

PAT Master System (PAT-MS)

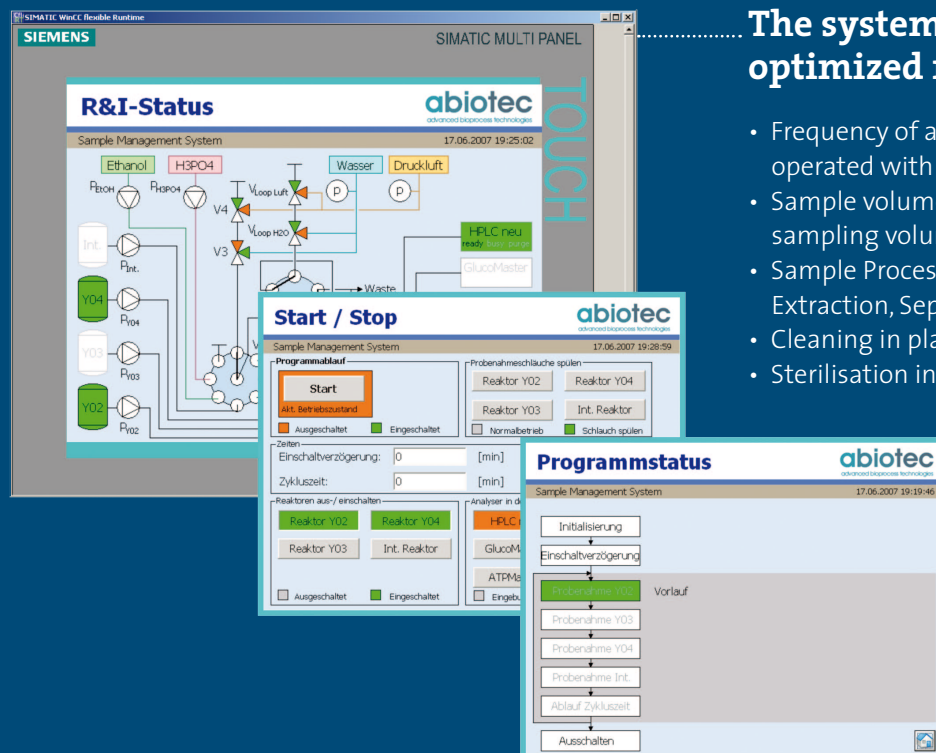
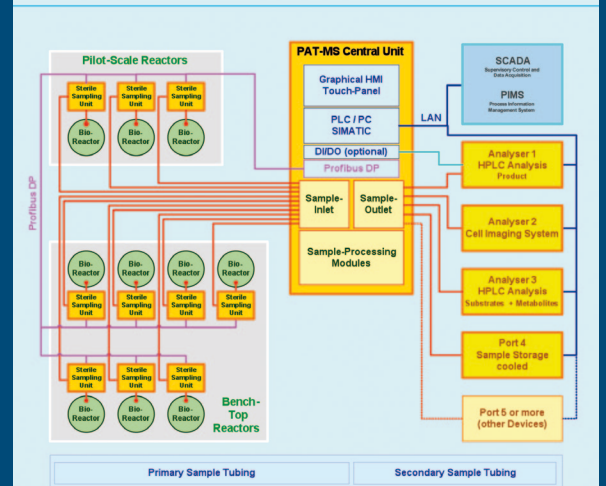
connects in a flexible way multiple bioreactors with diverse analysers or sample storage systems

- „Sterile Sample Interfaces“ (SSI) at each reactor
- Decentralised Solution with Profibus-communication
- Modular extendable system

The PAT Master System manages the following basic operations and functions

- Sterile Sampling
- Sample Transport
- Sample Processing
- Supply of Processed Samples to Analysers or Sample Storage Systems
- Control of Basic Analyser Functions / Data-Import / Data Evaluation
- Control of Sample Storage Systems / Documentation of Sample Attributes
- Transfer of Validated Data and Coordinated Operation with Superior Systems (SCADA / PIMS)

Exemplary Set-up for a Heterogeneous Installation connecting diverse
 - Bioreactors (bench-top and pilot scale) with multiple
 - Process Analysers and
 - Sample Storage System



The system controls in an optimized manner ...

- Frequency of analysis (avoids conflicts when being operated with several analysers)
- Sample volume (minimized void volumes and total sampling volumes)
- Sample Processing (Dilution, Addition of Reagents, Extraction, Separation etc.)
- Cleaning in place (CIP)
- Sterilisation in place (SIP; available as an extension)

Important: No cross contamination between reactors and analysers!