Greatest Swing Value (GSV)

1. Buy Swing and Sell Swing
   We will call these BS_t and SS_t, and we will compute them as follows. Here, O_t, H_t, L_t, and C_t are the Open, High, Low, and Close Prices at Index t.

$$BS_t = \begin{cases} H_t - O_t & C_t < O_t \\ 0 & C_t \geq O_t \end{cases} \qquad SS_t = \begin{cases} O_t - L_t & C_t > O_t \\ 0 & C_t \leq O_t \end{cases}$$

2. Averages of Buy Swing and Sell Swing
   We will call these averages $\overline{BS}_t(n)$ and $\overline{SS}_t(n)$, where n is the length of the moving window over which the averaging is to be done (Williams uses $n = 4$). We will compute them as follows.

$$\overline{BS}_t(n) = SZMA_t(BS, n) \qquad \overline{SS}_t(n) = SZMA_t(SS, n)$$

   In the above formulas, $SZMA$ is stands for **Simple Moving Average – Skip Zeros**.

3. Buy and Sell Prices
   We will call these $B_t(n, v)$ and $S_t(n, v)$, and we will calculate them relative to today's Open Price, O_t. ***These are the subgraphs that will be displayed in Sierra Chart***. The new parameter v is a multiplier (Williams uses $v = 1.8$, or 180%).

$$B_t(n, v) = O_t + v \cdot \overline{BS}_{t-1}(n) \qquad S_t(n, v) = O_t - v \cdot \overline{SS}_{t-1}(n)$$