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// WHAT IT DOES AND HOW TO USE:

// In the Input page you configure the RSI

//

// The indicator draws swings on the chart based on RSI extremes

// Example: Lines are draws from OVERSOLD to OVERBOUGHT and vice-versa

// If we keep geing in deeper OVERBOUGHT or OVERSOLD, the swinglines follow the price, till another cycle is complete

// In the labels you see the swing's relation to the structure: If the swing high is higher then the previous, it becomes Higher High aka HH

//**@version=4**

study("RSI Swing Indicator", overlay=true, max\_bars\_back=1000)

// RSI Settings for user

rsiSource = input(title="RSI Source", type=input.source, defval=close)

rsiLength = input(title="RSI Length", type=input.integer, defval=7)

rsiOverbought = input(title="RSI Overbought", type=input.integer, defval=70, minval=51, maxval=100)

rsiOvesold = input(title="RSI Oversold", type=input.integer, defval=30, minval=1, maxval=49)

// RSI value based on inbuilt RSI

rsiValue = rsi(rsiSource, rsiLength)

// Get the current state

isOverbought = rsiValue >= rsiOverbought

isOversold = rsiValue <= rsiOvesold

// State of the last extreme 0 for initialization, 1 = overbought, 2 = oversold

var laststate = 0

// Highest and Lowest prices since the last state change

var hh = low

var ll = high

// Labels

var label labelll = na

var label labelhh = na

// Swing lines

var line line\_up = na

var line line\_down = na

var last\_actual\_label\_hh\_price = 0.0

var last\_actual\_label\_ll\_price = 0.0

// FUNCTIONS

obLabelText() =>

if(last\_actual\_label\_hh\_price < high)

"HH"

else

"LH"

//plot(last\_actual\_label\_hh\_price)

osLabelText() =>

if(last\_actual\_label\_ll\_price < low)

"HL"

else

"LL"

// Create oversold or overbought label

createOverBoughtLabel(isIt) =>

if(isIt)

label.new(x=bar\_index, y=na ,yloc=yloc.abovebar, style=label.style\_label\_down, color=color.red, size=size.tiny, text=obLabelText())

else

label.new(x=bar\_index, y=na ,yloc=yloc.belowbar, style=label.style\_label\_up, color=color.green, size=size.tiny, text=osLabelText())

// Move the oversold swing and label

moveOversoldLabel() =>

label.set\_x(labelll, bar\_index)

label.set\_y(labelll, low)

label.set\_text(labelll, osLabelText())

line.set\_x1(line\_down, bar\_index)

line.set\_y1(line\_down, low)

moveOverBoughtLabel() =>

label.set\_x(labelhh, bar\_index)

label.set\_y(labelhh, high)

label.set\_text(labelhh, obLabelText())

line.set\_x1(line\_up, bar\_index)

line.set\_y1(line\_up, high)

// We go from oversold straight to overbought NEW DRAWINGS CREATED HERE

if(laststate == 2 and isOverbought)

hh := high

labelhh := createOverBoughtLabel(true)

last\_actual\_label\_ll\_price := label.get\_y(labelll)

labelll\_ts = label.get\_x(labelll)

labelll\_price = label.get\_y(labelll)

line\_up := line.new(x1=bar\_index, y1=high, x2=labelll\_ts, y2=labelll\_price, width=1)

// We go from overbought straight to oversold NEW DRAWINGS CREATED HERE

if(laststate == 1 and isOversold)

ll := low

labelll := createOverBoughtLabel(false)

last\_actual\_label\_hh\_price := label.get\_y(labelhh)

labelhh\_ts = label.get\_x(labelhh)

labelhh\_price = label.get\_y(labelhh)

line\_down := line.new(x1=bar\_index, y1=high, x2=labelhh\_ts, y2=labelhh\_price, width=1)

// If we are overbought

if(isOverbought)

if(high >= hh)

hh := high

moveOverBoughtLabel()

laststate := 1

// If we are oversold

if(isOversold)

if(low <= ll)

ll := low

moveOversoldLabel()

laststate := 2

// If last state was overbought and we are overbought

if(laststate == 1 and isOverbought)

if(hh <= high)

hh := high

moveOverBoughtLabel()

//If we are oversold and the last state was oversold, move the drawings to the lowest price

if(laststate == 2 and isOversold)

if(low <= ll)

ll := low

moveOversoldLabel()

// If last state was overbought

if(laststate == 1)

if(hh <= high)

hh := high

moveOverBoughtLabel()

// If last stare was oversold

if(laststate == 2)

if(ll >= low)

ll := low

moveOversoldLabel()