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User manual

ITKU-104-01-04-18-EN

E2R WEIGHINGS

Modular Software for Cooperation with Weighing Instruments

APRIL 2018

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1. GENERAL INFORMATION

1.1 Main Functions

E2R Weighings enables record of weighings carried out using weighing indicators which are intended to perform quick "+/-" control. With this, operator's role is limited to the minimum. The module is used in plants with multi-workstation production lines where acquiring large quantity of weighings carried out on many scales over short period of time is required.

The network may contain one or many types of weighing instruments.

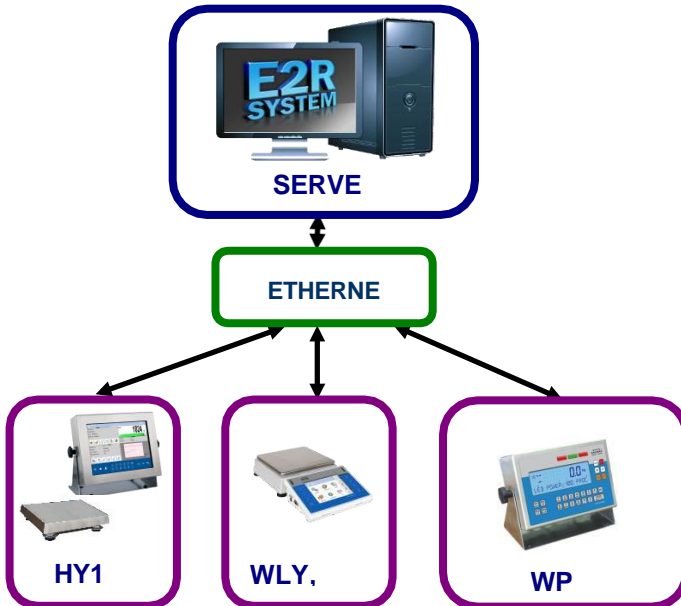


Diagram of E2R WEIGHINGS system in Ethernet network

Caution:

1. Due to the software update, some discrepancies may occur between this user manual's content and the actual state.
2. RADWAG does not bear responsibility for:
 - potential errors being a result of inappropriate use,
 - safety and potential data loss caused by the inappropriate use of either software or computer, or lack of backup copy.
3. Mind that in case of loss of purchased medium, **RADWAG** will not provide you with archive software versions. You will be required to use the latest **E2R SYSTEM** update.

1.2 Compatible Weighing Instruments

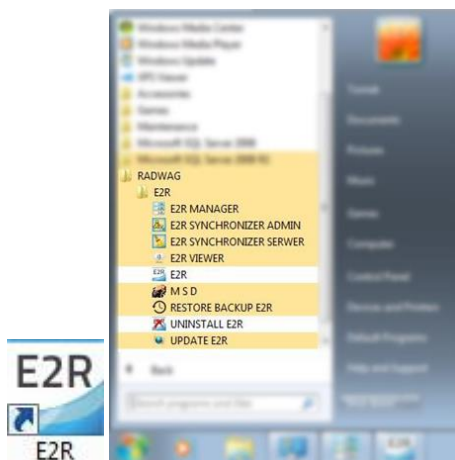
Due to the communication protocol, **E2R Weighings** software is compatible only with **RADWAG-manufactured** weighing instruments. Compatible weighing instruments series: **HY10, WLY, WPY** and **WPW**.



Prior software operation, set appropriate parameters on each of the weighing instruments in the network to ensure required measurement accuracy and correct cooperation. For detailed instruction on setting operating parameters refer to the user manual of a weighing instrument.

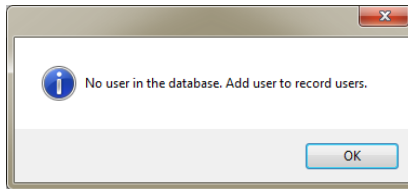
2. RUNNING THE SOFTWARE

The software can be run using shortcut on the desktop or using the menu: **START/PROGRAMS/RADWAG/E2R/E2R**.

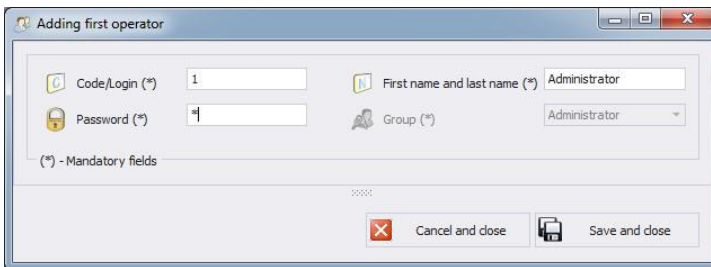


2.1 Adding the First Operator

When running the software for the first time, message informing on an empty Operator Database is displayed. Press **OK** button, the software will guide you through adding procedure.



Fill in the following fields: **Code/Login**, **Password**, **First name and last name**.

A window titled "Adding first operator" with a standard Windows-style title bar. It contains several input fields: "Code/Login (*)" with the value "1", "Password (*)" with a masked password "1", "First name and last name (*)" with the value "Administrator", and "Group (*)" with a dropdown menu showing "Administrator". A note "(*) - Mandatory fields" is present. At the bottom, there are two buttons: "Cancel and close" (with a red X icon) and "Save and close" (with a floppy disk icon).

Caution:

The first added operator has administrator permissions level. Fill in all mandatory fields; the code is also a login.

Press **Save and Close** button to confirm introduced modifications.

2.2 Logging in Procedure

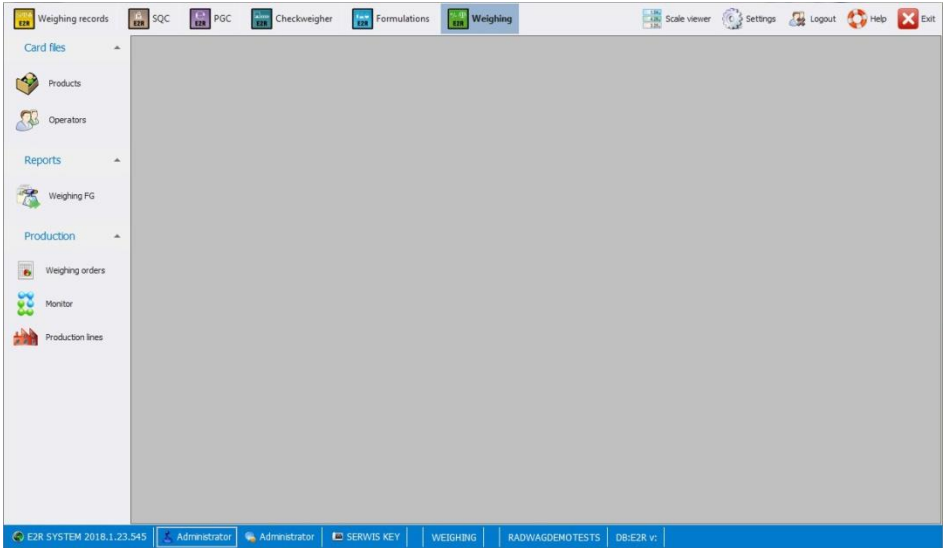
Upon running the software, it is obligatory to log in. Enter **Login/Code** and **Password**.

A login dialog box featuring a large blue circular icon with a white stick figure on the left. To the right, there are two input fields labeled "Login (Code)" and "Password". At the bottom, there are two buttons: "Close" (with a red X icon) and "Log in" (with a green checkmark icon).

Press **OK** button to confirm the entered values, Home Screen is displayed.

3. HOME SCREEN

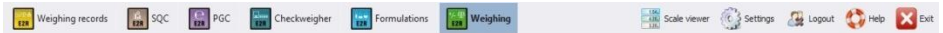
Home Screen of E2R WEIGHINGS software is displayed upon successfully completed logging in operation:



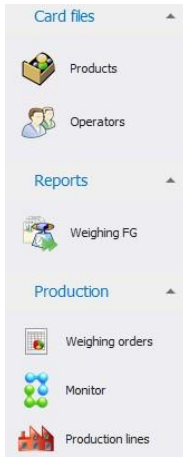
The home screen is divided into 4 sections:

- Top bar – System toolbar,
- Side bar – Navigation pane,
- Bottom bar – Status bar,
- Work pane.

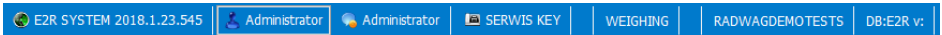
System toolbar features exit button along with pictograms activating working modes, scales preview, parameters settings and logout operation.



Navigation pane comprises modules featuring buttons for activating software functions.



Status bar displays information on software version, logged in operator, operator's permissions, current working mode and license type.



Work pane has been designed to display windows triggered by Navigation Pane buttons. The windows provide all data and information.

3.1 Work Pane

Data displayed in the work pane is taken from the database. Measurements carried out using the system can be filtered and sorted.

Filter mechanism has been designed to allow searching particular information for specified columns. Sorting mechanism (grouping) features option of information summary for specified columns.

3.1.1 Data Sorting

Data displayed in a work pane of any available module can be freely sorted. To group displayed data, first select particular column header, next drag it over area marked with red border and drop it.

Drag a column header here to group by that column

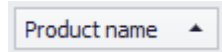
Product code	Product name	Description (Full Name)	EAN code	Nominal mass Qn	Unit	Tare	Min	Max
▼								

Selected header is displayed as a button with a name. Press the button once to enforce list sorting in either ascending or descending order.

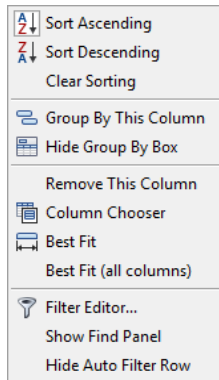
Product code	Product name	Description (Full Name)	EAN code	Nominal mass Qn	Unit	Tare	Min	Max

3.1.2 Data Filtering

In order to activate extra filtering options, press right top corner of respective column header.



Press right mouse button to operate the following context menu with sorting options.



Where:

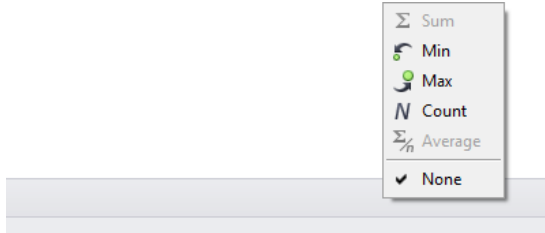
- Sort Ascending** Click to sort from A to Z.
- Sort Descending** Click to sort from Z to A.
- Clear Sorting** Click to delete grouping filter.
- Group By This Column** Click to group data by selected column.
- Hide Group By Box** Click to hide quick grouping option.
- Remove This Column** Click to delete selected column, the column is no longer displayed in a window.
- Column Chooser** Click to run column view editor.
- Best Fit** Click to modify column width to get the most optimal view.
- Best Fit (all columns)** Click to modify all columns widths to get the most optimal view.
- Filter Editor...** Advanced filter.

Show Find Panel

Click to run common filter field allowing search all columns for specified value.

Hide Auto Filter Row

Click to hide filter row option.



Bottom work pane area features data filter allowing to generate 5 basic statistics for a particular column. To select statistics type, move the cursor over the bottom bar of a work pane and press right mouse button.

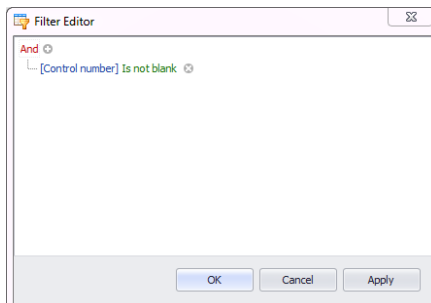
Basic statistics:

- Sum** Click to display sum of all values of particular column.
- Min** Click to display minimum value of particular column.
- Max** Click to display maximum value of particular column.
- Count** Click to display quantity of rows of particular column.
- Average** Click to display average value of particular column.

Depending on data type, there is a possibility of selecting all 5 options for a given column.

3.1.3 Filter Editor

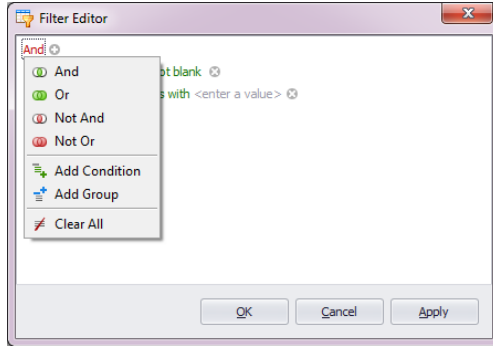
Upon setting a filter, **Edit Filter** button is displayed in the bottom part of the work pane. Press it to open Filter Editor window. This enables database filtering.



Using the editor you can set one or many filtering conditions, this provides detailed filtering. It is possible to generate reports on the filtered data.

Filter Editor window provides the following filtering criteria:

a) Filtering groups (and, or, not and, not or):

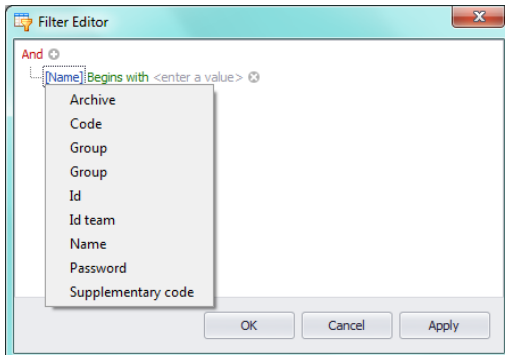


Where:

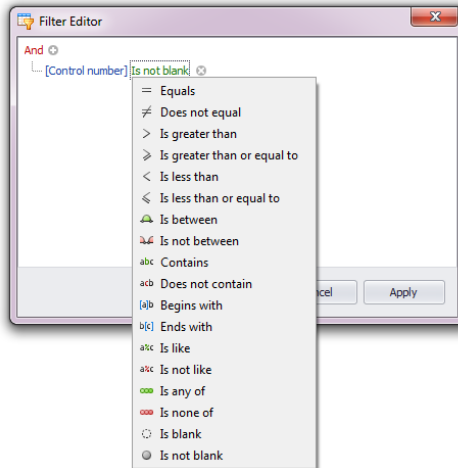
- And** all filter criteria are met
- Or** one of filter criteria is met
- Not And** opposites of all filter criteria are met
- Not Or** opposite of one filter criteria is met
- Add Condition** adding a new filter criteria
- Add Group** adding a new group of filtering criteria
- Clear All** deleting all filtering criteria

b) Filtering conditions – outlines the data to be filtered and the methods of filtering:

- selecting a column for filtering:



- selecting filtering range and method:



Where:

Equals

Displaying all records of the selected column which provide the very entered value.

Does not equal

Displaying all records of the selected column which provide different than entered value (opposite to filter <Equal>).

Is greater than

Displaying all records of the selected column which provide values greater than the entered value.

Is greater than or equal to

Displaying all records of the selected column which provide values greater or equal to the entered value.

Is less than

Displaying all records of the selected column which provide values lower than the entered value.

Is less than or equal to

Displaying all records of the selected column which provide values lower or equal to the entered value.

Is between

Displaying all records of the selected column which provide values comprised within range specified by two given values.

Is not between

Displaying all records of the selected column which provide values not comprised within range specified by two given values.

Contains

Displaying all records of the selected column which include the given string of characters.

Does not contain

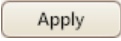
Displaying all records of the selected column which do not include the given string of characters.

Begins with

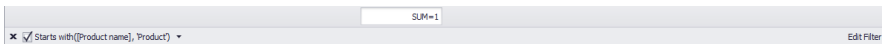
Displaying all records of the selected column which

- Ends with** begin with the given string of characters.
Displaying all records of the selected column which end with the given string of characters.
- Is like** Displaying all records of the selected column which provide values of particular beginning and end, the filtering criterion has the following format „begin%end”.
- Is not like** Displaying all records of the selected column which do not provide values of particular beginning and end, the filtering criterion has the following format „begin%end”.
- Is blank** Displaying all records of the selected column which are empty.
- Is not blank** Displaying all records of the selected column which are not empty.
- Is any of** Displaying all records of the selected column which provide values that are the same as one of the given patterns.
- Is none of** Displaying all records of the selected column which provide values different from all of the given patterns – opposite to „Is any of” filtering.


Here you can specify the exact criterion for filtering the selected column, e.g.: if you want to get a result concerning product „**Apple**” choose „**Name – Equals – value: Apple**”. Press „+” button, located next to the filtering group, to add another criterion.

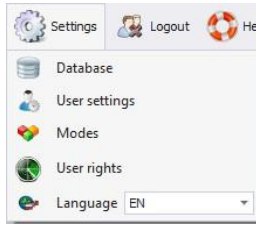
Having completed operating Filter Editor, when all necessary filters are set, press  button, the filter gets activated.

The bottom bar displays selected filter type.




4. SOFTWARE SETTINGS

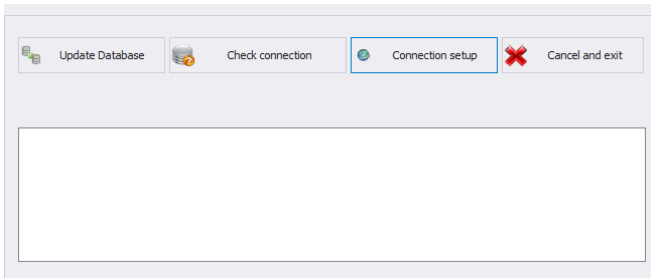
To run software settings, press  button located on the system toolbar.



4.1 Database

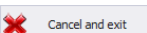
Database function enables checking connection with the database, database relocation when the software is run on additional computer, providing backup copy and running server-stored copy.

To start database, press  **Database** button in **Settings** menu.




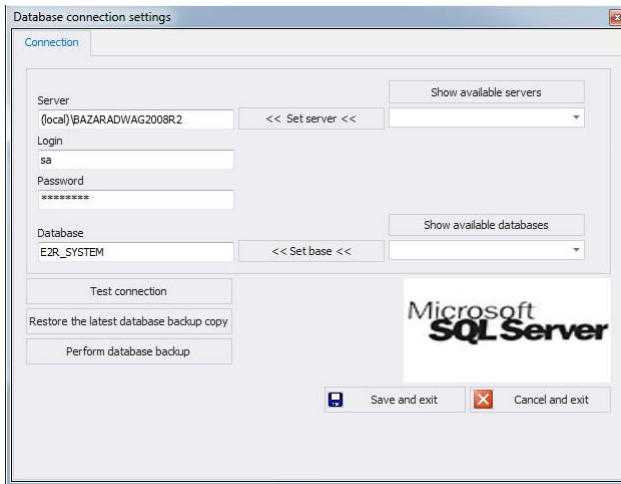
Database setup features the following functions:

- Update Database** Press to update database to which E2R program is connected. Use this function upon swapping from one database to another one.
- Check connection** Press to check whether connection between E2R and database is correct.
- Connection Setup** Press to establish connection with database when the database and E2R program are stored on separate computers.

Press  button to cancel introduced changes.

4.1.1 Setting up Connection

Press  button to activate window with database settings providing parameters for connection.



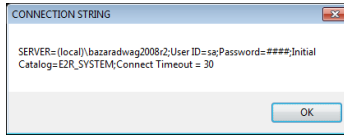
Where:

- Show available servers** Press to find available local Ethernet servers.
- Set server** Press to set server selected form list of available servers.
- Server (IP)** IP or name of server with running SQL server (add also server instance if declared).
Format: SERVER\INSTANCE
By default: **(local)\bazaradwag2012**.
- Login** Operator's name, by default **sa**.
- Password** Operator's password, by default **Radwag99**.
The password is coded, it cannot be discovered by a random person.
- Show available databases** Press to search server and find available databases.
- Set base** Press to set database selected form list of available databases.
- Database** SQL database name, by default **E2R**.

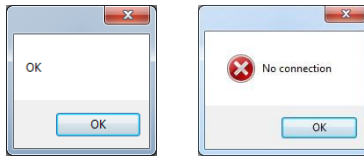
CAUTION!

When multi-workstation version has been installed, provide Server (IP) field with IP address or name of server with SQL database.

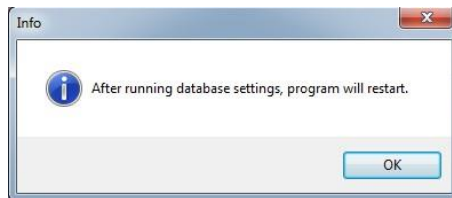
To check connection with database, press **Test connection** button. **Connection String** window, featuring previously specified data, is displayed.



Press **OK** button to confirm, window informing on connection status is displayed.

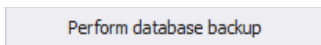


Close Database Settings window, you shall see message informing you about restart, press **OK** button to confirm.

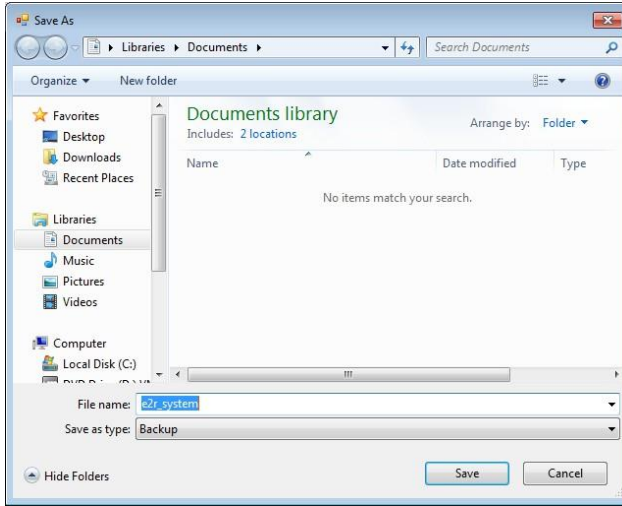


4.1.1.1 Database Backup

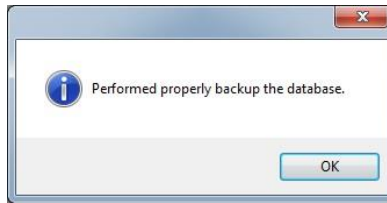
Complete backup copy of SQL database can be carried out by means of a computer with running SQL database engine. To provide backup copy, go to **Database Settings** window and press **Perform Database Backup** button.



Window allowing you to select destination folder for backup copy is displayed.



Message informing about completed backup copy creation is displayed.

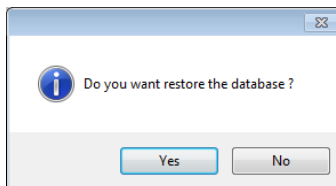


4.1.1.2 Restoring Database Copy

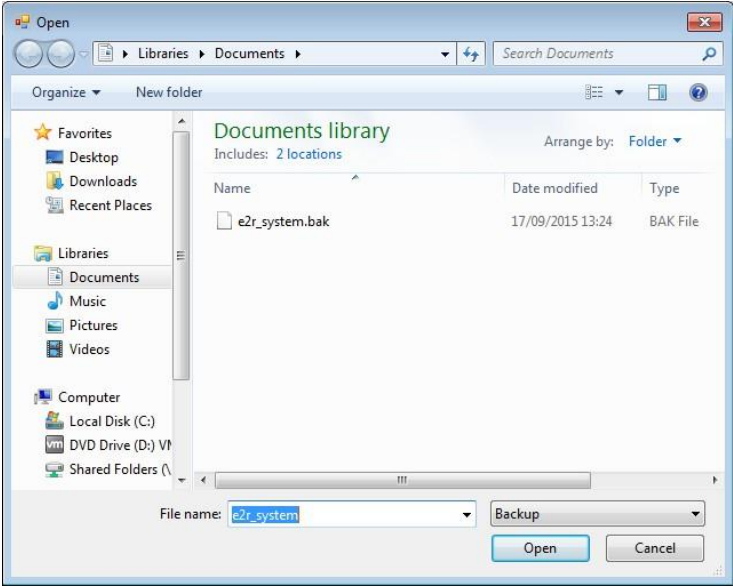
Restoring complete backup copy of SQL database can be carried out by means of a computer with running SQL database engine. To provide backup copy, go to **Database Settings** window and press **Restore the latest database backup copy** button.

Restore the latest database backup copy

Respective request is displayed, press **Yes** button to confirm that you do want to restore the database.



Window allowing you to select destination folder for restored database is displayed.



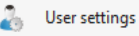
Restoring the database takes from several seconds to tens of seconds which is conditioned by database size. Successfully completed operation is signalled by the following message.

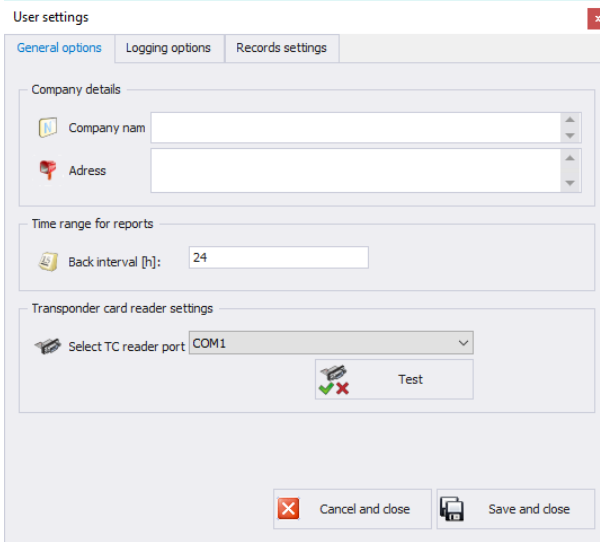


Caution!

**While restoring database, all current data is overwritten by the backup copy data.
If the system operates using HTY, WPY, WLY scales and 3Y balances, and if the data stored by them has not been removed then upon connection establishment, supplementary weighings and info is loaded from the devices to the system.**

4.2 User Settings

To run User Settings press  button in **Settings** menu.



User settings

General options | Logging options | Records settings

Company details

Company name

Address

Time range for reports

Back interval [h]: 24

Transponder card reader settings

Select TC reader port: COM1

Test

Cancel and close | Save and close

Where:

General options tab:

Company Details

Company name displayed on PGC Reports.

Address

Company address displayed on PGC Reports.

Time interval for report [h]: Default time interval for displaying windows containing date filter.

Select TC reader port

Parameters for port to which transponder card reader is connected.

Logging options tab:

User settings

General options | **Logging options** | Records settings

Automatic logout

Log out automatically after: minutes of inactivity (0 disables function)

Require operator password

Password change

Enforce password change

Password expires after [days]

Strong password

Automatic logging

Automatic logging

Operator

Password

Where:

Automatic logout

Option providing auto logout. The operation is performed after passage of specified time interval where time is given in minutes.

Countdown starts at the moment of the latest noted activity. Bottom bar displays remaining time. 0 value disables auto logout function.

Password change

Option ordering the operator to change the password.

Password expires after [days]

Option specifying for how many days the password is to be valid.

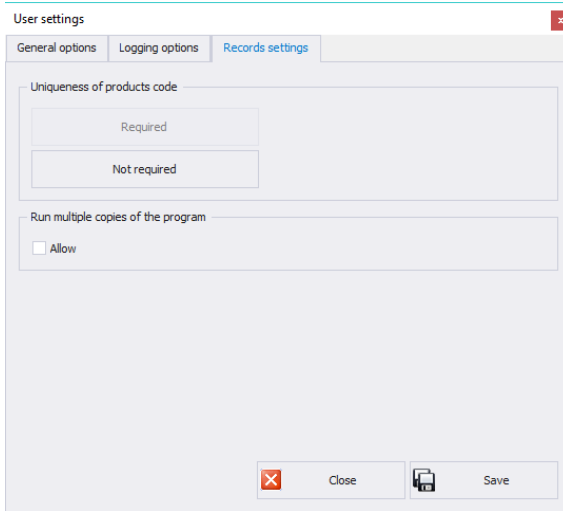
Strong password

6-character long password with at least one digit and one special sign is required.

Automatic logging

Option providing automatically carried out logging operation.

Records settings tab:




Uniqueness of products code

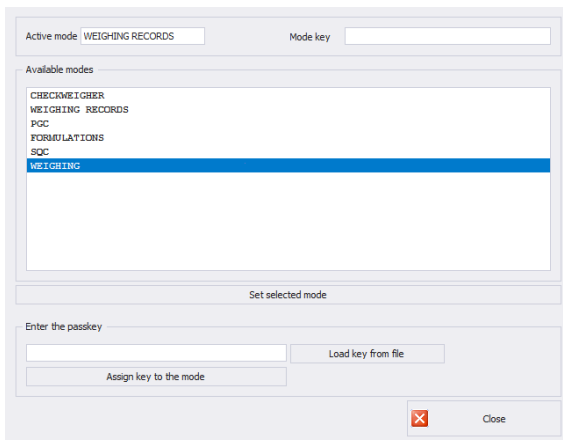
Enabling or disabling the need for providing unique products codes.

Run multiple copies of the program

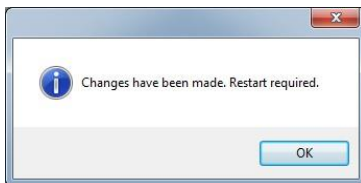
Enabling few software copies on one computer.

4.3 Modes

To swap between modes, go to **Settings** menu and press  **Modes** button. Window providing list of available modes is displayed, select respective mode and press **Set the Selected Mode** button.

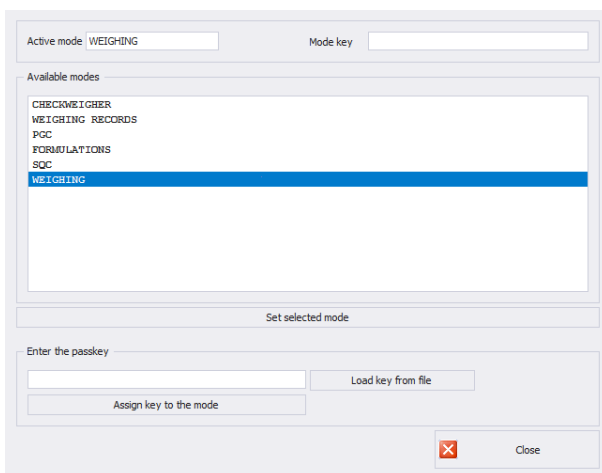


The following message is displayed, press OK button to confirm.



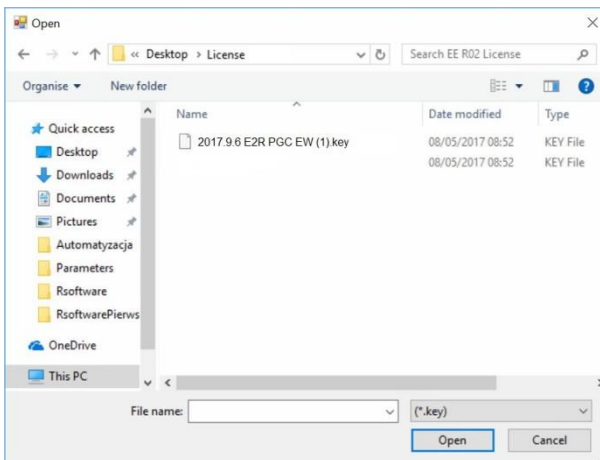
4.3.1 Mode Activation

Mode activation is required during first installation of the E2R software and to increase the quantity of weighing instruments connected to the software. In case of version for multiple workstations, the activation can be carried out on any computer connected to the system.

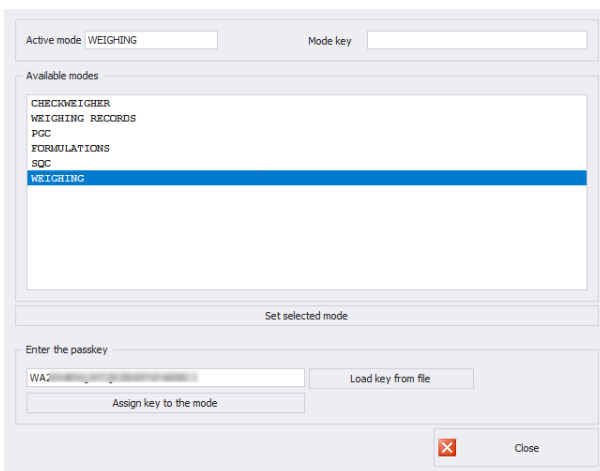


Select mode from the list, in **Enter the passkey** field enter the passkey. Press **Assign Key to the Mode** button to activate selected mode. Another method for mode activation is to load key from file with *.key extension. The licence file is to be found on a CD comprising the software, or it can be acquired by an e-mail.

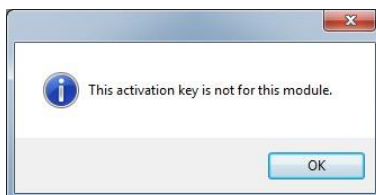
Press **Load Key From File** button, Windows OS dialog window opens, using it find directory storing file with the key. Select respective file and press **Open** button.



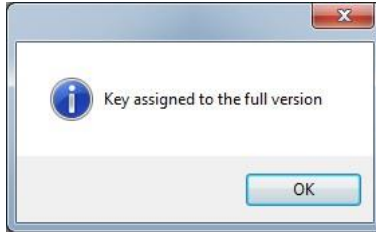
RADWAG licence is displayed in **Enter the Passkey** field.



Select particular mode, next press **Assign Key to the Mode** button. If wrong mode has been selected, i.e. mode incompatible with the key, the following message is displayed:



In case of correct activation procedure, the following message is displayed:



Now, list of modes features the mode with assigned full software version licence.

Select a particular mode and press **Set the Selected Mode** button, now close the window.

4.4 Users Groups - Rights

This menu has been designed to enable/disable access of each permissions group to particular software functions.


Permissions for scales - indicators:

Scales - Terminals	Authorization group			
	Administrator	Advanced	Standard	Basic
WPW - PUEC41H	Administrator	Advanced Operator	Standard Operator	Standard Operator
WLY, WPY - PUE7.1	Administrator	Advanced Operator	Standard Operator	None
HY10	Administrator	Advanced Operator	Standard Operator	None
3Y,4Y	Administrator	Advanced Operator	Standard Operator	None
TMX - PUE5	Administrator	Advanced Operator	Standard Operator	Basic Operator

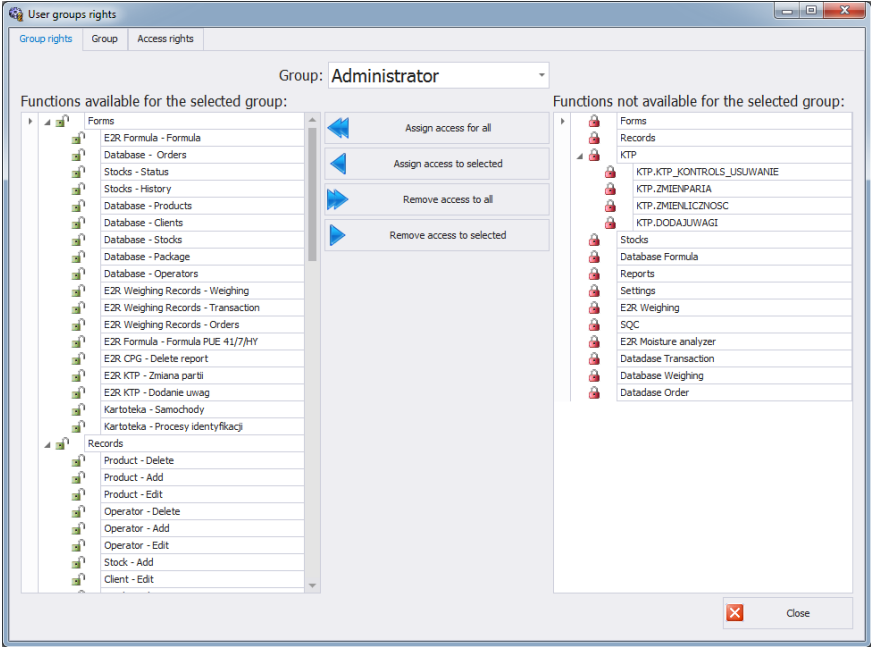
Caution!

It is not recommended to edit or delete already created permissions groups since they are strictly related to permissions groups on a computer and measuring devices.

If any permissions group is modified or deleted, the computer is restarted and the software restores the group with a default name. Groups names can be modified, to do it contact RADWAG.

To start authorization of operators and groups press  **USER GROUPS RIGHTS** button in **Settings/Service settings** menu.

Group Rights tab has been designed to allow setting permissions with regard to particular software modules.



Select group using **Group** menu, add or remove permission levels for the selected group.

On the left there is a list of functions available for a given permissions group. In order to block access to a particular function, delete it.

On the right there is a list of functions unavailable for a given permissions group. It is possible to add a given function to the list on the left in order to make it accessible.

Buttons for disabling/enabling permissions



Press to enable access to all functions (for a particular group).



Press to enable access to any function selected from the list on the right (for a particular group).

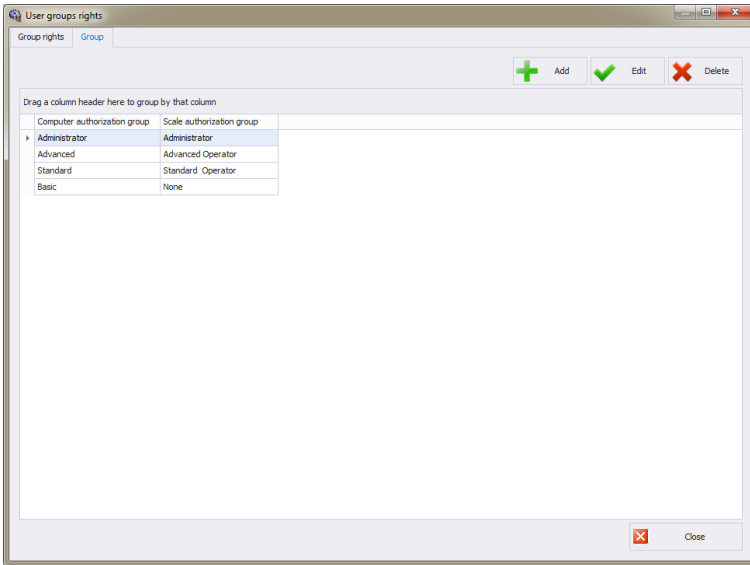


Press to block access to any function selected from the list on the left (for a particular group).



Press to block access to all functions (for a particular group).

Group provides list of defined groups of operators.

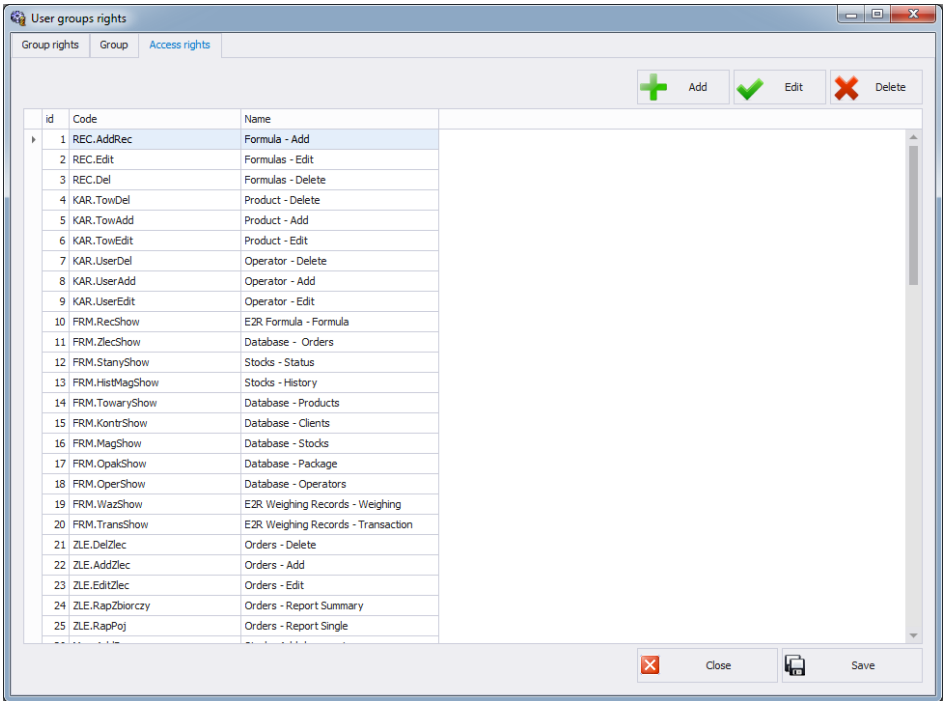


Where:

- Add** Press to add group of users.
- Edit** Press to edit selected group of users.
- Delete** Press to delete group of users.
- Save** Press to save settings.

When adding a new group of operators first name it, next assign it to one of scale permissions groups.

Access Rights tab stores all codes and functions names assigned to the codes, functions names are displayed on the list in Group rights tab.



4.5 Language

To swap between software languages go to Settings menu and use Language combo box providing you with list of available languages.



Where:

- PL** Polish
- EN** English


4.6 Update

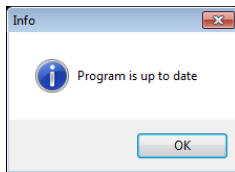
Use this option to either update your software version or to restore saved copy.

Caution!

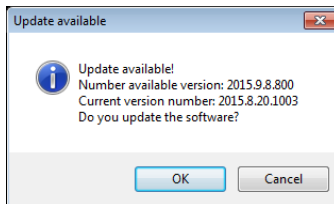
The update is available for customers with appropriate service package.

4.6.1 Check Updates

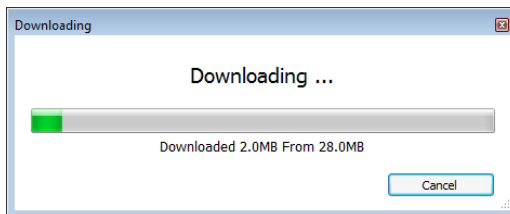
To check updates availability press  **Update check** button in **Settings** menu or use menu: **START/PROGRAMS/RADWAG/E2R/UPDATE E2R**. If you own the latest software version the following message is displayed:



If there are new software versions available the following message is displayed:



Press **OK** button to start updating your software version. Necessary files pack is downloaded from the server.



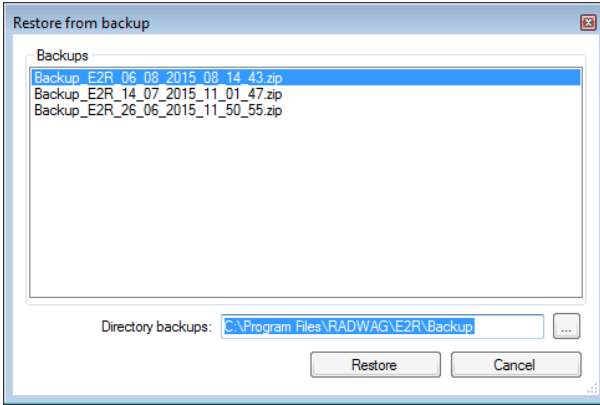
E2R, E2R Manager (scales viewer) and EP (parameters' editor) programs are archived prior to overwriting the old files with the newly downloaded ones. You can skip this step but remember that it will be impossible to restore previous software version. Upon completed archiving procedure, files are updated.

Caution!

Internet connection is necessary for update purposes. Prior an update, backup copy that can be restored is provided.

4.6.2 Restoring Previous Software Version

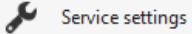
To restore previous software version press  button in **Settings** menu or use menu: **START/PROGRAMS/RADWAG/E2R/BACKUP E2R**. E2R backup is created prior update.



Caution!

Files with previous software versions are stored at a default location: C:\ProgramFiles\Radwag\E2R\Backup. At each update, new backup is created but only three latest copies are saved. <Restore Old Version> option restores the software only, data stays unchanged. For instruction on how to provide backup and restore backup copy read 4.1 section of this manual.


4.7 Service Settings

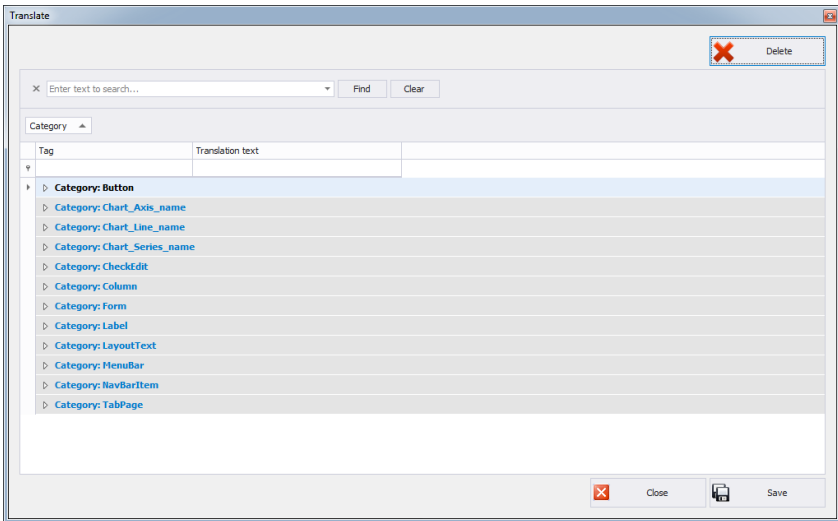
To run Service Settings press  button in **Settings** menu.

Caution:

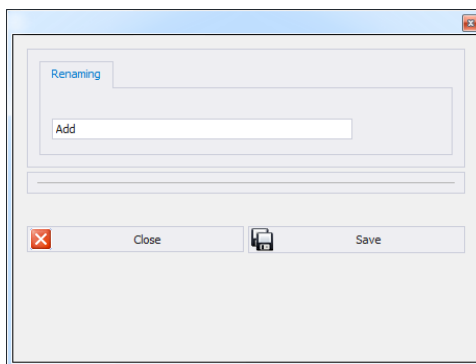
All service settings are available for RADWAG employees exclusively.

4.7.1 Translations


To run **Translation** press  **Translations** button in **Settings/Service Settings** menu.

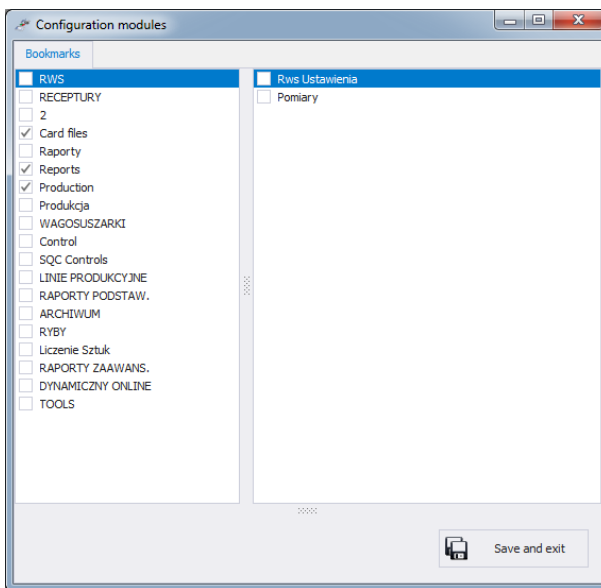


To rename particular word/caption/phrase, search **Translate** window using **Find** option and change its name in **Translation text** column. Another method for renaming word/caption/phrase requires pressing Ctrl+Alt buttons and pressing the name that is to be changed, both operations have to be performed simultaneously. Renaming window is displayed, enter new name.



4.7.2 Mode Setup

To carry out setup of currently operated mode go to **Settings/Configuration modules** and select  Konfiguracja modułów option.



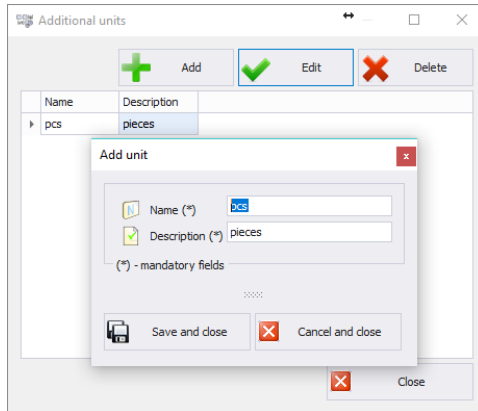
Mode setup is carried out by means of editing side toolbar pane. You can decide which modules and software functions are to be hidden and which visible.

Configuration modules window features two lists: one on the left comprises groups of functions, one on the right comprises functions.


4.7.3 Additional Units

Additional units are assigned to a product (for description refer to section 5.1.1.) The value of the additional unit is the product of basic unit value (e.g. 1000g, 1kg) multiplied by the multiplier.

In order to add new additional unit, press **Add** button.




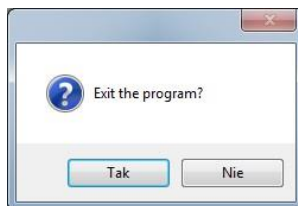
4.8 Logout Procedure

Press  Logout button to log out.
Enter Login and Password and press **OK** button.



4.9 Exit Operation

To exit the software press  Exit button, respective window requesting your confirmation is displayed.



Press **Yes** button to exit, press **No** button to return to home screen.

5. DATABASES

E2R Weighings software contains the following databases:

- Products,
- Operators,

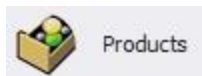
Databases can be edited using computer. Database editing using scales is disabled.

Upon adding new record or editing an existing one (e.g. product, warehouse, label, operator, universal variable) it will take max. 1 minute to update it on the weighing instrument.

5.1 Products

Products database enables managing database of products that are weighed using weighing instruments.

To run Products database, press **Products** button located on the side toolbar.




Products window:

A screenshot of a software window titled "Products". The window has a toolbar with buttons for "Edit production lines", "Report", "Refresh", "Clear filter", "Duplicate", "Add", "Edit", and "Delete". Below the toolbar is a table with columns: Code, Name, Unit mass, Unit, Multiplier, Additional ..., Min, Max, Min 2, Max 2, and Tare. The table contains five rows of product data.

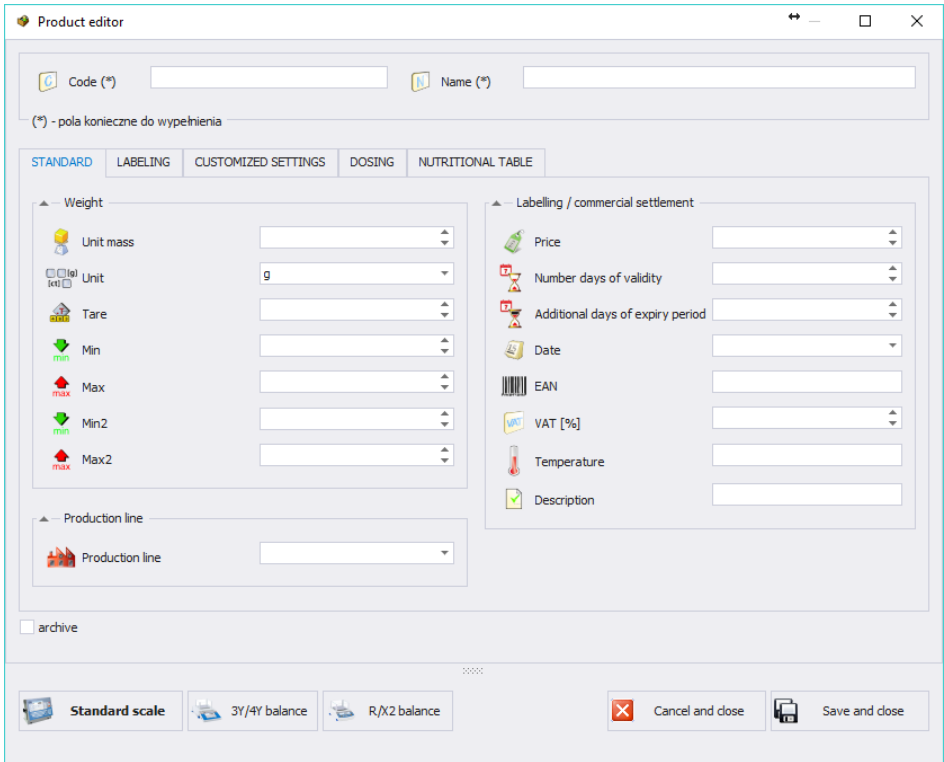
Code	Name	Unit mass	Unit	Multiplier	Additional ...	Min	Max	Min 2	Max 2	Tare
1	Product 1	100 g				90	110			
2	Product 2	200 g				190	205			
3	Product 3	300 g				295	310			
4	Product 4	400 g				390	410			
5	Product 5	500 g				490	510			

5.1.1 Adding/Editing Product

Press button  Add to add a new product to the database.

Press button  Edit to edit a product in the database.

Product editor (window for adding and editing product records):



Where:

Code *

Product code

Name *

Product name

Archive

Marker set upon deletion of a product when weighings for the product still exist in a database. When ticked, it prevents products from being sent to weighing instruments.

Standard scale **

Press to modify window look. Fields for PUE 7.1, HY10 and PUE 5 are displayed exclusively.

R balance **	Press to modify window look. Fields for R balance are displayed exclusively.
3Y balance **	Press to modify window look. Fields for 3Y balance are displayed exclusively.

Standard tab:

Unit mass	Product unit mass.
Unit	Product mass unit (by default: g).
Tare	Tare value for products with constant tare
Max	High weight threshold
Min	Low weight threshold
Max2	Additional high weight threshold
Min2	Additional low weight threshold
Price per unit [PLN]	Product unit price
Shelf-life in days	Product shelf-life in days
Additional shelf-life days	Additional days of shelf-life
Date	Field for entering date
EAN13	EAN code
VAT [%]	Value Added Tax
Temperature	Temperature box, printed on a label, option for TMX scale
Overview	Product overview
Production line ***	Production line to which particular product is assigned

(*) - mandatory fields required for editing product record.

(**) – button not intended to assign a given product to particular balance/scale type. Product displayed for all balances/scales.

(***) – product assigned to the production line is displayed on scales being part of the particular line exclusively.

Labelling tab:

Label field WLY, WPY, HY10, TMX	Editing ingredients lines supported by WLY, WPY, HY10, TMX instruments.
Label field WPW	Editing ingredients supported by WPW scale.
Label	Individual label name, assigned to a product and printed out upon each weighing.
C label	Cumulative label name, assigned to a product.
CC label	Name of cumulative label for group of cumulative labels, assigned to a product.

Customized settings tab:

Multiplier	The number crucial for calculating the value of additional unit.
Additional unit	Any unit (for detailed description of how to add an additional unit refer to section 4.7.3).
Category *	Category to which product is assigned. To edit category, press Edit category button (this applies to WLY, WPY and HY10 weighing instruments).
Basic image	Small graphic displayed near product name in the weighing instrument database.
Extra image	Large graphic – can be displayed on the weighing instrument home screen (this applies to WLY, WPY and HY10 weighing instruments).

(*) - **Categories** are used to divide products database into folders (categories) in order to optimize grouping of individual records. For detailed description on how to enable products categories refer to the user manual of a weighing instrument.

Dosing tab:

Dosing output number*	Enables setting outputs for dosing (precise dosing for 2-threshold dosing).
Fast dosing output number *	Enables setting outputs for fast dosing during 2-threshold dosing.
Threshold [%]**	Threshold for switching the outputs during 2-threshold dosing.
Correction	Numerical value of dosing correction.
Automatic dosing	Outputs are enabled upon selecting an ingredient.
Save formulation modification	The value of dosing correction and automatic dosing option is modified in formulations containing currently edited product.
Mass for fast dosing***	Mass of ingredient for fast dosing (in case of 2-threshold dosing).


(*) – The outputs are used in dosing and formulations modes.

(**) – The threshold is used in formulations mode.

(***) – Mass for fast dosing is used in dosing mode.

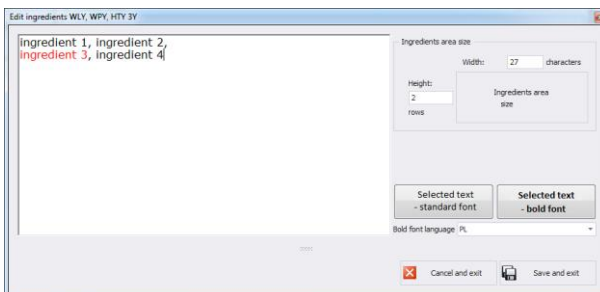
Nutrition facts tab:

The tab contains basic and additional nutrition facts.

Upon entering/editing all respective product data, press  Save and exit button to save the settings.


5.1.2 Editing Ingredients

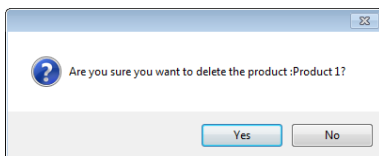
To add and edit ingredients press  Label field PUE7, PUE5 button.



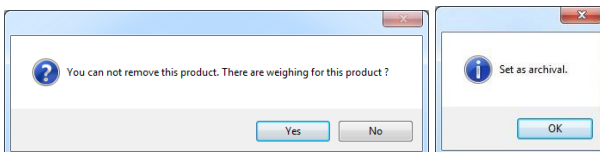
If any of the ingredients is an allergen and it is to be marked out (bold or underlined font) then select it and press **Selected text – distinguished font**.
 <Ingredients field size> box features data necessary for label preparation carried out by means of <Label Editor>. While adding ingredients section to a label, it is necessary to specify width and number of columns that is to be comprised within the section. Depending on selected font, the selected ingredients shall be either bold or underlined.

5.1.3 Deleting Products

To delete a particular product from a database press  Delete button.
 The following message is displayed, press Yes button to confirm deletion of a selected product.




If a database stores weighing records of the selected product, then it cannot be erased. In such case the record is attributed as an archive one.



Archival products are not displayed on a balance.

5.1.4 Product Searching and Filtering

Each product registered in the system can be found by name, number etc., i.e. by an appropriate string of characters entered in a given column.

Code	Name	Mass	Unit	Max	Min	Tare	Price	Archive
▼								


Upon entering product data in the selected column, the list of all products meeting the conditions is displayed below.

To delete filter for products display, press  Clean filter button.

Caution!

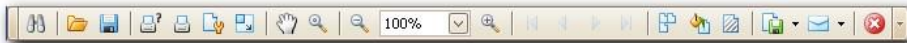
Information displayed in Products window can be sorted and filtered with use of additional filtering options. For detailed information refer to sections 3.1.2 and 3.1.3 of this user manual).

5.1.5 Products Reports

To generate report featuring list of products go to Products window and press  Report button. The report may be printed on a printer, sent via e-mail or saved to file.



In the window containing generated report preview, quick access bar is displayed.



The bar contains the following basic functions:



Quick printout with the use of default printer.

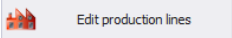


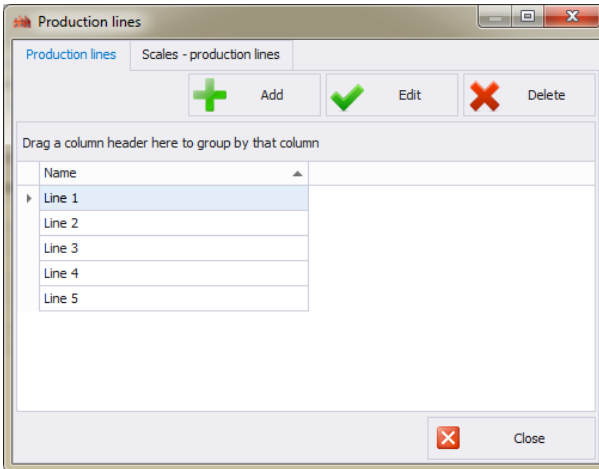
Option for saving and reopening of a printout in a dedicated, for this kind of report, file format.



Printout export to numerous file formats: PDF, HTML, MHT, RTF, Excel, CSV, Text, Image.

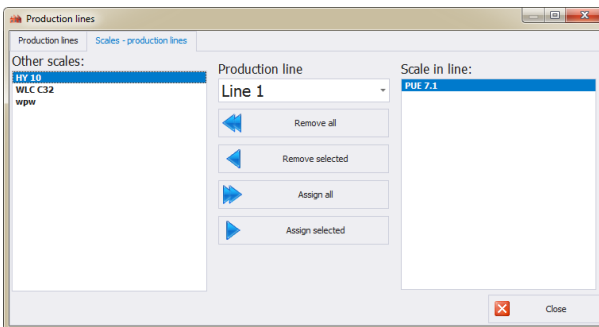
5.1.6 Production Line Editor

PRODUCTION LINE EDITOR enables managing the database of production lines. Press  button to display production lines window.



To add a new production line go to **Production lines** tab and press **Add** button and enter line name.

Select **Scales - production lines** tab.



Using Production line combo box, select newly added production line name. To assign selected scales to the newly added production line use centrally located arrow buttons.



Press to delete all scales form the production line.



Press to delete one selected scale form the production line.

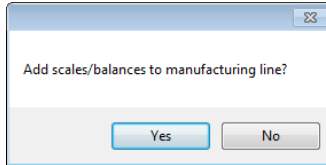


Press to assign all scales to the production line.



Press to assign one selected scale to the production line.

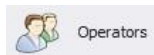
Press **Yes** button to save modifications.



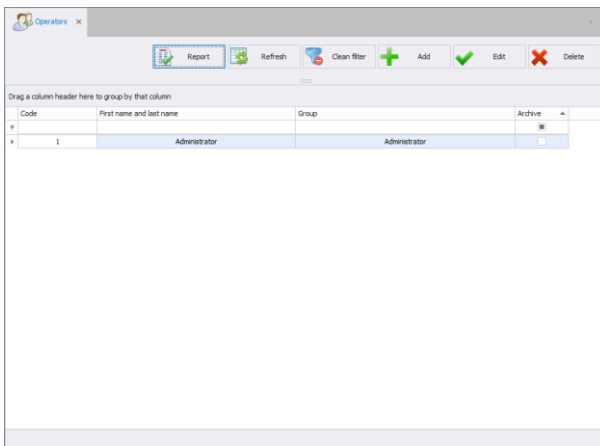
5.2 Operators

Operators database enables managing database of software operators. All database-recorded operators can log in to the software and to the scales.

To run Operators module, press **Operators** button located on the side toolbar.

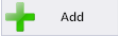


Operators window:



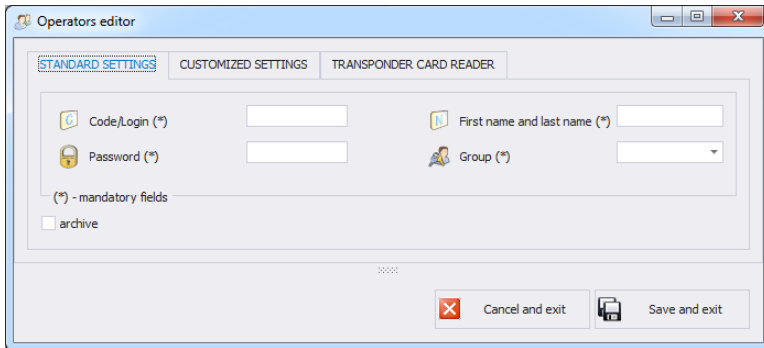
Operators window allows you to add, delete or modify operator's accounts along with permissions attributed.

5.2.1 Adding/Editing Operator

To add a new operator to the database, press  button.

To edit a particular operator, press  button.

Operator editor (window for adding and editing operators records):



Standard settings tab:

- | | |
|-----------------------------------|---|
| Code/Login * | Operator's code, login. |
| Password * | Operator's password (for detailed information on password-related options refer to section 4.2). |
| First Name and Last Name * | Operator's name and surname. |
| Group * | Permissions group specifying permissions for particular software options. There are four basic groups: Administrator, Advanced, Standard and Basic. To set permissions for particular group go to <i>Settings</i> module (section 4.4). |
| Archive | This marker, when ticked, makes particular operator inactive. |

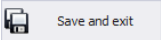
(*) – mandatory fields.

Customized settings tab:

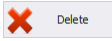
Traceability	Traceability process to which a particular operator is assigned.
Product	Product to which a particular operator is assigned.
Shift	Shift to which a particular operator is assigned.
Language 3Y, R	Language for 3Y, R balance operation, set upon successfully carried out logging in operation.
MAX deviation [%]	MAX threshold deviation in percent. Enables increasing or decreasing the threshold for particular operator.
MIN deviation [%]	MIN threshold deviation in percent. Enables increasing or decreasing the threshold for particular operator.

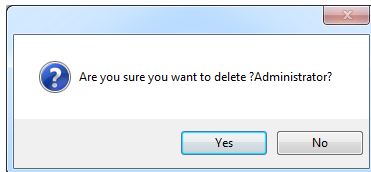
Transporter Card Reader tab:

Card reader settings	Window with transponder card reader settings (refer to section 4.2)
Card code	Card number assigned to an operator.

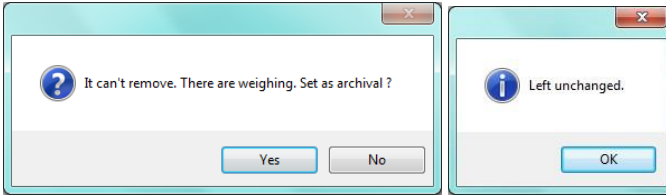
Upon entering/editing all respective operator data, press  button to save the settings.

5.2.2 Deleting Operator

To delete an operator from a database, press  button. The following message is displayed, press Yes button to confirm deletion of selected operator:



If a database stores weighings carried out by selected operator, then the operator cannot be deleted.



Prior deleting a particular operator, it is necessary to delete all weighings carried out by the operator first.

Caution!

It is not possible to generate report on weighings that have been removed.


Alternative option is to use archive marker which when ticked prevents operator from being displayed by scales simultaneously allowing to generate reports on all performed weighings.

5.2.3 Product Searching and Filtering

Each operator registered in the system can be found by name, number etc., i.e. by an appropriate string of characters entered in a given column.

	Code	First name and last name	Group	Archive ▲
📍				<input type="checkbox"/>

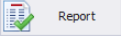
Upon entering operator data in the selected column, the list of all operators that meet the conditions is displayed below.

To delete a filter for operators display, press  button.

Caution!

Information displayed in Operators window can be sorted and filtered with use of additional filtering options. For detailed information refer to sections 3.1.2 and 3.1.3 of this user manual).

5.2.4 Operators Reports

To generate report featuring list of operators go to Operators window and press  button. The report may be printed on a printer, sent via e-mail or saved to file.





Weighing FG window:

The screenshot shows the 'Weighing FG' window. At the top, there is a 'Time range for weighing' section with 'From: Friday, April 20, 2018 6:46:51 PM' and 'To: Thursday, April 26, 2018 6:46:51 PM'. Below this are buttons for 'Refresh', 'Clear filter', 'Export to CSV', 'Table report', and 'Close'. The main area contains a table with the following columns: 'Date and time', 'Operator name', 'Product', 'Order symbol', 'Scale name', 'Mass [g]', 'Min [g]', 'Max [g]', and 'Weighing OK'. The table lists multiple weighing records for 'Product 1' on '4/24/2018' at various times, all performed by 'Administrator'. The 'Mass [g]' values range from 105 to 112.5, and 'Min [g]' and 'Max [g]' values are consistently 90 and 110. The 'Weighing OK' column contains checkmarks. At the bottom, there is a filter bar showing the active filter: 'x [Date and time] >= '4/20/2018 6:46:51 PM' And [Date and time] < '4/26/2018 6:46:51 PM' - Edit Filter'.

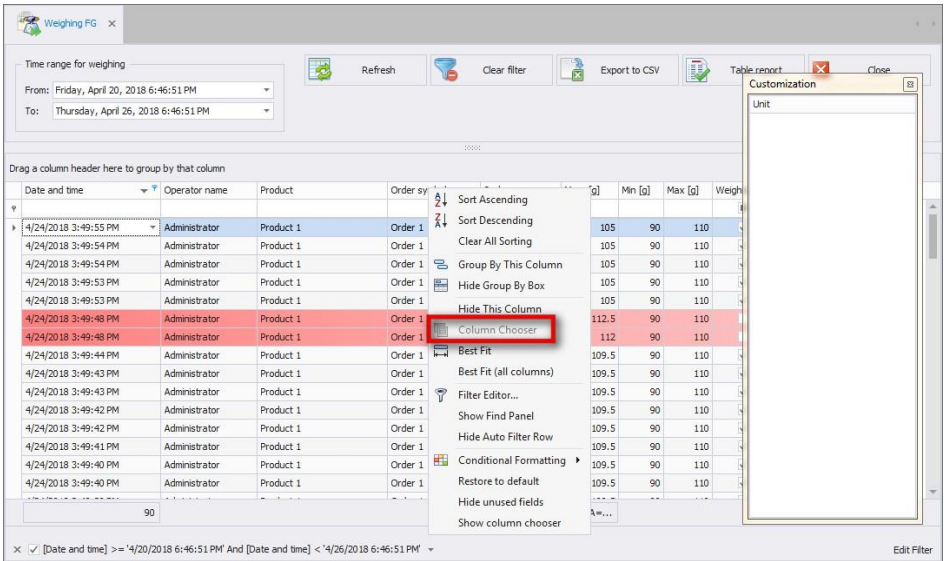
E2R Weighings enables displaying all weighings collected in the SQL database. It is possible to create reports containing collected weighings (table report).

Each weighing can be sorted in few columns, e.g. by the date of weighing and formulation name for which weighings were carried out. The grouping of sorting conditions depends on the order of adding. Time interval including the report is to be set in the upper part of the window.

Once you have determined all the desired grouping conditions and pressed  **Table report** button, a report is generated as PDF file. It can be saved or printed out on a local printer connected to the computer with **E2R** software.

Upon pressing  **Export to CSV** button file with .csv extension is generated. You can open it using Excel program.

Weighing FG window enables combining columns using **Column chooser** tool.



To select the tool, press right mouse button on the columns names bar to open the popup menu.

Customization window is opened. Customization window enables adding or deleting selected columns. 'Drag and drop' the column to add or delete it.

Caution!

To save all modifications, close Weighing FG window while pressing Ctrl key simultaneously. This applies to all windows.

7. PRODUCTION

The module features three main functions:

- collecting, managing and reporting weighings carried out using scales,
- creating, monitoring and reporting weighing orders,
- managing production line orders.

Operators carry out weighing when order, created using computer, is active. Upon activation of the order on the scale the following parameters are set: product, MIN threshold, and MAX threshold and batch. Scales can be grouped into production lines. You can perform different orders on each of the production lines.

7.1 Weighing Orders

Weighing orders module enables creating weighing orders and presenting orders already carried out using scales. One order can contain few subcontracts. The subcontract is created on each production line order start.

You can group completed orders by any column. To do that, drag over the order to the quick sorting bar(for detailed instructions refer to section 3.1).

Weighing orders window:

The screenshot shows the 'Weighing orders' window with the following components:

- Time range for orders:** From: Sunday, April 22, 2018 6:54:11 PM; To: Thursday, April 26, 2018 6:54:11 PM. Includes Refresh and Clear filter buttons.
- Stop order:** Selected (with a red 'X' icon) and Older than 60 days (with a red 'X' icon).
- Controls:** Add (+), Edit (checkmark), Delete (red X).
- Main Table:**

Start date	End date	Order symbol	Product name	Issued by	Description
4/23/2018 8:37:36 PM		Order 1	Product 1		
- Expanded Table 1:**

Order symbol	Issued by	Product name	Start date	End date	Description	Time	Shft	Production line	Pieces	Total weight	Mean
Order 1-POD1		Product 1	4/24/2018 3:45:21 PM	4/24/2018 3:48:09 PM		168	1	Line 1	49	5032.000	102.
Order 1-POD2		Product 1	4/24/2018 3:48:42 PM	4/24/2018 3:50:24 PM		102	1	Line 1	41	4311.500	105.
- Expanded Table 2:**

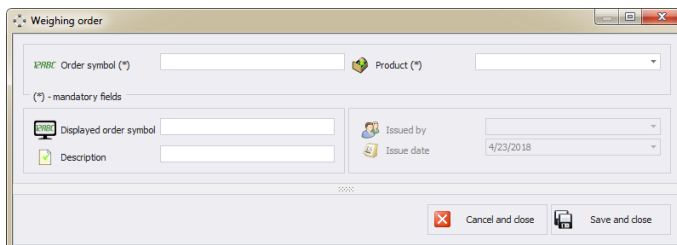
Scale name	Production line	Product	Issued by	Pieces	Mean	Standard deviation	Max weighing	Min weighing	Real start date	Real stop date
PUE 7.1	Line 1	Produ...	Administrator	41	105.1585	5.255282	114.5	97.5	4/24/2018 3:48:48 PM	4/24/2018 3:49:55 P

7.1.1 Adding/Editing Weighing Orders

To add a new order to the database, press  button.

To edit a new order to the database, press  button.

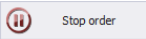
Weighing orders adding/editing window:



Where:

Order symbol *	Symbol of an order
Product *	Product to be weighed
Displayed order symbol	Order symbol to be seen when issuing an order (by default: the same symbol as the order symbol)
Description	Short production order description
Issued by	Name of an operator who issued an order
Issue date	Date of order issuing

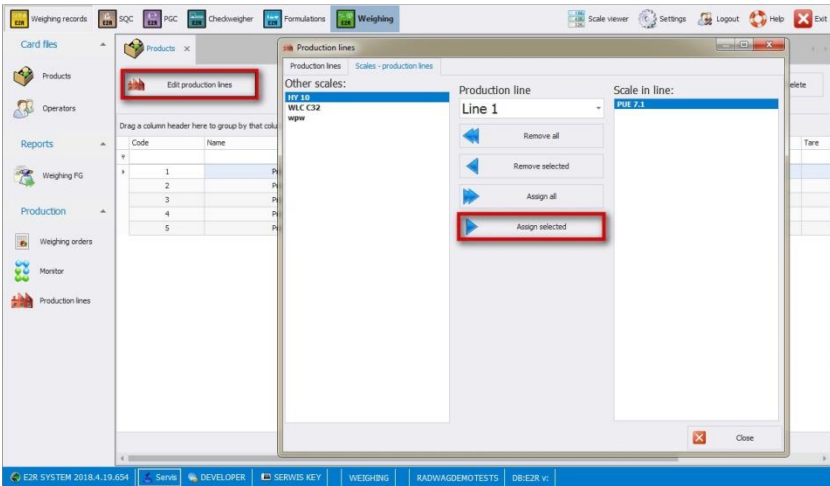
Upon entering/editing all respective Order data, press **<Save and close>** button.

In Order editing window there is  button. Press it to stop issuing an order in the system (it will not be possible to issue an order on any production line).

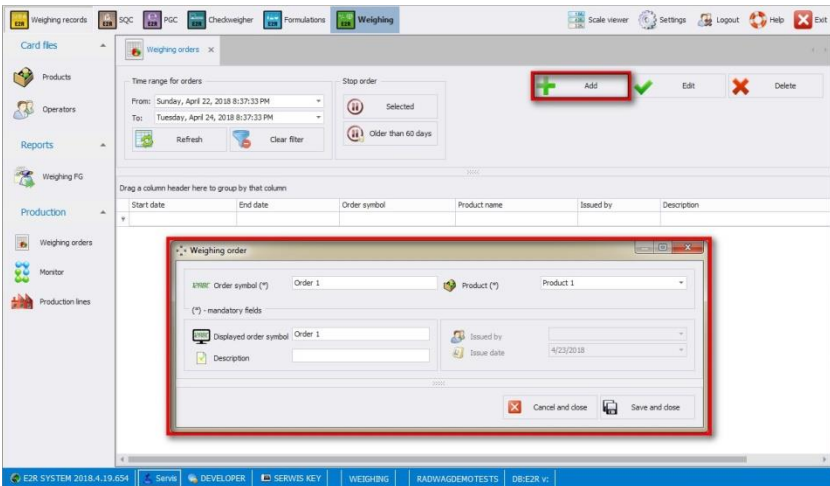
7.1.2 Execution of the Weighings Order on the Production Line

Procedure:

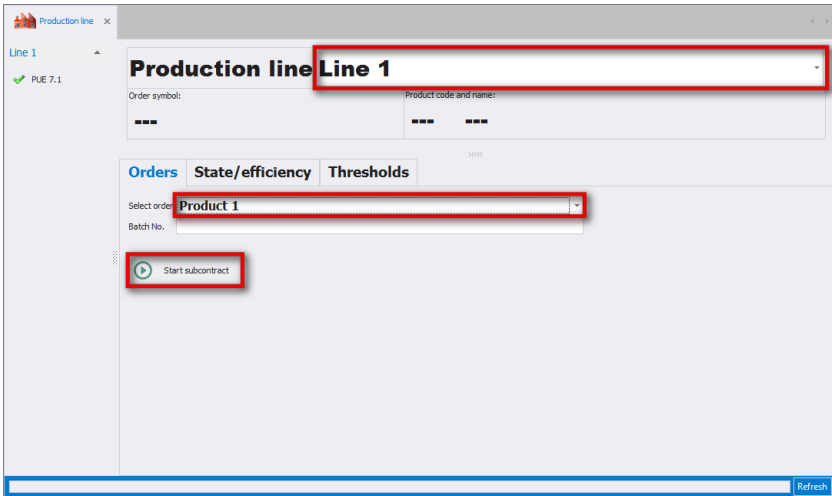
1. In **Products** database add production lines and assign scales to them (for detailed information on editing production lines refer to section 5.1.6).



2. Add an order in **Production/Weighing orders** tab (for detailed information refer to section 7.1).



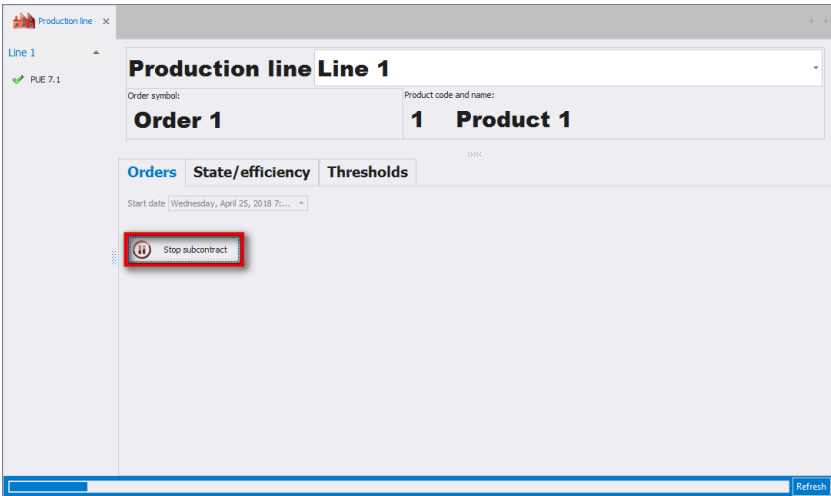
3. In **Production/Production lines/Orders** set a production line, select an order and press <Start subcontract> button.




4. The following message is displayed. The product is selected and the thresholds set.

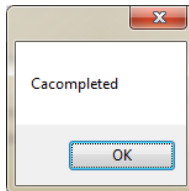


5. Upon carrying out all weighings, press <Stop subcontract> button. Product on the scale is deactivated.

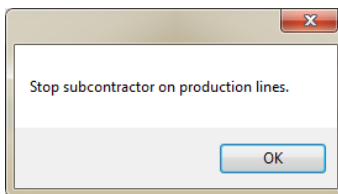



7.1.3 Weighing Order Stop

Press  Selected button to stop an order. The following message is displayed:



Stopped order cannot be selected in the production line window to start a subcontract. It is impossible to stop an order containing subcontract on the production line. In such case the following message is displayed:

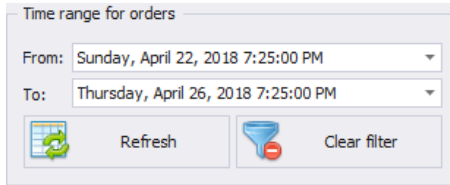


Press  Older than 60 days button to stop all orders which were added at least 60 days ago. The following message is displayed:



7.1.4 Order Searching and Filtering

Basic filter in <Orders> table is time range of order execution.



Upon selecting a specific time range, orders matching the conditions are displayed in the workplace.


If respective orders are not displayed - select longer period.

Each order registered by the system can be searched by entered phrase suitable for each column.

	Start date	End date	Order symbol	Product name	Issued by	Description
🔍						

Orders table in <Weighing orders> module contains the following columns:

- Start date** Date of issuing production order
- Order symbol** Symbol of an order
- Product name** Name of a product for which an order is issued
- Issued by** Name of an operator issuing a production order
- End date** Date of order stop
- Description** Detailed order description

Press  **Clear filter** button to display all records on the list. All filters are deleted.

Caution:

Additional sorting functions in **<Weighing orders>** menu are described in sections 3.1.1 and 3.1.2 of this user manual.

7.1.5 Order Details

You can preview order details by pressing „+” button located next to a given item in „**Order name**” tab. When there is no „+” button, issuing an order is not initiated. **<Subcontracts>** table containing order details features the following columns:


Order symbol	Symbol of the order
Issued by	Name of an operator issuing a subcontract
Product name	Name of weighed product
Start date	Subcontract start date
End date	Date of subcontract end
Time	Time range for subcontracts in [s]
Pieces	Quantity of all weighings in a subcontract
Real start date	Date of first weighing in a subcontract
Real stop date	Date of last weighing in a subcontract
Real duration	Time measured from the first to the last weighing in [s]
Quantity OK	Quantity of weighings between MIN and MAX thresholds

7.1.6 Subcontract details

You can preview subcontract details by pressing „+” button located next to a given item in „**Subcontract symbol**” tab. When there is no „+” button, no weighing was carried out for a subcontract. **<Subcontracts Operators>** table contains subcontract details on an employee that carried out given subcontract, it features the following columns:

Scale name	Name of a workstation
Issued by	Name of an operator carrying out weighing procedure
Pieces	Quantity of all weighings carried out by an operator in a subcontract
Real start date	Date of the first weighing in a subcontract carried out by an operator
Real end date	Date of the last weighing in a subcontract carried out by an operator
Real duration	Time measured from the first to the last weighing carried out by an operator; presented in [s]
Duration	Subcontract duration in [s]
Pieces OK	Quantity of weighings, carried out by an operator, between MIN and MAX thresholds

7.1.7 Orders Update

Press  Refresh button to refresh records displayed in **<Weighing orders>** module.

7.2 Monitor

Monitor window enables previewing current and previous data on operation time range.

The data is presented in the table that can be freely configured by dragging respective fields over certain areas.

You can also use **Field List** tool.

The screenshot shows the 'Monitor' application window. At the top, there are buttons for 'Refresh', 'Export to XLS', and 'Table report'. Below these are tabs for 'Working time report', 'Working time monitor', and 'Monitor'. A 'Time range for subcontract' section has dropdowns for 'From' (Tuesday, April 24, 2018 8:24:03 PM) and 'To' (Thursday, April 26, 2018 8:24:03 PM). Below this is a table with columns: Operator code, Product code, Total mass [g], Quantity [pcs], Time interval bet..., Effective producti..., and Effective productivity [pcs/h]. A right-click context menu is open over the 'Effective productivity [pcs/h]' column header, showing options: 'Reload Data', 'Hide Field List', and 'Show Prefilter'. A 'PivotGrid Field List' dialog box is also open, containing a list of fields: 'Effective productivity [pcs/h]', 'Effective time [min]', 'Efficiency plan', and 'Start order'. The 'Add To' dropdown is set to 'Data Area'.

Order	Product	Operator name	Quantity [pcs]	Time interval between th...	Effective productivity [pcs/h]
Order 1-POD1	Product 1	Administrator	5032.000	49	1.0
Order 1-POD2	Product 1	Administrator	4311.500	41	0.0
Order 2-POD1	Product 2	Administrator	1407.000	8	1.0
Grand Total			10750.500	98	2.0

To select the tool, press right mouse button on the columns names bar to open the popup menu.

Pivot Grid Field List window is displayed. This window enables adding or deleting selected columns in a given report. To add or delete a column use 'Drag and drop' option or select respective area and press **Add to** button.

Caution!

To save all modifications, close Monitor window while pressing Ctrl key simultaneously. This applies to all windows.

7.2.1 Working Time Report

Working time report tab contains data on carried out subcontracts.

Working time report Working time monitor Monitor

Time range for subcontract
 From: Tuesday, April 24, 2018 8:24:03 PM To: Thursday, April 26, 2018 8:24:03 PM


Operator code Product code

Total mass [g] Quantity [pcs] Time interval bet... Effective producti... Drop Column Fields Here

Order	Product	Operator name	Total mass [g]	%	Quantity [pcs]	Time interval between th...	Effective productivity [pcs/h]
Grand Total			10750.500		98	2.0	2940
Order 1-POD1	Product 1	Administrator	5032.000		49	1.0	2940
Order 1-POD2	Product 1	Administrator	4311.500		41	0.0	0
Order 2-POD1	Product 2	Administrator	1407.000		8	1.0	480

Time interval including the report is to be set in the upper part of the window. Table containing details on previously carried out subcontracts features the following columns:

- Order** Subcontract symbol
- Product** Name of weighed product
- Operator name** Operator name
- Total mass** Total mass of all weighings carried out by an operator for a given subcontract
- Quantity** Quantity of all weighings carried out by an operator in a subcontract
- Time interval between the first and the last weighing of suborder [min]** Operation time given in minutes
- Effective productivity [pcs/h]** The forecast quantity of weighings carried out within one hour by the operator
- Effective time [min]** Operator's working time in minutes, excluding downtime (if in given minute the operator does not carry out any weighing, it is not counted)
- Effective productivity [pcs/h]** The forecast quantity of weighings carried out within one hour with regard to effective time.

Press  **Table report** button to generate report as PDF file. It can be saved or printed out on a printer connected to the computer with **E2R Weighings** software installed on it.

7.2.2 Working Time Monitor

Working time monitor tab contains data on currently carried out subcontracts. The main purpose of this tab is to present data on an operator: working time in a subcontract and quantity of weighed pieces.

If there is no order currently performed, the tab is empty.

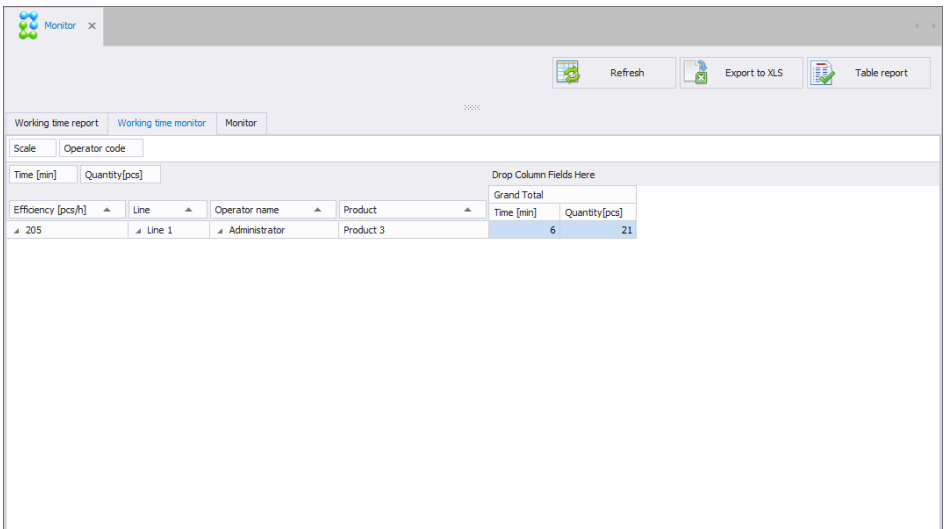
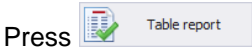


Table containing details on carried out subcontracts features the following columns:

- Efficiency [pcs/h]** The forecast quantity of weighings carried out within one hour by the operator
- Line** Production line name
- Operator name** Operator name
- Product** Name of weighed product
- Time [min]** Operation time given in minutes, counted from the moment of subcontract start
- Quantity [pcs]** Quantity of all weighings carried out by an operator from the moment of subcontract start



Press **Table report** button to generate report as a PDF file. It can be saved or printed out on a printer connected to the computer with **E2R Weighings** software installed on it.

7.2.3 Monitor

Monitor tab contains the same data as **Working time monitor** as well as the following data: efficiency, mean, standard deviation.

If there is no order currently performed, the tab is empty.

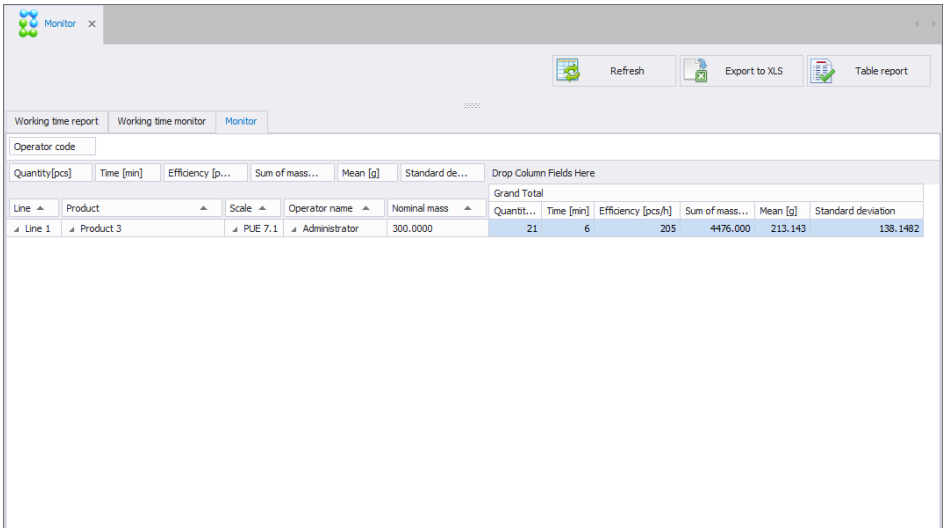



Table containing details on carried out subcontracts features the following columns:

- Efficiency [pcs/h]** The forecast quantity of weighings carried out within one hour by the operator
- Line** Production line name
- Product** Name of weighed product
- Scale** Scale name
- Operator name** Name of an operator carrying out weighing
- Nominal mass** Product nominal mass
- Quantity [pcs]** Quantity of all weighings carried out by an operator from the moment of subcontract start

Time [min]	Operation time given in minutes, counted from the moment of subcontract start
Efficiency [pcs/h]	The forecast quantity of weighings carried out within one hour by the operator
Sum of masses [g]	Total mass of all weighings carried out by an operator from the moment of subcontract start
Mean [g]	Mean mass of all weighings carried out by an operator from the moment of subcontract start
Standard deviation	Variation measure, statistical term

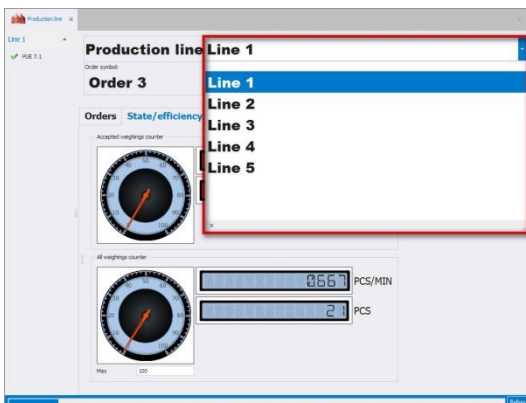
Press  **Table report** button to generate report as a PDF file. It can be saved or printed out on a printer connected to the computer with **E2R Weighings** software installed on it.

7.3 Production Lines

Production lines window enables starting or stopping a subcontract for a given production line. You can preview the quantity of carried out weighings and efficiency on an ongoing basis.

To configure production line (creating production line, adding scales to respective production lines) go to **Products** database. For detailed information refer to section 5.1.6 of this user manual.

Open **Production lines** window to display data on the first production line. You can select different production line in the top bar.



7.3.1 Production Line

Home Screen Production line window:

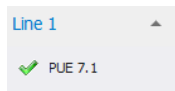


Where:

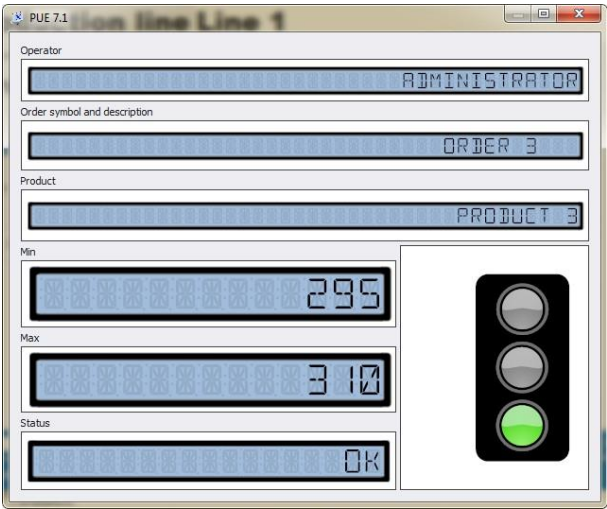
- 1 - The list of weighing instruments assigned to the production line,
- 2 - Selected production line,
- 3 - Symbol of an order that is currently carried out on the production line,
- 4 - Code and name of a product that is set on every weighing instrument on the production line,
- 5 - Workplace containing the following tabs: Orders, State/efficiency and Thresholds,
- 6 - Refresh bar - upon reaching the right end, the data is refreshed. Press Refresh button to refresh the window.

7.3.2 Weighing Instruments Assigned to the Production Line

List of weighing instruments assigned to selected production line is located in the top left corner of the window:



Pictogram on the left of each item on the list shows current state of the weighing instrument. Upon entering respective item, a window with details is displayed:



The top part of the window contains the following information:

- Operator,
- Order,
- Product.

Below, thresholds are displayed. Thresholds are defined on a given weighing instrument on the production line.

<Status> field contains information on scale current condition, where:

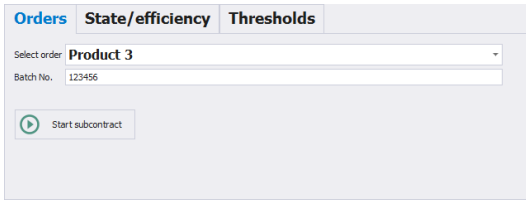
- | | |
|---------------------|--|
| Red light | No scale-server communication |
| Yellow light | Incorrect order settings/parameters |
| Green light | Communication and order settings correct |

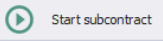
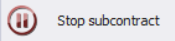
7.3.3 Production Order Initiation

You can initiate (issue) an order for previously selected production line.

Procedure:

- Select respective production line in accordance with section 7.3 of this user manual,
- Select **<Orders>** tab, the following window is opened:



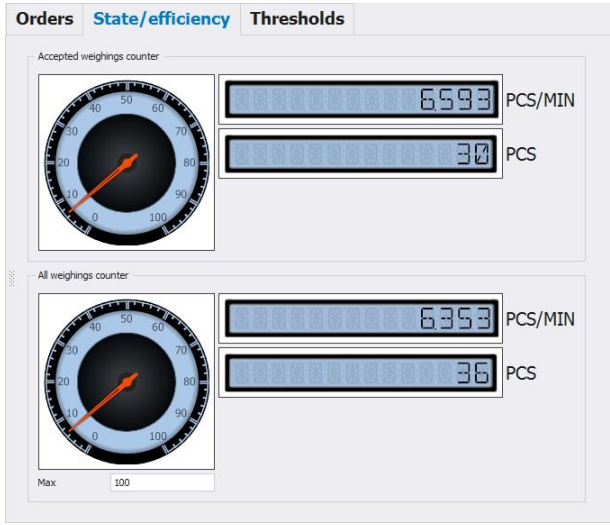
- Using the list, select order in accordance with one of the following criteria: symbol name or date of issuing an order,
- Enter batch number (if required),
- Press  button to initiate an order,
- Upon carrying out all weighings, press  button to stop the subcontract. Product on the scale is deactivated.

7.3.4 Efficiency

<State/Efficiency> tab contains efficiency of the production line.

Caution:

Upon settings modification in <State/Efficiency> tab, restart production lines window to update data.



Where:

Accepted weighings counter

Current quantity of weighings that are between MIN and MAX thresholds

All weighings counter

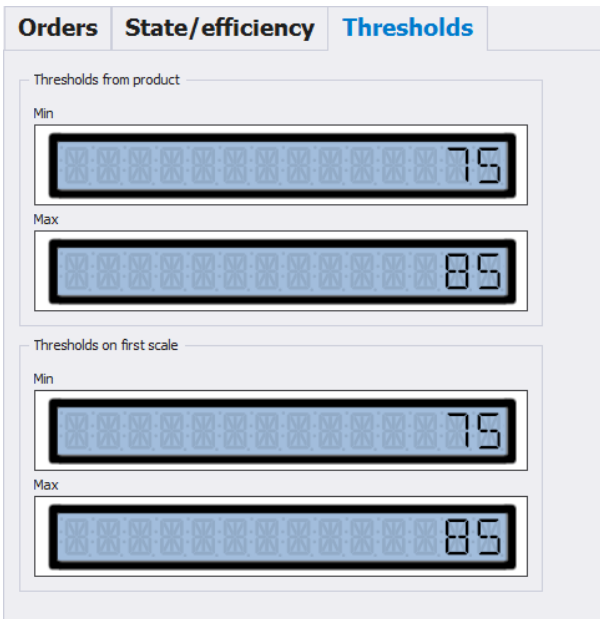
Current quantity of all weighings in an active order

Max

Maximum pieces quantity/weighings per minute that is displayed on the clock diagram

7.3.5 Checkweighing Thresholds

<Thresholds> tab contains thresholds determined for a product and the first scale on the production line.



8. TOOLS

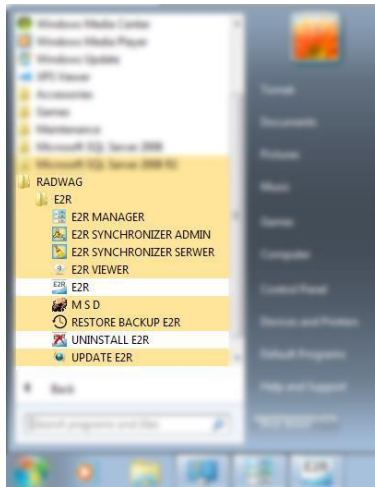
8.1 E2R manager

E2R Manager is intended for displaying status of communication with weighing instruments and for previewing currently carried out weighing. Additionally it provides information on logged in operator, measured product, nominal net weight (mass standard), batch/lot number of measured product, customer, product tare value, low limit and high limit, working mode and other.

Due to simplified interface it is recommended to use it for weighing instruments configuration instead of **E2R SYNCHRONIZER ADMIN**.

All messages serve informative purposes, this means that they cannot be saved to or printed by **E2R Manager**. **To perform the said operations launch E2R WEIGHINGS** software.

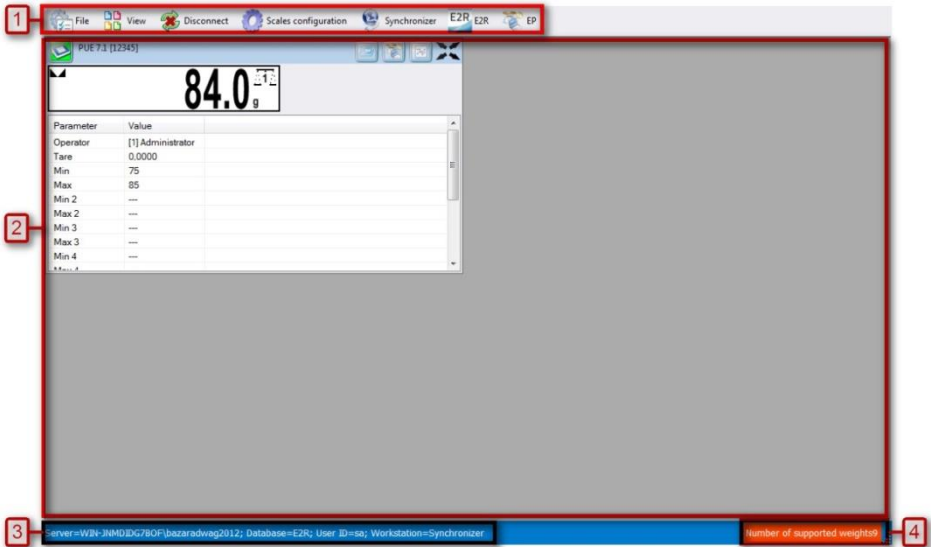
Upon **E2R SYSTEM** installation, a shortcut is created in the Start menu.



Another option for accessing **E2R Manager** is to press **Scale viewer** button.



E2R Manager home screen:



Where:

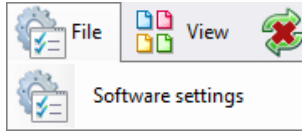
- 1 - Function buttons
- 2 - Operated weighing instruments
- 3 - Connection parameters
- 4 - Maximum quantity of operated weighing instruments

Caution:

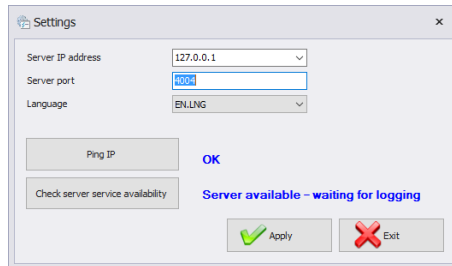
Scale panel is displayed only upon communication between **E2R Manager** and **Radwag Synchronizer** is established, provided that the scale is on.

8.1.1 Setting Connection with E2R SYNCHRONIZER

To run E2R SYNCHRONIZER software settings, press **File** button, next press **Software settings** button.



Software settings editor opens, set **IP** address and **communication port** for computer used to support connection with scales (server service).

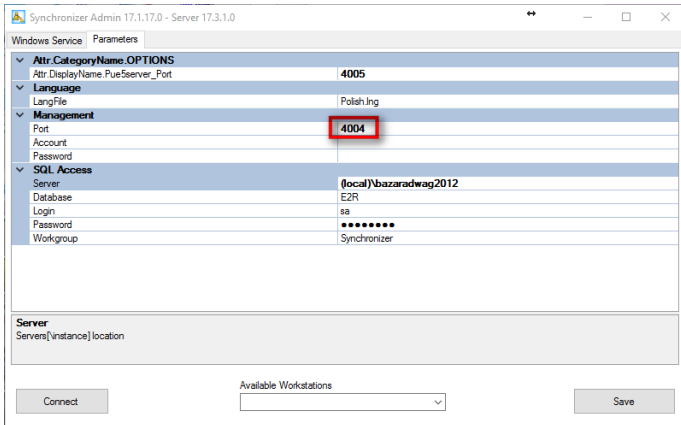


Where:

- | | |
|--|--|
| Server IP address | IP address of computer running the Synchronizer. Combo box provides list of available synchronizers. |
| Server port | TCP port of computer running the Synchronizer. |
| Language | Language of E2R Manager PC software. |
| Ping IP | Test of connection for selected IP address, by default: local IP address. |
| Check server service availability | Test of E2R Synchronizer availability. |

If **E2R SYNCHRONIZER** and **E2R MANAGER** are installed on the same computer then the default IP address remains unchanged - **127.0.0.1**.

Default server port, **4004**, shall be changed only if it has been previously changed in **E2R SYNCHRONIZER**. The ports have to match each other.



Caution:

4001 and 4005 ports cannot be used as TCP Port. They serve different purposes.

The software provides various languages. To change language use **Language** option.

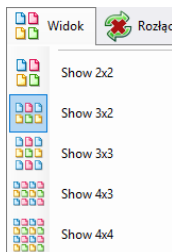
Available languages:

- PL** Polish
- EN** English

Press **Save** button to confirm modifications and exit the software. All modifications are implemented upon restarting the software.

8.1.2 Scales Layout

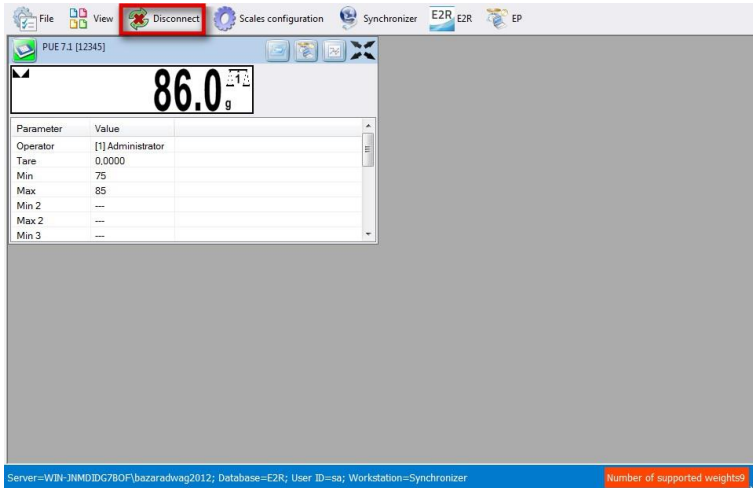
Scales layout can be freely customized. To view layout options press **View** button.



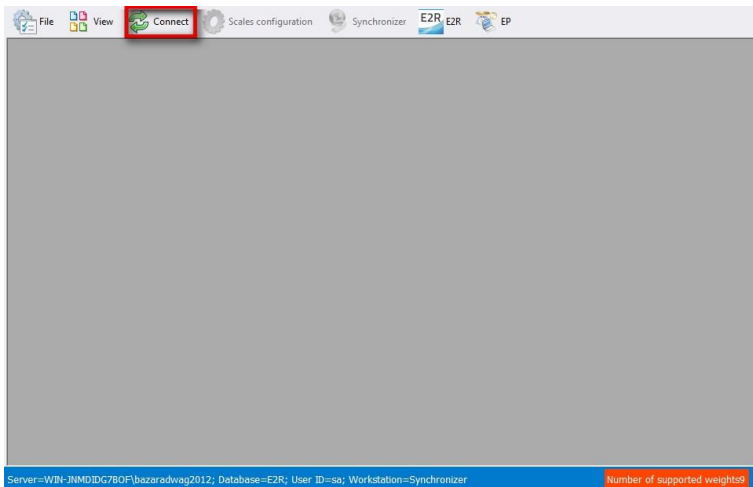
There are 5 standard layout options: 2x2, 3x2, 3x3, 4x3, 4x4.

8.1.3 Connecting/Disconnecting E2R SYNCHRONIZER

In order to disconnect synchronizer without exiting the program press **Disconnect** button.



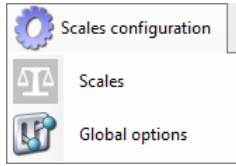
In order to run an on-line preview when the program is being operated, press **Connect** button.



8.1.4 Scales Configuration

8.1.4.1 Scales

To configure a scale select **Scales** option in **Scales configuration** menu.



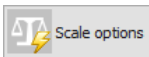
Scales configuration (Synchronizer) window opens, list of scales cooperating with the system is displayed.

Scale name	Scale symbol	Workstation	Scale type display name	Interface name	Interface config.	Scale serial no.	Scale address	Active
HY 10	C32	Synchronizer	PUE-C32	10.10.2.35 (123456)	Ethernet;10.10.2.35;4001	123456	1	0
WLC C32	C32	Synchronizer	PUE-C32	10.10.1.203 (123456)	Ethernet;10.10.1.203;4001	123456	1	0
wpw	?	Synchronizer	PUEC41	127.0.0.1	Ethernet;10.10.3.3;4001	?	1	0
PUE 7.1	Pue 71	Synchronizer	PUE7/HY/7.1/HY10	10.10.15.22 (12345)	Ethernet;10.10.15.22;4001	12345	1	

Buttons: Scale options, Edit, Add, Delete, Browse scales, Ping device, Exit

Select the scale that is to be edited or deleted.

Buttons' functions:



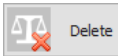
Press to run Scale Options window.



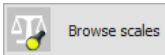
Press to edit scale selected out of scales list.



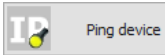
Press to add scale to a system.



Press to delete selected scale.



Press to search scales in local network.



Press to check scale IP address.



Press to exit Scales configuration window.

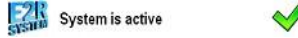
8.1.4.1.1 Adding a Scale

Weighing instruments can be added automatically or manually. Prior adding the weighing instrument to the system, make sure it is correctly configured. Required settings for HY10:

Settings/Peripherals/
Computer/Port



Settings/Peripherals/
Computer/E2R System




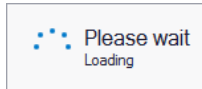
Correctly configured Communication settings.



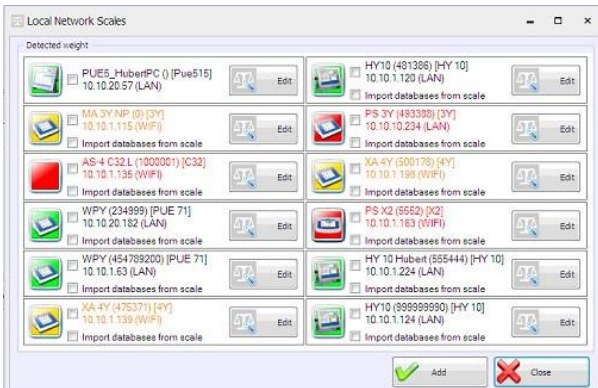
Automatic method:

Weighing instruments connected to the local Ethernet network can be searched and added automatically.

Press  Browse scales button, the following message is displayed:



Next Local Network Scales window featuring list of available scales is opened:



Where:



Scale already integrated with the system.


Detected scale, the scale parameters read correctly.

Detected scale, prior adding the scale to the system some of the parameters need to be completed *.

Detected scale, the scale parameters read incorrectly.

(*) – Incorrectly configured weighing instrument does not connect with the database. Connection parameters have to be set manually: **Settings/Databases/Database configuration/SQL connection.**


Select scales that are to be added and press **Add** button.

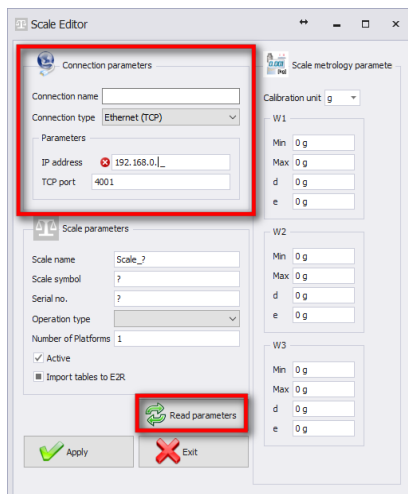
Prior adding the scale you can press  button to verify its configuration. For description of Scale Editor read manual method instruction.

Manual method:

WPW scales and Checkweighers have to be added manually.

Press  button. Scale Editor opens, modify the parameters and press

 button.

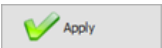
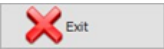


Where:


Connection name	Freely designed name of communication interface.
Connection type	Combo box enabling selection of interface for scale connection: Serial – scale connected via RS232, Ethernet – scale connected via Ethernet.
IP address	IP address set in Ethernet interface on a scale.
TCP port	TCP port set on a scale (by default: 4001).
Scale name	Scale name presented on reports.
Scale symbol	Scale symbol exposed on the scale housing. Required by PGC system.
Serial no.	Serial number of the scale.
Operation type	Type of connection with a scale: <ul style="list-style-type: none"> • <i>PUEC41</i> – connection with WPW scale, • <i>Pue7/HY/7.1/HY10</i> – connection with industrial weighing instruments of WLY, WPY, HTY and HY10 series with standard program version, • <i>3Y/4Y</i> – connection with laboratory balances of 3Y and 4Y series, • <i>Pue7/HY/7.1/HY10 PGC/SQC</i> – connection with industrial scales of WLY, WPY, HTY and HY10 series operating in PGC mode, • <i>3Y/4Y PGC</i> – connection with laboratory balance of 3Y and 4Y series operating in PGC mode, • <i>DynPGC</i> – connection with dynamic scale, • <i>MAX</i> – connection with moisture analyzer of MAX, PMC series, • <i>Pue4 Land</i> – connection with scales based on PUE4L indicator, • <i>Pue7 (PCS)</i> – connection with scales based on PUE7 and HY terminal (version with Parts Counting program), <i>Disabled for Parts Counting mode of standard scale program,</i> • <i>PUE-5</i> – connection with TMX scale with version 3 or earlier of the software, • <i>OCS/ISHIDA</i> – connection with OCS/ISHIDA scale and metal detector, • <i>R</i> – connection with laboratory balance of R series, • <i>R Dryer</i> – connection with moisture analyzer of R series,

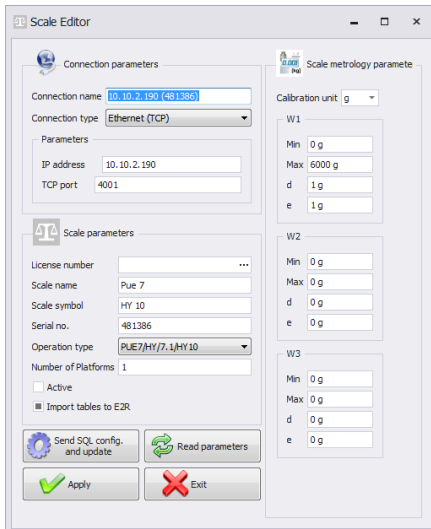
	<ul style="list-style-type: none"> • X2 – connection with laboratory balance of X2 series, • PUE5.15/19 – connection with TMX scale with version 3 or later of the software.
Number of platforms	Quantity of platforms supported by the scale.
Active	Select the option if the weighing instrument is to be previewed.
Import tables to E2R*	Import of the weighing instrument database.
Scale metrology parameters	Scale parameters section: Max, Min, d, e; Required by PGC system.


(*) – it is possible to import database of the weighing instrument only when adding the instrument to the E2R.

Press  button to make introduced modifications valid, press  button to exit Scale Editor without saving changes.

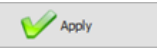
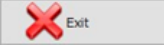
8.1.4.1.2 Editing Scales

Select scale which parameters are to be modified and press  button.




Press  to send connection settings with E2R database to the scale.

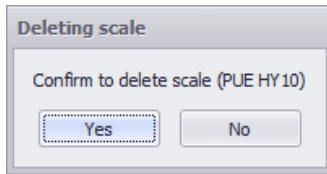
Upon pressing the button, full data synchronization is carried out on the scale. This option is available for HY10, WLY, WPY weighing instruments exclusively.

Press  button to make introduced modifications valid, press  button to exit Scale Editor without saving changes.

8.1.4.1.3 Deleting Scales

In configuration window select scale that is to be deleted from the list and press  button.

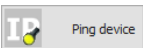
Press **Yes** button to confirm.

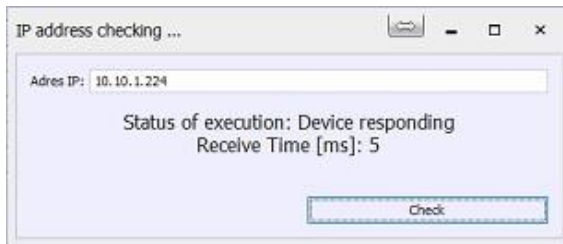


Caution!

Be especially careful while deleting scales, along with the scale all scale-related information displayed on a report is deleted.

8.1.4.1.4 IP Address Check

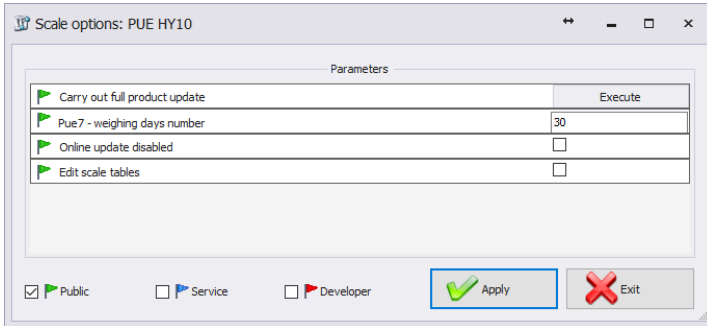
In a configuration window press  button. The following window is displayed:



Enter scale IP address and press **Check** button. Information on status and time is displayed.

8.1.4.1.5 Scale Options

Scale Options window features three buttons for three different option groups: Public, Service, Developer.



Enabling/disabling options:



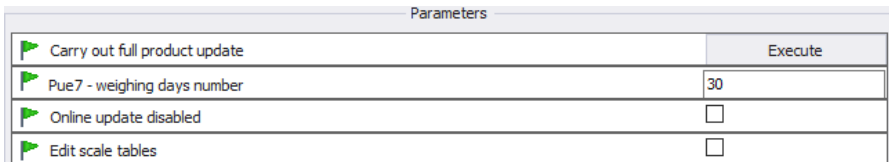
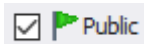
Option enabled,



Option disabled.

- **Public**

Public options are enabled by default. Public options modification does not influence system operation negatively.



Carry out full product update * Complete update of products carried out for a particular scale.

PUE 7 - Weighing days number Specifying how long the weighings are to stay archive.

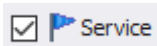
Online update disabled Disabling scale database synchronization.

Edit scale tables Enabling database editing on a balance.

(*) – update of products on scales is carried out regularly therefore there is no need to use this parameter.

- **Service**

To enable Service options it is necessary to tick **Service** box. Option of selected information update, wherein system information is updated with scale information, has to be set in global options settings.



Parameters	
Kronopol Scale 1-order start, 2-order stop	0
Enable data update: scale-system	<input type="checkbox"/>
Enable tare update: scale-system	<input type="checkbox"/>
Enable thresholds update: scale-system	<input type="checkbox"/>
Enable nominal weight update: scale-system	<input type="checkbox"/>
Use scale-declared thresholds	<input type="checkbox"/>
Pue7 option - Nestle Bars	<input type="checkbox"/>
Pue7 option - EspersenMode	<input type="checkbox"/>
Record weighings to Fast Weighings Table – E2R WEIGHING RECORDS	<input type="checkbox"/>

Kronopol Scale 1-order start, 2-order stop

Customized settings for Kronopol scales.

Enable data update: scale-system

Enabling update of system information with scale information. Updated values: tare, thresholds, weight.

Enable tare update: scale-system

Enabling update of system information with scale information. Updated value: tare.

Enable thresholds update: scale-system

Enabling update of system information with scale information. Updated value: thresholds.

Enable nominal weight update: scale-system

Enabling update of system information with scale information. Updated value: nominal weight.

Use scale-declared thresholds

Enabling operation with thresholds set on a scale, instead of operation with thresholds set in the system.

PUE 7 option – Nestle/bars

Customized settings for Nestle scales.

PUE 7 option – Espersen

Customized settings for Espersen scales.

Record weighings to Fast Weighings Table – E2R WEIGHING RECORDS

Customized settings for WPW scales, for E2R Weighings software.






























CAUTION!

Do not tick “Record Weighings to Fast Weighings Table” option for WEIGHING RECORDS, FORMULATIONS, PGC, MOISTURE ANALYZERS or CHECKWEIGHER modes.

- **Developer**

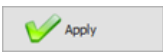
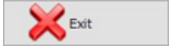
To enable Developer (programming) options it is necessary to tick **Developer** box. These options serve informative purposes, they shall not be modified.

 **Developer**

Parameters	
 Version No. of database of products	0
 Version No. of database of operators	0
 Version No. of database of clients	0
 Synchronize universal variables changes	0
 Synchronize vehicle changes	0
 Synchronize traceability changes	0
 Synchronize package changes	0
 Synchronize warehouse changes	0
 Full scale update	0
 Status Description	WAGA WYŁĄCZONA
 Set a batch	
 Set a lot	11111
 Set package ID	
 Set Client ID	
 Scale serial no.	481386
 Weight high threshold - MAX	200
 Weight low threshold - MIN	100
 Refresh data	1
 Scale-set order ID	0
 System-set order ID	0
 ID of last acquired weighing from PUE7/HY	44
 ID of last formulation report acquired from PUE7/HY	0
 Last vehicle measurement report ID	0
 Scale-set product ID	0
 System-set product ID	1
 Status	1
 Scale-set operator ID	0
 System-set operator ID	0
 Package ID	0

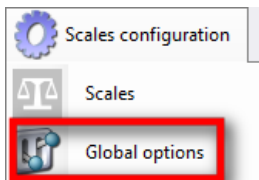
Database Version No....	Version number of database taken from scale, the number serves as base for scale databases synchronization.
Scale Serial No.	Serial number taken from scale.
Weight high threshold - MAX	High threshold value taken from scale.
Weight low threshold - MIN	Low threshold value taken from scale.
Scale-set order ID	ID of current order taken from scale.
System-set order ID	ID of current order set in the system.
Scale-set product ID	ID of current product taken from scale.
System-set product ID	ID of current product set in the system.
Scale-set operator ID	ID of current operator taken from scale.
System-set operator ID	ID of current operator set in the system.
Last report, weighing... ID	Number of PUE7/HY records or 3Y records saved to a system. Having noticed that weighings or reports are not acquired, although automatic algorithm for capturing scale data is in use, set 0 value for particular database.

CAUTION!
Setting 0 value for last report or weighing ID results with acquisition of the same set of weighings from scale to system again.

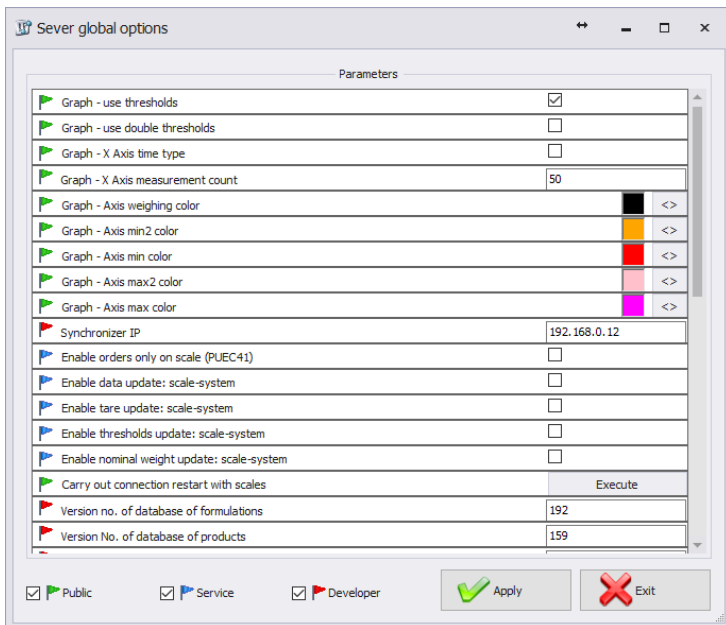
Press  button to confirm introduced modifications,
 Press  button to exit Scale Options window without saving changes.

8.1.4.2 Global Options

System configuration is carried out upon selecting **Global options** in Scales configuration menu.



Server global options window is opened and list of available parameters is displayed.



Server Global Options window features three buttons for three different option groups: Public, Service, Developer.

Enabling/disabling options.



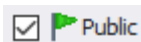
Option enabled,








Option disabled.

- **Public**

Public options are enabled by default. Public options modification does not influence system operation negatively.



Parameters	
Graph – thresholds display	<input checked="" type="checkbox"/>
Graph – extra thresholds display	<input type="checkbox"/>
Graph – X axis displayed as time	<input type="checkbox"/>
Graph – measurements quantity	50
Graph – weighing series colour	 <>
Graph – MIN 2 threshold colour	 <>
Graph – MIN threshold colour	 <>
Graph – MAX 2 threshold colour	 <>
Graph – MAX threshold colour	 <>
Perform complete product update	Execute

Graph – thresholds display

Graph with MIN and MAX thresholds displayed.

Graph – extra thresholds display

Graph with MIN2 and MAX2 thresholds displayed.

Graph – X axis displayed as time

Scaling X axis by measurement time.

Graph – measurements quantity

Determining quantity of simultaneously displayed measurements.

Graph – weighing series colour

Specifying colour for series of weighings.

Graph – MIN 2 threshold colour

Specifying colour for MIN 2 threshold.

Graph – MIN threshold colour

Specifying colour for MIN threshold.

Graph – MAX 2 threshold colour

Specifying colour for MAX 2 threshold.

Graph – MAX threshold colour

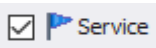
Specifying colour for MAX threshold.

Perform complete product update*

Forcing performance of complete update of products for a particular scale.

- **Service**

To enable Service options it is necessary to tick **Service** box.



Parameters	
Enable only orders on scale (PUEC41)	<input type="checkbox"/>
Enable data update: scale-system	<input type="checkbox"/>
Enable tare update: scale-system	<input type="checkbox"/>
Enable thresholds update: scale-system	<input type="checkbox"/>
Enable nominal weight update: scale-system	<input type="checkbox"/>
Restore tare after zeroing (WPW)	<input type="checkbox"/>
Transaction synchronization: PUE5-system	<input checked="" type="checkbox"/>
Orders synchronization: PUE5-system	<input checked="" type="checkbox"/>
Use product name with code instead of product name (PUEC41)	<input type="checkbox"/>
On scale, use product ID instead of Code (PUEC41)	<input type="checkbox"/>
On scale, use operator ID instead of Code (PUEC41)	<input type="checkbox"/>
Multitail statistics restart (PUEC41)	<input type="button" value="Execute"/>
Weighigns counter for product (PUEC41)	<input type="checkbox"/>
PUE7 option - Use supplementary thresholds	<input type="checkbox"/>

Enable only orders on scale (PUEC41)

Manual selection of a product on a scale is blocked.

Enable data update: scale-system

Enabling update of system information with scale information. Updated values: tare, thresholds, weight.

Enable tare update: scale-system

Enabling update of system information with scale information. Updated value: tare.

Enable thresholds update: scale-system

Enabling update of system information with scale information. Updated value: thresholds.

Enable nominal weight update: scale-system

Enabling update of system information with scale information. Updated value: nominal weight.

Restore tare after zeroing (WPW)

Restoring product tare value that was valid prior zeroing.

Transaction synchronization: PUE5-system

Enabling synchronization of transaction, synchronization with PUE5.

Orders synchronization: PUE5-system

Enabling synchronization of orders, synchronization with PUE5.

Use product name with code instead of product name

Modification of name field for PUEC41 indicator, change result: ID + PRODUCT

(PUEC41)

NAME. Function active only when you select option: *Use product ID instead of product code, for scale.*

Use product ID instead of code (PUEC41)

Modification of product code field for PUEC41 indicator, change result: product ID.

Use operator ID instead of code (PUEC41)

Modification of operator code field for PUEC41 indicator, change result: operator ID.

Multefil statistics restart (PUEC41)

Use of PGC intended software to zero statistics of WPW scale.

Weighings counter for product

Synchronization of number of weighings for product from WPW scale.

PUE7 option - Use supplementary thresholds

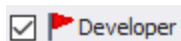
Activation of MIN 2 and MAX 2 thresholds.

CAUTION!

For WPW scale, code field is limited in databases, the limitation allows 6-character long codes maximum.

- **Developer**

To enable Developer (programming) options it is necessary to tick **Developer** box. These options serve informative purposes, they shall not be modified.



Parameters	
Synchronizer IP	192.168.0.12
Version no. of database of formulations	192
Version No. of database of products	159
Version No. of database of operators	44
Version No. of database of clients	3
Synchronize additional variables changes	0
Synchronize package changes	2
Synchronize warehouse changes	555
Refresh data	1

Synchronizer IP

IP address of computer operating synchronizer.

Database version number...

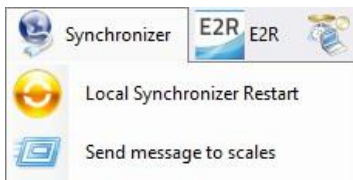
System database version number, on the basis of this number all scale databases are synchronized.

CAUTION!

With completed settings modification restart the software.

8.1.5 Synchronizer

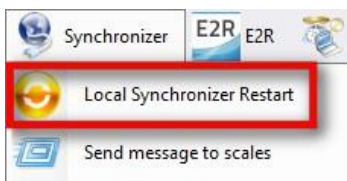
Synchronizer menu features option for connection restart used to update databases on scales, and option for sending messages to all scales networking in the system.



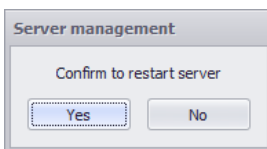
8.1.5.1 Local Synchronizer Restart

Local synchronizer restart option is available for computer with running **E2R SYNCHRONIZER**. With this option it is possible to reboot server setup and to update scales databases.


Go to **Synchronizer** menu and press **Local Synchronizer Restart**.

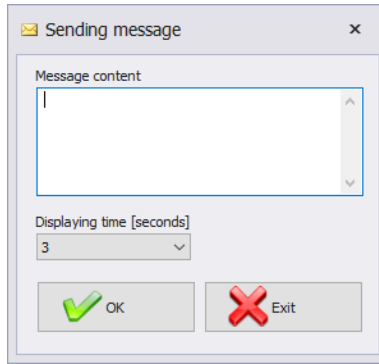


Press Yes button to restart.

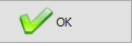
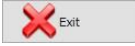


8.1.5.2 Sending Messages to Scales

It is possible to send message to scales cooperating in the system. To do that, go to **Synchronizer** menu and press  **Send a message to the scales** button.



Message display time range is 3-3600 seconds.

Press  button to send the message, press  button to exit Sending Message window.

8.1.6 E2R Manager: Scales Status

Status informing on establishing computer-scale communication:



Communication established.
Correct scale setup.
Correct scale setup for E2R Synchronizer.



Communication established.
Temporary lack of response.
Incorrect scale setup or incorrect scale setup for E2R Synchronizer.



Communication not established.
Scale switched off or no communication interface connection.
Incorrect scale setup or incorrect scale setup for E2R Synchronizer.

8.1.7 Scale Panel

Scale panel overview:




- 1 - Scale status/ function button.
- 2 - Current scale-displayed weight value
- 3 - Current scale parameters
- 4 - Measurements presented in a form of graph
- 5 - Full screen button
- 6 - Parameters on/off button
- 7 - EP software launch, the software automatically connects with the scale*
- 8 - RRD Viewer software launch

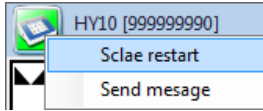
(*) – when connection between EP software and a scale gets established, the scale disconnects from E2R.

Caution:

*Scale panel is displayed only upon establishment of communication between **E2R Manager** and **Radwag Synchronizer** provided that the scale is on. For key service settings, read **E2R SYSTEM** service manual.*


8.1.7.1 Connection Restart and Scale Update for E2R

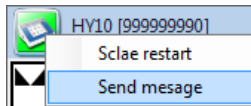
It is possible to restart scale in course of system operation, to do it press  button. Next press **Scale restart** button.



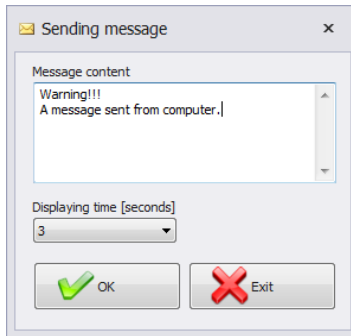
After few seconds the scale is connected to the system and all databases are updated.

8.1.7.2 Sending Messages to Scales

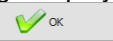

It is possible to send message to one particular scale. To do it press  button. Next press **Send message** button:



Enter respective text that is to be displayed on a given scale:



Message display time range is 3-3600 seconds.

Press  button to send the message, press  button to exit Sending Message window.

The following message is displayed on a selected scale:



