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1 Introduction

This guide will help you to get started with EasyDirect™ Balance v1.0 and explains the main features and functionalities of the software.

Easy and Reliable Data Management

Connect your Laboratory balances (ME, ME-T, ML, ML-T, MS Semi-Micro, MS-L, MS-S, MS-TS, PL-E, XP, XPE, XPR, XSE, XSR), Jewelry balances (JET, JL-GE, JP, JS) 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:

▶ http://www.mt.com/balances
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 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.

2.2 Functions

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

- Manually adding the instrument through [Ethernet ➔ Page 16], [RS232 ➔ Page 17], or [Bluetooth ➔ Page 18]
- Discover MS-TS/ML-T balance in your network using [Discover option ➔ Page 16]
- Viewing instrument information [Instrument information ➔ Page 14]
- Viewing weighing results [Weighing results ➔ Page 25]
- Viewing tests and adjustment results [Tests and adjustment results ➔ Page 21]
- 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 19]
- 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 11]

2.3 Installing EasyDirect™ Balance

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

<table>
<thead>
<tr>
<th>PC requirements</th>
<th>Minimum</th>
<th>Optimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAM</td>
<td>4 GB</td>
<td>8 GB</td>
</tr>
<tr>
<td>Display Resolution</td>
<td>1024 × 768</td>
<td>1920 × 1080</td>
</tr>
<tr>
<td>Storage</td>
<td>5 GB free space</td>
<td>10 GB free space</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows 7 SP1</td>
<td>Windows 10</td>
</tr>
</tbody>
</table>

1 Download and run Setup for EasyDirect Balance.

○ The Setup installs the Microsoft .Net framework version 4.7.2 as a pre-requisite before installing the application. If the .Net framework of V4.7.2 or later already installed, this step will be skipped.

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.
   ⇒ The setup checks whether there is an instance already of name 'EasyDirect' with SQL server version 2012 or greater. If there is none, then SQL server 2012 is installed.
6 In the install setup files wizard, click Install.
   ⇒ On successful installation, the screen below will be displayed.
### 2.4 Configuring connection to EasyDirect™ Balance in your Balance

#### Instrument requirements

<table>
<thead>
<tr>
<th>Balance</th>
<th>Instrument software</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-S, MS-L</td>
<td>V2.22 or above</td>
</tr>
<tr>
<td>ML, JS-C, JS-G, JP-C, JP-G</td>
<td>V2.31 or above</td>
</tr>
<tr>
<td>XP, XS</td>
<td>Terminal: V5.61 or above, Platform: V4.41 or above</td>
</tr>
<tr>
<td>XPE, XSE</td>
<td>Terminal: V2.23 or above, Platform: V1.10 or above</td>
</tr>
<tr>
<td>PL-E, JL-GE</td>
<td>V2.02 or above</td>
</tr>
<tr>
<td>ME, JE</td>
<td>V1.20 or above</td>
</tr>
<tr>
<td>ME-T, JET</td>
<td>V3.51 or above</td>
</tr>
<tr>
<td>ML-T</td>
<td>V3.51/V4.01 or above</td>
</tr>
<tr>
<td>MS-T</td>
<td>V3.60/V4.10 or above</td>
</tr>
<tr>
<td>MS Semi-micro, JP Semi-Micro</td>
<td>V2.20 or above</td>
</tr>
<tr>
<td>XPR, XSR</td>
<td>V2.0.203.36 or above</td>
</tr>
</tbody>
</table>

To configure the connection of non-Excellence balances via RS232:

1. Switch on the balance and configure the RS232 interface as **Host** to communicate with MT-SICS commands (please refer to your balance reference manual).
2. Add the balance to EasyDirect Balance (see [Adding Balance Page 16]).
3. Configure now the balance like you would add a printer via the RS232 interface.
4. Configure the printout according to the table below, so that all the relevant information are sent as a print stream in the correct format to EasyDirect Balance.

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

1. Switch on the balance.
2. Choose **System** settings, select **Peripherals**.
3. In **Host**, choose **RS232 built-in**.
5. After adding the balance to EasyDirect™ Balance (see [Adding Balance Page 16]), 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:

#### Balance settings

<table>
<thead>
<tr>
<th>Balance</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Settings -&gt; Advance -&gt; Language -&gt; English</td>
</tr>
</tbody>
</table>
|                                              | **Interface Settings:**
|                                              |   - Settings -> Interface -> RS232
|                                              |     - Printer value: Stable
|                                              |     - Header: D/T/BAL
|                                              |     - Single: G/T/N
|                                              |     - Signature line: On
|                                              | **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
## Balance

| 4. | SNR |
| 5. | Balance ID |
| 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)

### ME-T, JET, ML-T, MS-TS (V4.01 or below)

#### General configuration

- 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
<table>
<thead>
<tr>
<th>Balance</th>
<th>Settings</th>
</tr>
</thead>
</table>
|         | - 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.  
| ML-T (V4.20), MS-TS (V4.20) | **General Configuration and Data** |
|         | - Preferences -> General configuration and Data -> Device and Services -> Add EasyDirect™ Balance -> RS232  
|         | 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.  
| 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, time  
|         | - Balance type  
|         | - Balance identification  
|         | - Serial number (SNR)  
|         | - ID1• ID2• ID3• ID4  

EasyDirect™ Balance
### Balance Settings

- Gross/Tare weight
- Additional unit
- Signature line

**For Counting**
- Report title
- Date, time
- Balance type
- Balance identification
- Serial number (SNR)
- ID1 • ID2 • ID3 • ID4
- Additional unit
- Signature line

**For Percent weighing**
- Report title
- Date, time
- Balance type
- Balance identification
- Serial number (SNR)
- ID1 • ID2 • ID3 • ID4
- Additional unit
- Signature line

**For Factor weighing**
- Report title
- Date, time
- Balance type
- Balance identification
- Serial number (SNR)
- ID1 • ID2 • ID3 • ID4
- 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.

### XPR, XSR

**Delete all printers** in the balance
- Balance menu -> Settings -> Devices/Printers -> Select printer -> Delete device -> Click ok

#### Host mode connection
1. Plug-in USB-RS232 with RS232 Female to RS232 Female convertor and NULL MODEM adaptor to XPR/XSR balance
2. Add device pops up in balance
3. Select USB/RS232 connection and click next
4. Select MT-SICS client and click next
5. Set Baud rate, Data bit/Parity, Stop bit, Handshake, Line end and character set and click next.
6. Leave default name/enter a name and click next
7. Click finish, Click save and Click Ok.

#### Printer mode connection
1. Plug-in USB-RS232 with RS232 Female to RS232 Female convertor and NULL MODEM adaptor to XPR/XSR balance
2. Add device pops up in balance
3. Select USB/RS232 connection and click next
4. Select Printer P-42 and click next
5. Set Baud rate, Data bit/Parity, Stop bit, Handshake, Line end and character set same as set in the host mode connection and click next.
<table>
<thead>
<tr>
<th>Balance</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Leave default name/enter a name and click next</td>
</tr>
<tr>
<td>7</td>
<td>Click finish, Click save and Click Ok.</td>
</tr>
</tbody>
</table>

**Protocol Definitions**

Methods -> Select the method from method list -> Edit -> Print/Export -> Protocol print out and data export -> Template settings:

- Header and Footer -> Select all and set Title as:
  - "Weighing Protocol" for General weighing
  - "Counting Protocol" for Piece counting
  - "Formulation Protocol" for Simple formulation
  - "Titration Protocol" for Titration
  - "Density Protocol" for Density
- Balance information : Select all
- Quality information : Deselect all
- Task information : Deselect all
- Weighing item information : Select only – Result Ids and Reference average weight (only for Piece Counting application)
- Result detail information : select all

**ID Formats**

Set the Result ID 1, 2, 3 descriptions to "Sample ID", "Sample ID 2" and "Sample ID 3" respectively.

**Note**

- If Interval weighing is available, it does not provide option for printing.
- Data will be captured after add protocol and print is pressed.

Click buttons to capture the data: 'Add to protocol' -> 'Complete' -> 'Print Protocol Manually' [Adding Balance Page 16].

---

**Connect to LAN and configuring IP address and port details**

1. Switch on the balance.
2. Choose **Settings** on the home screen.
3. Choose **General configuration**.
4. In **General configuration**, select **Network and Bluetooth**.
5. Select **LAN**.
6. Define LAN parameters.

**Add EasyDirect Balance Service**

1. In **General configuration**, choose
   - **Devices and Services**, if MS-TS
   - **Devices**, if ML-T
2. Click +.
3. Under **Services**, select **EasyDirect Balance**.
4. Click ✓.
5. Choose **Network:LAN**. Click ✓.
6. Leave the default port number/enter a port number and click ✓.

⇒ For adding the balance to EasyDirect Balance refer to [Adding Balance Page 16].
3 Getting Started

− In the Windows Start menu, select METTLER TOLEDO > EasyDirect Balance
  - or -
  double-click on the [ ] shortcut on the desktop
  - or -
  right-click on tray application and select Open UI.

⇒ EasyDirect Balance is started.

3.1 General Settings

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.

3.2 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 About window.

3.3 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 continued use of the software. A license can be purchased through your METTLER TOLEDO salesperson.

▶ http://www.mt.com/contacts

Once you have received your license key, please follow the steps below to activate EasyDirect Balance

1 Click Register.
  ⇒ The registration window of EasyDirect Balance appears.
2 In the web browser’s address bar, enter https://activation.mt.com to go to the METTLER TOLEDO Software Portal.

3 Click Register in the menu bar.
   ⇒ The window Membership request will appear.

4 Enter a user name, your e-mail address and enter the text from the picture. Click Create user to submit the data.
   ⇒ You will then receive your login information and a generated password via e-mail.

5 Click on the link in the e-mail you received.
   ⇒ The window Sign In will appear.
6 Enter the user name and the generated password and click on **Sign In**.
   ✤ The window **Manage Customer Profile** will appear.

7 Complete your profile data and click **Save**.

8 Click on the **Activation** tab.

9 In the **Add License Key** section, enter the license key (received from METTLER TOLEDO) and click on **Submit**.

10 After the successful validation of the License Key, click on **Non-Activated Products** in the section below.

11 Enter the **LRI Key** displayed in EasyDirect Balance register window (from the screenshot in Step 1). You can copy the LRI key by clicking on **Copy LRI**.
   ✤ An activation key will be generated.

12 Enter (or) Copy paste the short activation Key from the activation portal into the EasyDirect Balance **Register** window and click **Register**.
   ✤ EasyDirect Balance is now activated.
4 Instrument Management

4.1 The Instrument View Window

Navigation: Instrument View

For instrument requirements see [Configuring connection to EasyDirect™ Balance in your Balance ➔ Page 6]. 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

- **green**: The instrument has been successfully connected and is monitored.
- **grey**: The instrument has been added but is currently disconnected.
- **red**: Error in connection
Expand an instrument by clicking the icon 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 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.
**Edit balance group**
To edit an existing balance group name, click **Edit**.

![Edit balance group](image1)

**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.

![Delete balance group](image2)

### 4.2 Adding an Instrument
**Navigation:** Manage

The software can handle up to three or ten connected instruments (based on license) simultaneously. The attempt to connect a fourth or eleventh instrument results in an error message:

![Add instrument error](image3)

In this case, to add a new instrument, you have to remove an existing instrument from the list. When the instrument is added to EasyDirect™ Balance, you can disconnect and re-connect from/to EasyDirect Balance using **Connect** or **Disconnect** in the ribbon.

If the connected balances do not connect automatically after a restart or shutdown/start of the PC, try disconnecting and re-connecting the balances.

It is also possible to upgrade the licence from 3 to 10 instruments. Please contact your METTLER TOLEDO representative.

#### 4.2.1 Connection via Ethernet (only for MS-TS and ML-T)

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, **Discover** will start and you will see the list of balances connected in your network. Click on ![button](image) to initiate discovery again.

4 You can choose **Manual** to provide **IP address** and **Port number**. The port number will be available on navigating to Devices -> EasyDirect Balance service in the balance.

   ⇒ The PC with EasyDirect Balance and the balances must be connected to the same LAN, e.g., 168.125.x.xxx.

**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 [Section 4.1.1 Page 15]), Balance location and the user who is responsible for the instrument and Commissioning date in the Instrument data popup.

---

### 4.2.2 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.

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 connection to EasyDirect™ Balance in your Balance] Page 6
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.

4.2.3 Connection via Bluetooth

- To connect the instruments via Bluetooth, the Bluetooth dongle v2.0 RS232 single (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.
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

4.2.4 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.

4.3 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.

4.4 Remove an Instrument

Navigation: Manage

1. Select the instrument to be removed from the application.

2. Disconnect the instrument by selecting Disconnect from the ribbon.

3. Select Manage from the ribbon.

4. Click Remove instrument.

⇒ The following message appears:
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.
   -or-
   Click No to remove the selected instrument without exporting data.

4.5 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
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
- **Grey**: Last test not received
- **Green**: Test Passed
- **Yellow**: Last test Warning
- **Red**: Last test Failed

### Service status indication
- **Grey**: Next service date not received
- **Green**: Service done or due today
- **Red**: Service overdue
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.
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.

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**.

5. 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.
10 Choose the folder for the exported file to be saved in **Target folder**. Ensure to choose public folders to avoid access errors.

**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.
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

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Balance Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing</td>
<td>●</td>
</tr>
<tr>
<td>Counting</td>
<td>●</td>
</tr>
<tr>
<td>Percent weighing</td>
<td>●</td>
</tr>
<tr>
<td>Factor weighing</td>
<td>●</td>
</tr>
<tr>
<td>Check weighing</td>
<td>●</td>
</tr>
<tr>
<td>Dynamic weighing</td>
<td>●</td>
</tr>
<tr>
<td>Formulation</td>
<td>●</td>
</tr>
<tr>
<td>Totaling</td>
<td>●</td>
</tr>
<tr>
<td>Back weighing</td>
<td>●</td>
</tr>
<tr>
<td>Differential weighing</td>
<td>●</td>
</tr>
<tr>
<td>Density</td>
<td>●</td>
</tr>
</tbody>
</table>

- 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.
- 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.

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 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.
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

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart options</td>
<td>Plots net weight / difference against the samples</td>
</tr>
<tr>
<td>Samples (applicable for Formulation / Totaling only)</td>
<td>A pie chart shows the contribution of the samples to the overall result.</td>
</tr>
<tr>
<td>Sample details</td>
<td>Shows relevant data of the samples used</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Application type</th>
<th>Chart options</th>
<th>Sample chart</th>
<th>Sample details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Totaling</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Back weighing</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Differential weighing</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
</tbody>
</table>
9 Managing Results

9.1 Printing Results

*Navigation: Print 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.
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 or XML.
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.
   ⇒ The results are exported and saved as .csv, .pdf or .xml 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: Delete 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.
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.
9.4.2 Statistics Chart

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:
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.
   - 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.**
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.