

Lucillus PIMS

Complete Software

Solution for Bioprocesses



1/7

SUPPORTED SYSTEMS AND DEVICES

04/2021

BIOREACTOR CONTROL UNITS (Page 1)

<i>Supplier</i>	<i>Devicer</i>	<i>Integration</i>	<i>Connection type</i>
Able-Biott	DPC-4 Controller	DA and Control	LAN (Modbus TCP/IP)
Applikon	ez-Control / ez2-Control	DA and Control	LAN (F-code)
	i-Control	DA and Control	LAN (F-code)
	in-Control	DA and Control	LAN (F-code)
	my-Control	DA and Control	LAN (F-code)
	SUB-Control	DA and Control	LAN (F-code)
	AppliFlex RB	DA and Control	LAN (F-code)
BBI Biotech	xCubio Bioreactor Control Units	DA and Control	LAN (OPC-DA)
Bioengineering	Bioreactor Control Units	DA and Control	LAN (JSON TCP/IP Proprietary device driver)
Bionet	F2 Scale-Up Bioreactor	DA and Control	LAN (OPC-UA)
Biostream	Biobench	DA and Control	LAN (OPC-XML)
Cytiva (GE Healthcare)	WAVE Bioreactor™ Systems	DA and Control	LAN (OPC-DA)
	Xcellerex XDR Systems	DA and Control	LAN (OPC-DA)
Distek	BIOne	DA and Control	LAN (OPC-UA or -DA)
	DASGIP® Parallel Bioreactor Systems	DA and Control	LAN (OPC-DA)
	DASbox® Mini Bioreactor System	DA and Control	LAN (OPC-DA)
	BioBlu® and BioFlo®	DA and Control	Serial
	CelliGen®	DA and Control	Serial, OPC
Eppendorf (DASGIP / New Brunswick™)	SciVario® twin	DA and Control	LAN (OPC-DA)

BIOREACTOR CONTROL UNITS (Page 2)

<i>Supplier</i>	<i>Devicer</i>	<i>Integration</i>	<i>Connection type</i>
Thermo Fisher Scientific (Finesse Solutions)	G3Lab™ Controller	DA and Control	LAN (OPC-DA)
Frings	Proreact Bioreactor Control Units	DA and Control	LAN (OPC-DA)
	Labfors and Techfors	DA and Control	LAN (OPC-XML)
Infors HT	Minifors	DA and Control	LAN (OPC-UA)
	Sixfors	DA and Control	Serial
PALL	iCELLis® Nano and 500+ Bioreactor	DA and Control	LAN (OPC-DA)
PBS Biotech	Vertical-Wheel™ Bioreactors	DA and Control	LAN (JSON TCP/IP Proprietary device driver)
Pharmatec	BIOREACTOR	DA and Control	LAN
	ambr® 15 and ambr® 250	DA (and Control)	LAN (OPC-DA)
	BIOSTAT® B	DA and Control	LAN
Sartorius	BIOSTAT STR®	DA and Control	Serial
	BIOSTAT RM® (Wave Bioreactor)	DA and Control	Serial
	BIOSTAT® DCU (e.g. Twin, Quad)	DA and Control	Serial / LAN (OPC/DA to MFCS/win)
Yokogawa	BR1000	DA and Control	LAN (Modbus TCP/IP)

DSP DEVICES

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
GE Healthcare	ÅKTA™ (via Unicorn™)	DA and Control	LAN (OPC-DA/AE)
Merck Milipore	Cogent® M1	DA	LAN
Sartorius	SARTOFLOW® Slice 200	DA	Serial

Incubator Shakers

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
Kühner	Climo-Shaker	DA	Serial (Modbus/TCP)
Infors HT	Multitron / Multitron 2	DA	LAN

MASS FLOW CONTROLLERS

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
Aalborg Instruments & Controls	Aalborg® Command Modules	DA and Control	Serial / LAN
Eppendorf (DASGIP®)	DASGIP® MX Modules (Gas Mixing)	DA and Control	Serial
	DASGIP® MF4 (Gas Supply)	DA and Control	Serial
Sierra Instruments	SmartTrak® 50	DA and Control	Serial
Vögtlin Instruments	red-y series	DA and Control	Serial

SCALES AND BALANCES

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
Kern & Sohn	various scales	DA and Control	Serial
Mettler Toledo	various scales	DA and Control	Serial / LAN
	Lynx Terminal	DA	Serial
Radwag	various scales	DA and Control	Serial / LAN
Sartorius	various scales	DA and Control	Serial / LAN

PUMP SYSTEMS

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
Levitronix [®]	PURALEV [®] consoles (LCO-i100/600) for SU and MU pump systems PURALEV [®] -i30/-i100/-200/-600/-2000/-4000	DA and Control	LAN

OFFLINE ANALYTICAL DEVICES

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection type</i>
4BioCell	4BioCompact	DA and Control	LAN
908 Devices§	Rebel device	Auto Import	File Sharing
Advanced Instruments	model 2020/3320	DA	Serial
Agilent	HPLC (ChemStation)	DA and Control	LAN
Beckmann Coulter	Vi-CELL [™] XR and Vi-CELL [™] BLU	Auto Import	File Sharing
Buchi	NIRFlex [®] N-500	Auto Import	File Sharing
ChemoMetec	NucleoCounter [®] NC-200 [™]	Auto Import	File Sharing
Gonotec [®]	Osmomat 3000, Osmomat AUTO	Auto Import	Serial
Metrohm	780 pH Meter	Auto Import	Serial
Mettler Toledo	various devices (pH meters, Conductivity meters, etc.)	DA	Serial
	Bioprofile [®] Flex & Flex 2	Auto Import	File Sharing
Nova Biomedical	Bioprofile [®] pHox [®]	DA	Serial
	Bioprofile [®] 400 & 100+	DA	Serial
Optocell	CuBiAn [®]	DA and Control	Serial
Perkin Elmer	UV/Vis Spectrophotometer	DA and Control	Serial
	Cedex HiRes [®]	DA and Control	LAN
Roche (Custom Biotech)	Cedex Bio [®] & Bio HT [®]	Auto Import	File Sharing, Serial
	Cobas [®] c111	Auto Import	Serial
Thermo Fisher Scientific	HPLC (Chromleon [™])	DA and Control	LAN
WTW	inoLab [®] Cond 7310P & Multi 9310P	DA	Serial

GAS ANALYZERS

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection type</i>
Ametek	Dycor Mass Spectrometer	DA	LAN (OPC-DA)
	BlueVary	DA	Serial
BlueSens	BlueInOne	DA	Serial
	BC preFerm	DA	Serial
Diablo Analytical Inc.	Diablo 5000B	DA	LAN
Eppendorf (DASGIP [®])	DASGIP [®] GA for Exhaust Analysis	DA and Control	Serial
HiTec Zang	RAMOS [®]	DA and Control	LAN (OPC-DA)
InProcess	GAM200 Mass Spectrometer	DA	LAN
LumaSense Technologies	Fermentation Monitor INNOVA 1313	DA	Serial
Presens	OXYPRo [®] series	DA	Serial
Siemens	Oxymat/Ultramat 5 & 6	DA	Serial
Thermo Fisher Scientific	MS Prima Mass Spectrometer	DA	Serial

ONLINE ANALYTICS

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection type</i>
	Futura	DA and Control	Serial
Aber Instruments	Biomass Monitor	DA	Serial
Buglab	BE 3000, BE2x00, BE3x00	DA and Control	Serial
Exner	EXcell 230, 231, 241	DA and Control	Serial
Hamilton	ArcView (Incyte & Dencytee)	DA and Control	Serial / LAN
Kaiser Optical Systems	Raman Spectroscopy system	DA and Control	LAN (OPC-UA)
Mettler Toledo	ReactIR	DA	LAN

OTHER LABORATORY DEVICES

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection type</i>
Securecell	NuMera [®]	DA and Control	LAN
Bayer Technology Services	BaychroMAT [®]	DA	LAN (OPC-DA)
Gilson	Autosampler	DA and Control	Serial
Ismatec [®]	Ismatec [®] Reglo ICC	DA and Control	Serial
Rhode & Schwarz	R&S [®] HMP4000 Power supply	DA and Control	LAN
TSI Inc.	AeroTrak [®] Particle Counter 6510	DA and Control	LAN

CONTROL SYSTEMS (PLC & DCS)

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection type</i>
ABB	Freelance (DCS)	DA and Control	LAN (OPC-DA)
	System 800xA (DCS)	DA and Control	LAN (OPC-DA)
Allen-Bradley	various PLCs	DA and Control	LAN (OPC-XML)
Emerson	DeltaV	DA and Control	LAN (OPC-DA)
Siemens	SIMATIC (PLC)	DA and Control	LAN (OPC-DA)

FIELD BUS DEVICES

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
Advantech	Adam I/O Modules	DA and Control	Serial
Phoenix	AD I/O Modules	DA and Control	LAN
Wago	AD I/O Modules	DA and Control	LAN
LabJack	LabJack T7/T4 series	DA and Control	LAN

SOFTWARE

<i>Supplier</i>	<i>Device</i>	<i>Integration</i>	<i>Connection Type</i>
AGU	Sm@rt Data Cockpit [®] (SDC)	DA and Control	LAN
Agilent	ChemStation	DA and Control	LAN
TECAN	Magellan [™]	DA and Control	LAN
Thermo Fischer Scientific	Chromeleon [™]	DA and Control	LAN
GE Healthcare	Unicorn [™]	DA and Control	LAN (OPC-DA/AE)

OFFICE DEVICES

<i>Supplier</i>	<i>Device</i>
Intermec (Honeywell)	SG20T Tethered Scanner
Opal	various scanners
Zebra	various label printers

STANDARD INTERFACES

OPC XML / AE / UA / DA

SQL interface

REST API

MODBUS (Serial and TCP/IP)

ASTM

Various XML files formats through XSLT transformation

Proprietary protocols

Contact

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