

Millitrack® e-Solutions

A unique set of data management and monitoring software solutions for water purification systems



A unique set of data management and monitoring software solutions for water purification systems

Your needs	Our solution: Millitrack® e-Solutions
Optimized productivity	Unique set of data management and monitoring software solutions helps reduce costs, minimize potential downtime through instant and easy diagnostics, and also decreases the risk of errors .
Paperless solutions	Millitrack® e-records offer water purification system users a state-of-the-art alternative to paper archives . System users can now benefit from less complicated, less expensive and less time-consuming efforts to manage their water system data.
Support for quality processes	Millitrack® e-Solutions ensure data reliability, traceability, and access to system history with customized reports containing up to one year of data, as well as easy archiving.
Easy to use	Daily work in the lab is facilitated with in-depth water data and consumable information at your fingertips . Supervision of your water system can be done from your desk whenever it is convenient for you.
Convenient remote monitoring	A real-time intuitive Dashboard allows "at a glance" monitoring of water purification system information , letting users save time by supervising water system operation from their office or another location outside the wet lab.
Instant access	User-friendly and intuitive: a lab's entire Merck Millipore water purification system operations can be monitored at any time on any computer through a one-click web browser.
Full respect of local IT environment	Intelligently embedded within the Merck Millipore water purification system, meaning that no software needs to be installed in order to access Millitrack® e-Solutions' functionalities.
Confidence in your water purification system supplier	Merck Millipore is a partner you can count on . Millitrack® e-Solutions have been designed to support quality management systems allowing laboratories to seek accreditation — for example, to the ISO® 15189:2007 standard, which is supported by CAP 15189 SM accreditation.

The right software solution today – and tomorrow

Millitrack® e-Solutions are a powerful, personalized answer from Merck Millipore for laboratory and facility managers who need to ensure optimal daily performance with continuous quality improvement for their water purification equipment.

This unique set of data management and monitoring software solutions allows easy remote monitoring and diagnostics, in order to minimize system downtime and also increase productivity.

The data provided by Millitrack® e-Solutions can be viewed and archived on computer devices connected directly to the water purification system or via an Ethernet cable through a local network. Data can also be archived in a lab data management system. Millitrack® e-records help users optimize a lab's productivity by reducing costs and potential downtime, and also by decreasing the risk of errors.

In addition, for labs seeking accreditation or reaccreditation, the reliability and traceability of data generated by the Millitrack® e-Solutions will help facilitate the process.

Millitrack® e-Solutions take into account current lab water system data management and monitoring needs – as well as those of the future. In a fast-paced laboratory environment, knowing this fact could help a lab manager gain some needed peace of mind.

The Millitrack® e-Solutions software set comprises three system-specific products* depending on your Merck Millipore water purification system.

[Refer to your system of interest and discover more information on the associated Millitrack® e-Solution](#)

Systems	e-Solution	Page
Milli-Q® Advantage A10® and Milli-Q® Integral systems	Millitrack® Basic	4
RiOs™ Essential, Elix® Essential, AFS® Essential, AFS® E Essential and AFS® D Essential systems	Millitrack® Essential	6
Elix® Advantage, Elix® Reference, Milli-Q® Direct and Milli-Q® Reference systems	Millitrack® Lite	8

* In addition to the set of e-Solutions described above, Merck Millipore also offers Millitrack® Compliance for lab water system compliance and optimized lab performance for users in GxP environments who must comply with guidelines such as U.S. FDA 21 CFR Part 11, EU Annex 11, or similar requirements set by other global regulatory organizations.

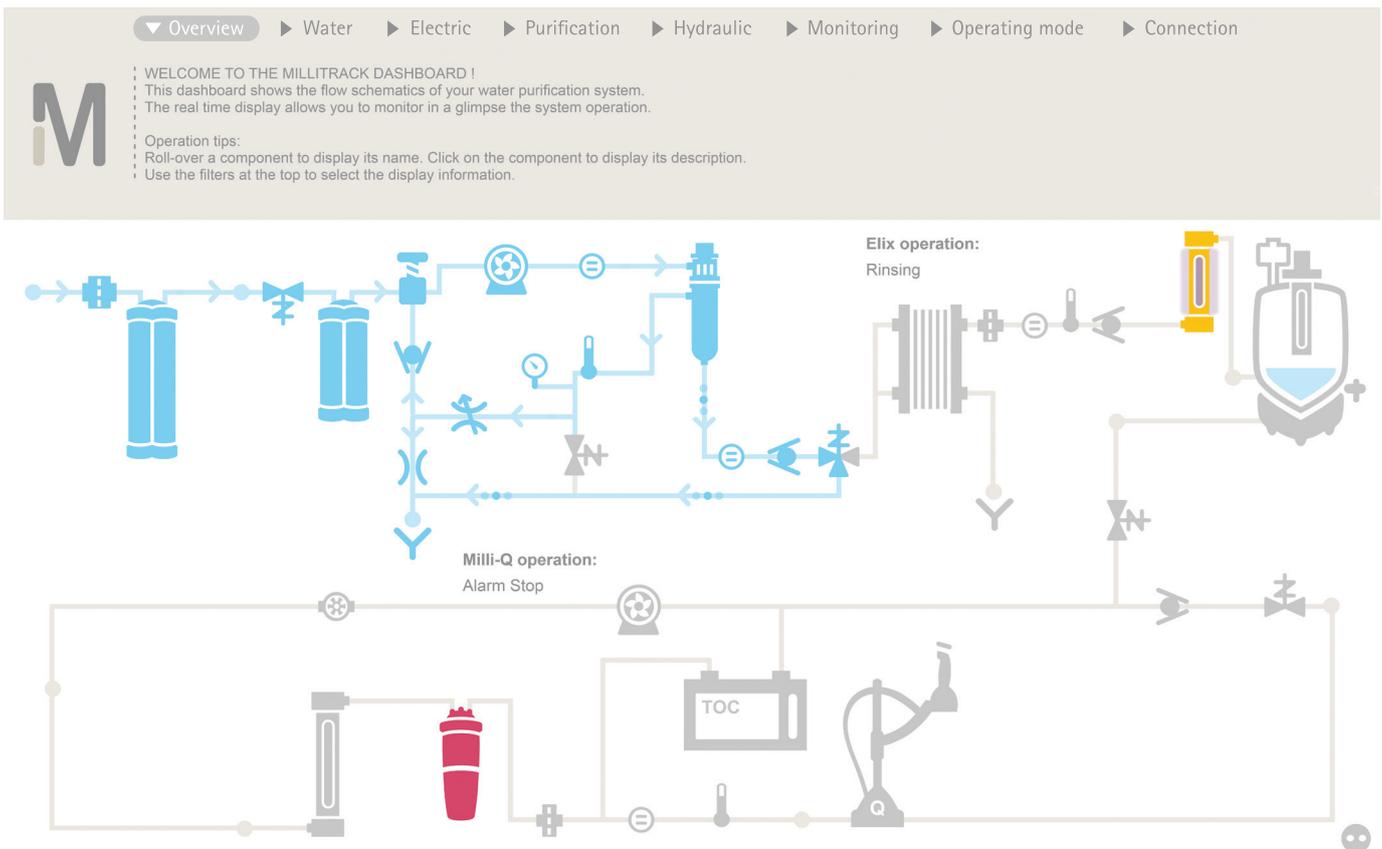
Millitrack® Basic e-Solution

Optimized lab productivity

Millitrack® Basic features convenient remote monitoring. A real-time Dashboard allows “at a glance” monitoring of information concerning water purification system status and configuration; instant quality parameter settings; and easy system component identification. This lets users save time by supervising water system operation from their office or another location outside the wet lab.

Complete system control

The Dashboard enables users to see operating information. Hovering the mouse pointer over any component reveals its description and status. An intuitive color code allows instant recognition of the different icon status:



Grey display: standby mode

Blue display: operational mode

Yellow display: maintenance is needed

Red display: urgent action is required

Users thus have full control over system operation, making it possible to take any steps necessary to ensure continued optimal operation of their water purification system.

In addition, Millitrack® Basic provides two types of user roles. For lab managers, a *Manager Role* can be assigned, providing access to additional consumable information and set points. This role also allows any necessary system configuration to ensure proper use by operators. A more restricted *Operator Role* is available for users. The *Operator Role* provides access to simpler tasks such as dispensed and instant water quality reports.

Advanced remote diagnostics

Millitrack® Basic also offers users a unique advanced remote diagnostics service*.

Export diagnostic package

When faced with an alarm or system issue, you can export a complete diagnostic report of your water system. This report, which is protected by a password known only to Merck Millipore, can be sent to your local Merck Millipore Lab Water Technical Service Representative. This data will assist the Service Representative in providing a faster diagnostic of your problem so that you experience minimal downtime.

Support for your quality processes

Millitrack® Basic is designed to support quality requirements, with benefits that include data reliability and traceability, and access to system history with customized reports containing up to one year of data, as well as easy archiving.

Millitrack®
Basic

Dispensed water quality

Document information

Nature of document Copy
Creation date 9/10/2013
Creation time 11:35 AM
Owner full name
Department

System information

System name MILLI-Q® INTEGRAL 5
Catalogue number ZRXQ005T0
Serial number F2HA21274A
Asset number 36B87C
Application Training Laboratory
Company Millipore SAS
Department Training
Address 1 rue Jacques Monod
City Guyancourt
Zip code 78280
Country FRANCE
Installation date 1/16/2013
Manufacturing date 6/22/2012

Page parameters

MILLI-Q Dispensed Water Quality Report

Date: 9/5/2013
Time: 14:11:51

TOC min: 3 ppb
TOC max: 3 ppb
TOC average: 3 ppb

Resistivity min: 18.200 MΩ.cm
Resistivity max: 18.200 MΩ.cm
Resistivity average: 18.200 MΩ.cm
Compensation mode: Compensated

Temperature min: 26.4 °C
Temperature max: 26.4 °C
Temperature average: 26.4 °C

MILLI-Q Water Quality within Resistivity and TOC specifications

The screenshot shows the Millitrack Basic software interface. The main window is titled 'View & Analysis' and displays a table of data. The table has columns for 'Id', 'Genuine', 'Date & time', 'Category', 'Type', 'Details', 'Minimum', and 'Max'. The data rows include various quality measures such as 'Elx Resistivity', 'Elx Temperature', 'RO Pressure', 'RO Rejection', 'RO Permeate Conductivity', 'RO Feed Temperature', 'RO Feed Conductivity', 'Tap Feed Pressure', 'Tap Feed Conductivity', 'Alarm Solved', and 'Alarm Triggered'. The interface also includes a search bar, a date range selector (Start: 8/19/2013, End: 9/26/2013), and a status bar at the bottom showing 'Standby' and 'Ready' indicators.

Reports can be easily customized, and the Search box, which functions with regular expression logic, lets you find exactly what you need. Multiple types of records exist:

- Daily Quality Measures
- Daily Operation Measures
- Volumetric Indication
- Event Records
- Service Records

Scientists can depend on Millitrack® Basic software to minimize the risk of data record error, and to help increase the quality of their own laboratory output. Data reliability and traceability will also help facilitate laboratory accreditation and reaccreditation processes.

Zero-paper solution

As paperless solutions continue to gain ground in the laboratory, Millitrack® e-records offer water purification system users a state-of-the-art alternative to paper archives. System users will note multiple benefits, as e-records are less complicated, less expensive, and less time-consuming to manage than their paper equivalents. Records archived in an electronic format can be retrieved easily and efficiently when needed, using the powerful, integrated Millitrack® Basic search engine.

Data provided by Millitrack® Basic are available in XML format and are compatible with any lab data management solution, including LIMS, ELN, and SDMS/ECN for easy integration within your lab environment.

Embedded software & full compatibility with local environment

Millitrack® Basic software has been developed using the latest technologies, in order to ensure that it is compatible with all current or future major IT standards, as well as with today's and tomorrow's laboratory norms. IT policies can sometimes restrict the use of certain software. This is not a problem for Millitrack® e-Solutions, which are intelligently embedded within the Merck Millipore water purification system, meaning that no software needs to be installed in order to access their functionalities. Implementation is easy — even in the most secure of IT environments.

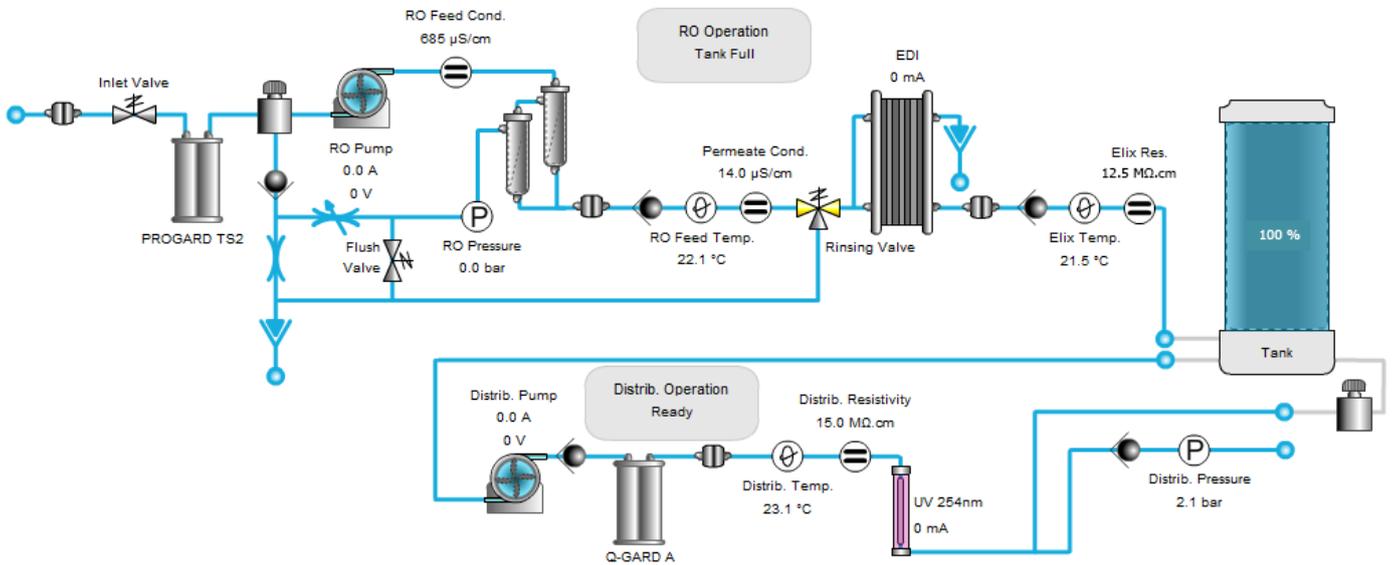
The appropriate e-Solution is available on all of the latest Merck Millipore systems, and can be activated with a unique key that can be purchased from Merck Millipore.

Millitrack® Basic software is user-friendly and intuitive: a lab's entire Merck Millipore water purification system operations can be monitored at any time on devices supporting desktop Internet Explorer® versions through a one-click web browser. Millitrack® Basic can be accessed either through a computer device connected directly to the water purification system, or remotely through a network.

Learn More: www.merckmillipore.com/millitrackbasic

Millitrack® Essential e-Solution

INSTANT QUALITY - ADVANCED PARAMETERS - HISTORY - CONFIGURATION - DASHBOARD - CONTACTS



Optimized lab productivity

Millitrack® Essential is an embedded software solution that generates water purification system real-time web pages for monitoring water purification operations. A real-time Dashboard allows "at a glance" monitoring of information concerning water purification system status and configuration; instant quality parameter settings; and easy system component identification. This lets users save time by supervising water system operation from their office or another location outside the wet lab.

Zero-paper solution

As paperless solutions continue to gain ground in the laboratory, Millitrack® e-records offer water purification system users a state-of-the-art alternative to paper archives. System users will note multiple benefits, as e-records are less complicated, less expensive, and less time-consuming to manage than their paper equivalents. Records archived in an electronic format can be retrieved easily and efficiently when needed, using the integrated Millitrack® Essential search engine.

Data provided by Millitrack® Essential are available in XML format and are compatible with any lab data management solution, including LIMS, ELN, and SDMS/ECN for easy integration within your lab environment.

The screenshot shows the software interface with the following elements:

- Logout**: Top left corner.
- M**: Millitrack logo.
- INSTANT QUALITY - ADVANCED PARAMETERS - HISTORY - CONFIGURATION - DASHBOARD - CONTACTS**: Navigation menu.
- DATA FILTER**: A list of parameters with checkboxes:
 - Quality Measures
 - All
 - Tap Feed Conductivity
 - Tap Feed Pressure
 - RO Feed Conductivity
 - RO Permeate Conductivity
 - RO Temperature
 - RO Pressure
 - RO Rejection
 - Elix Resistivity
 - Elix Temperature
 - Distribution Resistivity
 - Distribution Temperature
 - Operation Parameters
 - Events
 - Service
- DATE RANGE**:
 - Start Date (dd/mm/yyyy): 24/07/2013
 - End Date (dd/mm/yyyy): 31/07/2013
- SAVE A COPY**: Button.
- PRINTER FRIENDLY**: Button.
- Select the parameters that you wish to review**: Instructional text.

Support for your quality processes

Millitrack® Essential software can be used to store quality data of routine laboratory applications for traceability of all events related to the laboratory's Merck Millipore water purification system. Lab users can instantly view data for rapid monitoring of their water purification system. In addition, customized reports can be created depending on user-specific requirements. Up to 6 months of history can be stored before archiving the water system data.

Reports can be customized and you can perform exact searches for the types of records required:

- Daily Quality Measures
- Daily Operation Measures
- Event Records
- Service Records

Scientists can depend on Millitrack® Essential software to minimize the risk of data record error, and to help increase the quality of their own laboratory output. Data reliability and traceability will also help facilitate laboratory accreditation and reaccreditation processes.

Accessibility anywhere and at any time

Millitrack® Essential software is user-friendly and intuitive: a lab's entire Merck Millipore water purification system operations can be monitored at any time on devices supporting desktop Internet Explorer® versions through a one-click web browser. Millitrack® Essential software can be accessed either through a computer device connected directly to the water purification system, or remotely through a network.

Embedded software & full compatibility with local environment

Millitrack® Essential software has been developed using the latest technologies, in order to ensure that it is compatible with all current or future major IT standards, as well as with today's and tomorrow's laboratory norms.

IT policies can sometimes restrict the use of certain software. This is not a problem for Millitrack® e-Solutions, which are intelligently embedded within the Merck Millipore water purification system, meaning that no software needs to be installed in order to access their functionalities. Implementation is easy – even in the most secure of IT environments.

The appropriate e-Solution is available on all of the latest Merck Millipore systems, and can be activated with a unique key that can be purchased from Merck Millipore.

Learn More: www.merckmillipore.com/millitrackessential



History Report

SYSTEM INFORMATION

System Type	AFS-EUV HF10
Catalogue Number	ZAFS10EWW
Serial Number	F1MA21808F
System Version	1.19
Company	Millipore SAS
Department	Training
Address	1 rue Jacques Monod
City	Guyancourt
Zip Code	78280
Country	France
Application	Training Laboratory
Manager	Davis John
Installation Date	26/10/2012
Date	02/09/2013
Time	14:24

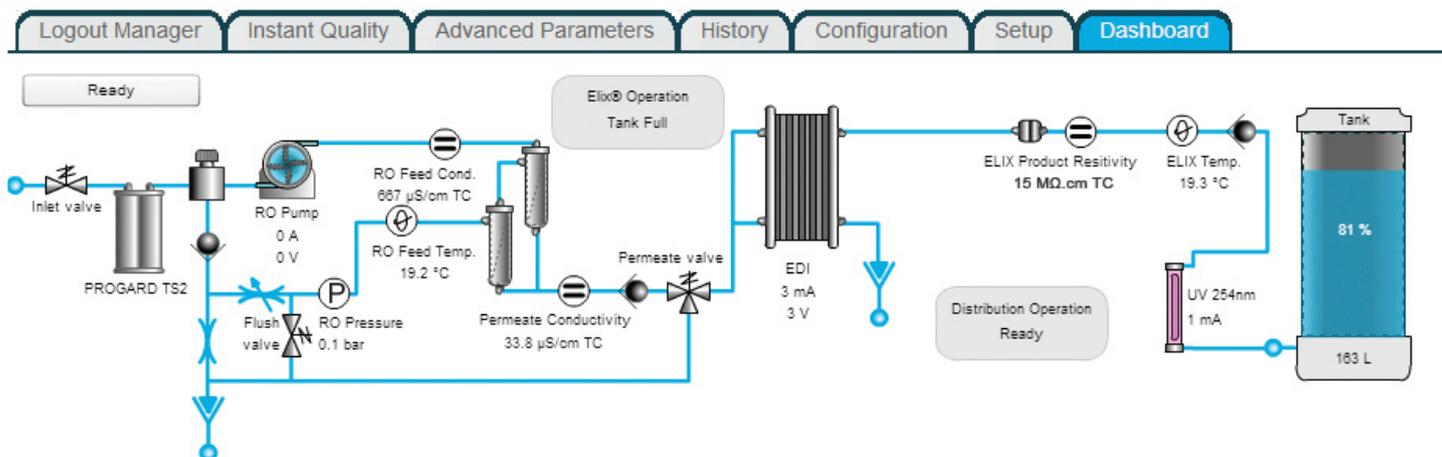
QUALITY

26/08/2013

Name	Unit	Min	Max	Average
Tap Feed Conductivity	µS/cm	620	793	670
Tap Feed Pressure	bar	1.1	1.1	1.1
RO Feed Conductivity	µS/cm	620	843	794
RO Temperature	°C	20.4	24.0	20.7
RO Permeate Conductivity	µS/cm	9.6	305.7	11.4
RO Rejection	%	54.8	98.8	98.6
RO Pressure	bar	1.8	5.2	5.0
Elx Resistivity	MQ.cm	11.5	15.0	14.9
Elx Temperature	°C	23.9	27.8	24.2

10.150.86.6/CGL-BNH/HISTORY

Millitrack® Lite e-Solution



Optimized lab productivity

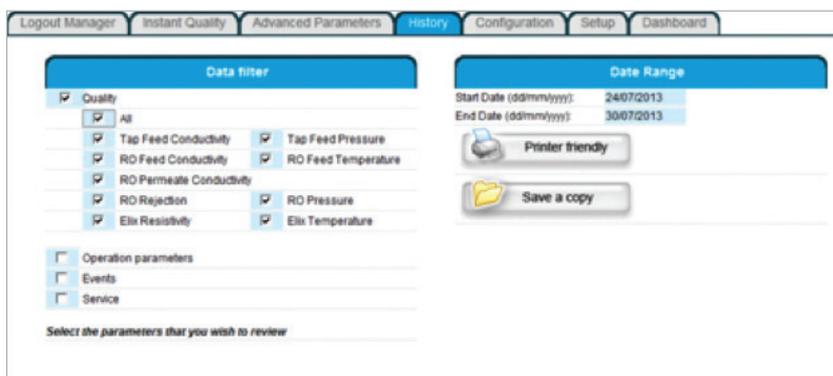
Millitrack® Lite is an embedded software solution that generates water purification system real-time web pages for monitoring water purification operations. A real-time Dashboard allows “at a glance” monitoring of information concerning water purification system status and configuration; instant quality parameter settings; and easy system component identification. This lets users save time by supervising water system operation from their office or another location outside the wet lab.

In addition, Millitrack® Lite provides two types of user roles. For lab managers, a *Manager Role* can be assigned, providing access to additional consumable information and set points. This role also allows any necessary system configuration to ensure proper use by operators. A more restricted *Operator Role* is available for users. The *Operator Role* provides access to simpler tasks such as instant water quality reports.

Zero-paper solution

As paperless solutions continue to gain ground in the laboratory, Millitrack® e-records offer water purification system users a state-of-the-art alternative to paper archives. System users will note multiple benefits, as e-records are less complicated, less expensive, and less time-consuming to manage than their paper equivalents. Records archived in an electronic format can be retrieved easily and efficiently when needed, using the integrated Millitrack® Lite search engine.

Data provided by Millitrack® Lite are available in XML format and are compatible with any lab data management solution, including LIMS, ELN, and SDMS/ECN for easy integration within your lab environment.



Support for your quality processes

Millitrack® Lite software can be used to store quality data of routine laboratory applications for traceability of all events related to the laboratory's Merck Millipore water purification system. Lab users can instantly view data for rapid monitoring of their water purification system. Up to one year of history can be stored before archiving the water system data.

Reports can be customized and you can perform exact searches for the types of records required:

- Daily Quality Measures
- Daily Operation Measures
- Event Records
- Service Records

Scientists can depend on Millitrack® Lite software to minimize the risk of data record error, and to help increase the quality of their own laboratory output. Data reliability and traceability will also help facilitate laboratory accreditation and reaccreditation processes.

Accessibility anywhere and at any time

Millitrack® Lite software is user-friendly and intuitive: a lab's entire Merck Millipore water purification system operations can be monitored at any time on devices supporting desktop Internet Explorer® versions through a one-click web browser. Millitrack® Lite software can be accessed either through a computer device connected directly to the water purification system, or remotely through a network.

Embedded software & full compatibility with local environment

Millitrack® Lite software has been developed using the latest technologies, in order to ensure that it is compatible with all current or future major IT standards, as well as with today's and tomorrow's laboratory norms.

IT policies can sometimes restrict the use of certain software. This is not a problem for Millitrack® e-Solutions, which are intelligently embedded within the Merck Millipore water purification system, meaning that no software needs to be installed in order to access their functionalities. Implementation is easy – even in the most secure of IT environments.

Millitrack® Lite software is available on Elix® Advantage, Elix® Reference, Milli-Q® Direct, and Milli-Q® Reference systems and can be activated when purchased from Merck Millipore.

Learn More: www.merckmillipore.com/millitracklite

History Report				
03/09/2013 16:56				
Name	ELIX			
Catalogue n°	ZR00015T0			
Serial n°	F0M485096C			
System Version	1.15			
Compensation Mode	TC			
Company	Millipore SAS			
Department	Service Clients			
Address	1 rue Jacques MONOD			
City	Guyancourt			
Zip Code	78280			
Country	France			
User				
Date	03/09/2013			
Time	16:56			
Installation date	27 Aug 2013			
02/09/2013				
Name	Unit	Mini	Maxi	Average
Tap Feed Conductivity	µS/cm	576	747	628
Tap Feed Pressure	bar	1.8	2.0	1.9
RO Feed Conductivity	µS/cm	576	799	732
RO Feed Temperature	°C	19.5	28.3	20.1
RO Permeate Conductivity	µS/cm	15.0	191.3	27.7
RO Rejection	%	70.4	97.9	96.3
RO Pressure	bar	3.2	6.0	5.1
Elix Temperature	°C	19.9	27.1	20.5
Elix Resistivity	MΩm.cm	11.5	15.0	14.9

Millitrack® e-Solutions specifications

	Millitrack® Basic	Millitrack® Essential	Millitrack® Lite
For use with Merck Millipore water purification systems:	Milli-Q® Advantage A10® Milli-Q® Integral	RiOs™ Essential Elix® Essential AFS® Essential AFS® E Essential AFS® D Essential	Elix® Advantage Elix® Reference Milli-Q® Direct Milli-Q® Reference
Computer & network connection	Desktop or laptop computer and some tablet devices* - Point-to-point connection through its Ethernet card - Direct LAN network plug (fixed IP or DHCP) connection		
Recommended minimum configuration	Notebook/Desktop PC, 1 GHz processor, 512 MB RAM		
Recommended software and operating system configuration	<p>Operating system: Microsoft® Windows® XP operating system (SP3); Microsoft® Windows® 7 operating system (SP1)</p> <p>Web browser: Internet Explorer® 8 or higher</p> <p>Web technology: Microsoft® Silverlight® 4 web browser plug-in</p>	<p>Operating system: Microsoft® Windows® XP operating system (SP3); Microsoft® Windows® 7 operating system (SP1)</p> <p>Web browser: Internet Explorer® 6 or higher</p> <p>Web technology: For use with Adobe® Flash® Platform 9</p>	<p>Operating system: Microsoft® Windows® XP operating system (SP3); Microsoft® Windows® 7 operating system (SP1)</p> <p>Web browser: Internet Explorer® 6 or higher</p> <p>Web technology: For use with Adobe® Flash® Platform 9</p>

* Tablets supporting desktop versions of Internet Explorer®



For more information, or to purchase Millitrack® e-Solutions software, just contact your local Merck Millipore Application Specialist or visit our website today: www.merckmillipore.com/millitrack-esolutions

www.merckmillipore.com/labwater

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