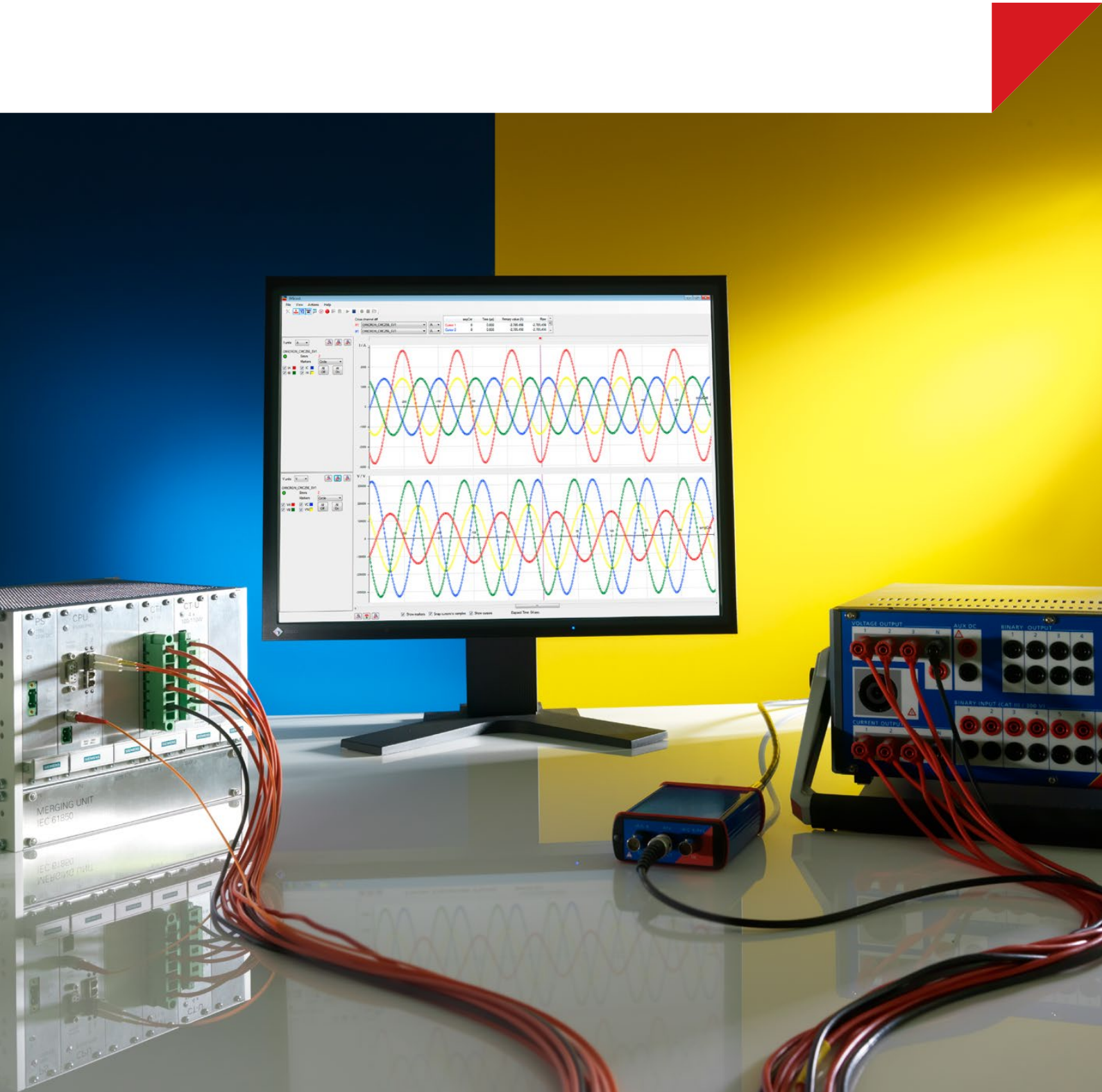


# SVScout

Software tool for visualizing IEC 61850 Sampled Values

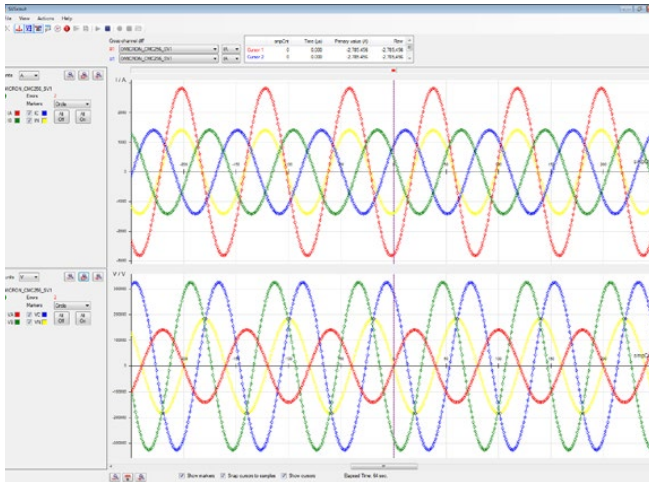


# The Engineers' and Developers' Tool for Visualizing Sampled Values

## Visualize Sampled Values

SVScout (VESC1510) is a measurement and testing tool for protection engineers and IED developers working with Sampled Values according to IEC 61850 and IEC 61869-9. It subscribes to the Sampled Values streams from one or multiple merging units and displays the waveforms of the primary voltages and currents in an oscilloscope view. Individual values on the traces can be looked up and compared with each other.

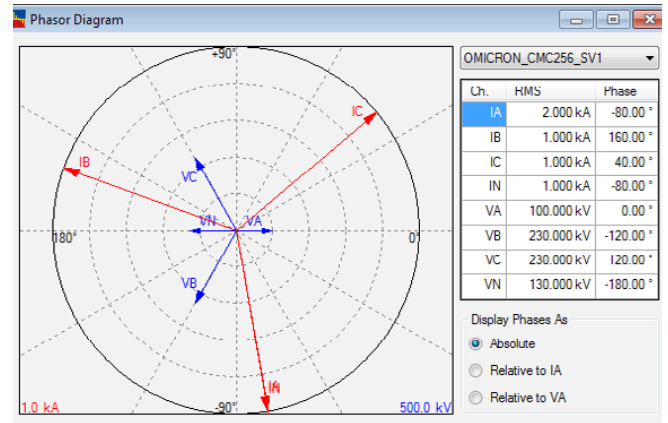
The functionality of SVScout covers many different tasks reaching from the simple display of Sampled Values streams to the detailed investigation of a merging unit. For example, the software can be used for commissioning or for evaluating and developing of IEDs.



SVScout supports Sampled Values according to the implementation guideline of the UCA International Users Group with 80 or 256 samples per cycle as well as IEC 61869-9.

## Phasor Diagram

RMS values and phase angles are calculated from the Sampled Values and displayed in a phasor diagram and a table. The reference for the phase angles is selectable.



## Reports

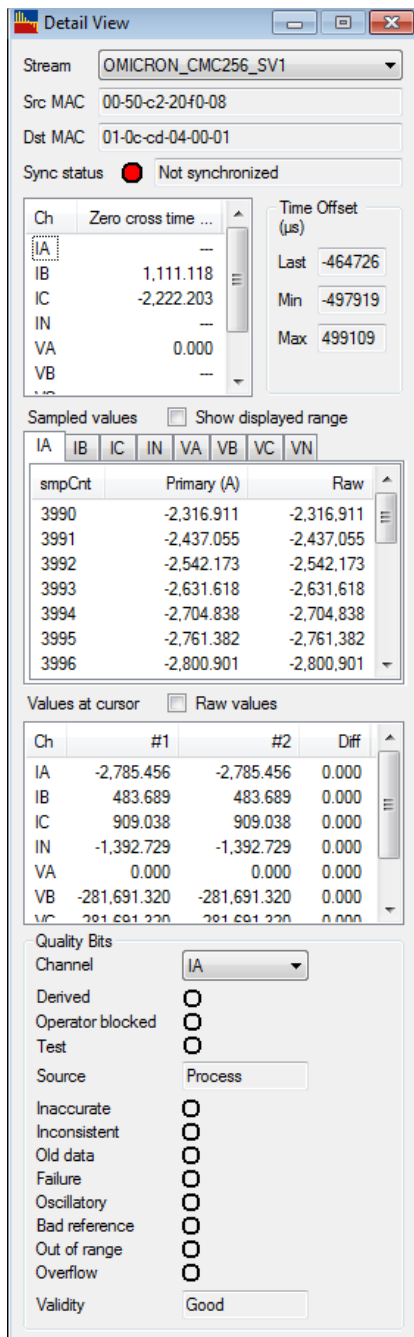
Reports summarize the essential information from a measurement. They contain all information and results provided in the individual views for each captured Sampled Values stream. Additionally other data such as basic settings from the configuration and stream information are included. Printing of reports can be initiated directly from the report window.

## Recording

Captured Sampled Values can be saved to COMTRADE or PCAP files for in-depth offline evaluation or documentation.

## Detail View

The Detail View provides additional information about a selected Samples Values stream and its individual channels. This includes the zero crossings of specific channels, values for individual samples, and the decoded quality information. The simulation indication as defined in IEC 61850 Ed. 2 is also visualized.



**Stream:** OMICRON\_CMC256\_SV1

**Src MAC:** 00-50-c2-20f0-08

**Dst MAC:** 01-0c-cd-04-00-01

**Sync status:**  Not synchronized

Ch	Zero cross time ...	Time Offset (µs)
IA	--	Last -464726
IB	1,111.118	Min -497919
IC	-2,222.203	Max 499109
IN	--	
VA	0.000	
VB	--	

**Sampled values**  Show displayed range

IA	IB	IC	IN	VA	VB	VC	VN
smpCnt							
	Primary (A)		Raw				
3990	-2,316.911	-2,316.911					
3991	-2,437.055	-2,437.055					
3992	-2,542.173	-2,542.173					
3993	-2,631.618	-2,631.618					
3994	-2,704.838	-2,704.838					
3995	-2,761.382	-2,761.382					
3996	-2,800.901	-2,800.901					

**Values at cursor**  Raw values

Ch	#1	#2	Diff
IA	-2,785.456	-2,785.456	0.000
IB	483.689	483.689	0.000
IC	909.038	909.038	0.000
IN	-1,392.729	-1,392.729	0.000
VA	0.000	0.000	0.000
VB	-281,691.320	-281,691.320	0.000
VC	281,691.320	281,691.320	0.000

**Quality Bits**

Channel: IA

Derived:

Operator blocked:

Test:

Source: Process

Inaccurate:

Inconsistent:

Old data:

Failure:

Oscillatory:

Bad reference:

Out of range:

Overflow:

Validity: Good

## Configuration

The comprehensive and flexible features of SVScout can be configured in detail with the following settings:

### Network

Sources of the Sampled Values to be processed by SVScout.

### Application

General parameters for the interpretation and scaling of the Sampled Values.

### Recording

Data format, file name, and file location of recordings.

### Report

Headings, fonts and logo image for customizable test reports.

### Histograms

Parameters for displaying and calculating the timing statistics.

### Expert

Settings for the Detail View and the determination of zero crossings.

## Your benefits

- > Simultaneous investigation of multiple Sampled Values streams
- > Support of established 9-2LE as well as new IEC 61869-9
- > Display of RMS values, phasor diagram and detailed information
- > Recording of Sampled Values in COMTRADE or PCAP format
- > Play from capture supported
- > Printable reports

OMICRON is an international company serving the electrical power industry with innovative testing and diagnostic solutions. The application of OMICRON products allows users to assess the condition of the primary and secondary equipment on their systems with complete confidence. Services offered in the area of consulting, commissioning, testing, diagnosis and training make the product range complete.

Customers in more than 160 countries rely on the company's ability to supply leading-edge technology of excellent quality. Service centers on all continents provide a broad base of knowledge and extraordinary customer support. All of this together with our strong network of sales partners is what has made our company a market leader in the electrical power industry.

The following publications provide further information on the solutions described in this brochure:



IEC 61850: Thematic introduction and testing solutions

For more information, additional literature, and detailed contact information of our worldwide offices please visit our website.