

Hello.

I need an indicator written in mql5 language to use on MT5 platform.

### Definitions:

Stochastic 10: oversold area near lower limit value. (or 0 - zero)

Stochastic 50: mid value buy-sell balance.

Stochastic 90: overbought area near upper limit value. (or 100)

P(i): Instantaneous current Price (P) value (on chart)

P(i-x): x bar previous Price value (on chart)

P(i+y): y bar later expected (estimated) Price value (on chart)

L1(i): Instantaneous indicator value (on indicator window)

L1(i-x): x bar previous indicator value. Also pivot point. (on indicator window, bottom or top point)

L1(i+y): Expected (estimated) indicator value after y bars (on indicator window)

Fy: L1(i+y), the intersection point of the indicator 90 value (or 100) line and the y bar after. It is also calculated as a result of interpolation with the c slope.

(on indicator window, orange line)

Py: P(i+y), the end point of the line calculated by interpolation with the e slope after y bars.

(on chart window, orange line)

b1: Vertical difference between the pivot point (L1(i-x)) and the current bar (L1(i)). (in the indicator window)

b2: Vertical difference between the current bar (L1(i)) and L1(i+y), i.e. Fy. (in the indicator window)

d1: At the pivot point level. (in the same bar) Vertical difference between the point (P1(i-x)) and the current bar (P(i)). (on chart)

d2: the vertical difference between (P(i)) and P(i+y), i.e. Py, in the instantaneous bar. (on chart)

### Requests:

**1-)** I want a new indicator produced from the result of the data entered as %K and %D inputs, for example stoch(25) i.e. 25 period of the Stochastic indicator.

#### **2-) A) In the Stochastic Indicator window;**

##### **a) Line to be drawn on the indicator 90 (overBuy) level:**

example: %K = 25, i.e. 25 period Stoch(25) D% line = L1,

$$L1(i) - L1(i-1) = a1,$$

$$L1(i-1) - L1(i-2) = a2,$$

$$L1(i-2) - L1(i-3) = a3,$$

$(a1 + a2 + a3) > 0$ ; Let  $(a1 + a2 + a3)/3 = a4$ , *(sensitive point. Perhaps another different logic can be develop for here. I am not sure it is true logic or not for a stabile lines!!)*

When the L1 value is below the last indicator 20 value,  $L1(i-2) > L1(i-1) < L1(i)$  is the return (bottom-up return) point indicator value  $L1(i-x)$ , (this situation may be 3 bars, 6 bars or 12 bars or 40 bars behind)  $L1(i)$  indicator value is subtracted. (That is;  $L1(i) - L1(i-x) = b1$ ) The formula for the pivot search is the period value (in our example Stoch(25), 25.

Pivot point conditions:

Pivot search:  $\text{Stoch}(xx) * 2$ , That is, Pivot Search =  $25 * 2 = 50$  bars back.

Pivot point will be bottom point of the last  $\text{Stoch}(xx) / 2$  bars. If let it be Stoch30, then must be last 15 bars bottom point.

\*\* Other creative logical suggestion acceptable.

Here, it is determined how many bars ago the last return was at a point below the indicator 20 value. To find how many bars back the last bottom-up return of the L1 value is, x calculation (Pivot point search) is performed. (x bars behind) Scanning is performed with backward scanning code. (as stated, x; can be 3 bars, 6 bars, 12 bars, 40 bars or 75 bars...etc., variable)

$L1(i) - L1(i-x) = b1$  is found. (b1 difference is found by subtracting indicator values from each other.)

$90 - L1(i) = b2$  is determined.

$b1/x = c$  is calculated. (slope)

$b2 / c = y$  is calculated. (y= how many bars in the future will the  $L1(i)$  value reach the value of 90. The y value is rounded to an integer.)

Then, a linear line is created from the  $L1(i)$  indicator value point to the point where the indicator value is 90 (y,90 point) y bars later. (orange line on the picture)

#### **b) Line to be drawn on indicator 10 level (oversell Level):**

Same example: %K = 25, i.e. 25 period Stoch(25) D% line = L1,

$L1(i) - L1(i-1) = a1$ ,

$L1(i-1) - L1(i-2) = a2$ ,

$L1(i-2) - L1(i-3) = a3$ ,

If  $(a1 + a2 + a3) < 0$ ; Let  $(a1 + a2 + a3)/3 = a4$ ,

When the L1 value is above the last indicator 80 value, the indicator value  $L1(i-x)$  at the return (top-down return) point in the case where  $L1(i-2) < L1(i-1) > L1(i)$  is subtracted from each other (this situation may be 3 bar, 6 bar, 12 bar, 40 bar or 75 bar behind, variable). (That is;  $L1(i) - L1(i-x) = b1$ )

Here, it is determined how many bars ago the last return was at a point above the indicator 80 value. An x calculation (pivot calculation) is made to find how many bars back the last top-down return of the L1 value is. (x bars behind) Scanning is done with the backward scanning code. (as it is said, x; 3 bar, 6 bar, 12 bar, 40 bar, 75 bar etc... can be variable)

$L1(i) - L1(i-x) = b1$  is found. (b1 difference is found by subtracting indicator values from each other.)

$10 + L1(i) = b2$  is determined.

$b1/x = c$  is calculated. (slope)

$b2 / c = y$  is calculated. (y=  $L1(i)$  value (i.e.  $L1(i+y)$  is how many bars in the future it will reach the indicator 10 value. y value is rounded to integer.)

Then a linear line is created from the indicator value point  $L1(i)$  to the point where the indicator 10 value is y bars later ( $L1(i+y)$ , indicator 10 point =  $Fy$ ). (A linear line from  $L1(i)$  to  $L1(i+y)$ .)

#### **B) On the chart window (price chart);**

### **a) Adaptation of the line to be drawn to the indicator 90 (over Buy) level to the price:**

the indicator window L1(i) point corresponding to the (current current bar), the P(i) value (bid price) on the same bar on the chart, the P(i-x) price (bid price) corresponding to the L1(i-x) indicator point are subtracted from each other.  $P(i) - P(i-x) = d1$  is found.

$d1/x = e$  is calculated. (slope)

$d2 = y * e$  is found. (instead of this) --- > this might be --- >  $d2 = y * e$

$ATR(xx) / e == z1$  // this coefficient might use in calculations tailoring as well.

Then the Py point is found.

$Py = ((P(i) + d2), y)$ , In other words, the point found when going up d2 from point P(i) and forward y distance.

Then a linear line is drawn from point P(i) to point Py.

(Its direction is a line from bottom to top.) Orange line in the upper window on the chart.

### **b) Adaptation of the line to be drawn on the indicator 10 level level (oversell Level) to the price:**

The indicator window L1(i) point corresponding to the (current current bar) P(i) value (bid price) on the same bar on the on chart is subtracted from the P(i-x) price (bid price) corresponding to the L1(i-x) indicator point.  $P(i) - P(i-x) = d1$  is found.

$d1/x = e$  is calculated. (slope)

$d2 = y * e$  is found. (instead of this) --- > this might be --- >  $d2 = y * e$

$ATR(xx) / e == z1$  // this coefficient might use in calculations tailoring as well.

Then the Py point is found.

$Py = ((P(i) + d2), y)$ , In other words, the point found when going down d2 from point P(i) and forward y distance.

Then a linear line is drawn from point P(i) to point Py. (Its direction is a line from top to bottom.)

### **C) Extending the Stoch Lines:**

Another different easy method will have can be extending the lines easily that explained **in Picture11**. Let's assume that we created 40 Stoch Lines with 20% intervals. And these lines are placed in the lower indicator window. If the end point of each line is upward; it will be extended to the 90 level or 100 (over buy level), if the end point of the line is downward; it will be extended to the 10 level or 0 (over sell level). Here, in order for very long orange lines to appear (if the angles are low), a limitation can be made. For example, it cannot exceed the period \* 2 length. Of course, our main goal here is to create the blue line that will be formed by the points at the end points of the orange lines. Our orange straight lines here are actually just intermediate transactions. We need the blue line.

**3-)** All created transactions are calculated for all time frames. The current time frame is shown there. For example, the code in the window open in M15; It makes the same calculations for M1, M2, M3, M4, M5, M6, M10, M12, M15, M20, M30, H1, H2, H3, H4, H6, H8, H12, D1, W1 and draws according to the results in the M15 window.

**4-)** All variable values are shown on the dashboard as input.

**5-)** Finally, the creation of the Tail Line, **(blue Line, main purpose)** that is, the trace left by the tip of the orange line created on the chart.

Similar code had been created before for another special indicator. I can share this logic and all codes.

**\*The most important item is here. (item 5)**

**6-) Sample Numerical Data and Calculation (for 90 Line - Oversold Signal):**

**Assumptions (for interpolation method):**

Stochastic Period (%K): 25

Current bar index (i): "February 20 03:00" bar in the figure.

Pivot point: formed at "February 19 15:00" bar, so  $x = 12$  bars (approximately according to H1 timeframe).

**Values read from the display window:**

$L1(i-x)$  (pivot point value)  $\approx 8$

$L1(i)$  (current value)  $\approx 47$

**Values read from the price chart:**

$P(i-x)$  (pivot price)  $\approx 1.04070$

$P(i)$  (current price)  $\approx 1.04280$

**Calculations (for the 90 line case):**

$b1 = L1(i) - L1(i-x) = 47 - 8 = 39$

$b2 = 90 - L1(i) = 90 - 47 = 43$

$c = b1 / x = 39 / 12 = 3.25$

$y = b2 / c = 43 / 3.25 = 13.23$  (rounded to the nearest integer,  $y = 13$ )

After finding  $y$ , it is now very easy to calculate in the upper window.

$d1 = P(i) - P(i-x) = 1.0428 - 1.0407 = 0.0021$  bips

$e = d1 / x = 0.0021 / 12 = 0.000175$

$d2 = y * e = 13 * 0.000175 = 0.002275$

$P_y = P(i) + d2 = 1.0428 + 0.00227 = 1.04507$

**\*\* According to  $P(i)$ , the line to be drawn in the graph: from (0, 1.04280) to --> (13, 1.04507)**

**\*\* According to  $L1(i)$ , the line to be drawn in the indicator window: from (0, 47) to --> (13, 90)**

Here,  $d1$  and  $d2$  measurement might fix by ATR based additional calculations.  $D1$  length has a ATR value, after forawhile  $d2$  has another different ATR period. This contradiction may fix.

**7-) a)** Descent Red, ascent Blue coloring; (and other options, if possible)

**b)** Standard indicator features.

**c)** Timeframe options such as M1, M2.....H12, D1 (True/False.)

**d)** 90 target and 10 target can be changed to 100 and 0. (input option)

**e)** While process progressing if occurs some new ideas or changings, they can change. Developer will be resillient a little bit for this type of demands.

f) For ATR based additions or pivot findings codes' main logic may be changeable. For example if main charts and indicator Windows pivot points (L1(i-x) and P(i-x) can shift a couple bar. This calculation must be balanced by developer.

g) At the end of the job, if the line groups (track, tail lines) do not form a meaningful pattern due to incorrect coding or as specified in the explicit definitions, the customer may direct the developer to correct the incorrect coding.

8-) If you can do it, I want multiplexing. I want to multiplex the same features of the same line, for example, 20 times at 20% rates, and I want 20 indicators that work with the same logic. Of course, this should be a simple multiplexing without eating the processor.

Multiple	
01 How Many?	20
1/2 Ratio %	50.0
Colors	

### 9-) Order of operations:

- Finding the pivot point (bottom or top peak point) according to the current position of the Stochastic line.
- Finding/calculating b1, b2, x and y, calculating the slopes.
- Finding d1 and d2 with interpolation, drawing the orange lines.
- With each new bar, the end points of the orange lines are updated in the upper window, and the extreme points are combined with each other (blue line) to create a new trend line.
- Repeating this operation with multiplexing in different Stochastic periods as many times as desired. Doing this with multiple Stochastics in the same time frame at the same time, and doing the same multiple operation in other time frames and seeing them in the visible window (true / false) at the and if multiplier = 15, and time all frames true, then there will be approximately ~300 blue lines, therocially.

### 10-) Dashboard will be;

Sto %K Period== 20

Sto %D Period== 4

Slowing== 3

Method== exponantial etc.

LineTargetlower: 10 // Changeable, oversold Level

LineTargetUpper: 90 // Changeable, overbought Level

Pivot\_Level\_Down: 20 // Changeable, oversold Level (Calculation condition)

Pivot\_Level\_Up: 80 // Changeable, overbought Level (Calculation condition)

Pivot Research backward == 3; // Period \* x (Multiply period lenght)

maxProjectionBars = Period/2 / Period / Period \* 1.5 / Perod \* 2; // maximum bars to Projection, for future extending (In fact, this input is needed to reduce noise.)

multiplier Count = 20; // number of stoch to create per timeframe

multiplexStep Ratio% = 20; // incremental increase ratio, as %

Calculation Method = Interpolation with Pivot / Extend the line OB or OS / Both (selectable)

Calculate in each bar or tick == Bar / Tick (Reducing to processor enforcing)

```
Ind_ExtendedLine == clrOrange;  
Chart_ExtendedLine== clrOrange;  
  
Chart_Tail_Line_Up== clrDeepSkyBlue;  
Chart_Tail_Line_Down== clrtomato;
```

```
// Multi-timeframe options  
input bool  enableMTF      = false;  
input bool  tfUseM1        = false;  
input bool  tfUseM2        = false;  
...  
...  
input bool  tfUseH12       = false;  
input bool  tfUseD1        = false;
```

**Thank you.**