**SCADA\_SLIDING\_AVG**

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| **Version** | **Release Notes** |
| 1.1 | Conversion to AOI, no changes made to programming functionality |

**Description**: This UDT implements a sliding/moving average calculation for an analog value.

**Naming Convention**: Tags created with this UDT should use fragments 1, 2 and 3 indicating the device, and use MAVE as fragment 2 e.g. BXX\_MAVE\_FI1.

**UDT Members**

| **UDT Member** | **Datatype** | **Description** | **Usage** |
| --- | --- | --- | --- |
| ADDON | Moving\_Average\_v1 | Moving Average AOI | Implement in a moving average routine in Device Program |
| SampleTimer | TIMER | Sample Frequency Timer | Program in moving average AOI |

**AOI**

| **AOI Parameter** | **Requirement** | **Default Value** | **Description** | **Implementation Guideline** |
| --- | --- | --- | --- | --- |
| Moving\_Average\_v1 | Mandatory | *Tagname*.ADDON | Moving Average AOI | N/A |
| Scaled\_CV\_Value | Mandatory | .AI\_CV of tag for which average is being calculated | Analog Value | N/A |
| Sample\_Enable | Mandatory | BXX\_MAVE\_FI1.SampleTimer.DN | Sample Value for Moving Average | N/A |
| TotalSamples | Mandatory | 135 | Number of samples used in Moving Average | N/A |
| Average | Mandatory | .AI\_AT tag of Analog UDT | Average Value | N/A |

**AOI Operation Description**

The AOI implements the Logix 5000/Studio 5000 MAVE instruction using the IN, SampleEnable, and NumberofSamples input values to produce an average.

**Programming Examples**

The AOI accommodates a maximum of 1000 samples. Based on the required period for the moving average the programmer can determine how many samples are needed and what frequency of sampling is required to achieve the required accuracy. At a sampling rate of two seconds the default of 135 samples will produce an average for the past 4.5 minutes.

**HMI Integration**

There are no specific HMI Integration requirements for the UDT.