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//@version=6

indicator("MFB - 15 min OR sweep", shorttitle = "MFB - OR Sweep", overlay = true)

// --- Groups ---

string G\_OR = "Opening Range Settings"

string G\_CH = "Ch'd (Structure) Settings"

string G\_VWAP = "VWAP Settings"

string G\_TIME = "Time Settings"

string G\_VIS = "Visual Settings"

// --- Inputs ---

string orTime = input.session("0930-0945", "Opening Range Window", group = G\_OR)

string sessionTime = input.session("0930-1100", "Trading Window", group = G\_TIME)

int pivotLen = input.int(2, "Pivot Lookback", minval = 1, group = G\_CH)

int sweepExpiry = input.int(10, "Sweep Expiry (Bars)", minval = 1, group = G\_OR, tooltip =  
"A sweep signal will expire if a Ch'd doesn't occur within this many bars. This keeps signals  
'fresh'.")

bool useVwapFilter = input.bool(true, "Use VWAP Filter", group = G\_VWAP)

bool showTradeZones = input.bool(true, "Show Active Trade Zones", group = G\_VIS)

// --- Logic: Time ---

bool inORWindow = not na(time(timeframe.period, orTime, "America/New\_York"))

bool inTradeWindow = not na(time(timeframe.period, sessionTime, "America/New\_York"))

```
bool isNewDay    = ta.change(time("D")) != 0
```

```
// --- Logic: Opening Range ---
```

```
var float orHigh = na
```

```
var float orLow  = na
```

```
var bool sweepHighOccurred = false
```

```
var bool sweepLowOccurred  = false
```

```
var int  sweepHighBar      = 0
```

```
var int  sweepLowBar       = 0
```

```
if isNewDay
```

```
    orHigh := na, orLow := na
```

```
    sweepHighOccurred := false, sweepLowOccurred := false
```

```
if inORWindow
```

```
    orHigh := na(orHigh) ? high : math.max(orHigh, high)
```

```
    orLow  := na(orLow) ? low : math.min(orLow, low)
```

```
// --- Logic: Sweep Detection ---
```

```
bool isSweepHigh = not inORWindow and inTradeWindow and high > orHigh and not  
sweepHighOccurred
```

```
bool isSweepLow  = not inORWindow and inTradeWindow and low < orLow and not  
sweepLowOccurred
```

```
if isSweepHigh
```

```
    sweepHighOccurred := true
```

```
    sweepHighBar      := bar_index
```

```

if isSweepLow
    sweepLowOccurred := true
    sweepLowBar := bar_index

// Freshness Check: Expire sweeps that are too old
if sweepHighOccurred and (bar_index - sweepHighBar > sweepExpiry)
    sweepHighOccurred := false
if sweepLowOccurred and (bar_index - sweepLowBar > sweepExpiry)
    sweepLowOccurred := false

// --- Logic: VWAP ---
float vwapVal = ta.vwap

// --- Logic: Ch'd (Change of Character) ---
float pH = ta.pivohigh(high, pivotLen, pivotLen)
float pL = ta.pivotlow(low, pivotLen, pivotLen)
var float lastPivotHigh = na
var float lastPivotLow = na

if not na(pH)
    lastPivotHigh := pH
if not na(pL)
    lastPivotLow := pL

bool bullChd = ta.crossover(close, lastPivotHigh) and sweepLowOccurred
bool bearChd = ta.crossunder(close, lastPivotLow) and sweepHighOccurred

```

```
// --- Active Trade Tracking ---
```

```
var box tpBox = na
```

```
var box slBox = na
```

```
var bool inTrade = false
```

```
var int tradeDir = 0
```

```
var float tpPrice = na
```

```
var float slPrice = na
```

```
// Signal Logic
```

```
longSignal = bullChd and inTradeWindow and not inTrade and (not useVwapFilter or close > vwapVal)
```

```
shortSignal = bearChd and inTradeWindow and not inTrade and (not useVwapFilter or close < vwapVal)
```

```
if longSignal
```

```
    inTrade := true
```

```
    tradeDir := 1
```

```
    tpPrice := orHigh
```

```
    slPrice := lastPivotLow
```

```
    if showTradeZones
```

```
        tpBox := box.new(bar_index, tpPrice, bar_index + 1, close, bgcolor = color.new(#089981, 80), border_color = color.new(chart.fg_color, 70), border_style = line.style_dashed)
```

```
        slBox := box.new(bar_index, close, bar_index + 1, slPrice, bgcolor = color.new(#f23645, 80), border_color = color.new(chart.fg_color, 70), border_style = line.style_dashed)
```

```
    sweepLowOccurred := false
```

```

sweepHighOccurred := false // Mutual reset

if shortSignal

    inTrade := true

    tradeDir := -1

    tpPrice := orLow

    slPrice := lastPivotHigh

    if showTradeZones

        tpBox := box.new(bar_index, close, bar_index + 1, tpPrice, bgcolor = color.new(#f23645,
80), border_color = color.new(chart.fg_color, 70), border_style = line.style_dashed)

        slBox := box.new(bar_index, slPrice, bar_index + 1, close, bgcolor = color.new(#089981,
80), border_color = color.new(chart.fg_color, 70), border_style = line.style_dashed)

        sweepHighOccurred := false

        sweepLowOccurred := false // Mutual reset


// Update/Close Trade

if inTrade

    box.set_right(tpBox, bar_index + 1)

    box.set_right(slBox, bar_index + 1)

    if (tradeDir == 1 and (low <= slPrice or high >= tpPrice)) or (tradeDir == -1 and (high >=
slPrice or low <= tpPrice))

        inTrade := false


// --- Visuals: Markers ---

plot(orHigh, "OR High", color.new(chart.fg_color, 85), 1, plot.style_linebr)

plot(orLow, "OR Low", color.new(chart.fg_color, 85), 1, plot.style_linebr)

plot(vwapVal, "VWAP", color.new(#5b9cf6, 85), 1)

```

```
plotshape(bullChd, "Bull Ch'd", shape.triangleup, location.belowbar, #089981, 0, "BUY",  
chart.fg_color, size = size.small)
```

```
plotshape(bearChd, "Bear Ch'd", shape.triangledown, location.abovebar, #f23645, 0,  
"SELL", chart.fg_color, size = size.small)
```

```
plotshape(isSweepHigh, "Sweep High", shape.arrowdown, location.abovebar, #f23645, 0,  
size = size.tiny)
```

```
plotshape(isSweepLow, "Sweep Low", shape.arrowup, location.belowbar, #089981, 0, size  
= size.tiny)
```

```
bgcolor(inTradeWindow ? color.new(#5b9cf6, 99) : na)
```

```
bgcolor(inORWindow ? color.new(color.yellow, 98) : na)
```

```
// Alerts
```

```
alertcondition(bullChd, "Bullish Ch'd (OR Sweep)", "BUY after OR Sweep detected.")
```

```
alertcondition(bearChd, "Bearish Ch'd (OR Sweep)", "SELL after OR Sweep detected.")
```