EasyDirect™ Balance

Easy and Reliable Data Management v2.0





Table of Contents

1	Intro	duction	3
2	Desig	gn and Function	4
	2.1	EasyDirect™ Balance Software	4
	2.2	Functions	4
3	Getti	ng Started	6
	3.1	Introduction	6
	3.2	EasyDirect Balance Installation and Activation	
		3.2.1 Installing EasyDirect™ Balance	
		3.2.2 Activating EasyDirect™ Balance	
	3.3	Configuring your Balance	10
		3.3.1 Configuring MS-TS and ML-T Advanced Level Balance models via Ethernet	10
		3.3.2 Configuring Standard and Advanced Level Balance models via RS232	10
	3.4	3.3.3 Configuring Excellence Level Balance models via RS232	12 14
	3.4	3.4.1 Modes of Connection	14
		3.4.1.1 Connection via Ethernet (only for MS-TS and ML-T of Version 4.20 or above).	14
		3.4.1.2 Connection via RS232	14
		3.4.1.3 Connection via RS232 to Ethernet	15
		3.4.1.4 Connection via Bluetooth	15
	3.5	Configuring EasyDirect Balance	16
		3.5.1 General Settings	16
		3.5.2 Check for Updates manually	17
4	Instru	ument Management	18
	4.1	The Instrument View Window	18
		4.1.1 Balance groups	
	4.2	Edit Instrument data and connection settings	
	4.3	Remove an Instrument	
	4.4	Date Filter	21
5	Test	and service status	22
6	Date	Time Synchronization	23
7	Auto	matic Export	24
8	Meas	surement View	26
	8.1	Measurement Results	27
	8.2	Additional Areas	28
9	Mana	aging Results	29
	9.1	Printing Results	29
	9.2	Exporting Results	30
	9.3	Deleting Measurement Results	30
	9.4	Charts	31
		9.4.1 Control Chart	31
		9.4.2 Statistics Chart	32
10	Chan	ge Protection	33

Table of Contents EasyDirect™ Balance

1 Introduction

This guide will help you to get started with EasyDirectTM Balance and explains the main features and functionalities of the software.

Easy and Reliable Data Management

Connect your laboratory balances (MX, MR, MA, LA), Jewelry balances (JET, JE, JL-GE, JP, JS), and legacy Balances (ME, ME-T, ML, ML-T, MS Semi-Micro, MS-L, MS-S, MS-TS, PL-E, XP, XS, XPE, XSE) to EasyDirect™ Balance software and improve your data management. Data collection starts at your PC, results are received even if the EasyDirect application is not open.

The EasyDirect™ Balance software directly collects results and measured values of up to ten instruments. Easily retrieve, manage, and filter results for each connected instrument.

Create statistics and control charts based on results collected in EasyDirect™ Balance, and print results on your local or network printer. Export your data manually or automatically in various formats to wherever you need them.

Your measurement results are stored and easily accessed using EasyDirect™ Balance software. If you have any additional questions, METTLER TOLEDO is always available to assist you. Visit us on:

https://www.mt.com/EasyDirectBalance

End User License Agreement (EULA)

The software in this product is licensed under EasyDirect™ Balance End User License Agreement (EULA) for software, available at https://www.mt.com/eula. When using this product you agree to the terms of the EULA.

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EasyDirect™ Balance Introduction

2 Design and Function

2.1 EasyDirect™ Balance Software

EasyDirect Balance software consists of two parts:

- Background application
- Main user application

The background application runs automatically when the PC is running. The status will be indicated with an Large icon in the Windows taskbar.

EasyDirect Balance allows you to connect up to 3 or 10 balances (based on the software license) via Ethernet, RS232*, or Bluetooth (based on balance support).

30539323 EasyDirect Balance (License for up to 3 instruments)

30540473 EasyDirect Balance (License for up to 10 instruments)

The background application runs and logs results received from the connected instrument(s) regardless of whether you have EasyDirect Balance open in a window or not. To view the results stored in the database, the main application has to be started.

*RS232 – Connect your balance to the PC using a standard RS232 or RS232 to USB converter cable from METTLER TOLEDO (Material Number 64088427) with RS232 connected on balance side.

2.2 Functions

The applications supported by EasyDirect Balance depend on the balance line and the connection type:

Supported Instruments	MS-TS, ML-T 1)	MX, MR, MA, LA, MS, ML, ME-T, ME, PL-E, JP, JS, JE, JET, JL-GE, XP, XPE, XS, XSE
Connectivity	RS232, Ethernet	RS232, USB (type C)
Data Collection		
Balance Information		
Basic balance information	•	•
Level, adjustment, test and service status	•	
Balance usage	•	
Weighing Data		
Weighing, counting, percent weighing, factor weighing	•	•
Check weighing, dynamic weighing, formulation, totaling, back weighing, differential weighing, density	•	
Weight, unit, date/time, sample and task IDs	•	•
Target and tolerances	•	
User name	•	
Application-specific results and parameter	•	
Maximum Number of Instruments	Up to 10 balances	
Report Formats XML, CSV, XLSX, PDF		
Protection	Password protection of settings and results	
EasyDirect Balance Menu Languages ²⁾	English, German, French, Spanish, Italian, Russian, Polish, Czech, Hungarian, Dutch, Portuguese, Turkish, Japanese, Chinese, Korean	

Design and Function EasyDirect™ Balance

- 1) Full functionality only via Ethernet
- 2) Except for MS-TS and ML-T balances with software version 4.20 or higher: the language of the balance menu always needs to be in English, when transmitting data.

The following represents a list of functions that can be performed using EasyDirect Balance:

- Manually adding the instrument through [Ethernet ▶ Page 14], [RS232 ▶ Page 14], or [Bluetooth ▶ Page 15].
- Discover MS-TS /ML-T balance in your network using [Discover option ▶ Page 14]
- Viewing instrument information [Instrument information ▶ Page 18]
- Viewing weighing results [Weighing results ▶ Page 26]
- Viewing tests and adjustment results [Tests and adjustment results ▶ Page 22]
- Printing weighing results [Printing weighing results ▶ Page 29]
- Exporting (manually/automatically) weighing results [Exporting (manually/automatically) weighing results
 Page 30]
- Remove instruments [Remove instruments ▶ Page 20]
- Change Protection [Change Protection ▶ Page 33]
- View control charts and statistics charts [Control charts and statistics charts ▶ Page 31]
- Automatic check for software updates [Automatic check for software updates ▶ Page 16]

EasyDirect™ Balance Design and Function

3 Getting Started

3.1 Introduction

To use EasyDirect Balance with your laboratory balances you need to do the following steps:

- 1 Install EasyDirect Balance on your PC and activate it via the activation portal.
- 2 Configure your balance(s), so that EasyDirect Balance can communicate with them.
- 3 Add the balances to EasyDirect balance to transfer data from the balance.
- 4 Configure EasyDirect Balance.

3.2 EasyDirect Balance Installation and Activation

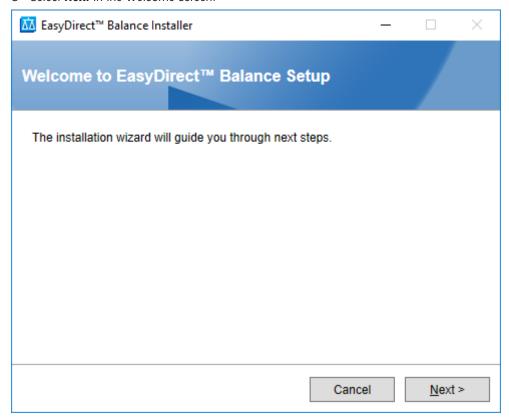
3.2.1 Installing EasyDirect™ Balance

To install EasyDirect Balance, a minimum of the PC requirements below should be satisfied:

PC requirements

Computer	Minimum	Optimum
RAM	4 GB	8 GB
Display Resolution	1024 × 768	1920 × 1080
Storage	5 GB free space	10 GB free space
Operating system	Windows 10 update 20H2 or above	Windows 10 update 20H2 or above

- 1 Download and run the EasyDirect Balance **Setup**.
 - → The setup installs the Microsoft .Net framework v4.8 as a pre-requisite before installing the software. This step is skipped, if .Net framework v4.8 is existing in your PC.
- 2 After successful installation of .Net Framework, restart the PC.
- 3 Select **Next** in the Welcome screen.

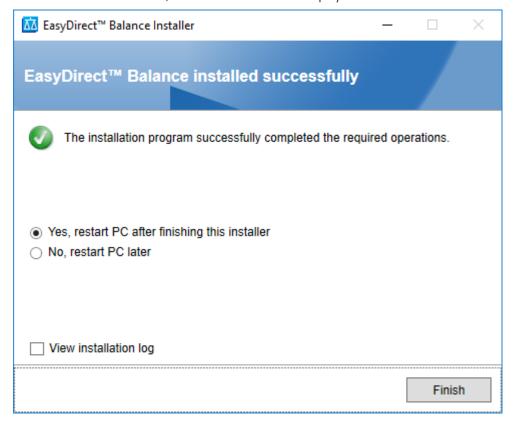


- 4 Read and accept the End-user License Agreement by clicking the corresponding checkbox.
- 5 Select Next.

6

Getting Started EasyDirect™ Balance

- → The SQL server is upgraded based on the following scenarios:
 - a. EasyDirect UV/VIS first-time installation: the setup checks whether there is an instance already of name EasyDirect with SQL server version 2022. If there is none, then SQL server 2022 is installed. b. Lower version of EasyDirect UV/VIS is already installed:
 - If the existing SQL server version is 2019, the application will automatically upgrade the SQL server from 2019 to 2022 along with the application upgrade.
 - If the existing SQL server version is not compatible, the following message appears and installation fails. You must upgrade manually the SQL server 2012 from SP1 to SP4 and restart the PC. Run the setup again to upgrade the SQL server from 2012 to 2022 along with the application upgrade.
- 6 After successful upgrade of SQL server 2012 SP1 to SP4, restart your PC and launch the installer again.
- 7 In the install set up files wizard, click **Install**.
- On successful installation, the screen below will be displayed.



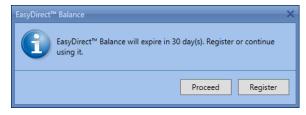
3.2.2 Activating EasyDirect™ Balance

The trial version of EasyDirect Balance can be used for 45 days and up to 3 instruments without a license. After this, a license is required for continuous use of the software. A license can be purchased through your METTLER TOLEDO sales representative.

https://activation.mt.com

After you receive your license key, follow the steps below to activate EasyDirect Balance:

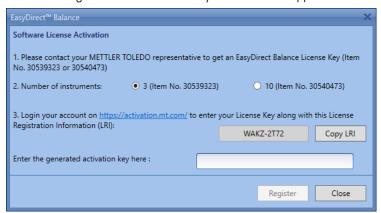
- 1 Open the EasyDirect UV/VIS software.
 - The following window appears:



2 Click Register.

EasyDirect™ Balance Getting Started

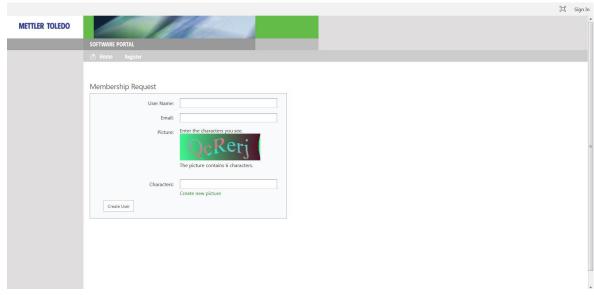
The registration window of EasyDirect Balance appears.



- 3 Select the number of instruments according to the license purchased.
- 4 In the web browser's address bar, enter https://activation.mt.com to go to the METTLER TOLEDO Software Portal.



- 5 Click **Register** in the menu bar.
 - → The **Membership request** window appears.



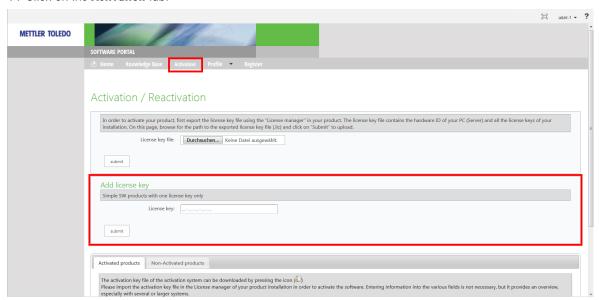
- 6 Enter the username, e-mail address, and text from the picture.
- 7 Click Create User to submit the data.

8

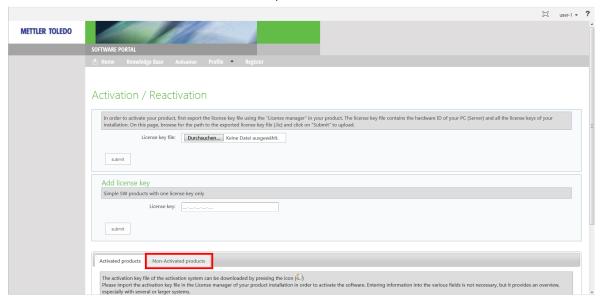
→ You will receive your login credentials via e-mail.

Getting Started EasyDirect™ Balance

- 8 Click on the link in the e-mail you received.
 - → The **Sign In** window appears.
- 9 Enter the username, password, and click Sign In.
 - → The **Manage Customer Profile** window appears.
- 10 Complete your profile data and click 💾 Save.
- 11 Click on the **Activation** tab.



- 12 In the Add License Key section, enter the license key.
- 13 Click Submit.
- 14 After the successful validation of the License Key, click Non-Activated Products in the section below.



- 15 Enter the **LRI Key** displayed in EasyDirect Balance register window (from the screenshot in step 2). You can copy the LRI key by clicking **Copy LRI**.
 - → An activation key is generated.
- 16 Enter (or) copy paste the short activation key from the activation portal into the EasyDirect Balance Register window.
- 17 Click Register.
- EasyDirect Balance is now activated.

EasyDirect™ Balance Getting Started

3.3 Configuring your Balance

Depending on the balance model, its software version and the interface used to connect the balance and the PC, on which EasyDirect Balance is running, the balance needs to be configured in a different way. Please follow the configuration steps of your specific balance very carefully as otherwise the data cannot be transmitted correctly.

The balance can be connected to the EasyDirect Balance via Ethernet, RS232, RS232 to USB converter cable (available from Mettler-Toledo, 64088427), RS232 to Ethernet converter or Bluetooth. It is not possible to use a standard USB cable to transmit the data from the balance to EasyDirect Balance.

To obtain the complete functionality of EasyDirect Balance in the most convenient way, we recommend connecting an MS-TS or ML-T scale via Ethernet. For MS-TS and ML-T with software version 4.20 or above there is a specific EasyDirect Balance service available in the balance settings menu. For all other balance models and software versions, the data is transmitted to EasyDirect Balance as a print stream, like a standard printer would be connected to the balance.

Please be aware that when connecting the balance via any interface except Ethernet the balance language settings must be English.

See also

Automatic Export ▶ Page 24

3.3.1 Configuring MS-TS and ML-T Advanced Level Balance models via Ethernet

Configure the connection of ML-T and MS-TS (V4.20 or higher) via Ethernet as per the table below.

Balance	Settings
MS-TS and ML-T (v4.20 or	The balance is connected with an Ethernet cable to the LAN.
higher)	Activate LAN: General configuration and data -> Network and Bluetooth.
	 General configuration and data -> Devices and Services> add EasyDirect Balance as a new service via LAN
	General configuration and data -> Publishing -> Send data -> select transmission mode
	Please be aware that the report configuration does not apply to EasyDirect Balance. Please be also aware that the statistic option must not be activated on the balance.
	For more information, please refer to the reference manual of the balance: http://www.mt.com/ms-ts-RM http://www.mt.com/ml-t-RM

3.3.2 Configuring Standard and Advanced Level Balance models via RS232

Configure your Standard and Advanced Level balance as per the table below. Please use a RS232 to USB converter cable (64088427) or a standard RS232 cable.

Balance	Settings		
MX, MR	• Settings -> Services -> EasyDirect Balance -> Interface -> RS232 / USB		
	 Settings -> Balance -> Publishing -> Transfer Data -> EasyDirect Balance 		
	The names for ID1, ID2, ID3, and ID4 have to be ID1, ID2, ID3, and ID4 or Sample ID for parsing. If the ID Names are different, EasyDirect Balance will not recognize them. EasyDirect Balance does not support Portuguese language set in balance.		
MA	Settings -> Balance Settings -> Interface -> RS232 -> EasyDirect Balance		
MS-TS and ML-T (v4.20 or	General Configuration and Data		
higher)	 General configuration and Data -> Device and Services -> Add EasyDirect™ Balance as a new service via RS232 		
	 General configuration and data -> Publishing -> Send data -> select transmission mode 		

Getting Started EasyDirect™ Balance

Balance	Settings
	The names for ID1, ID2, ID3, and ID4 have to be ID1, ID2, ID3, and ID4 or Sample ID for parsing. If the ID Names are different, EasyDirect Balance will not recognize them.
MS-TS (V4.10)	 General Configuration and Data General configuration and Data -> Device and Services -> Add P-20/ P-52/P-56/58/Printer -> RS232:
	 General configuration and Data -> Publishing -> Print and Export report -> Single values reports -> Manual*, stable **
	*Can be 'Automatic' as well, in case of 'manual' print not needed.
	**In case, both Stable and Dynamic values need to be captured in EasyDirect Balance, keep it as "all values".
	Quick settings
	Quick settings/Preferences -> Language -> English
	Application settings - Main Configuration
	Application settings -> Main configuration
	- Statistics : off
	- Target and tolerances : off
	- Accuracy information : off
	 Secondary information -> on, Select 'Additional unit' for stability and additional unit information
	Application settings - Reports Configuration
	For Weighing
	Report title
	Date, timeBalance type
	Balance identification
	Serial number (SNR)
	• ID1 • ID2 • ID3 • ID4
	Gross/Tare weight Additional unit
	Signature line
	For Counting
	Report title
	Date, time Palance type
	Balance typeBalance identification
	Serial number (SNR)
	• ID1 • ID2 • ID3 • ID4
	Additional unitSignature line
	For Percent weighing
	• Report title
	• Date, time
	Balance type Balance identification
	• Serial number (SNR)
	• ID1• ID2• ID3• ID4
	Additional unit Signature line
	Signature line For Factor weighing
	For Factor weighing • Report title
	• Date, time
	Balance type
	Balance identification Social number (SND)
	Serial number (SNR) ID1 ID2 ID3 ID4
	151 152 150 151

EasyDirect™ Balance Getting Started

Balance	Settings
	Additional unit
	Signature line
	Print series: Off
	The names for ID1, ID2, ID3, and ID4 have to be ID1, ID2, ID3, and ID4 or Sample ID for parsing. If the ID Names are different, they will not be recognized by EasyDirect Balance.
ME-T, JET, ML-T, MS-TS (V4.01	General configuration
or below)	 General configuration -> Device and Connectivity -> RS232 (Serial) -> Device Type -> Select P-20
	General configuration -> Publishing -> Print -> Printer -> Serial Printer
	 General configuration -> Publishing -> Print -> Single values reports -> Manual*, Stable**
	*Can be 'Automatic' as well, in case of 'manual' print not needed. **In case, both Stable and Dynamic values need to be captured in EasyDirect Balance, keep it as "all values"
	Quick settings
	Quick settings -> Language -> English
	Application settings - Main configuration
	Target and tolerances -> off
	Accuracy information -> off (for counting only)
	 Secondary information -> on Select 'Additional unit' for stability and additional unit information
	Application settings - Report configuration
	Header, select the items below
	- Date, time
	 Balance type
	Serial number (SNR)
	- Balance ID (If available)
	ID1, ID2, ID3, ID4 if required*
	Sample
	 Select all the items in this section
	Footer
	 Select Signature line
	Application settings - Statistics
	Statistics -> off
	*The names for ID1, ID2, ID3, and ID4 have to be ID1, ID2, ID3, and ID4 or Sample ID for parsing. If the ID Names are different, they will not be recognized by EasyDirect Balance.
LA, ME, ML, MS-L, MS-S, MS-	Advanced Settings:
Semi Micro, PL-E,	Settings -> Advance -> Language -> English
JE, JL-GE, JP-C, JP-G, JP Semi-micro, JS-C, JS-G	Interface Settings:
JOHN-HIIGIO, JO-0, JO-0	Settings -> Interface -> RS232
	- Printer value: Stable
	 Header: D/T/BAL
	Single: G/T/N
	Signature line: On

3.3.3 Configuring Excellence Level Balance models via RS232

To configure the connection of Excellence balances (XP.XS, XPE,XSE) via RS232:

1 Switch on the balance.

12

2 Choose **System** settings, select **Peripherals**.

Getting Started EasyDirect™ Balance

- 3 In Host, choose RS232 built-in.
- 4 Define RS232 parameters.
- 5 After adding the balance to EasyDirect™ Balance (see [Adding Balance ▶ Page 14]), go to **Peripherals** and choose **Printer**.
- 6 Define the same parameters of RS232 connection as **Host** mode.
- 7 Configure the **Print** option in the instrument as per table below:

7 Configure the Print option in the instrument as per table below:		
Balance	Settings	
XP, XS, XPE, XSE	Protocol Definition	
	Settings -> Protocol -> Define	
	Header	
	1. Appl. Name (Must be at the first)	
	2. Date/Time (Must be at the Second)	
	3. Balance Type	
	4. SNR	
	5. Balance ID	
	Single Value	
	1. Header (Must be at the first)	
	2. ID1	
	3. ID2	
	4. ID3	
	5. ID4	
	6. PcsWgt (For counting only)	
	7. NetPcs (For counting only)	
	8. Tare	
	9. Net	
	10. Gross	
	11. Info Unit	
	12. Footer (Must be just before last)*	
	13. Signature*	
	14. Dash Line (Must be at the last)	
	*Configure either 'Footer' or 'Signature' based on availability in 'Single value'	
	options.	
	• Footer**	
	1. Signature	
	**Configure Footer section only if it is enabled in 'Single Value'.	
	Settings	
	• Settings -> Print Key -> Stable *.	
	*In case, Dynamic values need to be captured in EasyDirect Balance, keep it as Dynamic	
	User settings	
	 User settings -> User -> Language -> English. 	
	* The names for ID1, ID2, ID3, ID4 should not be changed and kept default	
	for parsing. If the ID Names are different, they will not be recognized by EasyDirect Balance.	
	Function Keys:	
	The function key lot number or lot counter must not be enabled. (Only for Weighing)	
	 The function key Max n must not be set and M+ should not be given (Only for PCS counting) 	
	Statistics (CL Result, CL last, Result) should not be enabled (Only for PCS counting)	

EasyDirect™ Balance Getting Started

XPR and XSR balance models are not supported by EasyDirect Balance software. Please ask your METTLER TOLEDO sales representative for LabX Laboratory software or go to http://www.mt.com/labx

3.4 Adding a Balance in EasyDirect Balance

After having your balance correctly configured and connected to the PC or Network, you are ready to add the balance to EasyDirect Balance in the software.

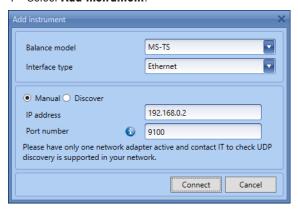
3.4.1 Modes of Connection

A Balance can be added to EasyDirect either via

- Ethernet
- RS232
- RS232 to USB converter cable
- RS232 to Ethernet converter
- Bluetooth

3.4.1.1 Connection via Ethernet (only for MS-TS and ML-T of Version 4.20 or above)

1 Select Add instrument.



- 2 In the Add Instrument window, choose the Balance model (MS-TS or ML-T) and choose Ethernet.
- 3 By default, you can provide the **IP address** and **Port number** manually (**Manual**). The port number to be provided is available on navigating to Devices -> EasyDirect Balance service in the balance.
- 4 Choosing **Discover** will start searching for balances connected in your network, where the EasyDirect Balance service is active. Click on to initiate discovery again.
- → The PC with EasyDirect Balance and the balances must be connected to the same LAN, e.g., 168.125.x.xxx.

i Note

The balance already added may also be listed during discovery.

Once the balance is added, you can update the **Company name**, assign a pre-created **Balance group** (as defined in [Balance groups > Page 19]), **Balance location** and the user who is **Responsible** for the instrument and **Commissioning date** in the Instrument data popup.



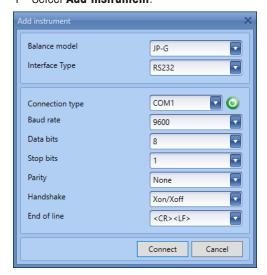
3.4.1.2 Connection via RS232

For the instruments connected through the RS232 port, you have to manually add the instrument by selecting the correct COM port for the connection.

Getting Started EasyDirect™ Balance

If you are using the RS232 port to connect to the balance, use the **Add Instrument** window to add the instrument manually:

1 Select Add instrument.



- 2 In the Add Instrument window, choose the Balance model and choose the RS232 COM port.
- 3 Configure the balance as per the instructions in table defined in the section [Configuring your Balance > Page 10]
- 4 Choose **Host** Mode in the balance
- 5 Ensure the connection settings are the same as selected in EasyDirect Balance.
- 6 Click Connect in EasyDirect Balance.
- 7 Wait until the connection is established and EasyDirect Balance is ready to receive data.
- 8 Once the adding of the instrument is successful, switch the balance into **Print** mode. Now EasyDirect Balance is ready to receive data from the balance connected via RS232.

If you are using RS232 to USB converter cable from METTLER TOLEDO (Material Number 64088427), ensure you have to plug the RS232 side of the cable to the balance and the USB side of the cable to your PC.

3.4.1.3 Connection via RS232 to Ethernet

1 Select Add instrument



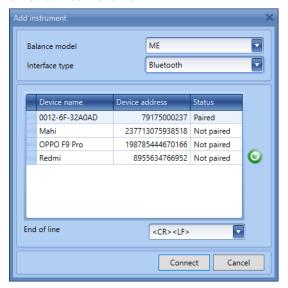
- 2 In the Add Instrument window, choose the instrument type and choose **RS232 to Ethernet** if you are using any convertors for connecting with the balance
- 3 Provide IP address and Port number and click Connect.

3.4.1.4 Connection via Bluetooth

- To connect the instruments via Bluetooth, the Bluetooth dongle v2.0 RS232 single (material number: 30086494) needs to be installed on the balance.
- 1 Enable Bluetooth in the PC if it is not already done.
- 2 Search for the BT device and pair it with the PC.

EasyDirect™ Balance Getting Started

3 Select Add instrument



- 4 In the Add Instrument window, choose the instrument type and choose Bluetooth.
- 5 Select the balance you want to add from the list, pair it and then click **Connect**.

■ Note

- If the BT dongle had not been paired to PC already, then a PIN will be prompted. Enter the PIN from the BT dongle box before connecting.
- The Bluetooth dongle v2.0 RS232 single (30086494) uses automatically set communication parameters in the balance. Make sure that these settings are not changed:

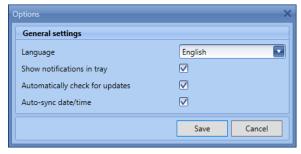
Baud Rate: 9600 Data bits : 8 Stop bits: 1 Parity : None Handshake: Xon/Xoff

3.5 Configuring EasyDirect Balance

3.5.1 General Settings

16

- 1 Select **Options** from the ribbon.
 - The Options dialog appears:



- 2 Select the desired **Language** from the drop-down list. The default language is set to English. EasyDirect Balance supports the following languages: English, German, French, Spanish, Italian, Russian, Polish, Czech, Hungarian, Dutch, Portuguese, Turkish, Chinese simplified, Japanese, and Korean.
- 3 By unchecking **Show notifications in tray**, you will not receive tray notifications from EasyDirect Balance.
- 4 If you do not want EasyDirect Balance to check for software updates automatically, you can uncheck **Automatically check for updates**.
- 5 If you do not want to set the date/time of the PC to the balance whenever the balance establishes connection with EasyDirect Balance, you can uncheck **Auto-sync date/time**.
- 6 **Save** the settings to reflect the changes.

Getting Started EasyDirect™ Balance

3.5.2 Check for Updates manually

The application automatically checks for new updates every day when this option is selected in **General settings** and downloads the latest version of the application. You can also manually check for updates from the **3 About** window.

EasyDirect™ Balance Getting Started

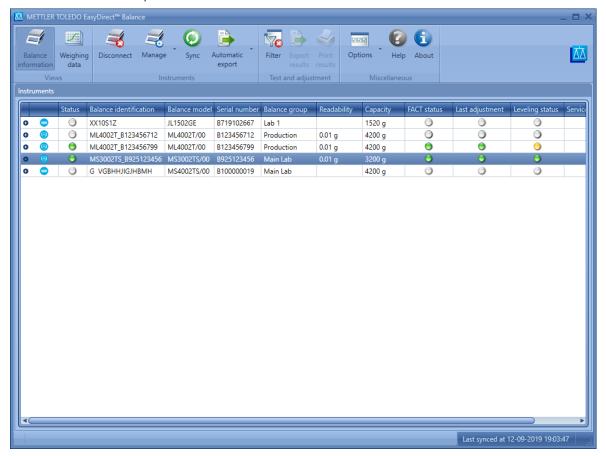
4 Instrument Management

4.1 The Instrument View Window

Navigation: Instrument View

For instrument requirements see [Configuring your Balance ▶ Page 10].

The Balance info view provides an overview of instrument details such as test and service status. For balances connected via RS232 only the connection status is available.



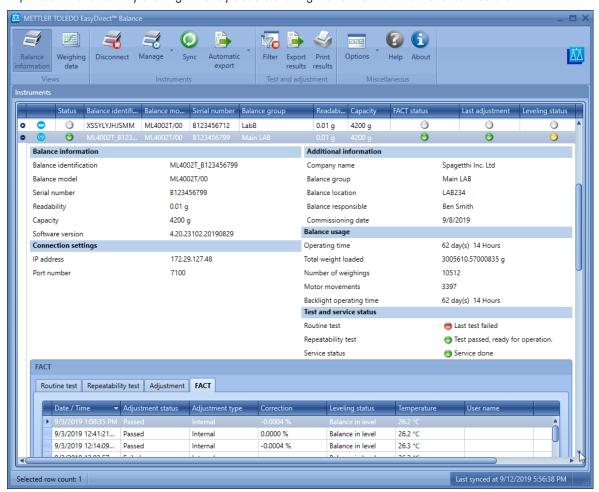
Connection Status indication

18

green	The instrument has been successfully connected and is monitored.
grey	The instrument has been added but is currently disconnected.
red	Error in connection

Instrument Management EasyDirect™ Balance

Expand an instrument by clicking • or by double clicking the row to view the instrument details.



Expanded view displays details about the instrument including, Connection settings, Balance usage, Additional Information like company name, Commissioning date and Test and Service status.

The section **Additional information** shows information, which is maintained in EasyDirect Balance only. All other information is provided by the balance.

The **Test and Adjustment results** (Routine test, Repeatability test Adjustment and FACT) can be viewed here and shown only for MS-TS/ML-T with V4.20 or higher connected over LAN.

4.1.1 Balance groups

You can create new balance groups while in the **Instrument View** screen by clicking **Manage** > **Balance groups**. A window will be launched enabling you to create balance groups:

Add balance group

1 Click on Add



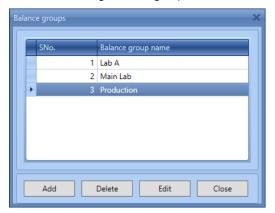
2 Enter the group name you desire.

A group name can contain special characters and is limited to 20 characters.

EasyDirect™ Balance Instrument Management

Edit balance group

To edit an existing balance group name, click Edit.



Delete balance group

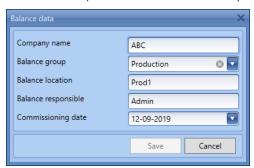
For deleting an existing group, click **Delete**. Ensure that no balances are assigned to the group before deletion. Else, the group cannot be deleted.



4.2 Edit Instrument data and connection settings

Navigation: 💐 Manage

You can edit the company name, assign/re-assign any pre-created balance group, edit the location and the user who is responsible for the instrument by selecting **Edit selected instrument data** in the **Manage** menu.



To change the RS232 COM port and connection settings, select **Edit selected instrument connection settings** in the **Manage** menu.

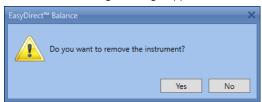
4.3 Remove an Instrument

Navigation: 🕏 Manage

- 1 Select the instrument to be removed from the application.
- 2 Disconnect the instrument by selecting **Solution** Disconnect from the ribbon.
- 3 Select **Manage** from the ribbon.
- 4 Click Remove instrument.

20

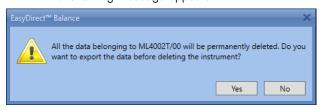
→ The following message appears:



Instrument Management EasyDirect™ Balance

5 Click Yes.

→ The following message appears:



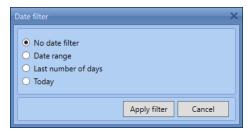
6 Click **Yes** and choose a folder to where the measurement results, test results and instrument backups will be exported in CSV format. Once exported the instrument will be removed.

Click No to remove the selected instrument without exporting data.

4.4 Date Filter

Navigation: 🛜 Filter

To filter Tests and adjustments by date range, select Filter option in the ribbon.



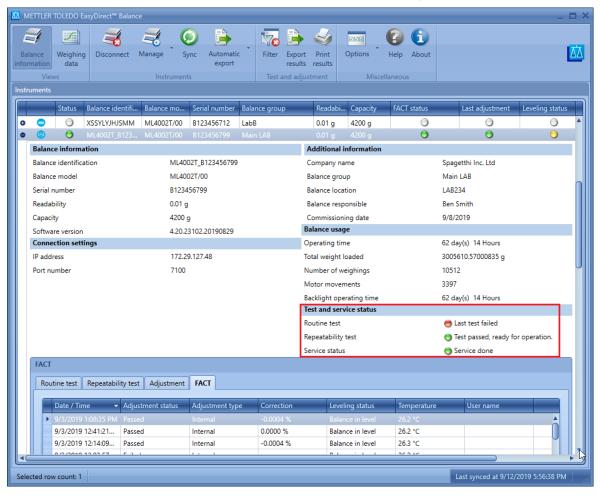
The following Date filters can be applied on the **Tests and Adjustments** results displayed in the expanded instrument view:

- No date filter displays all the Test and Adjustment results without filtering
- **Date range** Filter results based on Date range
- Last number of days Filter results based on the last number of days
- Today Filter and display only today's Tests and Adjustments

EasyDirect™ Balance Instrument Management

5 Test and service status

Test and service status of the connected instruments can be observed in the expanded view of the instrument.



Test status indication



Service status indication

22



Hovering over the Status indicator will show the last and next service details of the balance.

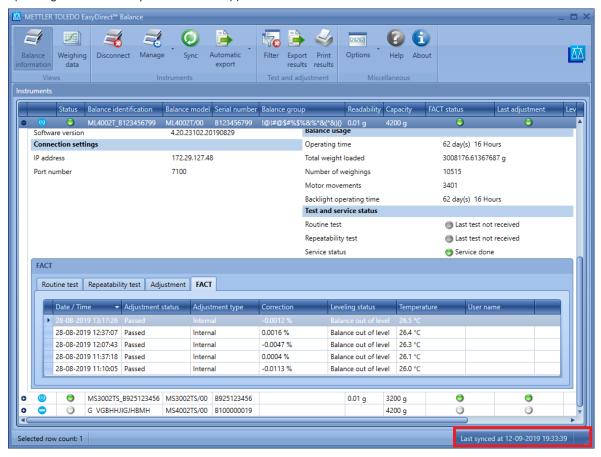
Test and service status EasyDirect™ Balance

6 Date/Time Synchronization

Navigation: (Sync

To synchronize the date/time of the connected balance(s) to that of the PC date/time, click sync in the ribbon. You can see the last synchronized time in the bottom right of the application.

In addition to Date/Time, other balance information like Balance ID, Serial number, usage information, operating time are also synchronized, if applicable.

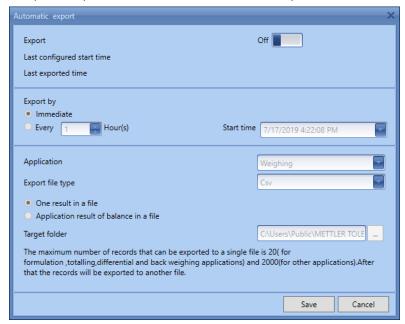


Ensure that the Ethernet cable, RS232 cable or Bluetooth dongle are connected properly and the connection status is green for proper synchronization.

EasyDirect™ Balance Date/Time Synchronization

7 Automatic Export

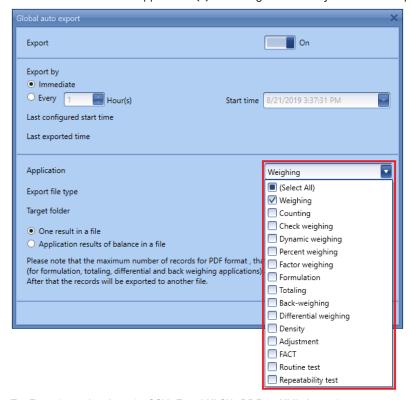
1 To schedule automatic export across all the connected balances, select Global auto Export. For Balance specific export, choose Selected balance auto export.



2 Switch Export on

24

- 3 If already configured, last configured start time and last exported time will be displayed.
- 4 If you want to export as soon as the data is received, choose Immediate
- If the export should happen in certain frequency, choose **Every hour** and set the hour frequency and start time. If you want to export once a day, please set the hour frequency to 24 hours.
- 6 You can choose the application(s) including test and adjustments to export.



- 7 Export can be done in CSV, Excel XLSX, PDF or XML formats.
- 8 Each measurement will be exported to separate file if 'One result in a file' option is chosen.
- 9 All measurement of one balance will exported to a single file if Application results of balance in a file is chosen.

Automatic Export EasyDirect™ Balance

10 Choose the folder for the exported file to be saved in **Target folder**. Ensure to choose public folders to avoid access errors.

i Note

• The maximum number of records for PDF format that can be exported to a single file is 20 (for formulation, totaling, differential and back weighing applications) and 2000 (for other applications). After that the records will be exported to another file.

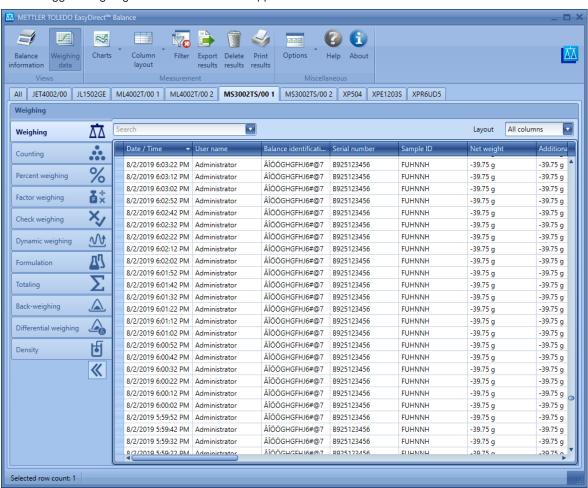
EasyDirect™ Balance Automatic Export

8 Measurement View

Navigation: Measurement view

The **Measurement view** lists the measurement results received from all the connected instruments.

- To view the weighing data, you must start the EasyDirect Balance application. The application displays all the weighing data logged from the connected instrument:
- On the main screen, select the tab of the desired instrument.
- The logged weighing data of the instrument appears.



The supported applications depend on the balance line and the connection type

- Each instrument is displayed in a separate tab. The tab heading contains the instrument model.
- Additionally the **All** tab contains measurement data of all balances per application
- In the column header bar, you can change the column width. When you click on the **Date/Time** column header, the column is sorted. If you click on the **Date/Time** column header again, the sort order is reversed.
- To filter results based on certain parameters, click on Filter.
- To filter by date range, change the filter type in the ribbon.

26

- If you enter a search term in **Search**, available in top of the table view, the rows will be filtered to those containing the search term.
- You can select multiple objects at a time. To do this, hold the Shift key and click on an object to select a
 range of objects, or hold the Ctrl key and click on the individual objects you wish to select. This is useful for
 printing and exporting weighing data.
- Use the Column Chooser (right click on the header row) for customizing the table layout.
- The customized layout can be saved for later using Column Layout in the ribbon menu which includes columns chosen, column widths and column filters.
- Best fit for individual columns /all columns, column chooser are available as context menu on right clicking on column header.

Measurement View EasyDirect™ Balance

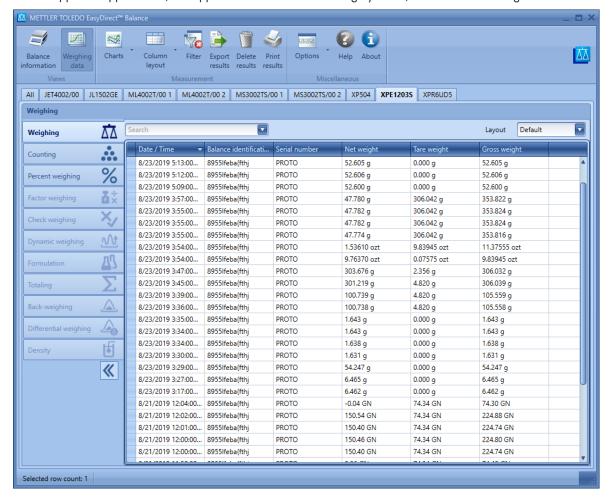
i Note

- The pre-tare is considered as tare for excellence balance series.
- The balance ID, ID1.. ID4 may show invalid characters when Unicode characters are set for them in the balance.
- The recommended auto publish interval (for MS-TS/ML-T V4.2) is 3 seconds or higher to avoid data loss.
- Ensure no other operations like synchronize are performed when the Auto data transfer is in process to avoid data loss when the balance is connected via RS232.

8.1 Measurement Results

The data will vary depending on the measurement type. There is a separate measurement list for each instrument and measurement type. To select the displayed instrument, click on the respective tab above the measurement list. To switch between the application types, click on the tabs in the left pane.

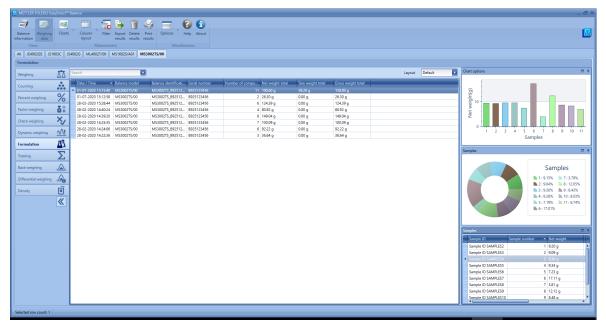
For unsupported applications, the application tab header will be greyed out, but allowed to navigate.



EasyDirect™ Balance Measurement View

8.2 Additional Areas

The additional areas are applicable for certain applications like Formulation, Totaling, Back weighing and Differential weighing. The windows can be maximized by clicking on the maximize icon in the top right corner of the window



Definitions

28

Туре	Description
Chart options	Plots net weight / difference against the samples
Samples (applicable for Formulation / Totaling only)	A pie chart shows the contribution of the samples to the overall result.
Sample details	Shows relevant data of the samples used

The displayed areas depend on the analysis type: see table below.

Application type	Chart options	Sample chart	Sample details
Formulation	•	•	•
Totaling	•	•	•
Back weighing	•		•
Differential weighing	•		•

Measurement View EasyDirect™ Balance

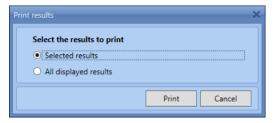
9 Managing Results

9.1 Printing Results

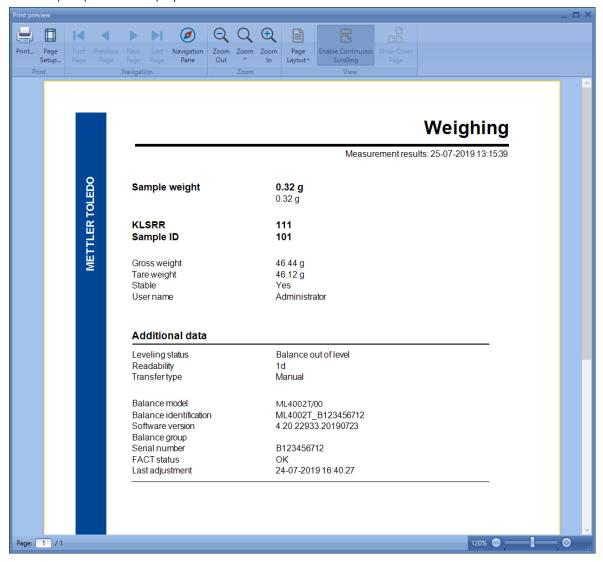
Navigation: SPrint results

Measurement results from Measurement view and Test and Adjustment results from Instrument view can be printed to a connected printer using the **Print results** option. Up to 150 results can be printed at once by EasyDirect Balance.

- 1 Select the results you want to print.
- 2 Click Print results.
 - → The Print results dialog opens.



- 3 Select any one of the options.
- 4 Click Print.
 - → A print preview is displayed



5 Select **Print** to get the results printed.

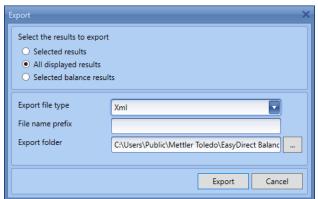
EasyDirect™ Balance Managing Results

9.2 Exporting Results

Navigation: **Export** results

Measurement results from Measurement view and Test and Adjustment results from Instrument view can be exported using the **Export results** option. You can export the results as CSV, PDF or XML format.

- 1 Select the results you want to export.
- 2 Click Export results.
 - → The Export results dialog opens.



- 3 Select the **Export file type** as CSV, PDF, XML, or XLSX.
- 4 Enter the **File name prefix**, if you want a prefix for the exported file names.
- 5 Select the destination folder in **Export folder**.
- 6 Click Export.

30

→ The results are exported and saved as .csv, .pdf, .xml, or .xlsx files (based on the file type selected) in the specified folder. Each result is exported as a separate file.

9.3 Deleting Measurement Results

Navigation: Tolete results

Only measurement results can be deleted, while the Test and Adjustment results in the Instrument view cannot be deleted.

- 1 Select the rows you want to delete from the Measurement view.
- 2 Click **Delete** results from measurement view window.
- The selected measurement results are deleted after confirmation.

Managing Results EasyDirect™ Balance

9.4 Charts

Navigation: 🔀 Charts

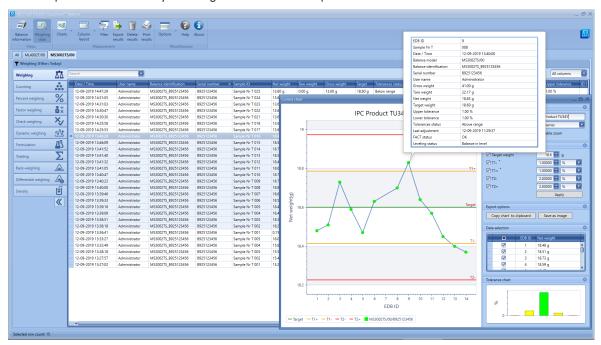
Weighing results of a balance (from Balance specific tab) or across balances (from All balance Tab) can be visualized graphically. Two types of charts can be plotted with the results in EasyDirect Balance:

- Control Charts
- Statistics Charts

9.4.1 Control Chart

The Control Chart is used to visualize the results over time with control limits defined in the view.

You can plot Control charts by selecting the **Control chart** option from the **Charts** menu.



- Charts are prepared using the filtered records from the grid.
 Filter the results to get a single unit for the chart to be represented. Otherwise the error message Selected data contain more than one unit for the "ResultUnit" appears. Please filter the data to have a unique value for unit.
- 1 Provide a title for the chart and choose chart type Line/Bar
- 2 Define target and tolerances (T1 and T2). The target and tolerances are carry forwarded if they are available in the measurement results and are indicated with a * in the labels. Configure target and tolerance and click Apply to reflect in the chart.
- 3 Copy the chart to the clipboard and print it later or save it directly as an image in a specified directory.
- 4 Results can be excluded from being plotted by unchecking them in **Data Selection**.
- 5 Tolerance chart shows the outlook of how many samples are in and above tolerances.
- 6 You can always collapse other areas to get a bigger view of the tolerance chart

There are automated IDs generated by EasyDirect Balance to identify each sample with EDB-ID.

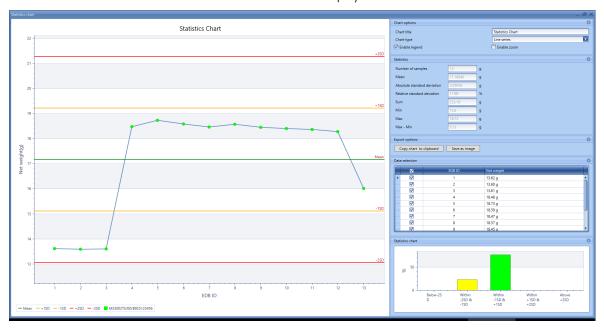
EasyDirect™ Balance Managing Results

9.4.2 Statistics Chart

32

The **Statistics Chart** is used to visualize the results over time including visualization of mean and standard deviation of the selected results. You can plot statistics charts by selecting the **Statistics chart** option from the **Charts** menu

- A minimum of three records are needed to plot statistical charts.
- Results can be excluded from being plotted by unchecking them.
 - Test Measurement results and Aborted measurement results will be excluded in the chart.
- → Mean and standard deviation of the selected results are displayed:



Managing Results EasyDirect™ Balance

10 Change Protection

Navigation: Options

Change protection feature enables you to configure permissions for the protected mode. This feature provides you options to allow or deny access to:

- Delete measurement results
- Add or remove instruments

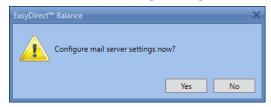
Initially, **Change protection** will be disabled and you can access all the features. You have to enable change protection to limit access in the protected mode.

To enable protection, follow the steps below:

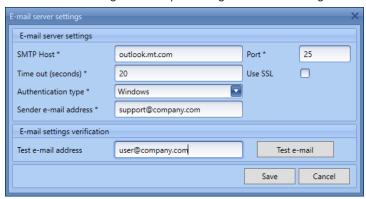
- 1 Select the **Set Protection Password** option from the **Options** menu.
 - Set Protection Password window will appear



- 2 Enter a password and confirm the password.
- 3 Enter a valid e-mail address to recover the password later if forgotten in the Password recovery e-mail address field.
- 4 **Save** the password.
 - → A window prompting to configure Mail server Settings will appear.



- 5 Click Yes to configure Mail server Settings
- 6 Click **No** to configure later by selecting Mail server Settings from the options menu.



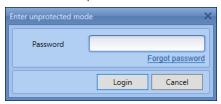
- 7 Fill in the **E-mail server settings** window. If you are not sure what to fill in, please contact your local IT.
- 8 To test the Mail server settings, enter a valid e-mail id in the Test e-mail address field and use the Test e-mail button to verify if a test e-mail is received.
- 9 Save the settings.
- Now, you have enabled protection.

To limit the features you have to enter the unprotected mode.

1 Select the **Enter Unprotected Mode** from the **Options** menu.

EasyDirect™ Balance Change Protection

→ Enter Unprotected Mode window will appear.



- 2 Enter the protection password in the **Password** field and **Log in**.
 - → Application enters Unprotected Mode on successful login.
- 3 In case you forgot the password, use the Forgot Password link.
 - → The protection password will be sent to the Password recovery e-mail address set while enabling protection.
 - After successful login, you are in unprotected mode. Now, you can define permissions for the protected mode.
- 4 Select the **Protection Settings** from the **Options** menu.
 - → The Protection settings window will appear.



You can choose the permissions for various features by checking them. Unchecked features will be hidden for the user and are not accessible in the protected mode.

Change password enables to change the protection password

You can also change the **Password recovery e-mail address**

Clicking **Remove Protection** will remove the password and protection settings and you will have unlimited access to all the features. Mail server settings will not be removed on removing protection. But you can always reconfigure them from **Options > Mail server settings**.

After configuring the permissions, you can return to the protected mode.

- Select Leave unprotected mode from Options menu.
- Permissions selected in the protection settings will be applied.

Change Protection EasyDirect™ Balance

To protect your product's future:

METTLER TOLEDO Service assures the quality, measuring accuracy and preservation of value of this product for years to come.

Please request full details about our attractive terms of service.

www.mt.com/service

www.mt.com/EasyDirectBalance

For more information

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Im Langacher 44 8606 Greifensee, Switzerland www.mt.com/contact

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