



# **DosiBase ELDos**

## **User's Manual**

Software version 1.7.2.x

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# 1 INTRODUCTION

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DosiBase ELDos® is developed using Microsoft® SQL Server® 2017 as data storage.

"DosiBase ELDos® is a flexible, configurable and easy to use TruDose database for rapid issuing and dose collection for the electronic dosimeters

Collects dose for Hp (10), Hp (0.07),

- Possibility to connect / extend to TLD dose database (upon special request)
- Password protected user and modes
- Flexible reporting periods, standards for monthly, yearly and lifetime dose
- Freely configurable headers and footers for printed reports
- Easy export of reports to Word®, Excel® and PDF files



**Designed to work with EPD TruDose IR Reader, EPD TruDose Desktop Reader, compatible with EPD TruDose Electronic Dosimeter and EPD Mk2 Series "**

## 2 PREPARATION FOR WORK

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### 2.1 HARDWARE REQUIREMENTS:

- Minimum of 4 Gb of RAM or more.
- Minimum processor speed 2 GHz or higher.
- 100 MB of free hard drive space to store a database.
- Monitor with a resolution of 1280×720 or higher.
- EPD TruDose IR reader.

### 2.2 SOFTWARE REQUIREMENTS

For the software to be fully functional, it requires either of the following operating systems:

- Windows Server 2016/2019 Datacenter.
- Windows Server 2016/2019 Standard.
- Windows Server 2016/2019 Essentials.
- Windows 10/11 Professional.
- Windows 10/11 Home.

All latest OS updates should be applied.

Additional requirements:

- .NET 4.7.2 or later is required.
- MS SQL Server 2017 Local DB (It will be downloaded and installed automatically)



Depending on your computer or network security policies, there can be restrictions on automatic downloading of additional components. Please contact your local IT support. Components can be downloaded and installed offline.

## 2.3 DOSIBASE ELDOS INSTALLATION



Before installing DosiBase ELDos, ensure that the computer's operating system has all current updates and service packs installed.

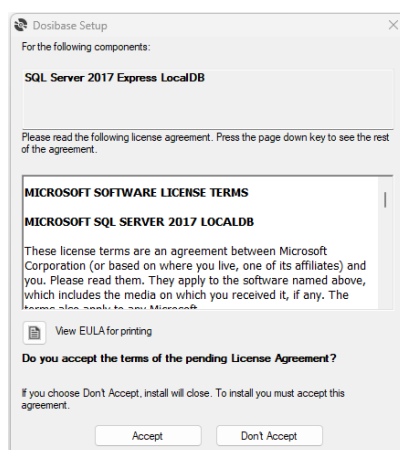


Note that if an SQL database LocalDB already exists on the computer, the DosiBase ELDos will require to recreate username and password.

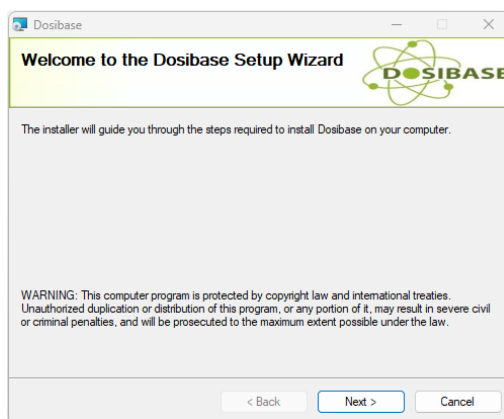


If the Dosibase database on the SQL server has already been created from a previous installation, install Dosibase and restore previous database from backup.

Unzip Installation files DosibaseSetup.zip Then run the “setup.exe” file.



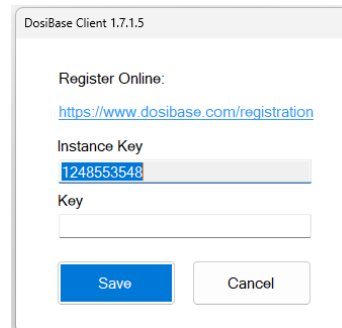
If you do not have SQL Server 2017 Express LocalDB pre-installed on your computer. It will be installed. Otherwise, this step will be skipped.



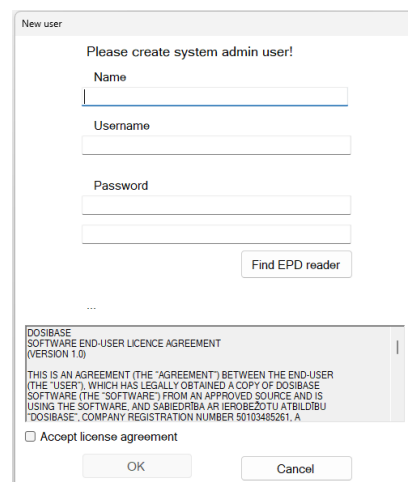
Click the “NEXT” button. Then, please, follow on-screen instructions. If the installation process is completed successfully, success messages appear. If case of installation failure, please, contact your local IT representative or DosiBase ELDos support.

## 2.4 FIRST COMMUNICATION


In first start of DosiBase, it requests the activation key. Activation key you can get from your distributor or after registration into <https://www.dosibase.com/registration/>. You will need to present Instance key to get activation key suitable for your hardware. Please contact with your supplier in any questions.



When the key is confirmed, DosiBase will launch and prompt you to create your main administrator account for the DosiBase. Once this account is created, you can begin using DosiBase.

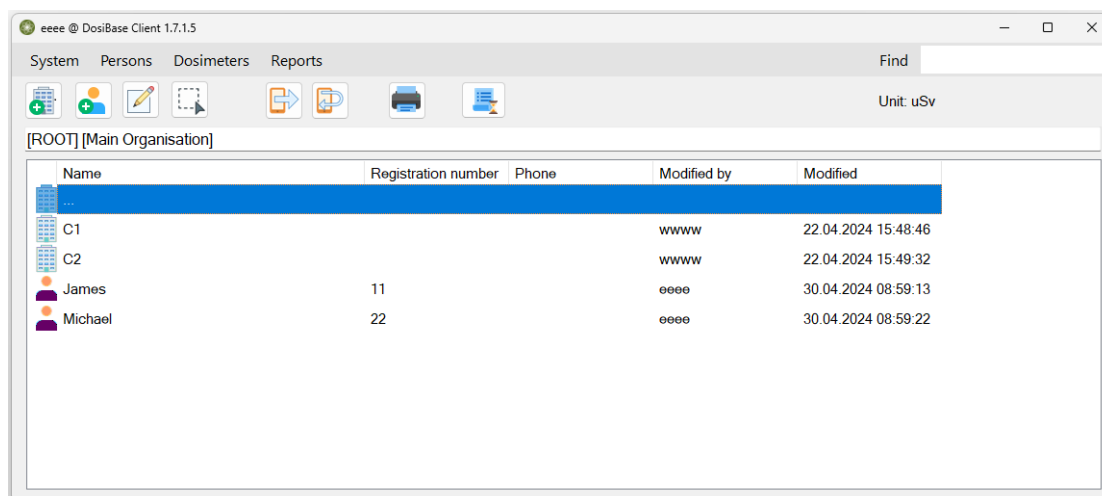


You can search EPD reader port number automatically. Press “Find EPD Reader” button then connect or reconnect reader to USB port. System will identify changes and will provide port number. Search mode will continue 10 seconds or till device is found. You can repeat search. Port number can be entered manually into DosiBase settings.

 read and accept DosiBase license agreements to continue.

Next time you will be able to login system using login and password.

### 3 MAIN SCREEN



In the main window of the system, you can access persons organised in hierarchical organisation structure. All functions can be found in Menu structure, but most frequently operations are available in the system toolbar. You also can access frequent functions in popup menus from selected person.

System menu Structure:

#### System

- Self Service – Switch DosiBase in Self Service mode. Persons can get and return dosimeters by self.
- Users- DosiBase user management. Creating of new user; password change.
- Options
  - Preferences – DosiBase Preferences, like language, communication port, Unite, etc;
  - Units – Dose units. Base Unit in uSv, it is possible to add derived units by specifying a conversion factor.
- Data
  - Professions – Management of the Professions classifier;
  - Operations - Management of the Operations classifier;
  - Risk Categories - Management of the Risk Categories classifier;
  - Countries - Management of the Countries classifier.
- About – Short information about Dosibase version and license status.
- Exit – Exit from system.

#### Persons

- Add organization – Add new organization in catalogue.
- Add person - Add new person in catalogue.
- Edit – Edit person or organization.
- Cut/Paste – Change person or organization location in catalogue tree. (CTRL+X)-> (CTRL+V).
- Remove – Remove persons. It is possible to remove only persons what are not active and enabled.



- Status Changes- management of person statuses changes.
- Licenses- management of person Licenses.
- History – History of all Issue and Deissue operations of person.
- Dose review – An overview of the doses received by the person.

### **Dosimeters**

- EPD list – List of registered dosimeters, that can be issued to persons;
- EPD device thresholds – Define EPD thresholds, that can be used for specific task;
- Issue – Issue the dosimeter for the person;
- Deissue – Return the dosimeter from the person and register dose into the database;
- Deissue Extended - Return the dosimeter from the person in extended mode and register dose into the database;

### **Reports**

- Dose reports – Main report of collected doses.
- Persons in OU – list of persons in the organization.
- Issued – List of issued dosimeters a specific time.
- Person History – List of EPD Issue and Deissue operations.

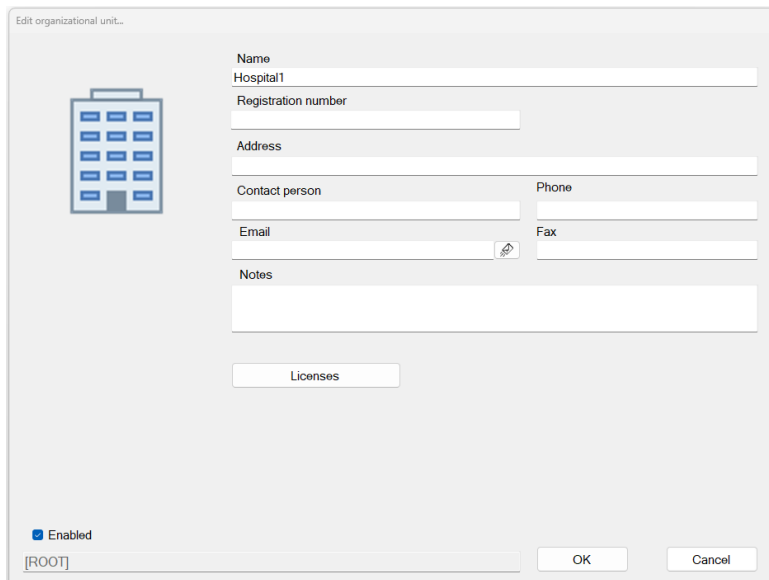
## 4 MANAGE ORGANIZATIONAL UNITS AND PERSONS

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### 4.1 ORGANISATIONS

To create new organisation, select root or parent organisation and choose from menu Persons→Add Organisation.

To edit existing one, select organisation record and choose from menu Persons→Edit.



#### Mandatory field

- Name of organisation.



#### Additional field in edit mode

- Licenses.

### 4.2 PERSONS

To create new person, select root or parent organisation and choose from menu Persons→Add Person.

To edit existing one, select person record and choose from menu Persons→Edit.



### Mandatory fields

- Name of person
- Registration number



### Fields from database classifier

- Profession
- Operation
- Risk category
- Country



### Additional field in edit mode

- Licensures
- Person status changes
- Authentication codes

You can mark record as inactive when check out “Enabled” property of OU or person. It will show grey in the Dosibase main window. To hide disabled organisations or persons check in the Dosibase preferences “Hide disabled...”.

## 4.3 CLASSIFIER TABLES

A value from a classifier list can be assigned to the person. Profession, Operation, Risk category, Country. Each classifier can be Edited at the time of assignment or by opening the correction window from the system menu.

- Professions: *System → Data → Professions*
- Operations: *System → Data → Operations*
- Risk Categories: *System → Data → Risk Categories*
- Countries: *System → Data → Countries*

Code	Name
000	None
001	Radiologist
002	Chemicist
003	Dentist



The corrected value will be reflected in all persons where it has been used.

- In the “Edit person” window, the status of the person can be controlled by means of the button “Person status changes”.

Status	Date	Modified by	Modified
Back to work	10.03.2024	Admin User	29.04.2024 17:43:34
On vacation	01.03.2024	Adm	
Start working	01.01.2024	Adm	

If a person works in several organizations, when adding the person for the second, third and further organizations, the “Add existing” check box must be selected, and the person’s registration number must be entered to enable the system to find this existing person.

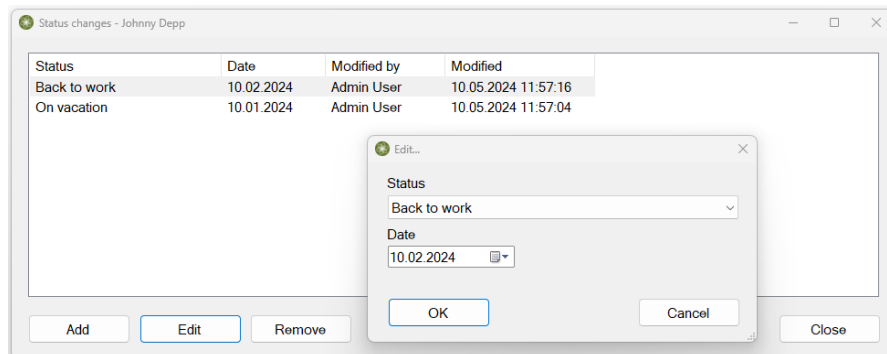
## 4.4 LICENSES

Once a person or organisation has been created, it is possible to assign one or more license records to it. Licenses can be accessed from main menu *Persons* → *Licenses* or directly from OU or Person edit window by pressing button “Licenses”.

Number	Title	Valid from	Valid to	Modified by	Modified
LI 001122	Certificate AA1	01.01.2024	31.12.2024	Admin User	10.05.2024 11:45:45

## 4.5 STATUS CHANGES

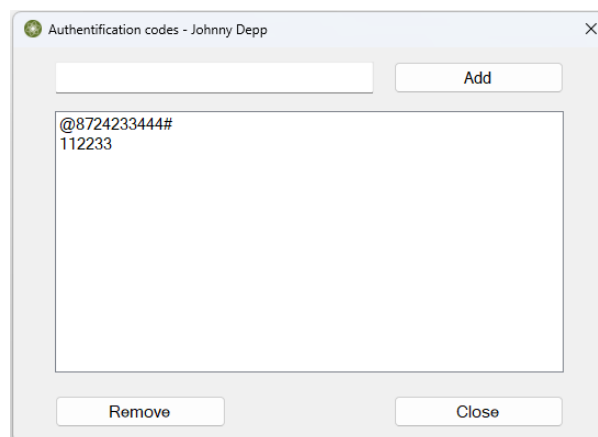
It is possible to track person status changes. Status changes can be managed from main menu *Persons* → *Status Changes* or directly from OU or Person edit window by pressing button “*Status Changes*”.



**i** Only last record is accessible for editing.

## 4.6 AUTHENTICATION CODES

Once a person has been created, it is possible to assign one or more Authentication codes to it by clicking button “Authentication code” in the person edit window. For example, these can be identity card RFID coded or ease of use usernames. Authentication codes is used for identifying persons in self-service mode.



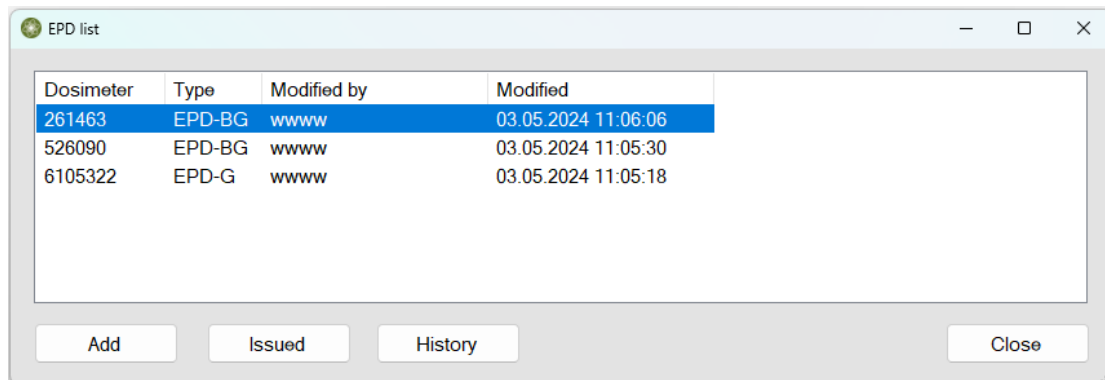
## 5 DOSIMETERS

Ensure that your EPD adapter is plugged into your computer before entering DosiBase. Make sure that a green light shows up, if not then check whether the IR adapter is plugged in, and that the correct COM port number defined.

You can find correct COM port in Device Manager on your computer. Then navigate to Ports (COM & LPT) and find your EDP adapter. Remember the number after COM in the brackets.

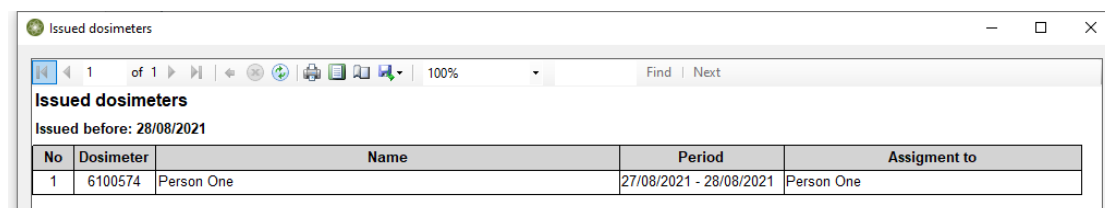
Correct COM port can be set id System preferences. *Options* → *Preferences*.

### 5.1 LIST OF DOSIMETERS



EPD List can be opened in menu *Dosimeters* → *EPD list*. In this window you can add new dosimeters to your database. Once they are added, they can be issued to specific persons in your organisation.

Through this window it is also possible to view all currently issued dosimeters along with the persons that the dosimeters are issued to. To do this, click the *Issued* button, then select the date before which you would like to see the data. This table can be exported to the appropriate file formats as well.



To view EPD issue/deissue history. click "*History*" button. Here you can also see the dose reports from any case of EPD deissue by selecting it and clicking *View*.

To search for unreturned dosimeters, click the "*Issued*" button.

Enter a date to find dosimeters issued before this date and not returned. By default, the date is set to today. If the date is today, the report that appears contains all unreturned dosimeters.

EPD history 6105322									
Unit: uSv									
When	Status	Hp(10)	Hp(3)	Hp(0....	Hn	Modified by	Modified		
22.04.2024 16:...	EPD deissued from James (11)					www	22.04.2024 16:...		
22.04.2024 16:...	EPD issued to James (11)					www	22.04.2024 16:...		
22.04.2024 16:...	EPD deissued from George (33)	0.02		0.02		www	22.04.2024 16:...		
22.04.2024 16:...	EPD issued to George (33)					www	22.04.2024 16:...		
22.04.2024 16:...	EPD deissued from Michael (22)	0.01		0.01		www	22.04.2024 16:...		
22.04.2024 15:...	EPD issued to Michael (22)					www	22.04.2024 15:...		

## 5.2 EPD DEVICE THRESHOLDS

In the system menu Dosimeters → EPD device thresholds, you can access the Task list with thresholds. Here you can add new one that can be set to activate warning or alarm tasks, used to warn the user when the time limit of staying in an increased radiation zone is reached. The dose thresholds are entirely customizable as is the stay time.

EPD device thresholds											
Description	Warning Hp10	Alarm Hp10	Rate warning ...	Rate alarm Hp...	Warning Hp07	Alarm Hp07	Rate warning ...	Rate alarm Hp...	Stay time	Modified...	Modified
Basic	0.10	0.20	0.10	0.20	0.10	0.20	0.10	0.20	120	www	22.04.2024 1...
Normal	0.30	0.50	0.30	0.50	0.30	0.50	0.30	0.50	120	www	22.04.2024 1...

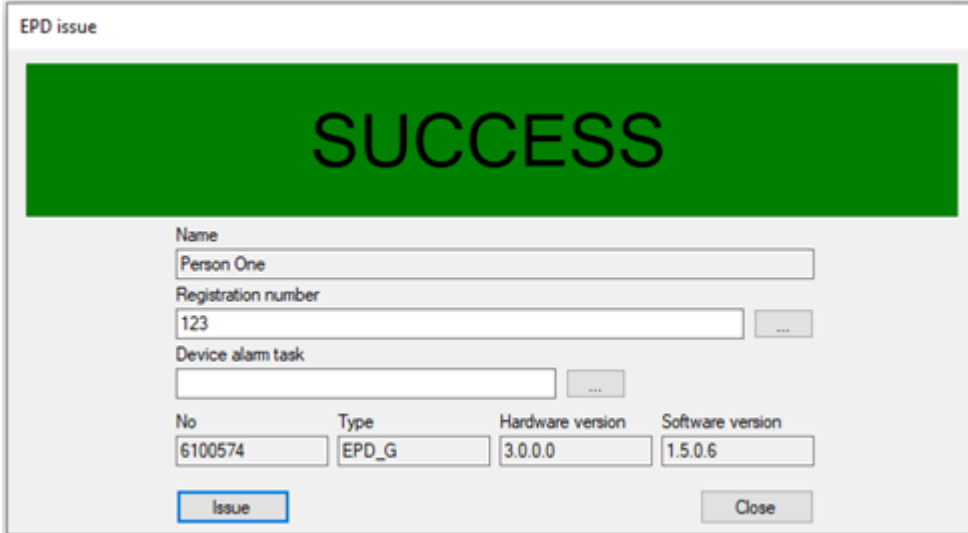


Once a EPD device threshold task is added, it cannot be deleted. The record can be corrected until it gets used for the first time. Once the task is in use, it cannot be corrected any more, only new tasks can be added.

## 5.3 ISSUE DOSIMETERS

First, place the dosimeter on the infrared USB adapter. From the organization tree, select a person to whom to assign a dosimeter. Select from menu function *Dosimeters* → *Issue*.

This will open a new window. It is possible to change Person by entering Registration number and select Device alarm tasks. Once you have completed the alarm task setup, you can click the “Issue” button. A large banner will either confirm or deny the success of the issuing.



The image shows a software window titled "EPD issue". At the top, there is a large green banner with the word "SUCCESS" in white capital letters. Below the banner, there is a form with several fields and buttons. The fields are: "Name" with the value "Person One", "Registration number" with the value "123", "Device alarm task" (empty), "No" with the value "6100574", "Type" with the value "EPD\_G", "Hardware version" with the value "3.0.0.0", and "Software version" with the value "1.5.0.6". There are two buttons at the bottom: "Issue" and "Close".

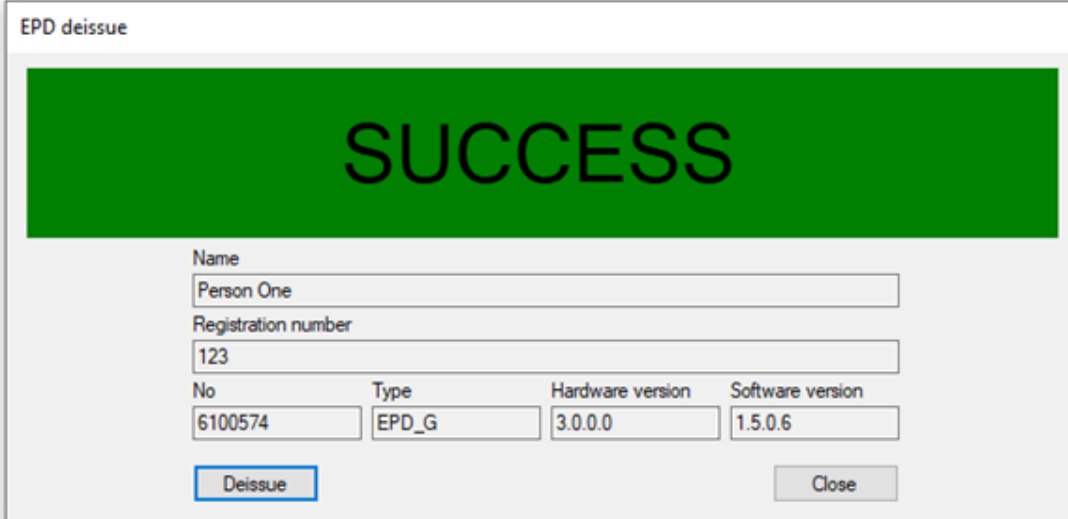
No	Type	Hardware version	Software version
6100574	EPD_G	3.0.0.0	1.5.0.6

In case of failed issue process, an error message will appear detailing the reason for the failure. Close the message window as well as the “EPD ISSUE” window. From the organization tree, select the next person and repeat the process.



## 5.4 DEISSUE

Place a currently issued dosimeter on the infrared USB adapter. Select from menu function *Dosimeters* → *Deissue*. Start process by push button “Deissue”. A large banner will either confirm or deny the success of the deissuing. In case of failure, an error message will appear, detailing the problem.



The screenshot shows a software window titled "EPD deissue". At the top, a large green banner displays the word "SUCCESS" in bold black letters. Below the banner, there are several input fields and buttons. The fields are labeled "Name", "Registration number", "No", "Type", "Hardware version", and "Software version". The "Name" field contains "Person One", "Registration number" contains "123", "No" contains "6100574", "Type" contains "EPD\_G", "Hardware version" contains "3.0.0.0", and "Software version" contains "1.5.0.6". At the bottom left is a blue button labeled "Deissue", and at the bottom right is a grey button labeled "Close".

Unless the option “Clear EPD on deissue” is selected, data from a dosimeter is deleted ONLY when the next person receives the dosimeter. When the dosimeter is returned, it only gets switched off.

While a dosimeter is not issued to anyone and the battery is not removed, the dosimeter will not be usable and will remain in the OFF state.

## 5.5 DEISSUE EXTENDED

This procedure is used when the user of a dosimeter is not known before issuing. It enables reading dosimeter data and assigning it to a user at the time.



Make sure that the dosimeter is erased before person start to use it. Deissue Extended not provide erasing of previous doses.

Select person from list and go to menu *Dosimeters* → *Deissue Extended*. A new window will appear.

EPD deissue extended

1

Please, select person!

Name  
Johnny Depp

Registration number  
AA1234

...

Next Close

If Person is not selected enter valid registration number. It is possible to use search by clicking the ellipsis button and find the person by several symbols of the person's name or personal code.

Place the dosimeter near the infrared reader and click the “NEXT” button. Dosibase will read and display dosimeter data. Then enter the period for which the dosimeter being used by selected person.

EPD deissue extended

2

Issue

Name  
Johnny Depp

Registration number  
AA1234

No  
6105322

Type  
EPD\_G

Hardware version  
3.0.0.0

Software version  
1.6.10.0

Issued  
15.05.2024 08:33:11

Deissued  
15.05.2024 08:33:11

Hp(10) (uSv)  
0

Hp(10) Peak (uSv/h)  
0

Hp(10) Peak time  
0

Hp(0.07) (uSv)  
0

Hp(0.07) Peak (uSv/h)  
0

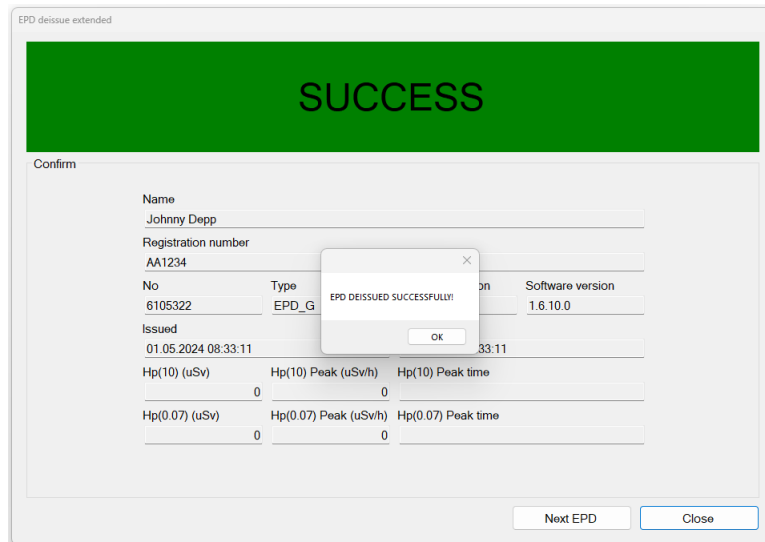
Hp(0.07) Peak time  
0

Back Next Close

Click the “DEISSUE” button. The message appears that returning the dosimeter is successfully completed.



Data from the dosimeter will be deleted after this reading.



## 6 SELF SERVICE MODE

Dosibase provides employees with self-service functions without using a Dosibase operator. Self-service mode can be started by *System* → *Self Service*

**Please, locate dosimeter...**

Using this mode, the user of the Dosibase program will not be able to use any other features of the program until it is closed and reopened. Upon opening again, it will require a login

### 6.1 ISSUE DOSIMETER

Place a dosimeter on the infrared USB adapter. Enter or scan a registration number or authorisation code and select the task.


**Issuing dosimeter: 526090**

**Code**


112233

Johnny Depp


**Device alarm task**



-



Basic



Special

OK

Cancel

Click the “OK” button. Issuing is successfully completed.

The next dosimeter can be taken and placed on the infrared USB adapter to perform assigning or returning of the next dosimeter.

## 6.2 DEISSUE DOSIMETER

Place a dosimeter on the infrared USB adapter. System will read Dosimeter data and show results on the screen.

**DEISSUED DOSIMETER: 526090**

Johnny Depp

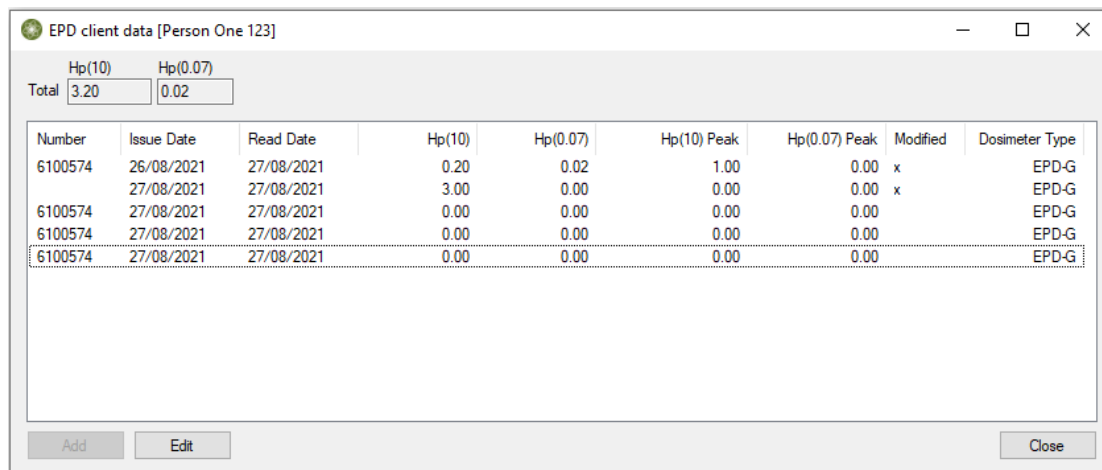
<p>Hp (10)</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f5f5f5;"> <p><b>0.03</b> (uSv)</p> </div>	<p>Hp(0.07)</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f5f5f5;"> <p><b>0.03</b> (uSv)</p> </div>
<p>Hp(10) Peak</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f5f5f5;"> <p><b>0.39</b> (uSv)/h</p> </div>	<p>Hp(0.07) Peak</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f5f5f5;"> <p><b>0.39</b> (uSv)/h</p> </div>

DeIssuing is successfully completed.

Next dosimeter can be taken and placed on the infrared USB adapter to perform assigning or returning of the next dosimeter.

## 7 DOSE REVIEW

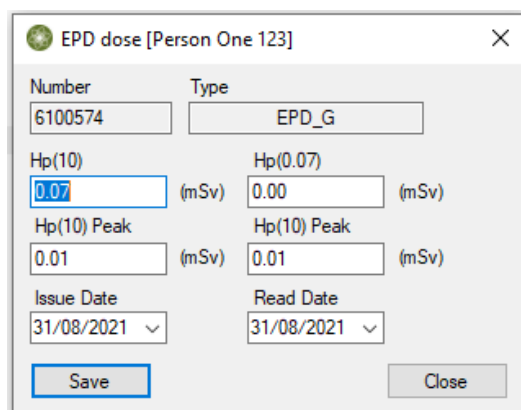
To review and edit past recorded doses, select the person that interests you, then navigate to the option “Dose review” in the PERSONS drop-down menu. This will open a new window with the entire history of this persons’ recorded doses.



The screenshot shows a window titled "EPD client data [Person One 123]". At the top, there are two input fields for "Hp(10)" and "Hp(0.07)" with a "Total" label. Below these is a table with the following columns: Number, Issue Date, Read Date, Hp(10), Hp(0.07), Hp(10) Peak, Hp(0.07) Peak, Modified, and Dosimeter Type. The table contains five rows of data. The last row is highlighted. At the bottom of the window are buttons for "Add", "Edit", and "Close".

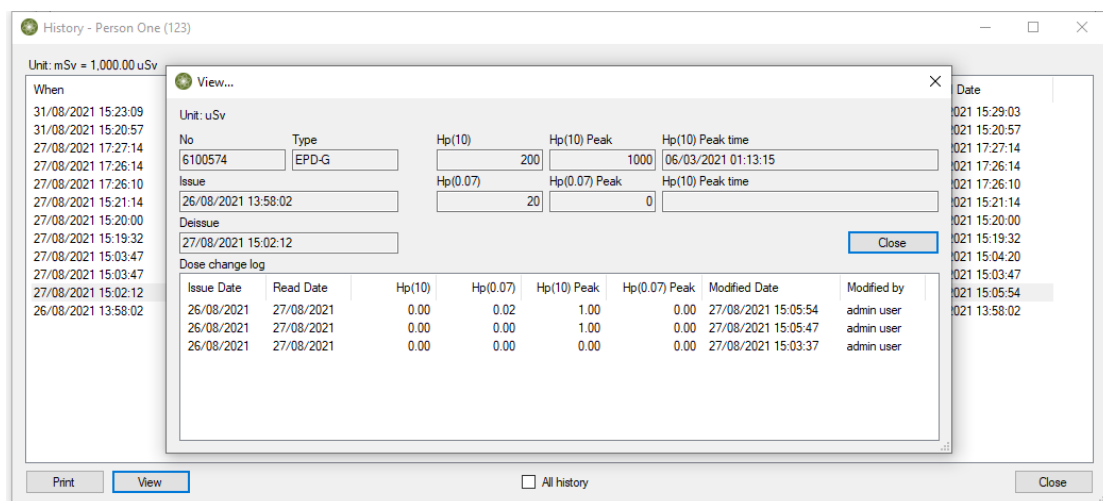
Number	Issue Date	Read Date	Hp(10)	Hp(0.07)	Hp(10) Peak	Hp(0.07) Peak	Modified	Dosimeter Type
6100574	26/08/2021	27/08/2021	0.20	0.02	1.00	0.00	x	EPD-G
	27/08/2021	27/08/2021	3.00	0.00	0.00	0.00	x	EPD-G
6100574	27/08/2021	27/08/2021	0.00	0.00	0.00	0.00		EPD-G
6100574	27/08/2021	27/08/2021	0.00	0.00	0.00	0.00		EPD-G
6100574	27/08/2021	27/08/2021	0.00	0.00	0.00	0.00		EPD-G

Here you also have the option to edit a reading. To do this, select the reading you wish to edit and click the “Edit” button. This enables you to correct faulty readings if they occur. Once a reading has been edited, an x will appear in the “Modified” column of the dose review table



The screenshot shows a window titled "EPD dose [Person One 123]". It contains fields for "Number" (6100574) and "Type" (EPD\_G). Below these are fields for "Hp(10)" (0.07), "Hp(0.07)" (0.00), "Hp(10) Peak" (0.01), and "Hp(0.07) Peak" (0.01), each with a unit of (mSv). There are also fields for "Issue Date" and "Read Date", both set to 31/08/2021. At the bottom are "Save" and "Close" buttons.

These edits will be logged and recorded, and it is possible to view the entire history of any given dose report to see all past edits that have been made to it. This can be done by again selecting the relevant person in the organizational tree and clicking the History option of the PERSONS drop-down menu. This will open the History window. Here you can view a complete history of the person in your organization. Here you can select any reported doses and click View to see this recordings’ history.



At the bottom of this View window is the *Dose change log*. If any changes have been made to the report, there will be multiple entries here detailing each edit along with a timestamp and the user who modified it.

## 8 REPORTS

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All reports can be exported to DOC, XLS and PDF format.

Dosibase has built-in reports. If you need adjustments and customisations, please contact your Dosibase consultant.

### 8.1 DOSE REPORTS

Select an organization subunit, or person for whom to view a dose report.

Select the option *Reports* → *Dose Reports*.

Select to view either of the following reports:

- Total doses of persons in given period - shows the total dose a person received over a report period
- Detailed report per persons - shows the list of each measurement

Select the period for which to view the report.

The four fields at the bottom of the window can be used to filter results by specifying threshold value for dosimeter elements.

### 8.2 PERSONS IN OU

Select an organization or subunit for which to view a report about persons in it. The report can be viewed about one person – then it will contain the name and registration number of this person.

Select the menu *Reports* → *PERSONS IN OU*. A report appears as a result.

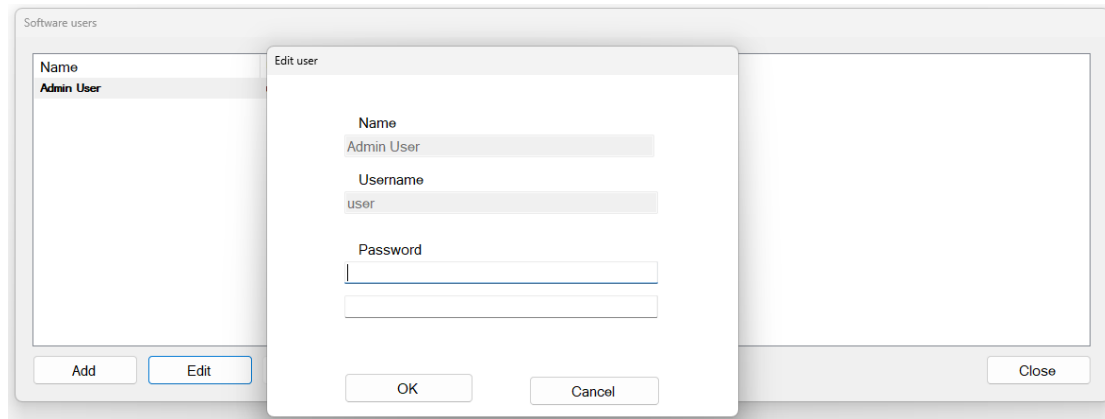
### 8.3 ISSUED

Select the menu *Reports* → *Issued*. Choose the date on which you want to check the issued dosimeters. A report appears as a result.

## 9 ADMINISTRATIVE FUNCTIONS

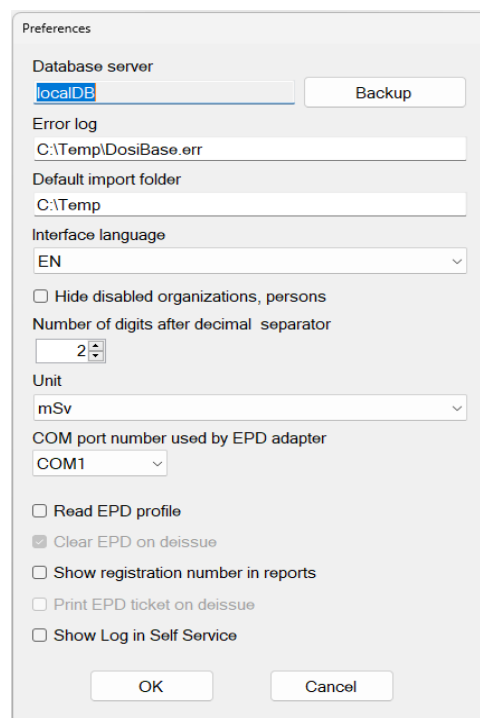
### 9.1 USERS

If more than one person will be working with the system, define other users *System* → *Users*. Specify User real name, username, and password.



### 9.2 PREFERENCES

It is possible to change system behaviour by changing system preferences. *Options* → *Preferences*.

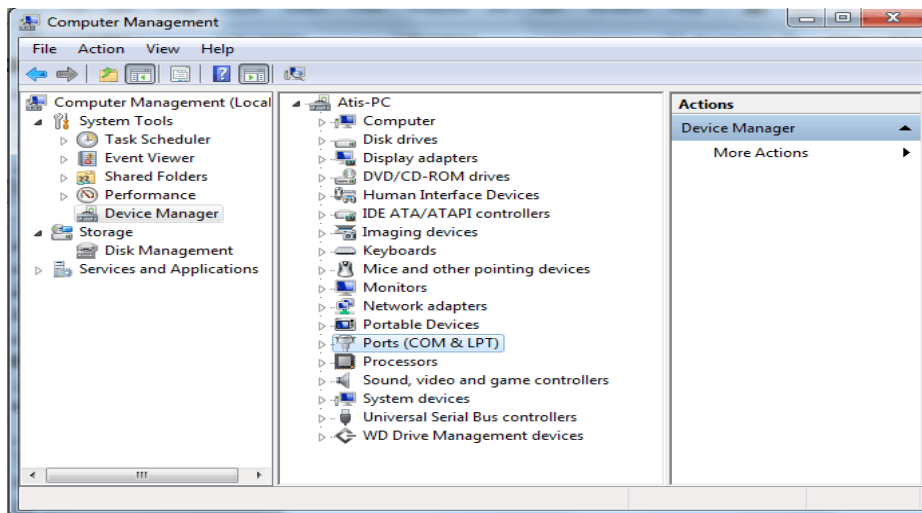


The field “*Database server*” contains the connection string of the SQL server.

- The field “*Error log*” points to error log of Dosibase workstation.



- The field “COM port number used by EDP adapter” is used to specify the COM port number of the infrared USB adapter. This COM port number can be found by opening DEVICE MANAGER and viewing the element „Ports (COM & LPT)”. This option is used

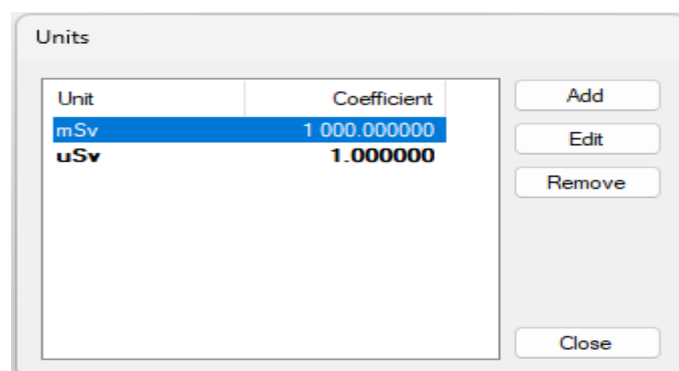


only when working with the ELDos version of Dosibase.

- The field “Use dosimeter type coefficients in reports” is not used in DosiBase ELDos version.
- The field “Read EPD Profile” indicates that system reads EPD profile information and store it in database.
- The field “Show registration number in reports” indicates whether the person registration number is shown in reports.
- The field “Show Log in Self Service” indicates that system display debug log information in Self Service mode.

### 9.3 UNITS OF MEASURE

Units of measure can be edited in *System* menu option *Options* → *Units*. Base unit is  $\mu\text{Sv}$  ( $\mu\text{Sv}$ ). Dosibase use only Latin characters. It is possible to add derived units by indicating the conversion coefficient.



All units of measure are obtained by multiplying the base unit of measure  $\mu\text{Sv}$  by an appropriate coefficient. For example, to define a unit of measure mSv, use the coefficient 1000.



Dosibase store measurement values with an accuracy of 0.001  $\mu\text{Sv}$ .