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<https://mozilla.org/MPL/2.0/>

//@version=6

indicator('Universal MFB - Flow/Sweep/FVG-123 Setup', overlay = true, max_labels_count =
500, max_lines_count = 500)

// --- Group Name: FVG Settings ---

fvg_max_age = input.int(100, 'Max FVG Age (Bars)', minval = 1, group = 'FVG Settings',
tooltip = 'Only consider FVGs created within this many bars. Helps avoid "historical" FVG
signals.')

fvg_min_width = input.float(0, 'Min FVG Width (Ticks)', minval = 0, group = 'FVG Settings',
tooltip = 'Minimum size of the FVG in ticks to be considered valid.')

priming_lookback = input.int(30, 'Level Touch Lookback', minval = 1, group = 'Logic
Settings', tooltip = 'How many bars the "Level Touch" remains active before resetting.
Prevents signals from very old level sweeps.')

// --- Group Name: Display Settings ---

show_dots_1h = input.bool(true, 'Show Intention Dots on 1h Chart', group = 'Display
Settings', tooltip = 'Displays purple dots on the 1h chart when price breaches key levels.')

show_dots_30m = input.bool(true, 'Show Intention Dots on 30m Chart', group = 'Display
Settings', tooltip = 'Displays purple dots on the 30m chart when price breaches key levels.')

show_dots_15m = input.bool(true, 'Show Intention Dots on 15m Chart', group = 'Display
Settings', tooltip = 'Displays purple dots on the 15m chart when price breaches key levels.')

show_dots_5m = input.bool(true, 'Show Intention Dots on 5m Chart', group = 'Display
Settings', tooltip = 'Displays purple dots on the 5m chart when price breaches key levels.')

show_dots_1m = input.bool(false, 'Show Intention Dots on 1m Chart', group = 'Display
Settings', tooltip = 'Displays purple dots on the 1m chart when the 5m interval ends and a
breach occurred.')

show_levels = input.bool(false, 'Show Key Levels (PDH/PDL/etc.)', group = 'Display
Settings', tooltip = 'Toggles the visibility of PDH, PDL, and other session levels.')

```
show_labels = input.bool(true, 'Show Entry Labels', group = 'Display Settings', tooltip =
'Toggles the visibility of the "Chd" and "FVG-123" setup labels.')
```

```
entry_line_width = input.int(2, 'Trade Entry Line Width', minval = 1, maxval = 10, group =
'Display Settings', tooltip = 'Adjusts the thickness of the trade entry, stop loss, and take
profit lines.')
```

```
// --- Group Name: Levels Settings ---
```

```
pdh_color = input.color(color.new(#ab47bc, 30), 'PDH/PDL Color', group = 'Levels
Settings', inline = 'd')
```

```
pwh_color = input.color(color.new(#5b9cf6, 30), 'PWH/PWL Color', group = 'Levels
Settings', inline = 'w')
```

```
sess_color = input.color(color.new(color.gray, 50), 'Session Levels Color', group = 'Levels
Settings', inline = 's')
```

```
// =====
```

```
// 🕒 Levels Logic
```

```
// =====
```

```
is_in_sess(s) => not na(time('D', s, 'America/New_York'))
```

```
is_new_b(s) =>
```

```
    t = time('D', s, 'America/New_York')
```

```
    na(t[1]) and not na(t) or t[1] < t
```

```
get_bounds(s) =>
```

```
    var float h = na
```

```
    var float l = na
```

```
    // Reset levels at start of new daily session to clear previous day's data
```

```
    if ta.change(time('D', 'America/New_York')) != 0
```

```
        h := na
```

```

l := na
if is_in_sess(s)
    new_bar = is_new_b(s)
    l := new_bar ? low : na(l) ? low : math.min(l, low)
    h := new_bar ? high : na(h) ? high : math.max(h, high)
[h, l]

```

```

[ash, asl] = get_bounds('1800-0000')
[loh, lol] = get_bounds('0000-0600')
[o15h, o15l] = get_bounds('0930-0945')

```

```

// Use lookahead_on for HTF levels to get the value available at the start of the current bar
pdh = request.security(syminfo.tickerid, 'D', high[1], lookahead = barmerge.lookahead_on)
pdl = request.security(syminfo.tickerid, 'D', low[1], lookahead = barmerge.lookahead_on)
pwh = request.security(syminfo.tickerid, 'W', high[1], lookahead = barmerge.lookahead_on)
pwl = request.security(syminfo.tickerid, 'W', low[1], lookahead = barmerge.lookahead_on)

```

```

// Silver Bullet Times

```

```

lon_sb = '0300-0400'

```

```

ny_am_sb = '1000-1100'

```

```

ny_pm_sb = '1400-1500'

```

```

is_sb_time = not na(time('D', lon_sb, 'America/New_York')) or not na(time('D', ny_am_sb,
'America/New_York')) or not na(time('D', ny_pm_sb, 'America/New_York'))

```

```

// --- Plot Levels (Matching Image Style) ---

```

```

pdh_plot = ta.change(time('D')) != 0 ? na : pdh

```

```
pdl_plot = ta.change(time('D')) != 0 ? na : pdl
```

```
pwh_plot = ta.change(time('W')) != 0 ? na : pwh
```

```
pwl_plot = ta.change(time('W')) != 0 ? na : pwl
```

```
plot(show_levels ? pdh_plot : na, 'PDH', color = pdh_color, style = plot.style_linebr,  
linewidth = 2)
```

```
plot(show_levels ? pdl_plot : na, 'PDL', color = pdh_color, style = plot.style_linebr, linewidth  
= 2)
```

```
plot(show_levels ? pwh_plot : na, 'PWH', color = pwh_color, style = plot.style_linebr,  
linewidth = 2)
```

```
plot(show_levels ? pwl_plot : na, 'PWL', color = pwh_color, style = plot.style_linebr,  
linewidth = 2)
```

```
plot(show_levels ? ash : na, 'Asian High', color = sess_color, style = plot.style_linebr)
```

```
plot(show_levels ? asl : na, 'Asian Low', color = sess_color, style = plot.style_linebr)
```

```
plot(show_levels ? loh : na, 'London High', color = sess_color, style = plot.style_linebr)
```

```
plot(show_levels ? lol : na, 'London Low', color = sess_color, style = plot.style_linebr)
```

```
plot(show_levels ? o15h : na, '9:30 Open High', color = sess_color, style = plot.style_linebr)
```

```
plot(show_levels ? o15l : na, '9:30 Open Low', color = sess_color, style = plot.style_linebr)
```

```
// Labeling levels on the right
```

```
var label lbl_pdh = na, var label lbl_pdl = na, var label lbl_pwh = na, var label lbl_pwl = na
```

```
if barstate.islast and show_levels
```

```
    label.delete(lbl_pdh), label.delete(lbl_pdl), label.delete(lbl_pwh), label.delete(lbl_pwl)
```

```
    lbl_pdh := label.new(bar_index + 2, pdh, "PDH", color = #00000000, textcolor = pdh_color,  
style = label.style_label_left, size = size.small)
```

```
    lbl_pdl := label.new(bar_index + 2, pdl, "PDL", color = #00000000, textcolor = pdh_color,  
style = label.style_label_left, size = size.small)
```

```

    lbl_pwh := label.new(bar_index + 2, pwh, "PWH", color = #00000000, textcolor =
pwh_color, style = label.style_label_left, size = size.small)

    lbl_pwl := label.new(bar_index + 2, pwl, "PWL", color = #00000000, textcolor = pwh_color,
style = label.style_label_left, size = size.small)

// =====

// ⚡ Intention & Level Tracking

// =====

is1hChart = timeframe.isintraday and timeframe.multiplier == 60 and timeframe.isminutes

is30mChart = timeframe.isintraday and timeframe.multiplier == 30 and
timeframe.isminutes

is15mChart = timeframe.isintraday and timeframe.multiplier == 15 and
timeframe.isminutes

is5mChart = timeframe.isintraday and timeframe.multiplier == 5 and timeframe.isminutes

is1mChart = timeframe.isintraday and timeframe.multiplier == 1 and timeframe.isminutes


breachBullLogic = ta.crossover(close, pdh) or ta.crossover(close, ash) or
ta.crossover(close, loh) or ta.crossover(close, o15h) or ta.crossover(close, pwh)

breachBearLogic = ta.crossunder(close, pdl) or ta.crossunder(close, asl) or
ta.crossunder(close, lol) or ta.crossunder(close, o15l) or ta.crossunder(close, pwl)


[breachBull5m, breachBear5m] = request.security(syminfo.tickerid, "5", [breachBullLogic,
breachBearLogic])

is_5m_end = ta.change(time("5")) != 0


plotBullDot = (is1hChart and show_dots_1h and breachBullLogic) or
    (is30mChart and show_dots_30m and breachBullLogic) or
    (is15mChart and show_dots_15m and breachBullLogic) or

```

(is5mChart and show_dots_5m and breachBullLogic) or

(is1mChart and show_dots_1m and is_5m_end and breachBull5m)

plotBearDot = (is1hChart and show_dots_1h and breachBearLogic) or

(is30mChart and show_dots_30m and breachBearLogic) or

(is15mChart and show_dots_15m and breachBearLogic) or

(is5mChart and show_dots_5m and breachBearLogic) or

(is1mChart and show_dots_1m and is_5m_end and breachBear5m)

plotshape(plotBullDot, title="Bullish Breakout Dot", style=shape.circle,
location=location.belowbar, color=color.purple, size=size.tiny)

plotshape(plotBearDot, title="Bearish Breakout Dot", style=shape.circle,
location=location.abovebar, color=color.purple, size=size.tiny)

var bool touchedHigh = false

var bool touchedLow = false

if high >= pdh or high >= ash or high >= loh or high >= o15h or high >= pwh

touchedHigh := true

if low <= pdl or low <= asl or low <= lol or low <= o15l or low <= pwl

touchedLow := true

// --- Priming Reset Logic ---

// Reset touched states if too many bars have passed without a signal

last_high_touch = ta.barssince(high >= pdh or high >= ash or high >= loh or high >= o15h or
high >= pwh)

last_low_touch = ta.barssince(low <= pdl or low <= asl or low <= lol or low <= o15l or low <= pwl)

```
if not na(last_high_touch) and last_high_touch > priming_lookback
```

```
    touchedHigh := false
```

```
if not na(last_low_touch) and last_low_touch > priming_lookback
```

```
    touchedLow := false
```

```
// =====
```

```
// 💎 CHoCH & CISD (Ch'd) Logic
```

```
// =====
```

```
var float lastSwingHigh = na
```

```
var float lastSwingLow = na
```

```
ph = ta.pivohigh(high, 3, 3)
```

```
pl = ta.pivotlow(low, 3, 3)
```

```
if not na(ph)
```

```
    lastSwingHigh := ph
```

```
if not na(pl)
```

```
    lastSwingLow := pl
```

```
var float lastBearFVGTop = na
```

```
var float lastBullFVGBot = na
```

```
if high < low[2]
```

```
    lastBearFVGTop := low[2]
```

```
if low > high[2]
```

```
    lastBullFVGBot := high[2]
```

```
// Event detection
```

```
bool CHoCH_Bull_Event = ta.crossover(close, lastSwingHigh)
```

```
bool CHoCH_Bear_Event = ta.crossunder(close, lastSwingLow)
```

```
bool CISD_Bull_Event = ta.crossover(close, lastBearFVGTop)
```

```
bool CISD_Bear_Event = ta.crossunder(close, lastBullFVGBot)
```

```
bool bullChd = is1mChart and touchedLow and (CHoCH_Bull_Event or CISD_Bull_Event)  
and close > lastSwingHigh and close > lastBearFVGTop
```

```
bool bearChd = is1mChart and touchedHigh and (CHoCH_Bear_Event or  
CISD_Bear_Event) and close < lastSwingLow and close < lastBullFVGBot
```

```
plotshape(show_labels and bullChd ? true : false, title="Bullish Ch'd", text="Ch'd",  
style=shape.diamond, location=location.belowbar, color=#089981, textcolor=#089981,  
size=size.small)
```

```
plotshape(show_labels and bearChd ? true : false, title="Bearish Ch'd", text="Ch'd",  
style=shape.diamond, location=location.abovebar, color=#f23645, textcolor=#f23645,  
size=size.small)
```

```
// Trigger dynamic alerts
```

```
if bullChd
```

```
    alert("Universal MFB - Bullish Ch'd trade entry confirmation on " + syminfo.ticker,  
alert.freq_once_per_bar_close)
```

```
if bearChd
```

```
    alert("Universal MFB - Bearish Ch'd trade entry confirmation on " + syminfo.ticker,  
alert.freq_once_per_bar_close)
```

```
var bool chd_bull_active = false
```

```
var bool chd_bear_active = false
```



```

if bullChd
    chd_bull_active := true
    touchedLow     := false
if bearChd
    chd_bear_active := true
    touchedHigh    := false

// =====

// ✨ FVG-123 Logic (Optimized with UDT)

// =====

type FVG
    float top
    float bottom
    bool isBull
    bool active
    int  createdBar
    bool touched
    bool done
    int  lastTouchBar

var fvgArray = array.new<FVG>()

if bar_index >= 2
    if low > high[2]
        array.push(fvgArray, FVG.new(low, high[2], true, true, bar_index, false, false, na))
    if high < low[2]

```

```
array.push(fvgArray, FVG.new(low[2], high, false, true, bar_index, false, false, na))
```

```
// Memory Management: Keep array size reasonable
```

```
if array.size(fvgArray) > 100
```

```
    array.shift(fvgArray)
```

```
var table setupTable = table.new(position.bottom_right, 1, 1, bgcolor =  
color.new(color.black, 70), border_width = 1, border_color = color.gray)
```

```
atr = ta.atr(14)
```

```
var string lastIntention = ""
```

```
if breachBullLogic
```

```
    lastIntention := "Bullish"
```

```
else if breachBearLogic
```

```
    lastIntention := "Bearish"
```

```
bool fvg123SetupDetected = false
```

```
if array.size(fvgArray) > 0
```

```
    for i = array.size(fvgArray) - 1 to 0
```

```
        fvgObj = array.get(fvgArray, i)
```

```
        if fvgObj.active
```

```
            if (fvgObj.isBull ? low <= fvgObj.bottom : high >= fvgObj.top)
```

```
                fvgObj.active := false
```

```
                fvgObj.done := true
```

```
        if not fvgObj.done
```

```

afterP = bar_index > fvgObj.createdBar

if afterP and (high >= fvgObj.bottom) and (low <= fvgObj.top) and (fvgObj.isBull ?
close >= fvgObj.bottom : close <= fvgObj.top)

    fvgObj.touched    := true

    fvgObj.lastTouchBar := bar_index


if afterP and ((not fvgObj.isBull and close > fvgObj.top) or (fvgObj.isBull and close <
fvgObj.bottom))

    fvgObj.done := true


haveT = fvgObj.touched and not na(fvgObj.lastTouchBar) and bar_index >
fvgObj.lastTouchBar and afterP


if (fvgObj.isBull and haveT and close > fvgObj.top) or (not fvgObj.isBull and haveT
and close < fvgObj.bottom)

    // --- Logic Refinement ---

    bool is_flow_setup = fvgObj.isBull ? (lastIntention == "Bullish") : (lastIntention ==
"Bearish")

    bool is_sweep_setup = fvgObj.isBull ? (lastIntention == "Bearish") : (lastIntention
== "Bullish")


    // A bull setup is engaged if:

    // 1. We are in "Flow" and recently touched a High level (continuation)

    // 2. We are in "Sweep" and recently touched a Low level (reversal)

    // 3. A Ch'd event occurred

    bool levelEngaged = fvgObj.isBull ?

        ((is_flow_setup and touchedHigh) or (is_sweep_setup and touchedLow) or
chd_bull_active or low <= pdl or low <= asl or low <= lol) :

```

```
((is_flow_setup and touchedLow) or (is_sweep_setup and touchedHigh) or  
chd_bear_active or high >= pdh or high >= ash or high >= loh)
```

```
// Filter: Age and Width
```

```
bool fvg_valid = (bar_index - fvgObj.createdBar <= fvg_max_age) and  
(math.abs(fvgObj.top - fvgObj.bottom) / syminfo.mintick >= fvg_min_width)
```

```
if levelEngaged and fvg_valid and barstate.isconfirmed
```

```
    fvg123SetupDetected := true
```

```
    float ep = close
```

```
    float sl = fvgObj.isBull ? fvgObj.bottom - syminfo.mintick : fvgObj.top +  
syminfo.mintick
```

```
    float r = math.abs(ep - sl)
```

```
    float tp = fvgObj.isBull ? ep + (r * 2) : ep - (r * 2)
```

```
    color text_col = #5b9cf6
```

```
    string promptBase = is_flow_setup ? "Flow-FVG-123" : (is_sb_time ?  
"Sweep/FVG-123" : "Sweep/FVG-123")
```

```
    float textY = fvgObj.isBull ? low - atr * 2.8 : high + atr * 2.8
```

```
    if show_labels
```

```
        label.new(bar_index, textY, promptBase + (fvgObj.isBull ? " ▲" : " ▼"), color =  
#00000000, textcolor = text_col, style = fvgObj.isBull ? label.style_label_up :  
label.style_label_down, size = size.normal)
```

```
        line.new(bar_index, ep, bar_index + 10, ep, color = #5b9cf6, style =  
line.style_dotted, width = entry_line_width)
```

```
        line.new(bar_index, sl, bar_index + 10, sl, color = #f23645, style =  
line.style_dotted, width = entry_line_width)
```

```
line.new(bar_index, tp, bar_index + 10, tp, color = #089981, style =  
line.style_dotted, width = entry_line_width)
```

```
table.cell(setupTable, 0, 0, "Most Recent: " + (is_flow_setup ? "Flow" : "Sweep")  
+ " FVG-123", text_color = text_col, text_size = size.normal)
```

```
alert(promptBase + " trade entry confirmation on " + syminfo.ticker,  
alert.freq_once_per_bar_close)
```

```
touchedHigh := false
```

```
touchedLow := false
```

```
chd_bull_active := false
```

```
chd_bear_active := false
```

```
fvgObj.done := true
```

```
if not (timeframe.isintraday and (timeframe.multiplier == 1 or timeframe.multiplier == 5 or  
timeframe.multiplier == 15 or timeframe.multiplier == 30 or timeframe.multiplier == 60))  
and barstate.islast
```

```
runtime.error("Designed for 1m, 5m, 15m, 30m, and 1h only.")
```

```
// =====
```

```
// 🛎 Alerts
```

```
// =====
```

```
alertcondition(fvg123SetupDetected, "Universal MFB entry", "Universal MFB trade entry  
confirmation on {{ticker}}")
```

```
alertcondition(bullChd, "Bullish Ch'd", "Bullish Change of Character / CISD detected on  
{{ticker}}")
```

```
alertcondition(bearChd, "Bearish Ch'd", "Bearish Change of Character / CISD detected on  
{{ticker}}")
```

```
alertcondition(fvg123SetupDetected, "FVG-123 Setup", "New FVG-123 Setup confirmed on  
{{ticker}}")
```