Release Notes 6.8.0

Release Date: Oct 13, 2023

https://www.motivewave.com/download.htm

Important Note: Data formats have changed in version 6 of MotiveWave. Workspaces created using older versions of MotiveWave will be forward compatible (ie they can be used in Version 6) but once the workspace has been opened in version 6, it will not be able to be opened by older versions. Please consider creating a new workspace for version 6 testing and restore from a backup of an existing workspace.

Version 6.8.0

- 1. **DOM** The Depth of Market (DOM) panel has been rewritten in this update and includes the following new features:
 - a. **Ticks Per Row** Allows you to combine price levels into a single row. Four aggregation options are available:
 - i. Up rows are collected up to the next price level
 - ii. Down rows are collected down to the next price level
 - iii. Offer Up/Bid Down Offer rows are collected up, Bid rows are collected down
 - iv. Round rows are rounded to the nearest price level.
 - b. **OCO Orders** OCO (One Cancels Other) can be places directly on the DOM using the new OCO selector in the tool bar.
 - c. **Order Connector Lines** OCO and child orders now have connector lines to make it easier to visual these relationships.
 - d. **LTQ** Last Trade Quantity can be displayed in the price column with an outline to show it the trade occurred at bid or at offer.
 - e. Cross Trade Cross trade is available in standalone DOMs
 - f. **Link Price** When attached to a chart the link price feature now works both when moving the chart or scrolling the DOM table.
 - g. **Bid/Ask Delta Column** New column that combines the Bid Delta and Ask Delta.
 - h. **Price Format** The price column can now be formatted to only show the last X digits
 - i. **Theoretical Average** Theoretical average for a position can now be displayed in the price column.
- 2. Order Book The Order Book has been rewritten and includes the following features:
 - a. **Ticks Per Row** Allows you to combine price levels into a single row. Four aggregation options are available:
 - i. Up rows are collected up to the next price level
 - ii. Down rows are collected down to the next price level
 - iii. Offer Up/Bid Down Offer rows are collected up, Bid rows are collected down

- iv. Round rows are rounded to the nearest price level.
- b. **Cumulative Volume** Displays a cumulative total of the volume for each row as a background on the table.
- c. Cross Trade Cross trade is available in standalone Order Books
- 3. Rithmic Added environments for NeuroStreet and Bulenox
- 4. Keyboard Shortcuts
 - a. Added a filter field to search for keyboard shortcuts (See General Preferences Dialog -> General -> Keyboard).
 - b. Added shortcut to toggle Exit Strategy (power on/off)

5. Volume Imprint Study

- a. **HVN/LVN** Added support for High Volume Nodes / Low Volume Nodes (see new HVN/LVN tab.
- b. **Gradient Contrast** Added a slider to adjust the contrast for color adjust gradient option (see Display tab).
- 6. Trade Report The Trade Report is now available in the Standard Edition.

7. General

- a. **Cancel Lease Button** If you have a recurring lease, you will see an option to cancel the lease from the Help -> About dialog.
- b. Max Linear/Non Linear Bars Increased the maximum to 9,999,999

Version 6.7.12

This is a bug fix only release. No new features have been added in this update.

Version 6.7.11

This is a bug fix only release. No new features have been added in this update.

Version 6.7.10

This is a bug fix only release. No new features have been added in this update.

Version 6.7.9

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Support/Resist Component Added an option to show top/bottom prices.
- 2. TradeStation Upgraded to V3 of the TradeStation API.

Version 6.7.8

- 1. Volume Imprint Added the following options:
 - a. Option to not print the volume using Thousands (K) and millions(M) formatting.

Version 6.7.7

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Volume Imprint Added the following options:
 - a. Scale histogram by Bar, Visible Bars or Chart Session (ETH or RTH)
 - b. Color histogram using Volume or Delta
 - c. Optional reverse coloring for Gradient option

Version 6.7.6

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **FXCM** Updated to their latest Java API.
- 2. **IQFeed** Upgraded to the latest protocol 6.2. This adds the following features:
 - a. **MBO** Market by order including individual orders and extra depth levels
 - b. **Aggressor Flags** Aggressor flags are used where available for determining atAsk/atBid values for live and historical Time/Sales data
- 3. Java 20 Upgraded to the latest Java runtime.

Version 6.7.5

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Coinbase** – Added support for Coinbase Advanced API. This is a replacement for the current Coinbase Pro API which will be deprecated soon.

Version 6.7.4

This is a bug fix release only. No new features are included in this update.

Version 6.7.3

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Save Live Tick Data** – For CQG and Rithmic, live incoming ticks (Time And Sales) can be saved to disk to avoid loading historical tick data from the server. This feature can be disabled from the Preferences Dialog (Configure -> Preferences from the Console menu bar, see Historical Data tab).

Version 6.7.2

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Chart Orders** – Added an option to create (but not submit) an order. By default this is disabled, but can be configured in the General Preferences Dialog (Configure -> Preferences, click on Orders then on Submission).

Version 6.7.1

This is a bug fix release only. No new features are included in this update.

Version 6.7.0

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Trade Copier** This feature enabled you to copy trades from a lead account to follower accounts. Chooser File -> New -> Trade Copier Account from the Console Menu Bar.
- Chart Orders The look and behavior of the chart orders has been updated in this release. Submission and Display options can be found under the General Preferences Dialog (Configure -> Preferences from the Console Menu bar, see "Orders" tab).
- 3. **Binance Futures** Support for USD-M Futures and COIN-M Futures have been added. Note: this is a separate connection from the existing Binance (Spot/Margin) service. Note: you will need to make sure your API key has been enabled for futures.
- 4. **Kraken Futures** Kraken futures are now supported. Note: this is a separate Kraken Futures connection from the existing Kraken Spot connection.
- 5. **IronBeam** connections for IronBeam via CQG and Rithmic have been added.
- 6. **Continuous Contracts** Another adjust method has been added: **Cumulative Diff Adjusted**. This option will apply the sum of all contract differences ahead of the current contract instead of just the difference from the next contract.
- 7. **TPO Study** Added the following options:
 - a. Merge/Split Eth Split Session You can now merge/split TPOs that have the Split Reg vs Ext Session attribute.
 - b. **Display Tab** (Split Reg vs Ext session only) POC line can be displayed for ETH Only, RTH only or Both sessions
 - c. Volume Profile Tab
 - i. (Split Reg vs Ext session only) POC line can be displayed for ETH Only, RTH only or Both sessions
 - ii. Added Naked POC option
- 8. **SDK** The following new classes were added:
 - a. Info classes These classes derive from BaseInfo and have an enabled attribute:
 - i. BarSizeInfo
 - ii. FileInfo
 - iii. InputInfo
 - iv. InstrInfo
 - v. MAMethodInfo
 - vi. StringInfo
 - b. Desc classes The following descriptor classes were added to supplement the above info classes:
 - i. BarSizeDesc
 - ii. DiscreteDesc Works with StringInfo
 - iii. FileDesc
 - iv. InputDesc
 - v. InstrDesc
 - vi. MAMethodDesc

Version 6.6.15

- 1. **Java** Updated to the latest version (19.0.2)
- 2. Rithmic Connector Added Funded Futures

Version 6.6.14

This is a bug fix release only. No new features are included in this update.

Version 6.6.13

This is a bug fix release only. No new features are included in this update.

Version 6.6.12

This update includes a fix for the Google/Yahoo data feed due to changes that Yahoo made over the weekend.

Version 6.6.11

This is a bug fix release only. No new features are included in this update.

Version 6.6.10

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Volume Imprint** Added filter options to the Delta column: Text, Color, Text and Color.
- 2. **Volume Imprint** Add Unfinished Auction lines and outlines. See "Display" tab and "Bid/Ask", "Delta", "Volume" tabs for outlines.
- 3. **Java** Updated to the latest version (19.0.1)
- 4. Rithmic Added environments for Leeloo Trading and The Trading Pit

Version 6.6.9

This update includes a high priority fix for the Rithmic connector that includes a missing Paper Trading connection. No new features are included in this update.

Version 6.6.8

- 1. Java Updated to the latest version of Java (18.0.2.1)
- 2. **Rithmic** Added numerous new environments to choose from including Apex, Natural Trading, Trade Fundrr, UProfit Trader. Environments are now organized by System and Location in the login dialog.
- 3. **Import Trades** Added an option to import Trade History from a CSV file. The CSV file must be generated by MotiveWave using the Export Trades option.

Version 6.6.7

This update includes a high priority fix for the Rithmic connector in addition to other fixes. No new features are included in this update.

Version 6.6.5

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Java Updated to the latest version of Java (18.0.1.1)
- 2. **Oanda** Updated login procedure to use a native browser instead of the built-in JavaFX web view.

Version 6.6.4

This update includes a high priority fix for the Google/Yahoo connector in addition to other fixes. No new features are included in this update.

Version 6.6.3

This is a bug fix release only. No new features are included in this update.

Version 6.6.2

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Rithmic Updated to the latest Rithmic release (12.0.0)
 - a. M1 Support Rithmic will now work on the native M1 version.

Version 6.6.1

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Rithmic** Updated to the latest Rithmic release (11.4.2)
- 2. Cloud Levels Added option to disable the filter for the current symbol.
- 3. **Zoom Bar Size** Added an override for this setting for a specific chart (See Chart Preferences, General panel)
- 4. OHLC Study Added options for Daily, Weekly, Monthly and Yearly OHLC values
- 5. Big Trades Added signal alerts for trades that occur above minimum sizes
- 6. **TPO Study** Added Single Prints
- 7. Volume Imprint The following enhancements have been added to Volume Imprint
 - a. Summary Profile Added option to align on left side
 - b. Added alerts for totals:
 - i. Volume
 - ii. Delta
 - iii. Delta Change
 - iv. Cumulative Delta
 - v. AVAP

Version 6.6.0

- 9. Java/JavaFX 17.0.2 Updated to the latest Java/JavaFX version
- 10. **Mac OS M1** M1 native version now available. Note: Rithmic is not supported in this version. We are still waiting for native libraries from Rithmic.
- 11. Cumulative Delta Added the following options to the Cumulative Delta study:
 - a. **Up/@Bid, Down/@Ask Color** Optionally this will color the bar with the given color where the bar close > open and bar delta < 0 or bar close < open and bar delta > 0
 - b. **Auto Scale** If this option is selected scaling of the graph will not include the zero line
- 12. **Delta Volume** Added the following option:
 - a. **Up/@Bid, Down/@Ask Color** Optionally this will color the bar with the given color where the bar close > open and bar delta < 0 or bar close < open and bar delta > 0
- 13. **OHLC Study** Added "Shorten Latest" option to display the latest print values closer to the latest candle.
- 14. **Table Grid** Table grid options have been added to the DOM, Time and Sales Panel and the Order Book:
 - a. Grid Color Ability to choose the grid color
 - b. Vertical Width Set the width of the vertical lines (0 to hide)
 - c. Horizontal Width Set the width of horizontal lines (0 to hide)

15. DOM Enhancements

- a. **Text Color/Text Align** Ability to choose a different text color and alignment for most columns
- b. **Delta Reset Interval** Added a reset interval for calculating the bid/ask delta columns. By default, it will not reset.
- c. **Delta Max Levels** The number of bid/ask delta levels can be limited (20/side by default)
- 16. **Time And Sales** Updated the layout of the Time and Sales Preferences dialog.
 - a. **Above Ask/Below Bid** Added coloring options for Time and Sale rows where the price traded above the ask or below the bid
 - b. **Font** customized fonts can be chosen for @Ask, @Bid, Above Ask, Below Bid and highlighted sizes
- 17. **Replay Mode** Added a speed control to the replay bar. This will allow you to adjust the replay speed dynamically. Note: this control is only visible if "Real Delay" is turned on in the Preferences dialog.
- 18. Volume Profile/TPO Added an option compute the Value Area using Standard vs Optimized methods (see Configure -> Preferences from the Console menu bar, General Panel, Value Area Method setting):
 - a. **Standard** Start with the POC, then look 2 rows above and below and add the set with the larger volume (similar to most trading platforms)
 - b. **Optimized** Computes the optimal Value Area that has the smallest number of rows. Note: this can be much more CPU intensive
- 19. **VWAP** Paths are now drawn separately between periods instead of continuous. For example on a daily VWAP, the lines will restart at the beginning of the day making it easier to see the starting point.

Version 6.5.12

This is a bug fix release only. No new features are included in this update.

Version 6.5.11

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **VRAM Settings** Added an option to adjust the VRAM settings in the Advanced Startup options.
- 2. Java 17.0.1 Updated to the latest Java and JavaFX runtime

Version 6.5.10

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Java 17 Updated to the latest Java/Java FX runtime (JDK-17).
- 2. **BTC/ETH Futures** added support for Bitcoin/Micro Bitcoin and Ether Futures. Includes cross trading for BTC MBT.

Version 6.5.9

This is a bug fix release only. No new features are included in this update.

Version 6.5.8

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. CQG Connector Updated to the latest CQG connector protocol (2.32).
- 2. **SDK** Added two methods to specify the minimum number of bars for a specific bar size:
 - a. Study::getMinBars(DataContext ctx, BarSize bs)
 - b. Study::setMinBars(int bars, BarSize bs)

Version 6.5.7

- 1. Attach Exit Strategy Added an option to create a keyboard shortcut to attach the active Exit Strategy to an open position.
- 2. Volume Profile Study Added an "Offset" parameter to offset the profile X pixels from the left or right side of the price graph
- 3. Show/Hide Studies Added two new actions to show/hide all studies and show/hide study graphs. See View -> Display -> Show Studies and View -> Display -> Show Study Graphs
- Focus Quick Search Shift + Esc will now switch the keyboard focus to the Quick Search box. The keyboard short cut can be configured under Preferences Dialog (General -> Keyboard)

Version 6.5.6

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Cross Trade** Added support for Micro Crude Futures Contract. Cross trade on CL will now trade with the Micro contract instead of the e-mini contract.
- 2. dxFeed added support for EUREX, EDGX
- 3. **IQFeed/IB** Improved symbol mapping for IQFeed Interactive brokers for futures contracts.

Version 6.5.5

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Order Heatmap Performance and memory improvements
- 2. **CME Equity Trading Hours** Updated the trading hours for CME equities to remove the 3:15-3:30 session

Version 6.5.4

This is a bug fix only release. No new features are included in this update.

Version 6.5.3

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **dxFeed** Added support for dxFeed data service: <u>https://get.dxfeed.com/orders/new/motivewave</u>
- 2. **Order History** This study displays a visual history of order placement, modifications cancels and fills on the chart. Choose Study -> All Studies (from the top menu bar) and search for "Order History".
- 3. Settlement Price The settlement price can now be displayed:
 - a. Price Indicator as a price indicator on the price graph
 - b. Chart Label as a label on the chart
 - c. **DOM Price Column** highlighted in the price column of the DOM
- 4. Cross Trade Added cross trade options for the following (CQG and Rithmic only)
 - a. DAX Index -> Micro Dax Index
 - b. Euro STOXX 50 -> Micro Euro STOXX 50
- 5. Volume Imprint Added an option to show the summary profile as a specific number of minutes or days
- 6. **Fractal** Added "Alternate High/Low" option. This will alternate printing high markers with low markers

Version 6.5.2

- 1. **Path/Price Bar Tag** An option tag may be displayed to the right of path for most studies (see advanced properties for a study path).
- 2. Cumulative Delta
 - a. Max Bottom/Min Top These options set a minimum/maximum value for the

top/bottom axis

- b. **Relative Delta** Plots additional cumulative delta bars that may be filtered by the tick size. Up to 4 plots.
- 3. **VWAP** Added option to plot Regular Session, Extended session or the session chosen for the chart.
- 4. **DOM**
 - a. **Opening Range** Added Opening Range option to display the opening range on the price column
 - b. **Disable Recenter on Mouse Above Table** This option will disable the recenter option when the mouse is above the table.
 - c. **Buy Bid/Sell Ask** If this option is enabled only buy orders can be placed on the Bid column and only Sell orders can be placed on the Ask column.
- 5. **Zig Zag Osc** Added Zig Zag oscillator study. This displays the Zig Zag study in a separate plot.
- 6. **OHLC Study** Added Overnight High/Low
- 7. **Trade Panel** Added option to hide the P/L label.
- 8. **Rithmic** Updated to the latest Rithmic Connector (11.1.0.0)

Version 6.5.1

This is a bug fix only release. No new features are included in this update.

Version 6.5.0

- 1. **Zoom Bar Width** Adjustments to the bar width smaller 1 pixel wide will automatically adjust the bar size (linear bars only). For example, if the bar size is 1 minute, reducing the bar width (from 1 pixel) will switch the bar size to 2 min, 4 min, 8 min etc. Expanding the bar width from that state will revert the bar size to 4 min, 2 min and then 1 minute.
- 2. **OHLC Developing Mid/High/Low** Options have been added to show the developing Midpoint, High and Low values.
- 3. **DOM** The following options have been added to the DOM:
 - a. **Show Order Brackets** Before an order is placed from the DOM, the cells in the Order column will display where the entry and exit orders will be placed along with their quantities. You can turn this feature off in the DOM Preferences (see General panel, "Show Order Brackets")
 - b. **Highlight Price Row** The entire row can now be highlighted for the last price (see Price Column tab in the DOM Preferences dialog).
- 4. **Exit Strategy Orders** Placeholder orders will now be displayed for the exit orders that will be generated when an entry order is filled.
- 5. Volume Imprint Trade Dots The Volume Imprint study has been enhanced to show large trades at the Bid/Ask on the left/right sides of the Imprint (see Trade Dots tab).
- 6. Cloud Levels "Edit Mode" The Cloud Levels study now has an edit mode (right click on the study header and choose "Edit Mode"). This will allow you to edit the price levels and add/delete levels. The changes can be saved to a CSV file via Right Click -> Save option

- VWAP Component (Order Flow, Professional and Ultimate Editions only). The VWAP component is available as a Mouse Tool or in the "General" tab of the Components Panel. This behaves similar to the VWAP study, but has resize points to choose the Start/End points.
- 8. **Order Heatmap** Added an option to filter the maximum sizes. This will filter out large sizes that can skew the heatmap colors.
- 9. **SDK** Additional methods added to the Study class to provide more interaction with the mouse:
 - a. onDoubleClick() Allows the study to respond to double click events
 - b. onClick() Respond to single click events
 - c. onWheelMoved() Respond to mouse wheel events.

Version 6.4.7

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Profit/Loss Components** Added right click options to Flip, and change the number of targets.
- 2. Time&Sales
 - a. **@Bid/@Ask Background** Added an option to set the background (in addition to text color)
 - b. Highlight Big Sizes Added an option to highlight the size cell only
 - c. Price Format Added options for displaying only part of the price
 - d. **Time Format** Added options for formatting the time column
- 3. **Shift Wheel Action** Added an option to change the behavior of holding down the shift key when using the mouse wheel. By default this will adjust the vertical spacing.

Version 6.4.6

This is a bug fix only release. No new features are included in this update.

Version 6.4.5

- 1. **Order Heatmap** Added an option to scale visible rows only. This will apply the color map to the sizes that are visible only.
- 2. **DOM Templates** Added the ability to import and export DOM templates
- 3. **DOM / Time & Sales /Order Book** Holding down the CTRL (CMD on Mac) key while scrolling the mouse wheel will change the row height of the table. This will allow you to zoom in/out.
- 4. **DOM Recenter** Double click on the DOM table will recenter. Holding down the control key will recenter all DOMs
- 5. **Cumulative Delta** Added options to change the color above/below 0 for a line chart (see advanced properties, Color Policy option)
- 6. Zig Zag Added option for reversal in ticks.

Version 6.4.4

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Cross Trading** Cross trading futures contracts can be done via right click on the chart and choose: **Cross Trade (symbol)**. For example, you can trade the MES contract from an ES chart.
- 2. Stacked Orders
 - a. **DOM** Orders at the same price will be displayed with brackets []. The quantity displayed will be the sum of all the orders. The position in queue marker will also display multiple markers.
 - b. **Price Graph** Orders that overlap will be offset to show that multiple exist and you can click drag any of the orders.
- 3. **Drag Stacked Orders** Holding on the control key (command on Mac) while dragging an order in the DOM or price graph will modify all orders of the same type and price.
- 4. **Rithmic** Support for delayed accounts
- 5. Java 16 Updated to the latest version of Java/JavaFX

Version 6.4.3

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. DOM Panel
 - a. **Price Column** Added Alignment and option to display cumulative trades (same as Last Trade Quantity Column)
 - b. Table Striping Added option to turn off the striping of the table rows
- 2. Time/Sales and Order Book Added option to turn off striping of the table rows
- 3. Erase Chart Shortcut Added Erase option to the mouse shortcuts for the chart. This shortcut would allow you to use a keyboard modifier to erase chart elements with a mouse click.
- 4. Fractal Study Added a "Show Label" option to display the price of the high/low

Version 6.4.2

- 1. DOM Panel
 - a. Orders
 - i. **Right Click** Added access to order combinations (Limit + Stop/Limit etc) via a right click menu on the DOM Table
 - ii. Configurable Mouse Orders The behavior of placing orders directly on the DOM table may now be configured to place order combinations. Additionally, keyboard modifiers (Shift, Ctrl, Ctrl+Shift) may be used to setup multiple order types/combinations. (See DOM Preferences, General tab)
 - b. **LTQ Column** this column can be configured to highlight the background of the cell when the trade occurred at the bid or ask.
 - c. Table Font The font used for the table cells is now configurable from the DOM

Preferences dialog.

- d. **Row Height** A fixed row height can be set for the table
- 2. Time and Sales Panel
 - a. **Table Font** The font used for the table cells is now configurable from the Time/Sales Preferences Dialog
 - b. **Row Height** A fixed row height can be set for the table
 - c. Min Width The minimum width of this panel has been reduced to 175 px.
- 3. Order Book Panel
 - a. **Table Font** The font used for the table cells is now configurable from the Time/Sales Preferences Dialog
 - b. **Row Height** A fixed row height can be set for the table
- 4. **Ruler Tool** Added an option to make the Ruler stick to the chart after its drawn. This effectively adds it as a component to the chart. See Preferences Dialog (Configure -> Preferences from the Console Menu bar), Chart -> Options tab. **Erase Ruler** option.
- Hide Account Name The account name can be obfuscated in all the MotiveWave screens and display as "XXXXX857" (for example). See Preferences Dialog -> General Panel.
- 6. **VWAP** Multiple VWAP studies using the same criteria can now be added to the chart with different anchor points. Note: they must have different colored/styled lines.

Version 6.4.1

This is a bug fix only release. No new features are included in this update.

Version 6.4.0

- 1. **Chart Indicators** The following enhancements have been added to the Chart Indicators:
 - a. **Chart Specific Settings** Charts can override the global settings from the Chart Preferences Dialog (double click on the chart, see "Indicators" tab).
 - b. **Avg Entry Price** This new indicator displays the average entry price for the current position as an indicator.
 - c. **Tags** optionally a tag may be assigned to an indicator. This tag displays the given text to the left of the indicator.
- 2. **Time Axis** The following enhancements have been added to the Time Axis:
 - a. **Chart Specific Settings** Charts can override the global settings from the Chart Preferences Dialog (double click on the chart, see "Time Axis" tab).
 - b. Line Color a color can now be chosen for each time axis line that is enabled
 - c. **Time of Day** custom lines can be displayed at specific times of the day (ie: 11:00 AM).
- 3. **Trading Hours** The following enhancements have been added to the Trading Hours feature (see General Preferences Dialog, **General** -> **Trading Hours** tab):
 - a. **Hours** the interface for specifying trading hours has been simplified to provide the same daily hours across multiple days (ie Monday Friday, Sunday Saturday etc)
 - b. Edit Built-In Hours The built-in hours can now be modified instead of creating

a new set of trading hours. You can revert to the default hours by selecting the modified hours in the list and pressing the "Delete" key.

- c. Multiple Exchanges You can assign trading hours to multiple exchange.
- d. **Intraday Bar** You can specify a bar build method for intraday bars (overriding the global default). See **Intraday Bars** tab in the Trading Hours dialog.
- 4. **Default Layout** The default layout has changed when creating a new workspace.
- 5. Watch List Notes A "Notes" column has been added to the Watch Lists where you can enter custom notes. Clicking on the cell in the watch list will allow you to edit the value inline.
- 6. **Popout Panels** A popout option has been more of the panels in the console: Accounts, Positions, Orders, Trades, Optimizer, Alerts, Trade Report, Options, Journal.
- Sim Trade Only An option has been added to the built-in simulated account to only allow trading on the internal sim account. See Preferences Dialog (Configure -> Preferences from the Console menu bar. Click on "General" and then on "Simulated Account").
- 8. **Intraday Bar Build** The method for configuring how intraday bars are built can not be set per instrument or per Trading Hours (see above).
- 9. Miscellaneous Features
 - a. **Export Trades** now includes milliseconds
 - b. Alerts Comments are now displayed in the alerts and alert history panels
 - c. OHLC Study Added previous open
 - d. Labelled Line Price can be chosen in the properties dialog
 - e. **Study Graph** Ability to remove the display of the study title (see Options tab "Show Legend")
 - f. **Exit Strategy** Added decimal places for stop/target where the offset type is "Percent"
 - g. Quick Search Auto complete feature can be turned off
 - h. Volume Imprint Horizontal offset can be added to the Summary Profile
 - i. **TPO Study** Volume profiles now have an option align (left or right)
 - j. **Mid Point** Added midpoint column to watch lists. This is the midpoint between the bid/ask prices

Version 6.3.4

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **TDA** Order Book has an added option to expand the rows by Market Maker and optionally color rows at the same price
- Time Calculation Method Added an option to calculate elapsed time in a component using Elapsed time vs Trading time. This option is available in the Preferences dialog (Configure -> Preferences from the top menu bar, see Chart -> Chart Settings)
- 3. **Time Sales** Added an optional end time field. This allows to you scroll to a specific time in the Time and Sales panel. (See Time and Sales Preferences Dialog).

Version 6.3.3

1. **Interactive Brokers Smart Depth** – Order Book has an added option to expand the rows by Market Maker and optionally color rows at the same price

Version 6.3.2

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Interactive Brokers Smart Depth** Upgraded to the latest TWS API and added support for SMART depth for stocks
- 2. CQG Updated to the latest CQG API
- 3. **Cumulative Delta** Added the ability to restart delta calculation at start of week or start of month.
- 4. **Trade History** Added the option to choose account on Export to CSV feature.
- 5. **DOM shortcuts** Added the ability to assign keyboard shortcuts to the following actions:
 - a. Reset @Bid/@Ask
 - b. Lock DOM
 - c. Clear Notes
- 6. **DOM Price Scaling** The scaling of the price ladder in the DOM can now be synced with the price graph. A new button has been added to the tool bar in the DOM to toggle this feature on /off.
- 7. LTQ DOM Column Added a column to the DOM for computing last traded quantity.

Version 6.3.1

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Study Quick Editor/Tool Bar** Study controls can now be added to the tool bar and are accessible from a new Quick Editor on the chart.
 - a. **Quick Editor** buttons have been added to the study titles to show a Quick Editor that contains study controls
 - b. **Tool Bar** A "Tool Bar" tab has been added to the study dialog to choose controls that are displayed in the tool bar.
 - c. **Tool Bar Study Editor** A "Study Editor" action is available to add to the tool bar. This is used in conjunction with the Tool Bar option above and will display the selected controls. (See Preferences Dialog, "Tool Bar" tab).
- 2. **SDK** The SDK has been enhanced to specific settings that are available to the Quick Editor and tool bar. For details see the updated SDK document: https://www.motivewave.com/support/sdk.htm

Version 6.3

- 1. **Rithmic 10.16** Updated to the latest Rithmic library. This update includes significant updates to the performance of loading historical tick data.
- 2. **Order Heatmap** This new study replaces the existing DOM History study. This has the following changes:
 - a. Gradient Color Control a single color control that allows you to select multiple

colors to use as a gradient for categorizing the relative totals of orders in the DOM at each price.

- b. **Contrast** This option allows you to hide levels that have totals below a specific percentage of the highest value
- c. **Opacity** Changes the opacity of all the bands
- d. Lines optionally displays divider lines between the banks
- 3. **Big Trades** Added an "Auto Circle" option to adjust the size of the circle based on the trade size. Larger trades will appear with a larger circle.
- 4. Millisecond Bars Bar sizes can now be specified in milliseconds (min 20 ms)
- 5. Auto Move Bar If enabled, this option will automatically create the next bar when the time has elapsed (instead of waiting for the next bar). This is especially useful for Millisecond bars (see above) to show a continuously moving chart (See Preferences Dialog, Configure -> Preferences from the Console menu bar. Click on "Chart" then on "Options")
- 6. Line Chart Label Allows you to change the label displayed to the right of a line chart. Options are: None, Price and Symbol. This is available from the Chart Settings dialog (right click on the chart and choose "Chart Settings").
- 7. **Trade Report** Generates a report (similar to the report in the Optimizer) for an account. This option also works for replay mode. A Trade Report tab can be added by clicking on the '+' button to the right of a chart tab.
- 8. **Zytrade** Added a new broker connection for Zytrade (Futures and Future options, connects via Rithmic).
- 9. Java/JavaFX 15 Updated to the latest Java and JavaFX 15.0.1
- 10. Cloud Levels Study Display price levels that can be loaded from a local file or from a website. Supported formats include BookMap and IRT CSV files.
- 11. **Price Bar Types** Square line charts have been added. These are similar to the line charts, but only draws horizontal and vertical lines (no diagonals):
 - a. Square Line
 - b. Square Line (Shaded)
 - c. Square Line (Gradient)

Version 6.2.5

This is a bug fix only release. No new features are included in this update.

Version 6.2.4

- 1. **Futures Roll Options** Added support for additional roll options and added defaults for major futures contracts:
 - a. Days Before Start of Contract Month
 - b. Days Before Day of Week Before Contract Month
 - c. Days Before Day of Month Before Contract Month
 - d. Days Before 1st Business Day of Contract Month
 - e. Days After Start of Contract Month
 - f. Days Before Day of Week
 - g. Days Before Day of Month

- h. Days Before End of Contract Month
- i. Days Before Last Business Day of Contract Month
- Active Contract Added the ability to show the active contract for a Continuous Future in the Quote Board and Buy/Sell Boxes. See Preferences Dialog (Configure -> Preferences from the Console menu bar. Click on "Buy/Sell" tab).
- 3. **Trade Manager Strategy** Added the ability to specify Ticks or Pips when calculating offsets.

Version 6.2.3

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Continuous Futures** Added support for custom continuous futures contracts that automatically roll based on volume or expiry date. Choose File -> New -> Continuous Future from the Console menu bar.
- 2. Active Contract The active contract for a continuous future (see feature above) can be displayed in two locations:
 - a. **Chart Label** A new chart label has been created for this. See Chart Settings -> Labels tab
 - b. Watch List a new Column "Active Contract" has been added to the Watch List/Quote Sheets.

Version 6.2.2

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. Kraken Added support for Kraken crypto exchange
- 2. Coinbase Pro Added support for Coinbase Pro exchange
- 3. Binance Added support for Cross Margin Accounts
- 4. JavaFX 14.0.2.1 Updated to the latest JavaFX version
- 5. Questrade Removed support for Questrade
- 6. Rithmic The following enhancements were added to the Rithmic connector
 - a. Added the following environments:
 - i. Rithmic 04 Colo
 - ii. Rithmic 04 Aurora
 - iii. Speedup
 - b. **Exchange Order ID** Added aggressor and resting exchange order ids to the live tick data.
- 7. **Time & Sales Panel** Added option to "Aggregate by Order" (using new Rithmic feature above). If enabled time & sales entries will be combined if the aggressor exchange Order Ids and price match. This applies to consecutive trades only.
- 8. Big Trades Added "Aggregate by Order" option (see above).
- 9. OHLC Study Added support for specifying seconds for the opening range

Version 6.2.1

This version of MotiveWave contains numerous bug fixes and the following features:

1. Binance – Added support for Binance crypto exchange

- 2. **Quote Board** This is a new view for a Watch List/Quote Sheet (in addition to table and Buy/Sell boxes). You can change a watch list to display a quote board by choosing "Quote Board" in the drop down in the watch list tool bar.
- 3. Java 14.0.2 Updated to the latest Java version

Version 6.2

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Community Edition** New Free Edition of MotiveWave
- 2. **CryptoCompare** Added support the latest web socket API. Also added support for the Order Book (Level 2 data).

Version 6.1.17

This is a bug fix only release. No new features are included in this update.

Version 6.1.16

This is a bug fix only release. No new features are included in this update.

Version 6.1.15

This is a bug fix only release. No new features are included in this update.

Version 6.1.14

- 1. **Performance Improvements** Added some additional performance tweaks.
- Order Flow Edition The Trade Edition has been renamed to the Order Flow Edition. We also added the following features (previously only available in Professional and above):
 - a. Volume Profile Component (see General Component tab)
 - b. **TPO Component** (see General Component tab)
- 3. **Standard/Elliott Wave Lite Editions** –Trading capability has been added to these editions, this includes the following:
 - a. Live and Simulated Trading
 - b. Account/Orders/Positions/Trade History Panels
 - c. Trade Panel
 - d. Time and Sales Panel
 - e. **Depth of Market** Note this is a basic DOM and does not include all of the features in the advanced DOM available in the Order Flow Edition and above
 - f. Order Book Panel
- 4. Show Roll Dates Added options to show optional top and/or bottom markers for roll dates on the chart

- 5. Instrument Graph Study -Added an option fixed range
- 6. Java 14.01 Updated to the latest Java version
- 7. Rithmic Updated to the latest Rithmic API (10.10.1.0).

Version 6.1.13

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Performance Improvements** Some significant changes have been made to improve the performance of MotiveWave with high volumes of live market data.
- 2. Watch List -Added an option to replace a futures contract with the next contract. Right click on a futures contract in the Watch List/Quote Sheet and choose "Replace with Next Contract"
- Roll Date Lines For continuous contracts computed on the client side, lines can be displayed for the roll dates in the chart. See Preferences Dialog (Configure -> Preferences, click on "Chart" then on "Time Axis"). The dates can be configured per chart from the Chart Preferences Dialog (double click on the chart, see "Display" tab).
- 4. **Trend Line** a different line style can be chosen for the extended parts of a trend line. See Properties dialog (double click on the trend line, "Format" tab).

Version 6.1.12

This version of MotiveWave contains numerous bug fixes and the following features:

- Chart Specific Data Settings Continuous contract options can now be applied to a specific chart overriding instrument and global settings. See Chart Preferences Dialog -> "Data" tab.
- 2. **Export Pages** For floating layouts, specific stations can be chosen to be included in the export.
- 3. **Compute Change Using Settlement** A new option has been added to compute the daily change information using the settlement price instead of the previous close (futures only). This can be configured in the Preferences dialog (Configure -> Preferences see General tab).
- 4. **Rithmic** Added additional environments and also added an option on login to choose Aggregated vs Non-Aggregated data.
- 5. Java 14 Updated to Java 14

Version 6.1.11

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Google/Yahoo Connection** Updated the connector to reflect recent changes for loading historical data from Yahoo
- 2. **Continuous Contracts** –Added a new option to compute continuous contracts using the expiry date (instead of roll over on volume).

Version 6.1.10

This update contains an important fix for BarChart historical data. No new features are included in this update.

Version 6.1.9

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. BarChart Added support for Crypto Currencies
- 2. New Studies:
 - a. **McClellan Oscillator** compares moving averages on the difference between advancing and declining issues.
 - b. McClellan Summation Index Displays a rolling summation of the McClellan Oscillator
 - c. **Seasonality** Calculates the average gain/loss (as a percentage) from the start of year or month. This study only works in daily bars.

Version 6.1.8

This version of MotiveWave contains numerous bug fixes and the following features:

1. **BarChart Continuous Contracts** – Optionally continuous data for futures contracts can be computed in MotiveWave (using the same logic as in CQG). This will allow you to choose the back adjust method. This feature can be enabled from the Preferences Dialog (Configure -> Preferences from the console menu bar. See Historical Data -> General).

Version 6.1.7

This update contains important fixes for issues introduced in 6.1.6.

Version 6.1.6

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **BarChart** Updated to the latest BarChart streaming connector
- 2. Max Heap/JVM Options added advanced options to the startup screen to adjust the Maximum Heap Size and additional JVM options. (Choose: Options -> Advanced from the startup splash screen)
- 3. Windows Removed MotiveWave (3GB) and MotiveWave (6GB) launch options. Larger heap sizes can be set above.
- 4. Auto Update The Auto Update feature has been changed in this version to download the MotiveWave installer and execute it after closing MotiveWave. This feature will also work on the Mac as well (instead of having to manually download and install).
- 5. Linux Support for Linux distributions (Debian Package Format):
 - a. **Ubuntu** 18.04, 19.10
 - b. **Mint** 19.3
 - c. **Kubuntu** 19.10

Version 6.1.5

- 1. **Snap to Grid** Floating dock stations can be snapped to the grid when dragging the mouse. This feature can be enabled/disabled in the Preferences dialog (Configure -> Preferences from the console menu bar. See General > Dock)
- 2. Elliott Wave The following enhancements have been added to the Elliott Wave

features (see Preferences Dialog: Elliott Wave > General tab)

- a. **Label Inset** optionally, spacing can be added between the wave label and the top/bottom of the price bar.
- b. **Draw Lines From Last Bar** If enabled wave lines will be drawn from the last (latest) price bar instead for the entire wave.
- 3. Java Runtime Updated Java runtime to 13.0.2
- 4. Mac Install Switch from a .dmg to a .pkg for the Mac installer
- 5. **Memory Gauge** A gauge has been added to the right side of the status bar (Console and Desktops) that displays the current memory usage of the application.
- 6. **IQFeed Filter NTRF** Added an option to filter trades from the NTRF exchange for stocks. See Preferences Dialog > General Panel

Version 6.1.4

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. CQG The following changes have been done for CQG:
 - a. Latest Protocol Updated to the latest CQG Continuum Protocol
 - b. **Balances** Balances are now available in the Balances panel (click on the '+' button next to a dock tab and choose "Balances")
- 2. Global Data Feeds Updated the port number for the data server

Version 6.1.3

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Bitstamp** Added support for Crypto Broker Bitstamp: <u>https://www.bitstamp.net</u>
- 2. **Order Book** Added an Order Book option. This is similar to a DOM, but displays the Bid and Ask orders in separate tables (horizontally instead of vertically in a DOM)
- 3. **BarChart** Added "Use Continuous Data" option (See Instrument Dialog -> Advanced Tab). This option is on by default for all new instruments and will display continuous historical data for futures.

Version 6.1.2

This is a bug fix only release. No new features are included in this update.

Version 6.1.1

This is a bug fix only release. No new features are included in this update.

Version 6.1

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Untitled Analyses** – By default, MotiveWave will open a new Untitled Analysis when a chart is opened. The contents of this analysis is local to the chart and is not synched between other charts. An untitled analysis can be saved as a regular analysis by clicking

the Save As button. For details on analyses in MotiveWave see: https://www.motivewave.com/guides/MotiveWave_Analyses.pdf

- 2. New Studies- The following studies have been added in this update:
 - a. Bressert DSS
 - b. RMO (Rahul Mohinder Oscillator)
 - c. MA Ribbon
- 3. Export/Import Pages This feature allows you to export specific pages from the Console or Desktops. These pages can be imported to another instance of MotiveWave using the Import Page option (See File -> Import/Export Pages from the top menu bar). Pages can also be setup to export on a schedule. See Preferences Dialog (Configure -> Preferences from the Console menu bar. Click on "General" then "Backup" then "Auto Export Pages")
- Floating Grid Background This option (on by default) shows a grid background on Floating layouts. Configuration options can be found in the Preferences Dialog (Configure -> Preferences from the Console menu bar. Click on "General" the on "Dock").

Version 6.0.8

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Labelled Line** This new component draws a horizontal line with a customizable label attached to it. This component can be found in the "General" stencil (see Components Panel).
- 2. **Visibility Options** You can now add multiple visibility options to a component, study or wave/time ratio. An object is visible when one of the visibility conditions is met.
- 3. Alert Conditions Multiple alert conditions are now allowed when creating/modifying an alert.
- 4. **Indicator "Draw on Top"** Added an option to draw an indicator on top of the other indicators. This is on by default for Bid, Ask and Last price. This feature is also available for study indicators (see advanced properties).

Version 6.0.7

- 1. **NT Renko Bars** This specialized version of Renko bars starts the next bar at the midpoint of the previous bar (instead of at the top/bottom of the previous bar). This bar type was developed by Newbie-Trader: <u>https://www.newbie-trader.com/</u>
- 2. Elliott Wave Preferences The following options have been added the Elliott Waves. See Preferences dialog "Elliott Wave" tab and the Component Properties dialog (double click on the wave):
 - a. **Show Origin** If unchecked, the origin point will not be shown (even if it is the top-level wave)
 - b. **No Future Points** If checked, none of the future points will be displayed. This is in contrast to the Show Future Points being unchecked where only the first future point is displayed.
- 3. **Commentary Components** The text for comments can now be modified in the component properties dialogs (right click and choose "Properties" from the comment).

Additionally, changing this text as part of a custom component/tool will change the default text when the component is created.

Version 6.0.6

This version of MotiveWave contains numerous bug fixes and the following features:

- Save As Image Name A new chart option "Use Last Image Name" (default off) has been added to the Chart Options panel (*Configure -> Preferences* from the Console menu bar, Chart -> Options). If this option is enabled the last Save As Image file name will be used the next time you save the chart as an image (instead of generating the file name with the lastest timestamp).
- Data Export Historical data can now be exported automatically and arranged in groups. For details, see the Preferences Dialog (*Configure -> Preferences* from the Console menu) Click on "Historical Data" then on "Data Export". For details see: <u>https://support.motivewave.com/knowledge-base/data-export-groups/</u>

Version 6.0.5

This version of MotiveWave contains numerous bug fixes and the following features:

 Floating Stations – A new layout has been added to the docking framework to manage floating stations (instead of using the split layout). For details see the Docking Framework guide:

https://www.motivewave.com/guides/MotiveWave_Docking_Framework.pdf

Version 6.0.4

This is a bug fix only release. No new features are included in this update.

Version 6.0.3

- 1. **TDA Login** The login procedure has been changed to use a browser-based login.
- 2. **DOM Bid Ask Scaling** Three additional options have been added for scaling the histogram for the bid/ask columns:
 - a. **Fixed Max Size** Sets the maximum size for the bid/ask columns to a fixed value.
 - b. **Max Scale Size** Sets an upper limit on the max bid/ask sizes. Use this to lessen the effects of unusually large bid/ask values
 - c. Scale Visible Rows Only If enabled the scaling will be based on the max values for the visible rows only (instead of all DOM rows)
- 3. **DOM Bid/Ask Column** Added an additional column that combines the bid/ask sizes into a single column
- 4. **DOM Orders Column** Added the following enhancements to the DOM Order Column:
 - a. Auto Hide Cancel The cancel button is only shown when the cursor hovers above the order
 - b. Context Menu The context menu (right click) shows pre-set quantities for

quickly modifying the order quantity.

Version 6.0.2

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Java 13** – Updated to the latest Java VM. This will require a full install on Windows (ie: download the latest installer from our website and run it on your local machine).

Version 6.0.1

This is a bug fix only release. No new features are included in this update.

Version 6.0.0

Version 6 has significant feature enhancements from version 5. For a comprehensive explanation of all the changes please see:

https://www.motivewave.com/guides/Whats_New_In_Version_6.pdf

Version 6 Beta 3K

This version of MotiveWave contains numerous bug fixes and the following features:

- Center All DOMs This new option will center all Depth of Market panels when the re-center button is pressed (See DOM Preferences, General Panel). For convenience a Keyboard Shortcut can also be assigned (see General Preferences Dialog, "General" -> "Keyboard" tab).
- IQFeed Odd Lot Ticks This option will enable "Odd Lot Ticks" to be visible in MotiveWave for IQFeed symbols (off by default). See General Preferences Dialog (Configure -> Preferences from the Console menu bar) -> "General" tab.

Version 6 Beta 3J

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 3I

This version of MotiveWave contains numerous bug fixes and the following features:

1. **Drag beyond available data** – The chart can now be dragged beyond the available data leaving blank space on the left side of the chart.

Version 6 Beta 3H

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 3G

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Updated Window Themes** The dark and light themes have been updated to remove station borders and present a flatter look and feel
- 2. **StockWatch Connector** This this data service connector has been removed in this update since they no longer support third party applications.
- 3. **TPO Study** The following enhancements have been added to the TPO study:
 - a. **Constrain Width** If this option is checked it will automatically reduce the cell width if the profile overlaps the next profile.
 - b. Align Letters per TPO The align letters option may be enabled per TPO figure via the right click menu (right click on a TPO and choose "Align Letters")
 c.
- Active Chart Tab Color The color of the dock bar/tabs for active charts can be customized in the Preferences dialog (see "Theme" -> "Theme", "Active Chart Tab Color)
- 5. **Time & Sales Text Color** The text color for the Time & Sales panel can now be configured from the TS Preferences dialog (click on the Gear icon)
- 6. **Cancel Existing Orders** An option has been added to cancel existing orders on the same account before executing a button action. This applies to the following custom buttons in the Trade Panel/DOM: Break Even, Flatten and Reverse

Version 6 Beta 3F

- Time Axis Spacing Minimum spacing for major times displayed on the time axis has been added (default 100 pixels). This option can be configured in the Preferences dialog (Configure -> Preferences from the console menu bar, click on Chart then on Time Axis).
- 2. **Extended vs Regular Bar Scheme** A new bar scheme has been added to color the extended and regular trading hours bars differently.
- 3. **VWAP Study** the following enhancements/changes have been added to the VWAP study:
 - a. **Std Dev Calculation** The calculation for the standard deviation has changed. It is now calculating using the difference between the HLC3 – VWAP (instead of the VWAP alone)
 - b. Std Dev Bands Up to 3 band lines can be configured
 - c. **Anchored VWAP** The starting point can be set for calculating the VWAP via right click (see menu options below):
 - i. Remove Anchor This option will remove a previously set anchor
 - ii. Anchor VWAP at <Time> This will set the anchor at the given time.
- 4. Alert Close Position An option has been added to close an open position when an alert

is triggered (see Trade tab of the Alert Dialog).

5. **Study Indicator Tags** – Descriptive tags can optionally be displayed next to the indicators displayed in the vertical axis. Edit the advanced indicator settings (click on the edit button next to an indicator in the study dialog) and check the "Show Tag" box.

Version 6 Beta 3E

- 1. **TPO Study Align Letters** This option (see Display tab, **Align Letters in Same Column** check box) will place each letter in a separate column to better represent the time when that cell occurred.
- 2. **Reversal Bars** This new bar type has been added that has the following parameters:
 - a. **Reversal Amount** price movement in ticks from the high or low of the bar for the bar to complete. The bar is considered complete when the close has reversed from the high/low by an amount equal or greater than this amount. Reversal bars alternate between reversing from the high and low (ie if one bar reverses from the high, the next bar will reverse from the low)
 - b. **Minimum Amount** Minimum range for the bar (high low) before the reversal amount is applied
- 3. **Relative Volume** This new study compares the volume on the current bar to the average volume for that same bar (same time of day) for the given period (see Study -> Volume -> Relative Volume).
- 4. **VWAP Study** Added top and bottom standard deviation lines (optional)
- 5. **EW Marker Tools** Added mouse tools for the Elliott Wave markers
- 6. **Move Copyright** The copyright message can be moved or hidden on specific chart via the right click menu: Move Copyright -> Location
- 7. **JPG image format removed** In the Save As Image dialog, the JPG image format has been removed since it is not supported by the Open JDK.
- 8. **Display Bars** The display bars setting can now be set individually for the chart. See chart settings "General" tab.
- 9. **Bar Theme Price Line** The ability to change the price line for a custom bar theme has been added (when displaying a line chart vs a bar chart).
- 10. Table Row Colors The even and odd row colors for table elements can be customized from the Preferences Dialog (Configure -> Preferences from the console menu bar, click on Theme. See option: Table Row Colors). Note: a restart of MotiveWave is required to see the changed values.
- 11. **Time Axis Lines** Major vertical lines displayed from the time axis can be configured from the Preferences Dialog (Configure -> Preferences from the console menu bar.
 - Click on "Chart" then on "Time Axis"). The following lines may be configured
 - a. Midnight midnight using the time zone set for the chart.
 - b. **Start of Day ETH** Start of the day for extended trading hours (enabled by default).
 - c. Start of Day RTH Start of day for regular trading hours
 - d. End of Day ETH End of day for extended trading hours
 - e. End of Day RTH End of Day for regular trading hours
 - f. Start of Week Start of week (Sunday midnight) using the time for the chart
 - g. Start of Month Start of the month (midnight) using the time zone set for the

chart (enabled by default).

- h. **Start of Year** Start of the year (midnight Jan 1) using the time zone set for the chart (enabled by default).
- 12. **Copy Exit Strategy** A copy button has been added to the Exit Strategies Panel (See Trade Panel Preferences and DOM Preferences dialog).

Version 6 Beta 3D

This version of MotiveWave contains numerous bug fixes and the following features:

- 1. **Guide Templates** Templates have been added for price and time guides. See properties dialog when creating or editing a guide. Guides for a specific template can be added directly from the right click menu on the price or time axis.
- 2. Scanner Added the number of results in the "Scan Complete" message
- 3. **Center DOM Shortcut** Added a new keyboard short cut option "Center On Last Price" (default unassigned). This will re-center the active DOM on the last price.
- 4. Lock/Unlock Components This action will toggle the locking of components on the active chart (instead of locking components individually). (See View -> Lock/Unlock Components from the menu bar)
- 5. NADAQ Hours Modified extended hours from 7-20 EST to 4-20 EST
- 6. **SDK Aggregate & Filter Ticks** Two new options have been added to the Study Header (false by default). If these options are enabled, the user will be able to configure the settings in the "Options" tab of the study dialog.
 - a. **allowTickAggregate** If true, the user will be given the option aggregate tick data using the given aggregate period in milliseconds
 - b. **allowTickFilter** If true, the user will be given the option to set a min and or max trade size to be filtered before passing the data to the study.
 - c. Affected Studies these options have been turned on for the following studies: Volume Imprint, Delta Volume, Cumulative Delta, Bid/Ask Volume
- 7. Volume Imprint
 - a. **Disable Column1** Added option disable the display of Column 1. This will effectively hide the imprints, but allow you to show the totals at the bottom of the chart.
- 8. **Roll Next Contract** Added an option to roll instrument settings to the next contract. This includes the historical instrument and options under the Advanced tab (see Instrument Dialog).
- 9. **Break Even Offset** Added an optional offset (in ticks) to the Break Even button (when customizing from the Trade or DOM panel).

Version 6 Beta 3C

- Custom Order Actions A custom order can be defined and assigned a keyboard shortcut (Professional Edition and above). This option is available under the General Preferences Dialog (Configure -> Preferences from the Console menu bar). Click on "General" then on "Keyboard" then on "Custom Orders"
- 2. **Quantity Shortcuts** Keyboard shortcuts can be assigned to preset quantities (see Order Presets dialog from the Edit Instrument Dialog). By default, the number keys 1-9 will

set the quantity to the preset quantity for the instrument in numerical order. Shortcuts can be modified from the Keyboard tab in the General Preferences Dialog (Configure -> Preferences from the Console menu bar) click on "General" then on "Keyboard"

- 3. **Dock Shortcuts** The following keyboard shortcut options have been added for navigating pages, stations and tabs in the docking framework (unassigned by default, see Preferences Dialog -> "General" -> "Keyboard"):
 - a. Next/Previous Page Sets the active page to the next/previous page.
 - b. **Next/Previous Station** –When a station is maximized these actions will move to the next / previous dock station (same as the left/right arrow icons in the dock tool bar)
 - c. **Next/Previous Tab** Sets the active tab on the active station to the next/previous tab.
- Delete Expired Instruments Expired instruments (futures contracts and options) can be removed from the workspace in the Manage Instruments Dialog (Configure -> Instruments in the Console menu bar). See: Delete Expired button at the bottom of the dialog.
- 5. **PL Price Movement** Options are now available to display the P/L as a price movement (instead of a dollar amount):
 - a. **Trade/DOM Panel** (Pro Edition and above) an additional widget has been added "P/L Price Label" to display the Profit/Loss as a price movement.
 - b. **DOM PL Price Column** This column has been added to show the P/L as a price movement.
- 6. **TPO Study** Added a Font/Font Color option for Letters displayed in the ETH session (see Display tab –> Letters ETH)
- 7. Volume Imprint
 - a. Added option to toggle display of totals in the summary profile (see Summary Profile tab -> Show Totals)
 - b. **Font Colors** Added options to change the color for labels in the Volume Profile, Bid/Ask, Ladder, Volume, Delta and totals
- 8. **Horizontal Line Tool** Added a mouse tool for creating a horizontal line. See tools drop down (hand cursor by default).
- 9. Line Graph Label Added the symbol to the price graph when displayed as a line graph.
- 10. **Visibility Options** Added the following visibility options to the Visibility tab (see Component Properties Dialog):
 - a. Visible On Current Bar Size Or Higher Sets the visibility to be GTE current bar size
 - b. Visible On Current Bar Size Or Lower Sets the visibility to be LTE current bar size.
- 11. **Reverse Button** The functionality of this button has been changed to cancel all open orders (for the instrument/account) before reversing the position.

Version 6 Beta 3B

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 3A

Version 6 Beta 3 contains many new features. For details see the <u>What's New In Version 6</u> <u>Beta 3 Guide</u>.

List of new Features:

- 1. Exit Strategies
- 2. Custom Trade Panel
- 3. Custom DOM Panel
- 4. Analysis Packs
- 5. Elliott Wave Markers
- 6. Roll Futures Contracts
- 7. Much more, see Beta 3 Guide

Version 6 Beta 2E

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 2D

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 2C

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 2B

This version of MotiveWave includes numerous bug fixes and the following enhancements:

1. **Object Viewer** – Components can be locked directly in the Object Viewer (View -> Object Viewer from the top menu bar)

Version 6 Beta 2A

Version 6 Beta 2 contains many new features. For details see the <u>What's New In Version 6</u> <u>Beta 2 Guide</u>.

List of new Features:

- 1. Elliott Wave Custom Ratios
- 2. Market By Order
- **3. DOM Enhancements**
- 4. Rithmic Enhancements
- 5. TPO Split/Merge
- 6. Volume Imprint Enhancements
- 7. DOM History Enhancements
- 8. Bid Trades Study
- 9. OHLC Study
- **10. Volume Profile Study Enhancements**
- 11. Time & Sales Enhancements
- **12. SDK Enhancements**

Version 6 Beta 1H

This version of MotiveWave includes numerous bug fixes and the following enhancements:

1. Rithmic – Updated to the latest API release 10.6.0.0

Version 6 Beta 1G

This version of MotiveWave includes numerous bug fixes and the following enhancements:

- 1. **Rithmic DOM Levels** Support for all Depth of Market levels returned from Rithmic API (20+ bid/ask levels)
- 2. **Volume Imprint/TPO Study** Some significant performance enhancements have been added to this update for these studies.
- 3. Java 12 Updated to the latest version of Java and JavaFX

Version 6 Beta 1F

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 1E

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 1D

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 1C

This version of MotiveWave includes numerous bug fixes and the following enhancements:

1. DOM Location – This option allows you to display the DOM panel on the left or right

side of the chart. See DOM Panel -> Preferences -> General Panel.

2. **Time and Sales Location** – This option allows you to display the Time and Sale panel on the left or right side of the chart. See TS Panel -> Preferences.

Version 6 Beta 1B

This is a bug fix only release. No new features are included in this update.

Version 6 Beta 1A

Version 6 contains many new features. For details see the What's New In Beta 6 Guide.

Please Note: This is a beta version of MotiveWave[™] and may contain more issues that a regular release. Please report any issues to <u>support@motivewave.com</u>.

List of new Features:

- 1. Cloud Workspaces
- 2. Custom Watch List Columns
- 3. Gauges
- 4. Advanced DOM
- 5. Auto Backup
- 6. Log File Trimming
- 7. Watch List Flags and Filtering
- 8. New Components/Tools
- 9. Component Templates
- **10.** Continuous Contracts
- **11. Alert Colors**
- 12. CryptoCompare API Added support for API Key
- 13. Replay Mode in Trade Edition