on held orders: change, cancel, replace, delete, or submit. You can see held messages in the **Audit Trail** when an order is held, but in actuality, the order is deleted from the market and held only by the Gateway. If a submit fails for a held order, it remains in the hold state and the **Audit Trail** indicates that the submittal failed. The **Audit Trail** also gives you an explanation of why the order submit failed.

Column Heading	Description
<b>Time</b>	Time Message received at workstation
<b>Exch</b>	Exchange
<b>Status</b>	OK, ERR (error), INFO, Alert, Warn (Warning)
<b>Msg</b>	Message
<b>Action</b>	Add, Change, Delete, Fill, Hold, Submit
<b>B/S</b>	Buy/Sell
<b>O/C</b>	Open/Close a Position
<b>C/P</b>	Call/Put
<b>Qty</b>	Quantity
<b>Product</b>	Exchange Symbol for displayed product
<b>MMYY</b>	Month/Year Expiration
<b>Strike</b>	Exercise Price of Option
<b>Limit</b>	Limit Price
<b>Stop Prc</b>	Stop Trigger Price
<b>Type</b>	Limit/Market Order
<b>TIF</b>	Time in Force (for example, GTD, GTC)
<b>Rstr (Restriction)</b>	<None>, FOK, IOC, MOO, MV, Stop

Column Heading	Description
RstrQty	Restricted Quantity
Exec Qty	Executed Quantity
Work Qty	Working Quantity
Cxl Qty	Cancelled Quantity When Using Cancel/Replace
Account #	Back Office Account Number or Account Name
Member ID	Exchange Member ID Assigned by the Exchange or TTORD ID information
Group ID	Group ID Assigned by the Exchange Member Exchange or TTORD ID information
Trd ID	Trader ID Assigned by the Exchange Member Exchange or TTORD ID information
Acct	Agent, Market Maker, Principal, Give-up
Exch Time	Time Message Received/Sent by Exchange Trading Host
Exch Date	Date the Trading Host Received/Sent the Message
Time Sent	Time Sent from Workstation
Time Processed	Time Processed by the TTTM Gateway
P/A	Brokerteq only. Designates whether the order was filled passively or aggressively. This notation allows for a correct P&L calculation.
Order No	Order Number Assigned by the Exchange
TT Order Key	A TTTM-generated unique order number used to track orders in the Order Book during the order submission process.
IP	IP Address of the Workstation
FFT2	Free Form Text Field 2
FFT3	Free Form Text Field 3
Trans ID	Displays transaction ID for fills. Used to identify the order.



## Audit Trail Context Menu



The **Audit Trail** context menu lists additional available features that are enabled by clicking on the menu item with a mouse. Other window context menus share most of these options. To access the context menu, right-click anywhere in the **Audit Trail** window.

Menu Listing	Function
<b>Find Control Panel</b>	Brings the <b>Control Panel</b> to the foreground of the workspace.
<b>Formatting</b>	Provides ability to customize fonts, colors, and borders.
<b>Hide Column</b>	After you click a cell on the grid or select multiple columns, this option hides the column(s).
<b>Hide/Show Columns</b>	Allows you to select which columns to hide or show.
<b>Auto Filters</b>	Use this option to enable Auto Filters. Auto Filters filters the Audit Trail data by selecting a customer from the Customer List window.
<b>Scrolling</b>	Default is ON. All new entries to the window cause the window to scroll up to the new entry. When disabled, window retains its position.
<b>Clear All Filters</b>	Use this option to quickly clear all filters. As a result, all data available displays in the <b>Audit Trail</b> .

## Customizing Features in the Audit Trail Window

You can customize a number of features in the **Audit Trail** window:

- For **Message Color Coding**, select any color text and background to identify Buy, Sell, and Exchange Announcement activity. The default colors for Buys are blue text with a gray background. Sells have red text with a gray background. Exchange announcements have white text with a black background. Customize colors in the **Properties** dialog box **Color** tab.
- For **Audio Notification**, assign a sound to the Exchange Announcement event. Add sounds in the **Properties** dialog box **Sounds** tab.
- **Historical Data:** **Audit Trail** data for the last 10 calendar days is saved on your workstation's hard disk in a Microsoft Access file. Use `<install drive>\TT\LogFiles\AuditLog.mdb` file to start Access. The available dates display by month and day (i.e., MMMDD—Dec 31).
- To customize the **Audit Trail** messages and audit logs, go to the **Properties** dialog box **Audit Trail** tab.
- You can also set visible **columns** and **rows**, **colors**, **borders**, and **fonts**. By default, all available information is displayed. Move or hide any of the columns (except Time, Exch (Exchange), Status, and Msg). Customize the **Audit Trail** by using the **Audit Trail** context menu.
- Use filters to limit the information displayed.

**Note:** If you use filters, it is suggested that you open two **Audit Trail** windows to ensure receipt of all Exchange and Gateway announcements. The first window can be used to display order-related data with the desired filters. The second window should have a **Status** column filter set to capture alerts and general information.

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# Chapter 4

## Autospreader™

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Autospreader™ is a multi-pane window designed to facilitate the automatic trading of calendar and inter-product spreads. You define the legs of the spread, the relationships, and parameters between them. Autospreader™ displays the implied market for the spread based on the outright legs. You can enter orders in the spread pane and Autospreader™ works the legs to achieve the spread setting parameters.

Autospreader™ is an add-on tool only available with X\_TRADER® Pro. Although it is installed during the regular X\_TRADER® installation process, it requires a separate X\_TRADER® Pro license.

Features of Autospreader™ include:

- Multi-Legged capability
- Multi-Level Slop
- Offset Volume Multiplier
- User Defined Ticking and Ticking Worksheet

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**Note:** The panes of Autospreader™ are based on the functionality of MD Trader™. Therefore, all functionality of MD Trader™ is also available for each Autospreader™ pane. Refer to MD Trader™ sections of the Help for detailed descriptions of its enhancements, properties, and usage.

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## Implieds in Autospreader™

Implied prices and quantities are derived from direct orders in a combination of outright contracts and spreads/strategies. Implied pricing evolved at exchanges that trade different contract months of a product as well as spreads and strategies involving different combinations of the contract months. For example, a bid in 1 contract month and an offer in a 2nd contract month can be combined to "imply" a bid in the spread between the 2 months.

By calculating and displaying implied prices and quantities, exchanges found that they could sometimes improve the best bid/ask price or add liquidity to certain contracts or strategies.

Use the Properties **Trading** tab, to calculate implieds in the **Market Grid**, **Autotrader™** and **Autospreader™**:

- **Calculate Implieds Instead of using Exchange Implieds.**

Because some exchanges only display implied pricing data when the implied prices and quantities are at the best price in the market, you may not see some implied values.

This new feature calculates and displays implied pricing in Market Depth as well as the inside market.

To enable this feature, open the Properties **Trading** tab and click the **Calculate Implieds Instead of using Exchange Implieds** option.

- **Implieds From Implieds:** After you enable **Calculate Implieds instead of using Exchange Implieds**, you can enable the **Implieds From Implieds** option. X\_TRADER® also calculates and displays implieds from implieds values (sometimes called 2<sup>nd</sup> generation implieds).
- **Include Implieds for spreads in Market Columns and in Depth.** Displays implied outright, implied spread, and implieds from implieds quantities and prices in market data columns.

To enable this feature, go to the Properties **Trading** tab. Click the **Include Implieds in Market columns and in Depth** option.

For more information about X\_TRADER®'s Implied pricing capabilities, go to the **Market** window section of the Help and review **Implied Prices and Quantities**.

## Opening Autospreader™

You can use the following methods to open Autospreader™:

- Launch Autospreader™ from **Control Panel** by clicking the toolbar button. The **Manager** window displays. Use the **Manager** window to launch a previously created spread or configure a new spread.
- Use drag-and-drop from the **Market Grid** to create a new spread:
  - Highlight the contracts that will make up the legs of the spread in the **Market Grid**. To display the context menu, right-click and click Autospreader™ to immediately open and populate a **Configuration** dialog box.

**Or:**

- From the **Manager** dialog box, open a **Configuration** dialog box by clicking **New**. Highlight the contracts that will make up the legs of the spread in the **Market Grid** and drag-and-drop them to populate the **Configuration** dialog box.

## Using Market Grid to Create a New Spread

► **To configure a new spread from the Market Grid:**


1. Start X\_TRADER® and open up a connection to the exchange(s) where the spread products are traded.
2. Select products from the **Market Explorer**, and open a **Market** window for those products.
3. Select at least two products in the **Market Grid** to highlight them.
4. Left-click on a highlighted product in the **Market Grid** to open the context menu.
5. Select Autospreader™ from the menu to open and immediately populate the **Configuration** dialog box.

**Note:** The contracts that form the spread legs populate Autospreader™ in the order in which they appear in the grid. To change this order, use the leg drop-down list to select a different contract.


6. Enter the spread parameters in **Configuration** dialog box.
7. Click **OK** to open **Manager** window.
8. To trade the spread, select from the **Manager** dialog box list to highlight it.
9. Click **Launch** to open Autospreader™ with the selected spread to begin trading.

## Using Drag-and-Drop to Create a New Spread


► To drag-and-drop contracts from Market window to an empty Autospreader™ Configuration dialog box:

1. Start X\_TRADER® and open up a connection to the exchange(s) where the spread products are traded.
2. Select products from the Market Explorer, and open a Market window for those products.
3. Click the Autospreader™ button  on the Control Panel or select Autospreader™ from the Window menu to open the Manager dialog box.
4. Select New from the dialog box to open up the Configuration dialog box.
5. Left-click in the Market Grid to select a contract and when the cursor turns into a circle with a line through it, drag-and drop it into the Configuration window. This will be the first leg of the spread.
6. Do the same for another product, which forms the second leg of the spread.
7. Enter the spread parameters in the Configuration dialog box.
8. Click OK to open the Manager window.
9. To trade the spread, select from the Manager dialog box list to highlight it. Click Launch to open Autospreader™ with the selected spread to begin trading.

## Opening Autospreader™ with a Previously Created Spread

Launch Autospreader™ from the Control Panel by clicking the toolbar button . The Manager window displays. Use the Manager window to launch a previously created spread.

► To open a previously created Autospreader™ spread:

1. Start X\_TRADER® and open up a connection to the exchange(s) where the spread products are traded.
2. Click Autospreader™ button  on the Control Panel to open the Manager window.
3. Highlight one of the configured spreads in the Manager window.
4. Click Launch to open Autospreader with the configured spread to start trading.



## Autospreader and MD Trader

### Autospreader™ Leg Panes

Autospreader leg panes are identical in function and display to **MD Trader™**.

However, whenever you trade the spread, all working orders in the leg panes have a vertical color bar on the left side of the **Working Quantity** column. This color bar designates the working order as being part of the spread and uses the **Leg Color ID** that you assigned to the particular spread you are trading in the **Configuration** dialog box.

### Autospreader™ Spread Pane

Autospreader™ spread pane is identical in function and display to **MD Trader™**.

Use the **Spread** pane to trade your legs in the appropriate markets. Trading via the **Spread** pane is identical to placing trades using **MD Trader™**. However, Autospreader™ uses the parameters that you set in the **Configuration** dialog box to determine the prices at which the legs are traded.

The **Title** bar of the **Spread** pane displays the **Spread Name** that you designated in the **Configuration** dialog box.

## Properties in Autospreader™ Spread Pane

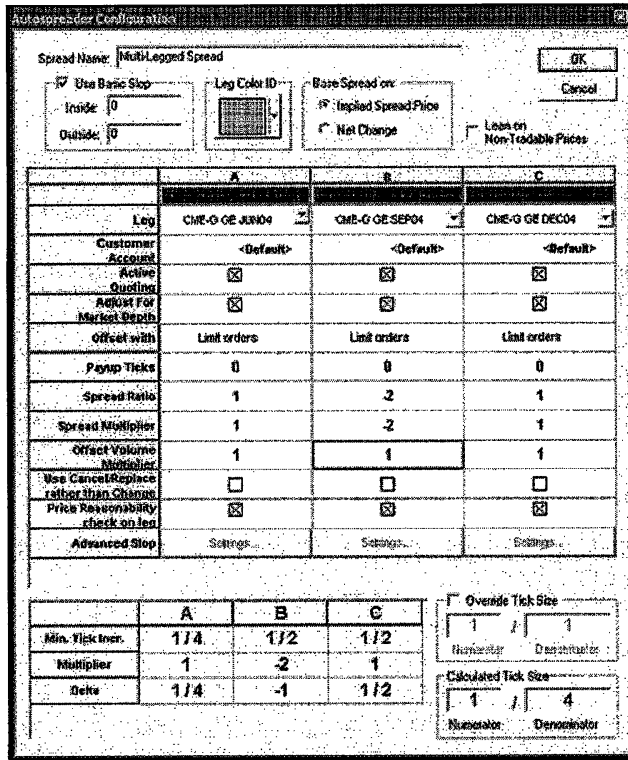
Use the **Spread** pane to trade your legs in the appropriate markets. Trading via the **Spread** pane is identical to placing trades using **MD Trader™**. However, Autospreader™ uses the parameters that you set in the **Configuration** dialog box to determine the prices at which the legs are traded.

The Autospreader™ spread pane is similar in function and display to **MD Trader™**. However, if you access the **Options** dialog box to configure the **Spread** pane, notice that you do not have access to the following properties:

- Show Customer Account Name
- Show GTC Checkbox
- Show TradeOut button
- Enable Average Price

These **MD Trader™** properties do not apply in the **Spread** pane of Autospreader™.

# Configuration Dialog Box

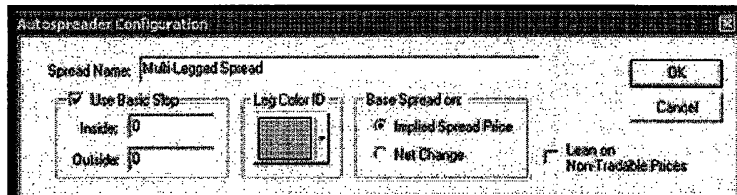


After the two legs have been added to the dialog (through drag and drop or Market Grid), the **Configuration** dialog box sets the spread parameters for the entire spread as a whole. This dialog controls the behavior of the spread as it is traded.

## Configuration Dialog Box Field Descriptions

### Top Pane

These are the fields in the top pane of the **Configuration** dialog box:



Field	Function
<b>Spread Name</b>	Descriptive name of the spread
<b>Use Basic Slop</b>	<p>Slop is used as a means of controlling the rate at which the working leg orders on a spread are changed in the outright markets. The purpose of slop is to avoid excessive quoting which can result in the assessment of transaction fees by certain exchanges. It is also helpful when maintaining a position in the order queue at an exchange.</p> <p>The implementation of slop results in the creation of a price range above and below your spread order entry price at which you are willing to be filled. The slop values apply to the spread price and not to the individual leg prices.</p> <p>Basic Slop configuration uses one level of Inside and Outside slop to determine when to re-price the quoted outright legs based upon movement in the market.</p> <p><b>Inside Slop:</b> Defines the worst price you will accept for the spread.</p> <p>In other words, if you are buying the spread, Inside Slop indicates the most that you are willing to pay. If you are selling the spread, Inside Slop indicates the least amount that you are willing to accept.</p> <p><b>Outside Slop:</b> Defines the best price you will accept for the spread.</p>

Field	Function
<b>Leg Color ID</b>	Optional: Use the color selector to identify working spreads and corresponding leg orders in Autospreader™.
<b>Base Spread On</b>	<p><b>Implied Spread Price:</b> If selected, Autospreader displays the implied price of the spread.</p> <p><b>Net Change:</b> If selected, Autospreader™ displays the price of the spread as a net change from the previous day settlement prices.</p> <p>If you base spread prices on <b>Net Change</b>, you effectively disable any calculations that display in the <b>Ticking Worksheet</b>. The <b>Calculated Tick Size</b> defaults to 25/100. You can still use the <b>Override Tick Size</b> to change it.</p>
<b>Lean on Non-Tradable Prices</b>	<p>The <b>Configuration</b> dialog box now includes a new property that allows you to choose whether to lean on the quantity at the ¼ 32<sup>nd</sup> better price when quoting and hedging. Click <b>Lean on Non-Tradable Prices</b> to choose this order entry option.</p> <p>When this option is selected, Autospreader™ considers the quantity available at ¼ tick better price when selecting the ideal quoting price. In addition, Autospreader™ rounds toward the market when hedging if a ¼ better quantity is available.</p>
<b>OK</b>	When the spread has been configured, click to open Autospreader™.
<b>Cancel</b>	Click to close the <b>Spread Settings</b> dialog box and exit the window.

## Grid Pane

These are the fields in the grid pane of the **Configuration** dialog box:

	A	B	C
Leg	CME-G-GE JUN04	CME-G-GE SEPR4	CME-G-GE DEC04
Customer Account	<Default>	<Default>	<Default>
Active	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Adjust For Market Depth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Offset with	Limit orders	Limit orders	Limit orders
Payup Ticks	0	0	0
Spread Rate	1	2	1
Spread Multiplier	1	2	1
Offset Volume Multiplier	1	1	1
Use Cancel/Replace rather than Change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Responsibility Check on Leg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Advanced Stop	Settings...	Settings...	Settings...

Field	Function
<b>Delete</b>	Click the <b>Delete</b> button in the specified leg column to delete a leg of a multi-legged spread.  If a leg is deleted, the <b>MD Trader™</b> window for that spread leg is not closed.
<b>Leg Product Name</b>	Name of the first product leg, drawn from the <b>Market Explorer</b> or the <b>Market</b> window when the <b>Spread Settings</b> dialog box is opened. The drop-down list provides a method to select a contract from the product series and also facilitates cloning during a rollover period.
<b>Leg Product Name</b>	Name of the second product leg, drawn from the <b>Market Explorer</b> or the <b>Market</b> window when the <b>Spread Settings</b> dialog box is opened. The drop-down list provides a method to select a contract from the product series and also facilitates cloning during a rollover period.
<b>Customer Account</b>	Accesses the <b>Customer List</b> to select a customer.

Field	Function
<b>Active Quoting</b>	<p>Selects legs Autospreader™ will quote in. If a checkbox is unselected, an order is only sent for that leg when the other leg is filled.</p> <p>When using <b>Multi-Legged</b> spreads, <b>Active Quoting</b> is allowed on up to 3 legs.</p>
<b>Adjust for Market Depth</b>	When checked (default) Autospreader™ uses market depth to calculate spread pricing; if unchecked, the pricing is adjusted by the best bid/offer in the market.
<b>Offset with Limit Orders</b>	When enabled, as soon as the spread is filled on one leg, limit orders are sent for the remaining leg.
<b>Payup Ticks</b>	<p>Used in conjunction with the <b>Offset with Limit Orders</b> button. Indicates the number of ticks that Autospreader™ can adjust the price of the limit order to get the spread order filled.</p> <p>Range of values is -10,000 to +10,000. This allows you to be more aggressive in 2 legged spread hedge pricing.</p>
<b>Spread Ratio</b>	Indicates the quantity of each leg in relation to the others. A negative sign (-) before the number indicates a short leg.
<b>Spread Multiplier</b>	<p>Used to equate the cash value of inter-product spreads in order to calculate the spread value.</p> <p>Fractional representation (i.e., ¼) can now be used in the <b>Spread Multiplier</b> field. This feature improves Autospreader™'s ticking accuracy. For example, a <b>Spread Multiplier</b> of 0.333333 is now stored internally and displays in the <b>Ticking Worksheet</b> as 1/3.</p>

Field	Function
<b>Offset Volume Multiplier</b>	<p>Previously, the Autospreeder™ engine used the entire market quantity of one spread leg to determine the price at which it would quote the other leg. However, since the trader cannot count on getting the entire market quantity, they would often end up legged, i.e. filled on one leg but not the other.</p> <p>The <b>Offset Volume Multiplier</b> allows a trader to define a multiple of the order quantity of one leg, which is then used by Autospreeder™ to determine the price at which it will quote the other leg. The field accommodates decimals up to two (2) places.</p> <p><b>For example:</b> If the quantity on the 2<sup>nd</sup> leg of the spread is ten (10) and the trader assigns an offset volume multiplier of 2, the Autospreeder™ determines the price level at which 20 contracts of cumulative market quantity exists on the 2<sup>nd</sup> leg and uses this to determine the price at which it quotes the 1<sup>st</sup> leg of the spread.</p>
<b>Use Cancel/Replace rather than Change</b>	When enabled (default is off), a <b>Cancel/Replace</b> is used to send in orders rather than a <b>Change</b> .
<b>Price Reasonability check on leg</b>	The price reasonability check is taken on a leg price before the trade is submitted to the exchange. This is required for certain exchanges before a trade is accepted in the market.



Field	Function
<p><b>Advanced Slop</b></p>	<p>Slop determines when Autospreader™ re-prices the quoted outright legs based upon movement in the market. The price differential of the spread changes as the prices in the outrights move. As the markets in the outright legs move and the spread price crosses the slop threshold, Autospreader™ re-prices the quoted outrights to maintain the spread differential price that you entered into the Autospreader™ pane. When Autospreader™ re-prices the working outright orders, it submits the changed orders to the exchange.</p> <p>Where <b>Basic Slop</b> configuration uses one level of <b>Inside</b> and <b>Outside</b> slop to determine when to re-price the quoted outright legs based upon movement in the market, <b>Advanced Slop</b> allows you to set an unlimited number of Inside and Outside slop levels for each leg of the spread.</p> <p>For example, you may want Slop to re-price your outright with each price update when you are working close to the inside market. Likewise, you probably would not want Slop to continually re-price your outright leg when it is working away from the inside market.</p> <p>This reduces the overall transaction count for the spread, as well as maintain the queue position of the orders.</p>

## Ticking Worksheet

**Ticking Worksheet** displays calculated tick size based on the contract tick size and **Spread Multiplier** of the spread legs. This display allows you to review the ticking relationship between the selected products and how the X\_TRADER® system handles the pricing of these products. Column A in the **Ticking Worksheet** reflects ticking values for **Column A** in the middle **Grid** pane of the **Configuration** dialog box and so on.

**User Defined Ticking** allows the user to override the calculated tick size in the **Override Tick Size** field to condense the display of price information for the spread.

These are the fields in the grid pane of the **Configuration** dialog box:

	A	B	C	
Min. Tick Incr.	1/4	1/2	1/2	Override Tick Size
Multiplier	1	-2	1	1 / 1 Numerator Denominator
Delta	1/4	-1	1/2	Calculated Tick Size
				1 / 4 Numerator Denominator

Field	Description
<b>Minimum Tick Increment</b>	Value is defined by the exchange. It displays the minimum value that the products that make up the legs of the spread tick at.  For example, product ZN ticks in 64 <sup>ths</sup> . Product ZB ticks in 32 <sup>nds</sup> .  You cannot edit this field. Display purposes only.
<b>Multiplier</b>	Used to equate the cash value of inter-product spreads in order to calculate the spread value. This information is taken from the values you specified in the <b>Spread Multiplier</b> field in the grid pane.  You cannot edit this field. Display purposes only.
<b>Delta</b>	Value that displays the effect of a 1 tick move on the spread.  You cannot edit this field. Display purposes only.

Field	Description
<p><b>Override Tick Size</b></p>	<p><b>Override Tick Size</b> feature is designed to condense the display of price information. You can view a greater range of prices without inhibiting your view of the total quantity available.</p> <p>By enabling <b>Override Tick Size</b>, you can specify a greater tick size that fits your needs.</p> <p>In this example, 1/96 tick size was increased to 1/6.</p>
<p><b>Calculated Tick Size</b></p>	<p>Value that displays the calculated minimum tick size of the products.</p> <p>If the products making up the legs of the spread tick at different increments, the <b>Calculated Tick Size</b> displays the minimum tick size that would show a 1 tick move in any of the legs.</p> <p>You cannot edit this field. Display purposes only.</p>

## Setting the Spread Settings

► To set the spread settings for a spread in Autospreader™:

### Notes:

- Configuring a spread's parameters and the values associated with them are dependent on the products you trade for each leg of the spread.
- EurexUs exchange users, refer to the **Configuration Dialog Box Field Descriptions** for more information about the **Lean on Non-Tradable Prices** option.

1. Choose one of two methods—drag and drop or **Market Grid**—to populate the **Configuration** dialog box.
2. Optional. Set the inside and outside **Slop** values.

**Note:** The **Use Basic Slop** values default to 0 (zero). If you choose not to use any **Slop** feature, do not change the values.

Or if you want to use **Advanced Slop** settings, disable the **Use Basic Slop** feature. For more information about using **Advanced Slop** settings, see **Using Advanced Slop**.

3. Set the **Base Spread Option** to either **Implied Spread Price** or **Net Change**.
4. Choose a **Customer Account** for each leg of the spread.
5. Optional. Set the **Payup Ticks** (sets the value at which you are willing to trade the spread leg in a moving market).
6. Set the **Spread Ratio**.
7. Set the **Spread Multiplier**.

**Note:** You can now use fractions in the **Spread Multiplier** field. The **Multiplier** field in the **Ticking Worksheet** displays your specified **Spread Multiplier**.

8. Optional. Set the **Offset Volume Multiplier**.
9. Click **OK** to set the parameters and close the dialog box.

**MD Trader™** display: One window displays the spread. Remaining windows display the legs of the spread.

The **Manager** dialog box now includes the title of the newly created spread.

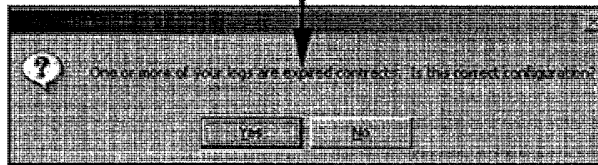
## Configuration Dialog Box and Expired Contracts

When contracts expire and “roll” to the next expiration month, Autospreader™ displays expired contracts and allows you to choose another contract using a drop-down list. The dialog should not allow you to hit OK if any of the spread legs you choose are expired.

If you launch a spread that contains expired contracts in it, Autospreader™ prevents you from trading that expired contract. This applies to expired contracts in MD Trader™ as well.

	A	B	
Leg	TISM ZB JUN01 "Expired"	TISM ZB SEP01 "Expired"	Legs that expire now show "Expired" when the Autospreader Configuration dialog box is called.
Client/Account	<Default>	TISM ZB SEP01 "Expired"	
Roll/Quantity	17	TISM ZB JUN02 TISM ZB SEP02 TISM ZB DEC02	

If you select click "OK" when expired legs exist, the following dialog box displays.



## Using Multi-Legged Capability

Autospreader™ now allows multi-legged spreads that consist of the following features and characteristics:

- Allows up to ten (10) legs per spread.
- Allows **Active Quoting** on one to three legs of the spread.
- Ability to add columns to the Configuration dialog box.
- Ability to delete legs of multi-legged spread by clicking the **Delete** button in the specified leg column in the **Configuration** dialog box.


**Note:** If a leg is deleted, the **MD Trader™** window for that spread leg is not closed.

- If any of the legs is *illiquid* at the time of the order, the order is rejected. If the market for any of the legs becomes illiquid while the order is working, the order is pulled. Once a spread quoting order has been filled, no hedge orders are pulled, regardless of market liquidity.
- Hedging logic for multi-legged spreads:
  - If you use limit orders on non-quoted legs and a quoted leg is filled, the prices at which the orders go in on the remaining legs are based on the current market in the remaining legs at the time of the fill confirm from the exchange.
  - Hedging logic for partial fills on multi-legged spreads is the same as for two-legged spreads.
- Hedge orders are color-coded in a non-standard orange color. This color is *not* configurable. When there is more than one color at a given price level, you will see the color black, to indicate overlap.

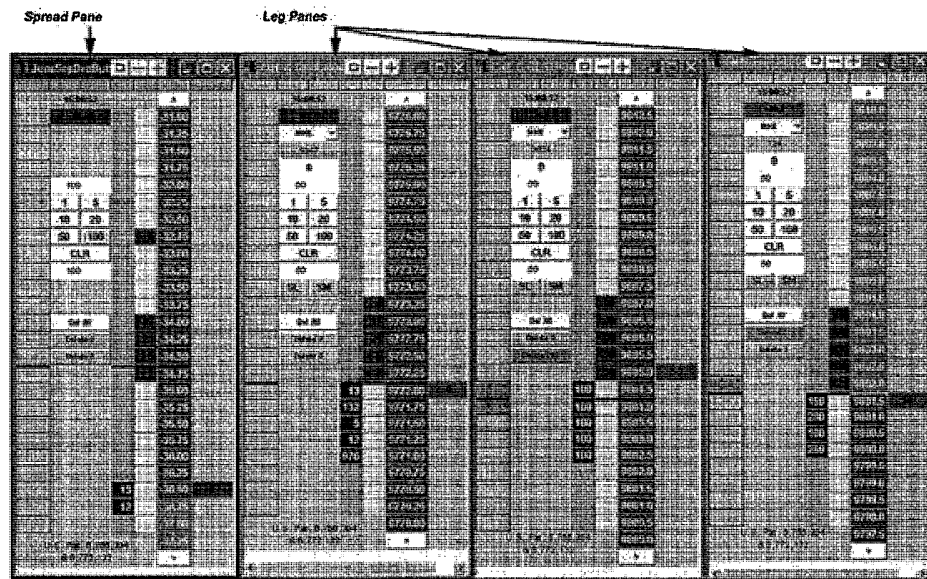
► **To create a multi-legged spread:**

1. Launch a **Market** window for those products you want to trade.
2. From the **Market Grid**, highlight the contracts you want to trade in a spread.
3. To display the context menu, right-click in the **Market Grid** and click **Autospreader™** from the menu.

The **Configuration** dialog box displays with the selected contracts.

 **Tip:** You must manually expand the size of the **Configuration** dialog box. If the **Configuration** dialog box is not large enough, you may not be able to edit the fields in the dialog box.


4. Type a name in the **Spread Name** field.
5. Select a color for the **Spread Leg** from the **Leg Color ID** field.
6. Set the settings of the **Configuration** dialog box. Refer to the **Configuration Dialog Box Field Descriptions** section for more information.
7. Click **OK**. The **Manager** dialog box displays.
8. Highlight the spread name you just created and click **Launch**. The **Spread Pane** and **Leg Panes** display.

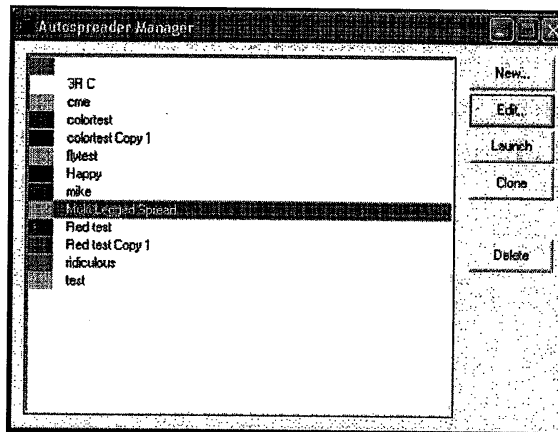


**Note:** MD Trader™ is protected by U.S. Patents Nos. 6,766,304 & 6,772,132.

If you want to add legs to an existing spread, you can drag and drop contracts into the **Configuration** dialog box.


► **To add legs to an existing spread:**

1. Launch the **Market Grid** for those products you want to trade.
2. Launch **Autospreader™** by clicking the **Autospreader** button  in the **Control Panel**. The **Manager** dialog box displays.



3. Highlight the name of the spread and click **Edit**.

The **Configuration** dialog box displays.

 **Tip:** You must manually expand the size of the **Configuration** dialog box. If the **Configuration** dialog box is not large enough, you may not be able to edit the fields in the dialog box.

4. Highlight the specified contracts in the **Market Grid** by clicking on them.
5. Drag and drop the contracts from the **Market Grid** to the **Configuration** dialog box.
6. Edit the settings to manipulate the behavior of the spread.
7. Click **OK**. The spread window and various legs of the spread display.



## Using Advanced Slop

**Slop** is used as a means of controlling the rate at which the working leg orders on a spread are changed in the outright markets. The purpose of slop is to avoid excessive quoting which can result in the assessment of transaction fees by certain exchanges. It is also helpful when maintaining a position in the order queue at an exchange.

The implementation of slop results in the creation of a price range above and below your spread order entry price at which you are willing to be filled. The slop values apply to the spread price and not to the individual leg prices.

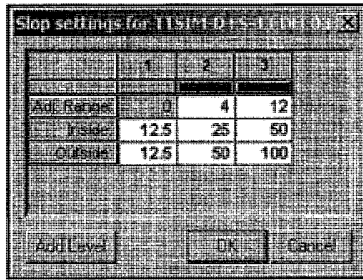
Basic Slop configuration uses one level of Inside and Outside slop to determine when to re-price the quoted outright legs based upon movement in the market.

Advanced Slop allows you to set an unlimited number of Inside and Outside slop levels for each leg of the spread. For example, you may want Slop to re-price your outright with each price update when you are working close to the inside market. Likewise, you probably would not want Slop to continually re-price your outright leg when it is working away from the inside market.

This reduces the overall transaction count for the spread, as well as maintains the queue position of the orders.

► **To use the Advanced Slop feature:**

1. Open **Autospreeder™** using one of the three methods discussed.
2. Display the **Configuration** dialog box.
3. Type values in the **Configuration** dialog box fields.
4. To use the **Advanced Slop** settings, disable the **Use Basic Slop** field.  
The advanced **Slop Settings** fields enable.
5. Click the **Settings** button. The **Slop Settings** dialog box displays.

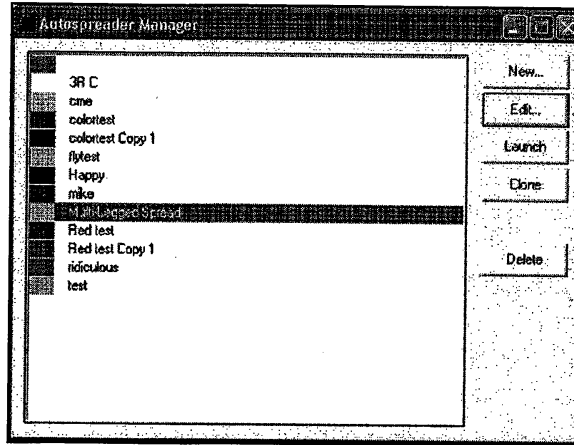


**Note:** **Adjustable Range** parameter sets the number of price levels away from the best bid/best offer price in the market.

6. Set the **Adjustable Range** and define **Inside** and **Outside Slop** values in the Level 1.
7. Click **Add Level**. There is no limit to the number of **Slop** levels you can add.
8. Set the **Adjustable Range** and define **Inside** and **Outside Slop** values in the Level 2.
9. Continue to add levels as needed.
10. Click **OK** when you have set all advanced slop levels.

The **Advanced Slop** levels are now set.

## Manager Dialog Box



The **Manager** dialog box contains a list of already created spreads. You can create new spreads, edit existing spreads or delete spreads using this dialog box. This **Manager** dialog box can be opened from the **Windows** menu on the **Control Panel** or using the button on the button bar of the **Control Panel** .

## Manager Dialog Box Field Descriptions

The **Manager** dialog box includes a number of buttons that launch, edit existing spreads as well as create new spreads.


Button name	Function
<b>New</b>	Opens a new instance of the <b>Configuration</b> dialog box, used to create a new spread.
<b>Edit</b>	Opens the <b>Configuration</b> dialog box, already populated with the spread information for the specified spread.
<b>Delete</b>	Deletes the spread selected from the list for the workspace.
<b>Clone</b>	Duplicates the selected spread and adds it to the list. The word 'copy' is added to the end of the spread title.
<b>Launch</b>	Opens an instance of Autospreader™ with the spread parameters selected during its initial creation.

## Using Manager Dialog Box

The **Manager** dialog box offers the following functionality:

- Click **New** to bring up the **Spread Settings** dialog to configure an entirely new spread.
- Click **Edit** to bring up the **Spread Settings** dialog to reconfigure the selected spread.
- Click **Delete** to delete the selected spread from the list.
- Click **Clone** to duplicate the selected spread and add it to the list as a copy.

▶ **To open Autospreader™:**

1. Start X\_TRADER® and open up a connection to the exchange(s) where the spread products are traded.
2. Click on the **Autospreader™** button on the **Control Panel**  to open the **Manager** dialog box.

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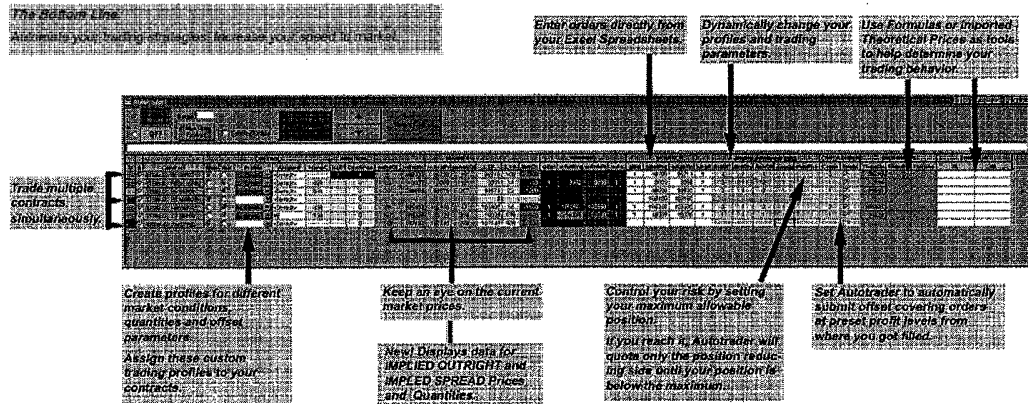
**Note:** You must have an X\_TRADER® Pro license to use Autospreader™.

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3. Highlight one of the configured spreads in the **Manager** dialog box.
4. Click **Launch** to open Autospreader™ with the configured spread to start trading.

# Chapter 5 Autotrader™

TT Autotrader is a flexible, automated order management tool that enables traders to execute complex trading strategies, quote markets and scalp using links from Excel or formulas directly in the Autotrader.




**Note:** Autotrader™ is an add-on tool is only available with X\_TRADER® Pro. Although it is installed during the regular X\_TRADER® installation process, it requires a separate X\_TRADER® Pro to function.

## Opening Autotrader™

There are two ways to open Autotrader™.

**Note:** Before placing automatic trades with Autotrader™, you must define the trading parameters that you want Autotrader™ to use. To do this, you must have at least one **Trading Profile** created. You may create multiple profiles and assign different trading parameters to different contracts and expirations.

### ▶ Opening Autotrader™ - Procedure 1:

1. Using the **Exchange Login** window, log into the exchanges on which you want to use. Close the **Exchange Login** window when you are done.
2. Populate the **Market Explorer** window with all needed futures exchanges and contracts.
3. On the **Control Panel**, click the **Autotrader™** button .

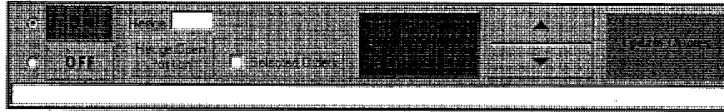
### ▶ Opening Autotrader™ - Procedure 2:

1. Using the **Exchange Login** window, log into the exchanges on which you want to use. Close the **Exchange Login** window when you are done.
2. Populate the **Market Explorer** window with all needed futures exchanges and contracts.
3. In the **X\_TRADER® Control Panel**, on the **Window** menu, click **Autotrader™**.

# Autotrader™ Window

Two sections comprise Autotrader™:

- **Control Bar:** This pane provides trading functionality. Using this pane, you submit, delete, and update orders for all activated or specifically selected contracts.

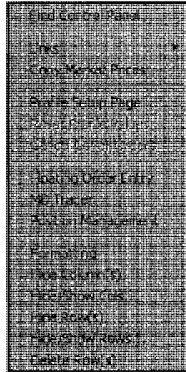


- **Grid:** Displays contracts, their associated trading parameters, theoretical pricing, and current market conditions. Additionally, it displays your working order information, and enables you to change your trading parameters. You configure trading parameters in the **Profile Setup Page**.

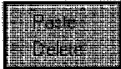




## Context Menu



The context menu offers you the following functions:

Function	Description
<b>Find Control Panel</b>	Brings the X_TRADER® <b>Control Panel</b> to front of the Desktop.
<b>Links</b>	<p>The <b>Links</b> option expands the <b>Links</b> submenu:</p>  <p>Use this submenu to copy and paste Excel links into a cell (select <b>Paste</b>) or to remove an Excel link from a cell (select <b>Delete</b>).</p>
<b>Copy Market Prices</b>	For the selected row, seeds the market bid price and market ask price into the appropriate cells ( <b>sBidPrc</b> and <b>sAskPrc</b> ) in the <b>Scratch</b> section.
<b>Profile Setup Page</b>	Brings up the <b>Profile Setup Page</b> .
<b>Reset Profile Values</b>	Resets all values in the <b>Profile Parameters</b> section of the <b>Grid</b> to the original profile parameters that you configured in the <b>Profile Setup</b> window.
<b>Cancel Cover Orders</b>	Deletes all <b>Cover Orders</b> currently in the market.

Function	Description
<b>Floating Order Entry</b>	Displays a floating order entry window loaded with the selected contract (the one whose row you right-clicked to bring up the context menu).  Also, you can click a cell in the <b>Market</b> section for any contract in the <b>Grid</b> to bring up a <b>Floating Order Entry</b> window.
<b>MD Trader™</b>	Displays <b>MD Trader™</b> loaded with the selected contract (the one who's row you right-clicked to bring up the context menu).
<b>Position Management</b>	Displays the <b>Position Management</b> dialog box.
<b>Formatting</b>	Displays the <b>Grid Styles</b> dialog box.
<b>Hide Column(s)</b>	Hides the selected Column(s).
<b>Hide/Show Cols</b>	Displays the <b>Hide/Show Columns</b> dialog box. Use this box to hide columns that you can currently see or show currently hidden columns.
<b>Hide Row(s)</b>	Hides the selected Row(s).
<b>Hide/Show Rows</b>	Displays the <b>Hide/Show Rows</b> dialog box. Use this box to hide rows that you can currently see or show currently hidden rows.

## Starting to Trade Using Autotrader™

There are primarily three ways in which to start trading using Autotrader™:

- Profile Trading
- Trading Theoreticals
- Direct Order Entry

### ▶ Starting to Trade - Profile Trading:

1. Open Autotrader™.
2. Populate Autotrader™ with the contracts that you want to trade.
3. If you have not yet set up your trading profiles, do so now.
4. In the **Control** section of the **Grid**, in the **Profile** column for the contract row you want to trade, click the appropriate profile that you want Autotrader™ to use.

CONTROL				
Manual	Auto	Profile	Account	TransCount
<input checked="" type="radio"/>	<input type="radio"/>	The Bomb	MEGABUCKS	

In this diagram, the profile called **The Bomb** is selected. If this profile has multiple expirations, the expiration of the row's contract determines which set of trading parameters Autotrader™ uses from the profile.

5. If you want to assign a customer account to the contract other than the one associated with the profile, in the **Account** column, click the **Customer Account** that you want Autotrader™ to use while trading the contract.

In the diagram from the previous task, the **Account** called **MEGABUCKS** is selected.

6. In the **Control Bar**, click **ON**. The **Grid** is now enabled (i.e., not grayed out)
7. In the **Row Identifier** section in the **Active** column for the contract row you want to trade, click to select the **Active** check box.

You are now ready to submit orders.

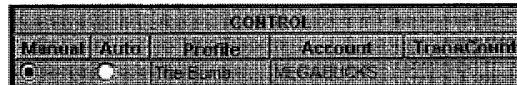
8. In the **Control** section, click **Auto** to have Autotrader™ begin trading using the parameters you set in the selected profile.
9. If you want to use this setup in the future, save your workspace.

▶ **Starting to Trade - Using Theoretical:**

1. Open Autotrader™.
2. Populate Autotrader™ with the contracts that you want to trade.
3. If you have not yet set up your trading profiles, do so now.

**Note:** In the **Profile Base Price**, you must select either **Single Theo** or **Bid/Ask Theo**.

4. In the **Control** section of the **Grid**, in the **Profile** column for the contract row you want to trade, click the profile that contains the type of **Theoretical** profile you want Autotrader™ to use.



In this diagram, the profile called **The Bomb** is selected. This profile is set to **Bid/Ask Theo**.

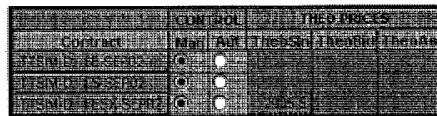
5. If you want to assign a customer account to the contract other than the one associated with the profile, in the **Account** column, click the **Customer Account** that you want Autotrader™ to use while trading the contract.

In the diagram from the previous task, the **Account** called **MEGABUCKS** is selected.

6. In the **Theo Price** section, link your theoretical generator into either:
  - The **TheoSingle** column if you are using a **Profile Base Price** set to **Single Theo**.

**Or:**

  - The **TheoBid** and **TheoAsk** columns if you are using a **Profile Base Price** set to **Bid/Ask Theo**. Link your theoretical **Bid generator** to the **TheoBid** column and your theoretical **Ask generator** to the **TheoAsk** column.



7. In the **Control Bar**, click **ON**. The **Grid** is now enabled (i.e., not grayed out).
8. In the **Row Identifier** section in the **Active** column for the contract row you want to trade, click to select the **Active** check box.
9. You are now ready to submit orders based off of your theoretical prices.
10. In the **Control** section, click **Auto** to have Autotrader™ begin trading using the parameters you set in the selected profile.
11. If you want to use this setup in the future, save your workspace.

▶ **Starting to Trade - Direct Order Entry:**

1. Open Autotrader™.
2. Populate Autotrader™ with the contracts that you want to trade.
3. If you are going to submit orders to the market automatically, you must set up a trading profile.
4. In the **Control** section of the **Grid**, in the **Profile** column for the contract row you want to trade, click the appropriate profile that you want Autotrader™ to use.

CONTROL				
Mandul	Auto	Profile	Account	TransContnt
<input checked="" type="radio"/>	<input type="radio"/>	The Bomb	MEGABUCKS	

In this diagram, the profile called **The Bomb** is selected.

5. If you want to assign a customer account to the contract other than the one associated with the profile, in the **Account** column, click the **Customer Account** that you want Autotrader™ to use while trading the contract.

In the diagram from the previous task, the Account called **MEGABUCKS** is selected.

6. Populate your **Scratch** section by either:

Entering formulas

**Or:**

Linking your order generator (i.e., your Excel spreadsheets)

Contract	CONTROL		SCRATCH			
	Mand	Aut	shd	shdPr	ASKP	Ask
USM1212SEP02	<input checked="" type="radio"/>	<input type="radio"/>				
USM1212SEP02	<input checked="" type="radio"/>	<input type="radio"/>				
USM1212SEP02	<input checked="" type="radio"/>	<input type="radio"/>	1	2912	2921	1

7. In the **Control Bar**, click **ON**. The **Grid** is now enabled (i.e., not grayed out)
8. In the **Row Identifier** section in the **Active** column for the contract row you want to trade, click to select the **Active** check box.
9. You are now ready to submit orders.
  - In the **Control** section, click **Auto** to have Autotrader™ begin trading using the parameters you set in the selected profile.

**Or:**

  - In the **Control Bar**, click **Update Orders** to manually submit orders from the **Scratch** section to the market.
10. If you want to use this setup in the future, save your workspace.

## Generating a Manual Order with the Scratch Pad

SCRATCH			
sBidQty	sBidPrc	sAskPrc	sAskQty

In order to submit manual orders via the **Scratch Pad**, your row must be either:

Assigned to a **Profile** that has a **Profile Base Price** set to **Direct Order Entry**.

**Or:**

Set to **Manual** in the **Control** section and not assigned to a profile.

### Notes:

- In Steps 1 - 4 below, you can use formulas or Excel links to generate your prices and quantities.
- In Steps 2 - 3, you can copy current market prices to your sBidPrc and sAskPrc cells using the option called Copy Market Prices in the Autotrader™ context menu. You must open the context menu in the row that contains your Scratch Pad setup and market prices.

### ▶ To manually submit orders:

1. In the **sBidQty** column, type the quantity you want to bid.
2. In the **sBidPrc** column, type the price at which you want to bid.
3. In the **sAskPrc** column, type the quantity you want to offer.
4. In the **sAskQty** column, type the price at which you want to offer.
5. In the **Control Bar**, click **Update Orders**.
  - If at any time you want to resubmit your working orders, click **Update Orders**.
  - If you want to adjust your orders (price or quantity) simply perform this procedure over again.

If the row is assigned to a profile with **Direct Order Entry** as its **Profile Base Price** and is set to **Auto**, Autotrader™ automatically updates your working orders.

## Dragging and Dropping Autotrader™ Orders in MD Trader™

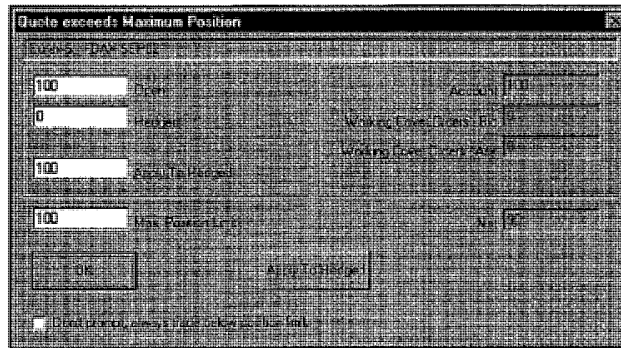
When Autotrader™ submits orders to the market, you can use MD Trader™ to view your working orders and adjust your cover orders.

Using the drag and drop feature of MD Trader™, you can adjust the price at which your cover orders are placed.

However, you cannot drag and drop normal profile orders submitted by Autotrader™. Autotrader™ notices that these orders do not conform to its profile parameter setup, delete them, and resubmit them according to its profile setup.

## Quote Exceeds Maximum Limit

Whenever Autotrader™ is set to submit a quote (i.e., normal bids and asks, as well as cover orders) that, if filled, would exceed the value of the **Maximum Position** field that you set up in the **Profile Setup Page**, you are prompted with the **Quote Exceeds Maximum Limit** dialog box:



At that time, **Autotrader™** suspends trading of whichever side exceeded the position limit but continues to trade the position reducing side of the market. For instance, if you are short enough contracts to exceed your limit, **Autotrader™** stops submitting offers to the market but does continue to submit bids. Once **Autotrader™** reduces your open position below the set **Max. Position Limit**, it automatically begins submitting both sides of the market once again.

To continue trading and have **Autotrader™** ignore the fact that you have exceeded your maximum position, you must either:

- Hedge enough contracts so that your **Open** is less than your **Max. Position Limit**.

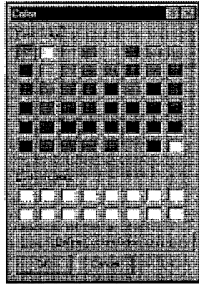
**Or:**

- Increase your **Max. Position Limit** so that it is greater than your **Open**.

**Note:** Your **Max Position Limit** does not supercede risk parameters set up by your risk administrator. Additionally, the **Apply to Hedged** option functions only in regards to your **Open** position in Autotrader™, thus allowing you to continue trading. It does not circumvent risk limits.



## Assigning Colors



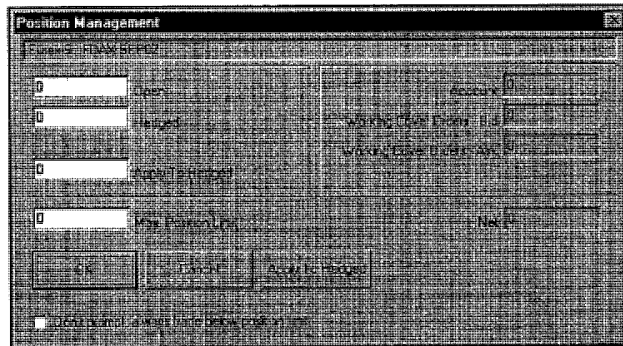
► To assign colors:

1. Open the **Profile Setup Page**.
2. Right-click to bring up the context menu for the **Profile Setup Page**.
3. Click the type of color you want to change:

Command	Description
<b>Change Profile Color</b>	Changes the entire profile color. This color is used in the <b>Grid</b> for a <b>Single Expiration</b> profile. Additionally, this assigns the color to any profile orders that exist in <b>MD Trader™</b> . In <b>MD Trader™</b> , this color displays as a vertical stripe in the left side of your working orders column.
<b>Change Contract Color</b>	Changes the background and text color associated with a particular expiration range. This option is only available in profiles that use expiration ranges. If you are customizing this type of color, you must use a different procedure.
<b>Change Cover Order Color</b>	Changes the color associated with your <b>Cover Orders</b> .

4. To select a color, either:
  - In the **Basic Colors** section, click the color you want.
  - Or:
  - Click **Define Custom Colors**. A color palette appears. Use the palette to select the custom you want to use. Click **Add to Custom Colors**. The color appears in the **Custom Colors** section. Click this custom color.
5. Click **OK**.

## Position Management Dialog Box



The **Position Management** dialog box assists you in hedging your Autotrader™ positions outside of the X\_TRADER® system. By including a **HedgedPos** (hedged position) column in addition to the **OpenPos** (Open Position) column, you can separate positions that are at risk from positions that have been hedged.

You open the **Position Management** dialog box using the context menu in Autotrader™. Use this dialog box to view, create, adjust, and monitor your hedged position.

**Note:** Whenever you hedge a quantity, it reduces your **Open Position** by the specified amount.

### ▶ To open the Position Management Dialog Box:

1. In Autotrader™, locate the row that contains the contract (and associated strategy) that you want to hedge.
2. In this row, right-click any cell.
3. Click **Position Management**.
  - The **Position Management** dialog box displays.
  - Refer to the table below for a description of each element in the **Position Management** dialog box.

▶ **To hedge your Position - Procedure 1:**

1. Open the **Position Management** dialog box.
2. In the **Hedged** box, type the total number of contracts you want Hedged.
3. Click **OK** to close the **Position Management Dialog Box**.

If you click **Apply to Hedged**, the value you typed in the **Hedged** box does not get taken out of your open position. Instead, any value in the **Apply to Hedged** field gets hedged *in addition to* the current number of hedged contracts.

▶ **To hedge your Position - Procedure 2:**

1. Open the **Position Management** dialog box.
2. In the **Apply to Hedged** box, type the number of contracts you want to hedge *in addition to* the current number of hedged contracts. By default, the contents of the **Apply to Hedged** box equal you current open position.
3. Click either:
  - **Apply to Hedged** (the dialog box remains open)
  - Or:**
  - **OK** (the dialog box closes).

▶ **To edit your Hedged Position:**

1. Open the **Position Management** dialog box.
2. Either:
  - In the **Open** box, type your desired **Open Position** (this cannot exceed your current total of **Open Position** and **Hedged Position**).
  - Or:**
  - In the **Hedged** box, type the total number of contracts you want hedged (this cannot exceed your current total of **Open Position** and **Hedged Position**).
3. Click **OK**.

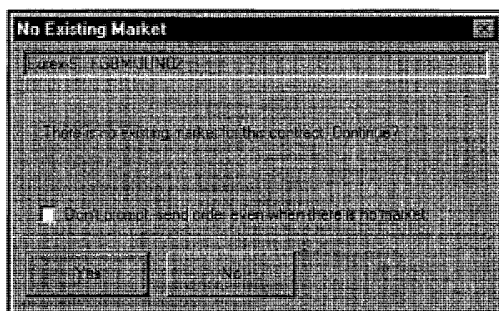
► **To change your Maximum Position:**

1. Open the **Position Management** dialog box.
2. In the **Max. Position Limit**, type your new maximum allowable position for the selected strategy.
3. Click **OK**.

The table below lists each field in the **Position Management** dialog box and its functional description:

Field Name	Field Description
<b>Contract Bar</b>	Displays the selected row's contract.
<b>Open</b>	Displays your current <b>Open Position</b> (in number of contracts).
<b>Hedged</b>	Displays your number of hedged contracts.
<b>Apply to Hedged</b>	<p>Sets the number of contracts you want to designate as being hedged. This setting defaults to your current number of open contracts for the selected row.</p> <p>After editing this setting with the number of contracts you want to hedge, click <b>OK</b> or <b>Apply To Hedged</b>.</p>
<b>Max. Position Limit</b>	Displays your current maximum position setting. You can use this value to temporarily change your maximum position. This does not change your saved profile settings. Instead, any value that you enter seeds the <b>MaxPos</b> column in your <b>Profile Parameters</b> section of Autotrader™.
<b>Account</b>	Displays the current position of the <b>Account</b> you are using in the selected row.
<b>Working Cover Orders - Bid</b>	Displays the number of working cover Bids you have in the market for this contract.
<b>Working Cover Orders - Ask</b>	Displays the number of working cover Offers you have in the market for this contract.
<b>Net</b>	Displays your current Net position.
<b>Don't prompt, always trade below position limit</b>	When selected, configures Autotrader™ to trade only within the maximum allowable position. Because Autotrader™ does not submit orders that could push you over your maximum position, you are never prompted with a <b>Quote Exceeds Maximum Position</b> dialog box. Autotrader™ continues to quote the position-reducing side of the market.

## No Existing Market



You receive this dialog box when you attempt to submit orders on a contract without a market. This is only the case when using **Direct Order Entry** or a Theo (Single or Bid/Ask) as your **Profile Base Price**.

If this happens, do one of the following:

- Submit the order to the market anyway. Click **Yes**.
- Cancel your order submission. Click **No**.

If you always want to send orders to the market without receiving a prompt even if a market does not exist, select the **Don't prompt** box before clicking **Yes** or **No**.

## Expired Contracts and Workspaces

When you open a previously saved **Autotrader™** workspace that contains an expired contract, **Autotrader™** automatically removes the expired contract. The **Audit Trail** displays a notification that the expired contract was removed.

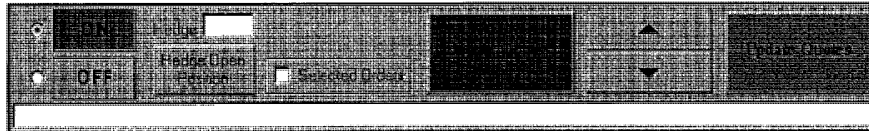
## Implieds in Autotrader™

Implied prices and quantities are derived from direct orders in a combination of outright contracts and spreads/strategies. Implied pricing evolved at exchanges that trade different contract months of a product as well as spreads and strategies involving different combinations of the contract months. For example, a bid in 1 contract month and an offer in a 2nd contract month can be combined to "imply" a bid in the spread between the 2 months. By calculating and displaying implied prices and quantities, exchanges found that they could sometimes improve the best bid/ask price or add liquidity to certain contracts or strategies.

Use the Properties **Trading** tab to view and calculate implieds in your Autotrader™:

- **Calculate Implieds for spreads instead of using Exchange Implieds.**  
Because some exchanges only display implied pricing data when the implied prices and quantities are at the best price in the market, you may not see some implied values.  
This new feature calculates and displays implied pricing in Market Depth as well as the inside market.
  - **Implieds From Implieds:** After you enable **Calculate Implieds instead of using Exchange Implieds**, you can enable the **Implieds from Implieds** feature. X\_TRADER also calculates and displays implieds from implieds values (sometimes called 2<sup>nd</sup> generation implieds).
- **Include Implieds for spreads in Market Columns and in Depth.** Displays Implied price and quantity data in the same columns as direct price and quantity data.  
Autotrader™ displays implied outright, implied spread, and implied from implied quantities and prices in market data columns.

## Control Bar



Use the **Control Bar** to:

- Enable or disable **Autotrader™** using the **On** and **Off** buttons. When the grid is enabled, you can enter values into its columns and rows, and **Autotrader™** can place and delete orders. When disabled, the grid is grayed out, and **Autotrader™** cannot interact with the market.
- Hedge your Open Positions.  
**Note:** You cannot perform this function in the **Control Bar** in **Order Block**.
- Delete either all of your orders for the contracts listed in the **Autotrader™ Grid** or only the ones for the rows that you select.
- Update either all of your orders for the contracts listed in the **Autotrader™ Grid** or only the ones for the rows that you select.
- Edit the parameters of any cell that can be edited using the spin buttons.

### ▶ To enable or disable **Autotrader™**:

- To *enable* the **Grid** for trading, click **ON**. All rows are set to **Manual** in the **Control** section of the **Grid**.
- To *disable* the **Grid**, click **OFF**. **Autotrader™** stops interacting with the market and all rows revert to the **Manual** setting in the **Control** section of the **Grid**. **Autotrader™** deletes all of its orders in the market. You can still interact with your various contracts' parameters.

▶ **To hedge your Position:**

**Note:** In **Order Block**, you cannot use the **Control Bar** to hedge your position.

1. Click a cell in the row that has the contract you want to hedge
2. In the **Hedge** box, type the number of contracts that you want to hedge for that row.
3. Click **Hedge Open Position**.

To remove a hedged position, you must use the **Position Management** dialog box.

▶ **To delete All of Your Orders:**

There are two ways in which you can delete all orders submitted by **Autotrader™**:

- Clear the **Selected Orders** option and then click **Delete Quotes**. All orders that were submitted by **Autotrader™** to the market are deleted.

**Or:**

- Click **OFF**.

▶ **To update All of Your Orders:**

To update all of your orders that are in the market, the **Selected Orders** option must be clear. Click **Update Quotes**. Orders will be submitted for all rows that are **Active** and have parameters that require **Autotrader™** to submit an order.

▶ **To delete or update Selected Orders:**

1. Click to select **Selected Orders**. The **Delete** and **Update Orders** buttons now read **Delete Selected Orders** and **Update Selected Orders** respectively.
2. To select a row, click the cell of any **Row Identifier** except the **Active** check box.
3. To select additional rows, press and hold down the **CONTROL** key, and click the cell of a **Row Identifier** (except the **Active** check box) for each row you want to add.
4. After you have selected all rows for which you want to delete or update orders, release the **CONTROL** key.
5. Click either **Update Selected Orders** or **Delete Selected Orders**.



► **To use the Increase and Decrease Arrows to Edit Parameters:**

**Note:** You can only use the **Increase** and **Decrease Arrows** on cells with editable numeric values. For instance, you cannot use these arrows on the cells in the **Market** section because you cannot edit these cells. Refer to the **Grid** for information on which sections are editable.

1. Select the cell(s) that contains an editable numeric value. You can select multiple cells by:
  - Dragging to select the cells
  - Pressing and holding down the **CONTROL** key and clicking individual cells. Release the **CONTROL** key when you are done selecting cells.


2. To increase the cells' value by one, click the **Increase Arrow**:



3. To decrease the cells' value by one, click the **Decrease Arrow**:



► **To use the Formula Bar to Edit a Row's Parameters:**

1. Select the cell that contains an editable value (numerical or formula). You cannot select multiple cells.
2. At the bottom of the **Control Bar**, click in the **Formula Bar**:  

3. Type the new value or formula that you want to assign to the cell.
4. Press **ENTER**.

## Autotrader Grid

Status	Action	CONTROL						POSITION				
		Contract	Market	Auto	Profit	Account	Margin	Trans Count	Net Pos	Open Pos	Margin Quantity	PAKING

You use the **Grid** to:

- Select the contract, customer, and trade parameters you want **Autotrader™** to use.
- Dynamically interact with your previously set trade parameters.
- Monitor market conditions and contract positions.
- Control order submission.
- Interact with your theoretical prices.

For optimal performance, TT recommends you utilize only 15 rows in a **Grid**. The **Grid** does accept more than this, but you may encounter performance degradation. Take into consideration the following when populating the **Grid** with contracts:

- Market timing
- Market conditions
- Your personal trading strategies
- Volatility
- Degree of product updates
- Hardware specifications

The **Grid** is divided into several different sections.

## Grid Sections

The are several sections in the **Grid**:

- Row Identifier
- Control
- Open/Close
- Position
- Market
- Working
- Scratch
- Profile Parameters
- Cover Order
- Updates
- Theo Prices
- Formula

For optimal performance, TT recommends you utilize only 15 rows in **Grid**. **Grid** does accept more than this, but you may encounter performance degradation. Take into consideration the following when populating the **Grid** with contracts:

- Market timing
- Market conditions
- Your personal trading strategies
- Volatility
- Degree of product updates
- Hardware specifications






## Row Identifier Section

#	Status	Active	Contract
---	--------	--------	----------

Use the **Row Identifier Section** to:

- Identify the number of the row in **Autotrader™** for purposes of creating formulas that reference that row.
- View the **Status** of the contract as it trades.
- Enable a row. When enabled, you can interact with a row's fields and **Autotrader™** can trade the displayed contract normally.
- Disable a row. When disabled, the row is grayed out, **Autotrader™** does not trade it, and you cannot interact with its fields.

The table below lists each field and its functional description:

Field Name	Field Description
#	Column automatically assigns sequential numbers to your rows.
Status	<p>Column uses a color schema to display the status of the contract as it trades. The following colors can be displayed in the Status column each meaning a unique status for the row being used to trade:</p> <p>: Used in Manual Mode. Your order needs to be updated.</p> <p>: Used in Auto Mode. Your status is normal.</p> <p>: Used in both Manual and Auto modes. This indicates a problem with your trading (e.g., your Max Position has been reached, or no market exists)</p> <p>: Used in Manual Mode. Your status is normal.</p> <p>: Used in both Manual and Auto modes. This signifies that the throttling/allowance settings have prevented <b>Autotrader™</b> from updating an order that otherwise would have been updated. You are being warned about possible problems or errors.</p> <p>For specific information on the type of status you have, double-click the status cell for a prompt box description.</p>

Field Name	Field Description
Active	<p>Sets whether you can use <b>Autotrader™</b> to trade the row's contract.</p> <p>To enable (i.e., activate) the row, click to select Active. You can now trade the contract.</p> <p>To disable (i.e., inactivate) the row, clear the Active cell. When a row is disabled, <b>Autotrader™</b> cannot trade the contract and deletes all of its orders in the market. You can continue to interact with the contract's trading parameters.</p>
Contract	Column displays the contract assigned to the row.

## Control Section

CONTROL					
RowName	Manual	Auto	Profile	Account Name	TransCount

Use the **Control** section to:

- Select automatic or manual trading.
- Select the **Profile** that contains the trading parameters with which you want **Autotrader™** to trade.
- Select the **Account Name** under which you want to trade.
- Monitor the number of transactions that **Autotrader™** has performed.

The table below lists each field and its functional description followed by the procedure you use to configure the particular parameter.

Field Name	Field Description
<b>RowName</b>	By default, this row is hidden. This field names the row.  This value is not unique and you can assign the same name to multiple rows.
<b>Manual</b>	Sets the row's contract for manual trading only. When you select this option, <b>Autotrader™</b> does not automatically quote the contract. However, you can still submit orders according to the trading parameters of the selected profile.  To set a contract for manual trading only, click to select <b>Manual</b> .
<b>Auto</b>	Sets the row's contract for automatic trading. <b>Autotrader™</b> automatically quotes the contract according to the trading parameters you have setup in the <b>Profile Setup Page</b> . You select the particular profile in the <b>Profile</b> field.  This option is not available in <b>Order Block</b> .  To set a contract for automatic order submission, click to select <b>Auto</b> .

Field Name	Field Description
<b>Profile</b>	<p>Sets the name of the profile that you want <b>Autotrader™</b> to use while trading that contract listed in the <b>Contract</b> field.</p> <p>To select a profile for use, in the <b>Profile</b> list, click the name of the profile.</p>
<b>Account</b>	<p>Sets the <b>Account Name</b> associated with the trading of this particular contract. The value of this field defaults to the <b>Account Name</b> you set up in the <b>Profile Setup Page</b> for the profile you select.</p> <p>To select an <b>Account Name</b> other than the default, in the <b>Account</b> box, click the needed <b>Account Name</b>.</p> <p>If the account on the <b>Profile Setup Page</b> displays <b>Default</b>, then no changes occur to the <b>Account</b> field on the <b>Grid</b>. If the <b>Account</b> field displays a specific account on the <b>Profile Setup Page</b>, any change to the profile resets the <b>Grid</b>. All profile-related columns reflect any change that occurs after you click Save in the <b>Profile Setup Page</b>.</p>
<b>TransCount</b>	<p>You do not edit this field. Instead, it displays the number of transactions (deletes, adds, and changes) that <b>Autotrader™</b> has accumulated while trading the contract for that particular row.</p> <p>A <b>Cancel and Replace</b> is the equivalent of delete and add.</p> <p>You can monitor the total transactions for your row in this manner to help avoid exchange fees (i.e., stop trading the product if your transaction count approaches its allowed maximum).</p> <p>If you trade the same contract in another X_TRADER® module (e.g. <b>MD Trader™</b>), its transactions are not included in this field.</p>

## Open/Close Section



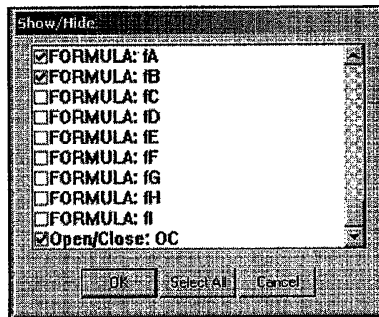
The **Open/Close** column acts as an order identifier that indicates whether or not the trader is initiating a position or closing an existing position.

Options orders require the open/close designation. If you send in a sell order with an **O** designation, short sale rules apply and you cannot sell on a downtick. If you designate a **"C"** in this column, you are closing out a long position and your sell order can be filled on a downtick.

This column is initially disabled.

### ► To view this column in Autotrader™:

1. Right-click in the **Grid** to display the context menu.
2. Click **Hide/Show Cols** to display the **Show/Hide** dialog box.
3. Scroll down to the end of the list.
4. Click **Open/Close** to display a checkmark in the box.



5. Click **OK**.  
The **Grid** automatically displays the **Open/Close** column.



## Position Section

POSITION		
NetPos	OpenPos	HedgedPos

You use the **Position** section to monitor your:

- Net Position
- Open Position
- Hedged Position

The table below lists each field and its description. Because the values of these fields are dependent upon your trading activity, you cannot directly edit these fields.

Field Name	Field Description
<b>NetPos</b>	This displays your current net position. Net position is the sum of all positions for a particular <b>Group ID Number</b> across all contracts.
<b>OpenPos</b>	This displays the position for each contract <i>by account</i> . If you have multiple rows with the same contract and <b>Group ID Number</b> , your <b>OpenPos</b> is the same for all rows.  This column simply displays all quantities traded since you launched X_TRADER®.
<b>HedgedPos</b>	By default, <b>HedgedPos</b> is hidden.  This displays the number of contracts that you designate as being hedged in any of the following manners: <ul style="list-style-type: none"> <li>• In the <b>Quote Exceeds Maximum Position</b> dialog box</li> <li>• In the <b>Control Bar</b>. You cannot hedge your position using the <b>Control Bar</b> in <b>Order Block</b>.</li> <li>• In the <b>Position Management</b> dialog box accessed through the context menu of <b>Autotrader™</b></li> </ul> Hedging a row reduces the value in that particular row's <b>OpenPos</b> .

## Market Section

MARKET						
mBidQty	mBidPr	mAskPr	mAskQty	LTP	ETQ	NetChange

You use the **Market** section to monitor current market conditions. Additionally, you can open a **Floating Order Entry** window for a contract by clicking any cell in its **Market** section. This cell must be in the row for the contract you want to trade.

Features include:

- Highlighted **Market Bid** and **Market Ask** columns when your orders are at the top of the book:
  - **Market Ask** columns: Background default color is yellow; text default color is red.
  - **Market Bid** columns: Background default color is yellow; text default color is blue.
- **Calculate Implieds for spreads instead of using Exchange Implieds.**

Because some exchanges only display implied pricing data when the implied prices and quantities are at the best price in the market, you may not see some implied values.

This new feature calculates and displays implied pricing in Market Depth as well as the inside market.

To enable this feature, open the Properties **Trading** tab and click **Calculate Implieds instead of using Exchange Implieds**.

- **Implieds From Implieds:** After you enable **Calculate Implieds instead of using Exchange Implieds**, you can enable the **Implieds From Implieds** option. X\_TRADER® also calculates and displays implieds from implieds values (sometimes called 2<sup>nd</sup> generation implieds).

- **Include Implieds for spreads in Market Columns and in Depth.**  
Displays Implied price and quantity data in the same columns as direct price and quantity data.

To enable this feature, open the **Properties Trading** tab and click **Include Implieds in Market Columns and in Depth**.

Displays implied outright, implied spread, and implied from implied quantities and prices in market data columns.

**Note:** For more information about X\_TRADER®'s Implied pricing capabilities, see the **Implied Prices and Quantities** section of this document.

The table below lists each field and its description. Because the values of these fields are dependent upon current market conditions, you *can not edit* these fields.

Field Name	Field Description
<b>mBidQty</b>	Displays the quantity of the current market's best bid.
<b>mBidPrc</b>	Displays the price of the current market's best bid.
<b>mAskPrc</b>	Displays the price of the current market's best ask.
<b>mAskQty</b>	Displays the quantity of the current market's best ask.
<b>LTP</b>	Displays the last traded price of the contract.
<b>LTQ</b>	Displays the last traded quantity of the contract.
<b>Net Change</b>	Displays the difference between the last traded price and the previous trading day's settlement price.

## Working Section

WORKING			
WBidQuantity	WBidPrice	WAskPrice	WAskQuantity

You use the **Working** section to monitor your current bids and offers for that particular row. The table below lists each field and its description.

To delete your working orders, you use the **Control Bar**.

Features include:

- Highlighted **Working Bid** and **Working Ask** columns when your orders are at the top of the book:
  - **Working Ask** columns: Background default color is yellow; text default color is red.
  - **Working Bid** columns: Background default color is yellow; text default color is blue.
- Because these fields only display your working orders, you *can not edit* these fields.

Field Name	Field Description
WBidQty	Displays the quantity of your working bid
WBidPrc	Displays the price on your working bid
WAskPrc	Displays the price of your working offer
WAskQty	Displays the quantity of your working offer

## Scratch Section

SCRATCH			
sBidQty	sBidPrc	sAskPrc	sAskQty

Also referred to as the **Scratch Pad**, the **Scratch** section displays current bids and asks calculated by Autotrader™ according to your assigned profile. If you selected **Direct Order Entry** as your **Profile Base Price**, the **Scratch** section displays bid and ask prices and quantities from Excel links or formulas that have been entered directly into the **Scratch** columns.

Depending upon the value of your **Throttle Quoting**, **Scratch** section values might not be submitted to the market.

If you select **Market**, **Single Theo**, or **Bid/Ask Theo** as your **Profile Base Price**, the **Scratch section** is read only. You cannot interact with it and it only displays the current bids and asks.

When your contract is assigned to a profile with **Direct Order Entry** as its **Profile Base Price**, you can use the **Scratch Pad** to:

- Manually create, adjust, and submit orders during the trading session
- Link Autotrader to an Excel spreadsheet. The values in Excel seed the **Scratch** section.
- Enter formulas to calculate bid and ask prices and quantities

**Notes:** Each of the three types of trading listed above (Manual, Excel links, and Program) requires a different procedure for configuring the fields listed in the table below.

Field Name	Field Description
SBidQty	Sets the quantity of your scratch bid
SBidPrc	Sets the price on your scratch bid
SAskPrc	Sets the price of your scratch offer
SAskQty	Sets the quantity of your scratch offer

## Profile Parameters Section

PROFILE PARAMETERS										
BidOffset	BidQty	BidRsvOffset	BidRsvQty	BidAllow	AskOffset	AskQty	AskRsvOffset	AskRsvQuantity	AskAllow	MaxPos

You use the **Profile Parameters** section to view your current profile settings. Autotrader™ uses the settings in this section to determine how it trades. All parameters and their values listed in this section are identical to the fields and their associated values listed in the **Profile Setup Page**.

At any time, you can change the values (or formulas) of the fields listed below to change how Autotrader™ trades that row's contract. You can save these changes with the workspace but they are lost if you delete the row or switch the row's assigned profile.

To revert to your originally configured **Profile Parameters**, from the context menu, select **Reset Default Profile Values**.

Parameter Name	Matching Parameter in Profile Setup Page
<b>BidOffset</b>	Bid Offset
<b>BidQty</b>	Bid Quantity
<b>BidRsvOffset</b>	Bid Reserve Offset
<b>BidRsvQty</b>	Bid Reserve Qty
<b>BidAllow</b>	Bid Change Allowance
<b>AskOffset</b>	Ask Offset
<b>AskQty</b>	Ask Quantity
<b>AskRsvOffset</b>	Ask Reserve Offset
<b>AskRsvQuantity</b>	Ask Reserve Qty
<b>AskAllow</b>	Ask Change Allowance
<b>MaxPos</b>	Maximum Position

## Cover Orders Section



The **Cover Order** section displays your **Cover Order offset** and whether or not you have enabled this functionality.

You can enable or disable cover orders and edit your offset directly in the grid.

Field Name	Field Description
<b>CoverOffset</b>	Offset of the cover order. This sets the number of price units away from the fill price at which Autotrader™ submits its covering orders: <ul style="list-style-type: none"> <li>• For a filled bid, the covering order is submitted above the fill price with the appropriate offset.</li> <li>• For a filled offer, the covering order is submitted below the fill price with the appropriate offset.</li> </ul>
<b>Enable</b>	When selected, Autotrader™ places covering orders for that row's contract whenever you are filled on a quote submitted by Autotrader™.

## Updates Section



When you enable the **Use Change** feature, Autotrader™ sends change requests instead of **Cancel/Replace** requests to exchanges that accept them. Changes are generally counted as one transaction, whereas **Cancel/Replace** requests count as two transactions.

Autotrader™ automatically performs a **Cancel and Replace** on any quote generated due to a change in price.

Field Name	Field Description
Use Change	<p>When selected, Autotrader™ sends a change request to the exchanges that accept them (one transaction).</p> <p>If <b>Use Change</b> is not selected, or if there is a change in price, Autotrader™ sends a <b>Cancel and Replace</b> request (two transactions).</p>

## Theo Prices Section



You use the **Theo Prices** section for three reasons:

- To generate a single theoretical price for use as a base when placing bids and offers.
- To generate a theoretical bid and ask for use as bases when placing bids and offers.
- To generate theoreticals for display to help you make better informed trades.



You can generate your theoretical values in one of two ways:

- Use formulas in the Theoretical cells.
- Create links to a theoretical generator that uses the OLE standard (e.g., Excel).

**Note:** You cannot use formulas in **Order Block** to generate Theoretical prices (although you can create a link to a theoretical generator).

After you set up the appropriate Theoretical fields, you can create profiles that use these theoretical prices as the **Profile Base Price** in determining the prices for your bids and offers. Refer to the **General Information** section in the **Profile Setup Page** for further information on this setup.

**Note:** Delta, Gamma, ImpVol, Vega, and Theta are values used in options trading. **Autotrader™** provides columns to display these theoreticals, but does not provide pricing models for their automatic generation. Instead, you must import these values from your theoretical price generator or Excel spreadsheet.

Field Name	Field Description
<b>TheoSingle</b>	Use this cell to link to your theoretical price generator.
<b>TheoBid</b>	Use this cell to link to your theoretical Bid generator.
<b>TheoAsk</b>	Use this cell to link to your theoretical Ask generator.
<b>Delta</b>	Use this cell to link to your Delta generator. This value is used in option trading.
<b>Gamma</b>	Use this cell to link to your Gamma generator. This value is used in option trading.
<b>ImpVol</b>	Use this cell to link to your ImpVol generator. This value is used in option trading.
<b>Vega</b>	Use this cell to link to your Vega generator. This value is used in option trading.
<b>Theta</b>	Use this cell to link to your Theta generator. This value is used in option trading.

## Formula Section

FORMULA									
A	B	C	D	E	F	G	H	I	J

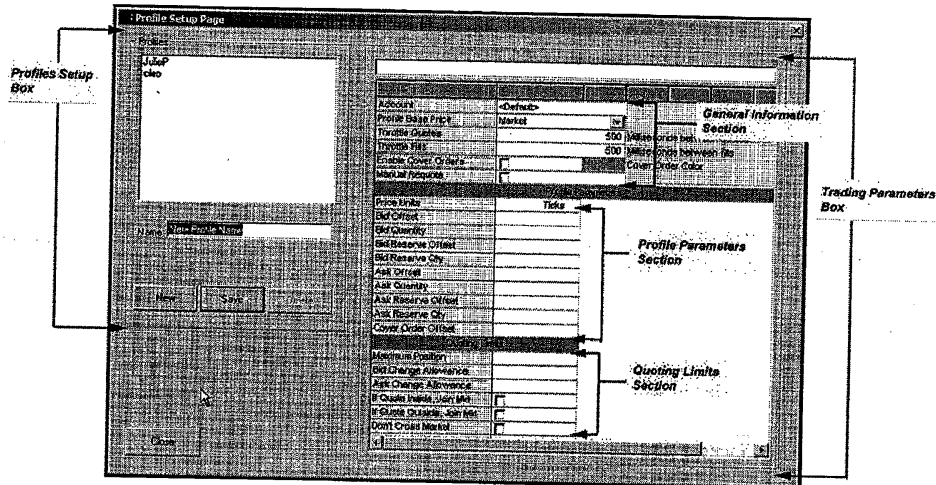
**Note:** You cannot use formulas in **Order Block**.

The **Formula** section offers you 10 different fields to create and store formulas for use by **Autotrader™**. If needed, you can rename these columns for easier reference. After entering a formula into this section, you can reference it from any parameter field to help generate a new value for that field.

### ► To enter a Formula into the Formula section:

1. Scroll to the far right of the window.
2. For the row in which you want to use a formula, click the cell in a **Formula** column.  
For the first formula, use the **Formula A** column; for the second formula, use the **Formula B** column; etc. If you use more than two formulas, you must show the columns using the **Show/Hide** dialog box.
3. Type the formula you want to store.
4. When entering your formula, you can reference specific cells in this row or other rows.
  - If you want to reference a cell from this row, type its column name in the appropriate section of the formula.
  - If you want to reference a cell in another row, either use the row number or the **RowName** in the appropriate section of the formula. Both of these columns are hidden by default, and you must use the **Show/Hide** dialog box to show them.
5. If you want to use this formula in the future, save your workspace.

# Profile Setup Page



Use the **Profile Setup** window to define the trading parameters that Autotrader™ uses when submitting orders to the market.

There are two parts to the **Profile Setup** window:

- **Profiles Box**  
This box lists the profiles you set up and name. These profiles contain the trading parameters you configure and then save in the **Trading Parameters** box.
- **Trading Parameters Box**  
Use the **Trading Parameters** box to configure the trading parameters you want Autotrader™ to use when submitting orders and interacting with the market. Trading parameters can reference theoretical prices, actual market prices, or be setup for direct order entry.

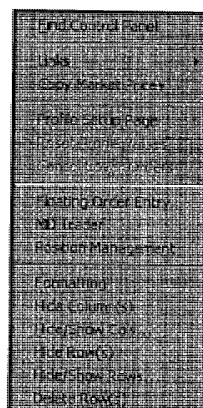
After entering your trading parameters, click **Close** to exit the **Profile Setup** window.

## Opening the Profile Setup Page

You use the **Profile Setup Page** to define the default trading parameters that Autotrader™ uses when submitting orders to the market. Parameters include trading specifications (bid/ask prices, quantities, and offsets), quoting limits, and account information. You open the **Profile Setup Page** using the context menu in the Autotrader™ window.

### ▶ To open the Profile Setup Page:

1. If you do not have Autotrader™ open, open it.
2. To display the context menu, right-click anywhere in Autotrader™.
3. Click **Profile Setup Page**.



## Profile Page Context Menu

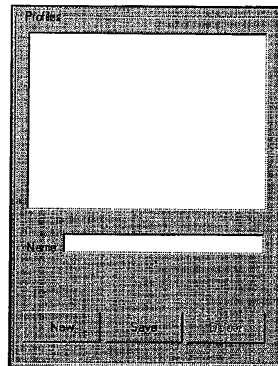


Function	Description
<b>New Profile</b>	Creates a new profile
<b>New Profile (multi-expiration)</b>	Creates a new profile for a product that has multiple expirations. You can use this sort of profile to setup different trading strategies for different contract expiration dates.
<b>Copy Profile</b>	You must have a profile loaded to use this function. Creates a copy of the current profile and names it <b>Copy of X</b> . X is the name of the profile copied by Autotrader™.
<b>Save Profile</b>	Saves the currently loaded profile.
<b>Delete Profile</b>	Deletes the currently loaded profile. You are prompted to verify that you actually want to delete the profile.
<b>Add Column</b>	Adds a new contract expiration column.
<b>Delete Column(s)</b>	You must have more than one expiration column in you profile to use this function. Deletes the selected expiration column.
<b>Change Profile Color</b>	Opens the color palette. Use this palette to change the color associated with the Profile.  This color is used in the <b>Grid</b> for a <b>Single Expiration</b> profile. Additionally, this assigns the color to any profile orders that exist in <b>MD Trader™</b> . In the <b>MD Trader™</b> window, this color displays as a vertical stripe in the left side of your working orders column.
<b>Change Contract Color</b>	Opens the <b>Grid Styles</b> dialog box. Use this dialog box to change the background and text color associated with a particular expiration range. This option is only available in <b>Profiles</b> that use expiration ranges.
<b>Change Cover Order Color</b>	Opens the color palette. Use this palette to change the color associated with your <b>Cover Orders</b> .

## Profiles Box

The **Profiles Box** displays all profiles by name that you configure and save. You use the **Profiles Box** to:

- Create new profiles.
- Load saved profiles in the **Trading Parameters Box** for editing.
- Delete saved profiles.



► **To create a new profile - Single Expiration:**

1. Open the **Profile Setup Page**.
2. Click **New**.
3. Type the name of profile you want to create.
4. Define your trading parameters.
5. Click **Save**.

► **To create a new profile - Multiple Expiration:**

1. Open the **Profile Setup Page**.
2. Right-click anywhere in the **Profile Setup Page** to display the context Menu for the **Profile Setup Page**.
3. Click **New Profile (multi-expiration)**.
4. Type the name of the profile you want to create.
5. Click **Save**.

▶ **To load (edit) Saved Parameters:**

1. Open the **Profile Setup Page**.
2. In the **Profiles** box, click the name of the profile that contains the parameters you want to view.
3. If necessary, edit the needed parameters.
4. If you edited any parameters and want to retain these changes, click **Save**.

▶ **To delete a saved profile:**

1. Open the **Profile Setup Page**.
2. In the **Profiles** box, click the name of the profile you want to delete.
3. Click **Delete**.

## Trading Parameters Box

Profile Beta Price	Market		
Profile Quantity	<input checked="" type="checkbox"/>	500	Midpoints between Quotes
Enable Cover Orders	<input type="checkbox"/>		Cover Order Cost
Market Reserve	<input type="checkbox"/>		
Price Units	Ticks		
Bid Offset			
Bid Quantity			
Bid Reserve Offset			
Bid Reserve Qty			
Ask Offset			
Ask Quantity			
Ask Reserve Offset			
Ask Reserve Qty			
Cover Order Offset			
Maximum Position			
Bid Change Allowance			
Ask Change Allowance			
If Quote Inside, Bid Mid	<input type="checkbox"/>		
If Quote Outside, Bid Mid	<input type="checkbox"/>		
Don't Cross Market	<input type="checkbox"/>		
Market Improve Limit			
Quote Move Limit			
Quote Quote Timeout (secs)			

Use the **Trading Parameters** box to define all trading parameters you want Autotrader™ to use when submitting orders and interacting with the market. Trading parameters can reference theoretical prices, actual market prices, or be setup for direct order entry.

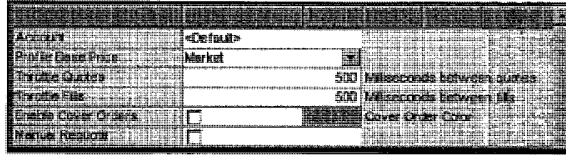
After entering the parameters you want to use, name your profile and save it in the **Profiles Box**.

The **Trading Parameters Box** is divided into three sections:

- **General Information** section: This section contains general information that is used by all contract expirations in the particular profile.
- **Profile Parameters** section: This section contains specific trading parameters for each contract expiration in the profile. Parameters include prices, quantities, market offsets, reserve settings, and cover order information for the Bid and Ask.
- **Quoting Limits** section: This section configures the behavior of Autotrader™ in response to market conditions. In addition, it sets your position and **Market Improve** limits.



## General Information Section



You use the **General Information** section to configure the parameters listed below. Each parameter's name is listed in the **Parameter Name** column. Its functional description is listed in the **Description** column followed by the necessary procedure to configure the particular parameter.

Parameter Name	Description
<b>Account</b>	<p>The <b>Account</b> list displays all customer accounts that you set up previously in X_TRADER®.</p> <p>To assign a customer account to a particular profile, in the <b>Account</b> list, click the name of the customer account.</p> <p>If the account on the <b>Profile Setup Page</b> displays <b>Default</b>, then no changes occur to the <b>Account</b> field on the <b>Grid</b>. If the <b>Account</b> field displays a specific account on the <b>Profile Setup Page</b>, any change to the profile resets the <b>Grid</b>. All profile-related columns reflect any change that occurs after you click <b>Save</b> in the <b>Profile Setup Page</b>.</p>

Parameter Name	Description
<b>Profile Base Price</b>	<p>The <b>Profile Base Price</b> list displays four options. To select a <b>Profile Base Price</b>, in the <b>Profile Base Price</b> list, click the needed value:</p> <ul style="list-style-type: none"> <li>• <b>Market Price:</b> Sets the base price of the profile according to the current market price.</li> <li>• <b>Single Theo:</b> Sets the base price of the profile according to a single user-defined theoretical price. This price must be imported into the <b>TheoSingle</b> column.</li> <li>• <b>Bid/Ask Theo:</b> Sets the base price of the profile according to a user-defined theoretical bid price and a user-defined theoretical ask price. These prices must be imported into the <b>TheoBid</b> and <b>TheoAsk</b> columns.</li> <li>• <b>Direct Order Entry:</b> Sets the base price of the profile according to prices set in an external application that you must link to Autotrader™. The user is responsible for pasting prices directly into the scratch pad.</li> </ul> <p>Theoretical base prices and direct order entry prices require the user to input Excel links or formulas to use Autotrader™ for order submission.</p>
<b>Throttle Quoting</b>	<p>This check box allows you to regulate the frequency at which Autotrader™ sends quotes to the market. On certain exchanges, this helps you avoid exchange fees for sending excessive numbers of quotes to the market.</p> <p>If this is not selected, Autotrader™ updates its quotes whenever <b>Profile Base Price</b> changes.</p> <p>To set a throttle on your quoting, click <b>Throttle Quoting</b>. Then in the <b>Milliseconds between Quotes</b> box, type the number of milliseconds that Autotrader™ waits between sending quotes.</p> <p>If you are the market, Autotrader™ does not change your order.</p>
<b>Milliseconds between Quotes</b>	<p>This box configures the number of milliseconds that Autotrader™ waits between sending quotes. Before typing a value in this box, you must select <b>Throttle Quoting</b>.</p> <p>To set the number of milliseconds that Autotrader™ waits between sending quotes, in the <b>Milliseconds between Quotes</b> box, type the needed number.</p> <p>This parameter's minimum setting is 200 Milliseconds and defaults to 500 milliseconds.</p>

Parameter Name	Description
<b>Throttle Fills</b>	<p>This feature resembles the <b>Throttle Quotes</b> feature. For traders using Autotrader™ to spread and using Excel, the <b>Throttle Fills</b> feature prevents them from getting double filled on the second leg regularly. You can now throttle between fills to give your spreadsheet a chance to update the position. This feature is better than throttling between orders so you can continue to work the second leg of a spread.</p> <p>To set a throttle on your quoting, click <b>Throttle Fills</b>. In the <b>Milliseconds between Fills</b> box, type the number of milliseconds that Autotrader™ waits between sending fills.</p>
<b>Enable Cover Orders</b>	<p>This check box configures Autotrader™ to cover your orders. When an order is completely or partially filled, Autotrader™ submits a covering order, which is offset <i>from the fill price</i> by the amount you input in the <b>Cover Order Offset</b> box.</p> <p>Cover orders are the opposite type of order that was filled. Thus, if a bid gets filled, Autotrader™ submits an offer.</p> <p>To configure Autotrader™ to place cover orders, click <b>Enable Cover Orders</b>. You set the offset for <b>Cover Orders</b> in the <b>Profile Parameters</b> section.</p>
<b>Manual Requote</b>	<p>Enabling this feature allows you to control the number of fills Autotrader™ completes. This feature stops fills after an initial fill. Therefore, Autotrader™ does not continue to fill orders that you either do not want or do not even know about.</p> <p>You must click <b>Update Orders</b> to requote.</p>
<b>Cover Order Color</b>	<p>This box displays the color that Autotrader™ uses to designate cover orders it submits to the market.</p> <p>You set this color in the <b>Profile Page</b> context menu.</p>

## Profile Parameters Section

Name	White	Red	Green	Blue	Black	Grey
Days to Expiration	30	60	90	180	270	360
Price Units	Ticks	Ticks	Ticks	Ticks	Ticks	Ticks
Bid Offset						
Bid Quantity						
Bid Reserve Offset						
Bid Reserve Qty						
Ask Offset						
Ask Quantity						
Ask Reserve Offset						
Ask Reserve Qty						
Cover Order Offset						

You use the **Profile Parameters section** to configure your trading parameters. Autotrader™ uses these parameters to determine how it behaves in submitting and removing quotes to and from the market. You can configure single or multiple expiration dates for the contract you want to trade. By default the **Profile Parameters section** displays the simple-expiration view.

If you need a multiple expiration view or want to setup trading parameters for more than one expiration date, use the **Profile Page** context menu to select **New Profile (multi-expiration)**.

Name	White	Red	Green	Blue	Black	Grey
Days to Expiration	30	60	90	180	270	360

In this view, each column (i.e., the White column, the Red column, etc.) contains a set of trading parameters that Autotrader™ uses to trade that particular expiration range. Additionally, two new rows are included: the **Name** and **Days to Expiration** rows.

**Note:** You can use formulas in any numeric cell (i.e., **Offsets** and **Quantities**) to determine dynamic values.

## Profile Parameters Field Descriptions

In the table below, each parameter's name is listed in the **Parameter Name** column. The **Description** column contains a functional description for that particular parameter.

**Note:** If expiration ranges are used, column settings are used for that particular expiration range only. Thus, you can have several expiration ranges for a contract, each using a different set of profile parameters.

**Formula Use:** In any field that requires a numeric value, instead of a static number (e.g., 1 or 2), you can use a formula to generate a dynamic value (i.e., for your offsets and quantities). You cannot use formulas in **Order Block** to program trade.

Parameter Name	Description
<b>Name</b>	<p>This box is present only in the <b>Multiple</b> expiration view.</p> <p>For a custom name, replace the text in the <b>Name</b> box with the name you want to associate with this set of trading parameters.</p> <p>In addition to listing a name, the name box also displays the color associated with the expiration range. You customize this color using the <b>Profile Page</b> context menu.</p>
<b>Days to Expiration</b>	<p>This box is present only in the <b>Multiple</b> expiration view.</p> <p>Use this box to set the high-end of the expiration range for the profile. Each expiration range is fully customizable.</p> <p>Autotrader™ automatically determines the low-end of the expiration range based upon the next lower <b>Days to Expiration</b> value.</p>
<b>Price Units</b>	<p>Configures the units in which all parameters are displayed and used in calculations. You have two available options:</p> <ul style="list-style-type: none"> <li>• Ticks</li> <li>• Currency</li> <li>• Price Units defaults to Ticks.</li> </ul>

Parameter Name	Description
<b>Bid Offset</b>	<p>Sets the number of price units away from the selected <b>Profile Base Price</b> at which Autotrader™ bids. Unless you are the market, Autotrader™ adjusts your order in the market to match the offset whenever the market moves. You can configure how frequently orders are sent to market by using the <b>Throttle Quoting</b> feature in the General Information section.</p> <p>For all offsets, a positive number sets Autotrader™ to submit the order away from the <b>Profile Base Price</b> (e.g., the market) while a negative number sets Autotrader™ to submit the order inside the <b>Profile Base Price</b> (e.g., the market).</p>
<b>Bid Quantity</b>	Sets the default bid quantity Autotrader™ uses when bidding.
<b>Bid Reserve Offset</b>	<p>Use this box to set the number of price units away from the <b>Profile Base Price</b> at which Autotrader™ submits bid reserves to the market. See the <b>Note in Bid Offset</b>.</p> <p>A bid reserve is submitted when the initial bid (whose offset is set in Bid Offset) is filled.</p>
<b>Bid Reserve Qty</b>	Sets the default bid quantity Autotrader™ uses when submitting bid reserves to the market. If this value is 0, Autotrader™ does not submit bid reserves. Instead, it continues to submit bids normally using the Bid Offset.
<b>Ask Offset</b>	As Bid Offset above except it affects the ask (offer) not the bid.
<b>Ask Quantity</b>	As Bid Quantity above except it affects the ask (offer) not the bid.
<b>Ask Reserve Offset</b>	As Bid Reserve Offset above except it affects the ask (offer) reserve not the bid.
<b>Ask Reserve Qty</b>	As Bid Reserve Qty above except it affects the ask (offer) reserve not the bid.
<b>Cover Order Offset</b>	<p>Offset of the cover order. This sets the number of price units away from the fill price at which Autotrader™ submits its covering orders:</p> <p>For a filled bid, the covering order is submitted above the fill price with the appropriate offset.</p> <p>For a filled offer, the covering order is submitted below the fill price with the appropriate offset.</p>

## Expiration Ranges

Each expiration range has its own column wherein you can set up a trading profile for that particular contract expiration.

The **Profile Setup Page** uses the following default expiration ranges and settings:

Default Days to Expiration value	Default Expiration Range	Default Profile Name and Color
30	01 - 30 Days	White
60	31 - 60 Days	Red
90	61 - 90 Days	Green
180	91 - 180 Days	Blue
270	181 - 270 Days	Orange
360	271 - 360 Days	Copper

### Example Expiration Range calculation:

Autotrader™ determines expiration ranges according to the following example.

This example assumes the following **Days to Expiration** setup:

White	Red	Green
30	60	180

Autotrader™ sets:

- The **White** profile to a range of 01 to 30 days since this is the lowest range in the configuration.
- The **Red** profile to a range of 31 - 60 days since the next lowest value of **Days to Expiration** is 30.
- The **Green** profile to a range of 61 - 180 days since the next lowest value of **Days to Expiration** is 60.

## Quoting Limits Section

Quoting Limits	
Maximum Position	
Bid Change Allowance	
Ask Change Allowance	
If Quote Inside, Join Mkt	<input type="checkbox"/>
If Quote Outside, Join Mkt	<input type="checkbox"/>
Don't Cross Market	<input type="checkbox"/>
Market Improve Limit	
Quote Move Limit	
Stale Quote Timeout (secs)	

This section configures the behavior of **Autotrader™** in response to market conditions. In addition, it sets the threshold for your maximum position warning.

**Note:** You can use formulas in any numeric cell (i.e., **Maximum Position**, **Change Allowances**, and **Market Improve Limit**) to determine dynamic values. You cannot use formulas in **Order Block**.

Parameter Name	Description
<b>Maximum Position</b>	<p>Sets the maximum open position (used for both long and short) that a trader can reach before Autotrader™ stops quoting the position-increasing side of the market. When you reach this maximum position, <b>Autotrader™</b> notifies you via the <b>Quote Exceeds Maximum Position</b> dialog box but continues to quote the position-reducing side of the market.</p> <p>If your position drops back below the maximum position setting, Autotrader™ automatically resumes quoting both sides of the market.</p> <p>The <b>Maximum Position</b> setting does not override other risk parameters that have been set up by your risk administrator.</p>
<b>Bid Change Allowance</b>	Sets the minimum amount of change from the <b>Base Profile Price</b> that the best market bid must move before Autotrader™ adjusts its quotes.
<b>Ask Change Allowance</b>	Sets the minimum amount of change from the <b>Base Profile Price</b> that the best market offer must move before Autotrader™ adjusts its quotes.
<b>If Quote Inside, Join Mkt</b>	<p>You use this check box in tandem with a theoretical pricing or direct order entry model.</p> <p>When selected, Autotrader™ adjusts any order if it is inside the current market. The order adjusts to match the current market price.</p>



Parameter Name	Description
<b>If Outside, Join Mkt</b>	<p>You use this check box in tandem with a theoretical pricing or direct order entry model.</p> <p>When selected, Autotrader™ adjusts any order if it is outside the current market. The order adjusts to match the current market price.</p>
<b>Don't Cross Market</b>	<p>Default is off. When enabled, Autotrader™ rejects any order if it crosses the market. Generally, traders do not want to cross orders.</p> <p>You use this check box in tandem with a theoretical pricing or direct order entry model.</p> <p>Cross order checks only occur when you use Autotrader™ in Auto mode.</p>
<b>Market Improve Limit</b>	<p>You use this parameter in tandem with a theoretical pricing or direct order entry model.</p> <p>Sets the limit of price units by which a quote can improve the market. If an order attempts to improve the market more than the set limit, Autotrader™ adjusts the order so that it remains within the set limit.</p>
<b>Quote Move Limit</b>	<p>Allows you to control how far the quote moves and changes. Most often used when you utilize your own theoretical formulas and spreadsheet. If the new quote exceeds the <b>Quote Move Limit</b>, it will not be sent to market and a warning message displays.</p> <p><b>Quote Limit</b> checks only occur when you use Autotrader™ in Auto mode.</p>
<b>Stale Quote Timeout (secs)</b>	<p>Most often used when you utilize your own theoretical formulas and spreadsheet.</p> <p>Allows you to check the effectiveness of your theoretical pricing spreadsheet. If your quote does not move in the seconds you set, Autotrader™ notifies you to check your spreadsheet. It may not be updating data properly. Autotrader™ deletes the outdated quotes.</p>

## Defining Trading Parameters

Before performing these procedures, you should be familiar with the functional descriptions of the available trading parameters.

**Note:** You can use a formula to dynamically determine the value of any numerically valued cell (i.e., offsets, quantities, position limits, change allowances, etc.). This is not available in **Order Block**.

To define your profiles and their associated trading parameters, perform the following procedure:

### ► To define Trading Parameters for a Single Expiration:

1. Open Autotrader™.
2. Open the **Profile Setup Page**.
3. Create, name, and save your new profile.
4. If you want to assign a custom color to your profile, do so now.
5. Configure the **General Information** section by performing the following tasks:
  - In the **Account** box, click the **Customer Account** you want to use as the default account with this profile.
  - In the **Profile Base Price** box, click to select the Base Price that Autotrader™ uses to place its orders in the market. If you select **Direct Order Entry**, the **Bid** and **Ask Offsets** and **Quantities** (for original and reserve) are removed from the **Profile Parameters** section. **Direct Order Entry** uses the **Scratch Pad** to send orders to the market.
  - By default, **Throttle Quoting** is selected with a setting of 500 milliseconds. If you do not want to use this function, clear the **Throttle Quoting** check box. If you want to use time interval other than 500, click in the **Milliseconds between Quotes** box, drag to select 500, and then type your needed value.
  - If you want Autotrader™ to submit covering orders whenever you get filled, click the **Enable Cover Orders** check box.
  - If you want to assign a different color to your **Cover Orders**, do so now.

6. Configure the **Profile Parameters** section by performing the following tasks:
  - In the **Price Units** box, click the type of price unit you want to use with this profile.
  - In **Bid Offset**, set the offset at which you want Autotrader™ to start placing bids in the market.
  - In **Bid Quantity**, set the quantity of the initial bid that Autotrader™ sends to the market.
  - If you want to use reserve bids (additional bids placed after the original bids are filled), enter the appropriate values into the **Bid Reserve Offset** and **Bid Reserve Qty** boxes.
  - In **Ask Offset**, set the offset at which you want Autotrader™ to start placing offers in the market.
  - In **Ask Quantity**, set the quantity of the initial offer that Autotrader™ sends to the market.
  - If you want to use reserve asks (additional offers placed after the original offers are filled), enter the appropriate values into the **Ask Reserve Offset** and **Ask Reserve Qty** boxes.
  - If you are using **Cover Orders**, set the offset (away from the filled price) at which you want Autotrader™ to submit the covering order.
7. Configure the **Quoting Limits** section by performing the following tasks:
  - In **Maximum Position**, type your maximum allowable position.
  - In **Bid Change Allowance**, type the amount of market movement that must occur (in Price Units) before Autotrader™ **Cancels and Replaces** its Bids.
  - In **Ask Change Allowance**, type the amount of market movement that must occur (in Price Units) before Autotrader™ **Cancels and Replaces** its offers.
  - If you want Autotrader™ to submit covering orders whenever you get filled, click the **Enable Cover Orders** check box.
  - If you use **Theoreticals** (Single or Ask and Bid) as your **Profile Base Price**, there are for additional configuration tasks.
8. Click **Save**.
9. To go back to the Autotrader™ window, click **Close**.

► **To define Trading Parameters for Multiple Expirations:**

This procedure is almost identical to the procedure used to define parameters for a single expiration except for:

- Multiple expiration columns
- The **Name** box
- The **Days to Expiration** box
- The color associated with the expiration date (range)

In addition to the six default expiration columns, you can use the **Profile Setup Page** context menu to add or remove expiration columns.

In addition to the performing Steps 7 and 8 from **Defining Trading Parameters for a Single Expiration** procedure for each expiration column, perform the following tasks

1. In the **Name** box, either:
  - Accept the default column name.
  - Drag to select the contents of the **Name** box, and then type the name you want to assign to that column's trading parameters.
2. In the **Days to Expiration** boxes, either:
  - Accept the default expiration ranges.
  - Edit the expiration ranges to suit your needs.
  - Either accept the default color schema for the expiration ranges, or assign your own colors to each expiration range.
3. Click **Save**.

## Additional Theoretical Configurations

If Quote Inside, Join Mkt	<input type="checkbox"/>
If Outside, Join Mkt	<input type="checkbox"/>
Don't Cross Market	<input type="checkbox"/>
Market Improve Limit	

Perform the following tasks in the **Profile Setup Page** when you set the **Profile Base Price** to **Single Theo** or **Bid/Ask Theo**.

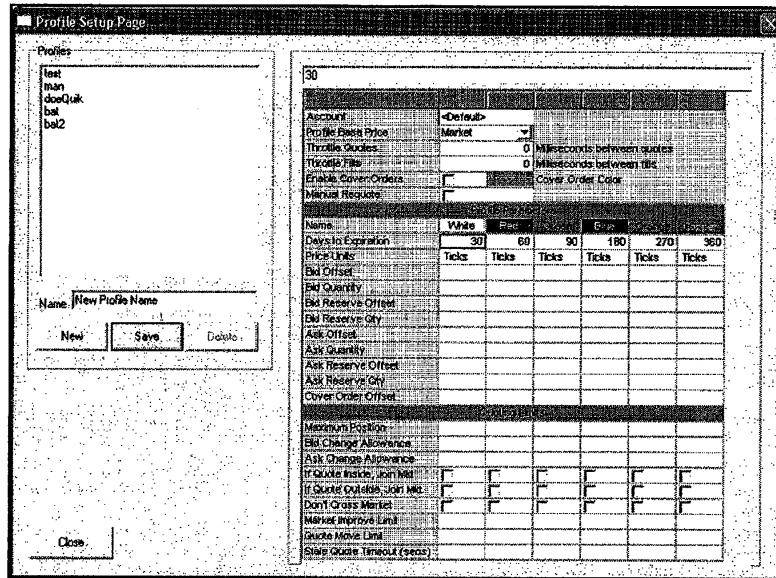
► **To define Trading Parameters for Theoretical:**

1. If you want Autotrader™ to adjust orders that would fall inside the market to the actual market price, click to select the **If Quote Inside, Join Mkt** check box.
2. If you want Autotrader™ to adjust orders that would fall outside the market to the actual market price, click to select the **If Outside, Join Mkt** check box.
3. If you want Autotrader™ to reject orders that would cross the market, click to select the **Don't Cross Market** check box.
4. If you want to set a limit on how much an order can improve the market, use the **Market Improve Limit** box. Type the number of price units beyond which Autotrader™ cannot better the market.
5. Click **Save**.
6. After you close out of the **Profile Setup Page**, you must setup the Theoretical columns in Autotrader™ to import the theoretical values that you are going to use.

## Multi-Expiration Profile

A multi-expiration profile contains multiple schedules. Define the schedules by how many days a contract is from expiring. As a contract gets closer to expiring it rolls to a schedule that is less than the days out of the schedule.

Multi-expiration profiles allow for schedules to change as the contracts move through time. As the contracts move, the schedules change with them.



## Theoreticals and Formulas

Formulas must begin with an equal (=) sign and conform to the syntax:

`= expression ; constraint expression // comment`

where:

- **expression** defines the calculations needed to generate the value of a cell.
- **constraint expression** places limits on acceptable values or the circumstances under which the calculation should take place. Constraint expressions establish conditions under which a formula operates or boundaries for valid results of the formula. A constraint expression can reference the cell in which it resides, using the symbol #
- **comment** is any text you want to attach to the cell. This text is not used in the formula.

**For example:**

`=A1 + A2 ; #>2 && #<=B5 || #==C7`

In this example, the value of the current cell is the sum of cells A1 and A2, and that value must be either greater than 2 and less than or equal to the value of cell B5, or equal to the value of cell C7.

You can use the following formulas with Autotrader™ to help define its trading behavior:

- Mathematical
- Statistical
- Conditional Statistical
- String Functions
- Logic Functions
- Financial Functions
- Date and Time Functions
- Miscellaneous Functions
- Embedded Tools

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**Note:** You cannot use formulas in **Order Block**.

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## Mathematical Formulas

Formula	Description
@ABS(X)	Absolute value of $X$
@ACOS(X)	Arc cosine of $X$
@ASIN(X)	Arc sine of $X$
@ATAN(X)	2-quadrant arc tangent of $X$
@ATAN2(X, Y)	4-quadrant arc tangent of $Y/X$
@CEIL(X)	Smallest integer greater than or equal to $X$
@COS(X)	Cosine of $X$
@COSH(X)	Hyperbolic cosine of $X$
@DEGREES(X)	Converts the angle expressed in radians to degrees ( $^{\circ}$ ).
@DET(M)	Determinant of the matrix range $M$ , which must be a square matrix
@DOT(R1, R2)	Dot product of the vectors $R1$ and $R2$
@EXP(X)	$-e$ raised to the $X$ power
@FACT(N)	Value of $N!$
@FLOOR(X)	Largest integer less than or equal to $X$
@FRAC(X)	Fractional portion of $X$
@GAMMA(X)	Value of the gamma function evaluated at $X$
@GRAND	12th-degree binomial approximation to a Gaussian random number with zero mean and unit variance
@INT(X)	Integer portion of $X$
@LN(X)	Natural log (base $e$ ) of $X$
@LNGAMMA(X)	Log base $e$ of the gamma function evaluated at $X$
@LOG(X)	Log base 10 of $X$
@LOG10(X)	Log base 10 of $X$



Chapter 5

Formula	Description
@LOG2( <i>X</i> )	Log base 2 of <i>X</i>
@MOD( <i>X</i> , <i>Y</i> )	Remainder of <i>X/Y</i>
@MODULUS( <i>X</i> , <i>Y</i> )	Modulus of <i>X/Y</i>
@PI	Value of $\pi$
@POLY( <i>X</i> , ...)	Value of an <i>N</i> th-degree polynomial in <i>X</i>
@PRODUCT( <i>X</i> , ...)	Product of all the numeric values in the argument list
@RADIANS( <i>X</i> )	Converts the angle expressed in degrees to radians ( )
@RAND	Uniform random number on the interval [0,1)
@ROUND( <i>X</i> , <i>n</i> )	<i>X</i> rounded to <i>n</i> number of decimal places (0 to 15)
@SIGMOID( <i>X</i> )	Value of the sigmoid function
@SIN( <i>X</i> )	Sine of <i>X</i>
@SINH( <i>X</i> )	Hyperbolic sine of <i>X</i>
@SQRT( <i>X</i> )	Positive square root of <i>X</i>
@SUMPRODUCT( <i>R1</i> , <i>R2</i> )	Dot product of the vectors <i>R1</i> and <i>R2</i> , where <i>R1</i> and <i>R2</i> are of equal dimension
@TAN( <i>X</i> )	Tangent of <i>X</i>
@TANH( <i>X</i> )	Hyperbolic tangent of <i>X</i>
@TRANSPOSE( <i>M</i> )	Transpose of matrix <i>M</i>
@VECLEN(...)	Square root of the sum of squares of its arguments

## Statistical Formulas

Formula	Description
@AVG(...)	Average (arithmetic mean) of its arguments
@CORR(R1, R2)	Pearson's product-moment correlation coefficient for the paired data in ranges R1 and R2
@COUNT(...)	Count of its non-blank arguments
@F(M, N, F)	Integral of Snedecor's F-distribution with M and N degrees of freedom from minus infinity to F
@ERF(L, U)	Error function integrated between 0 and L; if U specified, between L and U
@ERFC(L)	Complementary error function integrated between L and infinity
@FORECAST(...)	Predicted Y values for given X
@FTEST(R1, R2)	Significance level ( ) of the two-sided F-test on the variances of the data specified by ranges R1 and R2
@GMEAN(...)	Geometric mean of its arguments
@HMEAN(...)	Harmonic mean of its arguments
@LARGE(R, N)	Nth largest value in range R
@MAX(...)	Maximum of its arguments
@MEDIAN(...)	Median (middle value) of the range R1
@MIN(...)	Minimum of its arguments
@MODE(...)	Mode, or most frequently occurring value
@MSQ(...)	Mean of the squares of its arguments
@PERCENTILE(R, N)	Value from the range R which is at the Nth percentile in R
@PERCENTRANK(R, N)	Percentile rank of the number N among the values in range R
@PERMUT(S, T)	Number of T objects that can be chosen from the set S, where order is significant
@PTTEST(R1, R2)	Significance level ( ) of the two-sided T-test for the paired samples contained in ranges R1 and R2
@QUARTILE(R, Q)	Quartile Q of the data in range R

Chapter 5

Formula	Description
@RANK( <i>E</i> , <i>R</i> , <i>O</i> )	Rank of a numeric argument <i>E</i> in the range <i>R</i>
@RMS(...)	Root of the mean of squares of its arguments
@SMALL( <i>R</i> , <i>N</i> )	<i>N</i> th smallest number in range <i>R</i>
@SSE(...)	Sum squared error of its arguments. It is equivalent to @VAR(...)*@COUNT(...)
@SSQ(...)	Sum of squares of its arguments
@STD(...)	Population standard deviation ( <i>N</i> weighting) of its arguments
@STDS(...)	Sample standard deviation ( <i>N</i> -1 weighting) of its arguments
@SUM(...)	Sum of its arguments
@T( <i>N</i> , <i>T</i> )	Integral of T-distribution with <i>N</i> degrees of freedom from minus infinity to <i>T</i>
@TTEST( <i>R</i> , <i>X</i> )	Significance level ( $\alpha$ ) of the two-sided single population T-test for the population samples contained in range <i>R</i>
@TTEST2EV( <i>R1</i> , <i>R2</i> )	Significance level ( $\alpha$ ) of the two-sided dual population T-test for ranges <i>R1</i> and <i>R2</i> , where the population variances are equal
@TTEST2UV( <i>R1</i> , <i>R2</i> )	Significance level ( $\alpha$ ) of the two-sided dual population T-test for ranges <i>R1</i> and <i>R2</i> , where the population variances are not equal
@VAR(...)	Sample variance ( <i>N</i> weighting) of its arguments
@VARS(...)	Sample variance ( <i>N</i> -1 weighting) of its arguments
@VSUM(...)	"Visual sum" of its arguments, using precision and rounding of formatted cell values

## Conditional Statistical Formulas

Formula	Description
@CAVG(..., C)	Conditional average
@CCOUNT(..., C)	Conditional count
@CMAX(..., C)	Conditional maximum
@CMIN(..., C)	Conditional minimum
@CSTD(..., C)	Conditional sample standard deviation (N weighting)
@CSTDS(..., C)	Conditional sample standard deviation (N-1 weighting)
@CSUM(..., C)	Conditional sum
@CVAR(..., C)	Conditional population variance (N weighting)
@CVARS(..., C)	Conditional population variance (N-1 weighting)

## String Functions

Formula	Description
@CHAR(N)	Character represented by the code <i>N</i>
@CLEAN(S)	String formed by removing all non-printing characters from the string <i>S</i>
@CODE(S)	ASCII code for the first character in string <i>S</i>
@EXACT(S1, S2)	Returns true (1) if string <i>S1</i> exactly matches string <i>S2</i> , otherwise returns 0
@FIND(S1, S2, N)	Index of the first occurrence of <i>S1</i> in <i>S2</i>
@HEXTONUM(S)	Numeric value for the hexadecimal interpretation of <i>S</i>
@LEFT(S, N)	String composed of the leftmost <i>N</i> characters of <i>S</i>
@LENGTH(S)	Number of characters in <i>S</i>
@LOWER(S)	<i>S</i> converted to lower case
@MID(S, N1, N2)	String of length <i>N2</i> that starts at position <i>N1</i> in <i>S</i>

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Formula	Description
@NUMTOHEX(X)	Hexadecimal representation of the integer portion of <i>X</i> .
@PROPER(S)	String <i>S</i> with the first letter of each word capitalized
@REGEX(S1, S2)	Returns true (1) if string <i>S1</i> exactly matches string <i>S2</i> ; otherwise returns false (0). Allows "wildcard" comparisons by interpreting <i>S1</i> as a regular expression
@REPEAT(S, N)	String <i>S</i> repeated <i>N</i> times
@REPLACE(S1, N1, N2, S2)	String formed by replacing the <i>N2</i> characters starting at position <i>N1</i> in <i>S1</i> with string <i>S2</i>
@RIGHT(S, N)	String composed of the rightmost <i>N</i> characters of <i>S</i>
@STRCAT(...)	Concatenation of all its arguments
@STRING(X, N)	String representing the numeric value of <i>X</i> , to <i>N</i> decimal places
@STRLEN(...)	Total length of all strings in its arguments
@TRIM(S)	String formed by removing spaces from the string <i>S</i>
@UPPER(S)	String <i>S</i> converted to upper case
@VALUE(S)	Numeric value represented by the string <i>S</i> ; otherwise 0 if <i>S</i> does not represent a number

## Logic Functions

Formula	Description
@AND(...)	0 if any arguments are 0; 1 if all arguments are 1; otherwise -1
@FALSE	Logical value 0
@FILEEXISTS(S)	1 if file <i>S</i> can be opened for reading; otherwise 0
@IF(X, T, F)	Value of <i>T</i> if <i>X</i> evaluates to non-zero, or <i>F</i> if <i>X</i> evaluates to zero
@ISERROR(X)	Returns 1 if <i>X</i> "contains" an error, otherwise 0
@ISNUMBER(X)	1 if <i>X</i> is a numeric value; otherwise 0
@ISSTRING(X)	1 if <i>X</i> is a string value; otherwise 0
@NAND(...)	0 if all arguments are 1; 1 if any arguments are 0; otherwise -1
@NOR(...)	0 if any arguments are 1; 1 if all arguments are 0; otherwise -1
@NOT(X)	0 if <i>X</i> =1; 1 if <i>X</i> =0; otherwise -1
@OR(...)	0 if all arguments are 0; 1 if any arguments are 1; otherwise -1
@TRUE	Logical value 1
@XOR(...)	-1 if any of the arguments are not 0 or 1; otherwise 0 if the total number of arguments with the value 1 is even; 1 if the total number of arguments with the value 1 is odd.

## Financial Functions

Formula	Description
@ACCRINT(I, Ft, S, R, P, F[, B])	Accrued interest for a security that pays periodic interest
@ACCRINTM(I, S, R, P[, B])	Accrued interest for a security that pays interest at maturity
@COUPDAYBS(S, M, F[, B])	Number of days between the beginning of the coupon period to the settlement date
@COUPDAYS(S, M, F[, B])	Number of days in the coupon period that the settlement date is in
@COUPDAYSNC(S, M, F[, B])	Number of days between the settlement date and the next coupon date
@COUPNCD(S, M, F[, B])	Next coupon date after the settlement date
@COUPNUM(S, M, F[, B])	Number of coupon payments between the settlement date and maturity date
@COUPPCD(S, M, F[, B])	Previous (most recent) coupon date before the settlement date
@CTERM(R, FV, PV)	Number of compounding periods for an investment
@CUMIPMT(R, NP, PV, S, E, T)	Cumulative interest on a loan between start period <i>S</i> and end period <i>E</i>
@CUMPRINC(R, NP, PV, S, E, T)	Cumulative principal paid on a loan between start period <i>S</i> and end period <i>E</i>
@DB(C, S, L, P[, M])	Fixed-declining depreciation allowance
@DDB(C, S, L, N)	Double-declining depreciation allowance
@DISC(S, M, P, R[, B])	Discount rate for a security
@DOLLARDE(FD, F)	Converts a dollar amount expressed as a fraction form into a decimal form
@DOLLARFR(DD, F)	Converts a dollar amount expressed as a decimal form into a fraction form
@DURATION(S, M, R, Y, F[, B])	Macauley duration of a security assuming \$100 face value
@EFFECT(NR, NP)	Returns the effective annual interest rate

Formula	Description
@FV(P, R, N)	Future value of an annuity
@FVSCHEDULE(P, S)	Future value of an initial investment after compounding a series of interest rates
@INTRATE(S, M, I, R[, B])	Interest rate for a fully invested security
@IPMT(R, P, NP, PV, FV[, T])	Interest payment for a specific period for an investment based on periodic, constant payments and a constant interest rate
@IRR(G, F)	Internal rate of return on an investment. See also @XIRR and @MIRR.
@MDURATION(S, M, R, Y, F[, B])	Modified Macauley duration of a security assuming \$100 face value
@MIRR(CF, FR, RR)	Modified internal rate of return for a series of periodic cash flows
@NOMINAL(ER, NP)	Nominal annual interest rate
@ODDFPRICE(S, M, I, FC, R, Y, RD, F[, B])	Price per \$100 face value of a security with an odd (short or long) first period
@ODDFYIELD(S, M, I, FC, R, PR, RD, F[, B])	Yield per of a security with an odd (short or long) first period
@PMT(PV, R, N)	Periodic payment for a loan
@PPMT(R, P, NP, PV, FV, T)	Payment on the principal for a specific period for an investment based on periodic, constant payments and a constant interest rate
@PRICE(S, M, R, Y, RD, F[, B])	Price per \$100 face value of a security that pays periodic interest
@PRICEDISC(S, M, D, RD[, B])	Price per \$100 face value of a discounted security
@PRICEMAT(S, M, I, R, Y[, B])	Price per \$100 face value of a security that pays interest at maturity
@PV(P, R, N)	Present value of an annuity
@RATE(FV, PV, N)	Interest rate required to reach future value <i>FV</i>
@RECEIVED(S, M, I, D, [, B])	Amount received at maturity for a fully vested security
@SLN(C, S, L)	Straight-line depreciation allowance

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Formula	Description
@SYD(C, S, L, N)	"Sum-of-years-digits" depreciation allowance
@TBILLEQ(S, M, D)	Bond-equivalent yield (BEY) for a Treasury Bill
@TBILLYIELD(S, M, D)	Yield on a Treasury bill
@TERM(P, R, FV)	Number of payment periods for an investment.
@VDB(C, S, L, S, E)	Fixed-declining depreciation allowance between two periods
@XIRR(G, V, D)	Internal rate of return for a series of cash flows with variable intervals
@XNPV(R, V, D)	Returns the net present value for a series of cash flows with variable intervals
@YIELD(S, M, R, PR, RD, F[, B])	Yield of a security that pays periodic interest
@YIELDMAT(S, M, I, R, PR[, B])	Annual yield of a security which pays interest at maturity

## Date and Time Functions

Formula	Description
@DATE( <i>Y, M, D</i> )	Date value for year <i>Y</i> , month <i>M</i> , and day <i>D</i>
@DATEVALUE( <i>S</i> )	Corresponding date value for a given string <i>S</i>
@DAYS360( <i>S, E</i> )	Number of days between two dates, based on a 30/360 day count system
@DAY( <i>DT</i> )	Day number in the date/time value <i>DT</i>
@EDATE( <i>S, M</i> )	Date/time value representing number of months ( <i>M</i> ) before or after start date ( <i>S</i> )
@EOMONTH( <i>S, M</i> )	Date/time value representing the last day of the month <i>M</i> months after <i>S</i> , if <i>M</i> is positive, or <i>M</i> months before if <i>M</i> is negative
@HOUR( <i>DT</i> )	Hour value (0-23) of date/time value <i>DT</i>
@MINUTE( <i>DT</i> )	Minute value (0-59) of date/time value <i>DT</i>
@MONTH( <i>DT</i> )	Number of the month in date/time value <i>DT</i>
@NETWORKDAYS( <i>S, E, H</i> )	Number of whole working days, starting at <i>S</i> and going to <i>E</i> , excluding weekends and holidays
@NOW	Date/time value of the current system date and time
@SECOND( <i>DT</i> )	Seconds value (0-59) of the date/time value <i>DT</i>
@TIME( <i>H, M, S</i> )	Time value for hour <i>H</i> , minute <i>M</i> , and second <i>S</i>
@TIMEVALUE( <i>S</i> )	Corresponding time value for a given string value <i>S</i>
@TODAY	Date value of the current system date
@WEEKDAY( <i>D</i> )	Integer representing the day of the week on which the day <i>D</i> falls starting at 1 (Sunday) and ending with 7 (Saturday)
@WORKDAY( <i>S, D, H</i> )	Day that is <i>D</i> working days after <i>S</i> , if <i>D</i> is positive, or before <i>S</i> , if <i>D</i> is negative, excluding weekends and all holidays specified as dates in range <i>H</i>
@YEAR( <i>DT</i> )	Year value of date/time value <i>DT</i>
@YEARFRAC( <i>S, E, B</i> )	Portion of the year represented by the number of days between start date ( <i>S</i> ) and end date ( <i>E</i> )

## Miscellaneous Functions

**Note:** Some functions may return a result that is a range or cell reference. These indirect references are not used in determining the pattern of recalculation. Plan carefully before using these functions.

Formula	Description
@CELLREF( <i>N1</i> , <i>N2</i> )	Reference to the cell in column <i>N1</i> and row <i>N2</i>
@CHOOSE( <i>N</i> , ...)	<i>N</i> th argument from the list
@COL( <i>C</i> )	Column address of the cell referenced by <i>C</i>
@COLS( <i>R</i> )	Number of columns in the specified range <i>R</i>
@HLOOKUP( <i>X</i> , <i>S</i> , <i>R</i> )	Value of the cell in range <i>S</i> that is <i>R</i> number of rows beneath <i>X</i>
@INIT( <i>X1</i> , <i>X2</i> )	First argument on the first recalculation pass and the second argument on all subsequent recalculation passes when Autotrader is set to perform iterative calculations
@INTERP2D( <i>R1</i> , <i>R2</i> , <i>N</i> )	Interpolation value for a 2-dimensional vector
@INTERP3D( <i>R</i> , <i>X</i> , <i>Y</i> )	Interpolation value for a 3-dimensional vector
@MATCH( <i>V</i> , <i>R</i> , <i>T</i> )	Relative position in range <i>R</i> of value <i>V</i> based on positioning criteria <i>T</i>
@N( <i>R</i> )	Numeric value of the top left cell in range <i>R</i>
@RANGEREf( <i>N1</i> , <i>N2</i> , <i>N3</i> , <i>N4</i> )	Reference to the range defined by coordinates <i>N1</i> through <i>N4</i>
@ROW( <i>C</i> )	Row address of the cell referenced by <i>C</i>
@ROWS( <i>R</i> )	Number of rows in the specified range <i>R</i>
@S( <i>R</i> )	String value of the top left cell in range <i>R</i>
@VLOOKUP( <i>X</i> , <i>S</i> , <i>C</i> )	Value of the cell in range <i>S</i> that is <i>C</i> number of columns to the right of <i>X</i>

## Embedded Tools

**Note:** Embedded tools should not be contained within other functions or arithmetic operations in a single formula. However, you can copy, move, and format embedded tools just like any other function.

Formula	Description
@DFT( <i>R</i> )	Discrete Fourier Transform of the range <i>R</i>
@EIGEN( <i>M</i> )	Eigen values of the matrix <i>M</i>
@FFT( <i>R</i> )	Discrete Fourier Transform of the range <i>R</i> using a fast Fourier Transform algorithm
@FREQUENCY( <i>R</i> , <i>B</i> )	Returns a frequency distribution for values <i>R</i> with a set of intervals <i>B</i>
@INVDFT( <i>R</i> )	Inverse of the Discrete Fourier Transform of the range <i>R</i>
@INVERT( <i>M</i> )	Inverse of matrix <i>M</i>
@INVFFT( <i>R</i> )	Inverse of the Discrete Fourier Transform of the range <i>R</i> using a fast Fourier Transform algorithm.
@LINFIT( <i>X</i> , <i>Y</i> )	Straight line least squares fit. This function is equivalent to @POLYFIT( <i>X</i> , <i>Y</i> , 1)
@LLS( <i>A</i> , <i>Y</i> )	Linear least squares solution <i>X</i> to the over-determined system of equations $AX=Y$
@MMUL( <i>M1</i> , <i>M2</i> )	Product of multiplying matrix <i>M2</i> by matrix <i>M1</i>
@PLS( <i>X</i> , <i>Y</i> , <i>d</i> )	Analyzes the least squares polynomial model $Y=P(X)$ , where <i>P</i> is a polynomial of degree <i>d</i>
@POLYCOEF( <i>X</i> , <i>Y</i> , <i>d</i> )	Least squares coefficients for the polynomial fit $Y=P(X)$ , where <i>P</i> is a polynomial of degree <i>d</i>
@TRANPOSE( <i>M</i> )	Transpose of matrix <i>M</i>
@TREND( <i>NX</i> , <i>KX</i> , <i>KY</i> )	<i>Y</i> values for new <i>x</i> values given existing <i>x</i> and <i>y</i> values

## Autotrader™ Formulas

### Using Conversion Formulas

If you want to see the actual values in Excel before they are sent to Autotrader™, you can use the following equations:

Assume A1 has the original price (in 32nds) and B1 has the number of offset ticks:

$$=INT(A1/100)*100+INT((B1+MOD(A1, 100))/32)*100+MOD(B1+MOD(A1, 100), 32)$$

**Example:**

A1	B1	RESULT
110310	3	111010
111020	-3	110310

Assume A2 has the original price (in ½ 32nds) and B2 has the number of offset ticks:

$$=INT(A2/1000)*1000+INT((B2/0.2+MOD(A2, 1000))/320)*1000+MOD(B2/0.2+MOD(A2, 1000), 320)$$

**Example:**

A2	B2	RESULT
110310	3	111005
110310	-3	110295

Assume A3 has the original price in  $\frac{1}{4}$  32nds and B3 has the number of offset ticks:

$$\begin{aligned}
 &= (INT(A3/1000) + INT((INT(MOD(A3,1000)/10) + \\
 &INT((ROUNDUP(MOD(A3,10)*0.4,0) + B3)/4))/32)) * 1000 + \\
 &MOD(INT(MOD(A3,1000)/10) + \\
 &INT((ROUNDUP(MOD(A3,10)*0.4,0) + B3)/4), 32) * 10 + \\
 &INT(MOD(ROUNDUP(MOD(A3,10)*0.4,0) + B3, 4)/0.4)
 \end{aligned}$$

**Example:**

A3	B3	RESULT
110312	3	111000
110312	-2	110307

Assume that:

C32 and D32 contain prices in 32nds, 1/2 32nds, or 1/4 32nds (can be positive or negative), then the result of adding the two can be expressed as:

$$=(INT(ABS(K34)/128)*1000+INT((ABS(K34)-(INT(ABS(K34)/128)*128))/4)*10+INT((ABS(K34)-INT(ABS(K34)/128)*128-INT(ABS(K34)-(INT(ABS(K34)/128)*128))/4)*4)/0.4))*INT(ABS(K34+0.1)/(K34+0.1))$$

Where K34 equals:

$$INT(ABS(C32)/1000)*INT(ABS(C32)/C32)*128+INT(MOD(ABS(C32),1000)/10)*INT(ABS(C32)/C32)*4+ROUNDUP(ABS(MOD(ABS(C32),10)*INT(ABS(C32)/C32))*0.4,0)*INT(ABS(C32)/C32)+INT(ABS(D32)/1000)*INT(ABS(D32)/D32)*128+MOD(ABS(TRUNC(D32/10)),100)*INT(ABS(D32)/D32)*4+ROUNDUP(ABS(MOD(ABS(D32),10)*INT(ABS(D32)/D32))*0.4,0)*INT(ABS(D32)/D32)$$

K34 cannot be substituted into the first formula since the resulting expression is too long for Excel to handle.

**Example:**

C32	D34	RESULT
99152	-205	98267
99152	99155	-2

## Converting Floating Point to a Price

Another set of equations converts a floating point number to a price. If you are using a decimal price feed or a decimal theoretical, use one of these equations to convert it.

Assume A1 has the original price in decimal format for a product that ticks in 32nds. Multiply the result by 10 if you want a zero on the end.

- Round down for the bid.

$$=FLOOR((A6-INT(A6))*32+INT(A6)*100,1)$$

- Round up for the ask.

$$=CEILING((A6-INT(A6))*32+INT(A6)*100,1)$$

The formula would be modified for products that trade in  $\frac{1}{2}$  or  $\frac{1}{4}$  32nds.



## Autotrader™ Formula Operators

**Note:** You cannot use formulas in **Order Block**.

In formulas with more than one operator, Autotrader™ evaluates operators in the order of precedence included in the table below. Operators with a higher precedence number are evaluated first. Operators with the same precedence number are evaluated from left to right in the formula.

Precedence can be overridden by using parentheses to explicitly specify the order of evaluation. In formulas with conditional operators, the second and third operands may be any type, including ranges. For example:

```
=@SUM(A1 ? B1..C20 : C10..D15)
```

returns the sum of B1..C20 if A1 evaluates to non-zero; otherwise it returns the sum of C10..D15.

Formulas can contain the following operators to define relationship between values.

Operator	Precedence	Definition
%	14	Unary percent
**	13	Exponentiation
+	12	Unary plus
-	12	Unary minus
~	12	Bitwise complement (integer)
!	12	Logical not
*	11	Multiplication
/	11	Division
%	11	Remainder (integer)
+	10	Addition
-	10	Subtraction
<<	9	Shift left (integer)
>>	9	Shift right (integer)

Operator	Precedence	Definition
<	8	Less Than
>	8	Greater Than
<=	8	Less Than or Equal
=	8	Greater Than or Equal
==	7	Equal
!=	7	Not Equal
&	6	Bitwise And, or String Concatenation
^	5	Bitwise Exclusive-Or (integer)
	4	Bitwise Or
&&	3	Logical And
	2	Logical Or
?:	1	Conditional

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## Using Formulas in Autotrader™

**Note:** You cannot use formulas in **Order Block** to program trade.

You can type a formula into any cell in Autotrader™ that uses numeric values. For trading purposes, this includes:

- The **Scratch** section for use when your **Profile Base Price** is set to **Direct Order Entry**.
- The **Profile Parameters** section in the **Grid**
- Any numeric cell in the **Profile Setup Page** (e.g., offsets, quantities, allowances, maximum position, and market improve limit)
- Any cell in the **Theo Prices** or **Formula** sections

**Note:** When using formulas, use numeric values only (i.e., not ticks). If it is necessary to use formulas using ticks (i.e., =mbidpre-3), use the offset functionality in the **Profile Setup Window**. When using a formula in Autotrader™, you must conform to the following conventions:

### Example:

To trade the E-mini S&P, you create a formula to generate a price one tick off of the market bid price from another row: =mBidPrc4-25

This takes the numeric market bid price of the contract in row four and subtracts 25 from it (equal to one tick in the E-mini S&P). Thus, if the bid price in row four is expressed as 10025, your value appears as 10000 (one tick lower).

- Use the standard program syntax
- **Important: Begin the formula with an equal sign: =**
- Use the formula operators to generate mathematically derived values
- Reference cells in the same row by their column name (e.g., wBidPrc, sBidPrc, etc.) or by the column letter. In the diagram below, the **Contract** column has the column letter **C**.

	A	B	C	D	E	F	G
1							CONTROL
2	Status	Active	Contract	RowName	Manual	Auto	Profile

- You view column letters using the **Hide/Show Rows** option in the Autotrader context menu. The row is called **Column Headers**.
- Reference cells in other rows by their column name or column letter followed by the row number or RowName (see the **Row Identifier** or

Control sections respectively). Do not include a space between the column name or letter and the row number.

**Note:** In the **Profile Setup Page**, you can reference expiration columns by the column **Name** (i.e., **White, Red, Green**, etc.).

**Example:**

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Symbol	Contract	Quantity	Market	Order	Profile	Account	Trade	Nett	Open	Indis	Indis	Indis	Indis

In this example, you must reference the market bid price for the FDAX Jun02 contract from another row. To do so, you enter either =N3 or =mBidPrC3.

**▶ To enter Formulas into Autotrader™:**

To generate a formula derived value for any cell, you can do one of two things:

- Type the formula directly into the cell for which you want to generate a dynamic value. Once you type the formula and exit the cell, Autotrader™ begins to generate values for that cell. If you enter formulas into the **Profile Setup Page**, you must do so in this fashion.
- Type the formula into a cell in the **Formula** section. After typing the formula, you must then reference the formula cell from the cell in which you want to generate dynamic content.

► **To reference the Formula Section from other Autotrader™ cells:**

1. After typing the formula into a cell in the **Formula** section, click the cell in which you want to reference the formula.
2. Type the name of the formula column that contains the formula(s) you want to reference (e.g., **=fA** references the cell in **fA** for that row).

**Example of Formula Use**

You link a Theoretical Generator into the **fA** cell in the **Formula** section and rename the formula column to **TheoOffset**. This generator creates theoretical offsets. Currently, the theoretical offset is 2.

In the **fB** column of the **Formula** section, you enter the following formula:

**=mAskPrc + TheoOffset**

Your **Grid** now displays the following:



The **TheoOffset** cell displays a theoretically generated offset of **2** and the **fB** cell displays the formula that you entered. As soon as you click another cell or press **ENTER**, the value of the **fB** cell changes and displays only the dynamic value of the sum of the theoretical bid offset (**TheoOffset** cell) and the market ask price (**mAskPrc** cell).

To use the value of the **fB** cell, simply type **=fB** into the cell in which you want the value to appear. You can further use this value (of **fB**) in other more complex formulas.

## Importing Theoreticals to Autotrader™

**Autotrader** allows you to link in any program that generates theoreticals as long as it conforms to the OLE standard (e.g., Excel spreadsheets). In this manner, you can create profiles that base their bid and ask offsets on Theoretical prices that you import to the Theo Prices section in the **Grid**.

At times, theoretical pricing models may generate results that do not line up accurately with the ticking of a product. In this case, Autotrader rounds its values when submitting to the market.

**Note:** To automatically open Excel when you open a saved workspace, you must create excel links *from* Autotrader™ *to* Excel. If you only have links *from* **Market Grid** *to* Excel, the links are saved but do not automatically open when you open the workspace.

### ▶ To import Theoreticals to Autotrader™:

1. Open the theoretical generator that generates the values you want to import into Autotrader™.
2. Locate the cells in the theoretical generator that contain the theoretical values that you want to import into Autotrader™.
3. Open Autotrader™.
4. Populate Autotrader™ with the contracts that you want to trade.
5. To use imported theoreticals in determining your bids and offers, assign a profile that has a **Profile Base Price of Single Theo** or **Bid/Ask Theo**.
6. In the theoretical generator, right-click the cell that you want to copy into Autotrader™.
7. Click **Copy**.
8. In Autotrader™, right-click on the cell in which you want to create the Excel link, point to **Links**, and then click **Paste**. The cell now hosts the OLE link to Excel.
9. To use these theoretical values in the future, save your workspace.

## Rounding Results

When using formulas and theoreticals, Autotrader™ rounds according to the following rules:

- Bids and Asks are rounded away from the market (i.e., Bids down and Asks up)
- In the case where a product ticks in fractions, if a formula's or theoretical's resulting value pushes the Bid or Ask into the next whole tick value, Autotrader™ rounds the value based on the whole tick.

When using negative numbers, i.e. for spread prices, use offsets in the **Profile Setup Window** or Excel. Do NOT use the **Formula Bar**.

### Example 1:

The market is ticking in halves. Autotrader™ receives a value of 3.75:

- When submitting Asks, Autotrader™ rounds to 4.
- When submitting Bids, Autotrader™ rounds to 3.5.

### Example 2:

The market is ticking in 32<sup>nd</sup>s and is currently at 3 and 30 (330). Autotrader™ receives an Ask offset of +3.3 from a theoretical pricing engine. Mathematically, this generates an invalid tick price of 333.3.

Autotrader™ converts the number into the valid tick number of 401.

# Excel Links

## Linking Excel Spreadsheets (OLE Links)

Autotrader™ and Order Block allow you to link any program that conforms to the OLE standard (e.g., Excel spreadsheets) into any editable, numeric cell such as the **Scratch** section for **Direct Order Entry** and the **Profile Parameters** section. In this manner, you can seed Autotrader™ with numbers or values from your own Excel spreadsheets.

 **Tip:** To quickly identify cells with OLE Links, use the **Formatting** option in the Autotrader context menu to assign a specific color to the cell that hosts the link.

**Note:** To automatically open Excel when you open a saved workspace, you must create excel links *from* Autotrader™ *to* Excel. If you only have links *from* Market Grid *to* Excel, the links are saved but do not automatically open when you open the workspace.

### ▶ To link Excel Spreadsheets into Autotrader™:

1. Open the Excel spreadsheet from which you want to copy cells into Autotrader™.
2. Locate your cells in the spreadsheet.
3. Open Autotrader™.
4. Populate the window with the contracts you want to trade.
5. In the Excel spreadsheet, right-click the cell that you want to copy into Autotrader™.
6. Click **Copy**.
7. In the window, right-click on the cell in which you want to create the Excel link, point to **Links**, and then click **Paste**. The cell now hosts the OLE link to Excel.
8. To use these links in the future, save your workspace.



► **To use Excel Spreadsheets with Direct Order Entry:**

1. Create a profile, assign it a **Profile Base Price of Direct Order Entry**, and set any other needed trading parameters.
2. Populate Autotrader™ with the contract(s) you want to trade with OLE links.
3. Assign the **Direct Order Entry** profile to the contract(s).
4. Link your program that uses the OLE standard (i.e., Excel spreadsheet) into the cells of the Scratch section.
5. Make sure that you have a link or formula to generate values for each **Scratch** section cell (i.e., **sBidQty**, **sBidPrc**, **sAskPrc**, **sAskQty**).
6. To use these links in the future, save your workspace.
7. You are ready to start trading.

## Saving Excel Spreadsheets in a Workspace

When linking Excel spreadsheets to X\_TRADER® programs such as **Order Block** or Autotrader™, you can save the Excel spreadsheet and all of its stored information within your workspace. When saved in the proper order, calling up a workspace also calls up the Excel spreadsheet to the desktop with any saved information.

You must have the X\_TRADER® module that hosts the link (i.e. Autotrader™, **Order Block**, etc.) and the Excel spreadsheet (or appropriate OLE compatible program) open to perform this action.

**Note:** To automatically open Excel when you open a saved workspace, you must create excel links *from* Autotrader™ *to* Excel. If you only have links *from* **Market Grid** *to* Excel, the links are saved but do not automatically open when you open the workspace.

► **To save Excel Spreadsheets into your workspace:**

1. Save the Excel information to a file using the **Save As** command in the **File** menu of the application.
2. Close the Excel application. Doing so tells X\_TRADER® where this information is stored on your hard drive.
3. Save the workspace in the normal fashion.

When you next open X\_TRADER®, log onto the same exchange, and then open a workspace. The Excel spreadsheet with all the associated links and working formulas automatically opens on your desktop.

## Deleting OLE Links

Since you can create OLE Links only in Autotrader™, you must perform this procedure in Autotrader™.

To delete an OLE Link (i.e., Excel link) from the **Grid**, perform the following procedure:

► **To delete OLE Links:**

1. Right-click the cell that contains the link you want to delete.
2. Point to **Links** and in the **Links** sub-menu, click **Delete**. The OLE Link is now severed.

## Examples

### Throttle Quoting

The following example assumes that **Autotrader™** is configured with the following **Throttle Quoting** parameters:



Autotrader™ submits a quote to market. After 200 milliseconds the market moves enough to trigger the need for a new quote. However, Autotrader™ does not submit this new quote until 300 more milliseconds have passed (for a total of 500 milliseconds).

**Note:** This new quote is based off of the current market position. With this in mind, if the market moves back to its original position during the 300-millisecond time frame in the example above, Autotrader™ submits a quote at the same price as the original.

## Bid Offset Example: Positive Offsets

In this example, Autotrader™ is set up with the following parameters:

Profile Base Price	Market
Throttle Quoting	<input checked="" type="checkbox"/>
Enable Cover Orders	<input type="checkbox"/>
Price Units	Ticks
Bid Offset	1
Bid Quantity	10
Bid Reserve Offset	2
Bid Reserve Qty	10

Using the following trading parameters, Autotrader™ submits a bid for a 10 lot (the **Bid Quantity**) one tick lower (the **Bid Offset**) than the best bid price.

When the market is swept and the bid is taken, Autotrader™ immediately submits another bid, called the reserve bid. This bid is for a 10 lot (the **Reserve Bid Qty**) two ticks lower (the **Reserve Bid Offset**) than the best market bid at the time that Autotrader™ submits the reserve bid.

## Bid Offset Example: Negative Offsets

In this example, Autotrader™ is set up with the following parameters:

Profile Base Price	Market
Throttle Quoting	<input checked="" type="checkbox"/>
Enable Cover Orders	<input type="checkbox"/>
Price Units	Ticks
Bid Offset	-1
Bid Quantity	10

Using the following trading parameters, Autotrader™ submits a bid for a 10 lot (the **Bid Quantity**) one tick inside the market (the **Bid Offset**).

## Cover Order Example

In both examples, it is assumed that the **Cover Order Offset** is set to 2.

### Cover Order Example 1 - Order Filled:

When a Bid for 20 is filled at 50, Autotrader™ submits an offer to sell 20 at 52.

### Cover Order Example 2 - Order Partially Filled:

A trader is Bidding 20 at 50. Only 10 are filled. Autotrader submits an offer to sell 10 at 52.

## Market Improve Limit Example

In this example, it assumed that the **Market Improve Limit** is set to 2.

The current market has a best bid at 40 and a sell at 45.

Autotrader™ receives a theoretical price input that generates a bid for 43. This bid is three higher than the market and exceeds the setting in **Market Improve Limit**. Autotrader™ adjusts the order to be 42. This betters the market by two points, which is within the **Market Improve Limit**.

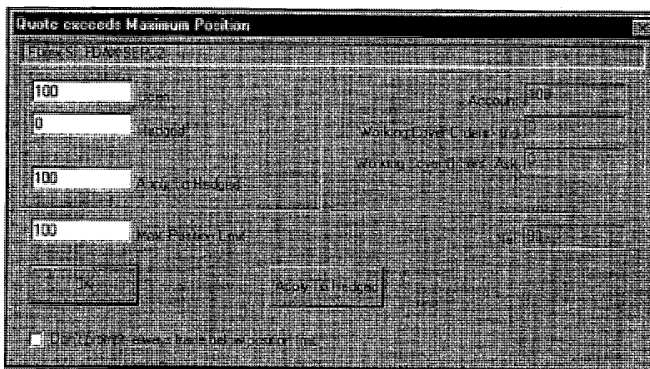
## Maximum Position Example

The following example assumes that you have the following settings configured:

- Maximum Position: 100
- Bid Quantity: 10
- Ask Quantity: 10

After you start Autotrader™, the market begins sliding downward and starts taking out your bids. After nine of your bids have been taken out ( $9 \times 10 = 90$ ), none of your offers or cover orders have been taken.

Because your next Bid of 10 could exceed your maximum allowable position, the **Quote Exceeds Maximum Position** dialog box appears.



You can now only continue trading your Bids if you either Hedge your **Open Position** or increase your **Max. Position Limit**.

Since the value of the **Apply To Hedged** box defaults to your current **Open Position**, you can simply click the **Apply To Hedged** button. Your entire **Open Position** becomes hedged and Autotrader begins to submit Bids to market according to your profile setup.

## Throttle Quoting and Scratch Pad Example

In the following example:

- The profile's **Throttle Quoting** is set at 500 milliseconds.



- The row's profile is set with **Bid and Ask Offsets** of 1.
- The **Market Bid Price** is 100.
- The **Market Ask Price** is 105.

This example illustrates how the current bids and asks displayed in the **Scratch Pad** can differ from your working bids and asks.

Autotrader™ sends its quotes into the market: a **Working Bid** at 99 and a **Working Ask** at 106.

The **Scratch Pad** displays 99 in the **sBidPrc** column and 106 in the **sAskPrc** column:

SCRATCH				WORKING			
sBidQty	sBidPrc	sAskPrc	sAskQty	wBidQty	wBidPrc	wAskPrc	wAskQty
10	99	106	10	10	99	106	10

After 100 milliseconds the market moves to 101 as the best Bid and 103 as the best Ask. The **Scratch Pad** updates its values to display 100 in the **sBidPrc** column and 104 in the **sAskPrc** column.

However, due to the **Throttle Quoting** setting of 500, the working Bid and Ask prices are not updated, and they remain at 99 and 106:

SCRATCH				WORKING			
sBidQty	sBidPrc	sAskPrc	sAskQty	wBidQty	wBidPrc	wAskPrc	wAskQty
10	100	104	10	10	99	106	10

After 300 milliseconds (for a total of 400), the market bounces back to 100 and 106. The **Scratch Pad** reverts to displaying 99 in the **sBidPrc** column and 106 in the **sAskPrc** column. The working Bid and Ask remain the same (99 and 106).

SCRATCH				WORKING			
sBidQty	sBidPrc	sAskPrc	sAskQty	wBidQty	wBidPrc	wAskPrc	wAskQty
10	99	106	10	10	99	106	10

After 100 more milliseconds, the throttle quoting expires. Since the **Scratch Pad** and working orders match, no changes are made to the working Bid and Ask:

# Chapter 6

## Control Panel



The **Control Panel** appears after you start X\_TRADER®. Use the **Control Panel** to access most of the working windows in the application, as well as the associated dialog boxes to set default properties while working in the application.

To quickly display your **Control Panel** on top of your other windows, most context menus offer a **Find Control Panel** option.

► **To find the Control Panel:**

**Note:** If you enable **Click Trading**, do not click in the **Market Grid Bid/Ask price** columns. Doing so may send a trade to market that you do not want to execute!

1. Right-click in one of the main X\_TRADER® windows (for example, **Order Book** or **Fill** window) to access the context menu.
2. Select **Find Control Panel**. If the context menu does not include this option, access the context menu from another window.




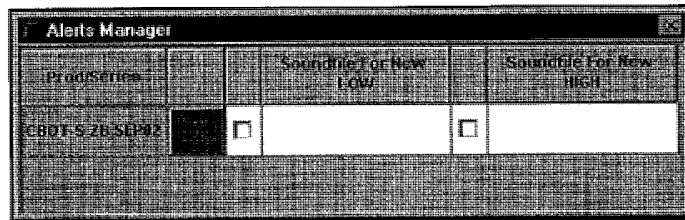
## Alerts Manager

You can add specific sounds to a contract's high and low price thresholds. Whenever a contract trades above the high price threshold, or below the low price threshold, these sounds are played.

You can assign different sounds to different contracts and to the high or low price thresholds.

### ▶ To assign Sounds to a Contract's High and Low Price Thresholds:


1. In the Toolbar of the X\_TRADER® Control Panel, click the Exclamation point . The Alerts Manager window appears.

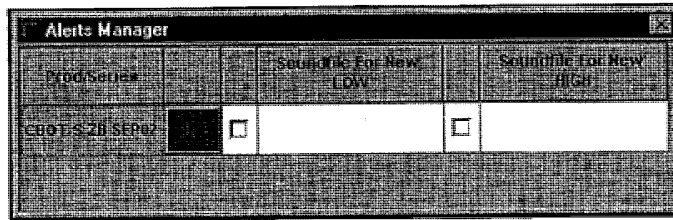



2. Populate the Alerts Manager window with the contracts to which you want to assign sounds for price highs and lows.
3. In the Prod/Series column, locate the contract for which you want to assign sound alerts.
4. Double-click in that row's cell for Soundfile for New LOW. The Sound Explorer dialog box appears.
5. Use the Sound Explorer to explore through your computer to locate the sound file you want to associate with the Low price threshold.
  - By default, the Sound Explorer opens to the location on your computer that stores your X\_TRADER® sound files (<root drive>:\Tfx\_trader\Sounds).
  - Whenever this contract trades below the day's low price, this sound is played.
6. When you locate the sound file, double-click it. The file and its directory path appear in the cell.
7. Double-click in the row's cell for Soundfile for New HIGH. The Sound Explorer dialog box appears.
8. Use the Sound Explorer to explore through your computer to locate the sound file you want to associate with the High price threshold. Whenever this contract trades below the day's high price, this sound is played.
9. When you locate the sound file, double-click it. The file and its directory path appear in the cell.

10. To activate the setting so that the sound is played whenever the appropriate threshold is crossed, click to put a check mark in the activation box. This box is located directly to the left of the cell.
11. To close the **Alerts Manager** dialog box, click the **X** on the title bar (located in the upper right corner of the dialog box).

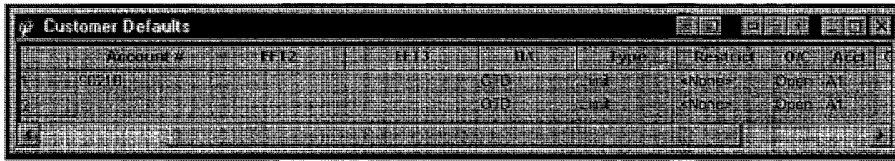
▶ **To delete Sound Alerts:**

1. In the Toolbar of the X\_TRADER® **Control Panel**, click the **Exclamation point** . The **Alerts Manager** dialog box appears.



2. In the **Prod/Series** column, locate the contract for which you want to delete a sound association.
3. In that contract's row, click **DEL** . The contract and its sound associations are removed from the **Alerts Manager** dialog box.

## Customer Defaults & Customer List



You define **Customer Default** profiles to establish all of the most common order variables by customer name. You may add a new profile or change the profile of a current customer at any time. All subsequent orders for that customer are affected if you change the **Customer Default** profile. When you create new **Customer Default** profiles, the customer name is automatically added to the **Customer List**.

To access the **Customer Defaults** dialog box, on the **Control Panel**, open the **Settings** menu and click **Customer Defaults**.

### Customer List

The **Customer Defaults** dialog box allows you to create customer profiles that reflect most often used trade settings, such as market vs. limit order, and FOK/IOC, among others. When you create new **Customer Default** profiles, the customer name is automatically added to the **Customer List**.

Selecting a name from the **Customer List** populates all open **Order Entry** windows with that customer's default settings. This allows you to quickly change trading accounts so you can place orders in multiple exchanges for multiple products—all for one customer. If you do not want to populate all your **Order Entry** windows with one customer's information, use the **Customer Selection** list from the **Order Entry** window. You also use the **Customer List** to select the account number of a customer for the AutoFilter option.

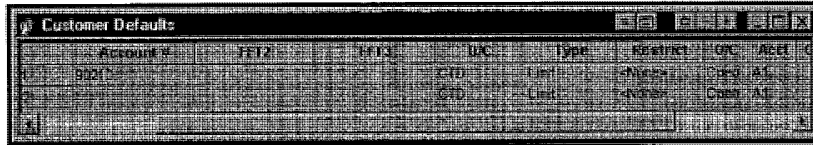
#### ► To open the Customer List:

On the **Control Panel** toolbar click the **Customer List** button.

Or:

From the **Control Panel**, open the **Window** menu and Click **Customer List**.

## Customer Defaults Dialog Box Field Descriptions



You define a **Customer Defaults** profile to establish all of the most common order variables by customer name for each customer. You can add a new profile or change the profile of a current customer at any time. By changing the **Customer Defaults** profile, all subsequent orders for that customer are affected.

Enter the following for each customer:

Field	Description
<b>Customer</b>	Name of your choice
<b>SEL</b>	Check this box to automatically add the customer to the <b>Customer Selection</b> list. You add names to the <b>Customer Selection</b> list so that you can quickly change accounts.
<b>Account #</b>	<p>The Account number is a customer account code. Typically this is used to display any user-specific customer account information for any market. The account number information is typically used to associate the trade with a specific customer. This field may be required by the exchange (for example, CME requires it).</p> <p>X_TRADER® system uses the Account number specified in this column if you and your organization do not set up risk management parameters.</p> <p>Therefore, if you are set up with risk management parameters, the system uses the risk management account number and the relevant information from the <b>Customer Default</b> profile. If you are <i>not</i> set up with risk management parameters, the system uses the account number specified in the <b>Customer Default</b> profile row as well as the rest of the information contained in that <b>Customer Default</b> profile.</p>
<b>FFT2 &amp; FFT3</b>	<b>Free Form Text field #2 &amp; Free Form Text field #3</b> may be used for annotation purposes by the trader or back office (sub-account). The back office manager usually dictates use of this field.
<b>D/C</b>	The order choices are <b>GTD</b> or <b>GTC</b> . The default selection is <b>GTD</b> . The X_TRADER® <b>GTD</b> designation indicates that the order is valid only for the current trading session. The <b>GTC</b> designation indicates that the order is valid until the trader cancels the order or until the contract expires.
<b>Type</b>	Order types are <b>Limit</b> (default selection) or <b>Mkt</b> (Market).

Field	Description
<b>Restrict</b>	<p>* Order restrictions include None, DiscQty, FOK, IOC, MV, and STOP.</p> <p>Support of the order restrictions is determined by each exchange/marketplace. The definition and use of the restriction may differ between exchanges/marketplaces. If the order type is not supported, the Audit Trail displays an error message from the exchange. Refer to each exchange's Market Rules for additional information.</p>
<b>O/C</b>	Indicates whether a position is being opened or closed. This information is not used by the exchange and may be used (or not used) by the trader as his discretion. The default status is open.
<b>Acct</b>	<p>Select one of the following account types:</p> <ul style="list-style-type: none"> <li>• <b>A1</b> – First Agent Account (e.g., broker)</li> <li>• <b>G1</b> – Pre-Designated Giveup Trade</li> <li>• <b>G2</b> – Designated Giveup Trade</li> <li>• <b>M1</b> – First Market Maker Account</li> <li>• <b>M2</b> – Second Market Maker Account</li> <li>• <b>P1</b> – First Principal Account (e.g., proprietary trader)</li> <li>• <b>P2</b> – Second Principal Account</li> <li>• <b>U1</b> – Unallocated. For orders that have not been allocated to a customer account, or where allocation is a middle/back office function.</li> </ul>
<b>Giveup</b>	Member code for clearing member; for Give-up Trade accounts only.
<b>Use Max</b>	A checked box indicates that the maximum trade quantity restriction is applied. A blank box indicates that there is no maximum order quantity, or that the maximum order quantity is NOT to be applied. You may establish a high order quantity that does not restrict normal trading, yet still provides a measure of security in the event of an erroneous trade. Deselect Use Max to turn off the restriction.
<b>Max Order Qty</b>	The maximum quantity allowed per trade for the specified account. Select the Use Max check box in order to apply the maximum quantity (see above). Deselect Use Max to turn off the restriction. If you are using the Guardian Risk Management tool: any Customer Default maximum order quantity must be less than the Maximum Order Quantity risk parameter defined for the Trader ID, or the trade is not allowed.

\* Descriptions of order restrictions follow:

- **None:** No additional restrictions are placed on the order.
- **DiscQty:** Disclose Quantity. Disguise trading volume by disclosing a partial amount of total.
- **FOK:** Fill or Kill. Immediate fill of entire quantity, or immediate cancellation of order if the order cannot be completely filled.
- **IOC:** Immediate or Cancel. An immediate partial fill before the balance is cancelled.
- **MV:** Minimum Volume. The minimum volume of partial fills; default is zero. The Minimum Volume order type is not supported by all exchanges (for example, LIFFE supports MV and EUREX does not). The minimum volume is entered in the Order Entry window. When you choose this restriction, a field labeled Min Vol displays. Enter the minimum volume quantity and place the order.
- **STOP:** Stop order. User defined price triggers generate market buy or sell orders. You can perform all normal operations (hold, submit, change, cancel, replace, and delete) on a stop order. When you choose the STOP restriction, a field labeled Stop Prc displays. Enter the trigger price, and place the order. A stop order displays in the Order Book with a Working status, but it is not actually in the market. A negative order number (-###) displays, indicating that it is a "synthetic" order. When the stop triggers, the order becomes the native order type and remains in the Order Book until filled.

If the trader who originated the order is not logged in (in other words, has no order router), when the order is triggered, the order is sent to market with the trader ID of another trader with the same Group ID. If another trader in the same group is not available (no one from his group is logged on), the order status changes from Working to Hold and does not trigger until the order is resubmitted by the original trader, or a trader with the same Group ID.

The LIFFE Gateway accepts a Stop Limit order only if the limit price meets these criteria:

TRIGGER price <= BEST ASK price, for a SELL STOP LIMIT

TRIGGER price >= BEST BID price, for a BUY STOP LIMIT

And

TRIGGER price <= LIMIT price, for a BUY STOP LIMIT

TRIGGER price >= LIMIT price, for a SELL STOP LIMIT

X\_TRADER® enforces only the second set of limits. A stop limit order is triggered only if the last traded price is within the trigger range. The trigger conditions are:

LAST TRADED price  $\leq$  TRIGGER price, for a SELL STOP order

LAST TRADED price  $\geq$  TRIGGER price, for a BUY STOP order

If multiple stop orders are in place for the same product at the same trigger price (for the same trader or multiple traders), they are processed in a FIFO (first in, first out) order.

If the Order Server of the LIFFE Gateway goes down, all stop orders must be moved to a hold status (in other words, they will not trigger). Held stop orders are not automatically resubmitted when the Gateway recovers. You must do this manually. Audit trail messages will show you that the orders have been held. In the event that an Order Router goes down, and the stop order triggers, but cannot be sent (because the Order Router is down), the Order Router of another trader in the same group as the trader who entered the order will be used to send the order to market. If no such Order Router is available, the stop order is put into a hold status and an audit trail message is generated.

## Customer Defaults Context Menu



Right-click anywhere in the **Customer Defaults** window to access the context menu with additional functionality.

The **Customer Defaults** context menu provides additional commands:

Option	Description
<b>Find Control Panel</b>	Displays the X_TRADER® <b>Control Panel</b> in the foreground of your workspace.
<b>Delete Row(s)</b>	Select a row, right-click to access the context menu, and select <b>Delete Row</b> .
<b>Formatting</b>	Accesses the <b>Grid Styles</b> dialog box so that you can customize fonts, colors, and borders.

## Creating a Customer Defaults Profile

You define a **Customer Defaults** profile to establish all of the most common order variables by customer name.

### ► To define a Customer Defaults profile:

1. From the **Control Panel**, open the **Settings** menu and Click **Customer Defaults**.
2. Enter the customer profile information in the **Customer Defaults** dialog box. The first profile has a customer name of "Default" which you cannot change.
3. When changing **Customer Default** data, make sure that you tab to the next field, or press **ENTER** to save your changes. If you enter your change without using the tab key to advance to the next field, or if you do not press **ENTER**, your changes are not saved. This is a safeguard to ensure that no data is inadvertently changed and then saved in the customer profile.
4. Close the **Customer Defaults** dialog box.



## Adding Customers to the Order Entry List

You add your most frequently used customer profiles to your **Order Entry Customer Selection** list to simplify switching from one customer profile to another. You may add any number of customers to the **Order Entry** list.

When you are creating a new **Customer Defaults** profile, clicking the **SEL** column in the **Customer Defaults** dialog box adds the customer name to the **Order Entry** list.

▶ **To add customers to the Order Entry List directly from the Customer List:**

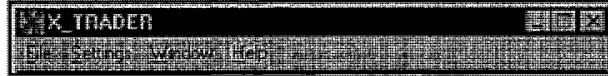
1. While both the **Market** window and **Customer List** are open, Click the customer's name.  
The customer name immediately displays in the **Order Entry** window.
2. Repeat the above two steps for each additional name.
3. Close the **Customer List**.

## Changing Customer Profile in Customer Defaults Dialog Box

▶ **To change the information in a customer profile:**

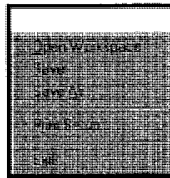
1. From the **Control Panel**, open the **Settings** menu and Click **Customer Defaults**.
2. Change the customer profile information in the **Customer Defaults** dialog box. The first profile has a customer name of **Default** and cannot be changed.
3. When changing customer default data, make sure you that you tab to the next field, or press **ENTER** to save your changes. If you enter your change without using the tab key to advance to the next field, or if you do not press **ENTER**, your changes are not saved. This is a safeguard to ensure that no data is inadvertently changed and then saved in the customer profile.
4. Close the **Customer Defaults** dialog box.

## Menu Bar on the Control Panel



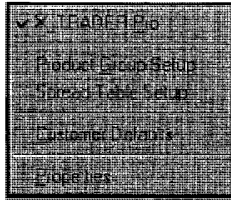
In addition to the **Toolbar**, you can access many of the functions in the **Control Panel** by using the **Menu bar** on the **Control Panel**. Click on any of the links below to see the individual actions available from the **Menu bar**.

## File Menu on the Control Panel



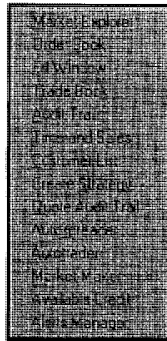
Option	Description
<b>Open Workspace</b>	Opens a previously saved workspace.
<b>Save</b>	Save the currently open workspace.
<b>Save As</b>	Save the currently open workspace under a different name or with a new name.
<b>Print Setup</b>	Displays the Windows Print Setup dialog box. You can set up a printing format here, but it will not be saved when you print out the form.
<b>Exit</b>	Exit the X_TRADER® application.

## Settings Menu on the Control Panel



Option	Description
<b>X_TRADER® Pro</b>	Requires a separate license to be activated. Default is unchecked. To activate X_TRADER® Pro functions, open X_TRADER®, select this option, then close and restart X_TRADER®.  Check this option to access X_TRADER® Pro features that include Autospreader™ and Autotrader™.
<b>Product Group Setup</b>	Displays the <b>Product Group Information</b> dialog box. Allows you to a Product Group to use with the quoting tool. Product groups control how quotes are calculated. Auto quoting is also controlled using this dialog box.
<b>Spread Table Setup</b>	Displays the <b>Spread Tables</b> dialog box. Allows you to create a spread table to use with the quoting tool. You create spread tables to detail the maximum spread in ticks based on the number of days to expiration and the bid price.
<b>Customer Defaults</b>	Displays the <b>Customer Defaults</b> dialog box. Allows you to create or view customer defaults and customer list information.
<b>Properties</b>	Displays the <b>Properties</b> dialog box. Allows you to customize X_TRADER® features for the <b>Market</b> window ( <b>Trading</b> tab), <b>Fill</b> window, <b>Position</b> pane, <b>Order Book</b> , and <b>Audit Trail</b> . Features include Quoting, Click Trading, opportunity check, default visible columns, event sounds, text/background/border select colors, and theoretical server selection.

## Window Menu on the Control Panel



Option	Description
<b>Market Explorer</b>	Opens the <b>Market Explorer</b> . Allows you to view exchanges and associated products.
<b>Order Book</b>	Opens a new <b>Order Book</b> window.
<b>Fill Window</b>	Opens a new <b>Fill</b> window.
<b>Trade Book</b>	Opens the <b>Trade Book</b> window that displays aggregate fills grouped by a single order number.
<b>Audit Trail</b>	Opens the <b>Audit Trail</b> window of order-related exchange messages.
<b>Time and Sales</b>	Opens the <b>Time and Sales</b> window that provides the ability to track, record, and save time and sales information for products traded through X_TRADER®.
<b>Customer List</b>	Opens your list of customer accounts.
<b>Create Strategy</b>	Opens the <b>Create New Spread</b> dialog box. Allows you to create multiple-legged spreads, strips, packs, and bundles. The ability to create strategies is exchange-dependent.
<b>Quote Audit Trail</b>	Opens the <b>Quote Audit Trail</b> window for quoting-related exchange messages.
<b>Autospreader</b>	Requires a separate license to be activated. Allows you to configure automatic spread trading.
<b>Order Block// Autotrader™</b>	Opens the <b>Order Block</b> window to trade two sides of a product contract (legs) at the same time.
<b>Market Maker</b>	Opens the <b>Market Maker</b> window for quoting two sides of a market.

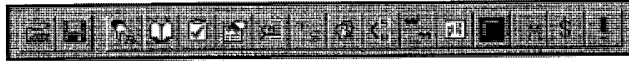
Option	Description
<b>Available Credit</b>	Opens the <b>Available Credit</b> dialog box that displays the amount of available credit left in your trading account. A total in green indicates a positive balance; a total in red indicates a deficit.  Click <b>Recalculate</b> to view the current balance.
<b>Alerts Manager</b>	Opens the <b>Alerts Manager</b> dialog box. Use this window to assign sounds to a contract's high and low prices of the day.

## Help Menu on the Control Panel










Option	Description
<b>Help Topics</b>	X_TRADER® Online Help user documentation.
<b>About X_TRADER</b>	X_TRADER® version and copyright information.










## Toolbar on the Control Panel



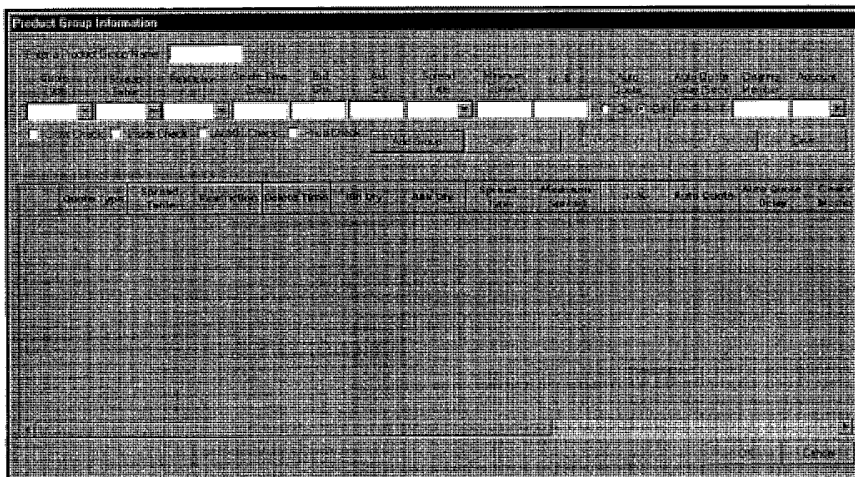
The X\_TRADER® **Control Panel** is used to open and save workspaces, define settings, and open new windows. The **Control Panel** displays on your desktop after you start X\_TRADER®. You can access most X\_TRADER® functions from the **Control Panel**, using either the **Menu bar** or the **Toolbar**.

**Note:** Establishing a connection to the exchange/marketplace may result in a short delay before the **Control Panel** buttons are enabled. If one or more buttons still remain disabled (grayed out), a service may be down or you may have not established a connection to your server. Please consult your System Administrator.

Button	Description
	<b>Open Workspace:</b> Multiple workspaces can be created and saved. This button displays a list of workspace names. To open a workspace, select a workspace name, and click <b>OK</b> .
	<b>Save Workspace:</b> Saves your current X_TRADER® workspace under the current name. The workspace name appears in the <b>Control Panel</b> title bar. If this is the first time you are saving the workspace, enter a descriptive name in the text box.
	<b>Market Explorer:</b> Lists all products by exchange/marketplace. With the Market Explorer, you may open one or more <b>Market</b> windows with one or more products displayed in each window. For an options <b>Market</b> window, you can also click to display the calls next to or above the puts for the same strike.
	<b>Order Book:</b> Manages your open orders. You can monitor, change, or delete orders, or perform a status inquiry about any open order. Once the order is filled, the entry is automatically deleted.
	<b>Fill Window:</b> Lists the current day's trades. The top pane lists fills. The middle pane displays your net position by product and contract, providing the profit/loss for the current day's trading. The lower pane displays "fast" fills (if supported by the exchange/marketplace).
	<b>Trade Book:</b> Displays an aggregate fill for a single order number on a separate line.
	<b>Audit Trail:</b> Opens a window displaying data sent to the exchange and the responses received from the exchange. Order add, delete, change, inquiry, trader, and customer detail, as well as error messages and all exchange announcements are detailed in this window. Exchange announcements include time issued, time received, exchange name, severity, and the announcement.

Button	Description
	<b>Time and Sales:</b> Provides the ability to track, record, and save time and sales information for products traded through X_TRADER®.
	<b>Customer List:</b> Based on information obtained from the <b>Customer Defaults</b> dialog box, the Customer List displays all accounts by customer name.
	<b>Create Spread:</b> Opens a <b>Spread Tables</b> dialog box to create multiple-legged spreads, strips, packs, and bundles.
	<b>Quote Audit Trail:</b> Market Makers use this feature to monitor addition, deletion, and related error messages for both manual and autoquoting. You can also monitor both inbound and outbound RFQs.
	<p><b>Autotrader™ / Order Block:</b> Opens a window for creating and maintaining a two-sided market for selected sets of contracts. You use Order Block to trade manually, while Autotrader™ automatically submits bids and offers.</p> <ul style="list-style-type: none"> <li>• In standard X_TRADER® packages, this button launches the <b>Order Block</b> module.</li> <li>• In X_TRADER® Pro, this button launches <b>Autotrader™</b>. To use <b>Autotrader™</b>, you must obtain an X_TRADER® Pro license.</li> </ul>
	<b>Autospreader™:</b> Opens the <b>Manager</b> window. Use this window to set up two sided spreads that trade automatically in a multi-pane window. To have access to the Autospreader™ button, you must obtain an X_TRADER® Pro license.
	<b>Market Maker:</b> Used to set up a single spread to automatically enter quotes into the market.
	<p><b>Available Credit:</b> Displays the amount of available credit left in your trading account. A total in green indicates a positive balance; a total in red indicates a deficit.</p> <p>To view the current balance, click the <b>Recalculate</b> button.</p>
	<b>Alerts Manager:</b> Assigns alert sounds to contracts so that X_TRADER® plays a sound whenever the contract trades above its high price or below its low price for the day.

## Product Group Information Dialog Box



**Product Groups** allow you to define how the bid/ask values are calculated. You create product groups in the **Product Group Information** dialog box. You can specify the quote type, spread table, and delete time, account, and other parameters. Autoquoting is also enabled/disabled via your **Product Groups**.



## Product Group Information Field/Column Descriptions

Product group information is entered in the top pane of the **Product Group Information** dialog box. Once this information has been entered, use the **Add Group** button to populate the contents of the lower pane grid.

You can construct the quote according to the following guidelines:

Option	Description
<b>Product Group Name</b>	Enter a name for the Product Group.
<b>Quote Type</b>	<ul style="list-style-type: none"> <li>• <b>Dime:</b> A tick better on both bid and ask.</li> <li>• <b>Join:</b> Current price of both bid and ask.</li> <li>• <b>Mkt Ave:</b> The average between bid and ask is the mid-point for calculating the spread. The Maximum or Percent spread is divided by 2. This figure is added and subtracted from the Market Average to define the upper and lower limits.</li> <li>• <b>Theo:</b> Similar to the Mkt Ave except the theoretical price is used as the mid-point for calculating the spread.</li> <li>• <b>Theo Bid/Ask:</b> Current theoretical bid and ask.</li> </ul>
<b>Spread Table</b>	Associate the product group with a pre-defined spread table for time, price, and spread limits. Click any spread table from the list.
<b>Restriction</b>	Delete (delete the quote after a specified number of seconds) or GTC.
<b>Delete Time (Secs)</b>	If you click the <b>Delete Restriction</b> , the Delete Time is the number of seconds the quote remains in the market. The quote is automatically deleted after the specified number of seconds. (The minimum time for EUREX is 20 seconds.)
<b>Bid Qty</b>	The Bid Quantity to be quoted. (The minimum quantity for EUREX is 50.)
<b>Ask Qty</b>	The Ask Quantity to be quoted. (The minimum quantity for EUREX is 50.)

Option	Description
<b>Spread Type</b>	<ul style="list-style-type: none"> <li>• <b>Maximum:</b> The spread defined in the spread table is used to generate the quote. If the center price used for the calculation is 50 and the spread is 4 ticks, the quote will be 48-52.</li> <li>• <b>N/A:</b> The spread type is inconsequential when the quote type is Dime, Join, or Theo Bid/Ask. When set to one of these quote types, the spread type defaults to N/A (not applicable).</li> <li>• <b>Percent:</b> The chosen percentage of the price is used to calculate the spread. The +/- % field is used to define the exact percentage.</li> </ul> <p>The <b>Percent Spread Type</b> is also subject to the Spread Table's defined Maximum Spread and the Product Group's defined Minimum Spread.</p> <p>If the calculated quote is greater than the <b>Maximum Spread</b>, the <b>Maximum Spread</b> will be quoted. For example, if the percent calculated is 6 ticks and the <b>Spread Table</b> is 4 ticks, then the <b>Spread Table Max</b> of 4 ticks will be used.</p> <p>This field is not applicable for <b>Dime, Join, and Theo Bid/Ask Quote</b> types.</p>
<b>Minimum Spread</b>	This is the minimum spread--expressed as the total number of ticks--used to generate a quote. If the calculated quote is less than the minimum defined, then this minimum will be used to generate the quote. For example, if the calculated spread is 1 tick and your minimum is 2 ticks, the quote will have a 2-tick spread. Not applicable for Dime, Join, and Theo Bid/Ask Quote types.
+/-%	If you choose the Percent Spread Type, define the percentage of the price that will be used to calculate the spread. Not applicable for Dime, Join, and Theo Bid/Ask Quote Types.
<b>Auto Quote</b>	Select the On or Off option button for automatic quoting in response to an RFQ.
<b>Auto Quote Delay (Secs)</b>	Enter the number of seconds the quote should be delayed before being sent to the market after a Request for Quote is received.
<b>Clearing Member</b>	Enter your clearing member ID.

Option	Description
<p><b>Account: Enter the account type.</b></p>	<ul style="list-style-type: none"> <li>• A1: Agent 1.</li> <li>• G1: Pre-designated Giveup Trade 1.</li> <li>• G2: Designated Giveup Trade 2.</li> <li>• M1: Market Maker 1.</li> <li>• M2: Market Maker 2.</li> <li>• P1: Principal 1.</li> <li>• P2: Principal 2.</li> <li>• U1: Unallocated—for orders that have not been allocated to a customer account or where allocation is a middle/back office function.</li> </ul>
<p><b>Quote Viability Checks. The following checks are optional:</b></p>	<ul style="list-style-type: none"> <li>• <b>Cross Check:</b> The quote is not sent to the market if the constructed bid is greater than the current market ask price; or the constructed ask is less than the current market bid.</li> <li>• <b>Inside Check:</b> The quote is not sent to the market if the constructed bid is greater than the current bid; or the constructed ask is less than the current ask. This check does not apply when the <b>Dime Quote Type</b> is selected.</li> <li>• <b>At Mkt Check:</b> The quote is not sent to the market when the constructed bid and/or ask are equal to the current market price.</li> <li>• <b>Price Check:</b> The quote is not sent to the market if there is no current bid or ask price.</li> </ul>

## Adding a Product Group

**Product Groups** allow you to define how the bid/ask values are calculated for quoting purposes. You can specify the quote type, spread table, and delete time, account, and other parameters. Autoquoting is enabled/disabled via your **Product Groups**.

▶ **To add a Product Group:**

1. From the **Control Panel**, open the **Settings** menu and choose **Product Group Setup**.
2. Enter your **Product Group** name in the text box at the top of the window.
3. Choose a quote type.
4. After entering all required parameters, click **Add Group**. The product group and defined parameters display in the bottom portion of the **Product Group** dialog box.

After adding, deleting, or changing product group information, choosing the appropriate button (**Add**, **Change**, **Delete**), and associating products, close the product window to ensure that your changes are saved.

## Associating a Product to a Product Group

Each quoted product must be "Associated" or assigned to a **Product Group** that you have created. It is the **Product Group** that determines how a quote is generated. Therefore, each product must be associated with **one** (and only one) **Product Group** in order to generate quotes.

▶ **To associate a product to a Product Group:**

1. From the **Control Panel**, open the **Settings** menu and choose **Product Group Setup**.
2. Select the **Product Group** (single-click in any cell on the bottom half of the Product Group Information window). All the Product Group settings display in the top half of the window.

**Note:** The trader creates **Product Groups**. If no **Product Groups** display, you must create a custom **Product Group** before products can be associated.

3. Click the **Associate Products** button. If this button is grayed out, a **Product Group** has not been selected. The box in the lower half of the window lists all added **Product Groups**. The **Product Group** name appears in the far left-hand column. Left-click anywhere on the **Product Group** row. The entire row is selected, and the **Associate Products** button is enabled.
4. Select the appropriate exchange from the list.
5. Select the product from the drop list.
6. Click the **Add to List** button, and the exchange and product now display on the product list. You can associate other products with this **Product Group** in the same manner.
7. Click **OK** to complete the association and exit.

Each product can be associated with only one **Product Group** at a time. If you require quotes for the same product to be constructed using different parameters (for example, max vs. percentage or a different clearing member), you must first disassociate the product and then re-associate it with another **Product Group**.

## Disassociating a Product from a Product Group

► To disassociate a product from a product group:

1. From the **Control Panel**, open the **Settings** menu and click **Product Group Setup**.
2. From the **Product Group Information** dialog box (lower portion of the window), select a Product Group and click the **Associate Products** button.
3. If this button is grayed out, a Product Group has not been selected. The box in the lower half of the window lists all currently active product groups. The Product Group name appears in the far left-hand column. Left-click anywhere on the Product Group row. The entire row is selected and the **Associate Products** button is enabled.
4. Click the product to be removed.
5. Click the **Remove** button.
6. Click **OK** to exit.

## Changing a Product Group Settings

▶ **To change a Product Group's settings:**

1. From the **Control Panel**, open the **Settings** menu and click **Product Group Setup**.
2. Select the Product Group (single click in any cell on the bottom half of the **Product Group Information** dialog box). The entire row is selected and all the Product Group settings display in the top half of the window.
3. Make any desired changes in the entry section of the window (top half).
4. Click the **Change Group** button.
5. Click **OK** to save and exit. The changes are not saved until you close the **Product Group** dialog box.

## Deleting a Product Group

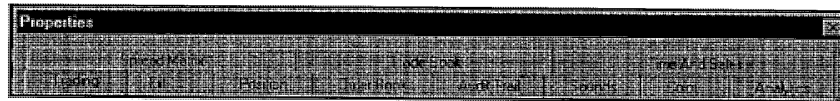
▶ **To delete a Product Group:**

1. From the **Control Panel**, open the **Settings** menu and click **Product Group Setup**.
2. Select the Product Group (single-click in any cell on the bottom half of the **Product Group Information** dialog box). All the Product Group settings display in the top half of the window.
3. Click the **Delete Group** button.
4. Click **OK** to save and exit.

## Properties Dialog Box

From the X\_TRADER® **Control Panel**, open the **Settings** menu and click **Properties**. The **Properties** dialog box contains eleven tabs that allow you to activate, deactivate, and customize various X\_TRADER® windows and options. Property settings made to X\_TRADER® are specific to the user.

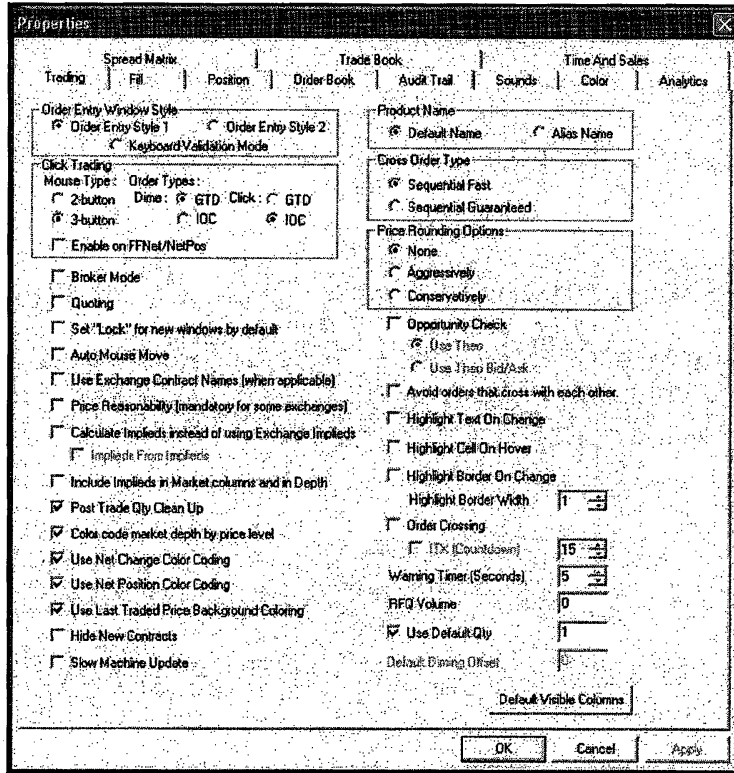
The **Properties** dialog box settings become the defaults for all new windows. In order for your custom changes to take effect, you must close and re-open trading windows.



Tab Name	Description
<b>Trading</b>	Customize the <b>Market</b> window ( <b>Order Entry</b> and <b>Market Grid</b> ) features.
<b>Fill</b>	Customize fast fill notification, enable or disable buy/sell color coding, and select default visible columns for the <b>Fill</b> window.
<b>Position</b>	Select default visible columns for the <b>Position</b> pane in the <b>Fill</b> window.
<b>Order Book</b>	Enable or disable buy/sell color-coding and select default visible columns for the <b>Order Book</b> .
<b>Audit Trail</b>	Select viewable records, enable or disable buy/sell color-coding, and default visible columns for the <b>Audit Trail</b> .
<b>Sounds</b>	Associate an X_TRADER® event with an audio cue.
<b>Color</b>	Select text, background, and border colors.
<b>Analytics</b>	Integrate a proprietary pricing model.
<b>Spread Matrix</b>	Set Auto Creation of the <b>Spread Matrix</b> when you open that window, as well as customize the <b>Spread Matrix</b> windows to suit your trading style and environment.
<b>Trade Book</b>	Enable or disable buy/sell color coding and set default visible column for the <b>Trade Book</b> .
<b>Time and Sales</b>	Set the maximum file size and number of days to save T&S file information.



# Trading Tab



From the **Control Panel**, point to the **Settings** menu and select **Properties**. Click the **Trading** tab.

The **Trading** tab lets you set default trading properties that suit your trading style and environment. The properties affect order entry windows in the **Market** window and **MD Trader™**.

Setting	Description
<b>Order Entry Window Style Section</b>	<ul style="list-style-type: none"> <li>• <b>Order Entry Style 1:</b> Displays as default and therefore, appears throughout the Help system.</li> <li>• <b>Order Entry Window Style 2:</b> Provides extra Buy/Sell buttons that may be utilized to confirm orders before they are sent to the market.</li> <li>• <b>Keyboard Validation Mode:</b> Allows traders to use their keyboards versus their mouse to submit orders.</li> </ul>
<b>Click Trading Section</b>	
<b>Mouse Type</b>	<p>The 3 button mouse is selected by default. The 3-button mouse supports <i>Dime Trading</i> with the middle button. It also supports <i>Click Trading</i> with the right button.</p> <p>The 2-button mouse requires the manual selection of Click or Dime trading. The right mouse button is used to trade.</p>
<b>Order Types</b>	Select GTD (Good 'til Day) or IOC (Immediate or Cancel) for Dime and Click trading.
<b>Enable on FFNet/NetPos</b>	Enable on Fast Fill Net Position.
<b>Misc. Properties Section</b>	
<b>Broker Mode</b>	The <b>Order Entry</b> window offers an oversized Sell button when the bid prices is selected or an oversized Buy button when the ask price is selected.
<b>Quoting</b>	<p>To use the <b>Quoting</b> tool, you must enable it. To enable the Quoting tool, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Click the checkbox on the <b>Trading</b> tab to allow the selection of the <b>Quoting</b> option from the <b>Market Grid</b> context menu.</li> <li>2. Access the context menu of each <b>Market</b> window by right-clicking any cell on the <b>Market Grid</b> (<i>excluding bid/ask price columns if click trading is enabled</i>), and click <b>Quoting</b>. The quoting columns immediately display in the <b>Market Grid</b>.</li> </ol> <p>For more information, refer to the <b>Market Window, Order Entry pane, Quoting</b> section.</p>

Chapter 6

Setting	Description
<b>Set "Lock" for new windows by default</b>	<p>The <b>Lock</b> feature requires the trader to click an additional button (i.e., Apply Buy or Apply Sell) before the order is sent to market. To affect all existing and new <b>Order Entry</b> panes, enable or disable via the <b>Trading</b> tab.</p> <p>To use the option within a single Order Entry pane, click in the Lock checkbox in the pane. This box is located to the right of the Sell button.</p>
<b>Auto Mouse Move</b>	Allows the cursor to automatically move to the Buy when you click the AskQty column or the Sell button when you click on BidQty column.
<b>Use Exchange Contract Names (When Applicable)</b>	The system provides the exchange name.
<b>Price Reasonability (Mandatory for some exchanges)</b>	Price reasonability is defined by each supporting exchange as <i>a maximum number of ticks from the last price</i> . A trade is rejected if it falls outside the parameter set by the exchange. Detailed information must be obtained directly from the appropriate exchange.
<b>Calculate Implieds instead of using Exchange Implieds</b>	<p>Because some exchanges only display implied pricing data when the implied prices and quantities are better than the direct market, you may not see some implied values.</p> <p>This feature calculates and displays implied pricing in Market Depth as well as the inside market.</p> <p>If implied calculations are NOT possible, X_TRADER® displays the EXCHANGE provided implied data.</p> <p>X_TRADER® calculates Implied Ins (outright prices imply into spread prices) and Implied Outs (spread prices imply out to outright prices). However, the only spread it uses to calculate implied outs is the calendar spread. No other spread type is used to imply out to outrights.</p> <p><b>Implied From Implieds:</b> After you enable the Calculate Implieds instead of using Exchange Implieds option, you can enable the Implieds From Implieds option. Therefore, X_TRADER® also calculates implied from implied values (sometimes called 2<sup>nd</sup> generation implieds) as well as implied "in", and implied "out" pricing data.</p>

Setting	Description
<b>Include Implieds in Market Columns and in Depth</b>	<p>Displays Implied price and quantity data in the same columns as direct price and quantity data. This includes the <b>BidQty</b>, <b>BidPrc</b>, <b>AskPrc</b>, <b>AskQty</b> columns in the <b>Market Grid</b>.</p> <p>This feature also automatically affects <b>MD Trader™</b>, <b>Autospreader™</b>, and <b>Autotrader™</b>. Therefore, implied data displays in their windows as well.</p> <p>For more information about X_TRADER®'s Implied Pricing capabilities, go to the <b>Market</b> window section in the Help and review <b>Implied Prices and Quantities</b>. This section describes the three major types of implied pricing: <b>Implied In</b>, <b>Implied Out</b>, <b>Implieds From Implieds</b>.</p>
<b>Post Trade Qty Clean Up</b>	<p>Reduces all trades' order quantity back to zero.</p> <p>If the <b>Use Default Qty</b> is enabled at the same time <b>Post Trade Qty Clean Up</b> is enabled, the quantity does not clear after the order is submitted.</p>
<b>Color Code Market Depth by Price Level</b>	Color coding appears in Market Depth by price level.
<b>Use Net Change Color Coding</b>	Displays color coding of <b>Net Change</b> column.
<b>Use Net Position Color Coding</b>	Displays color coding of <b>Net Position</b> column.
<b>Use Last Traded Price Background Coloring</b>	Uses the Last Traded Price (LTP) background coloring scheme.
<b>Hide New Contracts</b>	Allows you to hide new contracts and strategies when they are released. The feature is disabled by default.
<b>Slow Machine Updates</b>	Reduces CPU utilization and improves performance on low-end client machines, such as handheld devices. When enabled, price updates to the screen occur no more frequently than one every 55ms. This refresh rate is rapid enough that the user does not perceive any delay in price updates to the screen, and in very busy markets, prices may appear to update more quickly.
<b>Product Name</b>	<ul style="list-style-type: none"> <li>• <b>Default Name:</b> Labels products by the product name used by the exchange.</li> <li>• <b>Alias Name:</b> Specifies in the <b>Guardian</b> Product Tables. They are used as the product name within X_TRADER® when enabled.</li> </ul>

Setting	Description
<b>Cross Order Type</b>	<ul style="list-style-type: none"> <li>• <b>Sequential Fast.</b> Default. Both orders (buy and sell) are immediately submitted, one after the other. Under normal market conditions, the crossing tool sends orders according to your selection. However, there are occasions when heavy network traffic results in routing the orders through different order routers. As a result, different data lines to the exchange may be used to transmit the cross orders and cause the wrong leg to arrive at the exchange host first.</li> <li>• <b>Sequential Guaranteed.</b> Waits for an acknowledgement from the exchange after sending the first order. Only then is the other side submitted. Due to the delay in sending the second order, it is possible for a third party to take the offer or bid before both sides are matched.</li> </ul> <p>In both cases, if the first side of the order is filled (partially or completely), the second side of the cross order is still submitted.</p>
<b>Price Rounding Options</b>	<p>Allows you to choose your ¼ 32<sup>nd</sup> rounding options. This property applies to all orders you enter through X_TRADER® (except Autospreader™ and Autotrader™). This property excludes Stop orders that always round <i>away</i> from the market.</p> <ul style="list-style-type: none"> <li>• <b>None:</b> Sends order at your selected price – even if it is not tradable. Exchange rejects the order.</li> <li>• <b>Aggressively:</b> Rounds ¼ tick prices <i>towards</i> the market.</li> <li>• <b>Conservatively:</b> Rounds ¼ tick prices <i>away</i> from the market.</li> </ul>
<b>Misc. Properties Section</b>	
<b>Opportunity Check</b>	<p>Identifies trading opportunities based on theoretical models. Opportunities display in the <b>Market Grid</b> and you can customize the border color in the <b>Properties Color</b> tab.</p> <p>An opportunity can be defined as the possibility of buying a product for less than your theoretical bid price or selling it for more than your theoretical ask price.</p> <p>In order for this feature to work, you must enable <b>Highlight Border on Change</b> (see below).</p> <p><b>Opportunity Check</b> can be used in general order entry or while using Click Trading. However, if you this feature while also Click Trading, the opportunity selection is based on the click trading parameters and edge implementation. When it is enabled, it requires the extra edge you have set up in Click Trading.</p> <ul style="list-style-type: none"> <li>• <b>Use Theo:</b> Uses a single theoretical price when displaying trading opportunities. (Ignored when used in conjunction with Click Trading.)</li> <li>• <b>Use Theo Bid/Ask:</b> Uses both a theoretical Bid/ theoretical Ask price when displaying trading opportunities. (Ignored when used in conjunction with Click Trading.)</li> </ul>

Setting	Description
<b>Avoid orders that cross with each other</b>	<p>When enabled, X_TRADER® sends delete requests (for LIMIT orders only) to the exchange for all orders at the limit price or worse before sending in the new order.</p> <p>This option excludes Market, Stop orders and Held orders.</p> <p>Due to timing issues outside the X_TRADER® system, it is possible that the exchange may process a new order prior to processing a delete request.</p>
<b>Highlight Text on Change</b>	Improves identification of affected cells.
<b>Highlight Cell on Hover</b>	As the cursor moves over a cell, it displays a 3-D effect. Both the column and row headings are also selected to help you track your cursor position.
<b>Highlight Border on Change</b>	Improves identification of affected cells. You can set a border width using the spin buttons.
<b>Order Crossing: If enabled, cross trades can be performed.</b>	<p><b>ITX (Countdown) Intention to Cross.</b> Displays the ITX button on the right side of the <b>Order Entry</b> window.</p> <p>See <b>Order Entry Field Descriptions</b> for a full description of Intention to Cross.</p>
<b>Warning Timer</b>	Amount of time a quote remains live in a market.
<b>RFQ</b>	Request for Quote minimum volume. Default is zero.
<b>Use Default Qty</b>	<p>The value in the box is used as a Default Quantity for orders.</p> <p>If the <b>Use Default Qty</b> is enabled at the same time <b>Post Trade Qty Clean Up</b> is enabled, the quantity does not clear after the order is submitted.</p>
<b>Default Diming Offset</b>	Specifies the Diming Offset used.
<b>Default Visible Columns</b>	Select the default visible <b>Market Grid</b> columns.

## Enabling Implieds in the Trading Tab

**Note:** Reduced Tick Spread strategies do not support Implied In and Implied Out prices.

You enable Implied features in X\_TRADER® from the **Control Panel Properties Trading** dialog box. Descriptions of these features follow:

- **Calculate Implieds instead of using Exchange Implieds:**

Because some exchanges only display implied pricing data when the implied prices and quantities are the best price in the market, you may not see some implied values.

This feature calculates and displays implied pricing data in Market Depth as well as the inside market.

**Note:** X\_TRADER® calculates **Implied Ins** (outright prices imply into spread prices) and **Implied Outs** (spread prices imply out to outright prices). However, the only spread it uses to calculate implied outs is the calendar spread. No other spread type is used to imply out to outrights.

- **Implieds From Implieds:** After you enable the **Calculate Implieds instead of using Exchange Implieds** option, you can enable the **Implieds From Implieds** option. X\_TRADER® also calculates and displays implieds from implieds values (sometimes called 2<sup>nd</sup> generation implieds).

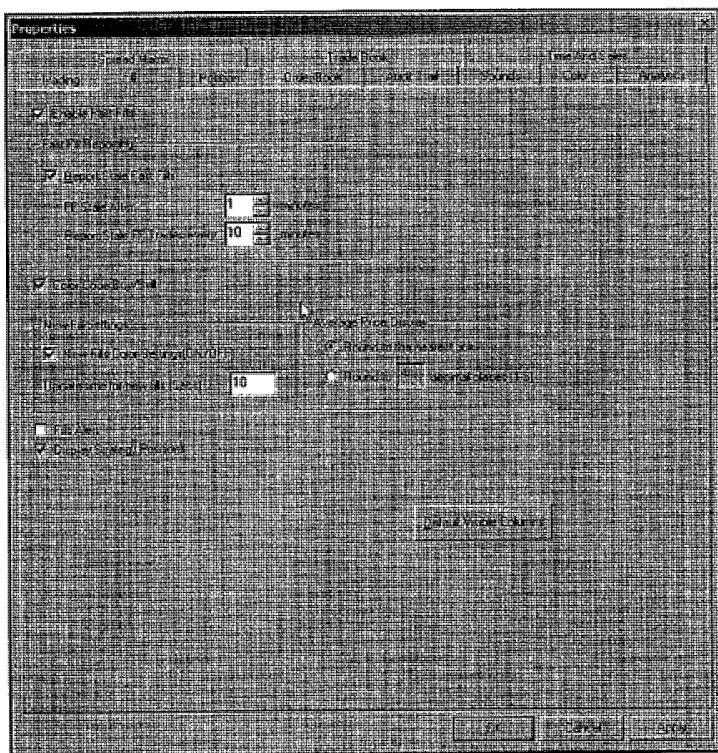
- This feature affects the following X\_TRADER® windows:

- **Market Grid**
- **Spread Matrix**
- **Butterfly Condor Matrix:** Implied data does not display in condor matrices because LIFFE does not match implieds from condor matrices.
- **MD Trader™**
- **Autotrader™**
- **Autospreader™**

- **Include Implieds for spreads in Market Columns and in Depth.**  
Displays Implied prices and quantity data in the same columns as direct price and quantity data. This feature affects the following X\_TRADER® windows:
  - **Market Grid:** The **BidQty**, **BidPrc**, **AskPrc**, **AskQty** columns display implied outright, implied spread and implieds from implieds.
  - **MD Trader™, Autospreader™, and Autotrader™:** Displays implied outright, implied spread and implieds from implieds prices and quantities in market data columns.



## Fill Tab



From the **Control Panel**, point to the **Settings** menu and select **Properties**. Click the **Fill** tab. The **Fill** tab allows you to set default properties for the **Fill** pane that exists in the top pane of the **Fill** window.

Descriptions of available options follow:

Setting	Description
<b>Enable Fast Fills</b>	Some exchanges provide partial trade information prior to sending a confirmed fill (i.e., Eurex).
<b>Fast Fill Reporting Section</b>	
<b>Report Stale Fast Fills.</b> Enabled by default. Options include:	<p><b>FF Stale After:</b> Sets refresh rate for Fast Fills. Fast fills that do not receive a matching confirmation from the exchange are considered stale after the time specified.</p> <p><b>Report Stale FF:</b> Trades every: Default is 10 minutes. A message reporting the existence of a stale fast fill flashes until you refresh your position.</p>
<b>Color Code Buy/Sell</b>	<p>Enabled by default. Allows you to quickly differentiate among orders. Default text and background colors follow:</p> <ul style="list-style-type: none"> <li>• Text color for Buy orders is blue.</li> <li>• Text color for Sell orders is red.</li> <li>• Confirmed fill text background is gray.</li> </ul> <p>To customize buy and sell colors, go to the <b>Color</b> tab.</p>
<b>New Fill Settings</b>	<p><b>New Fills Color Settings (On/Off):</b> Sets a visible indicator when a new fill appears in the Fill window.</p> <p><b>Update time for new orders (Secs):</b> Sets when the indicator bar updates and displays new fills. It is set in seconds.</p>
<b>Average Price Display</b>	<p><b>Round to nearest tick:</b> Shows average price to nearest tick setting.</p> <p><b>Round to &lt;&lt;n&gt;&gt; decimal places:</b> Sets average price display in decimals.</p>
<b>Fills Alert</b>	Displays dialog box on the desktop when a fill arrives from an exchange.
<b>Display Strategy Positions</b>	Display spread/strategy positions. Spread positions display in the <b>Fill</b> pane and the <b>Position</b> pane of the <b>Fill</b> window, <b>MD Trader™</b> 's <b>Net Position</b> field, and <b>Market Grid's NetPos</b> column.
<b>Default Visible Columns</b>	Select the default visible <b>Fill</b> window.

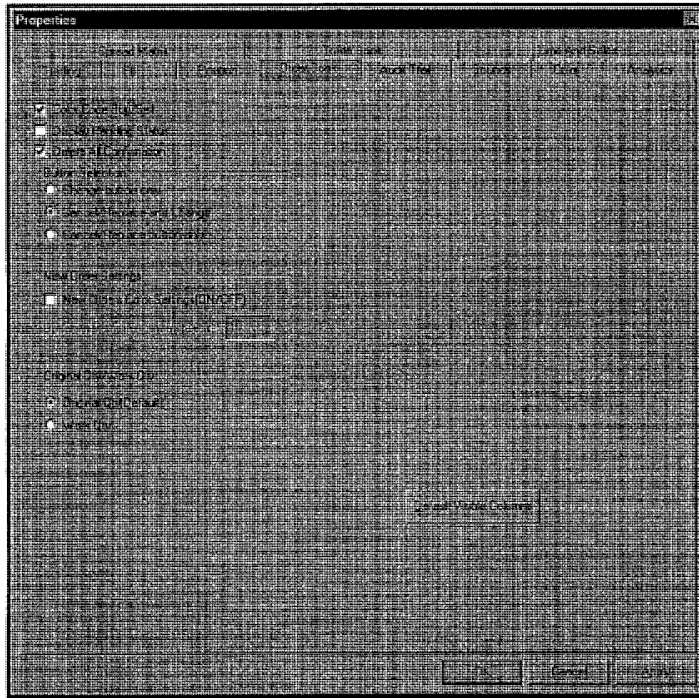
## Position Tab

From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Position** tab.

The **Position** tab lets you set the **Default Visible Columns** for the **Position** pane.

Click the **Default Visible Columns** button to select from the dialog box the columns of information to be available in the **Position** pane when a new **Fill** window is opened. Each checked column will be visible; an unchecked column will be hidden.

## Order Book Tab

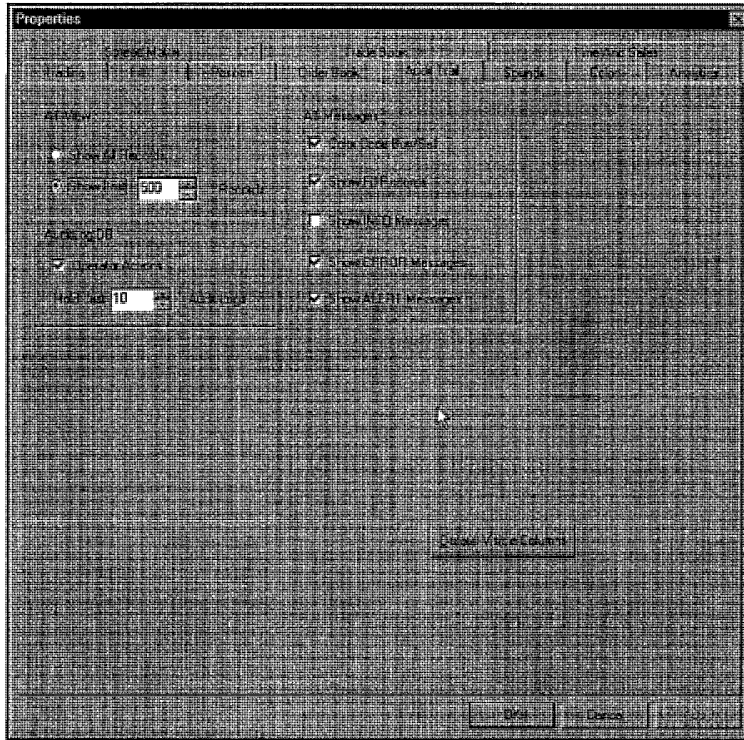


From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Order Book** tab.

The **Order Book** tab lets you set default properties for the top pane in the **Order Book** window.

Setting	Description
<b>Colored Code Buy/Sell</b>	Enabled by default. To help you quickly differentiate among orders, the default text color for Buy orders is blue with Sell orders shown in red. The default text background is gray. You can customize buy and sell colors via the <b>Color</b> tab. The colors you select apply for all windows in which buy/sell orders are color-coded. When you enable color-coding, color formatting of the individual grids is disabled. Only the colors you select via the global Properties Color tab are applied.
<b>Display Pending Status</b>	Displays status of orders.
<b>Delete All Confirmation</b>	Enables a warning notification in <b>Order Book</b> window prior to any delete activity.
<b>Button Selection</b>	By default, both the <b>Change</b> and <b>Cancel/Replace</b> buttons are available. Two other button options are allowed: <b>Change button only</b> and <b>Cancel/Replace button only</b> .
<b>New Order Settings</b>	<ul style="list-style-type: none"> <li>• <b>New Orders Color Settings (ON/OFF)</b>: When enabled, sets a visible indicator when a new order appears in the <b>Order Book</b> window.</li> <li>• <b>Update Time for New Orders (Secs)</b>: Sets the time this indicator bar is visible.</li> </ul>
<b>Original Qty/Work Qty</b>	<p>Choose between:</p> <ul style="list-style-type: none"> <li>• <b>Original Quantity</b>: Default. When you highlight a row in the <b>Order Book</b>, the <b>Quantity</b> field of the <b>Order Book</b> displays the order's original quantity.</li> <li>• <b>Work Qty (Quantity)</b>: When you highlight a row in the <b>Order Book</b>, the <b>Quantity</b> field displays the current working quantity of the order and takes into consideration any partial fills.</li> </ul> <p>You must first highlight a row to view the desired information.</p>
<b>Default Visible Columns</b>	Select the default visible <b>Order Book</b> columns

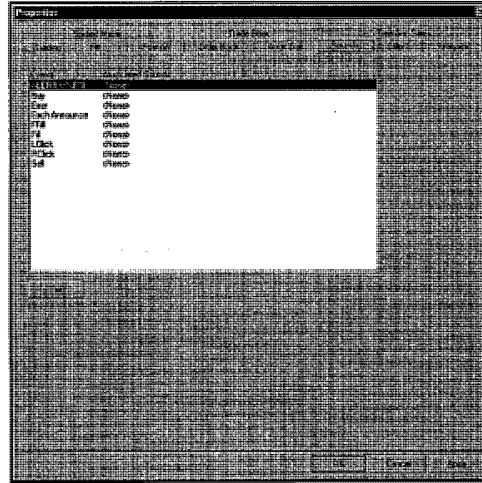
## Audit Trail Tab



From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Audit Trail** tab.

Setting	Description
<b>Show All Records/ Show Last Records</b>	<b>Show All Records</b> or choose a specific number of the most recent messages to display (100-2000)
<b>AuditLog DB</b>	<p>Ten (10) calendar days of <b>Audit Trail</b> information is automatically stored in a database located in &lt;install directory&gt;:\TT\Logfiles\AuditLog.</p> <p>To include <b>Operator Actions</b>, select the checkbox.</p> <p>If you are using automated tools, like <b>Autotrader™</b> or <b>Autospreader™</b>, change the days kept to three (3). You cannot set the number of days below 3.</p>
<b>AT Messages</b>	<ul style="list-style-type: none"> <li>• <b>Color Code Buy/Sell:</b> Enabled by default. When enabled, the default Buy and Sell text is blue and red, respectively. When you disable this feature, the <b>Audit Trail</b> does not color code your buy and sell orders.</li> <li>• <b>Show Fill Records:</b> Enabled by default. When enabled, the default buy and sell text is blue and red, respectively.</li> <li>• <b>Show INFO Messages:</b> Disabled by default. When enabled, the default colors for messages are white text on a black background.</li> <li>• <b>Show ERROR Messages:</b> Enabled by default. When enabled, the default colors for messages are white text on black background.</li> <li>• <b>Show ALERT Messages:</b> Enabled by default. When enabled, the default colors are black text on a yellow background. Customize text and background colors using the Properties <b>Color</b> tab ALERT/WARN text and background.</li> </ul>
<b>Default Visible Columns</b>	Select the default visible <b>Audit Trail</b> columns. For a detailed listing of the available information, refer to the <b>Audit Trail Column Descriptions</b> section.

## Sounds Tab



From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Sounds** tab. The **Sounds** tab lets you set audio notification for certain events.

If your workstation is equipped with a sound card and speakers and the appropriate drivers have been installed, you can assign sounds to the following events:

- Alert/Warn
- Buy
- Error
- Exchange Announce
- FFill (Fast Fill)
- Fill (Confirmed Fill)
- LClick (Left Click)
- RClick (Right-click)
- Sell

**Note:** When performing a cross trade with sounds assigned to **Buy** and **Sell** events, you will not either hear the first sound based on your selection of **Buy First** or **Sell First**, or it will be cut off. Only the second sound event will be audible, because the buy and sell events are closely timed.



## Adding an Event Sound

To add a sound to a specific event, from the **Control Panel** open the **Settings** menu and click **Properties**. Click the **Sounds** tab.

The top list box displays the event and its associated sound. By default, no audio files (<None>) are associated with the events.

You can add sounds for a contract's high and low price threshold for the day. Whenever a contract trades above the high price or below the lowest price, these sounds are played. You can assign different sounds for the high and low on the same contract, as well as different sounds for different contracts.

Sounds for high and low prices are managed in the **Alerts Manager** dialog box.

► **To add an event sound to a given event:**

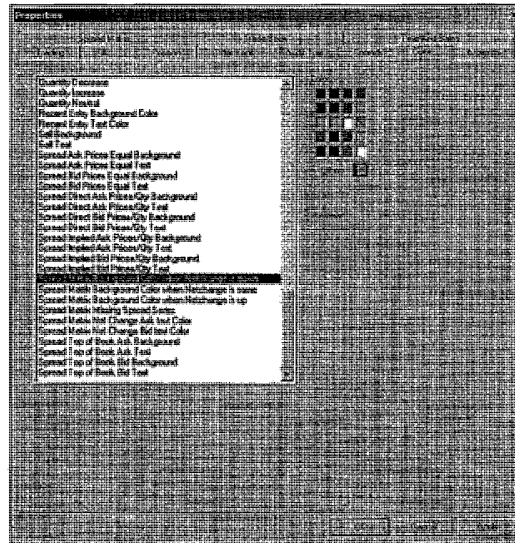
1. From the **Control Panel**, open the **Settings** menu and click **Properties**.
2. Click the **Sounds** tab.
3. Double-click the event and sound in the **Events** and **Associated Sounds** boxes to select them.
4. Click the browse button at the end of the highlighted line to open the **Sound Explorer** dialog box.
5. If necessary, navigate to the location where the sound files are located. (In most X\_TRADER® installations this is in the following folder:  
<root drive>:\TTX\_TRADER\Sounds).
6. Double-click a sound to select it. In the top box, the new sound name and path displays next to the selected event.
7. Click **Apply** and then **OK** to exit.

## Changing or Removing an Event Sound

► To change or remove a sound from an event:

1. From the **Control Panel**, open the **Settings** menu and click **Properties**.
2. Click the **Sounds** tab.
3. In the **Events and Associated Sounds** box, choose an event to highlight it and the line that identifies the sound file.
4. Press the **Delete** key.
5. Click **Apply** and then **OK** to exit.
6. The **Properties** dialog box will close and the event sound will be removed from the event.

## Color Tab



From the **Control Panel**, point to the **Settings** menu and select **Properties**. Click the **Color** tab.

Setting	Description
<b>ALERT/WARN Background</b>	Message default background color is yellow.
<b>ALERT/WARN Text</b>	Default color is black.

Setting	Description
<b>Best Ask Price Highlight</b>	Default color is blue.
<b>Best Bid Price Highlight</b>	Default color is red.
<b>Buy Background and Text</b>	Default text color is blue and the background is gray. Setting affects <b>Fill</b> pane, <b>Order Book</b> , and <b>Audit Trail</b> .
<b>Excel Link</b>	Default background color is dark gray.
<b>Held Order Status Background Color</b>	Default background of the held orders is yellow.
<b>Held Order Status Text Color</b>	Default text color is black.
<b>Market Depth Color Levels 1 – 7</b>	Default color follows the NASDAQ Level II color conventions.
<b>MD Trader™ Average Price Long Background Color</b>	Default color is blue.
<b>MD Trader™ Average Price Long Text Color</b>	Default color is black.
<b>MD Trader™ Average Price Short Background Color</b>	Default color is red.
<b>MD Trader™ Average Price Short Text Color</b>	Default color is black.
<b>MD Trader™ Buy Side Blank Color</b>	Default color is dark blue.
<b>MD Trader™ Last Traded Price Down Background Color</b>	Default color is red.
<b>MD Trader™ Last Traded Price Down Text Color</b>	Default color is black.
<b>MD Trader™ Last Traded Price Unchange Background Color</b>	Default color is white.
<b>MD Trader™ Last Traded Price Unchange Text Color</b>	Default color is black.
<b>MD Trader™ Last Traded</b>	Default color is bright green.

Setting	Description
Price Up Background Color	
MD Trader™ Last Traded Price Up Text Color	Default color is black.
MD Trader™ Net Change Down Background Color	Default color is red.
MD Trader™ Net Change Down Text Color	Default color is black.
MD Trader™ Net Change Unchange Background Color	Default color is white.
MD Trader™ Net Change Unchange Text Color	Default color is black.
MD Trader™ Net Change Up Background Color	Default color is bright green.
MD Trader™ Net Change Up Text Color	Default color is black.
MD Trader™ Net Position Flat Background Color	Default color is white.
MD Trader™ Net Position Flat Text Color	Default color is black.
MD Trader™ Net Position Long Background Color	Default color is blue.
MD Trader™ Net Position Long Text Color	Default color is black.
MD Trader™ Net Position Short Background Color	Default color is red.
MD Trader™ Net Position Short Text Color	Default color is black.
MD Trader™ Sell Side Blank Color	Default color is dark red.
MD Trader™ Working Buy Order Background Color	Default color is dark gray.
MD Trader™ Working Buy Order Text Color	Default color is dark blue.

Setting	Description
<b>MD Trader™ Working Sell Order Background Color</b>	Default color is dark gray.
<b>MD Trader™ Working Sell Order Text Color</b>	Default color is red.
<b>Message Background</b>	Default <b>Audit Trail</b> exchange announcement background color is black.
<b>Message Text</b>	Default <b>Audit Trail</b> exchange announcement text color is white.
<b>Non-Tradable Background</b>	Brokertec exchange users only. Customize background color to identify non-tradable products.
<b>Non-Tradable Text</b>	Brokertec exchange users only. Customize text color to identify non-tradable products.
<b>Opportunity</b>	When you have enabled <b>Opportunity Selecting</b> on the Properties <b>Trading</b> tab, the bid or ask price appears yellow (default color) when there is an opportunity to better your theoretical price or theoretical bid/ask prices.
<b>Order Blotter Color</b>	Default color is yellow.
<b>Order Deleting</b>	Default color is red.
<b>Outright Ask Prices Equal Background</b>	Default color is white.
<b>Outright Ask Prices Equal Text</b>	Default color is red.
<b>Outright Bid Prices Equal Background</b>	Default color is white.
<b>Outright Bid Prices Equal Text</b>	Default color is blue.
<b>Outright Direct Ask Prices/Quantity (Qty) Background</b>	Default color is gray.
<b>Outright Direct Ask Prices/Quantity (Qty) Text</b>	Default color is red.
<b>Outright Direct Bid Prices/Quantity Background</b>	Default color is gray.

Setting	Description
<b>Outright Direct Bid Prices/Quantity Text</b>	Default color is blue.
<b>Outright Implied Ask Prices/Qty Background</b>	Default color is coral.
<b>Outright Implied Ask Prices/Qty Text</b>	Default color is black.
<b>Outright Implied Bid Prices/Qty Background</b>	Default color is light blue.
<b>Outright Implied Bid Prices/Qty Text</b>	Default color is white.
<b>Outright Top of Book Bid Background</b>	Default color is yellow.
<b>Outright Top of Book Bid Text</b>	Default color is blue.
<b>Outright Top of Book Ask Background</b>	Default color is yellow.
<b>Outright Top of Book Ask Text</b>	Default color is red.
<b>Partial Buy Background</b>	Default color is yellow.
<b>Partial Sell Background</b>	Default color is yellow.
<b>Price Decrease Border Color</b>	Default color is red.
<b>Price Increase Border Color</b>	Default color is bright green.
<b>Price Neutral Border Color</b>	Default color is white.
<b>Quantity Decrease Border Color</b>	Default color is red.
<b>Quantity Increase Border Color</b>	Default color is bright green.
<b>Quantity Neutral Border Color</b>	Default color is white.
<b>Recent Entry Background Color</b>	Default color is white.

Setting	Description
<b>Recent Entry Text Color</b>	Default color is gray.
<b>Sell Background and Text</b>	Default text color is red; the default grid background color is gray. Setting affects <b>Fill</b> pane, <b>Order Book</b> , and <b>Audit Trail</b> .
<b>Spread Ask Prices Equal Background</b>	Default color is white.
<b>Spread Ask Prices Equal Text</b>	Default color is red.
<b>Spread Bid Prices Equal Background</b>	Default color is white.
<b>Spread Bid Prices Equal Text</b>	Default color is blue.
<b>Spread Direct Ask Prices/Qty Background</b>	Default color is red.
<b>Spread Direct Ask Prices/Qty Text</b>	Default color is black.
<b>Spread Direct Bid Prices/Qty Background</b>	Default color is blue.
<b>Spread Direct Bid Prices/Qty Text</b>	Default color is white.
<b>Spread Implied Ask Prices/Qty Background</b>	Default color is coral.
<b>Spread Implied Ask Prices/Qty Text</b>	Default color is black.
<b>Spread Implied Bid Prices/Qty Background</b>	Default color is light blue.
<b>Spread Implied Bid Prices/Qty Text</b>	Default color is white.
<b>Spread Matrix Background Color when Nchange is DOWN</b>	Default color is coral.
<b>Spread Matrix Background Color when Nchange is SAME</b>	Default color is white.

Setting	Description
Spread Matrix Background Color when Netchange is UP	Default color is light green.
Spread Matrix Missing Spread Series	Default color is gray.
Spread Matrix Net Change Ask Text Color	Default color is dark red.
Spread Matrix Net Change Bid Text Color	Default color is navy blue.
Spread Top of Book Ask Background	Default color is yellow.
Spread Top of Book Ask Text	Default color is red.
Spread Top of Book Bid Background	Default color is yellow.
Spread Top of Book Bid Text	Default color is blue.

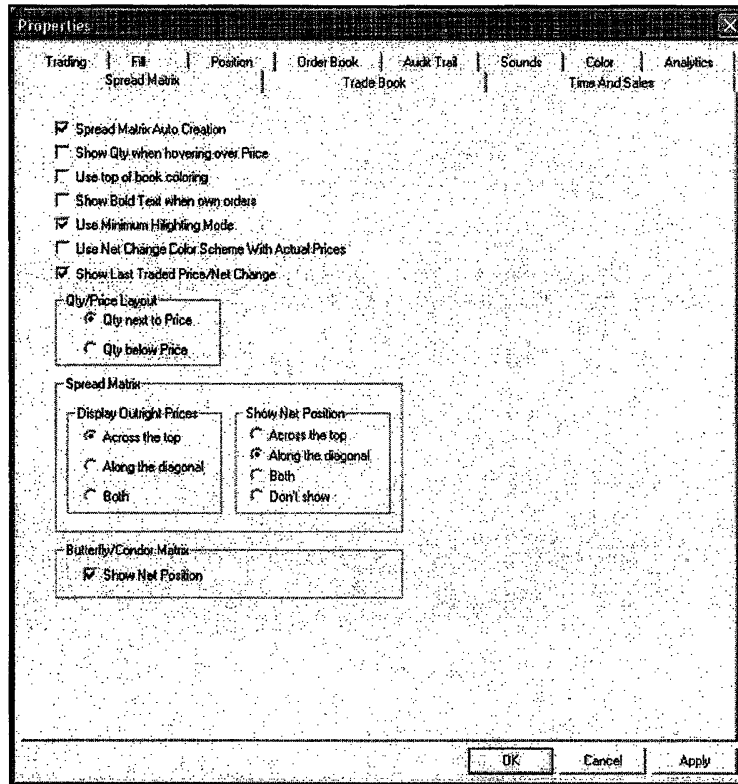
## Changing Window Color Display Options

► To change the colors for X\_TRADER® display windows:

1. From the **Control Panel**, open the **Settings** menu and click **Properties**.
2. Click the **Sounds** tab.
3. In the **Selection** box, click the appropriate option listing.
4. Choose a color in the displayed palette. Click **Other** to see an additional palette or to create custom colors.
5. The **Color Preview** window displays your chosen color.
6. Click **OK** to exit.



## Spread Matrix Tab



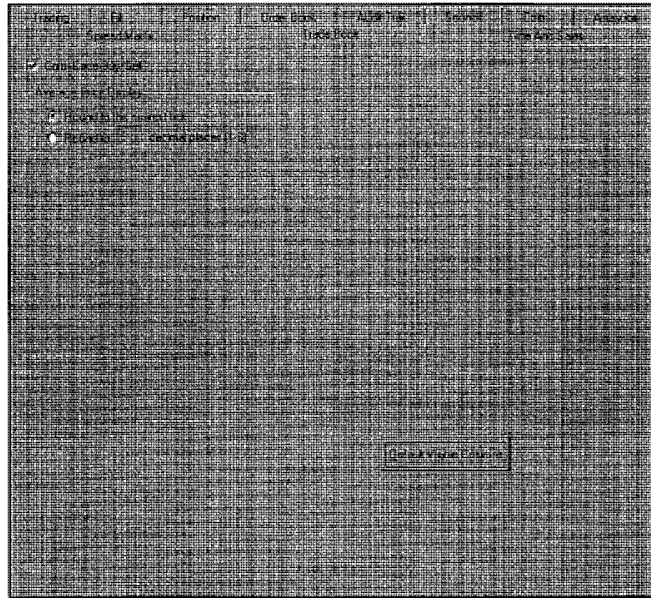
From the **Control Panel**, point to the **Settings** menu and click **Properties**. Select the **Spread Matrix** tab.

Setting	Description
<b>Spread Matrix Auto Creation</b>	Automatically creates a spread. This feature allows you to work with the LIFFE exchange to create spreads that may not exist.
<b>Show Qty (Quantity) when hovering over Price</b>	Displays the quantity when your mouse hovers over the Price. Therefore, the Quantity column is hidden.
<b>Use Top of Book Coloring</b>	Displays the top of book price in a different size font and color. Go to the Color tab to select your customized color.
<b>Show Bold Text when own Orders</b>	Displays your own orders in Bold Text to easily identify them.

Setting	Description
<b>Use Minimum Highlight Mode</b>	<p>Default is ON.</p> <p>When you enable this option, the behavior of the matrix depends on the following market characteristics:</p> <ul style="list-style-type: none"> <li>• Matrix only highlights when both the quantity and price change.</li> <li>• Highlighting of the bid or ask depends on whether the Last Traded Price is on the bid or ask.</li> <li>• If the Last Traded Price was not on the bid or ask, the matrix does not highlight.</li> </ul>
<b>Use Net Change Color Scheme with Actual Prices</b>	<p>When you enable this option, Net Change Color Scheme colors are used when prices display in the standard format. The color scheme follows:</p> <ul style="list-style-type: none"> <li>• Negative prices display in pink.</li> <li>• Positive prices display in light green.</li> <li>• Prices with no change display in white.</li> </ul> <p>Customize these net change colors in the Properties <b>Color</b> tab.</p>
<b>Show Last Traded Price/Net Change</b>	<p>Default is ON.</p> <p>A row designated by an [ L ] displays at the top of your <b>Spread Matrix</b>. A <b>Last Prc</b> column displays in your <b>Butterfly Condor Matrix</b>.</p> <p>If you display <b>Spread Matrix</b> or <b>Butterfly Condor Matrix</b> prices in the standard format using actual prices, this row displays <b>Last Traded Price</b>.</p> <p><b>Or:</b></p> <p>If you display <b>Spread Matrix</b> or <b>Butterfly Condor Matrix</b> prices as <i>Net Change</i> (using the context menu options), this row displays prices in net change.</p>
<b>Qty/Price Layout</b>	<p>Displays quantity and price cells in the matrix in one of two ways to suit your trading style and environment.</p> <ul style="list-style-type: none"> <li>• Qty next to price.</li> <li>• Qty below price. Default.</li> </ul>

Setting	Description
<b>Spread Matrix</b>	
<b>Display Outright Prices</b>	Displays outright prices in one of three listed ways to suit your trading style and environment. <ul style="list-style-type: none"> <li>• Across the top</li> <li>• Along the diagonal</li> <li>• Both (Default)</li> </ul>
<b>Show Net Position</b>	You can <b>Show Net Position</b> in the <b>Spread Matrix</b> . Choose from one of the following display choices: <ul style="list-style-type: none"> <li>• <b>Across the top:</b> Displays a row designated by a [ P ] across the top.</li> <li>• <b>Along diagonal:</b> Default. Displays a cell at the bottom of each contract.</li> <li>• <b>Both:</b> Displays both the [ P ] row and bottom cell.</li> <li>• <b>Don't Show</b></li> </ul>
<b>Butterfly/Condor Matrix</b>	<b>Show Net Position</b> Default is ON. A <b>Net Pos</b> column displays in the <b>Butterfly Condor Matrix</b> .

## Trade Book Tab

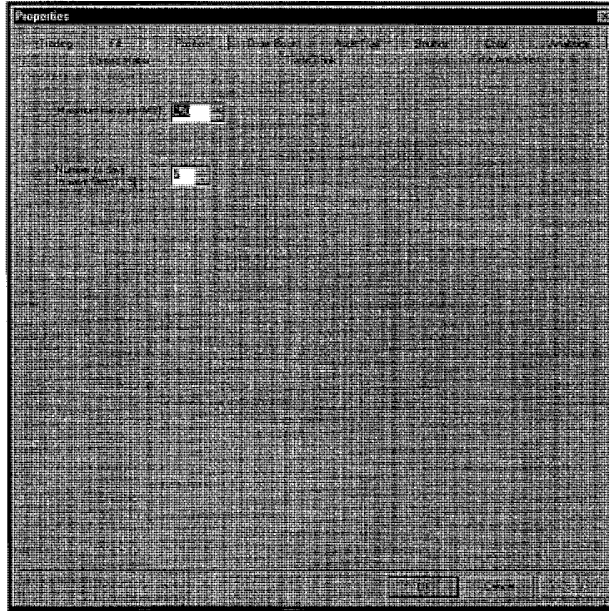


From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Trade Book** tab.

The **Trade Book** tab lets you set color coding for buy and sell and the number of viewable columns:

Setting	Description
<b>Color Code Buy/Sell</b>	Enabled by default. To help you quickly differentiate among orders, the default text color for Buy orders is blue with Sell orders shown in red. The default text background is gray. You can customize buy and sell colors via the Color tab; the colors you select apply for all windows in which buy/sell orders are color-coded. When you enable color-coding, color formatting of the individual grids is disabled. Only the colors you select via the global Properties <b>Color</b> tab are applied.
<b>Average Price Display</b>	Set the average price display in nearest tick (the default) or out to a setting chosen by the user.
<b>Default Visible Columns</b>	Select the default visible <b>Trade Book</b> window columns.

## Time and Sales Tab



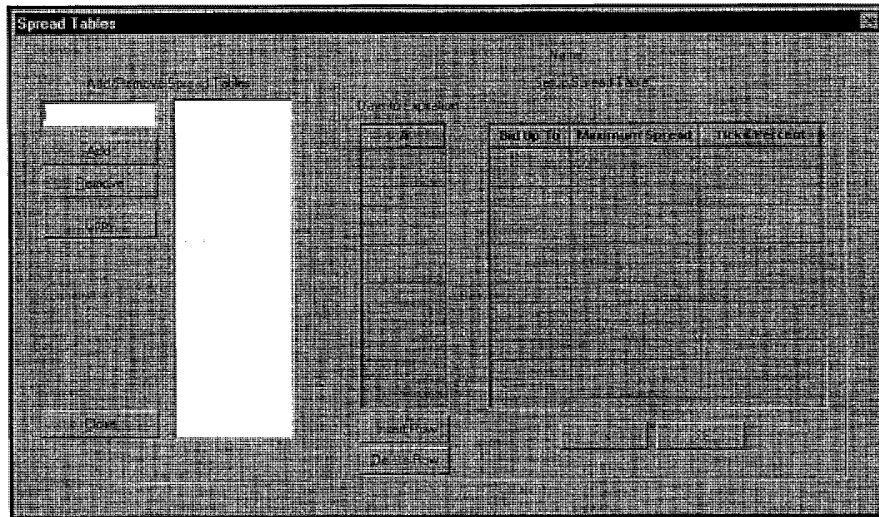
**Time and Sales** provides X\_TRADER® users with the ability to track, record, and save time and sales information for products traded through X\_TRADER®.

From the **Control Panel**, open the **Settings** menu and click **Properties**. Click the **Time and Sales** tab.

The **Time and Sales** tab lets you set the maximum saved file size and the number of days to save the file:

Setting	Description
<b>Maximum File Size (MB)</b>	Maximum file size allowed (before automatic purging). Default is 250 Megabytes.
<b>Number of Days to Save Files (1-5)</b>	Number of days to save files (before automatic purging) Default is 5 days.

## Spread Tables Dialog Box



Use the **Spread Tables** dialog box to create, maintain, and delete a spread or strategy for use in X\_TRADER®. You may create any number of strategies, which are then maintained in a file and are available from a drop-down list. After creation, you can then use the new strategy in the course of your trading.

To access the **Spread Tables** dialog box, from the **Control Panel** open the **Settings** menu and click **Spread Table Setup**.

## Adding a Spread Table

Spread tables allow you to define how wide quote spreads should be, based on a product's time to expiration and price. Multiple spread tables provide flexibility within X\_TRADER®'s quoting system.

### ► To add a Spread Table:

1. From the Control Panel, open the Settings menu and click Spread Table Setup.
2. Name your **Spread Table**: In the **Add/Remove Spread Tables** text box, located above the **Add** button, type the name. Click **Add**. The table name displays.
3. Select the table name: Single-click the newly named table to set up your table. The fields in the **Setup Spread Table** area activate.
4. Enter the value in the **Days to Expiration** column: The **Days to Expiration** column (A) is used to set the upper boundary for any given time period. For example, entering 30 in the top cell creates a 0 to 30-day time-to expiration period. Entering 90 in the cell below creates a 31 to 90-day time-to-expiration period. Entering 99999 creates the 91–99999 day time period.

Click any cell in the **Days to Expiration** column, and the exact time period is confirmed in the line above the **Bid Up To** column. For example, if you enter 30 as the number of days to expiration and you click this cell, the line above the **Bid Up To** column will read, "For expiration between 0 and 30 days".

Each expiration period has a corresponding table of prices and spreads. Similar to **Days to Expiration**, the **Bid Up to Price** is an upper bound and the **Maximum Spread** is the largest spread to be used (in ticks). For instance, setting the **Bid Up To** price to 5 and the **Maximum Spread** to 4 means that for all prices up to 5, the **Maximum Spread** for any quote is 4 ticks wide.

- Set up expiration periods. Use a high upper bound (99999) to indicate 'or longer.' A table with the last entry of 30 only goes out to 30 days. Setting the last cell to 99999 creates a last time period of 31 days or longer.
  - Set up prices and spreads. Follow the same logic as above and use a high upper bound for the last price range.
5. Use the **Insert** and **Delete Row** buttons as necessary.

## Copying a Spread Table

Spread tables allow you to define how wide quote spreads should be, based on a product's time to expiration and price. Multiple spread tables provide flexibility within X\_TRADER®'s quoting system.

▶ **To copy spread table data from one spread table to a new one:**

1. Select an existing **Spread Table**.
2. Click the **Copy** button.
3. Enter a new table name. All **Spread Table** data is copied to the new table. Edit the new table as necessary.
4. Click the **Close** button. The table information is automatically saved.

## Saving a Spread Table

Spread tables allow you to define how wide quote spreads should be, based on a product's time to expiration and price. Multiple spread tables provide flexibility within X\_TRADER®'s quoting system.

After entering the information into the spread table in the **Spread Tables** dialog box, click the **Close** button. The table information is automatically saved.

## Removing a Spread Table

To remove a **Spread Table**, select the table in the **Spread Tables** dialog box and click the **Remove** button.



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# Chapter 7

## Fill Window

The screenshot shows a window titled "TT Fill" with a table of trade data. The table has columns for various fields including Exchange, Product, Maturity, Strike, Call/Put, Buy/Sell, Quantity, NetQty, FTSht, Fill (Last), Alghort, Assgn, Bid, Ask, and Open. The data is presented in a grid format with multiple rows of trade information.

The **Fill** window provides detailed information about the current day's trades. X\_TRADER® displays fill information immediately upon receipt from the exchange. However, each exchange has implemented the dissemination of fill information differently. Some exchanges provide the information faster than other exchanges.

The **Fill** window is composed of three panes: **Fills** pane, **Position** pane, and **Fast Fills** pane:

- The **Fills** pane reflects the exchange-confirmed data about a trade.
- The **Position** pane provides net position information by product and contract. The P/L is calculated using only confirmed fills.

Unless set up to do so on the gateway, Eurex fast fills are no longer included in net position calculations. Ask your TT™ representative for information on converting fast fills into confirmed fills.

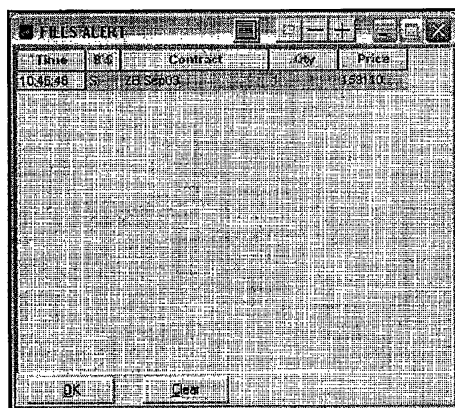
- The **Fast Fill** pane (supported by some exchanges) displays limited trade information until the confirmed fill is received from the exchange. Some exchanges provide guaranteed fill information via the back office feed. This may result in delayed fills if the trade information is not received from the exchange. The **Fast Fills** pane mitigates the potentially significant delays that may occur waiting for a guaranteed fill. The fast fill net quantity is displayed in the **FFNet** column of the **Position** pane.

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**Note:** The **Position** pane may include the letter "o" (options) in the **Expiration** column when the position represents an option. This procedure distinguishes futures and options positions for the same products that have identical expiration dates, which may occur on LIFFE. For example, a futures and options position for product B-Jun00 expiration on LIFFE would display both an entry for Jun00 (futures position) and oJun00 (options position).

---

## Fills Alert Dialog Box



The **Fills Alert** dialog box displays on the desktop when a fill arrives from an exchange.

► **To enable this dialog box:**

1. From the **Control Panel**, select **Properties** and click the **Fill** dialog box.
2. Enable the **Fills Alert** checkbox.
3. Close the **Properties** dialog box.

Use the **Print** button  to print the page.

## Fills Pane

The **Fill** window now displays spread fills for LIFFE and CME gateways in the **Fill** and **Position** panes.

The **Fill** pane includes the **Fill Type** and **Type** columns to allow you to filter on your spread positions and view your spread logs separately from outright trades.

X\_TRADER® delivers trade (fill) information immediately upon receipt from the exchange. Each exchange, however, disseminates fill information differently. For example, some exchanges provide the information faster than others; other exchanges send fill information via their back office feed. Therefore, problems may arise due to the following:

- Trade confirmations may not be sent immediately or may not be received from the exchange.
- Guaranteed fills that are provided by back office feeds are typically delayed 10 to 15 seconds and may be delayed for many minutes. The length of the delay varies due to exchange trading volume fluctuations and product state changes (for example, the closing of a market).

Trading Technologies® recommends that you use regular exchange screens to complement X\_TRADER® windows during periods of such delay.

## Fills Pane Field Descriptions

**Note:** If logging is enabled, LIFFE fill records are retained in the <install drive>\TT\LogFiles directory on the TT™ LIFFE Gateway. Every day a file is created for each LIFFE trader that records all fills. The file has the following format: "day.month.year.Tfill-trader mnemonic". The X\_TRADER® Administrator must manually delete these files in order to manage hard-disk space.

You can display the following column information in the Fills pane. It is listed in the order presented in X\_TRADER® Properties Fill tab.

Column Name	Description
<b>Time</b>	Time fill was received at the workstation
<b>Exch</b>	Exchange
<b>B/S</b>	Buy/Sell
<b>O/C</b>	Open/Close a Position
<b>Qty</b>	Order Quantity
<b>Price</b>	<p>Fill Price.</p> <p>Displays fills on spreads for LIFFE and CME gateways. The pane displays the fill prices on the corresponding legs of the spread, followed by the actual fill for the spread.</p> <p>Displays spread positions in addition to leg position in the Position Pane. The spread positions appear for information purposes only and do not affect risk calculations. (Risk is calculated using legs.)</p> <p>You may also turn a spread fill on or off. The default is off. For more information, go to the Properties Fill tab.</p>
<b>Fill Type</b>	Indicates whether the outright fills are from a spread order. You can use this column to filter on your spread positions and view spread legs separately from the outright trades. If the outright fill is coming from a spread fill, the cell displays Spread Fill Leg. If not, the Fill Type corresponds to the Product Type.
<b>Cur</b>	Currency
<b>Product</b>	Exchange Symbol for displayed product

Column Name	Description
<b>Type</b>	This column allows you to identify the type of order that received a fill. Options include: <ul style="list-style-type: none"> <li>• Future</li> <li>• Future Spread</li> <li>• Option</li> <li>• Option Strategy</li> <li>• Stock</li> <li>• Bond</li> <li>• Swap</li> <li>• Warrant</li> </ul>
<b>C/P</b>	Call/Put
<b>MMYY</b>	Displays Spread months in the expiration Month/Year columns.
<b>Strike</b>	Exercise Price of an Option
<b>Version</b>	Version
<b>Account #</b>	Back office account number or account name
<b>FFT2</b>	Free Form Text Field 2
<b>FFT3</b>	Free Form Text Field 3
<b>Clr Mbr</b>	Clearing member
<b>Exch Mbr</b>	Exchange member ID
<b>Exch Grp</b>	Risk Manager Direct User's Trader ID
<b>Exch Trd</b>	Risk Manager Direct User's Trader ID
<b>Trd Mbr</b>	Trader's or Risk Manager's Proxy User's member's ID (e.g., Broker's client=TTORD)
<b>Trd Grp</b>	Trader's or Risk Manager's Proxy User's member's ID (e.g., Broker's client=SIM)
<b>Trd ID</b>	Trader's or Risk Manager's Proxy User's member's ID (e.g., Broker's client=666)
<b>Acct</b>	Agent, Market Maker, Principal, Give-up, Unallocated

Column Name	Description
Exch Time	Transaction Time—at the exchange
Type	Limit/Market
GU	Give-up Member ID
PF	Partial Fill  <b>Partial Fill:</b> For Xetra, no Partial/Final fill indicator is provided. Therefore, this value is left blank in the X_TRADER® Fill window.
Rstr (Restriction)	<None>, FOK, IOC, MOO, MV, Stop
Fee	Associated Fee
P/A	Brokertec only. Designates whether your order was filled as a Passive or Aggressive order. This allows you to determine fees based on a specific order.
Order No.	Order Number assigned by exchange
TT Order Key	Unique order number assigned to this order.
Trans ID	Unique transaction ID assigned to each fill and partial fill
Exch Date	Exchange Date
Ord Time	Time order was placed at workstation
Ord Date	Time date was placed at workstation
C	Confirmed by operator
Conf MbrID	Confirmed Member ID
Conf GroupID	Confirmed Group ID
Conf TraderID	Confirmed Trader ID
Conf Time	Time order was Confirmed
Conf IP	Confirmed IP Address
Cntr Party	Counter Party
Row Numbers	Far left column displays row numbers



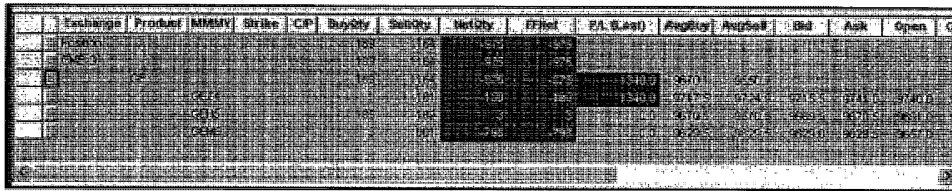
## Fills Pane Context Menu



Feature	Description
<b>Find Control Panel</b>	Displays X_TRADER® Control Panel.
<b>Show Fast Fills</b>	Enabled by default. Fast fills only display partial information about the order and are only offered by some exchanges.
<b>Scrolling</b>	Enabled by default. Displays the most recent fill at the bottom of the Fill pane.
<b>Clear Filter</b>	Right-click in the column that contains a filter and click <b>Clear Filter</b> to remove the filter.
<b>Clear All Filters</b>	Right-click in the Fill pane and click <b>Clear All Filters</b> to quickly remove all filters.
<b>Add Manual Fill</b>	Allows you to manually enter a fill. Information displays in the Fill pane and updates the Position pane.
<b>Delete Manual Fill</b>	Right-click the fill and click this option to delete. Only manual fills can be removed from the position.
<b>Confirm Fill(s)</b>	Click a single fill or select multiple fills and click this option. The "C" ( <b>Confirmed</b> ) column displays a hyphen (-) for trades confirmed by you. An equal sign (=) displays for fills confirmed by another trader.
<b>Auto Filters</b>	Enables Auto Filters, which filters the data by selecting a customer from the Customer List window.
<b>Formatting</b>	Allows you to customize fonts, colors, and borders.
<b>Hide Column</b>	After highlighting a cell or multiple columns, immediately hides the column(s).

Feature	Description
Hide/Show Cols	Allows you to select which columns to hide or show.
Copy	After selecting the data to be copied, click this option to place the data on a clipboard. You can then paste the data into another program (for example, Excel).

## Position Pane



The **Position** pane is the middle pane of the **Fill** window and this pane displays your position. Expand/contract each position tree to review more specific data about position information. A plus ( + ) sign indicates that the tree contains more information. A minus ( - ) sign indicates that the tree has already been expanded. The level of detail may contain:

- Summary totals
- Totals by exchange
- Totals by product
- Totals by contract expiration

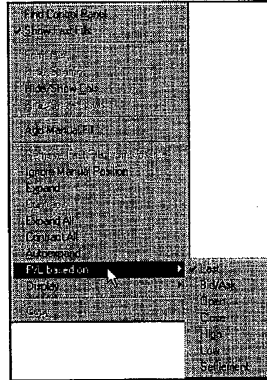
**Note:** The **Position** pane may contain the letter "o" in the expiration column when the position represents an *option*. This distinguishes between futures and options positions for the same products that have identical expiration dates. This may occur on the LIFFE exchange. For example, a futures and options position for product *B Jun00* expiration on LIFFE displays an entry for *Jun00* (futures position) and *oJun00* (options position).

## Position Pane Column Descriptions

Column Name	Description
Exchange	Exchange
Product	Exchange Symbol for displayed product
MMYY	Expiration Month/Year  Display calendar spreads for LIFFE and CME products. The spread positions appear for display purposes only <i>and do NOT affect risk calculations</i> . Risk calculations are completed using the individual legs of the spread.
Strike	Exercise price of an option
C/P	Call/Put
BuyQty	Total Buy Quantity
SellQty	Total Sell Quantity
NetQty	Indicates the position at the start of the day plus the difference between what you have bought and sold.
FFNet	Fast Fills Net Quantity (FF Buys-FF Sells)  Refer to the <b>Fast Fills Pane</b> for details.
P/L	Profit/Loss (Last)
AvgBuy	Average Buy Price
AvgSell	Average Sell Price
Bid	Bid Price
Ask	Ask Price
Open	Open Price
Close	Close Price
High	High price
Low	Low Price

Column Name	Description
Last	Last price
Stlmnt	Settlement Price
Buy	Buy Totals
Sell	Sell Totals

## Position Pane Context Menu



Column Name	Description
<b>Find Control Panel</b>	Brings the X_TRADER® Control Panel to the foreground of your workspace.
<b>Show Fast Fills</b>	Enabled by default.
<b>Formatting</b>	Allows you to customize fonts, colors, and borders for various features in the Fill Window.
<b>Hide Column</b>	Immediately hides the column(s).
<b>Hide/Show Cols</b>	Allows you to select which columns to hide or show by displaying a dialog box with all available columns listed.
<b>Hide/Show Rows</b>	Allows you to select which rows to hide or show.
<b>Add Manual Fill</b>	Allows you to manually enter a fill. Enter the information in the Manual Fill dialog box and the trade then displays in the Fill window and updates the Position pane.
<b>Remove Fast Fills From Position</b>	Removes fast fills from the position and recalculates the P/L.
<b>Ignore Manual Position</b>	Removes manual fills and recalculates the P/L.
<b>Expand</b>	Expands the current branch.

Column Name	Description
<b>Contract</b>	Contracts only the selected product.
<b>Expand All</b>	Expands the position tree to view all branches.
<b>Contract All</b>	Contracts the position tree.
<b>Autoexpand</b>	Automatically opens the position tree.
<b>P/L based on</b>	Calculates your Profit & Loss.
<b>Display</b>	Display position using the native currency, or the quantity multiplied by the price (default). The primary currency is annotated next to the Currency option (for example, Currency – USD).
<b>Copy</b>	After selecting the data to be copied, select this option to place the data on a clipboard. You can then paste the data into another program (for example, Excel).

## Calculating Profit and Loss

P/L for open positions can be based on any of the following:

- Last price
- Bid/ask prices
- Opening price
- Closing price
- High price
- Low price
- Settlement price

### ▶ To select the P/L method:

1. Right-click any cell in the **Position** pane to access the context menu.
2. Click a calculation method by selecting **P/L based on**. You can select any of the options listed above. Profit/Loss based on the **Last Price** is the default.

## P/L Column Display

X\_TRADER® allows you to select the P/L (Profit/Loss) column display type.

The **Position** pane's P/L column displays in one of the following:

- Selected primary currency. (The Primary Currency designation in the Guardian Currency Table determines the default currency. The default primary currency is USD. To change the primary currency via Guardian, speak to your X\_TRADER® System Administrator.)
- Product's native currency.
- Quantity multiplied by the price.
- Ticks.

▶ **To select the P/L Column display type:**

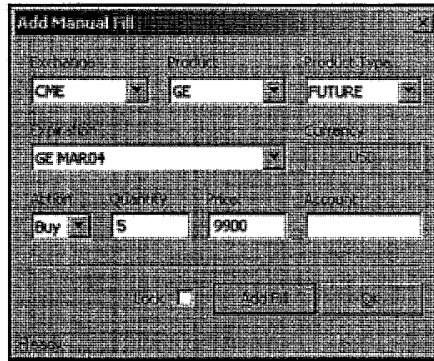
1. Right-click any cell in the position pane to access the **Position** pane context menu.
2. Click **Display**.
3. Select a display type: **Currency**, **Native Currency**, or **Qty x Prc.** (Quantity multiplied by price is the default.)

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**Note:** You can only obtain a total position P/L if you have selected these options from the **Context menu: Display – Currency – USD.**

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## Manual Fills Dialog Box



**Tip:** The **Save Manual Fills** option in the Properties **Fill** tab is enabled by default. Therefore, the system saves all manual fills to your hard drive. If you are logged into X\_TRADER® and have manual fills on multiple exchanges and you close X\_TRADER® and reopen it to log into a different exchange, X\_TRADER® prompts you to log into all exchanges where you have manual fills. However, you must then *manually delete* manual fills.

If you disable the feature, X\_TRADER® does not save manual fills to the hard drive. If you close X\_TRADER® and reopen it and log into a different exchange, X\_TRADER® does not prompt you to log into all exchanges where you had manual fills.

In some cases, trades may be executed through some other method other than the X\_TRADER® application. Use the **Manual Fills** dialog box to manually add or delete all orders executed through a source other than X\_TRADER®. You can calculate your true position and P&L (profit/loss) when you use X\_TRADER®.

Access the **Manual Fills** dialog box from the **Fills** pane context menu.

### Notes:

- You now have the ability to add manual fills for future spreads and options strategies as well as outright futures and options.
- If you open one (1) Manual Fill dialog box and try to open a second dialog box, the system displays a message box. If you would like to override the current settings with the new specified fill, click OK. The Manual Fill dialog box displays in the foreground and the fields contain the data from the new fill.
- You can manually add all order executed through a source other than X\_TRADER® to calculate your true position and profit and loss (P&L) by using the Manual Fills feature.



Complete the following entry fields in the **Manual Fills** dialog box:

Field	Entry
<b>Exchange</b>	Select the exchange where the trade took place.  You must be logged onto the exchange before you can select an exchange here.
<b>Product</b>	Lists products on the selected exchange.
<b>Product Type</b>	Select from the list. Depends on products supported by the exchange.
<b>Expiration</b>	Lists instruments of the selected product type and product supported by the exchange.
<b>Currency</b>	Displays the currency of the selected instrument.
<b>Action</b>	Lists the possible trade: Buy (B) or Sell (S)
<b>Strike</b>	Select from the list of traded products.
<b>Quantity</b>	Enter the amount of the quantity traded.
<b>Price</b>	Enter the price of the product traded.
<b>Account</b>	Enter the account number of the customer.
<b>Add Fill</b>	Select to transfer manual trade to Fill pane.  This button enables only after you complete all mandatory steps.
<b>Lock</b>	Allows you to ensure the fill is correct before adding it. If enabled, you receive a dialog box that displays Add Fill.
<b>OK</b>	Closes the <b>Manual Fill</b> dialog box when you are finished entering manual fills.
<b>Status Bar</b>	Allows you to review the state of the dialog box or that you successfully added a new manual fill.

## Adding a Manual Fill

### Notes:


- You now have the ability to add manual fills for future spreads and options strategies as well as outright futures and options.
- If you open one (1) Manual Fill dialog box and try to open a second dialog box, the system displays a message box. If you would like to override the current settings with the new specified fill, click OK. The Manual Fill dialog box displays in the foreground and the fields contain the data from the new fill.
- You can manually add all order executed through a source other than X TRADER® to calculate your true position and profit and loss (P&L) by using the Manual Fills feature.

### ▶ To add a manual fill to the Fill pane:

1. Open the **Fill** window.
2. To display the context menu, right-click in the **Fill** window.
3. Click **Add Manual Fill**.
  - If you place your cursor on a specific fill in the **Fill** pane to access the **Manual Fill** dialog box, that order information populates the **Manual Fills** dialog box.
  - If you open the **Manual Fills** dialog box via the **Position** pane context menu, all fields remain blank.
4. In the following order, select the **Exchange**, **Product** and **Product Type**.
5. Select the **Expiration**.
6. Select an action (**Buy** or **Sell**).
7. Type the appropriate values in the **Quantity** and **Price** fields.
8. After you complete the mandatory fields, **Add Fill** enables. To add the fill, click the button. The status bar informs you that a fill was added.

If you want to see the formatted fill before you add it, click the **Lock** checkbox before clicking **Add Fill**.

## Deleting a Manual Fill

 **Tip: Manual Fills** persist even if you lose connectivity to X\_TRADER®. Therefore, in case of an emergency or automatic shutdown of X\_TRADER®, you do not lose manual fills. However, you must then *manually delete* manual fills when you need to.

▶ **To delete a manual fill from the Fill pane:**

1. From the **Fill** pane, select the manual fill trade (indicated by the 'm' in the **Open/Closed (O/C)** column).
2. To access the context menu, right-click.
3. Click **Delete Manual Fill**. The **Fill** and **Position** panes update to reflect the fill deletion.

## Fast Fills Pane

The lower pane of the **Fill** window contains the **Fast Fills** display. Fast fills—in which only partial information about the order is supplied—are offered by only some exchanges.

X\_TRADER® provides fast fill information to mitigate the potentially significant delays that may occur while waiting for a guaranteed fill. For example, fast fills for Eurex are composed of two items:

- Immediate executed quantities resulting from an order entered via X\_TRADER®.
- Eurex Trade Confirmations sent to X\_TRADER® for resting orders (which are typically sent immediately after a match occurs).

Inherent issues exist with the use of fast fills:

- Fast fills are typically not guaranteed by the exchange.
- Fast fills are sent to all traders with the same Group ID.
  - Example: With a Trader ID = AAAAABBB001
  - AAAA represents the Exchange Member ID
  - BBB represents the Group ID
  - 001 represents the Trader ID
- Fast fills are NOT reflected in the position calculations.
- Fast fills are removed from the **Fast Fill** pane upon receipt of the guaranteed fill from the exchange.
- Fast fills do NOT cause the **Order Book** to update because a given order cannot be tied to the limited information contained in the Fast Fill.
- The **Fast Fills** pane is disabled when you are using **Fill** window filters. The **Position** pane column, **FFNet (Fast Fills Net Quantity)**, is also disabled when filters are applied.

When all filters are cleared, the **Fast Fill** pane and **FFNet** column are again enabled. All fast fills that arrived while the filters were in use now display, and the **FFNet** column automatically updates.

► **To remove Fast Fills from a position (refresh a position):**

1. Right-click a cell in the **Position** pane to access the context menu.
2. Click **Remove Fast Fills from Position**.

## Fast Fills Pane Context Menu



The **Fast Fill** pane context menu lists these additional options:

Menu	Description
<b>Find Control Panel</b>	Brings the X_TRADER® <b>Control Panel</b> to the foreground of your workspace.
<b>Show Fast Fills</b>	Displays fast fills in the <b>Fast Fills</b> pane.
<b>Scroll To End</b>	The <b>Fill</b> and <b>Position</b> panes immediately display new fills at the bottom of the window so that you can review the most recent fill.

## Eurex Fast Fill Information

P/L is calculated using only confirmed fills. Eurex fast fills are not included anymore in net position calculations. However, TT™ representatives can configure the TT™ Eurex Gateway to convert fast fills into confirmed fills automatically.

Using the following two columns, a Eurex trader can monitor position updates:

- **FFNet (Fast Fills Net Quantity)** column: Displays the fast fill net quantity. As fast fills are received, the FFNet column updates and reflects the new fast fill position.
- **NetQty (Net Quantity)** column: Reflects the position based only on confirmed fills. The NetQty column updates and reflects the new confirmed position.

When the **Fill** window is opened, the **FFNet** column synchronizes with **NetQty**. Under normal trading situations, the **FFNet** column updates slightly ahead of the **NetQty** column, because fast fills are received before confirmed fills.

## FFNet and Filters

Using filters disables the **Fast Fills** pane and the **FFNet** in the **Position** pane. When you clear all filters, the **Fast Fill** pane and **FFNet** column are again enabled. All fast fills that arrived while the filters were in use display in the **Fast Fills** pane, and the **FFNet** column automatically updates.

## FFNet and NetQty Synchronization

The Eurex trader can easily identify when **NetQty** and **FFNet** are out of synchronization (do not match) for an extended period. The following may result in an out of synch occurrence:

- Errant or erroneous fast fill.
- Changing a working order that gets filled immediately.
- If a fast fill has been received, clearing all filters results in reinitializing the **NetQty** and **FFNet**, so that they are the same. Receipt of the confirmed fill causes an out of synch occurrence.

If you think that the fast fill position reflects errant or erroneous fast fills, you can resynchronize the fast fill position with the confirm fill position by using the **Remove Fast Fills From Position** option on the **Position** pane context menu.

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# Chapter 8

## LIFFE Wholesale Trading

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The LIFFE Wholesale system is a reporting mechanism for transactions negotiated outside the LIFFE market.

They must also decide which firm executes the order. The executing member submits the order. Because the counter member does not submit an order, no counter member information exists in the order. The counter member does not receive order acknowledgment or fills. Once a wholesale order has been submitted, it cannot be cancelled, revised, or handed off to a different trader.

For a given wholesale order that is approved and executed, LIFFE sends two trade confirmations.

Wholesale orders appear in the **Audit Trail**, the **Total Traded Quantity** column of the **Market Grid** and the **Fill** window. Wholesale orders do not appear in the **Order Book**.



## Opening the Wholesale Trade Window

Open the Wholesale Trade windows within the X\_TRADER® application, after you have selected the exchange product and opened a **Market** window.

▶ **To open a Wholesale Trade window:**

1. Log onto one of the exchanges that support wholesale trades.
2. Open the **Market Explorer** and select a product.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click the row containing the product.
5. To access the **Market Grid** context menu, right-click in the specified product row.
6. Click **Wholesale** to select it. A submenu displays the following options:
  - Basis
  - Block
  - Against Actual
  - Flex Options
7. To open the appropriate wholesale submission window, select a submenu item.  
The appropriate dialog box displays.

## Wholesale Trading Types

LIFFE Wholesale trades are defined as follows:

- **Block** trades: High volume trades in any outright or strategy product.
- **Basis** trades: Strategies for long-term bond markets that incorporate a futures leg and an underlying (or cash) leg. Only the future leg is traded at the LIFFE exchange. The cash leg is traded on a separate exchange, which may be executed through X\_TRADER® or another method.

**Against Actuals** trades: Strategies for commodities markets that incorporate a futures leg and an underlying commodity leg. Only the future leg is traded at the LIFFE exchange. The cash leg is traded on a separate exchange, which may be executed through X\_TRADER® or another method. Against Actual orders are only valid for commodities contracts

- **Flex Options** trades: FTSE 100 options, except that any expiration day and exercise price can be specified. Flex Option orders are only valid for the ESX contract at LIFFE.

The following table describes Wholesale Trading types and the exchanges that support them:

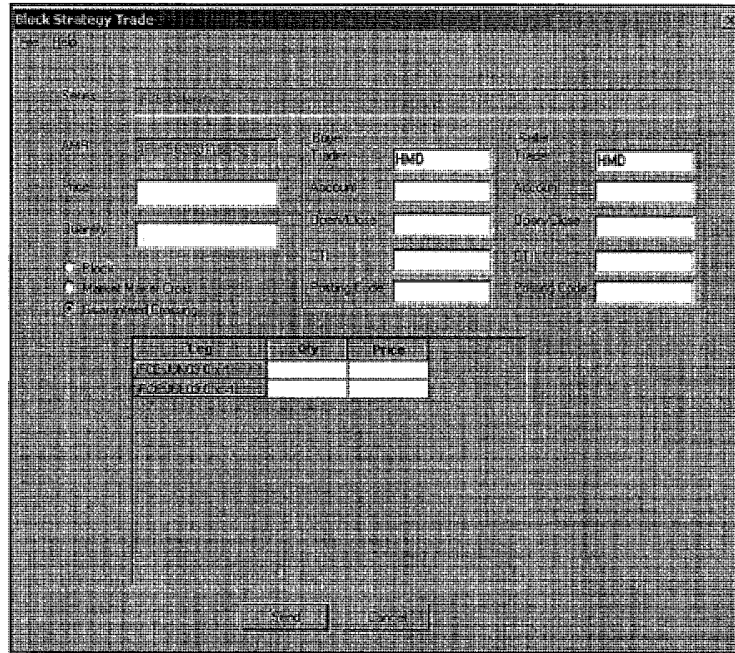
Exch	Wholesale Orders Supported						Acct Codes Required	CTI Codes Required	Posting Codes Required
	Against Actuals	Basis	Block	Flex Options	Guaranteed Cross	Mkt Maker Cross			
LIFFE	X	X	X	X			X		
NQLX			X			X	X	X	
Euronext (Paris)	X	X	X		X		X		X
Euronext (Brussels)			X				X		X

## Audit Trail Messages

The two firms negotiate the terms of the transaction outside the market. They must decide which firm executes the order. The executing member submits the order. Because the counter member does not submit an order, no counter member information exists in the order. The counter member does not receive order acknowledgement or fills. Once a wholesale order is submitted, it cannot be cancelled, revised, or handed to a different trader.

Event	Message Indicates
<b>Order Submission</b>	Wholesale order has been submitted to the exchange.
<b>Order Receipt</b>	Wholesale order has been received by the exchange.
<b>Fill Message</b>	One fill message is sent for the buy side of the order.
<b>Fill Message</b>	One fill message is sent for the sell side of the order.
<b>Order Reject</b>	Order is rejected by the exchange.
<b>Error Message</b>	TTORD Traders are not permitted to send wholesale orders. Any open Wholesale Trading window immediately closes.

# Strategy Wholesale Trades



You can trade strategies using the LIFFE Wholesale Trading windows. You can trade **Against Actual, Basis and Block** trades.

Wholesale trades for strategies are supported on the following exchanges:

- LIFFE exchange
- Euronext (Paris) exchange
- Euronext (Brussels) exchange

► To display the Strategy trade window:

1. Log onto the appropriate exchange.
2. Open the **Market Explorer** and select a product.
3. Create or drag and drop a strategy into the **Market Grid**.
4. Open a **Market** window for the selected product.
5. In the **Market** window, click the row containing the product.
6. Right-click in the **Market Grid** to display the context menu.
7. Click **Wholesale**.
8. From the submenu, select **Against Actual, Basis** or **Block**.

The appropriate *Strategy Trade* dialog box displays. The **Series** and **AMR** fields display data from the selected **Market Grid** cell.

9. The legs of the strategy display in the **Strategy** field.
10. Type values in the **Buyer** and **Seller** fields.

Refer to the **Wholesale Trading Chart** for more information about the following fields:

- **Block, Market Maker Cross, Guaranteed Crossing**
- **Account**
- **Open/Close**
- **CTI**
- **Posting Code**

11. Specify a **Qty** and a **Price** in each strategy leg.
12. Click **Send** to submit the information to the market.

## NQLX and Market Maker Cross

NQLX is the joint venture between Nasdaq and LIFFE. It is a wholly electronic exchange offering single stock contracts based on the most actively traded equities on NASDAQ and the New York Stock Exchange. NQLX is an independent exchange and uses LIFFE Connect™'s trading platform.

The NQLX supports **Block Trading**. NQLX also supports the **Market Maker Cross** feature. To use this feature, you must be recognized by the exchange as a Market Maker.

**Note:** Refer to the Wholesale Trading Chart for more information on Wholesale Trading types and the exchanges that support them.

### ► To send a Block Trade Using the NQLX Exchange:

1. Log onto the NQLX exchange.
2. Open the **Market Explorer** and select a product.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click the row containing the product.
5. Right-click in the **Market Grid** to display the context menu.

6. Point to **Wholesale Orders** and click **Block**.

The **Block Trade** dialog box displays. The **Series**, **Month** and **AMR** fields populate using the contract data from the **Market Grid** cell.

7. Type values in the **Price** and **Quantity** fields.  
8. Type values in both **Acc Code** fields.

---

**Note:** Each exchange maintains a different set of Account codes. You must complete the following requirements before your trade is accepted by the exchange. You must manually type only the Account Codes accepted by the exchange in the field.

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Valid account codes for NQLX for those clearing through a securities firm include:

- M: Market Maker
- F: Firm
- C: Customer

Valid account codes for NQLX for those clearing through a futures clearing firm include:

- B: Broker
- P: Proprietary
- T: Trader

9. Type values in **Open/Close** field.  
10. Type the correct code in the **CTI** field.
- **CTI:** Valid codes include: 1, 2, 3, 4.
  - U for unassigned and A for allocation may also be used.

---

**Note:** NQLX does not use **Posting Code**.

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11. Optional. Click the **Market Maker Cross** checkbox.  
12. Optional. Type account numbers in the **Account#** fields.  
13. Click **Send**. The **Audit Trail** shows that you submitted the trade.

## Euronext and Guaranteed Crossing

Euronext Paris exchange supports **Against Actual, Basis, Block** trade orders.

Euronext Brussels exchange only supports **Block** trade orders.

If you trade products on the Euronext (Paris) exchange, the **Guaranteed Crossing** feature is available. When you use this feature, the order is sent as a cross order. If the exchange accepts the order, the two (2) sides are guaranteed to match with one another and not a different order in the market. Guaranteed Cross orders are validated automatically.

**Note:** Refer to **Wholesale Trading Chart** for more information on Wholesale Trading types and the exchanges that support them.

### ▶ To complete a wholesale trade in the Euronext exchange:

**Note:** The following example applies to the **Block Trade** dialog box.

1. Log onto the Euronext exchange.
2. Open the **Market Explorer** and select a product.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click the row containing the product.
5. Right-click in the **Market Grid** to display the context menu.
6. Point to **Wholesale Orders**.
7. Select the appropriate wholesale trading type.

The **Block Trade** dialog box displays. The **Series**, **Month**, and **AMR** fields populate using the contract data from the **Market Grid** cell.

Complete the following fields for both the **Buyer** and the **Seller**.

8. Type the agreed-upon values in the **Price** and **Quantity** fields.
9. Optional. Click the **Guaranteed Crossing** checkbox.



## Chapter 8

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10. Type values in **Acc Code** fields.

**Note:** Each exchange maintains a different set of account codes.

Valid account codes for Euronext include:

- C: Customer
- H: House
- M: Market Maker

11. Type values in the **Open/Close** field.

**Note:** Euronext does not use CTI field.

12. **Posting Code:** Valid values include M = Manual Posting, A = Automatic Posting, G = Give-up Posting.

13. Optional. Type values in the **Account#** fields.

14. Click **Send**. The **Audit Trail** shows that you submitted the trade.

## Against Actuals Trade

**Note:** Refer to Wholesale Trading Chart for more information on Wholesale Trading types and the exchanges that support them.

**Against Actuals** are strategies for commodities markets that incorporate a futures leg and an underlying commodity leg. For **Against Actual** trades, only the future leg is traded at the exchange. The cash leg is traded on a separate exchange, which may be executed through X\_TRADER® or another method.

The details of the actual buyer and seller are resolved between the exchange and the executing member via a phone call. For an **Against Actual** trade, sends trade/fill information for both the buy and sell side of the futures leg. A fill is not sent for the cash leg.

Against Actual trading is not subject to normal X\_TRADER® credit risk limitations. The trader submitting the order will be notified by the exchange if it is approved. Wholesale orders appear in the **Audit Trail**, the **Total Traded Quantity** column of the **Market Grid** and the **Fill Window**. Wholesale orders do not appear in the **Order Book**.

**Note:** The window and associated fields that appear in an **Against Actuals** trade window vary depending on the type of product or strategy being traded. If the product is a strategy, the associated legs for that strategy list in a set of fields in the lower half of the **Against Actuals** window. The **Quantity** and **Price** fields must be filled for each and every leg of the strategy in order for the trade to be accepted.

Field Entry Name	Entry Characteristics
<b>Series</b>	Name and identification of the contract future series. Automatically filled from the product selection in the Market window.
<b>Month</b>	Maturity month of the futures contract. Automatically filled from the product selection in the Market window.
<b>AMR</b>	Auto Market Reference—unique LIFFE exchange-specific product identifier. Automatically filled from the product selection in the Market window.
<b>Price</b>	Price of the product.
<b>Quantity</b>	Quantity of the product to be traded.
<b>Buyer Entry Fields</b>	
<b>Trader</b>	Exchange identifying number for the trader submitting this trade.
<b>Account</b>	Account code for this trade. Can be one of the following: <b>H</b> (House), <b>L</b> (Local), <b>S</b> (Segregated), or <b>N</b> (Non-segregated).
<b>Open/Close</b>	Indicates whether this trade opens or closes a given position. Default is blank, which is acceptable.
<b>ISIN</b>	International Security Identification Number. Uniquely identifies a given product.
<b>Cash Price</b>	Price for the underlying that is agreed to by buyer and seller.
<b>HR</b>	Hedge Ratio. One character that identifies the methodology used to determine the price for the underlying component.
<b>Reference</b>	Used to identify the underlying product (order number, selling/buying code, etc., from the other exchange).
<b>CTI</b>	Clearing code.
<b>Posting Code</b>	For Euronext products only.
<b>Seller Entry Fields</b>	
<b>Trader</b>	Exchange identifying number for the trader submitting this trade.
<b>Account</b>	Account code for this trade. Can be one of the following: <b>H</b> (House), <b>L</b> (Local), <b>S</b> (Segregated), or <b>N</b> (Non-segregated).
<b>Open/Close</b>	Indicates whether this trade opens or closes a given position. Default is blank, which is acceptable.

Field Entry Name	Entry Characteristics
<b>ISIN</b>	International Security Identification Number. Uniquely identifies a given product.
<b>Cash Price</b>	Price for the underlying that is agreed to by buyer and seller.
<b>HR</b>	Hedge Ratio. One character that identifies the methodology used to determine the price for the underlying component.
<b>Reference</b>	Used to identify the underlying product (order number, selling/buying code, etc., from the other exchange).
<b>CTI</b>	Clearing code.
<b>Posting Code</b>	For Euronext products only.
<b>Send Button</b>	Once the window has been filled out, this sends the trade to the exchange.
<b>Cancel Button</b>	Cancels all entries in the window and closes it.

► **To submit an Against Actual trade:**

1. Log onto the appropriate exchange.
2. Open the **Market Explorer** and select the product to be traded.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click in the row containing the product.
5. Right-click in the product row to bring up the **Market Grid** context menu.
6. Click **Wholesale** to select it.
7. From the submenu, select **Against Actual**.

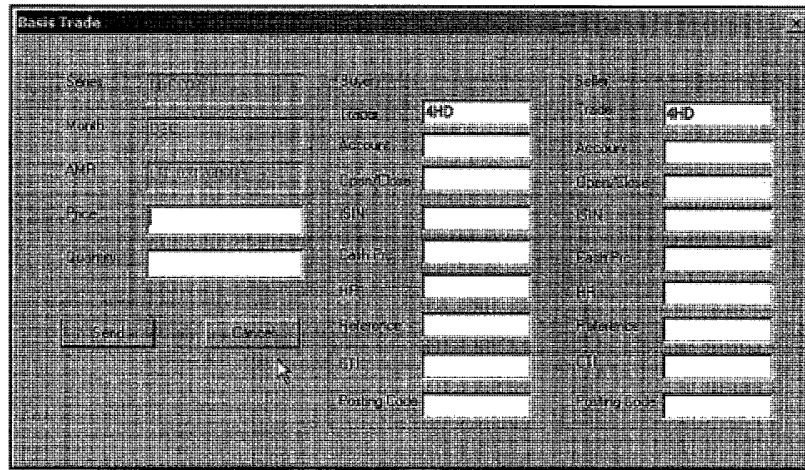
The **Against Actual** window displays. The **Series**, **Month**, and **AMR** fields display the data from the selected **Market Grid** cell.

8. Type data into the **Price**, **Quantity**, and **Buyer/Seller** fields.
9. Type values in both **Account** fields.
10. Type values in **Open/Close** field.
11. Type the correct code in the **CTI** field.
  - CTI: Valid codes include: 1, 2, 3, 4.
  - U for unassigned and A for allocation may also be used.

**Note:** NQLX does not use **Posting Code**.

12. Click **Send** to submit the information to the market.

# Basis Trade



**Basis** trades are strategies that incorporate a futures leg and underlying (or cash) leg. For basis trades, only the future leg is traded at the exchange. The cash leg is traded on a separate exchange, which may trade through X\_TRADER® or another method.

In a basis trade, the exchange sends trade/fill information for both the buy and sell side of the futures leg. A fill is not sent for the cash leg.

**Note:** The window and associated fields that appear in a **Basis** trade window vary depending on the type of product or strategy being traded. If the product is a strategy, the associated legs for that strategy are listed in a set of fields in the lower half of the **Basis** window. The **Quantity** and **Price** fields must be filled for each and every leg of the strategy in order for the trade to be accepted.

Field Entry Name	Entry Characteristics
<b>Series</b>	Name and identification of the contract future series. Automatically filled from the product selection in the Market window.
<b>Month</b>	Maturity month of the futures contract. Automatically filled from the product selection in the Market window.
<b>AMR</b>	Auto Market Reference—unique LIFFE exchange-specific product identifier. Automatically filled from the product selection in the Market window.
<b>Price</b>	Price of the product.

Field Entry Name	Entry Characteristics
<b>Quantity</b>	Quantity of the product to be traded.
<b>Buyer Entry Fields</b>	
<b>Trader</b>	Exchange identifying number for the trader submitting this trade.
<b>Account</b>	Account code for this trade. Can be one of the following: H (House), L (Local), S (Segregated), or N (Non-segregated).
<b>Open/Close</b>	Indicates whether this trade opens or closes a given position. Default is blank, which is acceptable.
<b>ISIN</b>	International Security Identification Number. Uniquely identifies a given product.
<b>Cash Price</b>	Price for the underlying that is agreed to by buyer and seller.
<b>HR</b>	<p>Hedge Ratio. One character that identifies the methodology used to determine the price for the underlying component.</p> <p>Hedge Ratio Codes include:</p> <ul style="list-style-type: none"> <li>• P: Price factor or duration method</li> <li>• M: (Modified) Duration method</li> <li>• S: Sensitivity spread ratio</li> <li>• D: Delta neutral ratio</li> </ul>
<b>Reference</b>	Used to identify the underlying product (order number, selling/buying code, etc., from the other exchange).
<b>CTI</b>	Clearing Code.
<b>Posting Code</b>	For Euronext products only.
<b>Seller Entry Fields</b>	
<b>Trader</b>	Exchange identifying number for the trader submitting this trade.
<b>Account</b>	Account code for this trade. Can be one of the following: H (House), L (Local), S (Segregated), or N (Non-segregated).
<b>Open/Close</b>	Indicates whether this trade opens or closes a given position. Default is blank, which is acceptable.
<b>ISIN</b>	International Security Identification Number. Uniquely identifies a given product.
<b>Cash Price</b>	Price for the underlying that is agreed to by buyer and seller.

Field Entry Name	Entry Characteristics
<b>HR</b>	Hedge Ratio. One character code that identifies the methodology used to determine the price for the underlying component.
<b>Reference</b>	Used to identify the underlying product (order number, selling/buying code, etc., from the other exchange).
<b>CTI</b>	Clearing Code.
<b>Posting Code</b>	For Euronext products only.
<b>Send Button</b>	Once the window has been filled out, this sends the trade to the exchange.
<b>Cancel Button</b>	Cancels all entries in the window and closes it.

► **To submit a basis trade:**

**Note:** Basis trading is not subject to normal X\_TRADER® credit risk limitations. The trader submitting the order will be notified by the exchange if it is approved. Wholesale orders appear in the **Audit Trail**, the **Total Traded Quantity** column of the **Market Grid** and the **Fill** window. Wholesale orders do not appear in the **Order Book**.

1. Log onto the appropriate exchange.
2. Open the **Market Explorer** and select the product to be traded.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click in the row containing the futures product.
5. Right-click in the product row to display the **Market Grid** context menu.
6. Click **Wholesale** to select it.
7. From the submenu, select **Basis**.

The **Basis Trade** window appears. The **Series**, **Month**, and **AMR** fields display data from the **Market** window.

8. Type values into the **Price**, **Quantity**, and **Buyer/Seller** fields.
9. Type values in both **Account** fields.
10. Type values in **Open/Close** field.
11. Type the correct code in the **CTI** field.
  - CTI: Valid codes include: 1, 2, 3, 4.
  - U for unassigned and A for allocation may also be used.

**Note:** NQLX does not use **Posting Code**.

12. Click **Send** to submit the information to the market.



## Block Trade

Block trades are high volume trades in any outright or strategy product.

**Note:** The window and associated fields that appear in a **Block Trade** window vary depending on the type of product or strategy being traded. If the product is a strategy, the associated legs for that strategy are listed in a set of fields in the lower half of the Block window. The **Quantity** and **Price** fields must be filled for each and every leg of the strategy in order for the trade to be accepted.

Field Entry Name	Entry Characteristics
<b>Series</b>	Name and identification of the contract future series. Automatically filled from the product selection in the Market window.
<b>Month</b>	Maturity month of the futures contract. Automatically filled from the product selection in the Market window.
<b>AMR</b>	Auto Market Reference—unique exchange-specific product identifier. Automatically filled with the product selection in the Market window.
<b>Price</b>	Price of the product.
<b>Quantity</b>	Quantity of the product to be traded.
<b>Buyer Entry Fields</b>	
<b>Trader</b>	Exchange identifying number for the trader submitting this trade.
<b>Acc Code</b>	Account code for this trade. Can be one of the following: H (House), L

Field Entry Name	Entry Characteristics
	(Local), S (Segregated), or N (Non-segregated).
Open/Close	Indicates whether this trade opens or closes a given position. Default is blank.
CTI	Clearing code.
Posting Code	It does not apply to LIFFE. For EuronextEuronxt_and_Guaranteed_Crossing products only.
Account#	Optional free form text field. Type an account number in this field up to 8 digits.
<b>Seller Entry Fields</b>	
Trader	Exchange identifying number for the trader submitting this trade.
Acc Code	Account code for this trade. Can be one of the following: H (House), L (Local), S (Segregated), or N (Non-segregated).
Open/Close	Indicates whether this trade opens or closes a given position. Default is blank, which is acceptable.
CTI	Clearing code.
Posting Code	It does not apply to LIFFE. For Euronext and Guaranteed Crossing products only.
Account#	Optional free form text field. Type an account number in this field up to 8 digits.
Send Button	Once the window has been filled out, this sends the trade to the exchange.
Cancel Button	Cancels all entries in the window and closes it.
Block	Indicates that you are sending a Block trade
Market Maker Cross	Refer to the <b>NQLX and Market Maker Cross</b> section of this chapter for more specific information.
Guaranteed Crossing	Refer to the <b>Euronext and Guaranteed Cross</b> section of this chapter for more specific information.

► **To submit a block trade:**

**Notes:** Block trading is not subject to normal X\_TRADER® credit risk limitations. The trader submitting the order will be notified by the exchange if it is approved. Wholesale orders appear in the **Audit Trail**, the **Total Traded Quantity** column of the **Market Grid** and the **Fill Window**. Wholesale orders do not appear in the **Order Book**.

1. Log onto the appropriate exchange.
2. Open the **Market Explorer** and select the product to be traded.
3. Open a **Market** window for the selected product.
4. In the **Market** window, click in the row containing the futures product.
5. Right-click in the product row to bring up the **Market Grid** context menu.
6. Click **Wholesale** to select it.
7. From the submenu, select **Block**.

The **Block Trade** dialog box displays. The **Series**, **Month**, and **AMR** fields display data from the selected **Market Grid** cell.

8. Type values into the **Price**, **Quantity**, and **Buyer/Seller** fields.
9. Type values in both **Acc Code** fields.
10. Type values in **Open/Close** field.
11. Type the correct code in the **CTI** field.
  - CTI: Valid codes include: 1, 2, 3, 4.
  - U for unassigned and A for allocation may also be used.

**Note:** NQLX does not use **Posting Code**.

12. Optional. Type values in the **Account** fields.
13. Click **Send** to submit the information to the market.

## Flex Options

Leg	Commodity	Exercise Pr	Contract Typ	Expiry Date	Buy/Sell	Qty	Price

FLEX® orders are essentially *FTSE 100 options*, except that any expiration day and exercise price can be specified. The trade submission and authorization process is semi-automated. Therefore, completing a flex options trade requires manual intervention by an exchange official.

Descriptions of the fields follow:

- Strategy Code: Any LIFFE recognized strategy code.
- Delta: Delta of the option. If the trade contains the underlying component LFZ (FLX), it's value should be 1-100. If not, its value should be zero.
- Legs: Up to 5 components can be defined in a FLEX trade. For each, the following parameters can be defined:
- Commodity: The Commodity code. Z for FTSE 100; FLX for the underlying.
- Exercise Price
- Contract Type: Call, Put or Future.
- Expiration Date: Date of expiration for the particular leg.
- Buy/Sell
- Qty
- Price

▶ **To submit a Flex Option trade:**

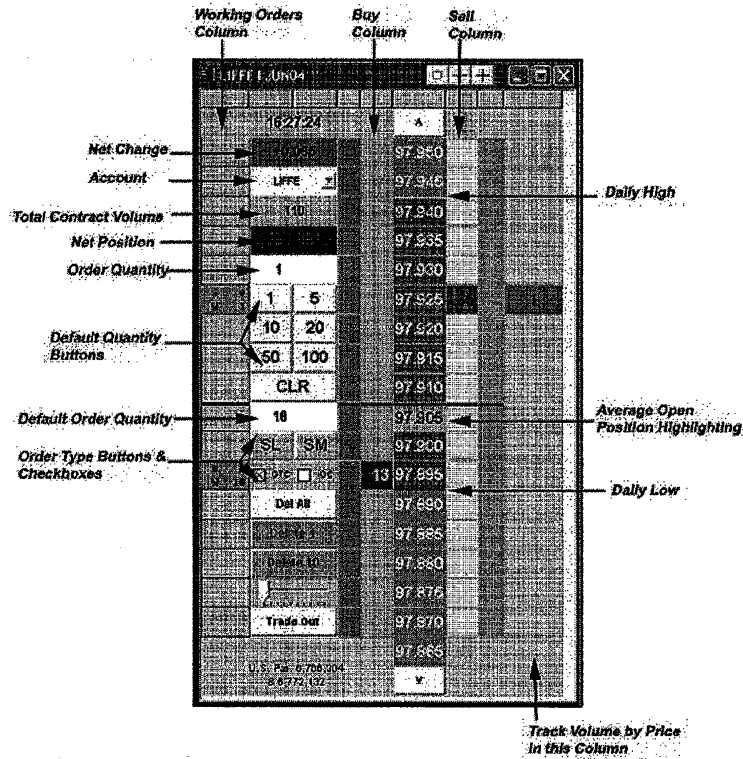
1. Open a **Market Grid** for the selected product.
2. Right-click in the **Market Grid** to display the context menu and select **Wholesale Orders**.
3. Click **Flex Options**. The **Flex Options** dialog box displays.
4. Type values in the **Flex Options Trade** dialog box.

---

**Note:** Wholesale orders appear in the **Audit Trail**, the **Total Traded Quantity** column of the **Market Grid** and the **Fill Window**. Wholesale orders do not appear in the **Order Book**.

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# Chapter 9 MD Trader™



Note: MD Trader™ is protected by U.S. Patents Nos. 6,766,304 & 6,772,132.

MD Trader™ allows the trader to buy or sell products using one click of the mouse. It offers a trader the ability to one-click trade across the depth of a market for either a buy or sell order. The grid format dynamically displays the market depth for a given product, and enables the trader to enter orders quickly by simply clicking in specific cells of the grid.

**MD Trader™** features include:

- Ability to rename **MD Trader™** window.
- Ability to continually send **Good to Cancel (GTC)** orders by enabling the GTC checkbox..



- Ability to globally recenter all **MD Trader™** windows using the **Participate in Global Recentering** property. When you recenter one **MD Trader** window, all open **MD Trader** windows recenter as well.

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**Note:** This property defaults to **ON**. New and existing workspaces are automatically affected by the property.

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Other **MD Trader™** features and characteristics include:

- Display Implieds.
- Display of daily High and Low trades.
- Display of the contract's price range.
- Bar chart or text of volume by price.
- Designate a second default quantity for your right-click trading.
- Ability to align text in your Bid and Ask columns to the left, center, or right.
- One-click buy or sell trading from the grid.
- Ability to open multiple **MD Trader™** windows. (Subject to the restriction that only one window can exist per series contract.)
- Ability to choose your customer profiles.
- One-click centering of **MD Trader™** grid on the market.
- Detailed customization of color coding, mouse wheel behavior, and sound notifications.

## Opening MD Trader™

► To open **MD Trader™**:

1. Right click in a product row in the **Market Grid** window to open the context menu.
2. Click **MD Trader™**.

An **MD Trader™** window immediately displays.

# MD Trader™ Context Menu

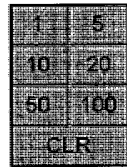


In MD Trader™, right-click to access additional functionality. However, you cannot access the context menu from the following locations in the MD Trader™ window:

- Last Traded Quantity column
- Delete Bids or Delete Offers quantity buttons



- Numerical quantity buttons



The MD Trader™ context menu provides these additional commands:

Command	Description
<b>Find Control Panel</b>	Brings the X_TRADER® Control Panel to the foreground of your workspace.
<b>Rename Window</b>	To help you easily identify your MD Trader™ windows, this option allows you to rename your MD Trader windows. When you click on the option, the Set Text dialog box displays.  Type the unique name in the field and click <b>OK</b> .  When you rename your window, you may only use letters, numbers and the underscore symbol. The dialog box does not allow you to use special characters or the space bar when you rename the window.
<b>Properties</b>	Opens the MD Trader™ Options dialog box. Use this dialog box to set custom trading parameters and the appearance of MD Trader™.



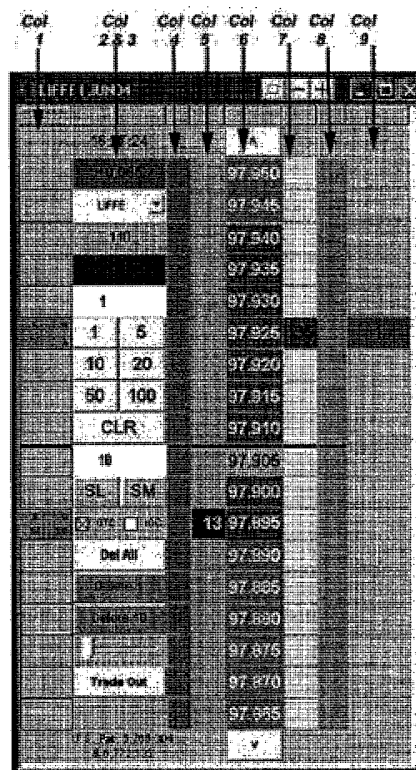
## MD Trader™ Field Descriptions

The MD Trader™ window maintains default settings that can be modified in the MD Trader™ Options dialog box. Enabling the **Show Tooltips** option in the **Options** dialog box makes identifying some fields easier. Tooltips provide a small text description of certain fields in the MD Trader™ window when the cursor is held over the field.

Click on the appropriate item listed below for a description of the columns' contents:

- Column 1
- Column 2 and 3 (Combined)
- Column 4
- Column 5
- Column 6
- Column 7
- Column 8
- Column 9
- Additional Fields

**Tip:** Although certain columns and options boxes do not appear in the MD Trader™ window by default, for illustration purposes, this diagram displays all available options and columns.



**Note:** MD Trader™ is protected by U.S. Patents Nos. 6,766,304 & 6,772,132.

Field	Description
<b>Column 1 Section</b>	
<b>Working Quantity Column</b>	Functions as the <b>Order Book</b> for the <b>MD Trader™</b> window. Displays all working quantities ( <b>W</b> ) and executions ( <b>S</b> or <b>B</b> ) on that particular Bid or Offer. When an order is completely filled, the values clear.
<b>Columns 2 &amp; 3 Section</b>	
<b>System Clock</b>	Displays the current time according to the NT system clock.
<b>Net Change</b>	Displays only when a net change occurs. Difference between last traded price and settlement price.
<b>Customer List</b>	Displays all customers from X_TRADER®'s customer list
<b>Total Contract Volume</b>	Displays the total volume traded for that contract.
<b>Net Position</b>	Displays your net position.  Use the <b>Net Position</b> field to trade out your position.  Click in the <b>Net Position</b> field. Your net position populates the <b>Order Entry</b> field so you can flatten out your position.
<b>Order Quantity</b>	Indicates the order quantity that is sent to market. After you submit the first trade of the day, this field populates with the value in the <b>Default Quantity</b> field. A value can be manually entered in this field by clicking in the field and entering the value.
<b>1 / 10 / 50 / 5 / 20 / 100</b>	Preset order quantity buttons. To customize a pre-set order quantity, right-click a button. Enter a value using the keyboard, and press <b>Enter</b> .
<b>CLR</b>	Clear button. Clears the <b>Order Quantity</b> field.
<b>Default Order Quantity</b>	After each trade, the value of the <b>Default Quantity</b> field automatically populates the <b>Order Quantity</b> field. Customize your value by clicking in the field and typing it.
<b>SL</b>	<b>Stop Limit Order</b> flag. Click this button to submit your next order as a Stop Limit Order.
<b>SM</b>	<b>Stop Market Order</b> flag. Click this button to submit your next order as a Stop Market Order.

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Field	Description
<b>GTC</b>	<b>Good to Cancel.</b> Click this checkbox to submit your next orders as a Good to Cancel order. The GTC checkbox remains enabled so you are able to continually send GTC orders. (Enable this feature in the Options dialog box.)
<b>IOC</b>	<b>Immediate or Cancel.</b> Select this checkbox to submit an order as Immediate or Cancel ( <b>IOC</b> ). The IOC checkbox remains enabled so you are able to continually send IOC orders. (Enable this feature in the Options dialog box.)
<b>Del All</b>	<p>Deletes all working orders for this series of contracts. Order include:</p> <ul style="list-style-type: none"> <li>• All working orders</li> <li>• All order in a "Hold" status including Blotter orders</li> <li>• All Stop orders</li> </ul> <p>This feature behaves differently for an Exchange trader versus a Proxy (TTORD) trader:</p> <ul style="list-style-type: none"> <li>• At this time, only LIFFE supports this feature.</li> <li>• It is available via the <b>Market Grid</b> or <b>MD Trader™</b></li> <li>• If an exchange trader uses this feature, all working for that contract for all sponsored proxy traders are deleted</li> <li>• If a TTORD trader attempts to use this feature, it converts one message into to multiple individual delete requests by the client application to prevent a trader from deleting the exchange trader's working orders (for that contract).</li> </ul>
<b>Total Offers Text Box</b>	Displays your total working offers.
<b>Del Offers</b>	Deletes all offers from the market.
<b>Total Bids Text Box</b>	Displays your total working bids.
<b>Del Bids</b>	Deletes all bids from the market.
<b>Price Consolidation Slider</b>	Consolidates price depth in the <b>Price</b> column. Slide the slider to the right to consolidate price levels, and slide it to the left to flatten your price depth.

Field	Description
<p><b>Trade Out</b></p>	<p>Use this feature to flatten your position.</p> <p>When you use the <b>TradeOut</b> button, <b>MD Trader™</b> deletes all working orders on both sides of the market and sends an order that allows you to exit from your position regardless of your credit limit. Therefore, it does not matter if your position is long or short, <b>MD Trader™</b> deletes all working orders on both sides of the market before sending an offsetting order to flatten your position.</p>
<p><b>Column 4 Section</b></p>	
<p><b>Bid Indicator Column</b></p>	<p>Indicates price settings. A value may be pasted in the column from an Excel spreadsheet using copy and paste. The value of the Excel Spreadsheet displays in the Bid Indicator column as a white box.</p>
<p><b>Column 5 Section</b></p>	
<p><b>Buy Column</b></p>	<p><b>Displays current market bids.</b></p> <p>Displays current implied bid outright prices, implied bid spread prices and implieds from implieds bid values.</p> <p>For more information about implied pricing capabilities in X_TRADER® and <b>MD Trader™</b>, go to the Properties Trading tab.</p> <p>When Keyboard Trading is enabled, a colored cursor appears in the Buy column that indicates the current price level for an order.</p>
<p><b>Column 6 Section</b></p>	
<p><b>Price Column</b></p>	<p>Indicates market price and depth. Arrows appear at the top and bottom of this column. These arrow buttons allow you to page up or page down to view more prices:</p> <ul style="list-style-type: none"> <li>• To move the market view up, click the up arrow: </li> <li>• To move the market view down, click the down arrow: </li> </ul> <p>A <u>yellow line</u> indicates the highest price of the day. A <u>red line</u> indicates the lowest price of the day. A darkened background indicates that the prices fall between the high and low.</p> <p>If no other price is available, but you still want to scroll up and down, use the arrow keys on your keyboard.</p>

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Field	Description
<b>Column 7 Section</b>	
<b>Sell Column</b>	<p>Displays current market offers.</p> <p>Displays current implied offer outright prices, implied offer spread prices and "implied from implied" offer values.</p> <p>For more information about implied pricing capabilities in X_TRADER® and MD Trader™, go to the Properties Trading tab. When Keyboard Trading is enabled, a colored cursor appears in the Sell column that indicates the current price level for an order.</p>
<b>Column 8 Section</b>	
<b>Ask Indicator Column</b>	<p>Indicates price settings. A value may be pasted in the column from an Excel spreadsheet using copy and paste. The Excel Spreadsheet value displays in the Ask Indicator column as a white box.</p>
<b>Column 9 Section</b>	
<b>Last Traded Quantity Column</b>	<p>Indicates the last traded quantity at that price. Also, you can configure this column to display <b>Volume by Price</b> in bar, text, or tool tip format. Go to the <b>Options</b> dialog box.</p>
<b>Additional Fields Section</b>	
<b>Scroll Bar</b>	<p>Indicates that there are orders above or below what is visible in the window. Use a mouse to scroll up or down MD Trader™.</p>
<b>Market Mid-Point Bar</b>	<p>MD Trader™ uses a bold black line to designate the midpoint of the inside market.</p>

## Using MD Trader™ Window

MD Trader™ allows the trader to buy or sell products using one click of the mouse. It offers a trader the ability to one-click trade across the depth of a market for either a buy or sell order. The grid format dynamically displays the market depth for a given product, and enables the trader to enter orders quickly by simply clicking in specific cells of the grid.

Once the quantity has been set for an order, you use the left or right mouse button to perform various trades. The discussion below describes the distinctions between left and right clicking on grid cells.

▶ **To use MD Trader™, follow these steps:**

1. Open MD Trader™.
2. To open the **Options** dialog box, right-click anywhere in MD Trader™.
3. In the **Order Parameter** section, enter a **Maximum Order Quantity**.
4. Click **OK** to close the **Options** dialog box and return to MD Trader™.
5. Select a customer profile.
6. Enter an order quantity.
7. Use click-trading to enter orders.

**Left Click in the Buy or Ask Columns**

A left-click in a grid cell in the **Buy** or **Ask** columns immediately sends a buy or sell order to the market. The quantity for the order is taken from the quantity field. The price is taken from the same row as the grid cell that is clicked. If you *left* click on a grid cell in the:

Action	Position	Market Result
Buy	Next to populated grid cell in the Sell column:	Send a buy order to the market (lifting the ask).
Sell	Next to populated grid cell in the Buy column:	Send a sell order to the market (hitting the bid).

Action	Position	Market Result
Buy	In a grid cell that is populated by a bid quantity:	Sends a buy order to the market (you are joining the bid).
Sell	In a grid cell that is populated by an offer quantity:	Sends a sell order to the market (you are joining the offer).

**Right Click in the Buy or Ask Columns**

A right click in a grid cell in the **Buy** or **Ask** columns immediately sends a ‘sweeping’ buy or sell order to the market. The price is taken from the same row as the grid cell that is clicked. If you *right* click on a grid cell in the:

Action	Position	Market Result
Buy	Directly to the left of populated grid cell in the Sell column:	Sends in a buy for as many contracts as exist from the best ask price up to that price level.
Sell	Directly to the right of a populated grid cell in the Buy column:	Sends in a sell for as many contracts as exist from the best bid price down to that price level.

A right-click on a grid cell that is populated with either a bid or offer results in no orders being sent to market.

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## Average Price Highlighting

When enabled, the average price highlighting feature available in the **MD Trader™** window automatically displays the average open price short and long. This display property is enabled from the **Options** dialog box. The default is enabled. The average open price short is highlighted in **bold blue**, while average open price long is highlighted **bold red**.

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**Note:** MD Trader™ average price rounds longs up and shorts down.

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## Average Price of Open Position

The average price of the open position is the average price of your long or short position. When an order is traded at an exchange, it is possible to receive fills at different price levels. You can use this price point to gauge whether trading out of your position will provide you with a realized gain, loss, or scratch.

When you first open **MD Trader™**, the value of the open position is based on the current open position for the product. If no open position exists, then the average price equals zero.

To determine the price of the open position, a **First In First Out (FIFO)** method is used for filled orders. The first fills received are the first fills discarded when determining the average price.

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**Note:** MD Trader™ average price rounds longs up and shorts down.

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## Using the Mouse to Center the Market

You can use the mouse to 'center the market' by clicking anywhere within the **MD Trader™** window. This automatically shifts the grid to show the center of the market.



## Deleting Orders

There are several ways to delete your orders:

▶ **To delete all of your orders:**

If you have the **Options** dialog box set to do so, a left or right click on any grid cell in the **Last Traded Quantity** column deletes all of your working bids and offers.

**Or:**

Click the **Delete All** button.

▶ **To delete single orders:**

To delete a single order, click its cell in the **Working Quantity** column.

▶ **To delete all Bids or all Offers:**

To delete all of your bids or all of your offers, you must have the **Del Bids** or **Del Offers** buttons enabled in the **Options** dialog box.

If these buttons are present in the **MD Trader™** window:

- Click **Del Bids** to delete all working bids
- Click **Del Offers** to delete all working offers

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## Displaying the Mid-Point of Inside Market

To make it easier to identify the mid-point of the inside market, **MD Trader™** now places a bold line in the **MD Trader™** grid at the mid-point. The mid-point line appears midway between the best bid and best offer in the market. If there is a one-sided market the mid-point line appears directly above or below the best bid or offer in the market, respectively. If there is no market, then the line appears at the last trade price.

If the number of price rows (or ticks) between the best bid and best offer is an odd number, then the mid-point line appears in the upper cell of the middle value. If the number of price rows is an even value (or zero), then the mid-point appears between the middle values.

This is a property that can be enabled (default) or disabled via a checkbox on the **MD Trader™ Options** dialog box. To disable it, uncheck the **Highlight Midpoint of Last Recenter** checkbox.

## Implieds in MD Trader™

Implied prices and quantities are derived from direct orders in a combination of outright contracts and spreads/strategies. Implied pricing evolved at exchanges that trade different contract months of a product as well as spreads and strategies involving different combinations of the contract months. For example, a bid in 1 contract month and an offer in a 2nd contract month can be combined to "imply" a bid in the spread between the 2 months.

By calculating and displaying implied prices and quantities, exchanges found that they could sometimes improve the best bid/ask price or add liquidity to certain contracts or strategies.

Use the **Properties Trading** tab, to calculate implieds in **MD Trader™** (as well as the **Market Grid**, **Autotrader™** and **Autospreader™**):

- **Calculate Implieds for spreads instead of using Exchange Implieds.**

Because some exchanges only display implied pricing data when the implied prices and quantities are at the best price in the market, you may not see some implied values.

This new feature calculates and displays implied pricing in Market Depth as well as the inside market.

To enable this feature, open the Properties Trading tab and the click **Calculate Implieds instead of using Exchange implieds** option.

- **Implieds From Implieds:** After you enable **Calculate Implieds instead of using Exchange Implieds**, you can enable the **Implieds From Implieds** option. X\_TRADER® also calculates and displays implieds from implieds values (sometimes called 2<sup>nd</sup> generation implieds).

- **Include Implieds for spreads in Market Columns and in Depth.** Displays Implied price and quantity data in the same columns as direct price and quantity data.

To enable this feature, open the Properties Trading tab. Click **Include Implieds in Market columns and in Depth** option.

Displays implied outright, implied spread, and implieds from implieds quantities and prices in market data columns.

## Net Change Indicator

The **Net Change** indicator displays a net change in price for a traded product in the current day measured against the previous day's settlement price.

The net change is color coded: **red** for a negative change; **green** for a positive change.

The unit of measure is in tick increments for the product. The net change indicator is a small box immediately above the system clock on the **MD Trader™** window.

## Selecting a Customer Profile

The customer profile is one of any in the **Customer List**. To create and maintain the Customer List, from the **Control Panel**, point to the **Settings** menu and click **Customer Defaults**.

**Note:** Certain markets require that a customer name be selected from this list before any trades enter the market. These include: **CME**, **ENxtFut**, and **ENxtOpt**

▶ **To select a customer profile in MD Trader™:**

1. Click on the arrow in the **Customer List** box.
2. Choose a customer name from the list.

## Setting the Default Quantity

Setting the **Default Quantity** is not required, but once an initial order has been sent to the market, the **Order Quantity** field continually resets itself to the **Default Quantity** after each trade. This field can be manually edited.

▶ **To set the Default Quantity:**

1. Left-click in the **Default Quantity** field of **MD Trader™**.
2. Use the **Delete** key on the keyboard to clear the contents of the field.
3. Enter a value for the **Default Quantity**.
4. Press **ENTER** to set the Default Quantity.

The maximum quantity for any trade is now enforced by the maximum order quantity value. However, the restrictions established by Guardian take precedence over the maximum trade quantity defined for the **MD Trader™**.

## Setting the Trade Quantity

**MD Trader™** requires setting an order quantity to trade. This is defined in the **Order Quantity** field of **MD Trader™**. Once an initial order goes to the market, the **Order Quantity** field continually resets itself in the **Default Quantity** field after each trade. The **Default Quantity** field can be manually edited.

**Note:** The size of the order is limited by the order quantity restriction that may have been set in the maximum trade quantity field. However, the restrictions established by Guardian take precedence over the maximum trade quantity defined for **MD Trader™**.

## Text and Grid Colors

Many of the grids, text boxes, and indicators in **MD Trader™** are color coded to give you a visual indication of market position and other information. The grid below gives a summary of the default colors associated with columns in **MD Trader**:

Column or Text Box	Associated Colors
<b>Working Quantity Column</b>	Foreground color: Gray Working Sell Text: Red Font Working Buy: Blue Font Executed Sell: Blue Font Executed Buy: Red Font
<b>Net Position Box</b>	Background color: Red or Green depending on position. Short Position: Red Font Long Position: Green Font
<b>Bid Column</b>	Foreground color: Blue Font Color: White
<b>Sell Column</b>	Foreground color: Red Font Color: Black
<b>Last Traded Quantity Column</b>	Foreground color: Gray Offer Lifted: Red Font Bid Hit: Blue Font

You also have the option of using a customized set of colors in **MD Trader™**, which can be set using the Color tab of the X\_TRADER® Properties dialog box. Using this tab, you can individually set the color display for the following **MD Trader™** features:

- MD Trader™ LTQ Up Background
- MD Trader™ LTQ Up Text
- MD Trader™ LTQ down Background
- MD Trader™ LTQ down Text
- MD Trader™ LTQ No Change Background
- MD Trader™ LTQ No Change Text
- MD Trader™ Net Long Position Background
- MD Trader™ Net Long Position Text
- MD Trader™ Net Short Position Background
- MD Trader™ Net Short Position Text
- MD Trader™ Net Position Flat Background
- MD Trader™ Net Position Flat Text
- MD Trader™ Blank Spaces Bid Column Background
- MD Trader™ Blank Spaces Ask Column Background
- MD Trader™ Working Orders Sell Background
- MD Trader™ Working Orders Sell Text
- MD Trader™ Working Orders Buy Background
- MD Trader™ Working Orders Buy Text
- MD Trader™ Bid Column Buy Background
- MD Trader™ Bid Column Buy Text
- MD Trader™ Ask Column Buy Background
- MD Trader™ Ask Column Buy Text
- MD Trader™ Average Price of Long Position Background
- MD Trader™ Average Price of Long Position Text
- MD Trader™ Average Price of Short Position Background
- MD Trader™ Average Price of Short Position Text

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## Using Drag-and-Drop to Change Working Orders

You can use the drag-and-drop technique to move working orders from one location to another in **MD Trader™**.

▶ **To use drag-and-drop to move a working order:**

1. Right-click and continue holding down any price and working cell information in the **Working Quantity** column. (Be very careful here, since a right-click and release will result in deleting the order from the market!)
2. Drag and drop the price/quantity to the empty cell where you want to place the order and release the button.

## Using Stop Order Feature

**MD Trader™** supports the stop market and limit order types for the products traded through it. In the case of the stop limit order, you can also set the number of ticks from the stop entry price. These stop order types are enabled or disabled via a property on the **MD Trader™ Options** dialog box.

▶ **To enable the Stop Market feature:**

1. Right-click in **MD Trader™** to open the context menu.
2. Click **Properties** to open the **Options** dialog box.
3. Put a check in the box before the **Enable Stop Market Orders** listing in the **Stop Orders** section of the dialog.
4. Click **OK** to return to **MD Trader™**.

A button labeled **SM** appears in **MD Trader™**.

▶ **To enable the Stop Limit feature:**

1. Right-click in **MD Trader™** to open the context menu.
2. Select **Properties** to open the **Options** dialog box.
3. Put a check in the box before the **Enable Stop Limit Orders** listing in the **Stop Orders** section of the dialog.
4. Optional: Set the stop limit price tick entry from stop entry price.
5. Click **OK** to return to **MD Trader™**.

A button labeled **SL** appears on **MD Trader™**.



▶ **To set a stop market order:**

1. Select a quantity to go into the market.
2. Left-click on the **SM** button in **MD Trader™**. It turns yellow.
3. Continue to hold the left button down and drag the indicator (labeled stop in yellow) to the price **Buy** or **Sell** column opposite the tick value where you want to put the stop.
4. Release the button. The stop is placed and indicated in the **Working Quantity** column as a stop.

▶ **To set a stop limit order:**

1. Select a quantity to go into the market.
2. Left-click on the **SL** button in **MD Trader™**. It turns yellow.
3. Continue to hold the left button down and drag the indicator (labeled stop in yellow) to the price buy or sell column opposite the tick value where you want to put the stop.
4. Release the button. The stop is placed and indicated in the **Working Quantity** column as a stop.

# MD Trader™ Options Dialog Box

**IMPORTANT:** The "Enable Drag/Drop of Working Orders" property has been REMOVED. This option is now a standard feature with MD Trader.

"Participate in Global Recentering" defaults to ON

"Volume By Price" now defaults to OFF

"Bid/Ask Text Justification" Ask Text Justifies to RIGHT (R)

The screenshot shows the 'MD Trader Options for EURXUS-A FTNM JUN04' dialog box. It is organized into several panels:

- GUI Options:** Includes checkboxes for Show Tooltips, Show Clock, Show Customer Account Name, Show IDC Checkbox, Show BTC Checkbox, Show Delete All Button, Show TradeOut Button, Show Bid Indicator Column, Show Ask Indicator Column, Color Code Blank Spots, Keep MD Trader on Top, Do "Delete All" when LTO Column Clicked, Left Button actions on Mouse DOWN, Allow only one order per side of market, Use Inside Market Prices, Enable Keyboard and Function Key Trading, Highlight Midpoint of Last Recenter, Enable Average Price, Show Bold Text on Bid/Ask Column, Set row height (20), Show High/Low Display, Recenter on Price Col Left Double Click, and Participate in Global Recentering.
- Format:** Includes input fields for # digits for Working/Exec (3) and # digits for Price Display (11), with OK and Cancel buttons.
- Price Consolidation:** Includes # Prices per line (1), Offset (0), and Show Slider Control Increment (Ticks) (1).
- Order Parameters:** Includes Maximum Order Quantity (0).
- TradeOut Method:** Includes radio buttons for Using LIMIT Order (selected) and Using MARKET Order, with # of ticks to skew (0).
- Implied Quantity Display:** Includes checkboxes for Display Total Quantity, Display Implied Quantity Indicator (I), and Display Implied Quantity Columns.
- Volume By Price:** Includes checkboxes for Enable, Text, and Mouse Tooltips, with a Change By field (10).
- Bid/Ask Text Justification:** Includes checkboxes for Bid and Ask text justification, with options for Left (L) and Right (R) alignment.
- Stop Orders:** Includes checkboxes for Enable Stop Market Orders and Enable Stop Limit Orders, with a Set Stop limit price field (5) and ticks from stop entry price.
- Right Click Action in Buy/Sell Column:** Includes checkboxes for Enable, Sweep w/Max Qty, and Use 2nd Default Qty (0).
- Display Delete Buttons/Working Quantity Totals:** Includes radio buttons for Display Working Buys/Sells - Text Only, Delete Total Working Buys/Sells - Quantity on Button, Delete Bids/Offers - Button Only, and Display Working Buys/Sells as Text and Delete Bids/Offers as buttons.

Use the MD Trader™ Options dialog box to set custom trading parameters and the appearance of MD Trader™. You can save the customized windows as workspaces.

When you are done making changes to the MD Trader™ Options dialog box, click OK to save your configuration and close the window.

Clicking Cancel closes the MD Trader™ Options dialog box without saving changes.

Section	Description
<b>GUI Options Section</b>	
<b>Show Tooltips</b>	Whenever you hover the cursor over an <b>MD Trader™</b> button or field, a popup explanation appears.
<b>Show Clock</b>	Displays the <b>System Clock</b> .
<b>Show Customer Account Name</b>	Displays the <b>Customer List</b> box.
<b>Show IOC Checkbox</b>	Displays an <b>IOC</b> (Immediate or Cancel) check box.
<b>Show GTC Checkbox</b>	Displays a <b>GTC</b> (Good to Cancel) check box.
<b>Show Delete All Button</b>	Displays a <b>Delete All</b> button.
<b>Show TradeOut Button</b>	Displays <b>Trade Out</b> button in <b>MD Trader™</b> .
<b>Show Bid Indicator Column</b>	Displays the <b>Bid Indicator</b> column. You can paste an Excel link into this column to display a theoretical price indicator for your bids.
<b>Show Ask Indicator Column</b>	Displays the <b>Ask Indicator</b> column. You can paste an Excel link into this column to display a theoretical price indicator for your offers.
<b>Color Code Blank Spots</b>	Allows for color coding of blank spots. To set colors, go to <b>X_TRADER®</b> 's Properties Color tab.
<b>Keep MD Trader™ on Top</b>	Displays <b>MD Trader™</b> always on top of desktop.
<b>Do "Delete All" when LTQ Column Clicked</b>	Sets <b>MD Trader™</b> to delete all of your working orders by clicking in the <b>Last Traded Quantity</b> column.
<b>Left Button actions on Mouse DOWN</b>	Actions performed with left mouse button immediately activate.
<b>Allow only one order per side of market</b>	A new order submission replaces any existing order in the market.
<b>Use Inside Market Prices</b>	In slow markets, feature uses inside market to update <b>MD Trader™</b> information.

Section	Description
<b>Enable Keyboard and Function Key Trading</b>	Enables Keyboard Trading functionality in MD Trader™. Adds colored cursors to the Buy and Sell columns that determine the price level for entering orders.
<b>Highlight Midpoint of Last Recenter</b>	Highlights the midpoint of the last price recentering.
<b>Enable Average Price</b>	Highlights average open price long and short.  MD Trader™ average price rounds longs up and shorts down.
<b>Show Bold Text on Bid/Ask Column</b>	Text in the bid and ask columns is bolded.
<b>Set row height</b>	Sets row height for display.
<b>Show High/Low Display</b>	Adds yellow and red lines to designate the day's highest and lowest prices (respectively) at which the contract traded. All prices between the high and low are displayed in a darker gray color.
<b>Recenter on Price Col Left Double Click</b>	Double-click the Price column to re-center the MD Trader™ grid.
<b>Participate in Global Recentering</b>	The property for this setting defaults to ON. New and existing workspaces are automatically affected by the property.  Ability to globally recenter all MD Trader™ windows. Therefore, when you recenter one MD Trader all MD Trader windows automatically recenter.  If you manually disable this property for a particularly window, that window does not recenter when your other MD Trader windows recenter and will only recenter when you manually recenter it.  This property works independently of the Automatic Grid Centering feature.
<b>Implied Quantity Display Section: Allows you to choose how the quantity of the ¼ 32<sup>nd</sup> price displays when it is available.</b>	
<b>Display Total Quantity</b>	MD Trader™ window displays entire quantity at the correct tradable price, rounding bids down and offers up.
<b>Display Implied Quantity Indicator (*)</b>	MD Trader™ window displays the entire quantity, rounding bids down and offers up, with an asterisk ( * ) next to the closest price.  This is the default.

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Section	Description
<b>Display Implied Quantity Columns</b>	<b>MD Trader™</b> window displays the available quantity at the ¼ tick better price in separate columns for bid and ask quantities. These columns display in the same color as <b>Bid</b> and <b>Ask</b> columns, but display the better quantity in a smaller font.
<b>Volume By Price Section</b>	
Each setting in this section is complementary. You can select all available manners of displaying <b>Volume By Price</b> . <b>MD Trader™</b> 's <b>Volume by Price</b> feature only tracks volume from the time you opened <b>MD Trader™</b> . The values that <b>MD Trader™</b> generates and displays are <i>approximations</i> . They are not guaranteed to be the exact trading volumes for any given trading period. Incorrect or under-reported actual volume may occur due to price consolidations at the exchange or Gateway levels.	
<b>Enable</b>	Enables the <i>volume by price</i> display in the <b>Last Traded Quantity</b> column.
<b>Text</b>	Displays total <i>volume by price</i> in text. The slide bar to the right sets the text alignment.
<b>Bars</b>	Displays total <i>volume by price</i> in bar chart format. The slider bar to the right sets the bar alignment.
<b>Mouse Tooltips</b>	Displays total <i>volume by price</i> as text in a tool tip when you hover the mouse cursor over the particular cell in the Last Traded Quantity column.
<b>Bar Qty</b>	Sets the number of trades each bar represents:  A lower number increases the number of bars displayed when several trades have occurred at that price.  A higher number decreases the number of bars displayed when several trades have occurred at that price.
<b>Change By</b>	Sets the number that the Bar Qty changes when you press <b>CONTROL</b> and the <b>ARROW RIGHT</b> or <b>ARROW LEFT</b> keys.  The <b>CONTROL</b> and <b>ARROW RIGHT</b> combination lowers the Bar Qty by the value you type in this box.  The <b>CONTROL</b> and <b>ARROW LEFT</b> combination increases the Bar Qty by the value you type in this box.  In this manner, you can adjust the bar size while trading without reentering the <b>MD Trader™ Options</b> dialog box.

Section	Description
<b>Format Section</b>	
# digits for Working/Exec.	Sets the number of digits displayed for the working/executed display. Left side digits are truncated.  Maximum number is 11.
# digits for Price Display	Sets the number of digits displayed in the price column. Left side digits are truncated.  Maximum number is 11.
<b>Price Consolidation Section</b>	
# Prices per line	Enter the number of rows to use when consolidating price information.  You can consolidate prices in <b>MD Trader™</b> using the <b>Price Consolidation</b> slider. See the option called <b>Show Slider Control</b> .
Offset	Enter the Offset to use when consolidating rows.
Show Slider Control	Shows a slider control in <b>MD Trader™</b> . Use this slider to consolidate prices by the number of ticks you set in the <b>Increment (Ticks)</b> option.
Increment (Ticks)	Type the number of ticks the <b>Price</b> column consolidates prices for each movement of the slider control.
<b>Order Parameters Section</b>	
Maximum Order Quantity	Enter your maximum order quantity permitted during trading.  To use <b>MD Trader™</b> , you must type a number greater than zero (0) in this box.

Section	Description
<b>TradeOut Method Section</b>	
Trade Out feature allows you to flatten your position. Before MD Trader™ submits an offsetting order, it sends <i>delete requests</i> for all working orders for that contract. A second trade out request may be required if an existing working order was filled.	
<b>Using LIMIT Order</b>	Default. Indicates that the <b>Trade Out</b> method is by LIMIT order.  Using a LIMIT order to trade out does not guarantee that your order will be executed because the market may move before you enter the order.
<b># of ticks to skew</b>	<b>MD Trader™</b> determines your position (long or short) and then calculates the ticks to skew off the inside market price at which your position is flattened. If long, the bid price is evaluated, and if short, obviously the ask is key.  Assigning a specific number of ticks to skew assures that your order, once entered, ( <i>not necessarily executed</i> ) is only a pre-determined distance from the inside market <i>at the time you submitted the order</i> . Therefore, upon selecting the <b>TradeOut</b> button, the <i>current</i> inside market is reviewed and <b>MD Trader™</b> enters an order based on the price at that time. If the market is moving rapidly and the offsetting price is no longer available, the system leaves this order as a working limit order at the price determined at the time the <b>TradeOut</b> button is clicked.
<b>Using MARKET Order</b>	Indicates that the <b>Trade Out</b> method is Market order.  In <b>Market Order</b> mode, there are no "# of ticks to skew" to evaluate. A market order seeks out the available offsetting order and executes against it.
<b>Automatic Grid Centering Section</b>	
<b>This feature works independently of the Participate in Global Recentering feature.</b>	
<b>Enable Automatic Grid Centering</b>	Enables <b>MD Trader™</b> to automatically recenter itself based upon the parameters you set.
<b>Every X seconds</b>	<b>MD Trader™</b> recenters automatically after the number of seconds that you type in this box.
<b>Last Traded Price Within X rows from top to bottom</b>	The last traded price highlights on the set number of rows from top to bottom of the grid. You can set the time duration with the spin control.

Section	Description
<b>Inside Market Within X rows from top to bottom</b>	The inside market highlights on the set number of rows from top to bottom of the grid. You can set the time duration with the spin control.
<b>Enable Grid Recenter warning</b>	Before MD Trader™ recenters, it flashes.
<b>Stop Orders Section</b>	
<b>Enable Stop Market Orders</b>	Enables stop market order button on the MD Trader™ window (the default).
<b>Enable Stop Limit Orders</b>	Enables stop limit button on the MD Trader™ window.
<b>Set Stop limit price X ticks from stop entry price</b>	Sets the number of ticks the stop limit price is from the stop entry price.
<b>Delete Buttons/Working Quantity Totals Section</b>	
<b>Display Delete Buttons/ Working Quantity Totals</b>	Enables you to select how your delete buttons are configured and how your working orders are displayed using the options listed in this section.
<b>Display Working Buys/Sells - Text Only</b>	Displays your working bids and offer in text windows.
<b>Delete Total Working Buys/Sells - Quantity on Button</b>	Displays separate delete buttons for your working bids and offers. These buttons display the total working quantities for each.
<b>Delete Bids/Offers - Button Only</b>	Displays separate delete buttons for your working bids and offers. These buttons are labeled <b>Delete Offers</b> and <b>Delete Bids</b> .
<b>Display Working Buys/Sells as Text and Delete Bids/Offers as buttons</b>	Displays your total working quantity of bids and offers in a text box to the left of your <b>Delete Offers</b> and <b>Delete Bids</b> buttons.
<b>Right-click Action In Buy/Sell Column Section</b>	
<b>Enable</b>	Enables a right-click function other than the context menu. When enabled, the right-click function (sweep or second default quantity) is accessible only by right-clicking in the <b>Bid</b> or <b>Ask</b> columns.
<b>Sweep w/Max Qty</b>	Sets the right-click to sweep the market using your Maximum Order Quantity.
<b>Use 2<sup>nd</sup> Default Qty</b>	Sets the right-click to submit a second default quantity in the <b>Bid</b> or <b>Ask</b> column at the price where you right-click. When using this option, you must type a quantity in the box to the



Section	Description
	right of the option.
<b>Bid/Ask Text Justification Section</b>	
<b>Bid</b>	Aligns the text in the <b>Buy</b> column to the right or left.
<b>Ask</b>	Aligns the text in the <b>Sell</b> column to the right or left.

## MD Trader™ Always on Top Feature

Users of the X\_TRADER® application should note that, when a number of windows are open at any one time, clicking on any one window with the mouse brings the window to the foreground of their desktop. Any window that has focus is the one in which keyboard or mouse actions take effect.

For some users of MD Trader™, the fact that changing focus has the effect of obscuring the trading window means that they cannot access the window easily (since MD Trader™ is enabled from the context menu of the Market window). To prevent this situation from occurring, MD Trader™ has a property in the Options dialog box that serves to keep MD Trader™ always on top of the desktop. When enabled, although focus can shift from MD Trader™ to another window, the window itself remains visible and on the top of the desktop.

To enable the **Always on Top** feature, click the **Keep MD Trader™ on Top** checkbox on the **Options** dialog box. The window now remains on top of the desktop.

## Auto Centering

When enabled, the auto centering feature available in **MD Trader™** automatically centers the grid display. This display property must be enabled from the **MD Trader™'s Options** dialog box. When enabled, the grid can also be set to flash before recentering. Refer to the **MD Trader™ Options** dialog box for further information on Auto Grid Centering.

**Note:** This feature works independently of the **Participate in Global Recentering** option in the **Options** dialog box

## Setting the Maximum Trade Quantity

**MD Trader** requires a maximum trade quantity to trade. Define a maximum trade quantity in the **Options** dialog box. Once entered, this quantity prevents you from entering any order that is larger than the preset amount.

For example, if the maximum trade quantity were set to '50', attempting to sweep the market with an order quantity of '300' is not permitted. Instead, the order is entered as a 50 lot, unless you enable TradeOut.

The maximum quantity for any lot is now enforced by the maximum order quantity value. However, the restrictions established by Guardian take precedence over the maximum trade quantity defined for **MD Trader™**.

▶ **To set the maximum trade quantity:**

1. Open the **Options** dialog box.
2. In the Order Parameter section, enter a **Maximum Trade Quantity**.
3. Click **OK** to close the **Options** dialog box.

## Price Consolidation

Price Consolidation condenses the display of price information in the static price column. You view a greater range of prices without inhibiting your view of the total quantity available.

The price consolidation feature may be configured to select an offset and an order distribution method (join the bid or offer) that enters orders for the consolidated price rows.

The *right MD Trader™* screen in the following screen shot displays a consolidated price.

**Note:** MD Trader™ is protected by U.S. Patents Nos. 6,766,304 & 6,772,132.

► **To consolidate your prices in MD Trader™:**

1. Right-click in MD Trader™ to open the **Options** dialog box.
2. Go to the **Price Consolidation** section of the **Options** dialog box.
3. Complete the fields.
4. To close the **Options** dialog box, click **OK**.

---

## Trading Out a Position Using One-Click

MD Trader™ makes it easy for you to flatten out your position. You can use your mouse or the keyboard.

▶ **To Trade Out using your mouse:**

1. Right-click in MD Trader™ to display the **Options** dialog box.
2. Click **Show TradeOut Button** to enable it.
3. Click **Apply**.

The **TradeOut** button automatically displays in MD Trader™.

4. Go to the **TradeOut Method** section of the **Options** dialog box and choose your trade out method:

- Using **LIMIT Order** <n#> of ticks to skew
- Using **MARKET Order**

5. Click **OK**.
6. Complete the trade and MD Trader™ automatically trades out your position.

Before sending the offsetting order, MD Trader™ sends delete requests for all working orders for that contract. MD Trader™ then sends an order that allows you to exit from your position regardless of your credit limit.

## Customizing MD Trader

### Adding Sound

If your desktop machine is equipped with a sound card and speakers, you can set X\_TRADER® to make sounds corresponding to a left or right click. These sounds can only be heard when you click on the action columns:

- Buy Side
- Sell Side
- Working Quantity
- Last Traded Quantity

These sounds are associated from the **Properties** dialog box, as are all the action sounds with the application.

### Customizing the Default Quantity Buttons

Each preset order quantity button in the **MD Trader™** window may be customized. This information is stored as part of a workspace so that re-opening the workspace sets the default quantity buttons to their custom value.

▶ **To define a custom preset order quantity:**

1. Right-click the **Preset Order Quantity** button.
2. Type a value using the keyboard.
3. Press **Enter**.

## Resizing the Window

- ▶ To resize the grid—that is, view more grid rows—in MD Trader™:

Use the X\_TRADER® Frame Command Bar.

Or:

Use the mouse to resize the bottom or top frame of MD Trader. Pulling down on the bottom of the frame displays more rows at the bottom of the grid. Pulling up on the top of the frame adds more rows to the bottom of the window.

## Using Drag and Drop to Move Grid Columns

You can use the mouse to drag-and-drop the columns in the MD Trader™ window to a different location in the grid.

- ▶ To drag and drop columns to different location in MD Trader™:

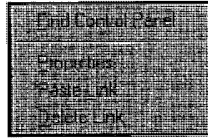
1. Left click at the top of the column and hold down the mouse button. A box outline appears beneath the mouse pointer.
2. Move the column left or right to the desired position. A red line indicates where the column is moving.
3. Release the mouse button. The column remains in its new location.

## Using the Mouse to Control the Zoom Feature

- ▶ To zoom the view in or out using the mouse wheel:

1. Hold down the **Ctrl** key on the keyboard.
2. Depress and use the mouse wheel to zoom MD Trader™ in or out.  
Releasing the **Ctrl** key freezes the view in its last position.

## Excel Links and Indicator Columns



A value may be pasted in the cell from an Excel spreadsheet using copy and paste. When a price appears in the price column that matches the pasted value in the buy or sell indicator column, a marker appears next to this price value. Indicators are saved as part of X\_TRADER® workspaces.

This feature allows you to indicate price points based on a proprietary algorithm. For example, you may paste the **Last Traded Price** for a product from the X\_TRADER® grid into an Excel spreadsheet. This Excel spreadsheet may then be used to perform a proprietary calculation and produce a new price value. When you cut and paste this value into the **Buy** or **Sell Indicator** columns of **MD Trader™**, you may base buy and sell decisions on the value and indication.

You may paste a link for both the **Buy** or **Sell Indicator** columns individually. You may paste a new link into the **Indicator** column, which overwrite a the existing link. You may also clear the link, which removes the indicator from the column. Links are not retained if the **Buy** or **Sell** column is hidden. Links are also not saved with X\_TRADER® workspaces.

► **To paste a link from Excel into the MD Trader window:**

1. Select the cell in the Excel spreadsheet you wish to copy.
2. Right-click and click **Copy**.
3. Right-click in **MD Trader™** to access the context menu.
4. Click **Paste Link**. An indicator appears opposite the price level of the pasted value.

► **To delete a link from MD Trader™:**

1. Right-click in **MD Trader™** to access the context menu.
2. Click **Delete Link**. The indicator is removed from **MD Trader™**.

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## Using the Mouse Versus the Keyboard

### Mouse Click Operation in the Working Quantity Column

A left or right click on any grid cell in the **Working Quantity** column deletes the working quantity of all orders at that price level. If the working quantity is for 50 orders, for example, in five separate 10-lot orders, all five orders are deleted. If there is only a single 50-lot order, then this single order is deleted.

### Using the Mouse to Control Order Quantity

Most users use the keyboard to enter order quantity amounts in the **Order Quantity** text box. However, you can also use the mouse wheel to increase order quantity.

Using the mouse wheel to increase or decrease order quantity is subject to two constraints:

You cannot increase the order quantity above the preset figure in the maximum trade quantity field (if any). However, the restrictions established by Guardian take precedence over the maximum trade quantity defined for **MD Trader™**.

Orders increase or decrease in the **Order Quantity** field by a quantity of ten orders.

▶ **To use the mouse wheel to increase or decrease order quantity:**

1. Hold down the **Shift** key on the keyboard.
2. Move the mouse wheel to increase or decrease the order quantity.



## Keyboard Trading in MD Trader™

In addition to click trading in MD Trader™ using a mouse, this version of X\_TRADER® allows you to use the keyboard to perform a variety of ordering functions. Keyboard trading functionality is mapped to default keys on the keyboard and to use the keyboard features they must be turned on from within the **Options** dialog box. Enabling the keyboard trading functionality does not disable the mouse functionality, it only provides an alternative to entering the information and executing a variety of orders. The keyboard trading functionality only works in MD Trader™ and is no related to the keyboard entry window available from the **Market** window.

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**Note:** You do not need to enable the keyboard to perform some functions in MD Trader™.

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### Enabling Keyboard Trading

Keyboard trading is disabled for MD Trader™ when X\_TRADER® is opened on the desktop. You must enable it manually from within MD Trader™.

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**Note:** You do not need to enable the keyboard to perform some functions in MD Trader™.

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▶ **To enable keyboard trading in MD Trader™:**

1. Open an instance of MD Trader™.
2. Right-click in the window to open the context menu and select **Properties**.
3. In the **Options** dialog box put a checkmark beside the entry **Enable Keyboard Trading**.  
Keyboard trading will be enabled for MD Trader™.

## Default Keyboard Mapping

The following main keyboard keys are mapped to specific MD Trader™ functions:

X_TRADER Functionality	Definition of Functionality	Default Keyboard Mapping
Enter Buy Order	A buy order will be entered @ specified price (determined by buy side cursor)	A
Enter Sell Order	A sell order will be entered @ specified price (determined by sell side cursor)	;
Delete Working Bid(s)	Delete the working bid(s) @ specified price (determined by buy side cursor)	S
Delete Working Sell(s)	Delete the working sell(s) @ specified price (determined by sell side cursor)	L
Delete All Bids	Delete all bids for a product	Shift+V
Delete All Offers	Delete all offers for a product	Shift+N
Sweep the offers	Buy order(s) will be entered to sweep the market from inside market up to specified price (determined by buy side cursor)	Ctrl+A
Sweep the bids	Sell order(s) will be entered to sweep the market from inside market down to specified price (determined by sell side cursor)	Ctrl+;
Trade Out	Deletes all working bids and offers and gets trader flat	Shift+T
Increase Buy Side Cursor	Cursor will increase one price level	D
Decrease Buy Side Cursor	Cursor will decrease one price level	C
Center Buy Side Cursor	Moves buy side cursor to best bid in market; if no bids, cursor will move to center of MD Trader™ grid	E
Increase Sell Side Cursor	Cursor will increase one price level	K
Decrease Sell Side Cursor	Cursor will decrease one price level	M
Center Sell Side Cursor	Moves scll side cursor to best offer in market; if no offers, cursor will move to center of MD Trader™ grid	I
Bring Focus to Order Qty Entry Field	Focus will be applied to the Order Qty field in MD Trader™	Q
Load Net Position in Order	Loads the trader's current net position into the Order Qty	P

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X_TRADER Functionality	Definition of Functionality	Default Keyboard Mapping
Qty Entry Field	Entry Field	
Center the Market	The MD Trader™ grid will be centered based on the inside market.	Space Bar

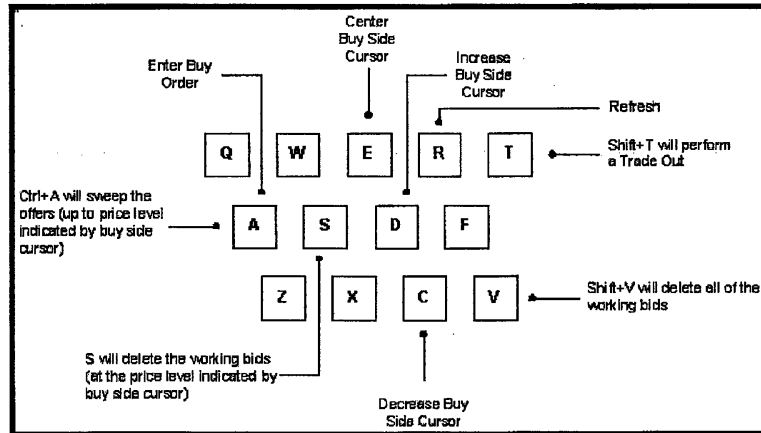
## Hot (Function) Key Mapping

The following Function (F 1-12) keys are mapped to specific MD Trader™ functions:

X_TRADER Functionality	Definition of Functionality	Default Keyboard Mapping
Delete All	All of the working orders will be deleted from the market	Esc
Join the Bid	A buy order will be entered @ the best bid price in the market	F4
Dime the Bid (a.k.a. Best/Better the Bid)	A buy order will be entered one tick above the best bid	F3
Lift the Offer (a.k.a. Take the Offer)	A buy order will be entered @ the best offer price in the market	F1
Delete the Bids	All of the working bids will be deleted from the market	F5
Combo join both the Bid & Offer	An buy and sell order will be entered to join the best bid and offer, respectively	F6
Dime both the Bid & Offer	An buy and sell order will be entered to dime the best bid and offer, respectively	F7
Delete the Offers	All of the working offers will be deleted from the market	F8
Join the Offer	A sell order will be entered @ the best offer	F9
Dime the Offer (a.k.a. Best/Better the Offer)	A sell order will be entered one tick below the best offer	F10
Hit the Bid	A sell order will be entered @ the best bid price in the market	F12
Market Buy	A market buy order will be entered	Shift+F1
Market Sell	A market sell order will be entered	Shift+F12

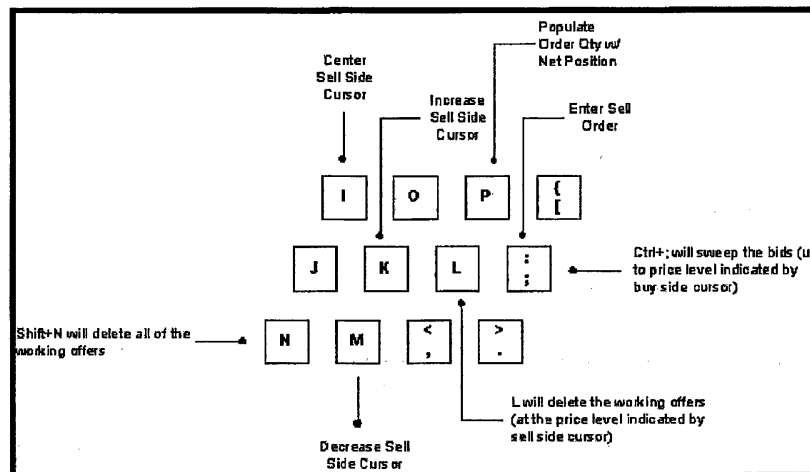
## Buy Side Keyboard Mapping

The following keys are mapped for buy side functions on the main keyboard.



## Sell Side Keyboard Mapping

The following keys are mapped for sell side functions on the main keyboard.



## Disabling Specific Keyboard Trading Functionality

Even if keyboard trading has been enabled through the **Options** dialog box, it is possible to disable specific functions so that pressing a key will not cause the action to be performed. The following specific functions can be disabled through the **Options** dialog box:

Keyboard functionality	To disable this functionality
Delete All, Delete All Bids, Delete All Offers	Uncheck the <b>Show Delete Buttons</b> option in the <b>Options</b> dialog box.
Trade Out Functionality	Uncheck the <b>Show Trade Out</b> option in the <b>Options</b> dialog box
Sweep Bids/Offers	Uncheck the <b>Do Sweep on Right Click</b> option in the <b>Options</b> dialog box

## Entering a Buy Order using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box you enter a buy order using the following actions:

▶ **To enter a buy order:**

1. Use the **D** and **C** keys to move the price level cursor to the desired limit price.
2. Use the **Q** key to focus keyboard entry on the **Order Quantity** field.
3. Type in the desired quantity of the buy order on the keypad.
4. Use the **A** key to send the buy order.

## Entering a Sell Order using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box you enter a sell order using the following actions:

▶ **To enter a sell order:**

1. Use the **K** and **M** keys to move the price level cursor to the desired limit price.
2. Use the **Q** key to focus keyboard entry on the **Order Quantity** field.
3. Type in the desired quantity of the sell order on the keypad.
4. Use the **;** key to send the sell order.

## Setting the Limit Price using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, the limit price (position of the cursor) for either the buy or sell side is set with the following keys:

Key	Buy Side	Sell Side
E	Center buy side cursor	
D	Increase buy side cursor	
C	Decrease buy side cursor.	
I		Center sell side cursor
K		Increase sell side cursor
M		Decrease sell side cursor.

## Using the Keyboard to Enter the Order Quantity

To manually enter an order quantity into the **Order Quantity** field of **MD Trader™** use the numeric keys on the keyboard. The **Order Quantity** field is immediately enabled and a cursor appears in the **Order Quantity** field. Any numbers entered through the keyboard display in this field. To return to normal keyboard trading, you must press **Enter**.

## Using the Keyboard to Load the Net Position in the Order Entry Field

To populate the **Order Entry** field in **MD Trader™** with the net position (in order to go flat in the market) use the **P** key.

## Deleting All Working Bids using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, use the **Shift** key plus the **V** key to delete all working bids from the market.

## Deleting all Working Offers using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, use the **Shift** key plus the **N** key to delete all working offers from the market.

## Deleting All Orders using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, use the **Shift** key plus the **Esc** (Escape) key to delete all orders in the market.

## Sending a Market Order using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can enter a market order using the **Shift** key in combination with the **F 1** key. The only time in force supported is a Good Till Day (GTD) order, and the only order restriction you can use is Immediate or cancel (IOC), available from the button in **MD Trader™**. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

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## Trading Out of a Position using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, use the **Shift** key plus the **T** key to trade out of a position in the market.

## Sweeping the Market using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can use the keyboard to sweep all the buys or sells up to a specified point set by the buy or sell side cursor.

▶ **To sweep the buys or sells in the market up to specified price point:**

**Buy side:**

1. Use a combination of the **D + C** keys to set the position of the buy side cursor.
2. Use the combination of the **Ctrl + A** keys to sweep the offers up to the price level indicated by the buy side cursor.

**Sell side:**

1. Use a combination of the **K + M** keys to set the position of the sell side cursor.
2. Use the combination of the **Ctrl (Control) + ;/;** keys to sweep the bids up to the price level indicated by the sell side cursor.



## Centering the Market using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can center the market by tapping the **Space Bar**. This will center the market in the **MD Trader™** grid display, but does not affect the position or location of the buy or sell side cursors, which are adjusted using a different set of mapped key strokes.

## Hitting the Bid Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "hit the bid" using the **F12** key. A sell order would be entered into the market at the current best bid in the market. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

## Taking the Offer Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "lift the offer" using the **F1** key. A buy order would be entered into the market at the current best offer in the market. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

## Dime the Offer Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "dime the offer" using the **F10** key. A sell order would be entered into the market one tick below the current best offer in the market.

## Dime the Bid Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "dime the bid" using the **F3** key. A buy order would be entered into the market one tick above the current best bid in the market.

---

## Join the Bid Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "join the bid" using the **F4** key. A buy order would be entered into the market at the current best bid in the market. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

## Join the Offer Using the Keyboard

Once keyboard trading has been enabled through the **Options** dialog box, you can "join the offer" using the **F9** key. A sell order would be entered into the market at the current best offer in the market. The quantity sold would be based on the traders current position or on the preset default order quantity.

## Using the Keyboard to Combo Dime the Bid or Offer

Once keyboard trading has been enabled through the **Options** dialog box, you can "combo dime the bid and offer" using the **F7** key. A sell order would be entered one tick better than the current best offer in the market and a buy order is sent one tick better than the current best bid price in the market. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

## Using the Keyboard to Combo Join the Bid and Offer

Once keyboard trading has been enabled through the **Options** dialog box, you can "combo join the bid and offer" using the **F6** key. A sell order would be entered at the current best offer in the market and a buy order is sent at the current best bid price in the market. The quantity sold would be based on the amount in the order quantity field or on the preset default order quantity.

## Game Pad Control

It is possible with keyboard functionality enabled to use a game pad control, which emulates keyboard key presses. In effect, using a gamepad maps the buttons on the gamepad to specific key strokes on the keyboard which, in turn, are mapped to specific **MD Trader™** window trading functionality. The gamepad plugs into the keyboard port on the workstation.

**Note:** Trading Technologies® has tested gamepad functionality in connection with keyboard mapping using the following product by Suncom. Trading technologies will not provide instructions on how to set up the gamepad with a keyboard nor does the company support users who do attempt to use this add-on in their trading. Traders wanting to use this functionality are encouraged to contact the gamepad manufacturer for specific instructions on how to connect this add-on into their system.

## Unrestricted Keyboard Functions

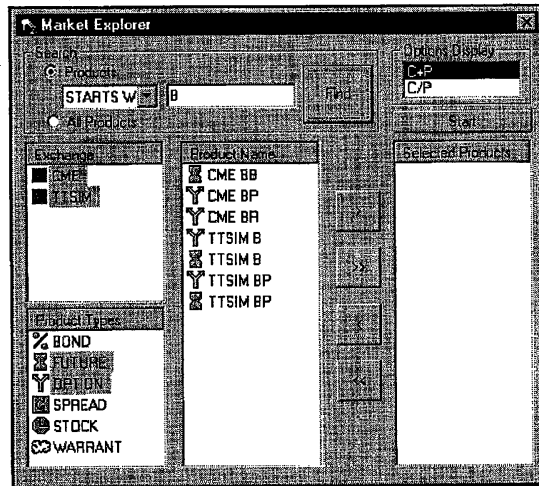
Certain keyboard functions can be used with *or* without the **Enable Keyboard and Function Key Trading** property enabled in the Options dialog box. If you press the keys specified below, **MD Trader™** performs certain functions. The list that follows describes the key and its related action.

<b>If;</b>	<b>Then;</b>
You press the numeral keys;  This does not refer to the number keypad.	<b>MD Trader™</b> enters the order quantity in the <b>Order Quantity</b> field.  For example, pressing the numeral 2, then 5 loads a 25 lot in <b>Order Quantity</b> field.
You press the <b>P</b> key;	<b>MD Trader™</b> loads your current position in the <b>Order Quantity</b> field.
You press the <b>Space</b> bar;	<b>MD Trader™</b> centers the grid.
You press the up arrow;	<b>MD Trader™</b> scrolls the grid up.
You press the down arrow;	<b>MD Trader™</b> scrolls the grid down.
You press the <b>Page Up</b> key;	<b>MD Trader™</b> grid pages up. You may no longer see available prices because it paged up too far.
You press the <b>Page Down</b> key;	<b>MD Trader™</b> grid pages down. You may no longer see available prices because it paged down too far.

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# Chapter 10

## Market Explorer



The **Market Explorer** is used to select markets and products you wish to trade from one or more available exchanges. By selecting an **Exchange** and **Product Types**, you select individual product(s) by **Product Name** and move them into one or more **Market** windows for trading.

Use the **Search** feature to quickly find a specific product. Select the **Exchange** and **Product Type**, and then enter one or more characters of the product name. Choose a search method (for example **STARTS WITH**) and then click **Find**. **Market Explorer** automatically displays the search results in the product name box. If you are logged on to only one exchange, you do not need to select the exchange. Alternatively, you can opt to display **All Products** for the selected exchange.

Use **Selected Products** to select a product or a range of products to display for trade in the **Order Entry** pane. You can also use the drag-and-drop functionality to drag a product from the **Market Explorer** into the **Order Entry** pane.


Use the **Market Explorer** to set the default display for options that appear in the **Market Grid** pane of the **Order Entry** window.

## Market Explorer Field Descriptions

Field/Button	Purpose
<b>Search Products Button</b>	The dropdown list in the search box offers a choice of filter criteria. You then enter a product name, description, or alias to search for.
<b>Find Button</b>	Applies the selected filter to the product name, description, or alias and then displays the results in the Product Name box.
<b>All Products Button</b>	Displays all products for the selected exchange and Product Type in the Product Name box.
<b>Exchange Box</b>	Lists all exchanges that you have logged into.
<b>Product Types Box</b>	List of product types for the selected exchange.
<b>Product Name Box</b>	List of all products for the selected exchange and Product Type after any filters have been applied.
<b>Options Display Box</b>	Choose the method used to display options in the Market grid and Order Entry pane of the Market window.
<b>Start Button</b>	Opens the Market window and transfers the Selected Products to the Market Grid.
<b>Selected Products Box</b>	Shows all products that have been selected in the Product Name box.
<b>Transfer buttons</b>	Transfers items to and from the <b>Product Name</b> and <b>Selected Products</b> boxes.

## Opening Market Explorer

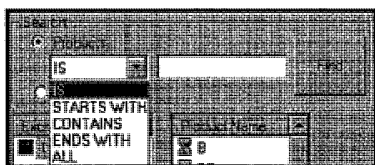
► To open the Market Explorer use either of these methods:

From the **Control Panel**, click the **Market Explorer** button .

**Or:**

From the **Control Panel**, open the **Window** menu and click **Market Explorer**.

## Using the Search Feature



► **To use the search feature on the Market Explorer window:**

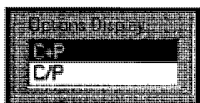
1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**  
Or  
From the **Control Panel**, click the **Market Explorer** button.
2. Select an exchange in the **Exchange** box.
3. Select the **Products** button in the **Search** box. The **Search** filters drop-down list and text entry box become operable.
4. Select a filter category from the drop-down list.

Option	Filters Characteristic
<b>IS</b>	Product name entered in text box is identical with exchange name/symbol.
<b>STARTS WITH</b>	Product name entered in text box starts with the first letter of the exchange name/symbol.
<b>CONTAINS</b>	Product name entered in text box is contained in the exchange name/symbol.
<b>ENDS WITH</b>	Exchange name/symbol ends with the letter(s) entered in text box.
<b>ALL</b>	Selects all available products for this exchange.

5. Enter the letter(s) in the text box to which the filter is to be applied.
6. Click the **Find** button to display the matching products in the **Product Name** box.



## Changing the Options Display



There are two separate views available to see options in the **Market Explorer**. The **Options Display** box is located in the top right-hand corner of the **Market Explorer**. Each selection represents a way to display options in the **Market Grid**.

<b>C+P</b>	<b>Market Grid</b> displays each strike on a single line of the Order Entry pane, with the calls on the left side and the puts on the right.
<b>C/P</b>	<b>Market Grid</b> displays each strike on two lines of the Order Entry pane, with the calls placed directly over the puts.

Use the mouse to select the **Options Display** (default is C+P). After you click the **Start** button the selected option product will appear in the **Market Grid**.

## Opening Market Window for One Product

► **To open a Market window for a single product:**

1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**  
**Or:**  
From the **Control Panel**, click the **Market Explorer** button.
2. Select an exchange in the **Exchange** box.
3. Select a product using the **Search** filters or from the **Product Name** box (with **All Products** displayed).
4. Click **Find**. Products display in the **Product Name** field.
5. Use the transfer button to transfer the product from the **Product Name** box to the **Selected Products** box.
6. Click **Start** to open the **Market** window and populate the **Market Grid** with the product.

► **To use drag-and-drop to populate the Market Grid (a Market window must already be open to use this feature):**

1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**  
**Or:**  
From the **Control Panel**, click the **Market Explorer** button.
2. Select an exchange in the **Exchange** box.
3. Select a product using the **Search** filters or from the **Product Name** box (with **All Products** displayed).
4. Click **Find**. Products display in the **Product Name** field.
5. Click and hold the left mouse button with the cursor over the selected product in the **Product Name** box. Continue holding the mouse button and move the mouse.
6. The cursor changes to a circle with a diagonal line through it.
7. Drag the cursor to the open **Market Grid** while continuing to hold the left mouse button down.
8. Release the left mouse button with the cursor in the open **Market Grid**. The product will be added to the **Market Grid**.

## Opening a Market Window for Multiple Products

► **To open a Market window with multiple products:**

1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**

**Or:**

From the **Control Panel**, click the **Market Explorer** button.

2. Select an exchange in the **Exchange** box.
3. Select a product using the **Search** filters (or with **All Products** displayed).
4. Click **Find**. Products display in the **Product Name** field.
5. To select multiple products from the **Product Name** box, press and hold the **CTRL** key before you select the first instrument. Select additional products as desired.
6. Continue pressing the **CTRL** key until you have selected all of the products you want to trade.
7. Use the transfer button to transfer the products from the **Product Name** box to the **Selected Products** box.
8. Click **Start** to open the **Market** window and populate the **Market Grid** with the selected products.

All products that you select while continuously holding down the **CTRL** key are displayed in one **Market Grid** pane.

► **To use the Market Explorer with drag-and-drop to populate the Market Grid:**

1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**

**Or:**

From the **Control Panel**, click the **Market Explorer** button.

2. Select an exchange (or exchanges) in the **Exchange** box.
3. Select products using the **Search** filters (or with **All Products** displayed).
4. Click **Find**. Products display in the **Product Name** field.
5. Select products from the **Product Name** box. Press and hold down the **CTRL** key before you select the first instrument. Continue pressing it while scrolling through the **Market Explorer** until you have selected all of the products you want to trade.
6. Click and hold the left mouse button with the cursor over the selected products in the **Product Name** box. Continue holding the mouse button and move the mouse.
7. The cursor changes to a circle with a diagonal line through it.
8. Drag the cursor to the open **Market Grid** while continuing to hold the left mouse button down.
9. Release the left mouse button with the cursor in the open **Market** window. The products are added to the **Market Grid**.

All products that you select while continuously holding down the **CTRL** key are displayed in one **Market Grid** pane.

## Using Drag-and-Drop to Populate the Market Grid

Drag-and-drop is a method that you can use to select a product or products from the **Market Explorer** and then drag them into the **Market Grid** pane of the **Market** window. You perform this action using by the left mouse button to select the product, and then continuing to hold the left mouse button down while moving the cursor. You must have both the **Market Explorer** and **Market** windows open when using this method.

▶ **To use the Market Explorer with drag-and-drop to populate the Market window:**

1. From the **Control Panel**, open the **Window** menu and click **Market Explorer**.

**Or:**

From the **Control Panel**, click the **Market Explorer** button.

2. Select an exchange in the **Exchange** box.
3. Select a product or products from the **Product Name** box. If you are selecting multiple products, you may press and hold the **CTRL** key and use the left mouse button to select multiple products that are not displayed successively. Continue pressing the **CTRL** key while scrolling through the **Market Explorer** until you have selected all the products you wish to trade.
4. Click **Find**. Products display in the **Product Name** field.
5. With the cursor over one of the selected products in the **Product Name** box, click and hold the left mouse button. Continue holding the mouse button and move the mouse.
6. The cursor changes to a circle with a diagonal line through it.
7. Drag the cursor to the open **Market Grid** while continuing to hold the left mouse button down.
8. Release the left mouse button with the cursor in the open **Market** window. The products are added to the **Market Grid**.

Drag-and-drop also works with products in the **Selected Products** box in the **Market Explorer**.


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# Chapter 11

## Market Maker

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Trading Technologies®' **Market Maker** is designed to provide you with a market making screen that allows you to enter two-sided orders with a single send command, as well as other market making features.

You access the **Market Maker** windows through the **MM** button  on the **X\_TRADER® Control Panel**.

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**Note:** Because of the multiple possibilities present in using mouse and click actions to trade in **Market Maker**, it is strongly recommended that trading be practiced in a simulation environment.

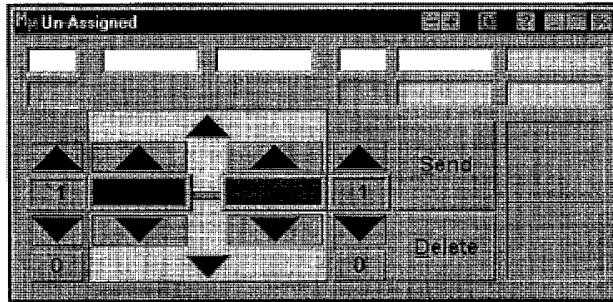
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## Market Maker Features

**Market Maker** has the following features:

- Provides a market making window that allows you to enter two-sided limit orders with a single keyboard or mouse command.
- Allows you to enter, change, and delete orders, and view position information from a single window.
- Allows you to set predetermined default trading quantities and spread values for order entry.
- Tracks price movement in a bar graph with user-defined timing options.
- Provides basic position limit and maximum lot size settings.
- Allows selection of an individual separate account for each window.

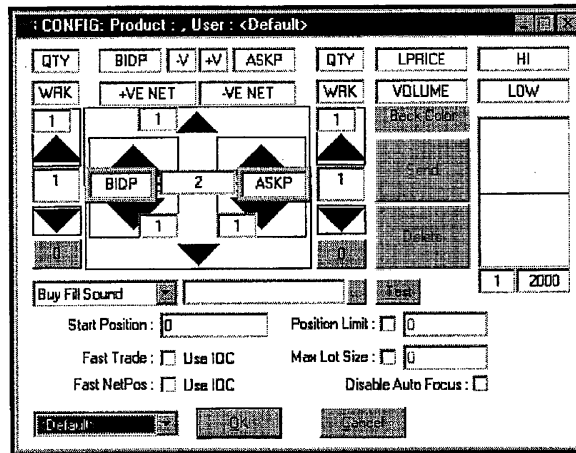
## Opening Market Maker



You use **Market Maker** to trade and make a market, you must open the application. This can be done in one of two ways.

- ▶ Use the following steps to open **Market Maker** from the **Control Panel**:
  1. From the **Control Panel File** menu, select **Plugin**, then **Market Maker**.
  2. The **Trading** window opens.
  3. Use the **Configuration** dialog box to define settings for **Market Maker**.
  4. Use the drag-and-drop method to put a product into the window from the **Market Explorer**.
  
- ▶ Use the following steps to open **Market Maker** from the **Market Grid of the Market Window**:
  1. Click to select a product in the **Market Grid**.
  2. Right-click in the grid to bring up the context menu.
  3. Select **Plugin**, then **Market Maker**.
  4. Use the **Configuration** dialog box to define settings for **Market Maker**.

## Configuration Dialog Box



You configure each **Trading** window using the **Configuration** dialog box to customize trading preferences and appearance.

You access the **Configuration** dialog box from the individual **Trading** window by clicking the **C** button on the **Title** bar.

The **Configuration** dialog box is used to define default trading quantities, spread values for order entry, sounds, starting position, and position limit. You can also format the background colors using the **Configuration** dialog box.

The **Configuration** dialog box also provides printed field names for those fields that show in the actual **Trading** window.



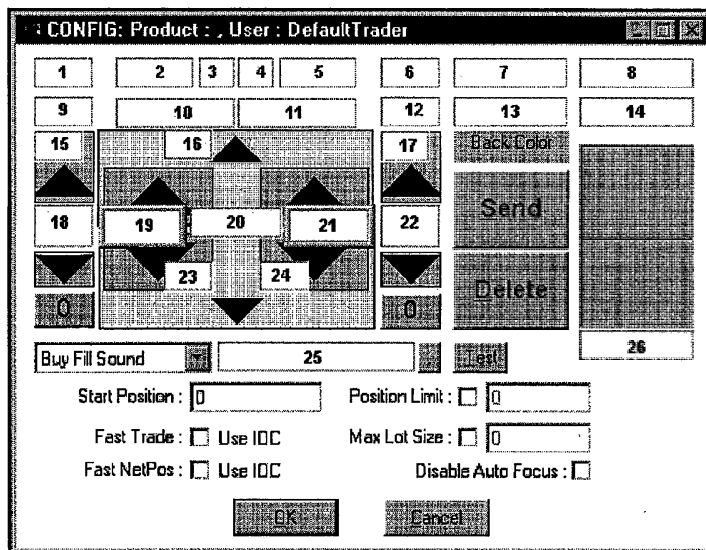
Configure the following fields:

- Default Bid Quantity
- Dual Multiplier
- Default Ask Quantity
- Minimum Spread value
- Bid Multiplier
- Ask Multiplier

You can also configure the window for:

- Select a given customer for each open **Market Maker** window
- Color for both the background grid and the text
- Sound; associating or disassociating with various changes in market position and mouse actions
- Position limits and starting values
- Maximum lot size
- Time limits for the **Trading** window **Trend Graph**

## Configuration Dialog Box Field Descriptions



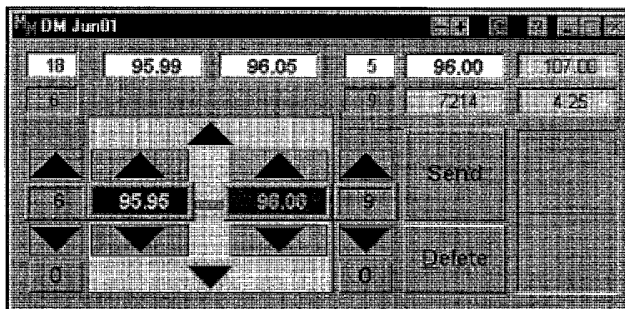
The fields in the **Market Maker Configuration** dialog box include:

Field	Definition
1 (Quantity)	Market Bid Quantity
2 (Bid Price)	Market Bid Price
3 (Color Selection)	-V Highlight Color
4 (Color Selection)	+V Highlight Color
5 (Ask Price)	Market Ask Price
6 (Quantity)	Market Ask Quantity
7 ((Last Traded Price)	Last Traded Price
8 (High)	Market High
9 (Working Buys)	Working Buys
10 (+ VE Net)	+VE Net long position
11 (- VE Net)	-VE Net short position

Field	Definition
<b>12 (Working Sells)</b>	Working Sells
<b>13 (Volume)</b>	Market Volume
<b>14 (Market Low)</b>	Market Low
<b>15 (Bid Multiplier)</b>	Bid Multiplier. Defines the Bid Quantity increment (in ticks).
<b>16 (Dual Multiplier)</b>	Dual multiplier. Defines price increments for both prices (in ticks).
<b>17 (Ask Multiplier)</b>	Ask Multiplier. Defines the Ask Quantity increment (in ticks).
<b>Back Color</b>	Background Selection Color Box.
<b>18 (Default Bid Quantity)</b>	Default Bid Quantity
<b>19 (Bid Price)</b>	Default Bid Price
<b>20 (Minimum Spread)</b>	Minimum Spread. Identifies the lowest spread price allowed (in ticks).
<b>21 (Ask Price)</b>	Default Ask Price
<b>22 (Ask Quantity)</b>	Default Ask Quantity
<b>23 (Bid Multiplier)</b>	Bid Multiplier. Defines Bid price increment (in ticks).
<b>24 (Ask Multiplier)</b>	Ask Multiplier. Defines Ask price increment (in ticks).
<b>Sound Selector</b>	Dropdown list of events to associate with a sound.
<b>25 File Selection)</b>	Sound File – Click on adjacent Browse button to open File search box to locate sound files.
<b>Test Button</b>	Tests sounds once they are associated with an event.
<b>Consolidate Tick Increment Box</b>	Tick multiplier used to consolidate the scale of the market ticker graph.
<b>26 (Ticker Speed Selection)</b>	Ticker Speed – Sets Trend Graph refresh rate (in milliseconds).
<b>Start Position Window</b>	Brings existing overnight position into the +VE or –VE net indicator.

Field	Definition
<b>Position Limit (Box)</b>	Check this box to bring the value in the field into the net position limit for this market.
<b>Fast Trade (Use IOC)</b>	Enables right-click trading, Immediate or Cancel.
<b>Fast NetPos (Use IOC)</b>	Default is checked. Immediate or Cancel.
<b>Max Lot Size (Box)</b>	Sets maximum lot size to be sent to market.
<b>Disable Auto Focus Checkbox</b>	When checked, disables auto-focus of mouse when cursor is placed over a field in the Trading window.
<b>Customer Selection Dropdown Box</b>	Shows list of customers from Customer Defaults dialog box. A different customer can be assigned for each Market Maker window.
<b>OK Button</b>	Closes the Configuration dialog box and saves the parameters.
<b>Cancel Button</b>	Cancel the Configuration dialog box.

## Display Color Definitions



When you initially open **Market Maker**, and set up a trading environment, there are no colors set up in the **Trading** window. You set the colors from the **Configuration** dialog box to suit your preferences. Doing so, however, will also change the colors of associated grid cells in the **Trading** window and each instance of the **Market Maker** from that time forward will display the new colors you have selected.

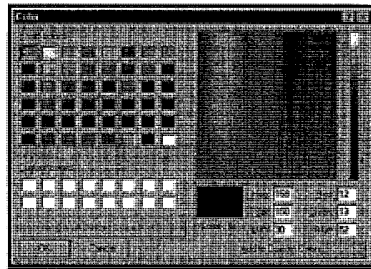
The grid fields and their associated color relationships are:

Grid Field Activity	Association/Display
No Working Orders	Zero displayed and quantity tick arrow color scheme.
Outstanding Orders	Working color, with quantity and price tick arrows in the same color.
Price (at or better than market)	Market price colors.
Bid Price (below market)	Bid price colors.
Ask Price (above market)	Ask price colors.
Market Price Change	Color changes to color defined as +V (for increase) or -V (for decrease) for a half-second, then reverts to normal color.

## Modifying the Display Color Definitions

The color scheme for the **Trading** window may be modified using the **Configuration** dialog box. You access the **Configuration** dialog box from the individual **Trading** window by clicking the **C** button on the title bar.

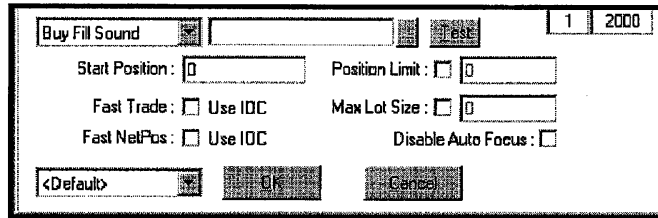
Clicking various controls and fields in the **Configuration** dialog box allows you to modify the color scheme. The **Color** dialog box is used to define custom colors.



► Use the following steps to modify the display color:

1. Open the **Configuration** dialog box from the individual **Trading** window by clicking the **C** button on the **Title** bar.
2. Left-click in a text box to define the foreground color.
3. Right-click in a field or text box to define the background color.
4. Right-click in an arrow to define the background color.
5. Left-click in the **Trend Graph** to define the line color.
6. Right-click in the **Trend Graph** to define the background color.
7. Left-click in the **+V** field to define the temporary color used to define a price increase.
8. Right-click in the **+V** field to define the background color.
9. Left-click in the **-V** field to define the temporary color used to define a price decrease.
10. Right-click in the **-V** field to define the background color.
11. Left-click in the **+VE** field to define the color used to define a positive position.
12. Right-click in the **+VE** field to define the background color.
13. Left-click in the **-VE** field to define the color used to define a negative position.
14. Right-click in the **-VE** field to define the background color.
15. Click **OK** to close the **Configuration** dialog box and save the color settings.

## Adding Sound



If you have a sound card and speakers attached to your workstation you can associate sounds to some of the trading actions that occur when you are using **Market Maker**. You can associate sounds to the following events:

- Buy Fill Sound
- Sell Fill Sound
- Send Order Sound
- Value Change Sound

### ► To add sound to an event in the Trading Window:

1. Click **C** on the title bar of any open **Trading** window.
2. In the **Configuration** dialog box, click on the dropdown arrow in the **Sound Selector** field and select an event.
3. Click on the **Sound file browse** button to bring up an **Open File** selection box.
4. Navigate through the drives in the **Open File** selection to find a sound .wav file you want to associate with the event and select it.
5. Click **OK** to close the **Open File** selection box.
6. Click **Test** to verify the sound is assigned to the event.
7. Click **OK** in the **Configuration** dialog box. The sound will now be associated with the event.

## Trend Graph



The **Trend Graph** provides a visual indication of price movement. The **Trend Graph** does not have a scale or grid, and cannot be saved as part of the X\_TRADER® Workspace.

The horizontal line in the center of the **Trend Graph** is always the **Last Traded Price**.

If the **Last Traded Price** is higher than the previous **Last Traded Price**, a blue line will connect the two prices in the **Trend Graph**.

If the **Last Traded Price** is lower than the previous **Last Traded Price**, a red line will connect the two prices in the **Trend Graph**.

## Setting the Update Rate on the Trend Graph

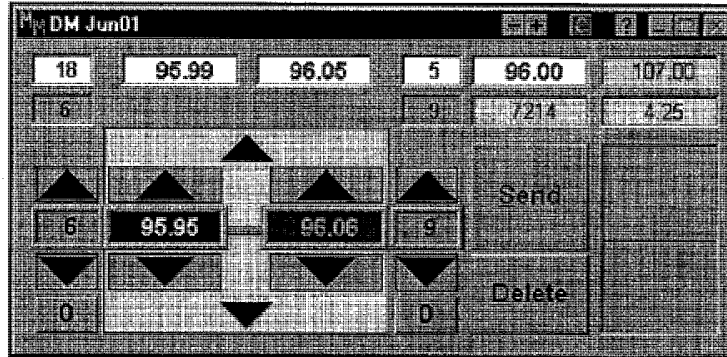
The **Trading** window displays a **Trend Graph** in the lower right hand portion of the window. This displays the last price movement to give you a visual indication of market trend for the product. You can set the update rate for the **Trend Graph** through the **Configuration** dialog box.

### ▶ To set the update rate in the Trend Graph:

1. Click **C** on the **Title** bar of any open **Trading** window.
2. In the **Configuration** dialog box, click on the box displayed beneath the bar graph to highlight the displayed number. The default is 2000 (milliseconds) or 1 update every 2 seconds.
3. Enter a value to increase or decrease the update rate.
4. Click **OK** to return to the **Trading** window.



## Market Maker Trading Window



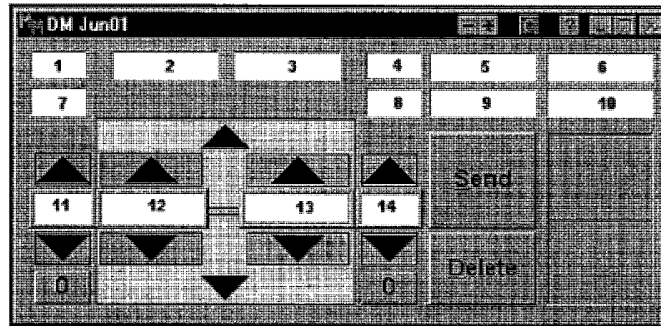
Trading for each product in **Market Maker** is done using the **Trading** window. One **Market Maker Trading** window is created for each product, allowing you to track multiple products during any one trading session. In order to create a working **Trading** window, you must first open the window, then populate and configure a **Trading** window for each product and account you want to trade.

**Note:** Because of the multiple possibilities present in using mouse and click actions to trade in **Market Maker**, it is strongly recommended that trading be practiced in a simulation environment.

► **In order to begin trading you follow this sequence:**

1. Open X\_TRADER®.
2. Open a Market window in X\_TRADER®.
3. From the **File** menu on the **Control Panel** open the **Market Maker** plugin.
4. Drag a product from the market or the **Market Explorer** window of X\_TRADER® into the **Trading** window of **Market Maker**.
5. Click the **C** button on the **Market Maker Trading** window title bar to open the **Configuration** dialog box.
6. Configure the product **Trading** window to suit preferences on display, colors, sounds, and product trading parameters.
7. Click **OK** to save the settings in the **Configuration** dialog box.
8. Begin trading.

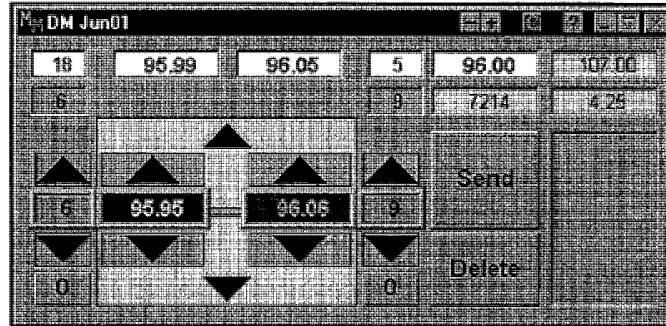
## Trading Window Field Descriptions



Field	Equal to Mouse Control Function
1	Market Bid Quantity
2	Market Bid Price
3	Market Ask Price
4	Market Ask Quantity
5	Market Last Traded Price
6	Market High
7	Working Buys
8	Working Sells
9	Market Volume
10	Market Low
11	Default Bid Quantity
12	Default Bid Price
13	Default Asking price
14	Default Ask Quantity
Send	Sends the order to market.
Delete	Deletes all orders from the market (both sides)
Trend Graph	Indicates upward or downward movement in the market.

Field	Equal to Mouse Control Function
0	Zero Bid Quantity
0	Zero Ask Quantity

## Generating a Buy or Sell Order



You generate a buy or sell order through a combination of mouse clicks or keyboard entries in the **Trading** window. It is necessary to first configure the **Trading** window to set your favored trading parameters, then use your mouse or keyboard to trade from the **Trading** window for each product in which you are creating a market.

## Fast Orders

To allow for fast trading, **Market Maker** makes use of pre-determined trading quantities and spread values to allow for rapid order entry. By using the left and right mouse buttons, an order may be submitted to the market extremely rapidly. This allows you to keep pace with rapidly changing market conditions.

▶ **To enter Fast Orders:**

- Right-click in the **Bid Price** field to immediately send an order for the quantity defined in the **Default Bid Quantity** field. The **Bid Price** is automatically adjusted to maintain the spread defined in the **Min. Spread** field of the **Configuration** dialog box.
- Right-click in the **Ask Price** field to immediately send an order for the quantity defined in the **Default Ask Quantity** field. The **Ask Price** is automatically adjusted to maintain the spread defined in the **Min. Spread** field of the **Configuration** dialog box.
- To send an order which buy or sell the current market bids/offers, right-click in either **Market Quantity** field.
- To trade out of the current position, right-click in the **+VE Net Pos** or **-VE Net Pos** field. The **Order Quantity** is updated based on the **NetPos** value, the **Market Price** field is updated accordingly, and the order is submitted.

## Deleting Orders from the Market

▶ **To delete all orders from a single market:**

Click on the **Delete** button located on the particular market's **Trading** window. Choosing the **Delete** button on the **Trading** window pulls both working orders (if there are any) from the market. Pressing the **Delete** key on the keyboard has the same effect.

**Or:**

Close the particular market's **Trading** window.

**Or:**

Send an order with a zero quantity to pull an order from the market.

## Removing Order from the Market

Any adjustments made to the 'Bid Price' or 'Ask Price' in a **Trading** window will immediately remove the respective order from the market. Adjustments to the quantity field are not updated until the next explicit **Send** command.

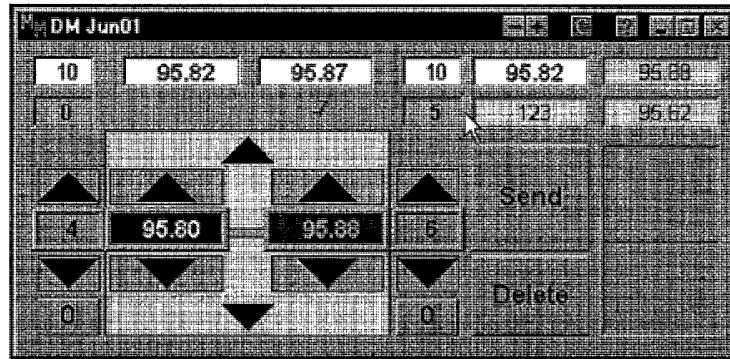
## Using Keyboard to Control the Market Maker Window

Although using a mouse is the preferred method to send orders to the market in **Market Maker**, you can also use the keyboard as an alternative to certain mouse actions. Keyboard keys and the functions they control are listed in the table below.

Keyboard key to entry field mapping:

Keyboard Key	Equal to Mouse Control Function
Number Pad 0	Send Order to Market
Number Pad 1	Down Bid Price
Number Pad 2	Down Both Price
Number Pad 3	Down Ask Price
Number Pad 7	Up Bid Price
Number Pad 8	Up Both Price
Number Pad 9	Up Ask Price
Multiply	Ask Price
Add	Up Bid Quantity Up Ask Quantity
Subtract	Down Bid Quantity Down Ask Quantity
Decimal	Delete
Divide	Bid Price

## Net Position Indicators



The net position in the **Market Maker Trading** window is indicated by the presence of a number that appears above the trading grid. Display of a number in either field is contingent on market position at the time. The two fields are identified as **+Ve Net Pos** and **-Ve Net Pos** respectively and, depending on the market position, only one or the other is visible at any one time.

These fields have a default color setting for both the background and the font, although this can be altered through the **Configuration** dialog box.

## Ticking Price Values for both Bid and Ask

To simultaneously set the price values for both bid and ask, click on either of the large arrows in the **Trading** window. This will reset the values either upward or downward by the tick value (which is set in the **Configuration** dialog box).

## Using Send Key to Update Orders

Once you have entered the trading values in the fields on the **Trading** window using the mouse or keyboard entry, choosing the **Send** button will update the current orders with the value requested.

Sending an order with a zero quantity has the effect of deleting the order.

A right-click on any of the arrows has the same effect as choosing the **Send** button. This allows you to use a left-click to adjust the value, followed immediately with a right-click to send in the order.

## Setting Quantity Fields to Zero

Clicking on either of the 0 fields in the **Trading** window automatically sets the associated quantity field to zero.

## Mouse Operations in Market Maker

Most trading operations conducted with **Market Maker** are designed to be performed using the mouse and a combination of right and left clicks to adjust trading quantity, pricing, and order placement. Once the products have been populated in the **Trading** window, a trader may use the mouse to perform almost all trading operations.

Any of the general mouse click actions listed below perform the action in the **Trading** window:

### Left Click Mouse Trading

Positioning the mouse cursor over one of the fields in the **Trading** window and then using a **left-click** results in the following actions:

Left-click in field	Results in the action
<b>Bid Price</b>	Populates price field with contents of Bid Price cell.
<b>Ask Price</b>	Populates price field with contents of Ask Price cell.
<b>Bid Quantity</b>	Populates order Quantity field with current outstanding order quantity.
<b>Ask Quantity</b>	Populates order Quantity field with current outstanding order quantity.
<b>Wrk Quantity field(s)</b>	Populates order Quantity field with current outstanding order quantity. If there are no outstanding orders, field will reset to the default quantity.
<b>-Ve NetPos</b>	Populates Order Quantity field to trade out of this position.
<b>+Ve NetPos</b>	Populates Order Quantity field to trade out of this position.



## Right-click Mouse Trading

In the **Trading** window, positioning the mouse cursor over one of the fields listed below and then right-clicking results in a variety of trading results.

Right-clicking on the:

- **Bid Price** field: Immediately sends an order to sell 'Req. Ask Qty' contracts @ 'Mkt Bid Price'. In the process of doing this, it will adjust the 'Req Bid Price' to be 'min spread' ticks (configured from the **Configuration** dialog box) lower than the order price in order to maintain the traders usual spread. The bid side is not sent to market at this point.
- **Ask Price** field: Works in the opposite manner. It will immediately send an order to buy 'Req. Bid Qty' contracts @ 'Mkt Ask Price', and adjust the 'Req. Ask Price' to above the new 'Req. Bid Price'.
- Either **Market Qty** field extends this to send an order designed to buy/sell out the current market.
- Either **+Ve NetPos** or **-Ve NetPos** field (whichever is displayed), will send an order to market to trade out of the current position at the current market price. It will update the order qty to the **NetPos** value, update the current market price, and then submit the order.

## Using the Mouse to Adjust Tick Values

If your mouse setup includes a center wheel, placing the cursor over one of the tickable fields or its associated arrows will allow you to adjust the field values with the mouse wheel. You can also make entries in these fields by placing the cursor over the field and then making entries via the keyboard.

## Using the Mouse Wheel to Adjust Field Values

If your mouse setup includes a center wheel, placing the cursor over either of the large **Tick Both** arrows, the **Send**, **Delete**, or **Zero Quantity** fields or buttons allows you to adjust both bid and ask prices using the wheel. Any adjustments made to the bid or ask price, will immediately pull the order from the market (if there is one).

Because of the multiple possibilities present in using mouse and click actions to trade in **Market Maker**, it is recommended that click trading be practiced in a simulation environment.

Adjustments to the quantity will not be updated until the next explicit **Send** command.

Click	To Perform
Left on any small arrow button	Tick up or down the associated value, using the tick multiplier set during configuration.
Left on any large arrow button	Tick up or down both price values together.
Left on either '0' button	Sets respective quantity field to zero.
Right on any arrow	Same action as choosing the Send button.

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