

# Web Editor

## Pipette calibration

WEB APPLICATION

USER MANUAL

IMKU-1111-02-04-24-ENG






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## WARNINGS

	In view of program updates, minor discrepancies between this manual and actual state are possible.
	RADWAG is not held responsible for the impact of the program and potential errors arising from wrong use of the program.
	RADWAG is not held responsible for data security and loss arising from wrong use of the program or PC.

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## INTENDED USE

The 'Radweg Web Editor- pipette calibration' application is used to manage databases, edit pipette calibration orders and generate reports on calibration with the use of a web browser.

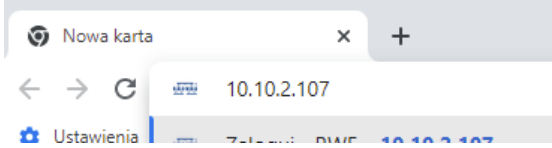
The application cooperates with an AP-12.1 5Y multi-channel pipette adjustment automatic device.

### Basic functions:

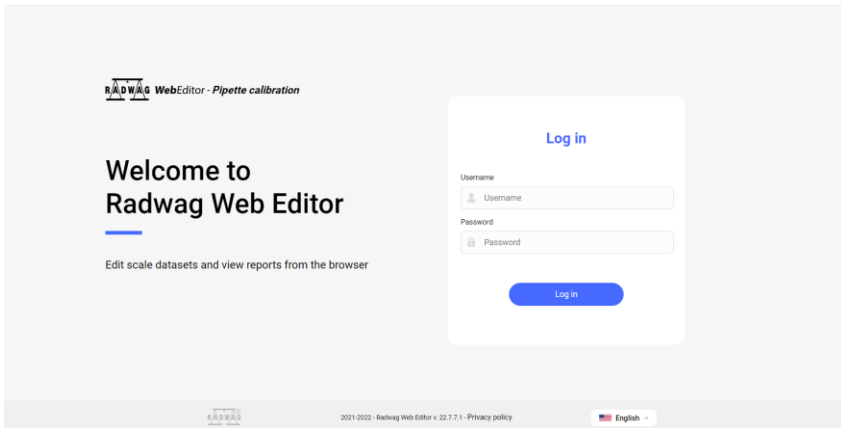
- Editing database tables (users, customers, pipettes, calibration orders).
- Exporting reports to PDF and CSV files.
- Exporting databases (users, customers) to CSV, JSON, XML files.
- Importing databases (users, customers) from CSV, JSON, XML files.

## 1. RUNNING THE APPLICATION

In the web browser, enter the balance IP address.



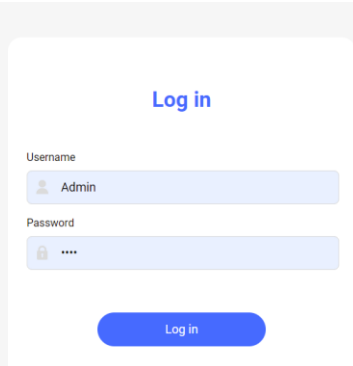
The application login box will show up.



Enter the name and password of the user who has been specified in the balance user database and assigned the administrator's permission level.

# Welcome to Radwag Web Editor

Edit scale datasets and view reports from the browser



Log in

Username  
Admin

Password  
....

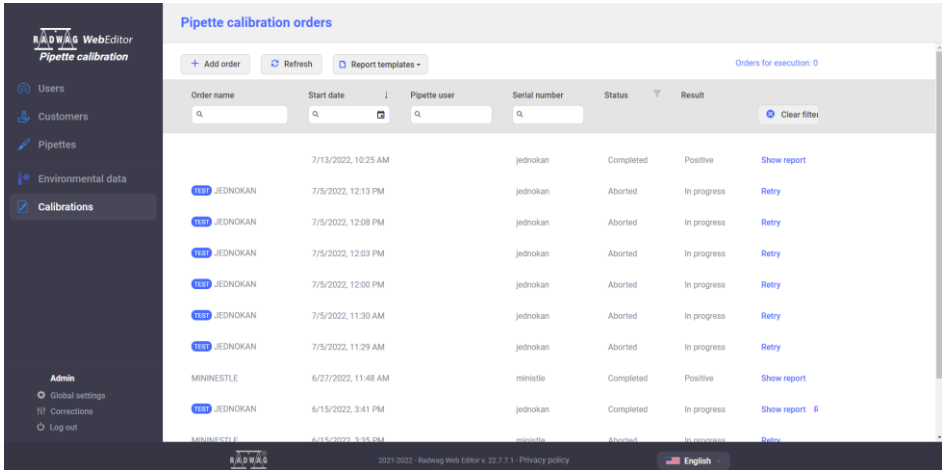
Log in

Next press <Log in> button. If data you have entered are correct, the home screen of the application will be displayed.

In the screen, you will see current data read from the balance memory. These data can be freely edited in the application.

***NOTE: The first time you run the application, set the working mode. The description of settings can be found in <Global settings> of the user manual.***

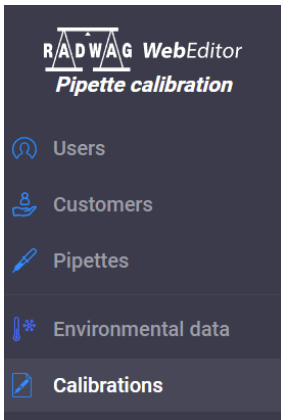
## 2. APPLICATION HOME SCREEN



The home screen contains the following sections: side menu with balance databases to be previewed and edited, application settings menu, application home screen.

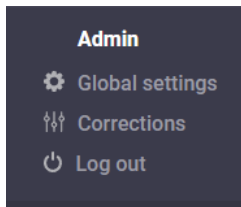
### 1. Databases side menu

It contains names of particular databases of the balance. After selecting the database in the home screen, you will see its content and database edition variants.



## 2. Application settings menu

The application settings menu.



Please remember to enter correct settings for these options before you start working with the application.

### 2.1. Global settings:

#### Global settings

Warning! The following settings affect the operation of Radwag Web Editor and are applied to all connections to the device.

Working mode:   
Changes the RWE layout depending on the mode

Service language:   
The general language of Radwag Web Editor - determines the language in which reports are generated.

Manufacturing year:

Automatically generate PDF reports:   
Checking this option generates PDF files of reports in the background and saves them to the database. This ensures faster access and recording of the data from the moment of generation in the file. It is recommended to deactivate this option when a significant number of reports is expected (> 10,000).

Thermo-hygro-barometer definition

Main THB serial no.:	<input type="text" value="A123456"/>	Water THB serial no.:	<input type="text" value="A123457"/>
Temperature resolution:	<input type="text" value="0.01 °C"/>	Humidity resolution:	<input type="text" value="0.1 %"/>
Pressure resolution:	<input type="text" value="0.1 hPa"/>	Water temp. resolution:	<input type="text" value="0.01 °C"/>

**Working mode** – here you select the balance mode that WebEditor cooperates with.

Available options:

- Pipette calibration
- Default
- Comparator
- Pipette calibration**
- Drying
- PGC
- Debug



Depending on the mode you have selected, options and databases in the application change.

**Service language** – here you can select language of calibration reports.

**Manufacturing year** – it is the balance manufacturing year to be entered by the user and used in reports.

**Automatically generate PDF reports** – if you select this option, the application use will be quicker.

**Thermo-hygro-barometer definition** – before you start measuring, enter data of THB instruments used to read environmental data.

After making changes, save settings by pressing the following button:

Zatwierdź ustawienia

### 2.1.1. CORRECTIONS:

Corrections

Mass Temperature Humidity Pressure Water temp.

+ Add calibration point Refresh

Calibration point	Error	Correction	Uncertainty
No data			

10 20 50 Page 1 of 1 (0 items) < 1 >

Before you start measuring, enter all data for particular instruments here (errors, corrections and uncertainties) from calibration certificates:

- mass (data from the balance calibration certificate),
- temperature (data from the THB calibration certificate),
- humidity (data from the THB calibration certificate),
- pressure (data from the THB calibration certificate),
- water temperature (data from the THB calibration certificate).

After you have entered correct data, you can start calibration as per orders made. Orders can be added in the <Calibrations> window.

### 3. WORKING IN THE APPLICATION

**NOTE:**

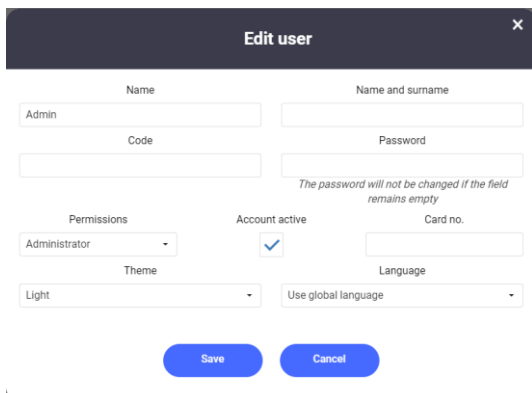
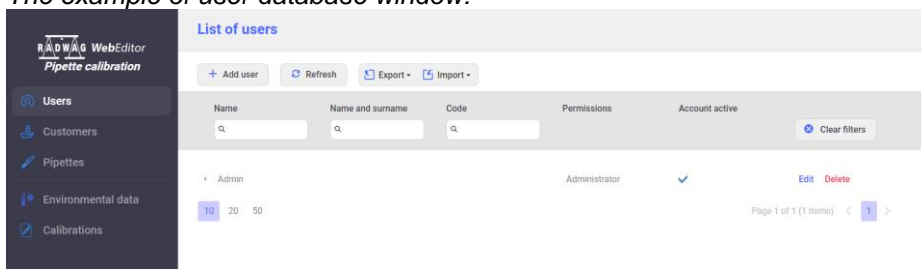
If properly configured and connected to the balance, the application allows you to make changes to the balance databases instantly. Every modification in any database is sent and saved in the balance database on an ongoing basis. Data can also be edited from the weighing program (description is available in the AP-12 balance user manual).

Before you start working, enter particular data into the application database:

- users
- clients
- pipettes
- calibrations

### 3. Users – adding, editing

The example of user database window:



Please remember to click <Save> button every time you make a change.

### 4. Customers – adding, editing

The example of customer database window:

List of customers

+ Add customer Refresh Export Import

Name TIN

q q Clear filters

No data

10 20 50 Page 1 of 1 (0 items) < 1 >

Add customer

Name TIN

Name for report

Address City Postal code

Contact person Phone number E-mail address

Save Cancel

Please remember to click <Save> button every time you make a change.

## 5. Pipettes – adding, editing

See below for the example of pipette database window.

List of pipettes

+ Add pipette Refresh

Serial number	Identification number	Customer	Model	Next calibration date
q	q	q	q	q

54321 4/27/2023, 12:00:00 ... Edit Copy Delete

10 20 50 Page 1 of 1 (1 items) < 1 >

To add another pipette, click <Add pipette> field. You will see a dialog box in which you need to enter all required data.

Add pipette ✕

Serial number <input style="width: 95%;" type="text"/>	Identification number <input style="width: 95%;" type="text"/>	Customer <input style="width: 95%;" type="text" value="Select..."/>
Manufacturer <input style="width: 95%;" type="text"/>	Model <input style="width: 95%;" type="text"/>	Code <input style="width: 95%;" type="text"/>
Minimum volume <input style="width: 95%;" type="text" value="0 µl"/>	Nominal volume <input style="width: 95%;" type="text" value="0 µl"/>	Volume type <input style="width: 95%;" type="text" value="Variable"/>
Next calibration date <input style="width: 95%;" type="text" value="4/6/2023"/>	Tips <input style="width: 95%;" type="text"/>	Channel quantity <input style="width: 95%;" type="text" value="1"/>
Test volumes		
Volume <input style="width: 95%;" type="text"/>	Systematic error <input style="width: 20px;" type="text" value="ISO"/>	Random error <input style="width: 20px;" type="text" value="ISO"/>

No data to display

Save
Cancel

## 6. Pipette calibration orders

In the CALIBRATION tab, you can see all orders to be fulfilled, as well as ongoing and completed ones.

See below for the example of order database window.

**Pipette calibration orders**

+ Add order
Refresh
Report templates
Orders to be performed: 0

Order name	Start date	Pipette user	Serial number	Status	Result	
<input style="width: 90%;" type="text" value="q"/>	<input style="width: 90%;" type="text" value="q"/>	<input style="width: 90%;" type="text" value="q"/>	<input style="width: 90%;" type="text" value="q"/>			<a href="#">Clear filters</a>
1234	4/5/2023, 12:43 PM		54321	Aborted		<a href="#">Retry</a>
1234	4/5/2023, 12:02 PM		54321	Aborted		<a href="#">Retry</a>
7687	4/5/2023, 9:41 AM			Completed	Positive	<a href="#">Show report</a>
8907	4/5/2023, 9:34 AM			Completed	Positive	<a href="#">Show report</a>

To add another order, click <Add order> field. You will see a dialog box in which you need to enter all required data.

Add order
✕

Order name

Applicant

▼
+

Pipette user

▼
+

Calibration object

▼
+

Test order

Measurement quantity

10

Order prior to adjustment

▼

Remarks

Save

Cancel

If an order is ongoing, you can preview the order completion level in the application.

NESTLE
6/14/2022, 2:14 PM
nestle
In progress
In progress
Preview

←
Calibration preview - NESTLE

Volume: 42 µl      Systematic error: 0.8400 µl (2 %)      Random error: 0.3360 µl (0.8 %)

	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
Measurement 1	219.06590 µl	-43.99886 µl	<del>203.99616 µl</del>	170.12221 µl	44.26124 µl	—	—	—
Measurement 2	—	—	—	—	—	—	—	—
Measurement 3	—	—	—	—	—	—	—	—
Measurement 4	—	—	—	—	—	—	—	—

In case of any obvious channel mass measurement error during calibration of multi-channel pipettes, you can delete the measurement and repeat it after the end of the entire procedure, not terminating the process for other channels. This being the case, select the measurement and press the right button of the mouse. Next select <Reject value> option.

	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
Measurement 1	219.06590 µl	-43.99886 µl	<del>-293.99616 µl</del>	170.12221 µl	44.26124 µl	—	—	—

	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
Measurement 1	219.06590 µl	-43.99886 µl	<del>-293.99616 µl</del>	<del>170.12221 µl</del>	44.26124 µl	—	—	—

Reject value

After the end of the entire procedure for this order, the rejected measurement retake procedure will be initiated. Follow messages displayed.

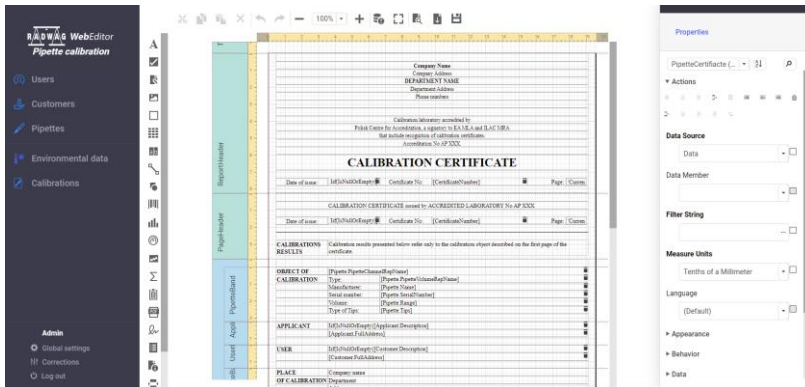
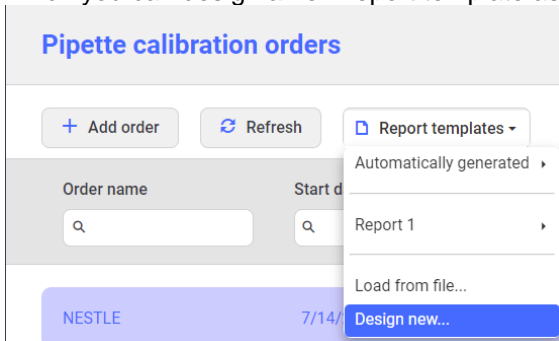
## 4. REPORTS

For every pipette calibration, the user can generate a report from <Calibrations> tab.

Reports can be generated as per templates saved in the application. The application holds a standard report template that the user can edit. Alternatively the user can create its own report template.

## 7. Report templates

To add a new report template, select the option from the <Design new> drop-down menu. After selecting this option, you will see an application window in which you can design a new report template as per own needs.



Below you can find a link to the help file in this part of the application.

<https://devexpress.github.io/dotnet-eud/interface-elements-for-web/articles/report-designer.html>

In view of various versions, there may be minor differences between WebEditor and the aforesaid help file.

## 8. Reports

To generate a report, click <Show report> field.

Pipette calibration orders

+ Add order Refresh Report templates - Orders to be performed: 0

Order name	Start date	Pipette user	Serial number	Status	Result
1234	4/5/2023, 12:43 PM		54321	Aborted	Retry
1234	4/5/2023, 12:02 PM		54321	Aborted	Retry
7687	4/5/2023, 9:41 AM			Completed	Positive Show report
8907	4/5/2023, 9:34 AM			Completed	Positive Show report

After entering the report preview window, select <Report data> option and complete all required data that must be included in the report.

← Pipette calibration report - 7687

PDF file preview Report data Export CSV

Mass	Tare	Volume	Temperature	Humidity	Pressure	Water temp.	7687
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Volume: 810 µl
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Channel: 1
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Status: Positive
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Nominal volume: 810 µl
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Measured value: 811.0585 µl
0.8076 g	0.0000 g	809.9052 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Perm. systematic error: 6.4800 µl (0.800 %)
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Perm. random error: 2.4300 µl (0.300 %)
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Systematic error: 1.0585 µl (0.131 %)
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Random error: 1.2157 µl (0.150 %)
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Measurement uncertainty: 2.46570 µl
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Y factor: 1.000000
0.8099 g	0.8076 g	812.2117 ul	20.00 °C	50.0 %	1,013.0 hPa	20.00 °C	Z factor: 1.002854



← Pipette calibration report - 7687

PDF file preview   Show results   Export CSV

Order name: 7687   Start date: 4/5/2023, 9:41:48 AM   Stop date: 4/5/2023, 9:44:49 AM   Result: Positive  
 User:   Remarks:

Certificate

Certificate no.:   Authorized by: ()   Date of issue: 1/1/1901  
 Notes:     

Calibration object

Manufacturer:   Model:   Code:  
 Serial number: 54321   Identification number:  
 Range: 810 µl   Volume type: Constant   Tips:  
 Next calibration date: 4/27/2023   Channel quantity: 1

Volumes

Volume: 810 µl   Systematic error: 6.48 µl (0.8 %) ✓ ISO   Random error: 2.43 µl (0.3 %) ✓ ISO

Ambient conditions

After entering the report preview window, select <Report data> option and supplement all required data that must be included in the report, e.g.:

Certificate data:

**Edit certificate data**
✕

Certificate no.

Authorized by

Date of issue

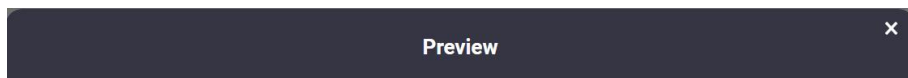
Annotation

Next calibration date:


**Change date**
✕

Next calibration date


After entering all required data, you can generate a calibration report as a PDF file.



PreviewReportOndemand 1 / 1 - 92% + [Print] [Refresh]



1



### PIPETTE CALIBRATION REPORT

CALIBRATION NO: 7687

Printing date 2023-04-06 11:07:37 Pages 1

Start date	2023-04-05 09:41:48	Balance	XAM 5Y
Stop date	2023-04-05 09:44:49	User	

---

**PIPETTE DATA**

Manufacturer		Code	
Model		Range	810 µl
Tips		Volume type	constant volume
Channel quantity	1		
Serial number	54321	Identification number	

---

**AMBIENT CONDITIONS**

Temperature	( + ) ± °C	Pressure	( + ) ± hPa
Humidity	( + ) ± %	Water temp.	( + ) ± °C

---

**Status** Positive

---

**INTERMEDIATE RESULTS**

Nominal volume	810 µl	Perm. systematic error	0.8 %	
		Perm. random error	0.3 %	
Channel no.	Measured value	Systematic error	Random error	Measurement uncertainty
1	811.06 µl	1.06 µl (0.13 %)	1.22 µl (0.15 %)	2.4657 µl
	<b>Channel no. 1</b>			
	809.9052 µl	809.9052 µl	809.9052 µl	809.9052 µl
	(0.8076 g)	(0.8076 g)	(0.8076 g)	(0.8076 g)
	812.2117 µl	812.2117 µl	812.2117 µl	812.2117 µl
	(0.8099 g)	(0.8099 g)	(0.8099 g)	(0.8099 g)

Close

In this window you can print the report out or save it in the PC memory.

# 5. ENVIRONMENTAL DATA

The application allows you to preview readout from temperature, humidity and pressure sensors. The preview is available as a diagram. The user can specify the time range for specific data.





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