

BioXpert[®], supervisory control and data acquisition

BioXpert is a software tool to control bio-processes and to store the process data. The software is designed specifically for biotech researchers and operators in the bio-environment. The logical structure of the program and the user-friendly interface allows the program to be used by anyone. That is why over 3,000 copies of our BioXpert software are in use worldwide. The software is easy to operate and has extensive functionality for monitoring, collecting and storing data and controlling processes



Various BioXpert versions have been developed based on international standards for use in either research and pilot plant or production environments. BioXpert Lite is designed for data collection, data storage and data presentation. The research version (BioXpert 2) offers maximum flexibility to set up and to modify processes. The pilot plant and production version (BioXpert W7) focuses on process repeatability and data security.

Features

BioXpert seamlessly integrates with Applikon and other makes of controllers and peripheral equipment to enable you to get the maximum out of your cultivation system. Pre-defined recipes exist for microbial culture, mammalian cell culture and plant cell culture. All process data and controller data can be stored at user-defined intervals. Off-line measurements can be added to the process data to be used for calculations or advanced process control. BioXpert offers different ways of presenting your measured data: trend graph, table and bar graph. The on-line calculations of BioXpert can be used to calculate derived variables. The statement editor and interpreter allow time and/or event based execution of advanced control strategies. Another option for supervisory control is the use of timed profiles. Remote Access for BioXpert W7 makes process data accessible for monitoring throughout a network using web browser technology.



Applications

- BioXpert software can be used for Microbial and Cell cultures in Batch, Fed-Batch, Perfusion and Continuous cultivation
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Specifications

Specifications	BioXpert Lite	BioXpert 2	BioXpert W7
General			
Operating system	Windows NT, 2000, XP, Vista, Windows 7 (32 bit)	Windows NT, 2000, XP, Vista, Windows 7 (32 bit)	Windows XP (service pack 3) Vista Windows 7 (32 bit)
Communication drivers include	ADI 1010, ADI 1020, ADI 1030, my-Control ez-Control in-Control	ADI 1010, ADI 1020, ADI 1030, ADI 1060 my-Control ez-Control in-Control	ADI 1010, ADI 1030, ADI 1060 my-Control (via OPC) ez-Control (via OPC) in-Control (via OPC) i-Control (via OPC)
	AppliFlex Rocker Balances	AppliFlex Rocker Balances	AppliFlex Rocker
Additional drivers available separately	no ADDA card	no ADDA card	yes
Measurement of process values from process controllers	yes	yes	yes
Control of process setpoints in process controllers	no	yes	yes
Starting and stopping of control loops	no	yes	yes
Programming of local process controllers	no	no	yes
Reading of calibration data	no	no	yes
21 CFR part 11 compliant	no	no	yes
GAMP compliant	yes	yes	yes
ISA S88 standard	no	no	yes
Password protection	no	no	yes
User definable access rights	no	no	yes
Auto start after power failure	no	no	yes



Specifications

Specifications	BioXpert Lite	BioXpert 2	BioXpert W7
Data management			
On line data collection	yes	yes	yes
Off-line data collection	yes	yes	yes
Data storage system	Proprietary file format	Proprietary file format	SQL database
Minimum sampling frequency	1 minute	1 minute	1 second
Sample frequency selectable per parameter	no	no	yes
Data export to Excel	yes	yes	yes
Data export in ASCII format	yes	yes	yes
Graph export in BMP format	yes	yes	
On-line calculations using on-line and off-line data	no	yes	yes
Data display			
Line graphs	yes	yes	yes
Bar graphs	yes	yes	yes
Synoptic	yes	yes	yes
Procedure flow chart	no	no	yes
Combination of current and historic data in graphs	yes	yes	yes
Combination of different active batches in graphs	yes	yes	
Measured data table display	yes	yes	yes
Scatter plots	yes	yes	yes
Storage of predefined graph settings	yes	yes	yes
Supervisory control			
Programming of time based actions	no	yes	yes
Programming of event based actions	no	yes	yes
Profiling of setpoints	no	yes	yes
Manual setting of local control set points	no	yes	yes
Recipe definition	no	yes	yes
Other			
Notebook for process and equipment remarks	yes	yes	yes
Event viewer for system comments	yes	yes	yes
Audit trail	no	no	yes
Batch reports supported	no	no	yes
Remote access	no	no	yes