

MMQ Market Profile Session

Complete Parameter Documentation

Version: 4.3

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This document provides detailed explanations of all input parameters for the MMQ Market Profile Session indicator. This is a session-based Market Profile implementation that divides each trading day into three distinct sessions (Asia, Europe, America) and creates separate TPO profiles for each session, allowing traders to analyze price distribution and market behavior across different global trading sessions.

Key Features

- Three-session daily analysis (Asia, Europe, America)
- Separate TPO profiles for each session with distinct colors
- Individual POC and Value Area calculation per session
- Initial Balance highlighting for each session
- Single print detection per session
- Volume Profile with tick volume analysis
- Split View mode for time-based TPO distribution
- Interactive toggle buttons and hotkeys
- Optimized rendering for low timeframes (M1-M4)

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1. General Settings

Core parameters that control the basic behavior and display of the indicator.

Start Day

Type: Integer | Default: 0

Determines how many days back from today to begin displaying profiles.

- **0:** Start from today (current trading day)
- **1:** Start from yesterday
- **2:** Start from 2 days ago, and so on

This parameter is useful when you want to focus on historical sessions or exclude the current developing day from your analysis.

Tip: Set to 1 to exclude the current incomplete trading day and only show completed sessions.

Number of Days to Display

Type: Integer | Default: 7 | Range: 1-20

Controls how many trading days are displayed on the chart. Each day shows three separate session profiles (Asia, Europe, America).

The indicator enforces a maximum limit of 20 days to maintain performance and chart readability.

Considerations:

- **3-5 days:** Clean chart, focus on recent sessions, ideal for day trading
- **7-10 days:** Good balance for swing trading and weekly analysis
- **15-20 days:** Comprehensive view for longer-term pattern recognition

Note: On first calculation (e.g., in Strategy Tester), the indicator limits to 10 days maximum to speed up initial validation, regardless of this setting.

Points per TPO Row

Type: Integer | Default: 16

Defines the price range (in points) that each TPO row represents. This is a critical parameter that controls the granularity and vertical resolution of your session profiles.

Impact of different values:

- **Lower values (5-10):** Finer granularity, more detailed price distribution, taller profiles. Better for ranging markets and precise level identification.
- **Medium values (15-25):** Balanced view, suitable for most instruments and trading styles.
- **Higher values (30-50+):** Coarser granularity, more compact profiles. Better for volatile instruments or when displaying many days.

Tip: For Forex pairs on M5-M15 timeframes, values between 10-20 work well. For indices and stocks, adjust based on the instrument's average session range and volatility. The same value is used for all three sessions.

Hide Candles (Profile Only)

Type: Boolean | Default: True

When enabled, this parameter makes the chart candles transparent by setting their colors to match the background, creating a clean "profile-only" view that emphasizes the Market Profile visualization.

Behavior:

- **True:** Candles, OHLC bars, and volume are hidden. Only the session profiles are visible.
- **False:** Normal candlestick chart is displayed alongside the session profile overlays.

The indicator automatically saves and restores your original chart settings when removed, so your chart appearance is preserved.

Note: This setting temporarily modifies chart properties. Your original chart colors and settings are automatically restored when the indicator is removed from the chart.

Show Split View Button

Type: Boolean | Default: True

Controls whether the Split View toggle button is displayed in the top-left corner of the chart.

- **True:** Button is visible and can be clicked to toggle Split View mode
- **False:** Button is hidden (Split View can still be toggled via hotkey)

The button displays the current state (ON/OFF) and the assigned hotkey for quick reference.

Split View Hotkey

Type: String | Default: S

Defines the keyboard shortcut for toggling Split View mode. Enter a single character (case-insensitive).

Split View mode separates TPO letters by time period within each session, displaying each time period in its own column. This helps visualize how price distribution evolved throughout the session.

Usage: Press the specified key (e.g., 'S') while the chart is active to toggle between merged and split display modes.

2. Session Settings

Configure the three global trading sessions and their visual appearance.

Europe Session Start (Hour)

Type: Integer | Default: 8 | Range: 0-23

Specifies the hour (in 24-hour format) when the Europe session begins. This divides the trading day into Asia and Europe sessions.

Session Division Logic:

- **Asia Session:** From 00:00 (midnight) until this hour
- **Europe Session:** From this hour until America session start

Default value of 8 represents 08:00 (8 AM), which aligns with London market open.

Tip: Adjust based on your broker's server time zone. For example, if your broker uses GMT+2 (common for Forex), and you want to track London open (08:00 GMT), you might set this to 10.

America Session Start (Hour)

Type: Integer | Default: 14 | Range: 0-23

Specifies the hour (in 24-hour format) when the America session begins. This marks the transition from Europe to America session.

Session Division Logic:

- **Europe Session:** From Europe start hour until this hour
- **America Session:** From this hour until midnight (end of day)

Default value of 14 represents 14:00 (2 PM), which typically captures New York market open depending on your broker's time zone.

Note: The America session extends from this hour until 23:59:59 of the same day. The next day's Asia session begins at 00:00.

Asia Session Color

Type: Color | Default: Sandy Brown

Sets the color for the Asia session TPO profile. This color is used for:

- TPO letters in the Asia session canvas
- Session-specific visual elements (if session borders are enabled)

Choose a color that provides good contrast with your chart background and is easily distinguishable from the Europe and America session colors.

Europe Session Color

Type: Color | Default: Aqua

Sets the color for the Europe session TPO profile. This color is used for all Europe session visual elements.

The default aqua (cyan) color provides strong visual contrast with the warm Asia session color and the violet America session color.

America Session Color

Type: Color | Default: Violet

Sets the color for the America session TPO profile. This color is used for all America session visual elements.

The three default session colors (Sandy Brown, Aqua, Violet) are chosen to be easily distinguishable from each other, making it simple to identify which session is which at a glance.

3. TPO Appearance

Control the visual presentation of TPO letters across all sessions.

Font Size

Type: Integer | Default: 8

Sets the size of TPO letters in points. This applies to all three sessions uniformly.

Typical values range from 6 to 10:

- **6-7:** Compact profiles, suitable for displaying many days or on smaller screens
- **8-9:** Balanced readability (recommended)
- **10+:** Large, highly readable letters, suitable for presentation or when focusing on fewer days

The optimal size depends on your screen resolution, chart zoom level, and how many days you're displaying.

Font Name

Type: String | Default: Monospace

Specifies the font family for TPO letters. Monospace fonts are strongly recommended because they ensure consistent character width, which is essential for proper TPO alignment in both merged and split view modes.

Recommended monospace fonts:

- Monospace (default, widely available)
- Courier New (classic monospace)
- Consolas (modern, clean)
- Lucida Console (good readability)

Note: Using proportional fonts (like Arial, Times New Roman, or Verdana) will cause misalignment of TPO letters and is not recommended. The indicator uses letters A-Z (26 letters) to represent different time periods within each session.

Letter Spacing

Type: Integer | Default: 8 pixels

Controls the horizontal spacing between TPO letters in pixels. This affects the visual density and readability of the session profiles.

- **5-7 pixels:** Compact spacing, fits more letters horizontally
- **8-10 pixels:** Balanced spacing (recommended)
- **11-15 pixels:** Wide spacing, easier to distinguish individual letters

Adjust this in combination with Font Size to achieve the desired visual appearance. Wider spacing makes it easier to read individual time periods but increases the horizontal space each session occupies.

Split View Mode (Initial State)

Type: Boolean | Default: False

Determines whether Split View mode is enabled when the indicator first loads. This can be toggled at any time using the Split View button or hotkey.

- **False:** Standard merged view with all TPO letters for each session combined (traditional Market Profile display)
- **True:** Split view with time periods separated into columns, showing the chronological evolution of price distribution

In Split View mode, you can see exactly when during the session each price level was visited, making it easier to identify:

- Initial Balance formation patterns
- Range extension timing
- Price acceptance or rejection by time period
- Session opening vs. closing price distribution

4. Value Area Settings

Configure the calculation and display of Value Area and Point of Control for each session.

VA Percentage

Type: Double | Default: 70.0

Defines what percentage of the total TPO count should be contained within the Value Area for each session. The standard Market Profile convention is 70%, representing the price range where 70% of the trading activity occurred during that session.

Calculation per session:

1. Find the Point of Control (price level with most TPOs) for the session
2. Expand up and down from the POC to include the specified percentage of total TPOs
3. Mark the Value Area High (VAH) and Value Area Low (VAL) for that session

Each of the three sessions (Asia, Europe, America) has its own independent POC and Value Area calculation.

Adjustment considerations:

- **60-65%:** Narrower value area, focuses on core price acceptance
- **70%:** Standard Market Profile convention (recommended)
- **75-80%:** Wider value area, includes more price extremes

VA Background Color

Type: Color | Default: Gold

Sets the background color for all Value Area zones across all three sessions. This color fills the rectangular area between Value Area High and Value Area Low for each session.

The same color is used for all sessions to maintain visual consistency and make Value Areas easily identifiable regardless of which session they belong to.

Choose a color that:

- Stands out against your chart background
- Doesn't obscure important price information
- Contrasts well with the session colors (Asia, Europe, America)

Tip: Warm colors like gold, yellow, or orange are traditional choices for Value Area highlighting and work well with most color schemes.

VA Transparency

Type: Integer | Default: 45 | Range: 0-255

Controls the transparency of the Value Area background using alpha channel values:

- **0:** Completely transparent (invisible)
- **30-60:** Subtle highlighting (recommended range)
- **100-150:** Moderate visibility
- **255:** Completely opaque (solid color)

Lower values create a subtle highlight that doesn't dominate the chart. Higher values make the Value Areas more prominent but may obscure underlying TPO letters and other elements.

The default value of 45 provides a good balance between visibility and transparency.

POC Color

Type: Color | Default: Yellow

Sets the color of the Point of Control lines for all sessions. Each session has its own POC - the price level with the highest TPO count within that session.

The POC represents the price where the most trading activity occurred during the session and is one of the most important reference levels in Market Profile analysis. It often acts as:

- A magnet for price during the session
- Support or resistance in subsequent sessions
- A reference point for measuring value acceptance

Use a bright, contrasting color to make POC lines easily identifiable across all three sessions.

Note: Each session (Asia, Europe, America) has its own independent POC calculation. You may see up to three POC lines per day, one for each session.

5. Session Borders & Initial Balance

Configure session boundaries and Initial Balance highlighting.

Show Session Borders

Type: Boolean | Default: False

Displays vertical lines at the start of each session, clearly delineating where one session ends and another begins.

- **True:** Border lines are drawn at the start of each session (Asia at 00:00, Europe at configured hour, America at configured hour)
- **False:** No border lines, sessions blend together visually (default for cleaner appearance)

Session borders are particularly useful when:

- Learning to identify session transitions
- Analyzing price behavior at session opens
- Comparing session characteristics side-by-side

Tip: The different session colors (Asia, Europe, America) already provide visual separation, so borders are optional. Enable them if you need explicit time markers.

Border Color

Type: Color | Default: White

Sets the color of session border lines (when enabled). Choose a neutral color that provides clear separation without being too prominent.

This color is also used for Initial Balance border lines.

Border & IB Width

Type: Integer | Default: 1 pixel

Sets the width of both session border lines and Initial Balance lines. This single parameter controls both elements for visual consistency.

- **1 pixel:** Subtle, minimal visual weight (default)
- **2-3 pixels:** More prominent, easier to see

Show Initial Balance

Type: Boolean | Default: True

Enables highlighting of the Initial Balance (IB) range for each session. The Initial Balance represents the price range established during the first portion of each trading session.

When enabled, the IB range for each session is highlighted with a colored background, making it easy to identify and monitor price action relative to this important reference zone.

Session-specific IB:

- Each session (Asia, Europe, America) has its own independent IB calculation
- IB is calculated based on the first N bars of each session
- Useful for identifying range expansion or contraction patterns within each session

IB Period (Bars)

Type: Integer | Default: 2

Specifies the number of bars to use for Initial Balance calculation for each session. The IB is the high-low range of the first N bars of the session.

Typical values:

- **1 bar:** Very quick IB formation, represents only the opening bar range
- **2 bars:** Default, balanced approach for most timeframes
- **3-4 bars:** Longer IB period, more stable reference range
- **5+ bars:** Extended IB, suitable for longer timeframes or less volatile markets

Tip: For M5 charts, 2-3 bars (10-15 minutes) works well. For M15 charts, 2-4 bars (30-60 minutes) is typical. Adjust based on your trading style and the typical session volatility.

IB Highlight Color

Type: Color | Default: Blue

Sets the color for the Initial Balance highlight zones across all sessions. The IB range is drawn as a colored background between the IB high and IB low for each session.

Choose a color that contrasts with the Value Area color for clear visual distinction between these two important zones.

6. Single Prints

Configure the detection and display of single print price levels within each session.

Show Single Prints

Type: Boolean | Default: True

Enables the detection and visualization of single print levels within each session. A single print is a price level that appears only once in the session profile (represented by only one TPO letter).

Significance of single prints:

- Areas of price rejection or quick movement through a level
- Potential support or resistance when price returns to these levels
- Gaps in the profile structure that may be filled in subsequent sessions
- Indicators of strong directional movement during the session

Single prints are calculated independently for each session (Asia, Europe, America), so a price level might be a single print in one session but not in another.

When enabled, single print levels are marked with small visual indicators on the chart.

Marker Color

Type: Color | Default: Salmon

Sets the color of single print markers across all sessions. These small indicators appear at price levels that contain only one TPO within their respective session.

Choose a color that:

- Stands out against your chart background
- Contrasts with the session colors (Asia, Europe, America)
- Is easily distinguishable from POC and Value Area colors

The default salmon (light red-orange) color provides good visibility against most backgrounds and session colors.

Marker Size

Type: Integer | Default: 2 pixels

Controls the size of single print markers. Larger markers are more visible but may clutter the chart if there are many single prints across multiple sessions.

- **1-2 pixels:** Subtle markers, minimal visual impact (recommended)
- **3-4 pixels:** More prominent, easier to spot
- **5+ pixels:** Very visible, may dominate the display

Since each day can have up to three sessions, and each session may have multiple single prints, keeping the marker size small helps maintain chart clarity.

7. Volume Profile

Configure the volume histogram display using tick volume data.

Show Volume Profile

Type: Boolean | Default: False

Enables the display of volume profile histograms for each session. The volume profile shows the distribution of tick volume across different price levels within each session.

- **True:** Volume histograms are displayed for all sessions
- **False:** Volume profiles are hidden (default for cleaner TPO-only view)

Volume Profile features:

- Uses tick volume data (number of price changes)
- Calculated independently for each session
- Displayed as horizontal bars extending from the session profile
- Helps identify price levels with highest trading activity

Note: This can be toggled at any time using the Volume Profile button or hotkey, regardless of the initial setting.

Volume Histogram Color

Type: Color | Default: Dim Gray

Sets the color for volume histogram bars across all sessions. This indicator uses total tick volume (not split by buy/sell) for simplicity.

Choose a neutral color that:

- Doesn't clash with the session colors
- Provides good visibility when semi-transparent
- Works well with your chart background

The default dim gray color is neutral and works well with most color schemes.

Volume Transparency

Type: Integer | Default: 80 | Range: 0-255

Controls the transparency of volume histogram bars using alpha channel values:

- **0:** Completely transparent (invisible)
- **50-100:** Semi-transparent, allows underlying elements to show through (recommended)
- **150-200:** Mostly opaque
- **255:** Completely solid

The default value of 80 provides good visibility while allowing TPO letters and other elements to remain visible through the volume bars.

Max Histogram Width

Type: Integer | Default: 50 | Range: 10-100

Sets the maximum width of the volume histogram as a percentage of the session width. The longest volume bar (highest volume level) will extend to this percentage, and all other bars are scaled proportionally.

- **20-30%:** Compact histogram, minimal space usage
- **40-60%:** Balanced size (recommended)
- **70-100%:** Large histogram, maximum detail but may overlap with adjacent sessions

Since each day has three separate sessions, keeping the histogram width moderate (40-60%) helps prevent overlap between adjacent sessions.

Show Volume Profile Button

Type: Boolean | Default: True

Controls whether the Volume Profile toggle button is displayed in the top-left corner of the chart (below the Split View button).

- **True:** Button is visible and can be clicked to toggle volume profile display
- **False:** Button is hidden (volume profile can still be toggled via hotkey)

The button displays the current state (ON/OFF) and the assigned hotkey for quick reference.

Volume Profile Hotkey

Type: String | Default: V

Defines the keyboard shortcut for toggling Volume Profile display. Enter a single character (case-insensitive).

Usage: Press the specified key (e.g., 'V') while the chart is active to toggle volume profile histograms on or off for all sessions.

This provides quick access to volume analysis without needing to reopen indicator settings.

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Session-based Market Profile analysis for global trading sessions