AIJGO
PIEMANAGER

USER MANUAL

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PIEMANAGER
MANAGEMENT SOFTWARE
FOR AIJGO-34 AND AIJGO-34/COMP TESTERS

USER GUIDE

1. Basic information about AIJGO ESD testers that can be managed with PieManager

The AIJGO-34 and AIJGO-34/COMP ESD testers do not require a central server. They can be used even in the event of a network failure or server downtime. However, we recommend to connect them to a computer or to a network, as this makes it possible to configure them and report data. PieManager can also be installed and used without network access using the installation files. The AIJGO-34 and AIJGO-34/COMP ESD testers include Raspberry PI mini computers. They are widely distributed and there is a lot of free software available for them on the Internet. However, to ensure the security of the data needed to run the ESD testers, we do not recommend using any software other than PieManager to control the testers.

2. Information on how to use PieManager

2.1 Software requirements

PieManager has been developed to be used on standard computers running Windows 10. Beyond that, there are no specific requirements. An average computer that can be used to browse the Internet is sufficient.

2.2 Hardware informations

2.2.1 Network connection

Our recommended solution for remote access is a LAN connection with fixed IP addresses on the connected testers. WIFI can also be used, but is less recommended from a stability point of view. PieManager uses SCP and SFTP to connect to testers, which protocols require IP addresses for communication, so PieManager needs to be given the IP address of the testers. In most cases DHCP is used to assign IP addresses within a network. So it may happen that the IP address of a device changes, for example after a reboot. In such a case, PieManager will not be able to connect to the tester. Ask network administrators therefore to allocate fixed IP addresses to testers, if possible.

2.2.2 Space required for log files on the hard disk

An important feature of PieManager is the copying of test event log files from tester(s) to computer. Entries to the EPA are roughly 100 bytes of data in a log file, the exact number depends on several factors, but it is a good estimate to use this as a guide. If 1000 people works at the EPA, and there are usually 3000 logins per day, it can be estimated that this would mean roughly 300 kB of data per day, or 100 MB per year.

3. Installation

To install PieManager, have administrator rights and run the setup.exe file included in the installation files. Follow the on-screen instructions. The installation is very simple, as you need to enter the settings the first time you run the program, not during installation.
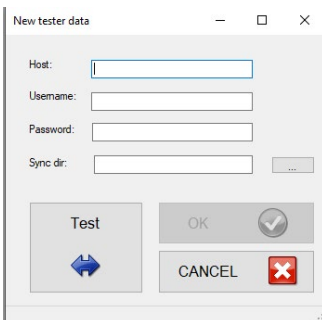
4. Using the program

The main window of PieManager consists of two parts. On the left is the testers' list in an expandable list, empty on first run. The area on the right is for displaying forms and reports.

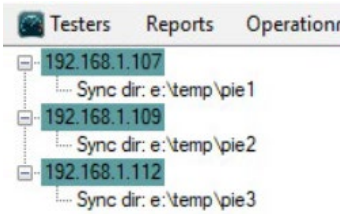### 4.1 Loading and managing the list of testers

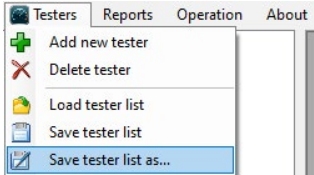You can upload new testers one by one using the "Testers" menu item – by clicking on "Add new tester".

Fill in the dialog box that appears. Use the IP address of the tester (which is hopefully fixed), which you will find at the top of the tester's display if the tester is properly connected to a network, router. Please leave the "Username" and "Password" fields blank. Click on the "Test" button to check the connection to the tester.

In order to be able to press the "OK" button, browse a folder for the data from the tester. PieManager will save files to this folder and later synchronize the data from the tester with the data in this folder as well.

IMPORTANT: **If you use more than one tester, please provide a separate folder for each tester here.**

If you have added testers to the list, you will see a picture similar to the one on the left. PieManager shows the testers in an expandable list with the local folder used for synchronization. The dark green background indicates that the tester has not yet been synchronized during the current run of PieManager.

If you added a list of testers to the program and you want to use it later again, save the list to a file so that you can easily load it next time. To do this, use the „Save tester list as…" option under „Testers" menu. If necessary, you can create different tester lists, for example for different buildings or business units. Please give always .ptl file extension to these listfiles.

You can load a previous tester list by selecting „Load tester list" from the „Testers" main menu. You can also configure PieManager to automatically load a tester list on startup and to start the synchronization of test results. See Chapter 5 for more information on this.
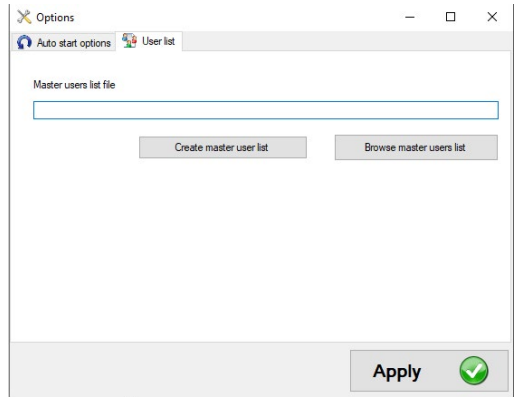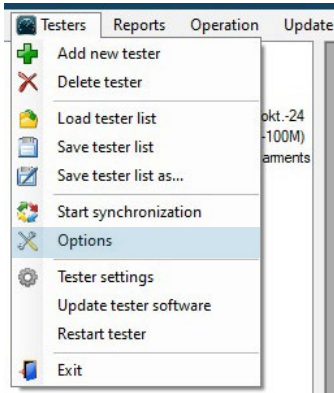
4.2 Processing of user data

4.2.1 Master list of users

The software can collect all user data from testers in a user master list.
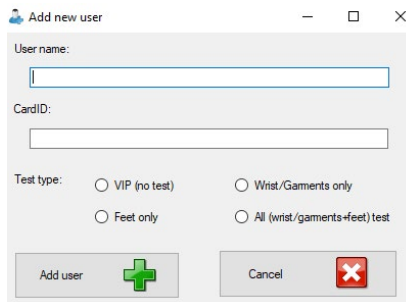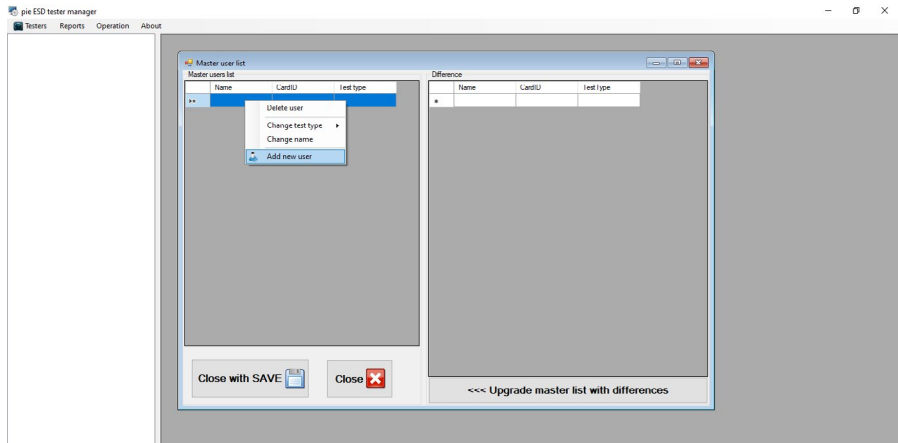
4.2.1.1 Create a user master list

The first time you use the software, PieManager does not include a user master list. You can create one using the „Options" menu item in the main menu „Testers". You can use the „Create master user list" button on the second tab „User list". Enter the location of your choice and click on „Apply".

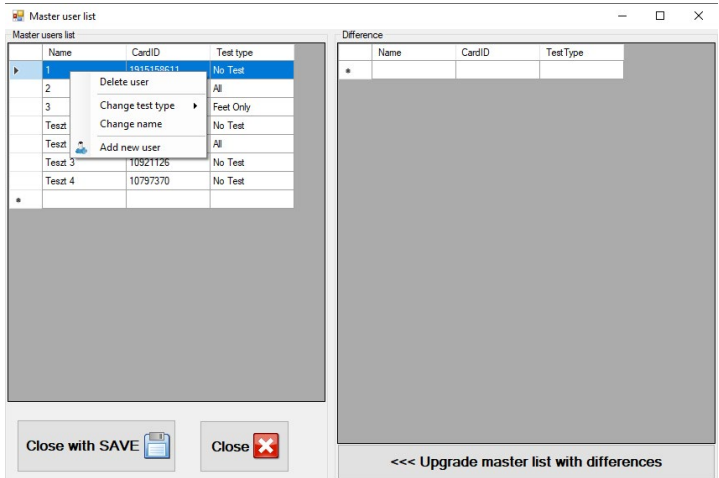## 4.2.1.2 Ways to create a new user

1.   Adding a unique new user

By clicking on „Edit master list" under the main menu item „Operation" and then right-clicking in the list on the left or in the dark grey area around it, you can select „Add new user".
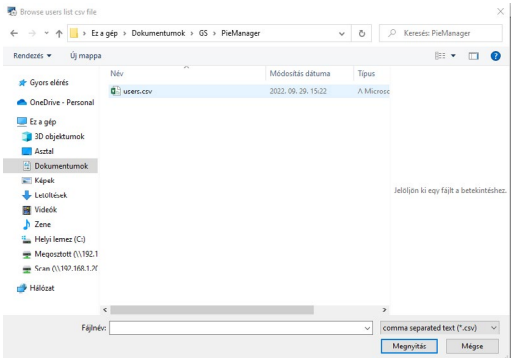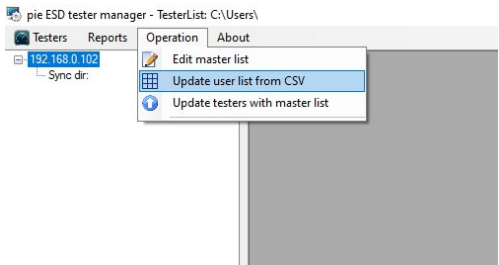
2. Using a new RFID card

If a user uses an RFID card at a tester that is not yet in the system, it will be entered in the tester database as „unknown user". To change the name and tester type of the card, select „Edit master list" under the main menu item „Operation". Once the master list is updated („Upgrade master list with differences"), you can make these changes by right-clicking on the left list and selecting the menu.
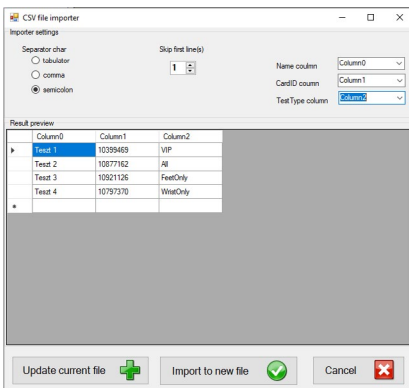

3. Upload a list file

You can also upload new users using a list in a CSV file. Use the „Update user list from CSV" menu in the main menu „Operation". After selecting this menu item, upload the file with the data in a simple format, in three columns: user name, card number, test type.
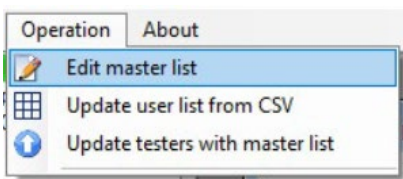
In the „CSV file importer" window that appears, you can configure several settings:

1. At the top left, set the delimiter character used in the file. You can use commas, semicolons or tabs in the list, but only one of these at a time within a CSV. Whichever you choose will update the table below. Three columns should appear.

2. A CSV file usually has a title bar. In the „CSV file importer" window, at the top centre, you can specify the number of rows to be skipped by the software when processing, starting from the first row in the table.

3. In the top right of the „CSV file importer" window, you can select the columns containing the data.
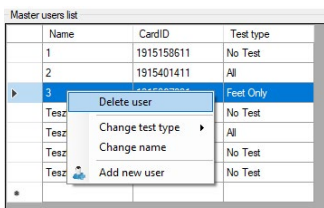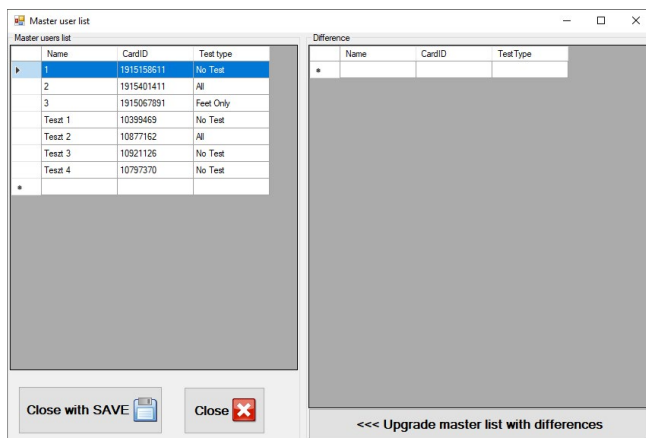

After that, use the „Update current file" option if you want to add new users to the currently used user master list. You can also create a new user master list by clicking on „Import to new file".

4.2.1.3 Editing the user master list

Use the „Edit master list" menu item under the „Operation" main menu to open the master list editing window. It has two sides, on the left there is the current user master list, on the right there is the list on the computer and the user lists on the testers.
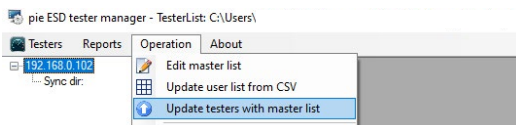
To upgrade the computer master list with differences based on the testers' lists, use the „Upgrade master list with differences" button at the bottom right.
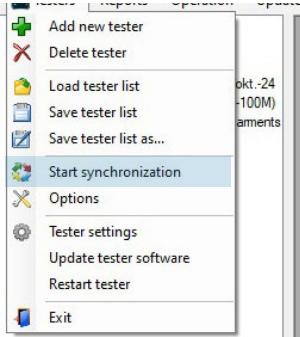
To edit the master list, right-click on the item you want to edit or delete and use the pop-up menu options. Don't forget to save your changes with the „Close with SAVE" button if you want to keep them.

4.2.1.4 Updating user list files on testers

The program can copy the information of the user master list on the computer to each tester. To do this, click on „Update testers with master list" in the main menu „Operation".

4.3 Synchronization

You can use the „Start synchronization" option under „Testers" menu to copy the test data from the testers in the tester list to your computer.

This will not update the user master list. PieManager will start downloading new files in parallel threads to make the process as fast as possible. The meaning of the colours in the background of the IP addresses are:

Dark green background: No synchronization has occurred yet during the current program run

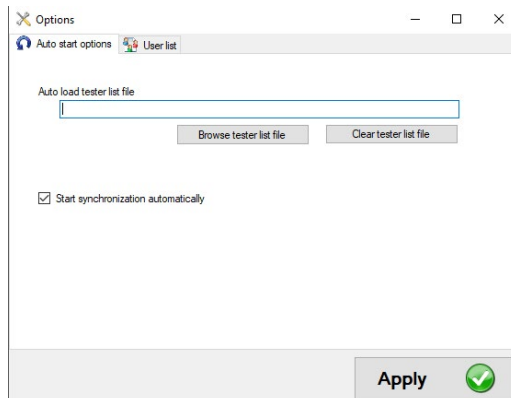**Yellow background:** Synchronization in progress

Light green background: Synchronization has been successfully completed, tester name is displayed

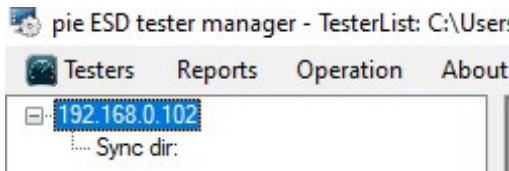**Red background:** Unsuccessful synchronization

5. Settings

5.1 General settings

If you click on the „Options" submenu item under the „Testers" menu item, a window will appear where you can make settings for the PieManager. The first page is „Auto start options". PieManager is able to load a tester list automatically after startup. Use the buttons to browse or delete the tester list. If you tick the checkbox, the test results will be synchronized automatically after startup. On the second page you can create or browse a user master list (here in the program: master user list).
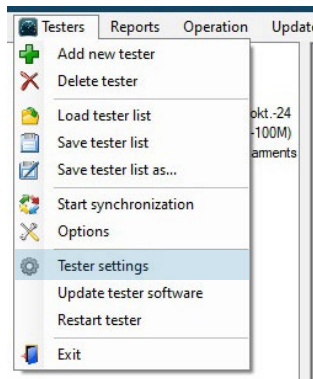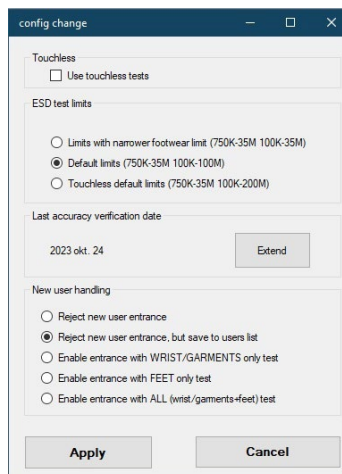
5.2 Changing the tester settings:

1.   Select the tester you want to modify from the list on the left:

2.   From the main menu „Testers" select „Tester settings":

The „config change" window that pops up contains the configuration options:

„Touchless": check the box to activate touchless testing. (Usable test types in this mode: footwear system test, footwear system and wrist strap/groundable ESD smock system test, „VIP" unmeasured entry. Modify user settings if necessary.)

„ESD test limits": you can choose here from three options, the difference between them is the upper resistance limit for measuring the footwear system:

▶ In case of „**Limits with narrower footwear limit**" the limits will be 750 KΩ and 35 MΩ for wrist strap / groundable ESD smock system test and 100 KΩ and 35 MΩ for footwear system test.

▶ In case of „**Default limits**" the limits will be 750 KΩ and 35 MΩ for wrist strap / groundable ESD smock system test and 100 KΩ and 100 MΩ for footwear system test.

▶ In case of „**Touchless default limits**" the limits will be 750 KΩ and 35 MΩ for wrist strap / groundable ESD smock system test and 100 KΩ and 200 MΩ for footwear system test.

„Last accuracy verification date": Possibility to change and view the date of the last calibration / verification measurement. The date shown here is correct if the date was updated here on the occasion of the last calibration / verification. Repeat the measurement after one year and always update the date in this window in case of calibration / verification. If the instrument is working correctly, pressing the „Extend" button will change the date to the current calendar day. The date is not automatically updated during calibration / verification.

„New user handling": here you can set the default action for newly added ID cards that are not yet in the user master list.

„Reject new user entrance": if set, the tester will deny entry if unknown RFID cards are used.

„Reject new user entrance, but save to users list": is set, the tester will deny entry if unknown RFID cards are used, but saves card ID number to the user master list.

„Enable entrance with WRIST/GARMENTS only test": if set, the tester will allow entry after a successful wrist strap / groundable ESD smock system check.

„Enable entrance with FEET only test": if set, the tester will allow entry after a successful footwear system check.
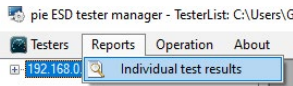
„Enable entrance with ALL (wrist/garments+feet) test": if set, the tester will allow entry after successfully checking the footwear system and wrist strap / groundable ESD smock system.

The window allows you to change more settings at the same time. The changes are confirmed by pressing the „Apply" button and cancelled by pressing the „Cancel" button.

IMPORTANT: The test program of the tester (or the tester itself) MUST be restarted after pressing the „Apply" button to validate the changes.
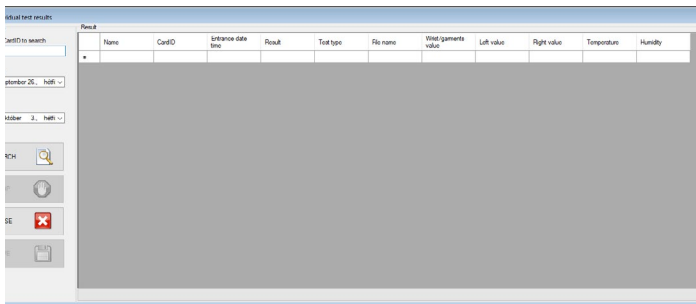
6. Reporting

One of the most important functions of PieManager is to collect and use the data files from the testers to generate report. In order to obtain a fresh report, it may be useful to perform a synchronization before reporting. Use the „Individual test results" menu item of the „Reports" main menu item to view report.

Use the window that appears to search. You can use three fields to narrow down the results:
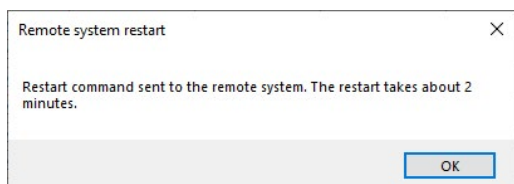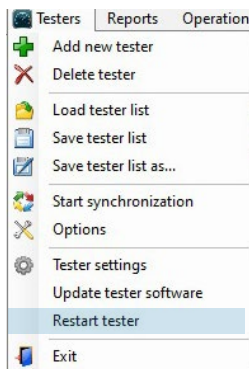
1. Card number or name

2. Start of the time interval you want to query

3. End of the time interval you want to query

To start the search, press the „SEARCH" button. The result will be displayed on the right. Use the „SAVE" button to save the result.

7. Restart the tester

To restart the tester, select „Restart tester" under the main menu item „Testers". Click on „OK" in the „Remote system restart" window.
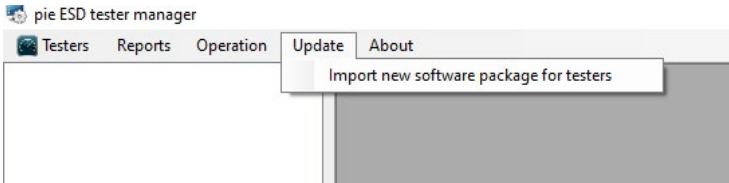
8. Updating the tester's operating software

If you have received files for updating the tester operating system, **do not copy these files to the folder where PieManager is currently installed**. Browse them from another folder for update.
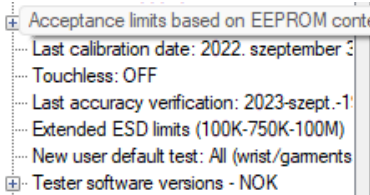
8.1 Importing a software update into PieManager

Select „Import new software package for testers" in the menu and browse the installation files.
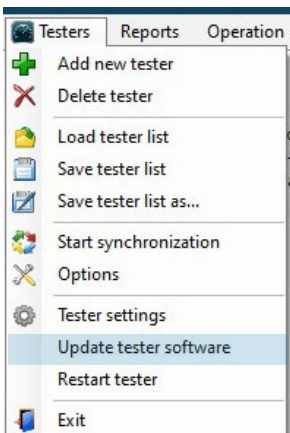

8.2 Update tester with software update imported into PieManager

If you see „Tester software versions – NOK" in the list of testers managed by PieManager, you can make a software update.

Select the tester whose software you want to update and choose „Update tester software" option from the „Testers" menu.

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