LIWACOM

ISO 9001:2015 certified

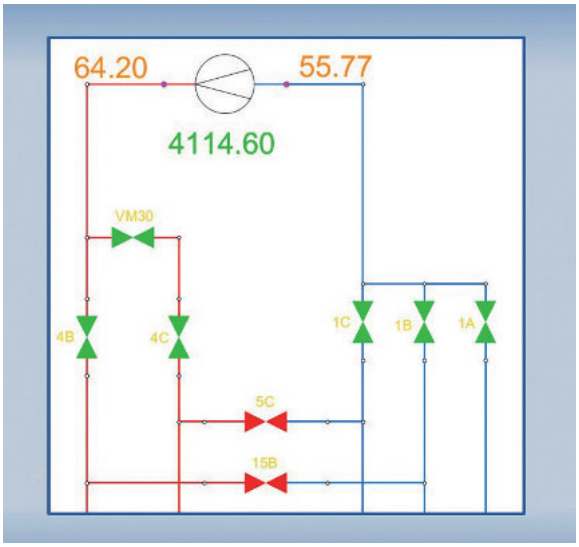
State Reconstruction is used to extract maximum information out of real time data to find the best fit of the current state of the system. Calculated with the limited amount of data – measuring and operating modes of technological elements – it provides a full set of information and serves as sound basis for reliable look-ahead analysis as well as high-fidelity tracking of gas quality.

SIMONE State Reconstruction

SIMONE uses telemetry data from the process to estimate the real state of the pipeline system, i.e. data reflecting the flows in and out of the network as well as the state of valves and operation of compressor stations and control valves.

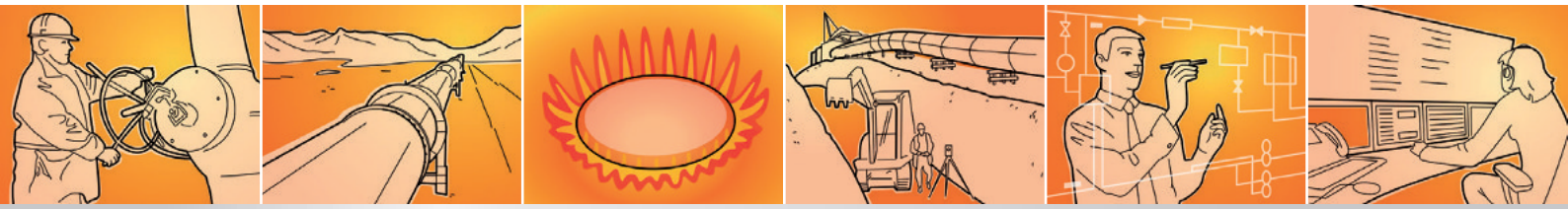
The supplied metering information naturally will contain errors. Thus, they are declared for the model to allow estimating a realistic fit of pipeline model and reality. Also flagging or omitting information temporarily unavailable or unreliable is possible, with minimum impact on the calculation results. SIMONE State reconstruction has proven to be utmost robust against errors and partial data outages.

By considering the error bounds outliers are identified and suppressed yielding high-quality results. This is proven by certified applications in quality tracking for billing, where accuracy of flow estimation is of paramount importance.



SIMONE State Reconstruction is the outstanding solution to state estimation, the kernel of a real-time system and basis of leak detection.

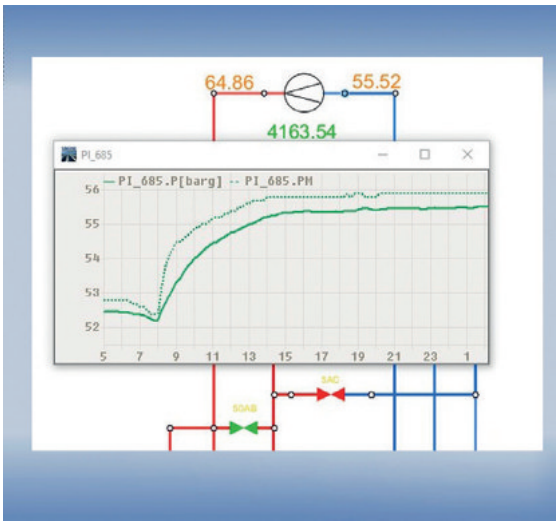
SIMONE SOFTWARE
Simulation and Optimization on Networks



Fact Sheet

SIMONE State Reconstruction

- uses telemetry data from the process to estimate the real state of the pipeline system
- based on the declared accuracies of the available measurements, adjusts to the most likely and complete state of all hydraulic values
- handles temporarily faulty or unavailable data, continuing to provide sensible results
- is implemented as an engineering approach to the known Kalman filter, providing an extremely robust solution



SIMONE

- tracks gas compositions, gas parameters, and pipeline inspection gauges
- calculates temperature, line pack, flow speed, and more
- single kernel source code for Windows, Unix and Linux systems
- client-server technology and multi-user support
- versatile Application Programming Interface, known as the SIMONE API, for integration with SCADA, GIS, databases, and customer applications

SIMONE Users

FLUXYS

REN

gasunie transport services

GRTgaz

SWISSGAS

nationalgrid

Open Grid Europe
The Gas Wheel

أرامكو السعودية
saudi aramco

GAZ system

Contact and Product Support

SIMONE SOFTWARE

LIWACOM

LIWACOM Informationstechnik GmbH

Berliner Platz 6-8
45127 Essen, Germany

Phone +49 201 170 38-0
Email postmaster@liwacom.de

www.liwacom.de