LAMBDA
LABORATORY INSTRUMENTS

SIAM Industrial fermentation software

SIAM is a high quality industrial and laboratory software for professionals with almost unlimited possibilities for up to 99 fermentors and extended functions.
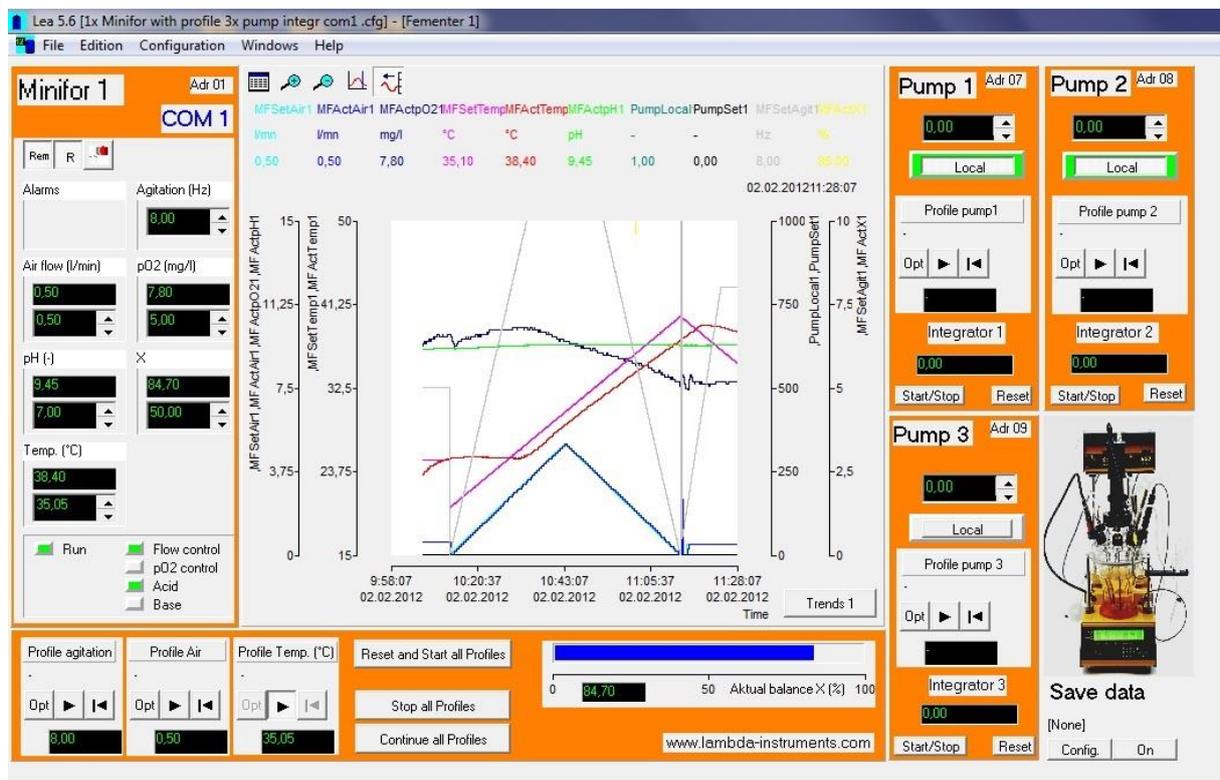
It is user friendly and economic (low price and reduced learn phase).

Developed specially for research laboratories, but it is also a tool for pilot plants and small production units.

The user can build their own application within a few minutes.

Minimal PC requirement: Pentium III, 1GHz, soundcard, Windows NT4 or higher

Well Sophisticated Software

The synoptic with real-time display of the measured values and setpoints (numeric values, start-stop buttons, on-off state, bar graphs, etc...) are very easy to create.

Every device (for example the balance, the fermentor, the controller, etc...) is constituted by one or more channels, which can be visualized (for example the weight, the start-stop of the function, etc...).

The user can build their own visual interface with the help of objects, that can be chosen from the toolbox and then the desired channel can be linked.

Advantages

✓ Possibility to create a specific visual interface quickly and easily.

✓ Easy device (balances, controllers, etc...) connection and configuration.

✓ Real time display of parameters (like temperature, pH, etc...) evolution.

✓ The parameter values (analogue inputs for example) can be visualized and compared using graphs with respect to time.

✓ The user can choose the aspect for graph visualization:
  o The parameters to be displayed, the colour of the curve, the visualisation scale interval.
  o Up to 8 curves can be visualized in the same graph.
  o A zoom function is also available to reduce or to enhance the graph size. The user can read a particular value on the graph using the ruler.
  o Up to 4 'y' axis can be visualized.
  o The channel values for the curves are stored permanently.

✓ Alert and Report Window:
  o The report window allows creating a report about the automated process: alarms triggering, user intervening and remarks. The report content can be saved in a file and opened with a word processing software. With this window it is possible to trace the experiment (balance reset, controller or profile start-stop, etc...).

✓ Possibility to connect a large type of devices using a single software.

✓ Possibility to realize complex control strategies.

✓ Very good price / performance ratio.

✓ Exists in English, French, German
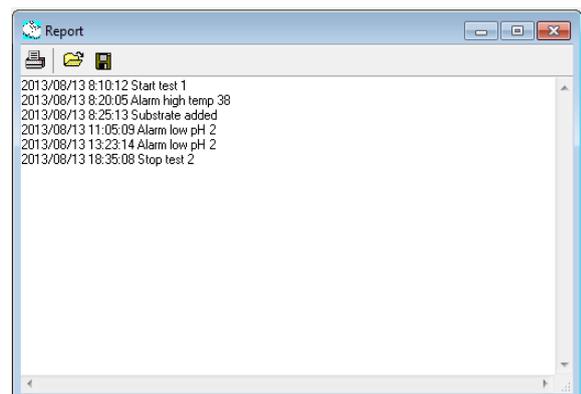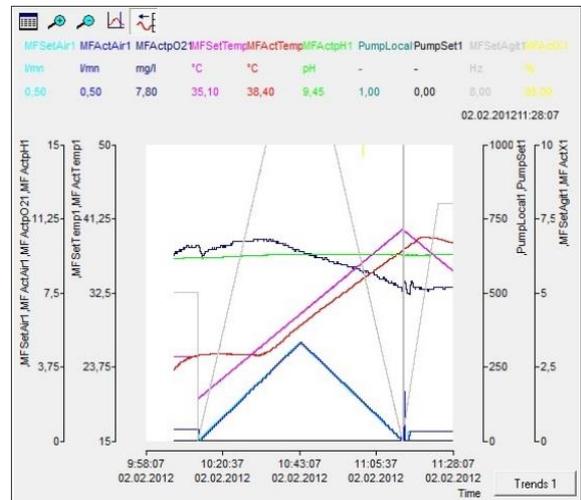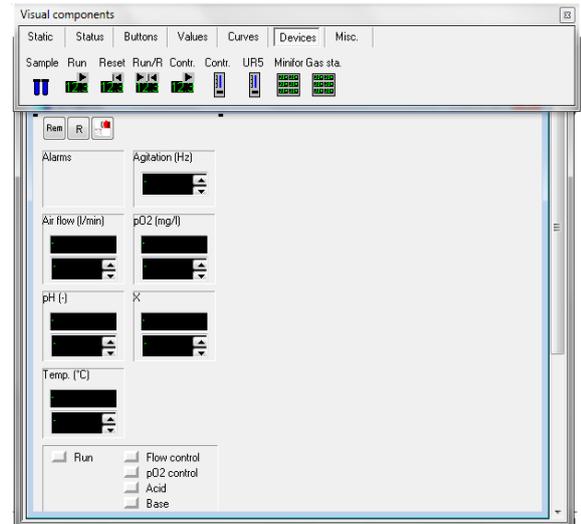
Devices analyzed using SIAM

- ✓ MINIFOR Fermentor-Bioreactors
- ✓ Peristaltic pumps: PRECIFLOW, MULTIFLOW, HiFLOW, MAXIFLOW
- ✓ Powder dosing system: DOSER
- ✓ INTEGRATOR
- ✓ Gas flow measurement system: MASSFLOW
- ✓ Syringe pump: VIT-FIT
- ✓ Interface cards from other manufacturers
- ✓ Balances
- ✓ Recorders and data loggers
- ✓ Temperature controllers, pH controllers, flow controllers, etc...

Applications

List of examples for the usage of SIAM in applications:

- ✓ Fermentor control in pharma industry (3 litres to 150 litres)
- ✓ Fermentor control in university research (300 ml to 300 litres)
- ✓ Measurement and control in climate chambers (temperature, humidity, light intensity, CO_2 concentration)
- ✓ Measurement and control in a wind channel (temperature, air speed)
- ✓ Measurement and control in pilot cheese dairy for research and development (vessel temperature, coagulation, press force, cellar)
- ✓ Measurement and control of chemical reactors, distillation installation in research and development
- ✓ Other applications in research and development, production or as education tool

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