



LabX Software

LabX balance

LabX titration

LabX connect

Complete Overview, Total Control
Smart Laboratory Instrument Software

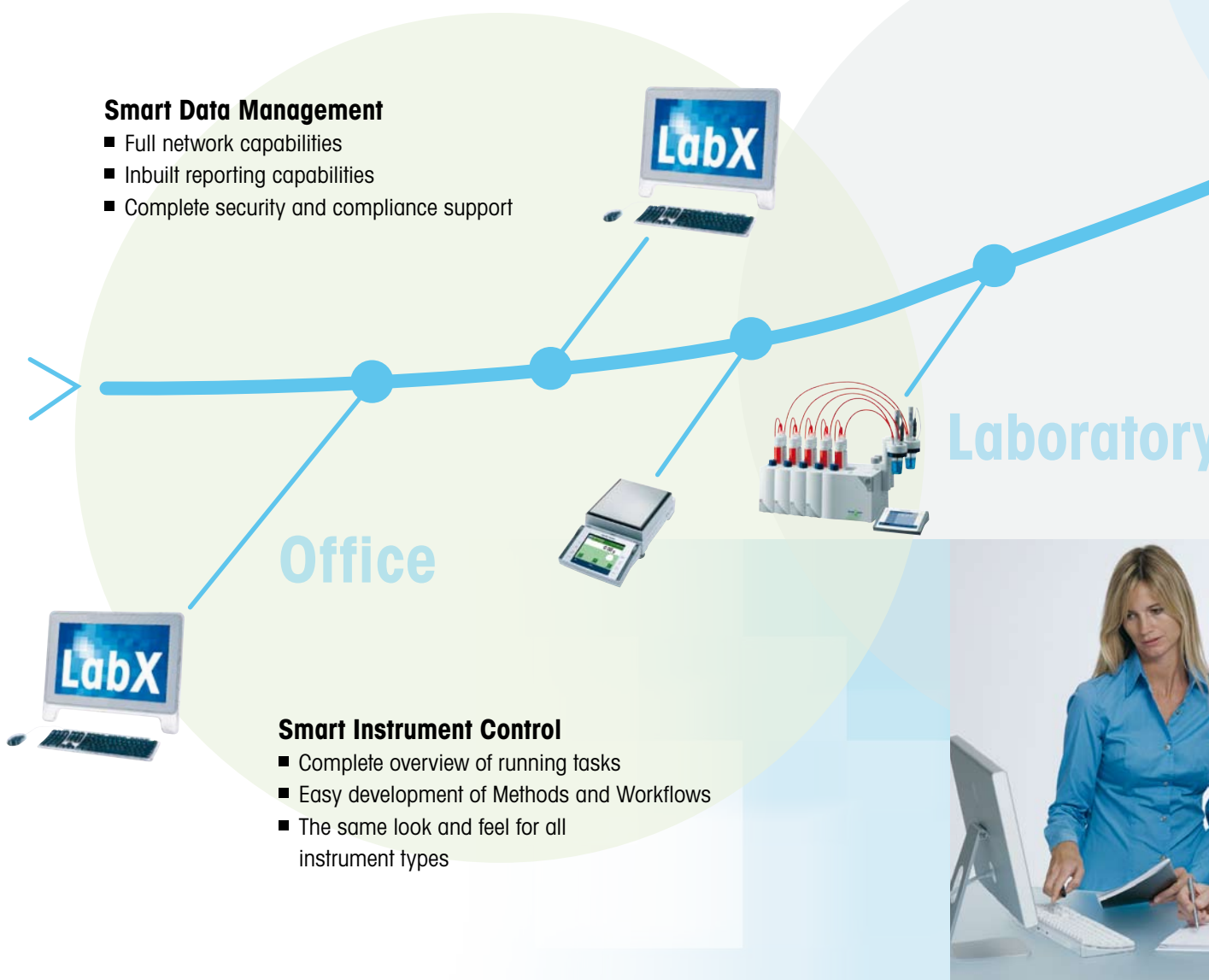
METTLER TOLEDO

The Smart Laboratory Empowered by LabX

LabX is a single software platform for your METTLER TOLEDO laboratory instruments. With decades of experience supporting your work with high quality instruments, we have created a smart software platform designed to accompany your METTLER TOLEDO instrumentation. With the built in user and data management possibilities, LabX pro is the ideal modular software package, both easy to learn and powerful enough for your most advanced applications. The scope of LabX software is designed to cover the needs of the smallest company through to the largest global enterprises.

Smart Data Management

- Full network capabilities
- Inbuilt reporting capabilities
- Complete security and compliance support



Office

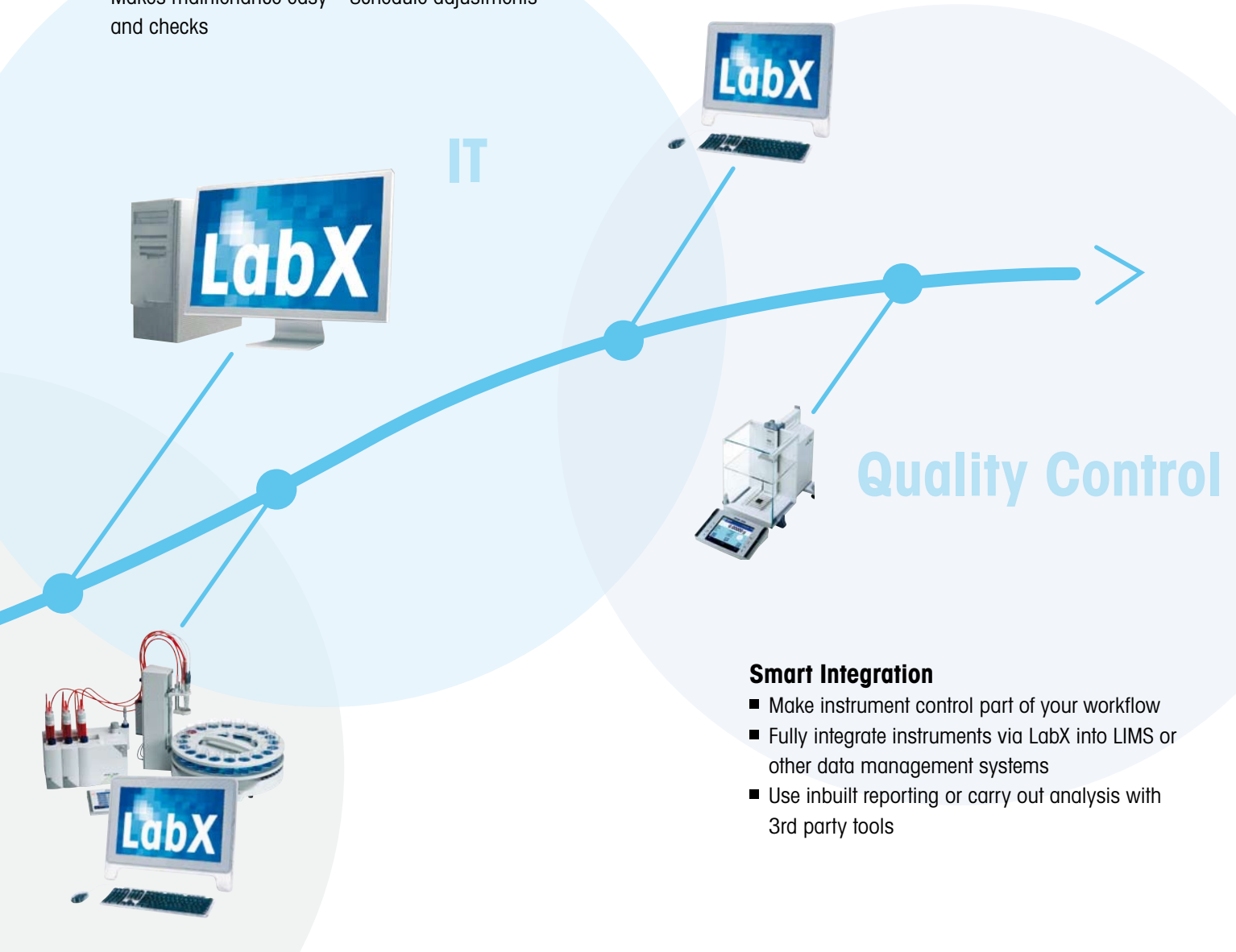
Laboratory

Smart Instrument Control

- Complete overview of running tasks
- Easy development of Methods and Workflows
- The same look and feel for all instrument types

Smart Instrument Management

- Keep track of your instruments and their status
- Enable total control of the instrument usage and their resources
- Makes maintenance easy – Schedule adjustments and checks



Smart Integration

- Make instrument control part of your workflow
- Fully integrate instruments via LabX into LIMS or other data management systems
- Use inbuilt reporting or carry out analysis with 3rd party tools



Use LabX to control multiple instruments. LabX runs multiple instruments simultaneously, in this case titrators.



LabX supports a variety of METTLER TOLEDO Laboratory Instruments like for example XP balance and T70 Titrator.



Connect your METTLER TOLEDO Instruments direct to your network. The latest version of Instruments carries a Ethernet connection already built-in and ready to use.



LabX balance

Control your weighing, easy and securely

RapidAccess makes data collection easy

- Step-by-step guidance through your weighing applications to electronically capture weight and other identifying data using the balance display terminal - no computer needed next to the balance.
- Eliminate manual data entry and transcription errors. "Strictly enforce your organization's weighing SOP's."
- Get rid of paper print-outs.

DATA COLLECTION

1. Select the weighing application from the balance queue.

2. Follow the step-by-step guidance on the balance touch screen.

3. Transfer data.

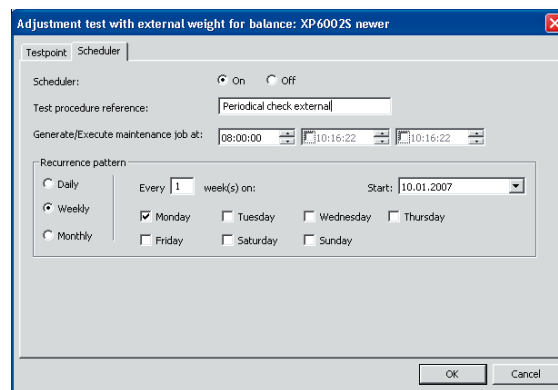




USER GUIDANCE

Collect and manage calibration data

- LabX controls adjustments and sends reminders to the users to enforce the required checks.
- You can be sure that your data is 100% correct. LabX can lock the balance from running other weight collection applications if calibration criteria are not met.
- A detailed calibration history is stored in the system.



Send data to any destination

- You can automatically transfer balance data into an Excel® spreadsheet. Define the fields to be exported, weigh the samples, and the data will be automatically transferred to your spreadsheet.
- You can connect LabX to e.g. the LIMS. Please refer to the «LabX connect» section of this brochure.
- You can ensure that data is always accessible and secure. All data is stored in an industry-standard Microsoft™ SQL database, comprehensive reports can be viewed and printed.

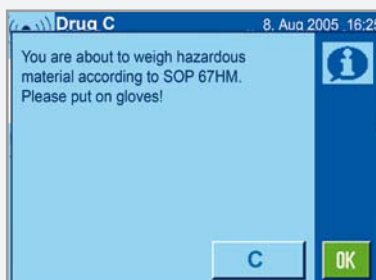
Statistics and SQC		Net value
Sample Count	10	>T2+
Mean	13.45487g	<= T2+ and > T1+
Min	13.45410g	<= T1+ and >= Target
Max	13.45544g	< Target and >= T1-
Max Difference	0.00134g	< T1- and >= T2-
Standard Deviation	0.000473g	< T2-
Rel. Standard Deviation	0.000035	

LabX enhances the flexibility of your applications

Increase efficiency and reproducibility of your routine tasks. LabX supports you with preconfigured and validated methods e.g. differential weighing, dynamic weighing, interval weighing, totalization and density applications.



Traceability of your density determinations.



Customize user guidance according to your process.



Traceability of your filter weighing.

LabX titration

The software wizard for simple and efficient titration

Speed up your daily titration routines

One Click operation of daily tasks

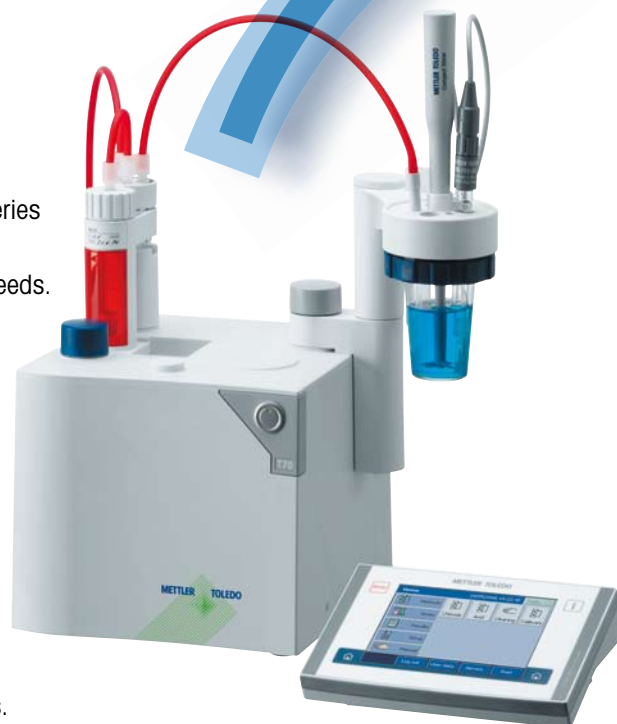
- Single-click start of manual tasks, Sample Series or Sample Series Sequences by Short Cuts.
- Flexible arrangement of all static windows according to your needs.
- Pop-up windows show information when required.

Efficient Sample Series management

- As soon as you drag and drop the Sample Series icon onto the desired titrator symbol, the titration starts immediately.
- With the sample series editor, you can easily edit your sample data, add samples to a Sample Series or delete them.

Flexibility in operation – the Dual Mode

- Work from the Excellence Terminal or from the LabX PC (or from both) depending on your environment and your needs.
- Ideal for environments where no PC is possible/desired near the titrator.
- Ideal for remote data collection via Ethernet.



Create and manage methods easily and fast

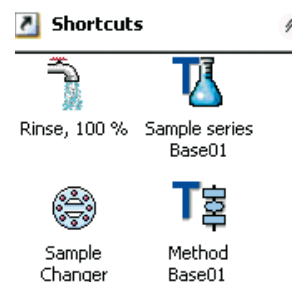
Method wizard for applicative challenges

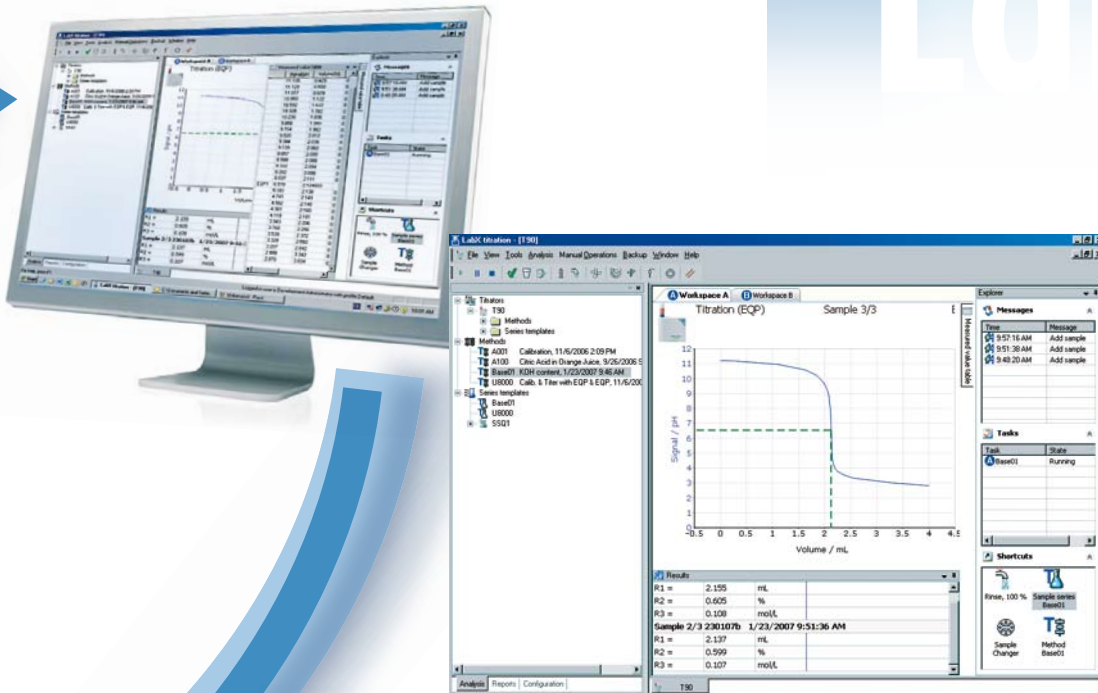
- Greatly simplified method creation provided by method templates and segment-specific METTLER TOLEDO application database.
- Easy management of methods in the user-specific method library.

Optimized method editing

- Optimum overview during method editing provided by the strict hierarchical appearance of the method editor.
- Error free work thanks to the full real-time method validation.

+	Titrant	
+	Sensor	
+	Temperature acquisition	
+	Stir	
+	Predispense	
+	Control	
+	Control	User
+	Titrant addition	Dynamic
+	Mode	Equilibrium controlled
	dE	0.5
	dt [s]	1.0
	t(min) [s]	40 ✘ Parameter above maximum
	t(max) [s]	30.0
+	Evaluation and Recognition	





Manage your results efficiently according to your needs

Efficient data management

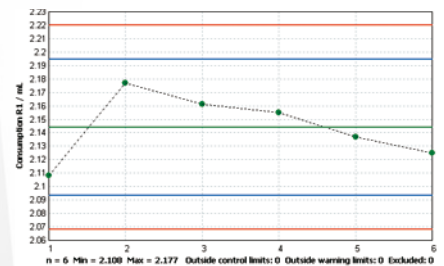
- Control charts to display the history of sample results, sensor calibration or titer determination.
- Pre- or user-defined data filters enable quick access to specific results.

No waste of samples

- Five powerful graphical tools for re-evaluation of titration curves.

Define your specific documentation

- GLP-compliant, comprehensive documentation of methods, results and analysis reports.
- Report layout editor to adapt the reports to your needs.



LabX pro titration controls various Excellence Titrators in a Quality Control lab for determination of peroxide-, amine-, acid number of chemical fasteners.



T90 – Rondo 60 - LabX pro titration system in production control for acid, base and saponification numbers for the analyses of a wide diversity of lubricants.



Dual Mode operation with LabX pro titration in pharmaceutical R&D. Manage your results from your office desk and control your titrations from either the PC or directly in front of the titrator.



Validation of LabX

Efficient software validation

Validation of software can be a challenge, however the LabX validation manuals I&II make system validation straightforward and complete. The two manuals contain all the information, instructions and forms you need in order to satisfy any regulatory body.

METTLER TOLEDO LabX validation...

In most countries, METTLER TOLEDO offers a complete validation service, please contact your local vendor for further information.



LabX validation Manual I

This folder contains all information necessary for the qualification of METTLER TOLEDO as the software supplier (Vendor Qualification).

Contents are:

- Company Information and Structure
- Quality Management System: Infrastructure
- Quality Management System: Software Development
- LabX Development Process
- LabX Sales, Support and Training

LabX validation Manual II

Contains all instructions and forms necessary for the validation of the software (IQ, OQ).

Contents are:

- LabX Validation Procedure
- System Overview
- Installation Qualification
- Operational Qualification
- System Security
- Backup
- Disaster Recovery



LabX connect

Integrate your devices into the system of your choice



LabX with the LabX Connect Application Program Interface (API) offers a powerful and elegant solution for integration with 3rd-party lab data systems. Open the door to any system for easy bi-directional integration with your balances and titrators.

Let LabX take care of the instrument management and instrument control and send tasks from your system (ex. LIMS) to LabX to obtain the desired results.

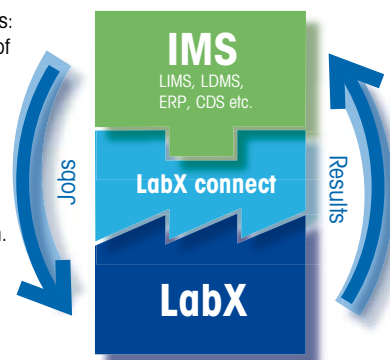
LabX connect is built with two types interfaces:

Event Interface: Notifies a 3rd party system of instrument events.

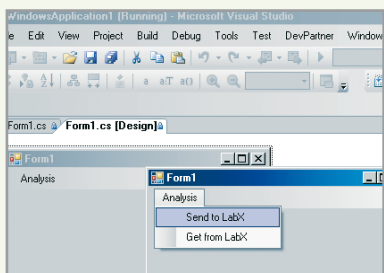
Ex. LabX receives a result from an instrument and informs the 3rd party system that a new result has been received.

Method interface: offers various methods that can be triggered from a 3rd party system.

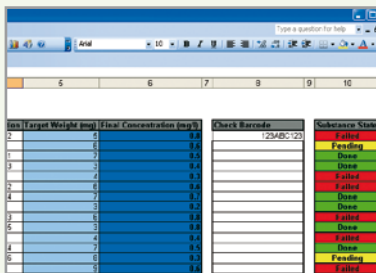
Ex. a LIMS creates a sample list within LabX, assigns and starts an analysis method on a specific instrument.



For detailed information please contact your local vendor for the LabX connect «**System Integration Guide**».



Integrate your LIMS/CDS with LabX pro in order to send tasks from the system to the instrument and get results back from LabX.



Integrate LabX with standard Excel® spreadsheets to allow for customized visualization of your data.



Use the freedom of LabX connect to design your own applications using nearly any programming language which supports COM.

LabX common specifications

	LabX light	LabX pro
General Features		
Editor to allow the user to create and edit Methods	•	•
Easy to use Windows based User Interface	•	•
Available in multiple languages	•	•
Wizard guided for easy setup	•	•
Data management		
Results stored in SQL-database	•	•
Powerful database filter function – user definable filters	•	•
Flexible statistical evaluation	•	•
Calculation with formula editor	•	•
GLP-compliant reports	•	•
Bi-directional, fully configurable and automated communication with LIMS available as option (LabX connect)		•
Automatic or manual export to Excel® or LIMS		•
Copy / paste of tables, lists and pictures into Microsoft Word, Excel® or other similar software packages supporting OLE	•	•
Database tool for maintenance and manual/automated backup	•	•
21CFR Part 11 compliance support		
User management		•
Password management functions policies		•
Electronic signature and approval/sign-off functionality		•
Audit trail with full filter and export functionality		•
System		
Central SQL-Database	•	•
Full networking capability		•
Multiple instruments connected directly via network		•
Multiple number of clients		•
Installation checker to proof proper installation	•	•
Client/server architecture		•
Integrated online help system	•	•
Services		
Maintenance Contract	•	•
Validation Service		•
Revalidation Service		•
Installation Service	•	•

LabX balance specifications

Supported METTLER TOLEDO Instruments

Laboratory balances: XP, XS, AX, MX, UMX, AG, PR, SR, PG-S, SG, AT, MT, UMT, AB-S, PB-S

Features

- Navigate LabX and collect data without touching the computer with balance models XP, XS, AX supporting Rapid Access
- User guidance on the balance display
- On-line view on the computer
- Job queue (Task list per balance)

Benefits

- Easy weight capture

- Support of weighing, differential weighing, dynamic weighing, interval weighing, totalization and density applications
- Balance settings management

- Flexible implementation of weighing SOP

- Test and adjustment scheduler
- Instrument release control
- MinWeigh incident history

- 100% reliable data

- Calibration history
- Weights library
- Instrument tolerance management with built-in tolerance database

- Fully traceable calibration data

LabX titration specifications

Supported METTLER TOLEDO Instruments

General Titrators: Titration Excellence T50, T70, T90; DL50 Graphix/Rondolino, DL53, DL55, DL58, DL70ES, DL77
Karl Fischer Titrators: DL31, DL32, DL38, DL39

Features

- Unlimited number of titrators per PC (recommended 1-3, LabX light can only control one titrator)
- Dual mode: Work with LabX and Excellence Titrator Touch Screen at the same time
- Remote control of manual titrator/sample changer functions
- Instrument resource/settings backup and transfer

Benefits

- Comprehensive instrument control and flexible operation

- User defined Short Cuts for Titration Excellence titrators
- Online titration curves with derivatives, table of measured values, job queue status
- Sample/batch editor

- Quick access to daily tasks

- Method editor with integrated database of 400+ methods including full description
- Import and export of methods

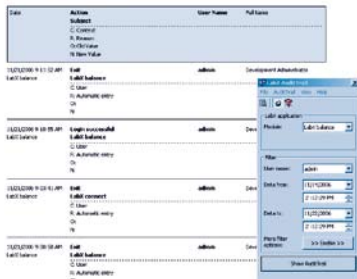
- Easy method creation and editing

- Control charts for display of history of sample results, sensor calibration and titer determination
- User definable report data structure and user definable data
- Graphical re-evaluation of titration curves (Tubbs, tangents, segmented, extrapolation and manual)
- Instrument documentation management and DataX support

- Efficient data management

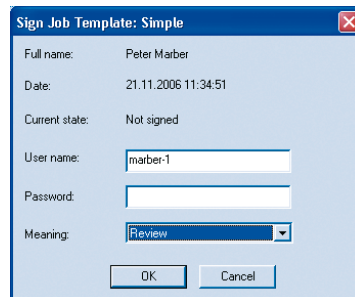
LabX pro provides all the tools needed for your data management and storage according to FDA regulations (21CFR Part 11)

LabX AuditTrail



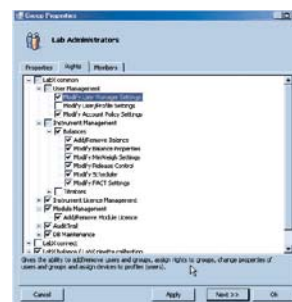
Audit Trail

The audit trail records every relevant action taken in the LabX system like logon, editing a method or data imports according to GLP /GMP. The audit trail can be exported as a PDF or text file.



Electronic signature

Each LabX document has a footer with approval and review information. Documents can be signed with an electronic signature.



User manager

This tool allows to create users and assign rights to user groups. LabX also allows you to define your own password policies to enforce company guidelines and makes it easy to administrate.

For fast data transfer

For easy and quick data transfer from your instrument to Excel® or other data systems METTLER TOLEDO offers its LabX direct product line.



LabX direct balance increases the efficiency and accuracy of weighing applications by capturing readings from any METTLER TOLEDO balance equipped with a RS-232 port. LabX direct balance is an easy-to-use software designed to transfer data from one balance into an open application such as an Excel® spreadsheet.



LabX direct moisture increases your lab productivity, prevents mistakes and supports all your regulatory needs. With LabX direct moisture, you save the time otherwise spent in manual moisture transcription and re-transcription into your LIMS or application software.



Results can be transferred with **LabX direct DE/RE** easily from instrument to PC software for method development, time dependent research experiments (e.g kinetics studies) or report generation (e.g. dissertation compilation). Users of portable equipment will appreciate that they can collect measurement data in the field and download the complete list upon their return to base.



Say goodbye to manual transcription, paper printouts or copy-pasting your data manually from one PC application to another. With **LabX direct pH** you have flexible data transfer software to easily send data from your Seven instrument to an Excel® spreadsheet or any cursor position in other PC applications.

www.mt.com/labx

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