



**S-Trader**





## SI | Swing Index ASI | Accumulative Swing Index

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## Description

The Accumulative Swing Index, created by Welles Wilder, attempts to find the swing line within the bar. It was originally created to apply to daily bars, as there is a market or user defined value of the maximum price change that can occur during the trading session. Using the study on intra-day bar data will require the user to specify a limit value for the given bar interval.

## Formula

Step 1: Calculate  $Q = (C - Cp) + 0.5*(C - O) + 0.25*(Cp - Op)$

Step 2: Calculate  $K = \text{The higher of } ABS(H - Cp) \text{ or } ABS(L - Cp)$

Step 3: Calculate R as:

i. Calculate  $ABS(H-Cp)$ ,  $ABS(L-Cp)$ ,  $ABS(H - L)$  and determine which is the highest value

ii. If  $H - Cp$  is largest value,  $R = (H - Cp) - 0.5*(L - C) + 0.25*(Cp - Op)$

iii. If  $L - Cp$  is largest value,  $R = (L - Cp) - 0.5*(H - C) + 0.25*(Cp - Op)$

iv. If  $H - L$  is largest value,  $R = (H - L) + 0.25*(Cp - Op)$

Step 4: Calculate Swing Index =  $SI = (50*K*Q) / (R*M)$  where M is the value of a limit move (typically set by a futures exchange)

Step 5: Calculate Accumulative Swing Index =  $SI \text{ current period} + ASI \text{ previous period}$  (initialize ASI at 0)

## Parameters

**Limit Move Value**

Any number



## Output value(s)

There are two output values resulting from the formula, the Swing Index and the Accumulative Swing Index.

## Plot

The plot is in a separate panel at the bottom.


## Quant Script™ Syntax

<b>Short Form</b>	<i>SI</i> (LimitMoveValue)
	<i>ASI</i> (LimitMoveValue)
<b>Long Form</b>	<i>SwingIndex</i> (LimitMoveValue)
	<i>AccumulativeSwingIndex</i> (LimitMoveValue)



## Dialogs

### Chart Study Dialog

 **Accumulative Swing Index** ✕

Indicator Parameters

Symbol

LimitMoveValue

Series Configuration

Main

Save as Default Setting



## Sample Chart With Study





## Quant Script™ Wizard Study Dialog

The image shows two overlapping dialog boxes in the S-Trader desktop platform. The 'Custom Study Wizard' dialog is on the left, and the 'Add Variable' dialog is on the right.

**Custom Study Wizard**

- Save To Group: Default
- Custom Study Name: [Empty text box]
- Password: [Empty text box]
- Result: Line, Solid, 2, [Color swatches]
- Reverse\_Result: Line, Solid, 2, [Color swatches]
- Add To New Panel:
- Buttons: Add New Variable, Edit Selected Variable
- Table:

Name	Description
------	-------------
- Buttons: OK, Cancel

**Add Variable**

- Name: [Empty text box]
- Description: [Empty text box]
- LimitMoveValue: 12.00
- Tree view:
  - Statistics
  - SVA Functions
  - Trend Indicators
    - AccumulativeSwingIndex
    - ADX
    - ADXR
    - AROD
    - AroonDown
    - AroonOscillator
    - AroonUp
    - AROOSC
    - AROU
    - ASI
    - AverageDirectionalIndex
    - AverageDirectionalIndexRating
    - DIN
    - DIP
    - DirectionalIndex

- Buttons: Create Script Line, OK, Cancel



## Quant Script™ Study Dialog

**Custom Study Editor** [Close]

Save To Group: 5\_TREND INDICATORS [Dropdown]    Font: A 14.00 [Dropdown]

Custom Study Name: ASI [Text]

Password: [Text]

Result: Line [Dropdown]    Solid [Dropdown]    2 [Spinner]    [Color Picker]

Reverse\_Result: Line [Dropdown]    Solid [Dropdown]    2 [Spinner]    [Color Picker]

Formula [Add To New Panel

```
SET A1 = SI(12)
SET A2 = SwingIndex(12)

SET B1 = ASI(12)
SET B2 = AccumulativeSwingIndex(12)
```

[OK] [Cancel]