

MEASURE THE UNMEASURABLE

Soft sensors, also known as surrogate sensors or virtual sensors, are computer models that calculate estimates of physical sensor measurements or lab measurements, based on other variables that can be more easily and/or more frequently and reliably measured.

Soft sensors are a valuable solution for the following issues with classical measurement instruments:

- Lack of appropriate, reliable, affordable on-line instrumentation.

- Laboratory measurements are often done infrequently and with long analysis delays, using expensive equipment and with a high operational cost.

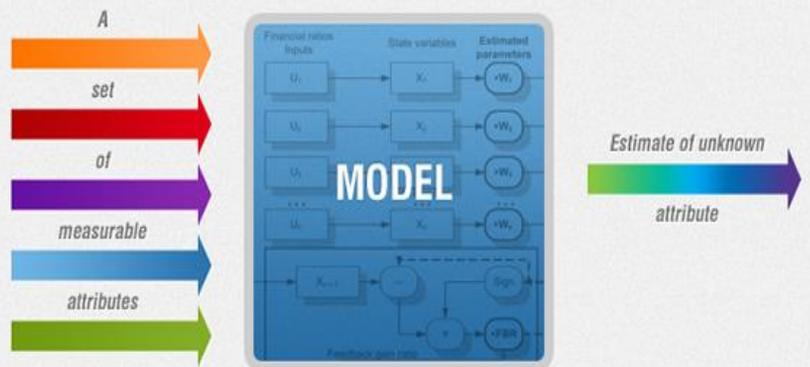
- Physical sensors and process analyzers are sometimes put off-line for maintenance service, and fail from time to time.

To MEASURE is to KNOW

YASENSE

Soft Sensor Tool Suite

A family of software tools to develop, integrate and monitor soft sensors



Benefits of using YASENSE

- Improves your **plant's profitability**
- Faster availability of product and/or process quality information allows you to **react faster**
- Better control and as a result **savings in energy and material cost** and **increased safety**
- Better quality control and as a result **more consistent production**
- Realize new **innovating applications**
- Produce **less off-quality product**

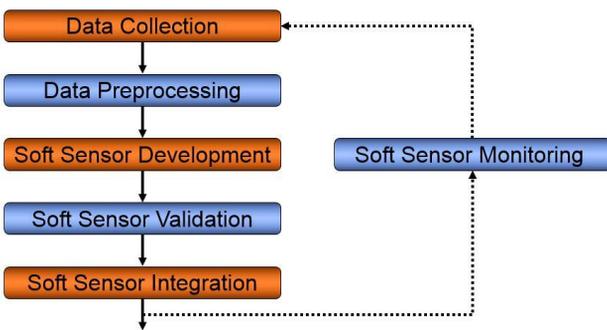
YASENSE™ is a software tool suite for developing, integrating and monitoring software sensors in your plant or equipment. It produces measurements of properties that are otherwise too expensive or too time-consuming to measure. Thanks to YaSense™, production processes can be controlled better, and machines and equipment can be created with new measurement capabilities.

The YASENSE product family contains three different types of tools:

YASENSE Development: a tool suite for data preparation, soft sensor training (various types of algorithms to build computer models), and soft sensor validation. This tool suite is used by Yazzoom in projects involving soft sensor development, but is not delivered to customers.

YASENSE Run-time: a customizable software that is deployed at our customers. It runs on an (embedded, industrial or regular) PC. It reads process and other data that serves as input for the soft sensor model(s), computes the soft sensor output(s) and publishes those on a network.

YASENSE Monitor: a customizable software that is deployed at our customers. It monitors the state and performance of the Yasense run-time, the soft sensor model(s) and their inputs. It produces configurable alerts (SMS or email) and summary and detailed reports.



The Soft Sensor Development, Integration and Maintenance process.

Who will benefit from YASENSE?

- Are some of the physical sensors in your production process (sometimes) unreliable?
- Do you need to make frequent, expensive and time consuming lab measurements?
- Does it take long before you can evaluate certain quality aspects of the produced products, leading to an unacceptably high fraction of second-quality production?
- Do you need to put production on hold while maintaining or fixing certain physical sensors?
- Do you want to have a continuous estimation of a quantity for which no (affordable) physical sensors exist?

In all these cases, soft sensors may be the right solution for you.

Products AND Services

Soft sensor development and integration requires skilled professionals supported by powerful tools. That is why we offer soft sensor development as a service to our customers and have created the YASENSE product family to make that service efficient and effective.

An Integral Approach

As processes evolve, they can start to act differently than expected by the soft sensor. That's why it is important to monitor the performance of a soft sensor, and to update the model when needed. For that reason we include soft sensor monitoring and maintenance per default in our offer.