microlife

microlife   Blood Pressure Analyzer+

Blood Pressure Analyzer + Instructions for Use

Version 1.0

Content

1   Install BPA+ Software

1.1   Remove previous program

Before executing the program, please uninstall any previous version of BPA+ software installed on the computer.

Windows 10:

Step 1: Click **<Start>**/**<Settings>**, then select Control Panel.
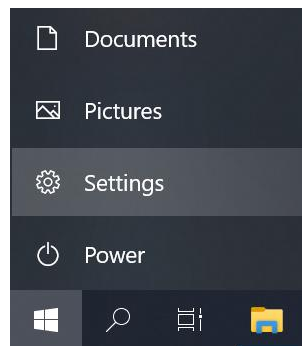

Fig- 1

Step 2: Select Apps
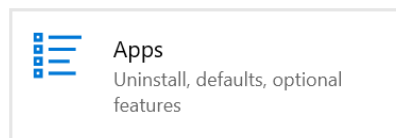

Fig- 2

Step 3: Find the BPA+ program and then press the "Uninstall" button.
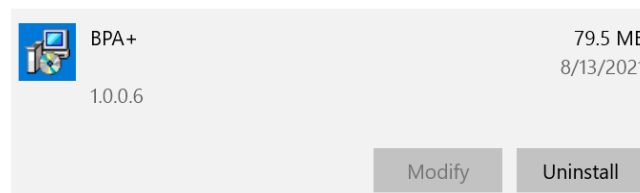

Fig- 3

Step 4: When the uninstallation is finished, the below screen will be shown.
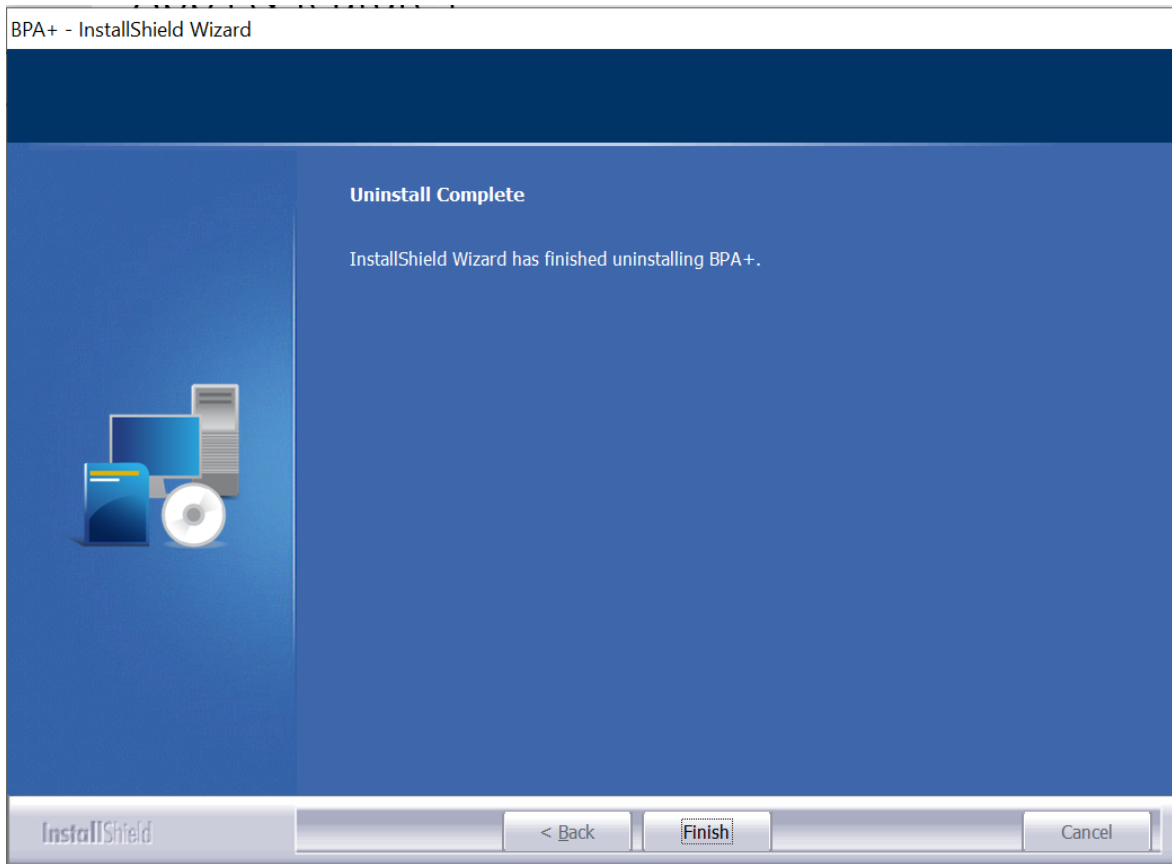
Fig- 4

1.2 Install Latest BPA+

The following steps guide user to install the BPA+ software.
Step 1: Select the language for the installation.

Fig- 5

Step 2: Then the installation wizard will be displayed.
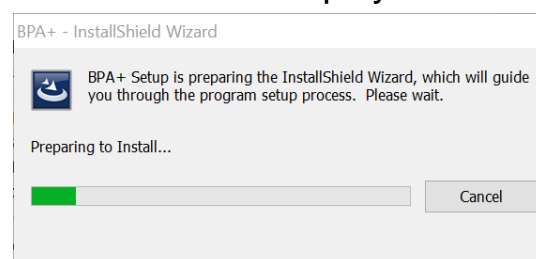
Fig- 6

Step 3: Once the installation wizard is ready, the below dialog will be shown. Press the "Next" button to finish the installation.
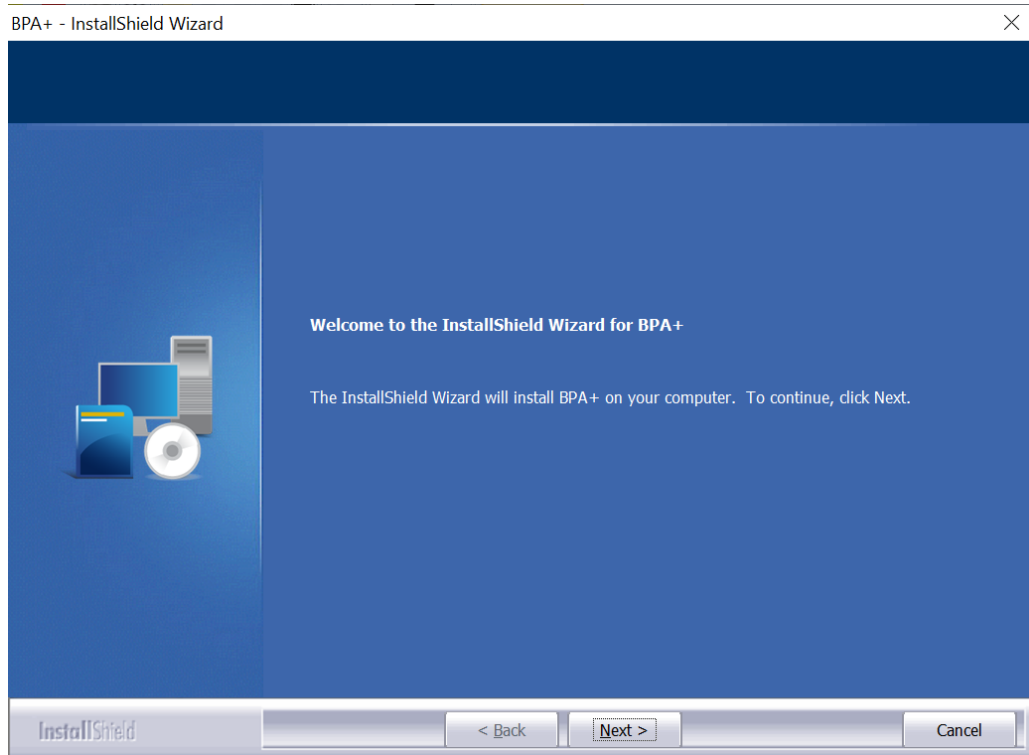
Fig- 7

Step 4: When the installation is done, the below dialog is displayed. Then, press the "Finish" button to exit the wizard.

Fig- 8

Step 5: Users need to read and accept the terms of the license agreement. Press the "Next" button to continue.
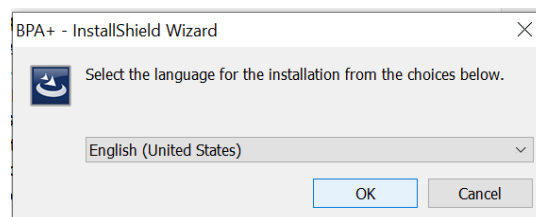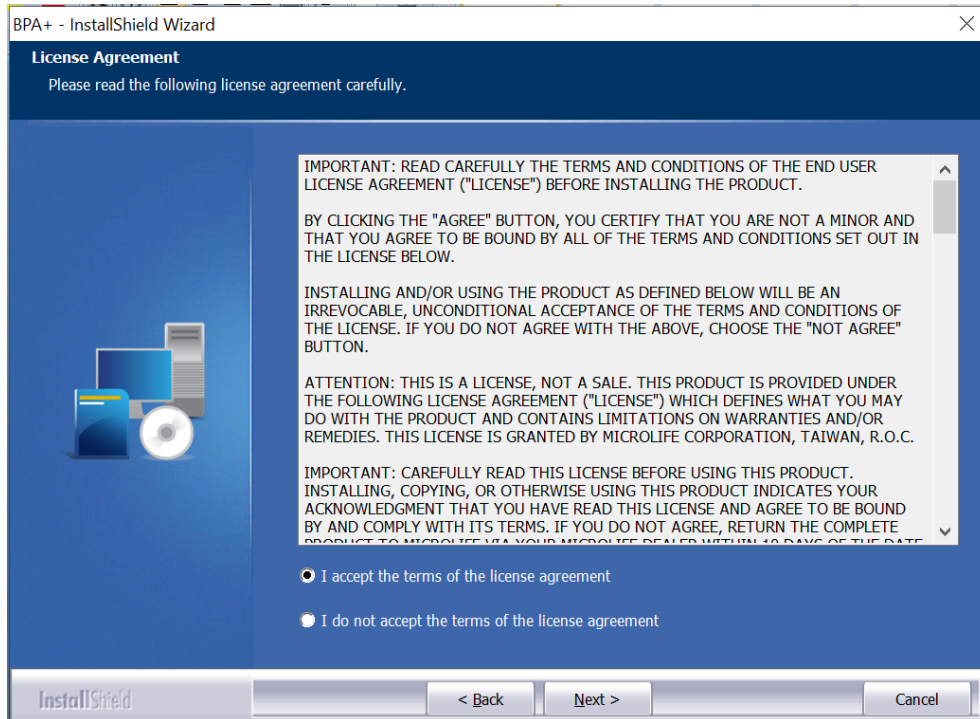

Fig- 9

Step 6: The final step, when everything is done, we recommend a computer restart at this final step. This ensures the BPA+ program will be executed correctly.
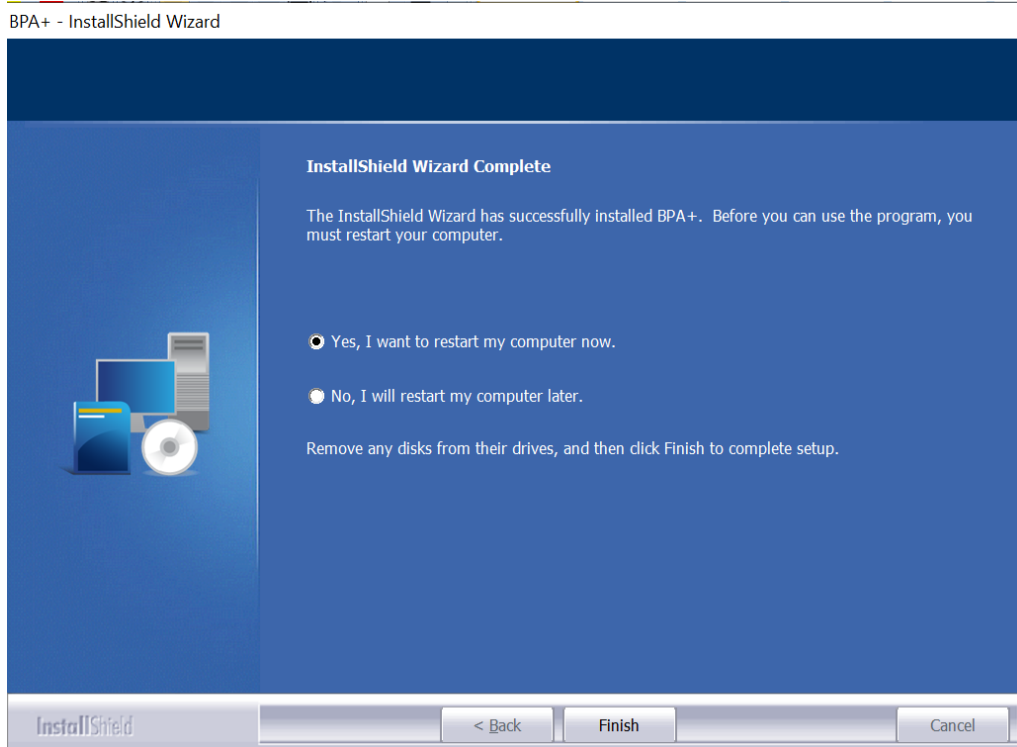
Fig- 10

Step 7: Once BPA+ has been installed successfully, BPA+ icon should be available in the Apps of the start menu (Fig-11) and the shortcut (Fig-12) will also be created on the desktop automatically.
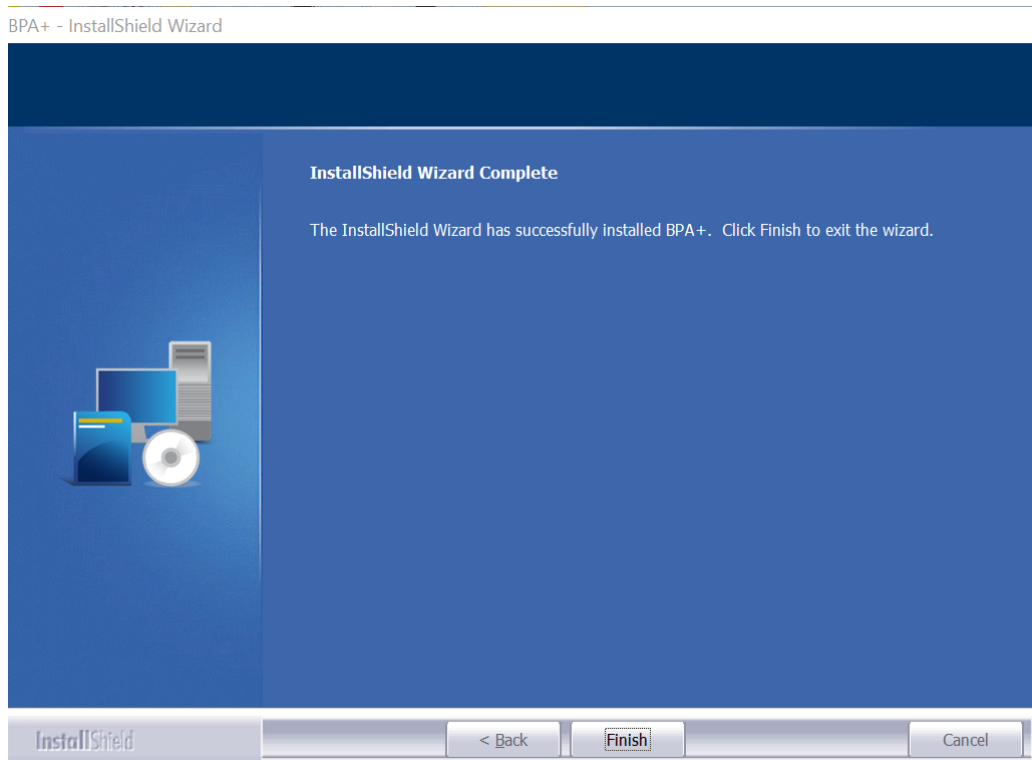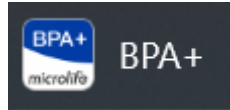

Fig-11
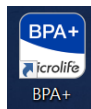
Fig-12

1.3 Software Update Notification

When a newer version of BPA+ software is available for download, a notification about the newer version will be displayed when starting the software (Fig-13). Select "Yes" to open web browser to download the new version. Select "No" to skip downloading the new version and continue using the current version.

Note: BPA+ software requires the PC having a valid Internet connection to check the availability of newer versions.

Fig-13

2 User Interface of BPA+

There are four main sheets in the BPA+ program.

- Overview sheet
- Data sheet
- Profile sheet
- Settings sheet

2.1 Overview Sheet

Fig- 14

The below information will be found in the overview sheet.

(1)Area 1: User basic information area

The username, gender, age can be found at this area.

(2) Area2: Time range area

This area shows the period of the measurements. Users can change the specific date, day period, or time period to filter the specific measurements to be displayed in the overview sheet.
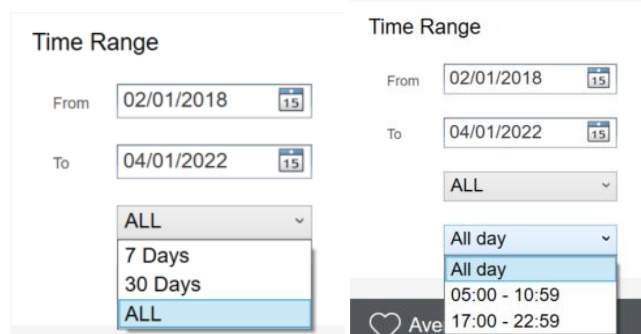
Fig- 15

(3) Area3: Measurements area

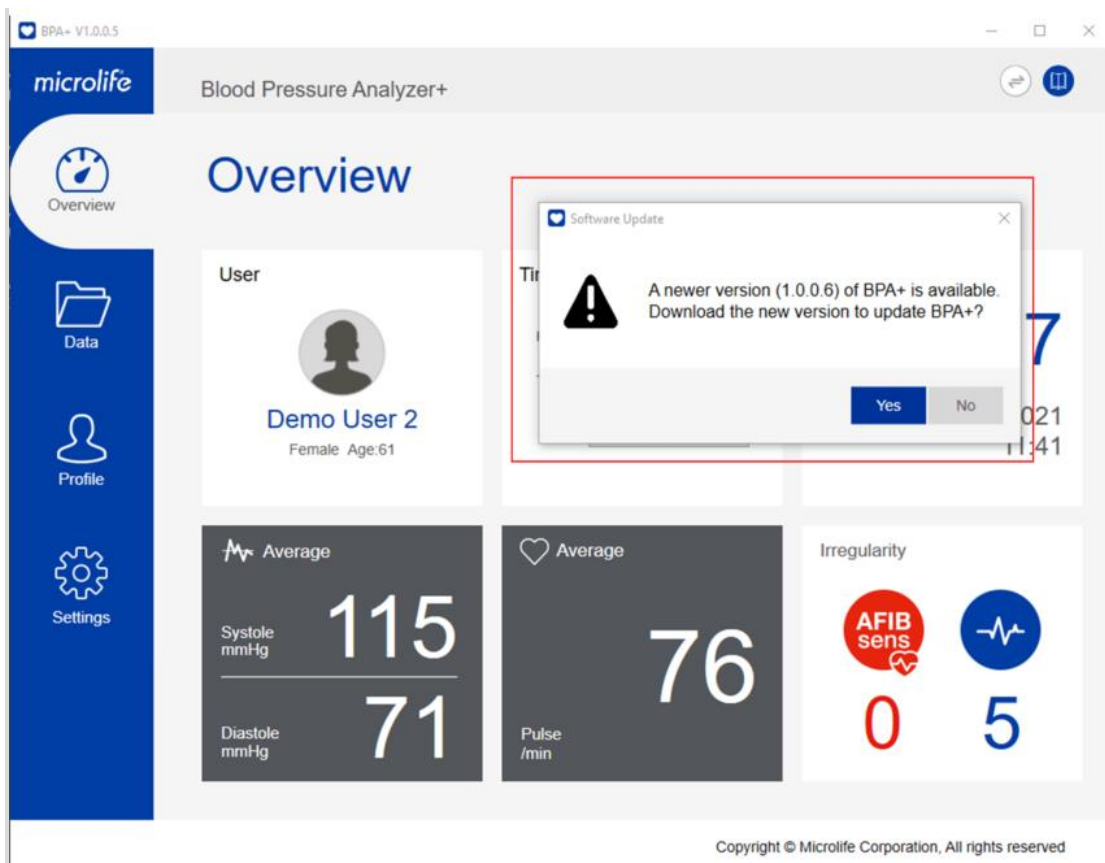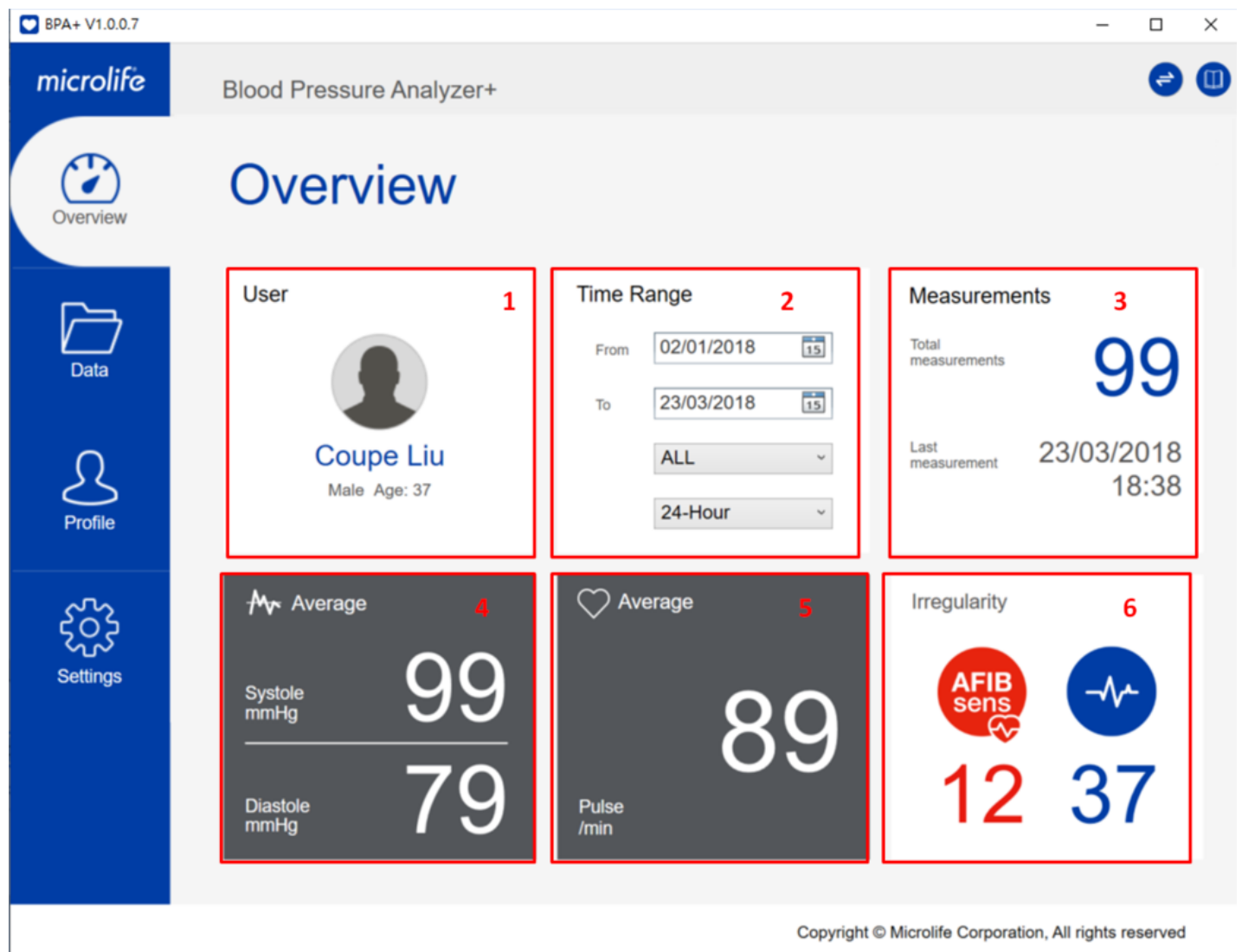This area presents the total number of measurements and the latest measurement time of the selected time range.

(4) Area4: BP Average Area

This area displays the average of the systolic and diastolic of all measurements of the selected time range.

Note: If the systolic &diastolic blood pressure averages are equal or higher than the corresponding threshold values in the settings, the values will be displayed in red.

(5) Area5: Pulse Average Area

The average of the pulse is shown in this area of the selected time range.

(6) Area6: Pulse Irregularity Area

If irregular pulse or Afib is detected in the measurements, the number of detections is displayed in this area.

Note:

a. The Microlife AFIB feature is available only on specific blood pressure monitor models.

b. If the region is selected as USA, the AFIB icon will not be displayed.

2.2 Data Sheet

Users can review the detailed individual measurements in a list view, or review the corresponding measurement trend in the chart view at this sheet.

Use the view selection button (Fig – 16) to select corresponding view.

Fig - 16

Select [icon] icon to display data in list view.

Fig-17

In list view (Fig-17), you can review individual measurements in a list format.

Note:

1. Only the measurement data within the selected date & time range will be displayed in the list view.

2. If the systolic & diastolic blood pressure averages are equal or higher than the corresponding threshold values in the settings, the values will be displayed in red.

In list view, you can create a comment about the individual measurement, or edit the existing comment under the "Notes" column (Fig-18).

Date	Time	SYS	DIA	Pulse	Irregularity	Cuff fit	Mode	Notes
28/05/2020	10:45	115	66	65	-⋀-		MAM	Tired.

Fig-18

Individual measurements can be deleted by pressing 🗑 (Fig-19). Once the button is pressed, a message to confirm deletion of the measurement data will appear. Users can select "Yes" to proceed with deletion or select "No" to cancel deletion (Fig-20).

Date	Time	SYS	DIA	Pulse	Irregularity	Cuff fit	Mode	Notes
28/05/2020	10:45	115	66	65	-⋀-		MAM	Tired. 🗑

Fig-19

Delete data
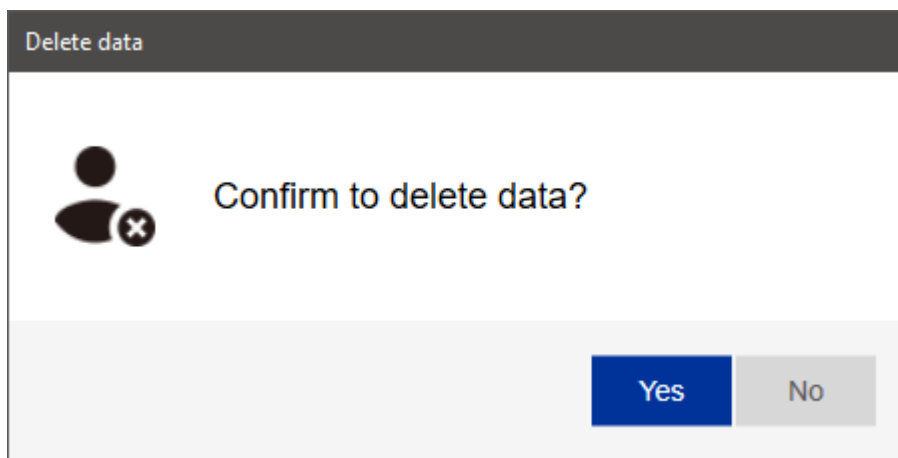
Confirm to delete data?

| Yes | No |

Fig-20.

You can also sort the individual measurements in the list by Date, Time, SYS, DIA, and Pulse, by clicking on the headers of these columns (Fig-21). Sorting may be helpful to find the lowest or highest values in the list quickly.

Date	Time	SYS	DIA	Pulse	Irregularity	Cuff fit	Mode	Notes	
28/03/2021	11:41	121	76	93		✓			🗑
20/06/2020	11:06	120	72	69	-⋀-		MAM		🗑
12/06/2020	14:10	116	76	75	-⋀-				🗑
28/05/2020	10:45	115	66	65	-⋀-		MAM	Tired.	🗑

Fig-21

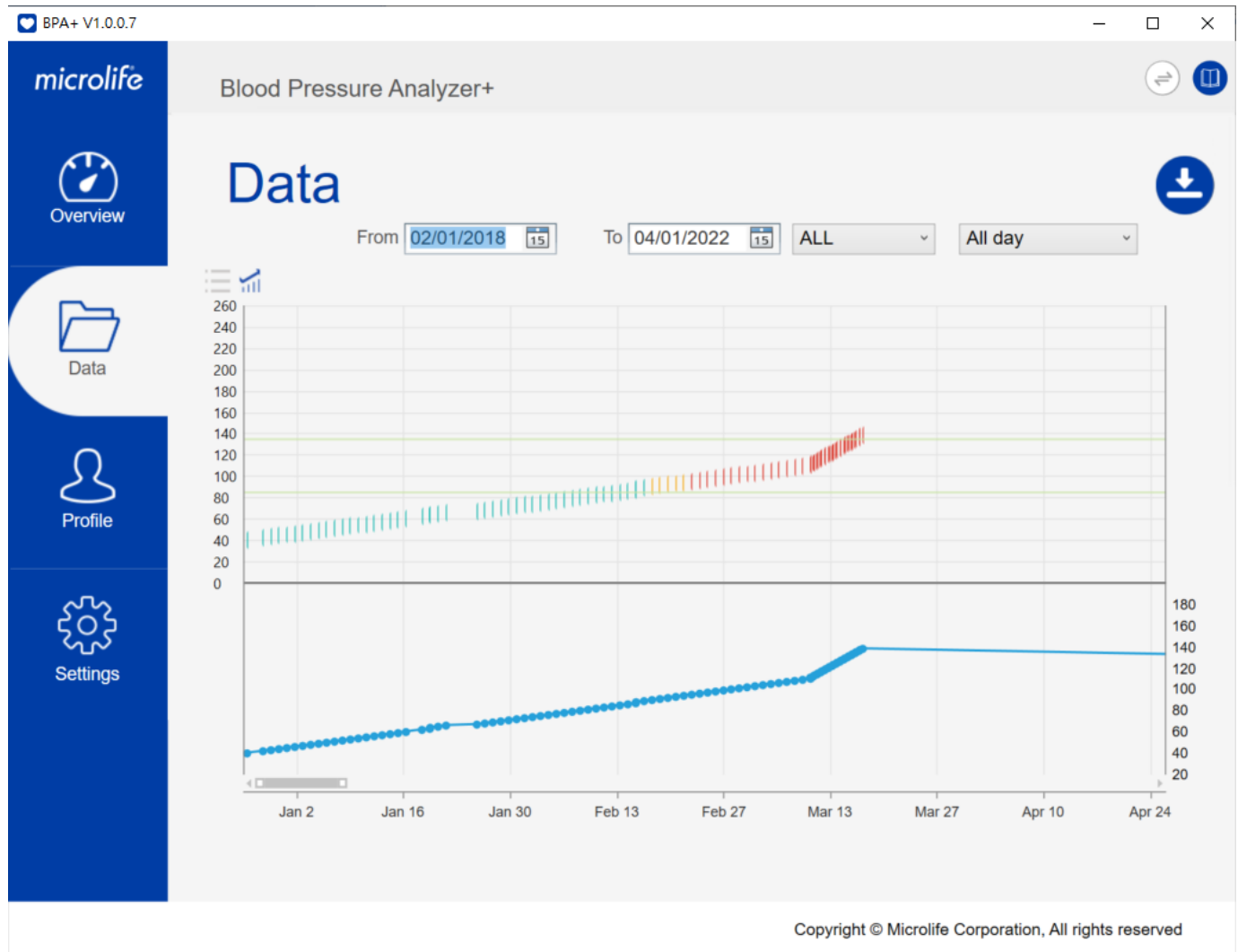Select [icon] icon to display data in chart view.

Fig- 22

In chart view (Fig-22), users can review the individual measurements displayed as data points in time-based plot, with blood pressures values shown in the upper part of the chart, and pulse values shown in the lower part of the chart.
Note: Only the measurement data within the selected date & time range will be displayed in the chart view.

The chart view scale and range can be manipulated using the mouse of user's PC. Use the scroll wheel of mouse to zoom in and zoom out of the chart view to adjust the display scale of chart. Use the primary mouse button (left click) to drag the chart or scroll bar left and right to adjust the displayed range of the chart view (Fig-23)
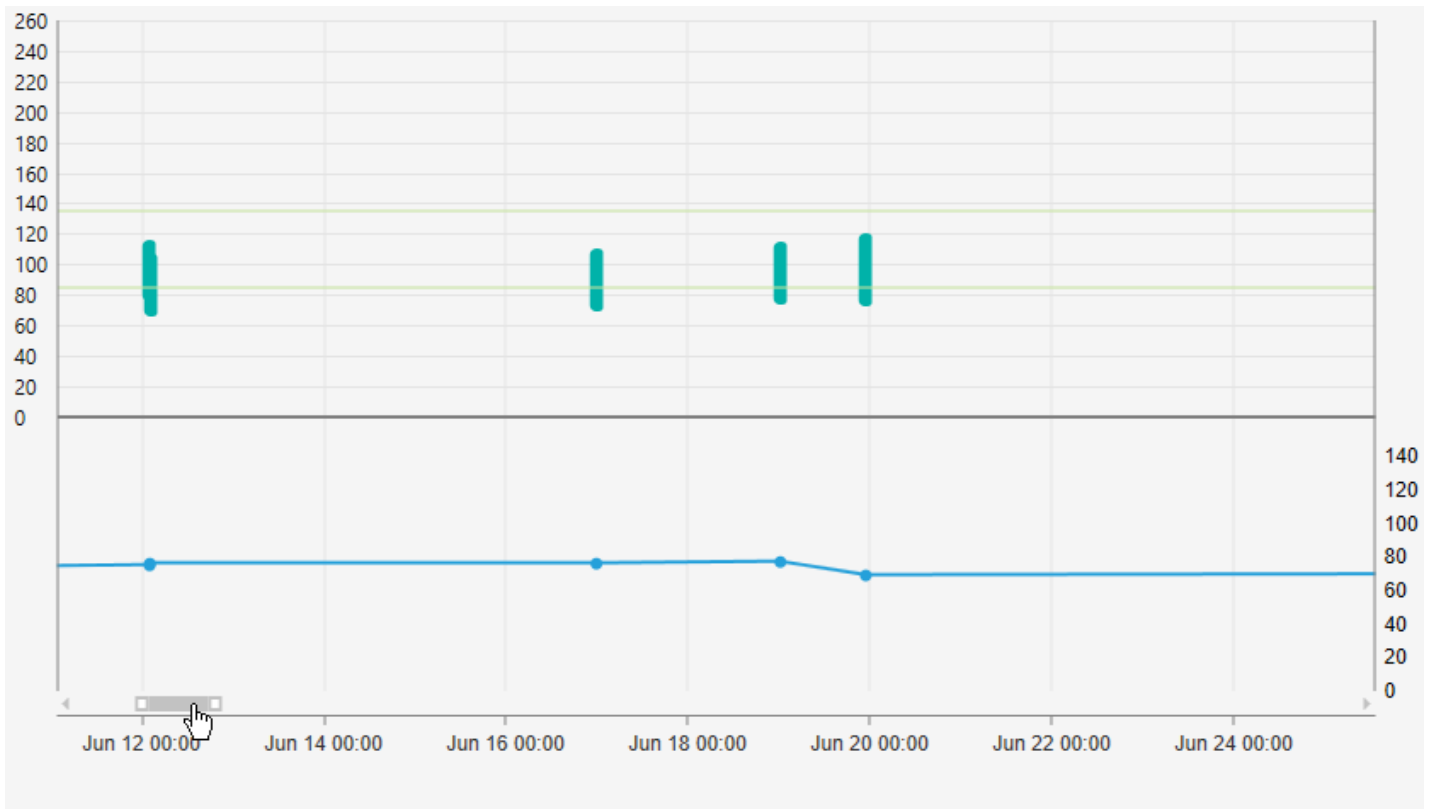

Fig-23

The values of the blood pressure and pulse will be displayed when the mouse pointer is on top of the data point (Fig-24 and Fig-25).
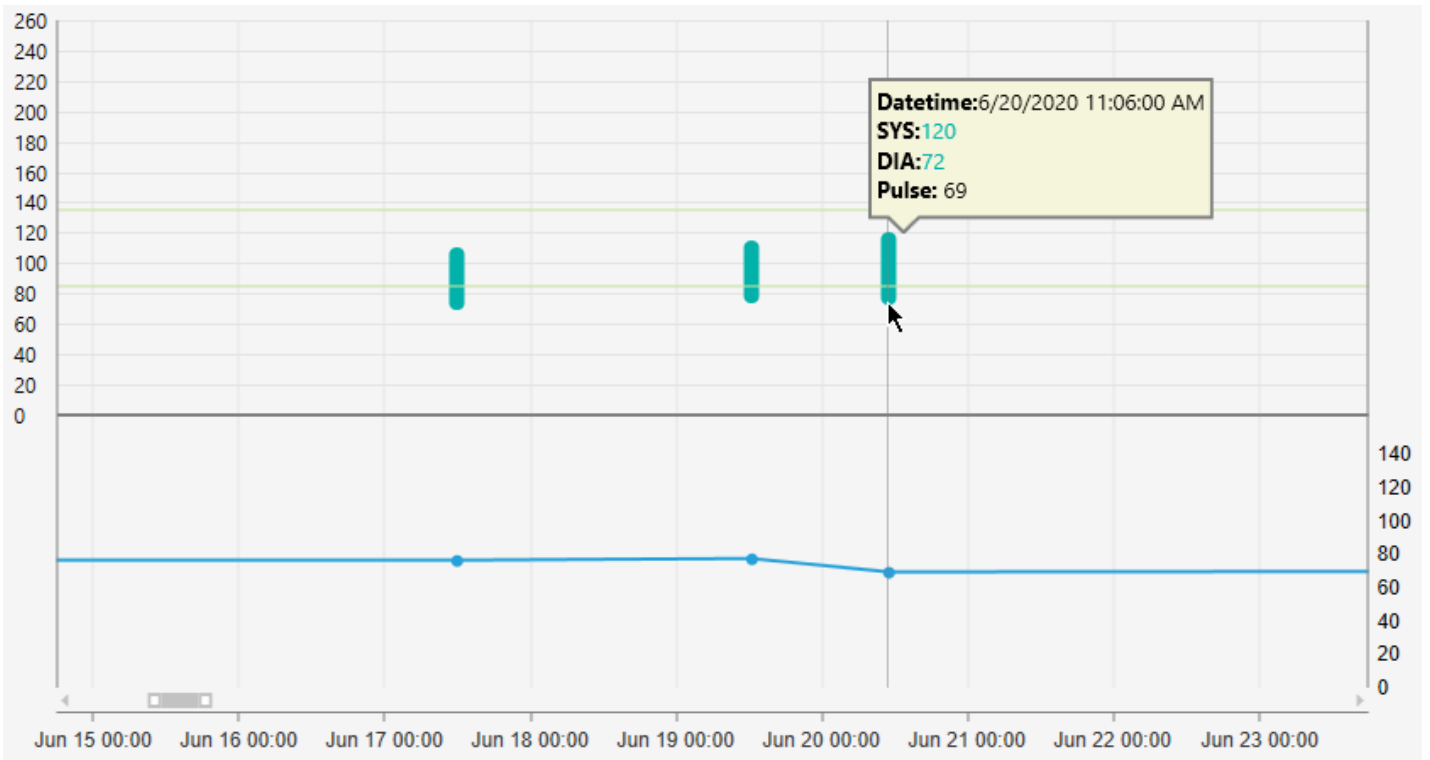
Datetime:6/20/2020 11:06:00 AM
SYS:120
DIA:72
Pulse: 69

Fig-24

Datetime:6/20/2020 11:06:00 AM
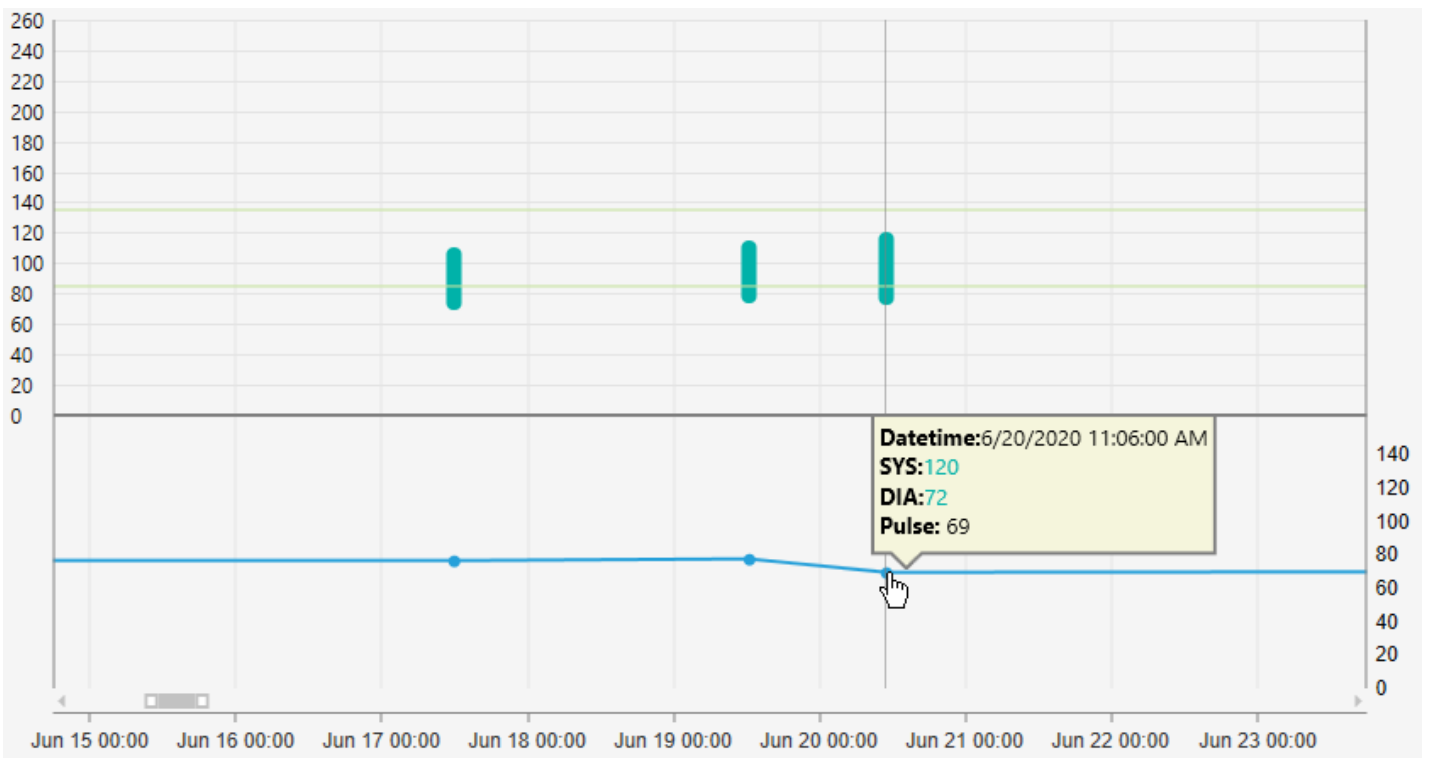SYS:120
DIA:72
Pulse: 69

Fig-25

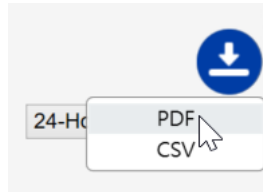In addition, user can also export the CSV or PDF report by pressing the ⊕ button.

Fig-26

Note: Refer to section 4 for details about the reports.

2.3 Profile Sheet

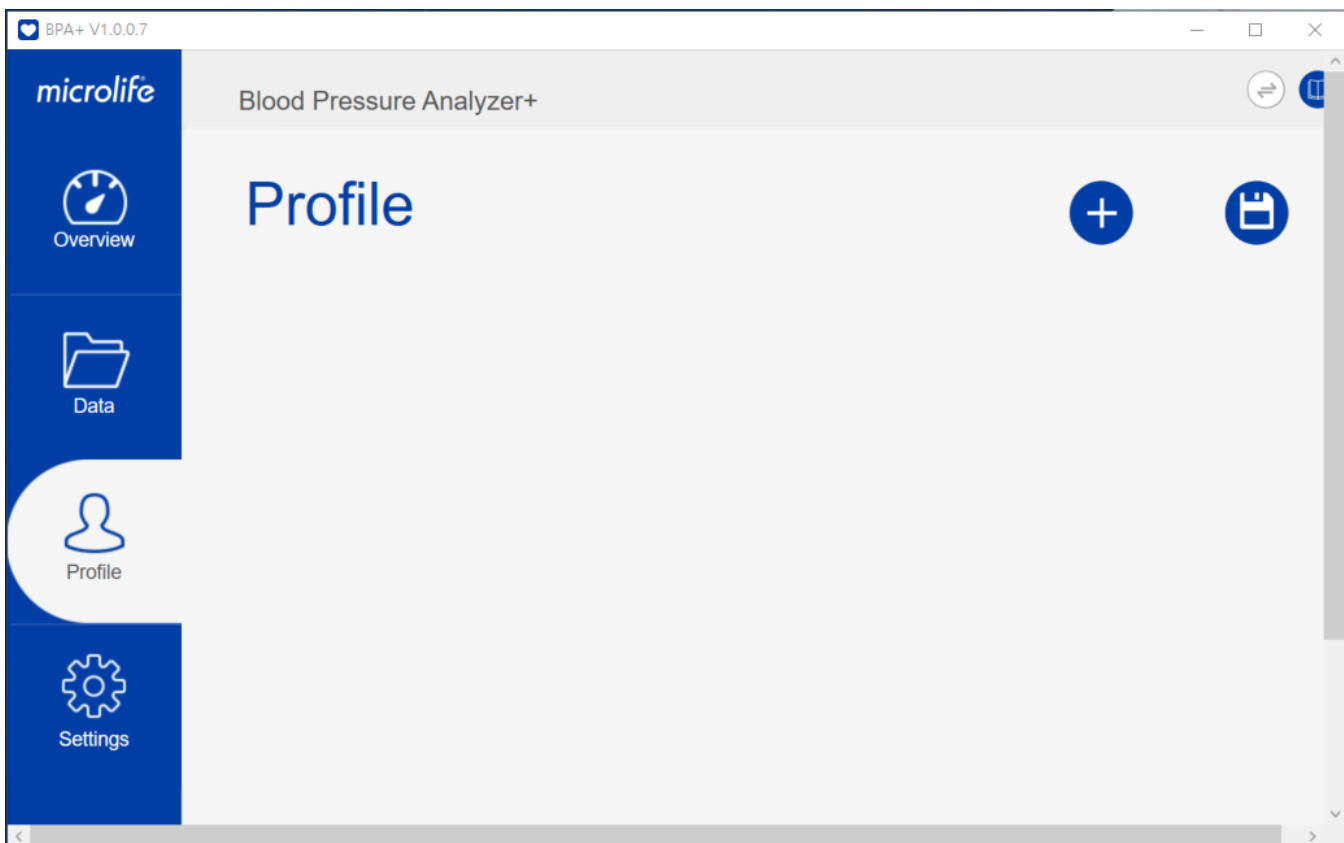Users need to create their user profile at the profile sheet when using the BPA+ software for the first time.

Fig- 27

Note: Refer to section 3.1 for details about creating a user profile.
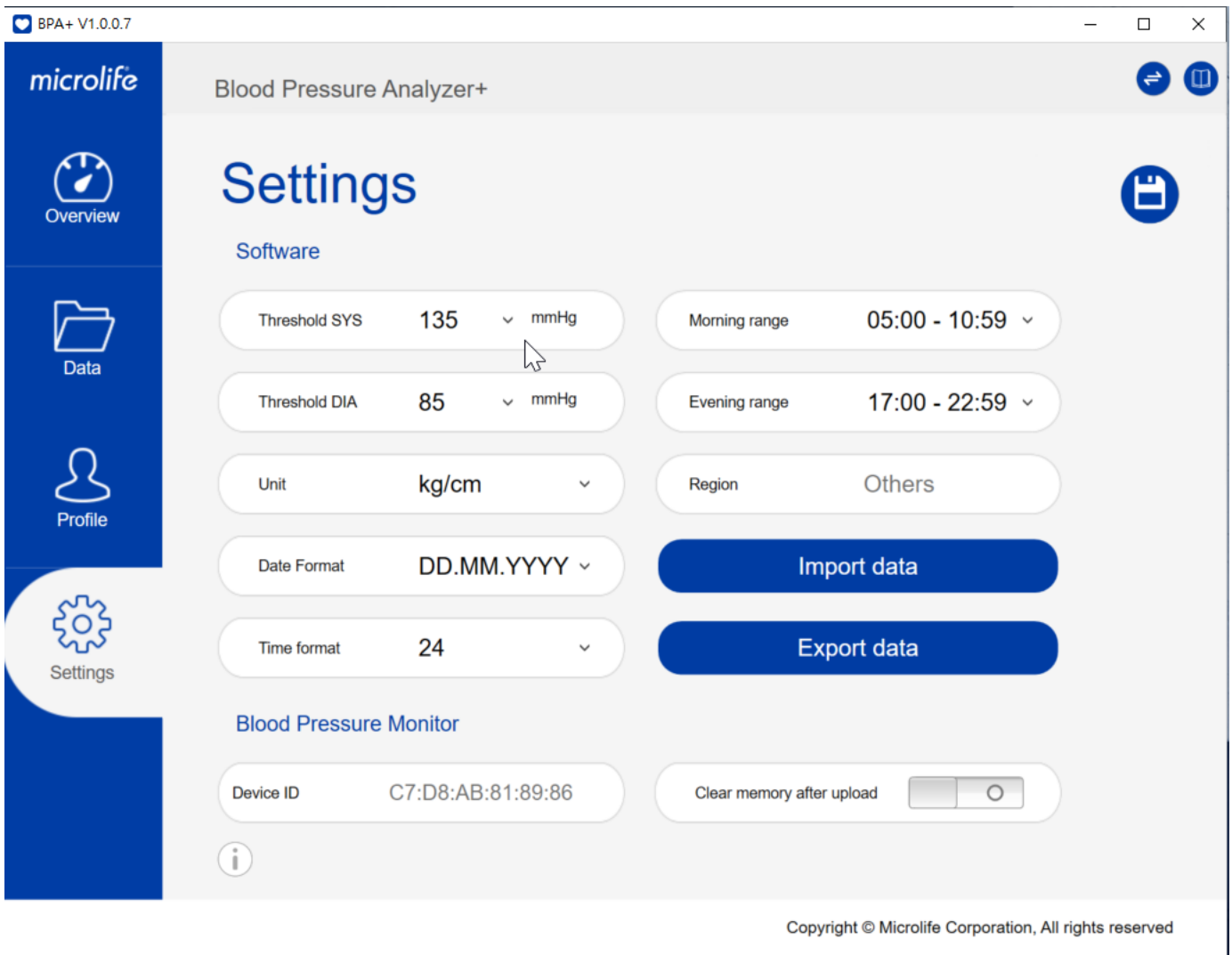
2.4 Settings Sheet

Fig- 28

There are two sections in the settings sheet.

1. Software section:

Below fields can be configured at the settings sheet.

(1) Threshold of the systolic blood pressure:

Systolic pressure values equal and above the threshold will be displayed in red in the overview sheet and the data sheet.
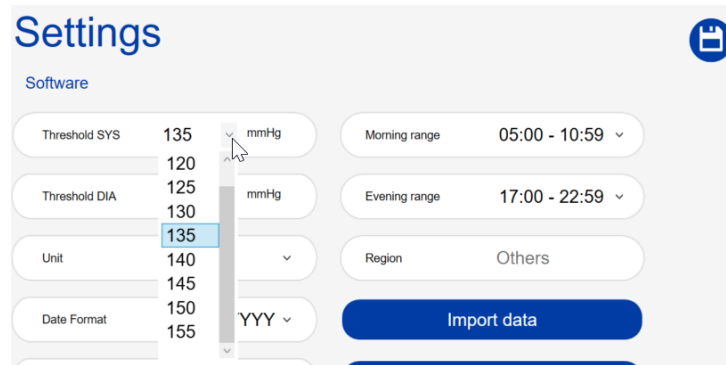
Fig- 29

(2) Threshold of the diastolic blood pressure:

Diastolic pressure values equal and above the threshold will be displayed in red in the overview sheet and the data sheet.
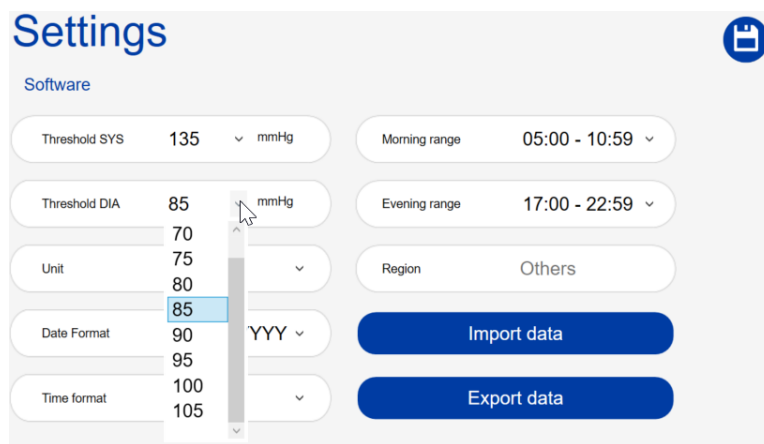

Fig- 30
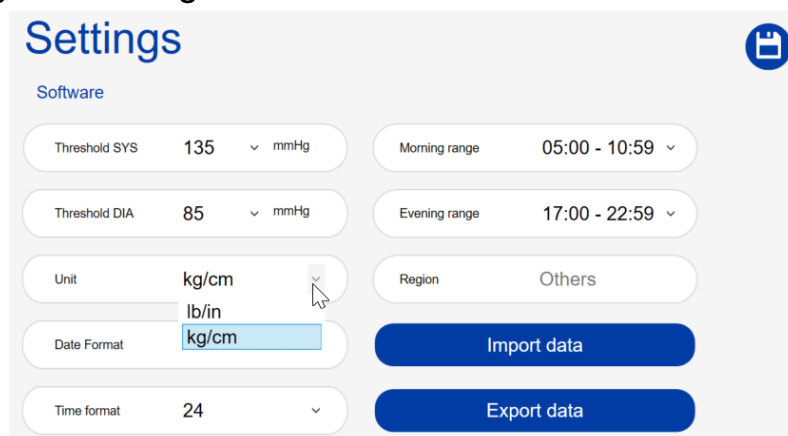
(3) Unit of the height and weight:
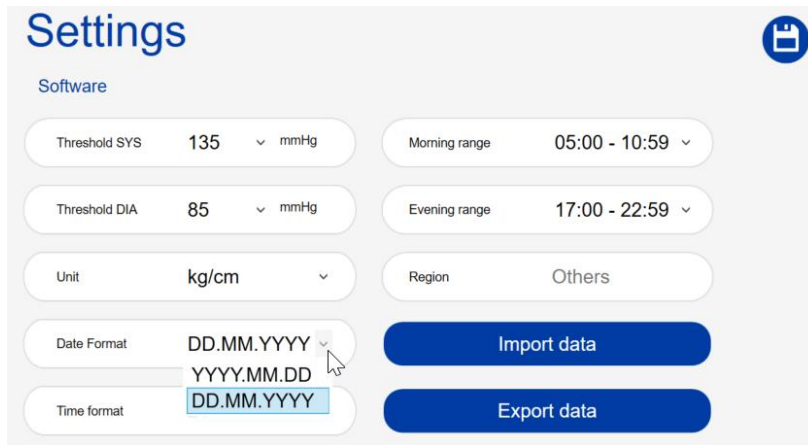

Fig- 31

(4) Date format:
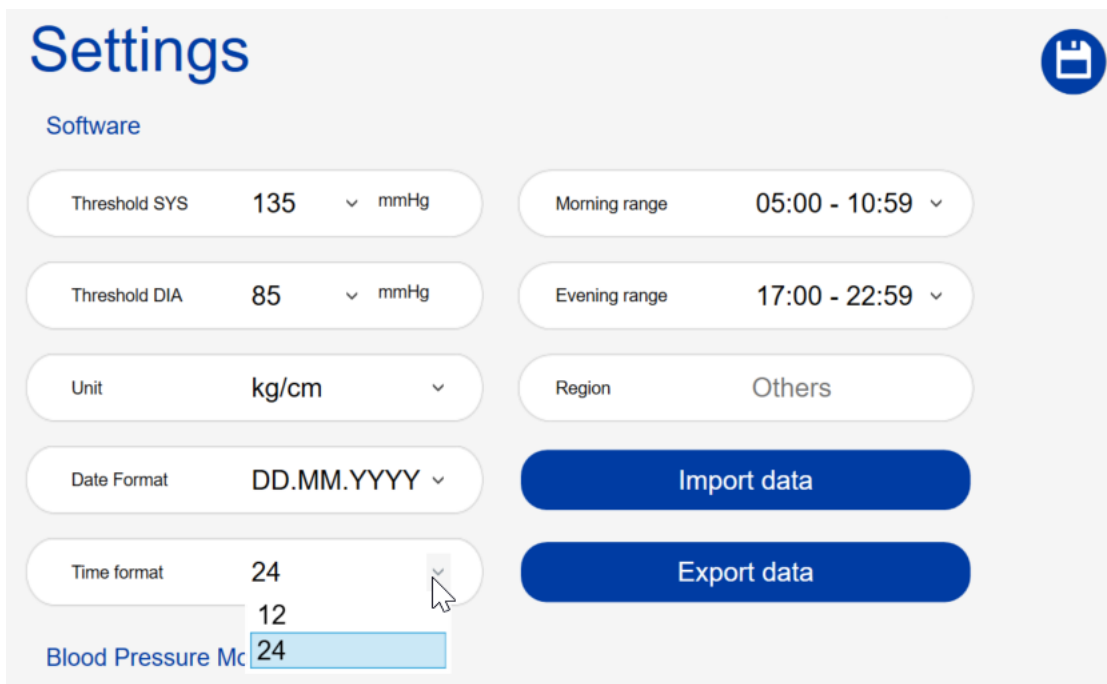

Fig- 32

(5) Time format:

Fig- 33

(6) The period setting of morning, for computation of morning average.
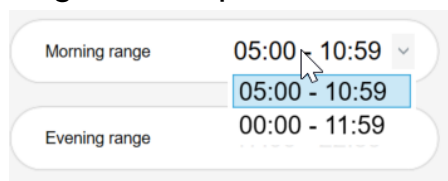

Fig- 34

(7) The period setting of evening, for computation of evening average.
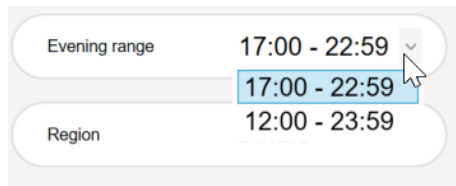
Fig- 35

(8) Region

    Note: Region is selected only once, when using the software for the first time after software installation. This setting cannot be changed once selected.
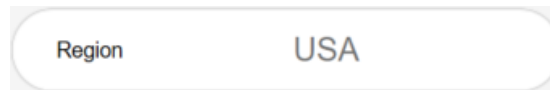
Fig- 36

(9) Import/Export data

Users can press the "Import data" or "Export data" button to Import/ Export configuration, user profile, and measurement data of BPA+ software. Use this feature to migrate the BPA+ software data from one computer to another.

Note: "Import data" feature is compatible with the export patient file (in XML format) of the older Microlife BP Analyzer software.
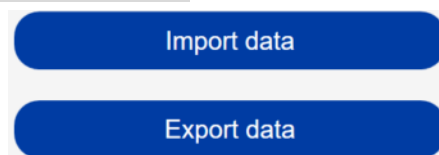
Fig- 37

2. Blood Pressure Monitor section:

Below fields are displayed in this section.

(1) Device ID of Microlife blood pressure monitor (last connected)

    Note: Device ID information is available on selected Microlife blood pressure monitors.
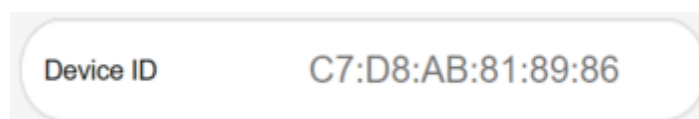
Fig- 38

(2) Clear memory after upload:

Users can decide if the data in the memory of the blood pressure monitor needs to be cleared after the data is transferred to the BPA+ software.
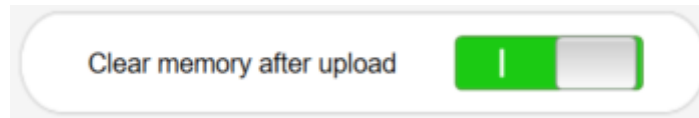
Fig- 39

(3) Software Version Information:

Users can press the ⓘ icon to check the version of BPA+ software.
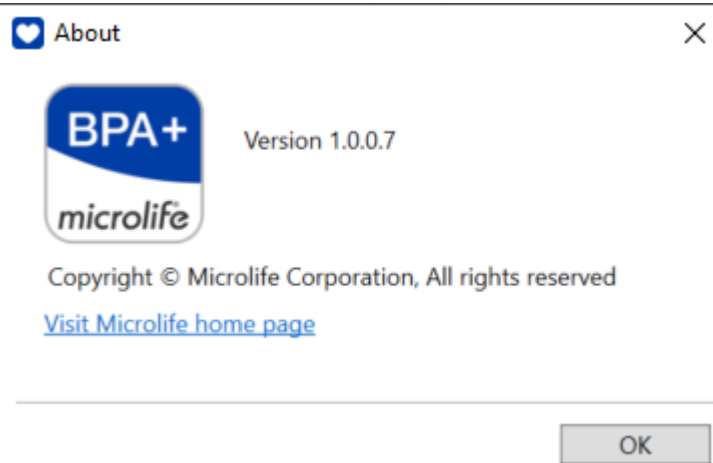
Fig- 40

3 Scenarios of BPA+

3.1 Create a user profile

Step1: Users have to select the region when the program is executed first time. If you are located in the USA and using Microlife blood pressure monitors available in the USA, please select "USA"; if you are located in countries other than USA and using Microlife blood pressure monitors available in countries other than USA, please select "Others".
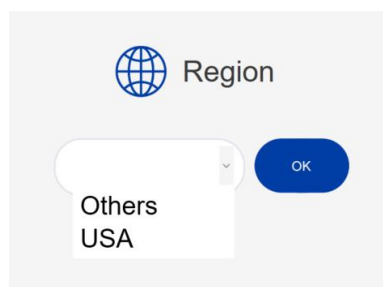
Fig- 41

Step2: When the region is selected, the profile page will be shown.

Step3: Press the ⊕ button to create the user profile. And then the below dialog will be displayed.

Note: Users have to create the user profile before they start to transfer the data from the blood pressure monitor.
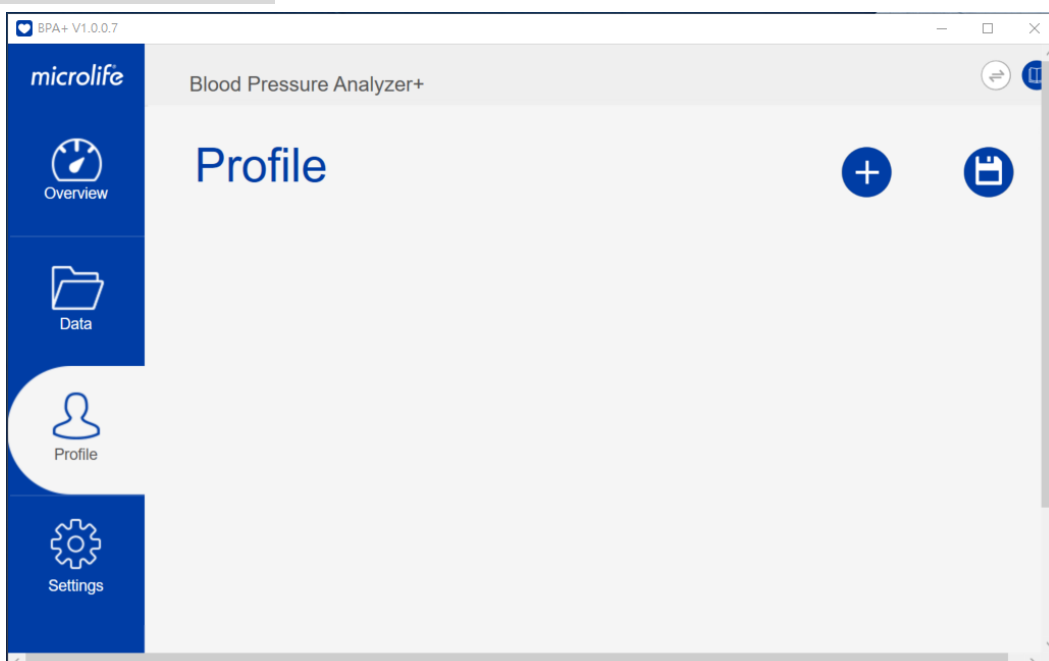
Fig- 42

Step4: Input the Email of the user and press the "OK" button.
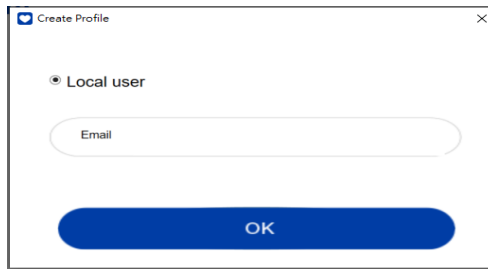
Fig- 43

Step5: The below page will then be displayed. User can create the user profile at this page.
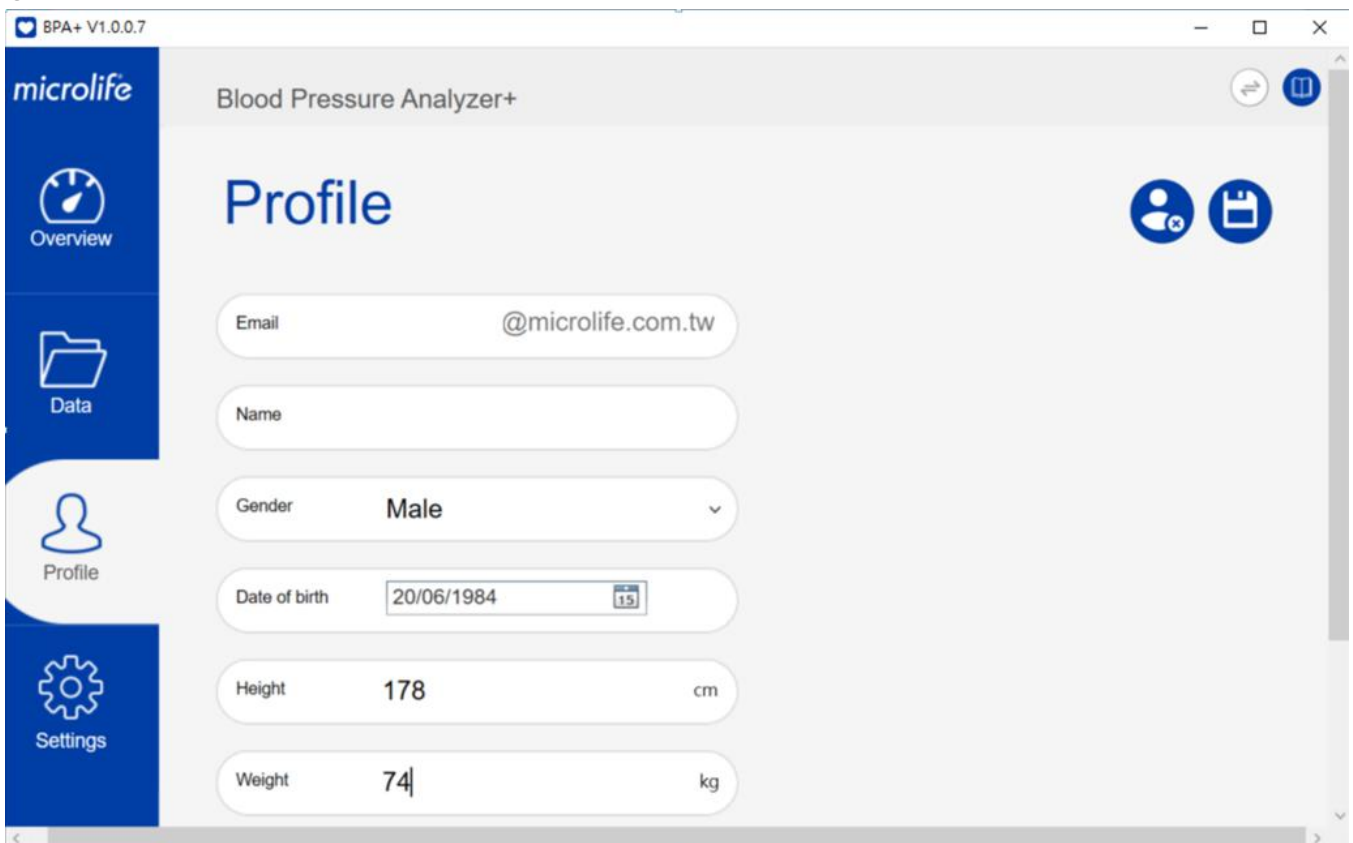
Fig- 44

Step6: When all of the information is ready, press the 💾button to save the user profile.
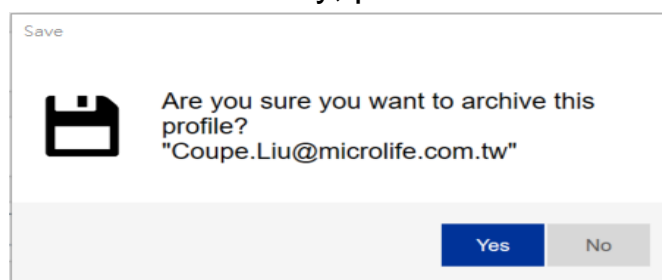
Fig- 45

3.2 Download data from the device

When the user profile is created successfully, the below screen will be shown.
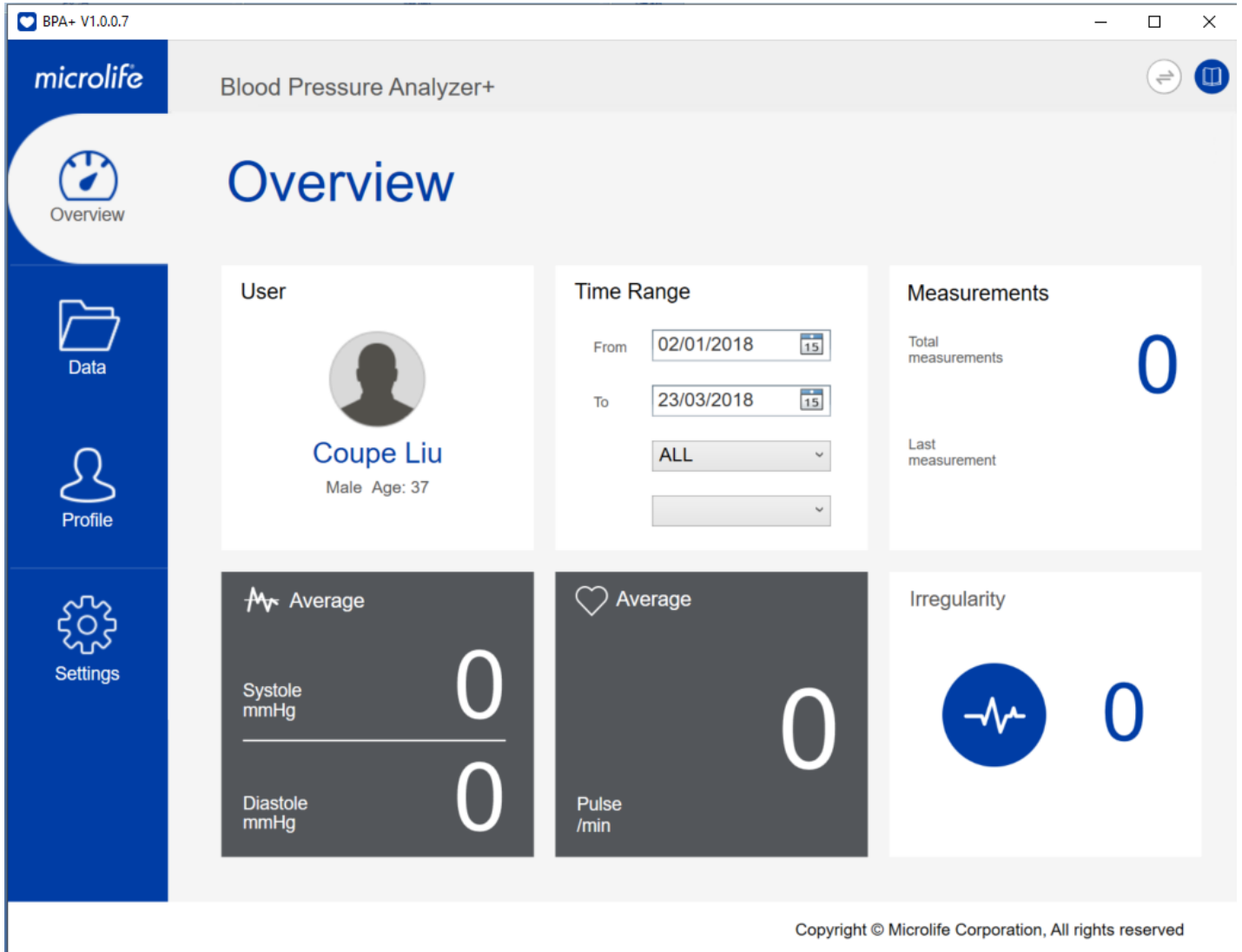
Fig- 46

Step7: Connect the device to the computer. Once the device connection is ready the icon with red box of Fig-47 will be enabled.

Note: Always connect the device to the PC directly to ensure correct connection for data transfer.
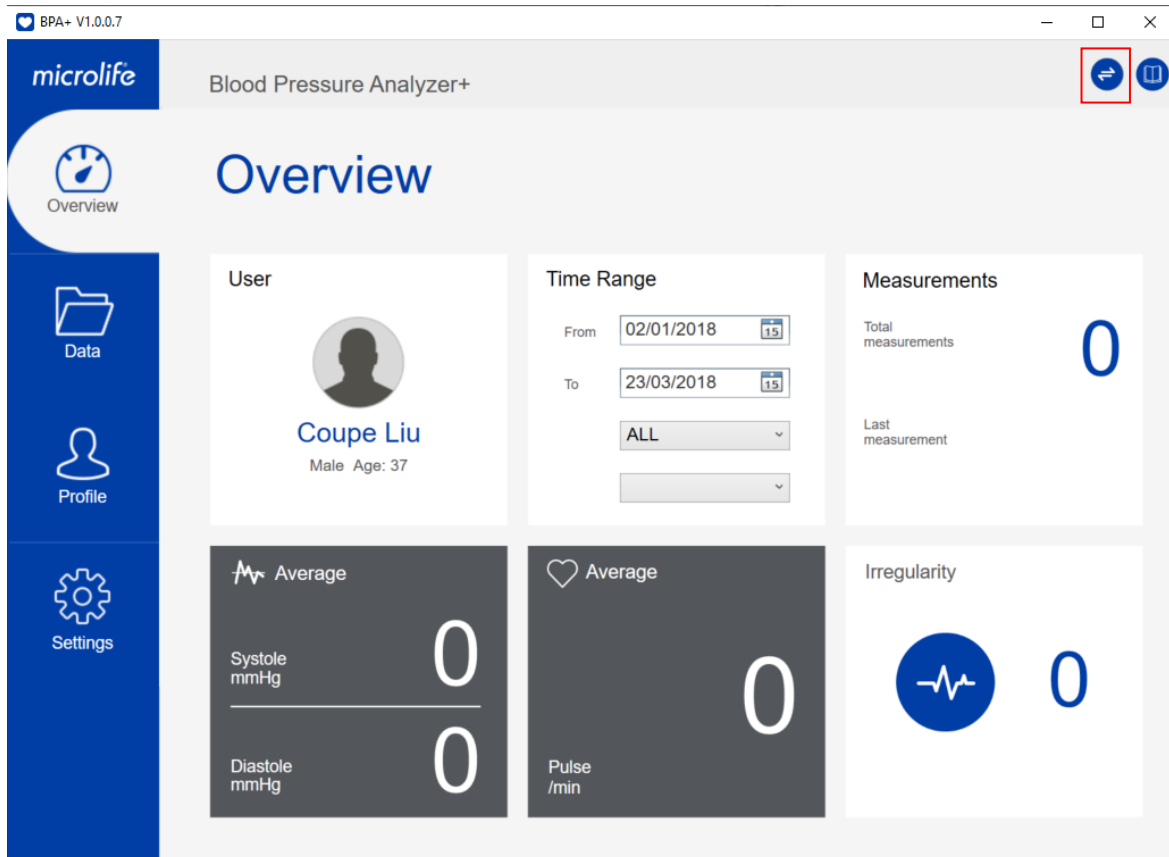
Fig-47

Note: If the blood pressure monitor supports multiple users, always make sure the correct user number (e.g. User 1 or 2) is selected on the blood pressure monitor before connecting the device to the PC, to ensure user data do not get mixed up during transfer.

Step8: Press the icon ⬤ to download data from the device.

Step9: When the data download is done, the dialog (Fig-48) will be displayed. Press the "OK" button and then users can start to review their measurements.
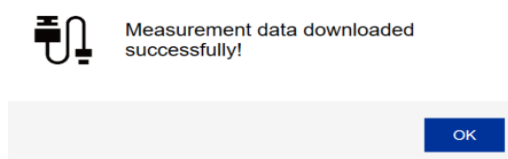
Fig-48

Step10: Then the overview sheet with the measurements will be shown as below.
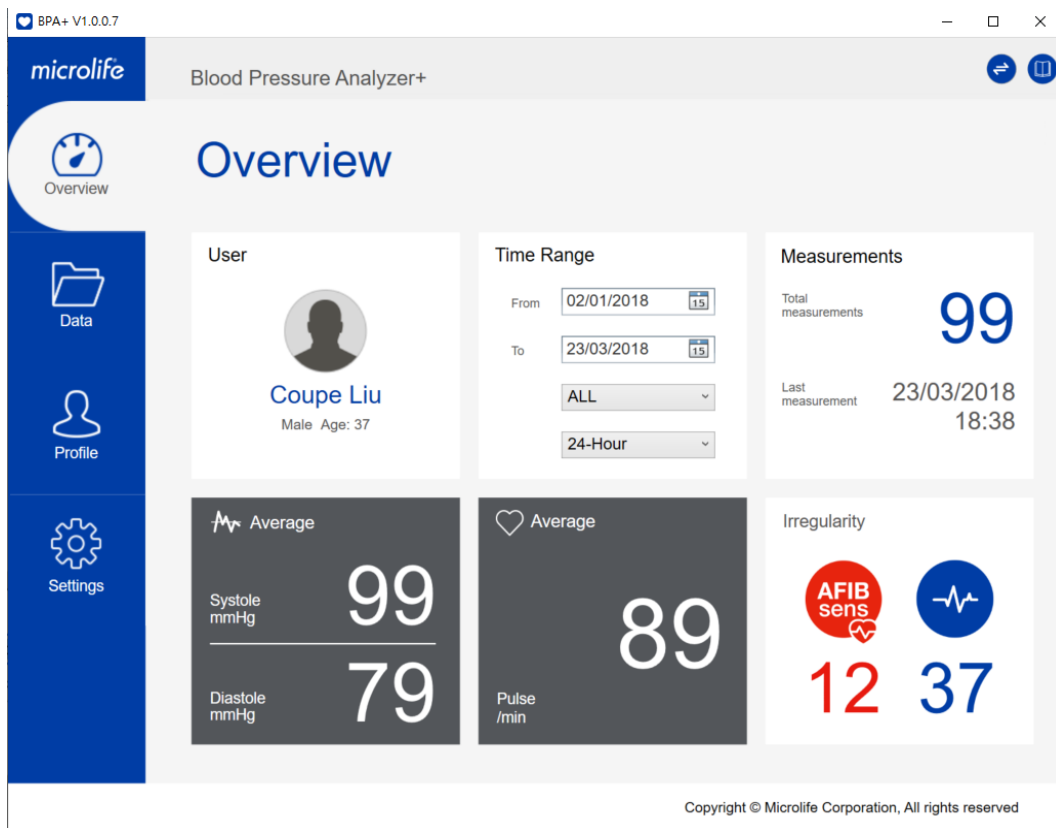
Fig-49

3.3 Select another user profile

The BPA+ program allows users to create multiple user profiles. If the user would like to download another user's data, they need to switch to the profile sheet first.
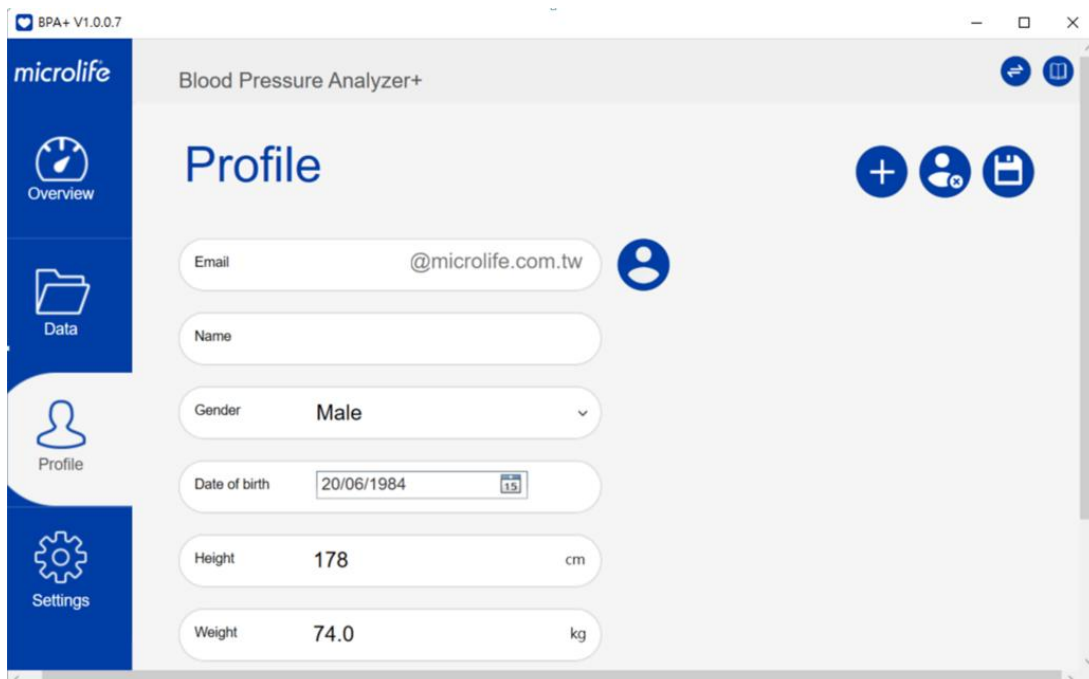
Fig-50

Step1: Users can press the 🔵icon and then the users list will be shown as below. Then users can select the specific user and press the "OK" button to manipulate continuously.
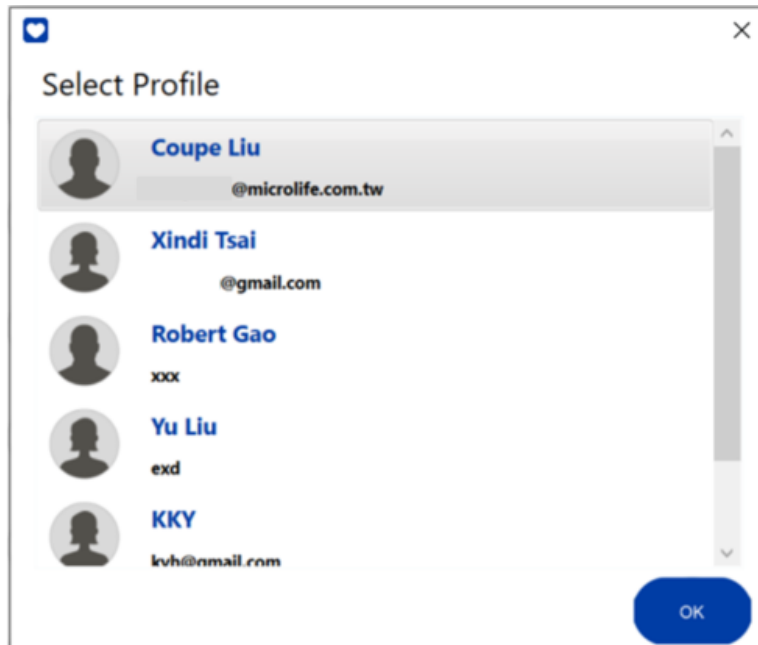
Fig-51

4 Reports

Users can export reports in CSV or PDF data format.

Note: Only the measurement data, within the selected date & time range shown on data view, will be included in the reports.

4.1 CSV Report

|	A	B	C	D	E	F	G	H	I	J	K
1	User name	Coupe Liu	DOB	20/06/1984							
2	Gender	Male	Age	37							
3	Date	Time	SYS(mmH	DIA(mmH	Pulse/min	Irregularit	Cuff fit	Mode	Notes		
4	02/01/201	00:00	50	30	30		Optimal cuff fit				
5	03/01/201	01:01	51	31	31	PAD	Sub-optimal cuff fit				
6	04/01/201	02:02	52	32	32		Optimal c	AFIBsens			
7	05/01/201	03:03	53	33	33	PAD	Sub-optim	AFIBsens			
8	06/01/201	04:04	54	34	34	AFIB/PAI	Optimal c	AFIBsens			
9	07/01/201	05:05	55	35	35		Optimal c	MAM			
10	08/01/201	06:06	56	36	36		Optimal c	MAM			
11	09/01/201	07:07	57	37	37		Optimal c	MAM AFIBsens			
12	10/01/201	08:08	58	38	38		Optimal cuff fit				
13	11/01/201	09:09	59	39	39	PAD	Sub-optimal cuff fit				
14	12/01/201	10:10	60	40	40		Optimal c	AFIBsens			
15	13/01/201	11:11	61	41	41	PAD	Sub-optim	AFIBsens			
16	14/01/201	12:12	62	42	42	AFIB/PAI	Optimal c	AFIBsens			
17	15/01/201	13:13	63	43	43		Optimal c	MAM			
18	16/01/201	14:14	64	44	44		Optimal c	MAM			
19	17/01/201	15:15	65	45	45		Optimal c	MAM AFIBsens			
20	18/01/201	16:16	66	46	46		Optimal cuff fit				

Fig-52

4.2 PDF Report

Home Blood Pressure Measurement Report

microlife

User name	USA PDF TEST// @ .	**DOB**	1854/05/04
Sex	Male	**Age**	165

Time Range

From   2018/01/01

To   2020/03/13

Measurements

Total measurements   **101**

Last measurement   2020/03/13 AM 11:14

Average

Systole mmHg   **118**

Diastole mmHg   **71**

Average

Pulse /min   **73**

Irregularity   **9**

Readings

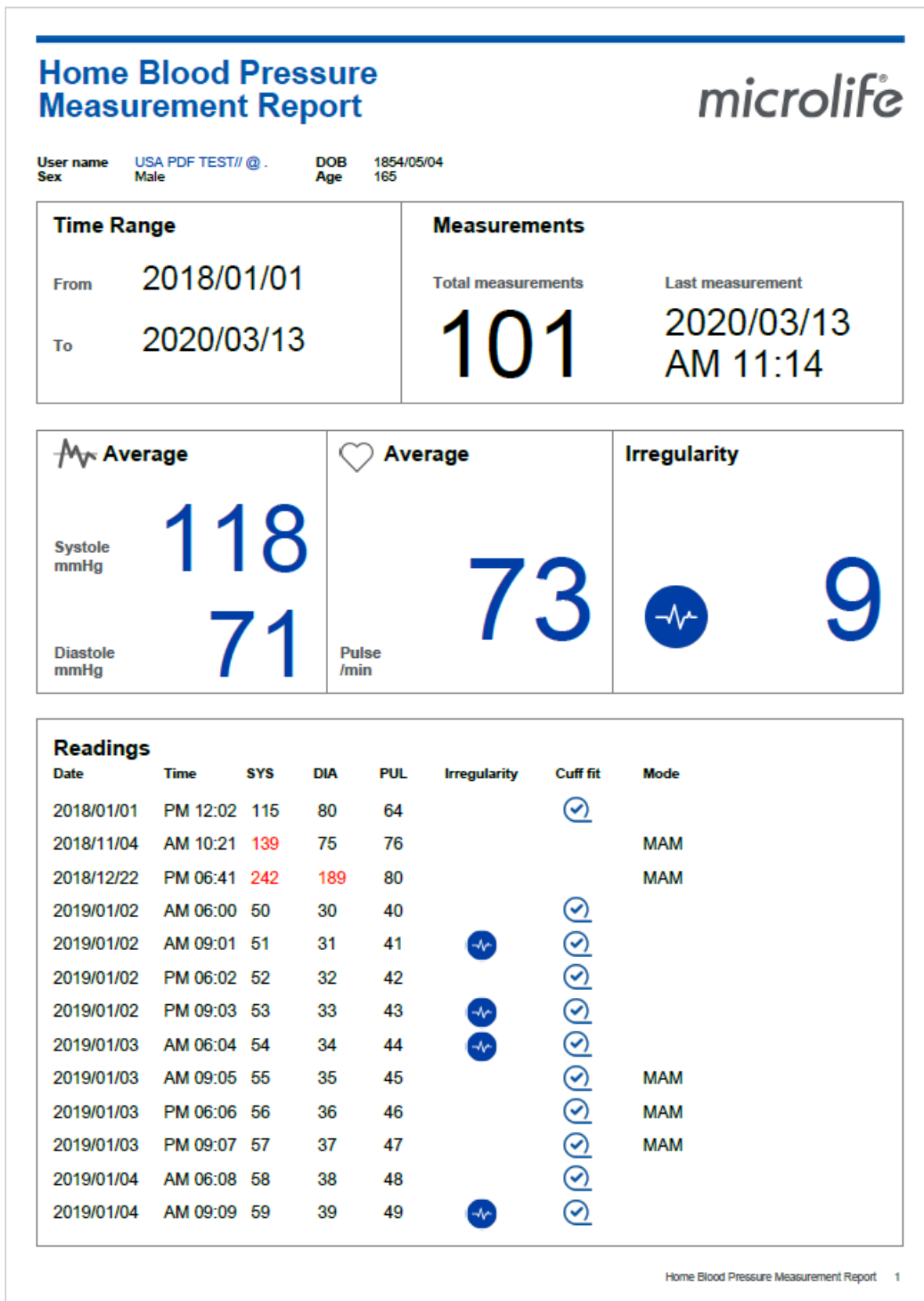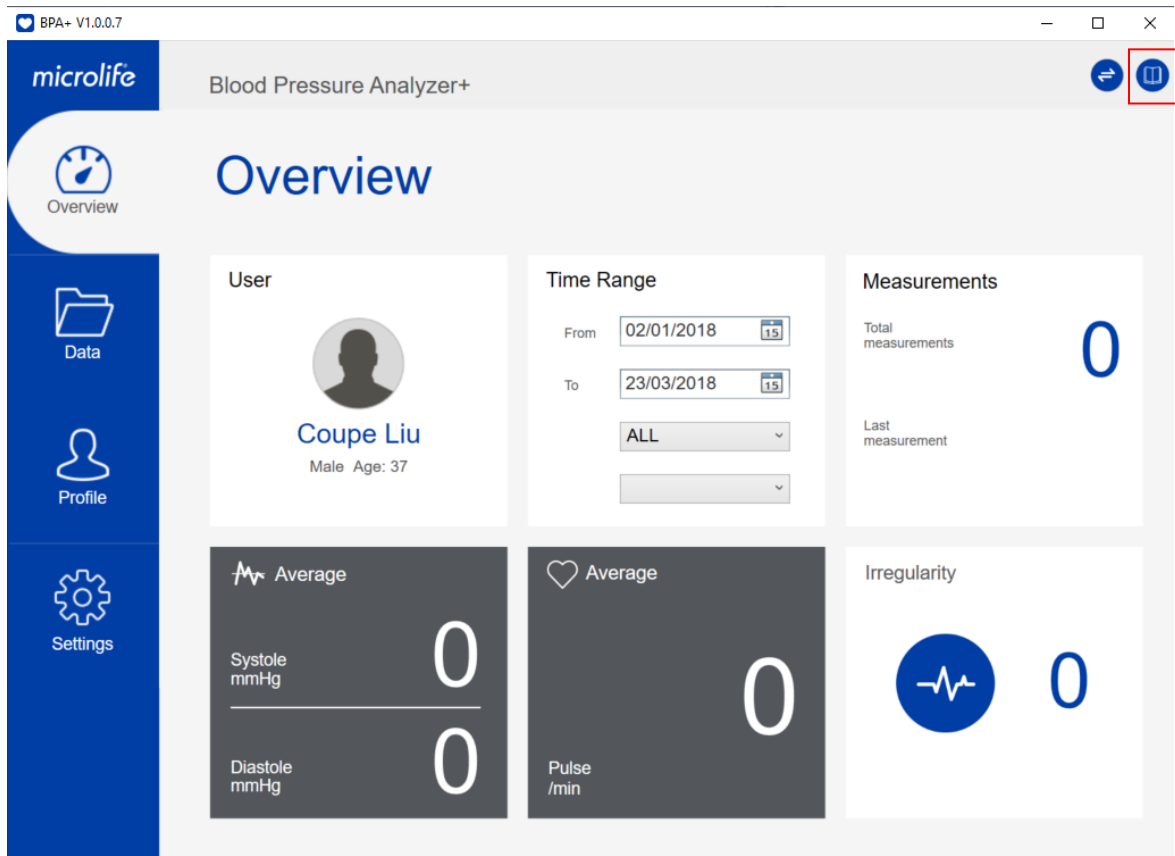| Date	Time	SYS	DIA	PUL	Irregularity	Cuff fit	Mode
2018/01/01	PM 12:02	115	80	64		✓	
2018/11/04	AM 10:21	139	75	76			MAM
2018/12/22	PM 06:41	242	189	80			MAM
2019/01/02	AM 06:00	50	30	40		✓	
2019/01/02	AM 09:01	51	31	41	∿	✓	
2019/01/02	PM 06:02	52	32	42		✓	
2019/01/02	PM 09:03	53	33	43	∿	✓	
2019/01/03	AM 06:04	54	34	44	∿	✓	
2019/01/03	AM 09:05	55	35	45		✓	MAM
2019/01/03	PM 06:06	56	36	46		✓	MAM
2019/01/03	PM 09:07	57	37	47		✓	MAM
2019/01/04	AM 06:08	58	38	48		✓	
2019/01/04	AM 09:09	59	39	49	∿	✓	

Home Blood Pressure Measurement Report   1

Fig-53

5 Instructions for Use

Users can press ⬛ to (as in Fig-54) open the webpage to download the BPA+ software instructions for use. Alternatively you can use this link to go to the webpage.

Fig-54