



SOLARIS™ BIOTECH

By Donaldson



LEONARDO

CATALOGUE





LEONARDO SOFTWARE

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Our Product LEONARDO

This Catalogue describes Solaris LEONARDO SOFTWARE.



THE SOFTWARE

Leonardo is Solaris' in-house developed software for Process Control.

Its flexibility and powerfulness make it suitable for different kinds of process fields, from benchtop bioreactors used in R&D, to pilot and industrial bioreactors for scale-up and production and filtration systems (TFF).

THE UNICITY

While the interface remains the same, Solaris developed unique features and options depending on the needs. Let's dive in a little bit...

Leonardo User-Friendly software

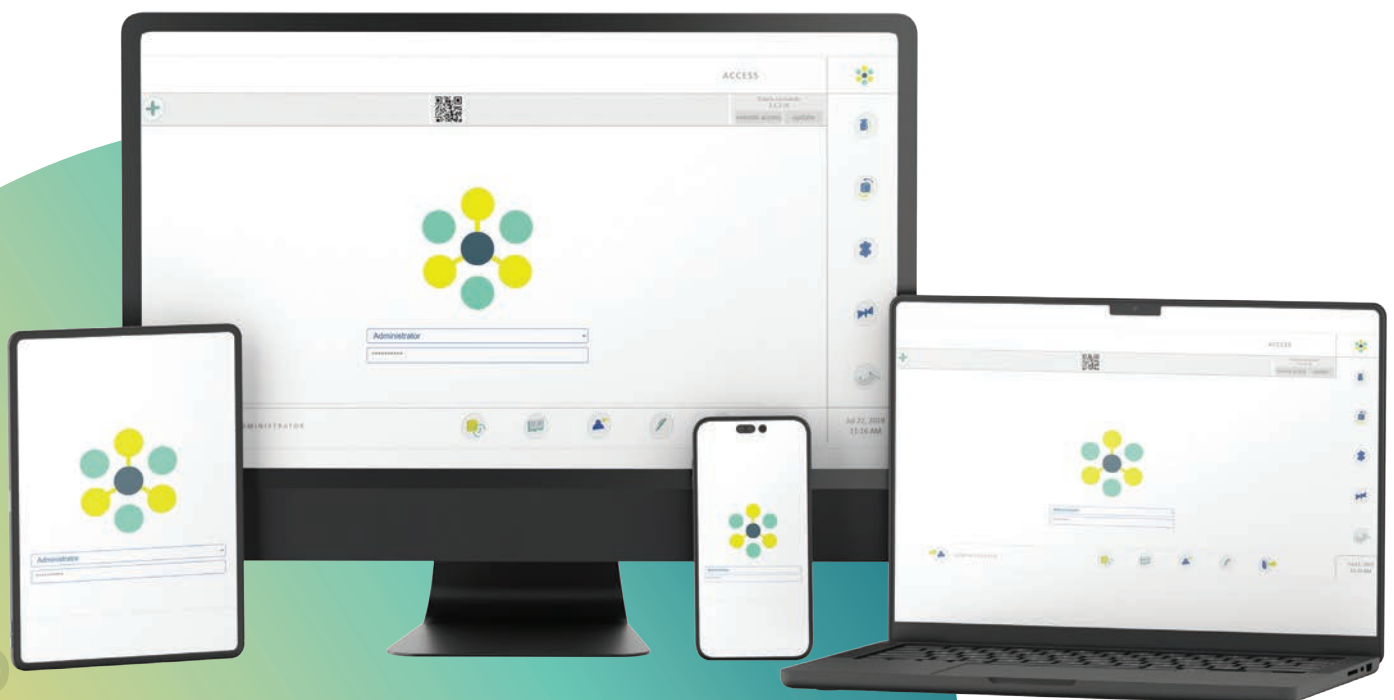


Solaris controlling software offers a simply laid out, yet powerful platform for experimental design planning and process control. The graphical user interface enables the intuitive selection and adjustment of control functions.

Extracted data is compatible with Office Excel, but in addition, Solaris offers a platform where fermentation data can be easily exported in real time and thus managed. This software is included in the supply and can be installed on an unlimited number of the client's PC or laptops.

Features

- Up to 24 benchtop units can be controlled with a single software interface.
- Up to three point calibration plus drift for each sensor and pump.
- Web-based interface ubiquity: software can be accessed from any number of devices anywhere in the world (both mobile and desktop in a responsive way).
- Unique “puzzle” interface for easy and advanced process customization.
- Realtime e-mail notifications for critical alarms and warnings (option).
- Fully CFR21 compliant (full user management with customizable levels and roles) (option).
- Unlimited number of traceable variables.
- Fully customizable batch reports.
- External API control available (option).



CALIBRATION

- Sensors and Peristaltic pumps calibration
- Online calibration option (by reference values)
- Offline calibration option (by theoretical values)
- Up to 3 points calibration plus Drift Parallel calibration
- Digital probe diagnostic information (if supported)



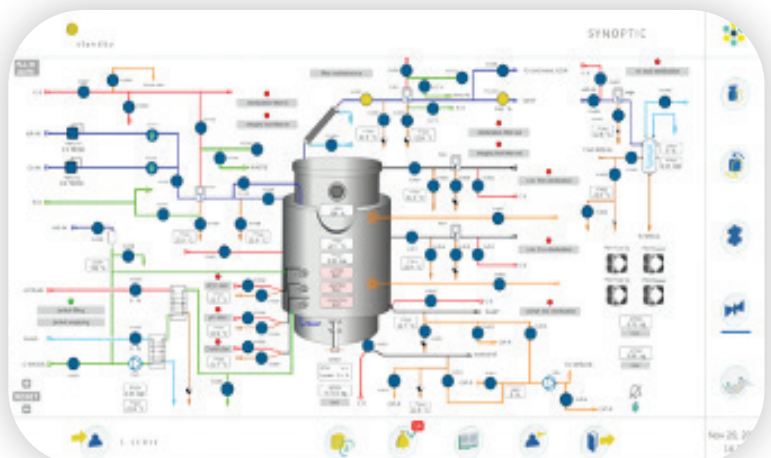
Parameter	Value	Unit	Action
TI001	22.7	°C	change
TI002	0	°C	change
sterilization mode	MEDIA		change
sterilization temperature	210	°C	change
sterilization time	60	s	change
sterilization time mode	10		change
sterilization temperature	121.5	°C	change
sterilization time mode	300	min	change
process buffer pressure	0.50	bar	change
process buffer gas flow	75.0	ml/min	change
cool up to temperature	100	°C	change
TI001 alarm time	0	s	
TI002 alarm time	0	s	

WORKFLOW

- Advanced Phase Management (before cultivation, cultivation, etc...) with automatic switch
- Set point: up to 20 set points in profile
- Apply to all phases and units (parallel option)
- Realtime process values with configurable threshold alarms
- Bi-directional O2 and CO2 cascade control

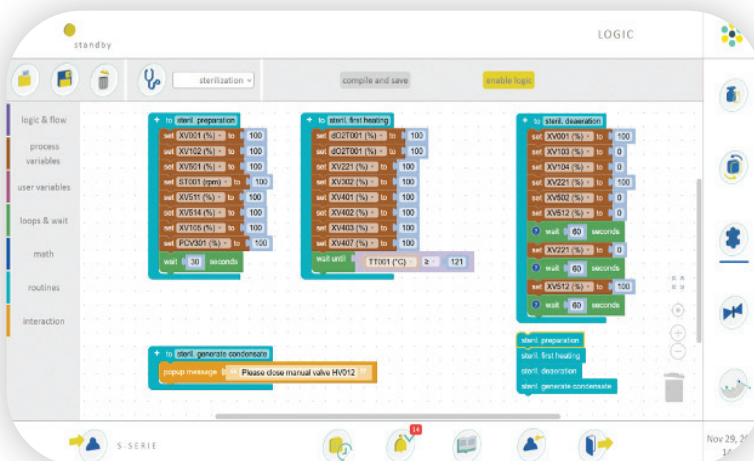
SYNOPTIC

- Parallel visualization and control of up to 4 units per page
- Fully animated and interactive
- Possibility to restore default operation with one-click
- Fully zoomable and pannable



TRENDS

- Unlimited number of traceable variables (stacked or overlapped)
- Parallel view of multiple batch runs (current and past)
- Fully customizable trace settings (color, range, etc...)
- Accurate markers for alarms and important events
- Data export in PDF or CSV format
- Data import (offline-generated) in CSV format



LOGIC PARSER

- Colorful puzzle interface for creating custom functions
- Special shared variables can be changed in real-time and be trended
- Parallel execution of multiple function blocks
- Take control only of the parameters that you need to customize, and let Leonardo do the heavy-lifting
- Different code for each phase
- Interactivity support: build your fully custom phase with popups and acknowledgments

USER ACCESS

- Multi-level password protection with configurable roles
- Full CFR21 Compliance
- Remote control via QR code or dedicated portal
- Mail notifications add-on: receive important events (alarms, warnings, etc..) in real-time by email

User	Role	Last Login	Language
JUPITER	Operator	last login: never	language: english
Operator	Operator	last login: never	language: english
Supervisor	Supervisor	last login: never	language: italian

LEONARDO FOR BENCHTOP

The most straightforward version of Leonardo software offers uncompromising features and functionality, such as:

FULL PARALLELIZATION SUPPORT

Maximize efficiency with robust parallel processing capabilities.

CUSTOMIZABLE WORKFLOWS

Tailor your processes to fit your unique needs, ensuring maximum productivity.

PEAK LOGIC PARSING

Benefit from our state-of-the-art logic parser, delivering superior performance and reliability.

Detailed Batch Reports

Generate comprehensive reports for every batch run, giving you full control and insight over your operations.



Experience the reliability and versatility of Leonardo software—where simplicity meets sophistication.

LEONARDO FOR PILOT & INDUSTRIAL

Experience unparalleled control and efficiency with **Leonardo software for Pilot and Industrial**, providing all the foundational features of Leonardo software, now enhanced with industrial-strength capabilities.



— INDUSTRIAL



PILOT —

PLANT MODE

Monitor your entire plant seamlessly with one comprehensive view.

MULTI-VESSEL CONTROL

Easily view and manage multiple vessels, with or without transfer lines, all from the same interface.

SPOT ISSUES INSTANTLY

Quickly identify and resolve process bottlenecks with our user-friendly interface.

LEONARDO FOR FILTRATION

The **Leonardo TFF** (Tangential Flow Filtration) was meticulously designed to meet the specialized demands of filtration systems. With **advanced features** tailored for TFF processes, you can ensure your filters are always operating at peak performance.

REAL-TIME FILTER MONITORING

Keep your filter's health in check with comprehensive "Filter" history, status updates, and NWP tests.

SPECIALIZED AUTOMATIC PHASES

Benefit from automated phases crafted specifically for filtration, including NWP tests, Concentration, Diafiltration, and Product Recovery.

ENHANCED PROCESS OPTIMIZATION

Utilize the unique "Process Optimization" phase to determine the optimal NWP values for various flows and TMPs.



Get in touch



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