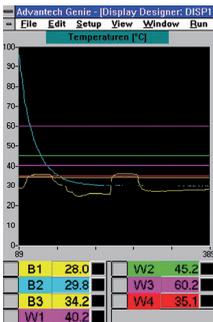


Data Acquisition and Process Control

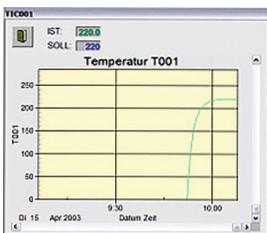
Pilot units controlled with conventional hardware controllers can be equipped with a data acquisition system. Another approach is process control based on a PLC system with visualization on a PC or a panel PC.



Online window of data acquisition system.

Most of the SITEC pilot units are equipped with conventional hardware controllers for the various control loops like temperature, pressure, level, flow. All these hardware controllers as well as all switches and indicator lamps are built into an electrical panel and integrated into a flow diagram of the complete system. This self-explaining layout assists the operator.

The option «data acquisition system» provides the possibility to acquire all relevant process parameters and to visualize these values online on a PC. After the experiment, the process data can be edited and investigated in MS Excel. A standard Windows-based PC with a RS232 interface can be used for this data acquisition task.

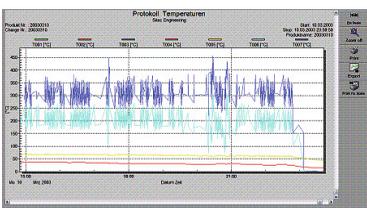


Control loop windows allow to adjust set points and to observe trends of input values.

The alternative is a PLC-controlled system which provides an almost interminable number of possibilities. The complete flow diagram is visualized on a PC screen or on a panel PC with a touch screen. All process parameters are digitally indicated and the condition of the on/off valves by colours. The operator is able to control the whole process using this main window.

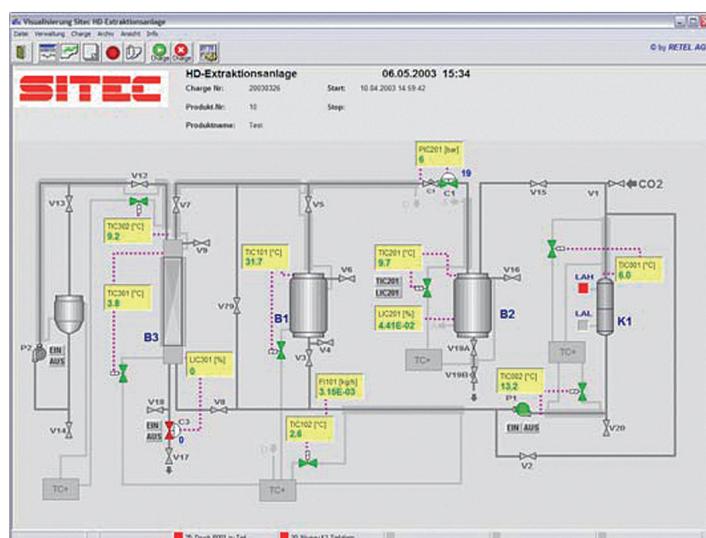
For every control loop a window is configured which allows to adjust the control set point as well as to observe the trend of the measured input value.

Trend display windows are prepared for the observation of the trends of selected process parameters. The trend display has a zoom and fix-scale function and can be printed or exported into several graphic formats.



Trend display for important process parameters.

The integrated program for data lodging allows to document the process completely and prevents data from being changed. Recorded process data can not be modified.



Process visualization of a multi-purpose supercritical extraction pilot unit for the treatment of solid and liquid raw materials.