

תוכן העניינים

1

1 אינדיקטורים

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הגדרה 1: ממוצע נع פשוט

20 ייחדות זמן:

$$\text{SMA}_{20}[k] = \frac{1}{20} \sum_{i=1}^{20} P[k - 20 + i]$$

n ייחדות זמן:

$$\text{SMA}_n[k] = \frac{1}{n} \sum_{i=1}^n P[k - n + i]$$

Def. 2: Weighted Moving Average

20 time units:

$$\text{WMA}_{20}[k] = \frac{\sum_{i=1}^{20} w[i]P[k - 20 + i]}{\sum_{i=1}^{20} w[i]}$$

n time units:

$$\text{WMA}_n[k] = \frac{\sum_{i=1}^n w[i]P[k - n + i]}{\sum_{i=1}^n w[i]}$$

הגדרה 3: ממוצע נع מעריבי

20 ייחדות זמן:

$$\text{EMA}_{20}[k] = \alpha P[k] + (1 - \alpha) \text{EMA}_{20}[k - 1], \quad \alpha = \frac{2}{20 + 1}$$

n ייחדות זמן:

$$\text{EMA}_n[k] = \alpha P[k] + (1 - \alpha) \text{EMA}_n[k - 1], \quad \alpha = \frac{2}{n + 1}$$

Def. 4: Exponential Moving Average

20 time units:

$$\text{EMA}_{20}[k] = \alpha P[k] + (1 - \alpha)\text{EMA}_{20}[k - 1], \quad \alpha = \frac{2}{20 + 1}$$

n time units:

$$\text{EMA}_n[k] = \alpha P[k] + (1 - \alpha)\text{EMA}_n[k - 1], \quad \alpha = \frac{2}{n + 1}$$

הגדרה 5: ממוצע נע הול

20 ייחדות זמן:

$$\text{HMA}_{20}[k] = \text{WMA}_{\sqrt{20}} \left(2 \times \text{WMA}_{10}[k] - \text{WMA}_{20}[k] \right)$$

n ייחדות זמן:

$$\text{HMA}_n[k] = \text{WMA}_{\sqrt{n}} \left(2 \times \text{WMA}_{\frac{n}{2}}[k] - \text{WMA}_n[k] \right)$$

Def. 6: Hull Moving Average

20 time units:

$$\text{HMA}_{20}[k] = \text{WMA}_{\sqrt{20}} \left(2 \times \text{WMA}_{10}[k] - \text{WMA}_{20}[k] \right)$$

n time units:

$$\text{HMA}_n[k] = \text{WMA}_{\sqrt{n}} \left(2 \times \text{WMA}_{\frac{n}{2}}[k] - \text{WMA}_n[k] \right)$$

Def. 7: Highest high

20 time units:

$$\text{HH}_{20}[k] = \max \{ \text{H}[k], \text{H}[k - 1], \dots, \text{H}[k - 20 + 1] \} = \max \bigcup_{i=1}^{20} \text{H}[k - i + 1]$$

n time units:

$$\text{HH}_n[k] = \max \{ \text{H}[k], \text{H}[k - 1], \dots, \text{H}[k - n + 1] \} = \max \bigcup_{i=1}^n \text{H}[k - i + 1]$$

Def. 8: Lowest low

20 time units:

$$LL20[k] = \min \{L[k], L[k-1], \dots, L[k-20+1]\} = \min \bigcup_{i=1}^{20} L[k-i+1]$$

n time units:

$$LLn[k] = \min \{L[k], L[k-1], \dots, L[k-n+1]\} = \min \bigcup_{i=1}^n L[k-i+1]$$