

Binacor LLC

BODY HEALTH ANALYZER

Breathwork Edition

Operating Manual

Version 1.4

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BODY HEALTH ANALYZER OPERATING MANUAL

1. SOFTWARE INSTALLATION

1.1. INSTALLING FROM MEDIA

Body Health Analyzer (BHA) software may be delivered on a physical media (CD, DVD, or USB Flash memory stick). To install the software from the provided media, follow these steps:

- Step 1:** Insert the CD/DVD into a CD/DVD drive. Alternatively, insert the USB Flash in any USB port.
- Step 2:** Open the media using a standard Windows File Explorer (a yellow folder icon on the taskbar).
- Step 3:** The media contains a file named as **BIASBWInstall_vX.X.XX** (depending on Windows settings it may end with **.exe**). It is a self-extracting installation program.
- X.X.XX** – is the current version number
- Step 4:** Double-click on this file name.
- Step 5:** Follow simple on-screen instructions to complete the installation process.

1.2. DOWNLOADING THE SOFTWARE

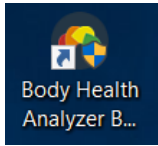
Alternatively, BHA software may be downloaded from the company's server. Contact Binacor technical support at support@binacor.com to request a download link. If you are a verified customer, you will receive an email with a secure web link to download the software installer. Follow the instructions provided in that email to install the software.

1.3. PREINSTALLED SOFTWARE

In case of purchasing a turn-key BHA system including a Windows 10 tablet, the BHA software is preinstalled and individually configured on the tablet.

2. USER ACCOUNT OPERATIONS

2.1. START / CLOSE APPLICATION

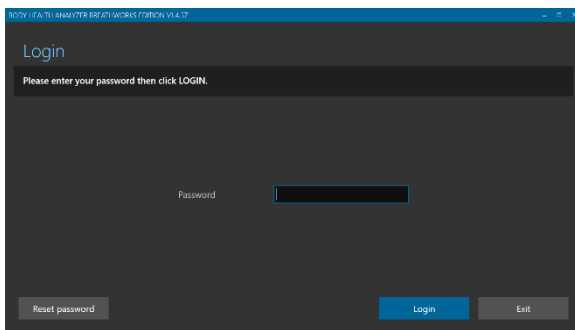


To start the **Body Health Analyzer** (from now on **BHA**) application program:

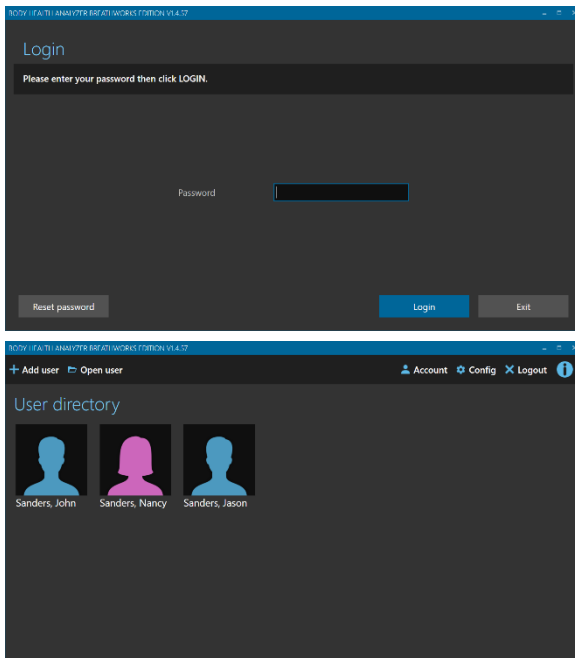
1. Open the Windows desktop screen.
2. Find the **Body Health Analyzer Breathwork Edition** application shortcut icon.
3. Double-click the icon.
4. The account login screen will open.

To close the BHA:

1. Log out of the user account.
2. Click EXIT.



2.2. LOGIN / LOGOUT



To log into the user account:

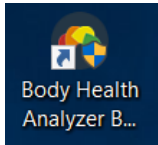
1. Bring the user login screen (it appears upon starting the BHA program or logging out of the user account).
2. Type in a user's account password.
3. Click LOGIN.
4. The user directory screen will open.

To log out of the user account:

1. Go to the user directory.
2. Click LOGOUT.

2.3. CREATE A NEW ACCOUNT

BHA allows for only one group of up to six users utilizing it on the same computer. A single group user account must be created when you run the BHA software for the first time after a clean installation. Once it is created, it will not be possible to do it again as long as the BHA database file exists in the dedicated location.



To create a new account:

1. Open Windows desktop screen.
2. Find the Body Health analyzer application shortcut icon.
3. Double-click the icon.
4. The account creation screen will open.
5. Fill out all data entry fields marked as "mandatory."
6. Fill out any optional fields.
7. Click CREATE.
8. The app will warn that it will close upon account creation and must be restarted.
9. Click CLOSE to proceed.

2.4. RESET THE ACCOUNT PASSWORD

In case you forgot the account password:

1. Bring the user login screen.
2. Click RESET PASSWORD.
3. The security question screen will open.
4. Enter a correct answer to the user's security question shown on the screen.
5. Click CONTINUE.

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Reset password

Please enter your new desired password then click RESET.

New password *
Re-enter password *
New password hint

* - Mandatory data entries

Reset Exit

6. The reset password screen will open.
7. Enter and re-enter a new password.
8. Enter a new password hint (recommended).
9. Click RESET.
10. Upon successful password reset the account login screen will open again.

2.5. EDIT THE ACCOUNT INFORMATION

Account

Please make any changes in the form below then click SAVE.

Prefix
First name *
Last name *
Suffix
Business name
Contact phone
Contact e-mail *
Contact address

* - Mandatory data entries

Save Don't save

To edit the account information:

1. Open the user directory screen.
2. Click ACCOUNT.
3. The account information screen will open.

Follow these steps to edit the user information:

1. Modify any data shown in the form.
2. Make sure all mandatory data entries are filled.
3. Click SAVE.

Change password

Please make any changes in the form below then click SAVE.

Enter current password *
New password *
Re-enter new password *
New password hint

* - Mandatory data entries

Save Don't save

To change the account password:

1. Click CHANGE PASSWORD.
2. The password change screen will open.
3. Enter the current password.
4. Enter and re-enter a new password.
5. Enter a new password hint.
6. Click SAVE.

Change security question

Please make any changes in the form below then click SAVE.

Security question *
Security answer *

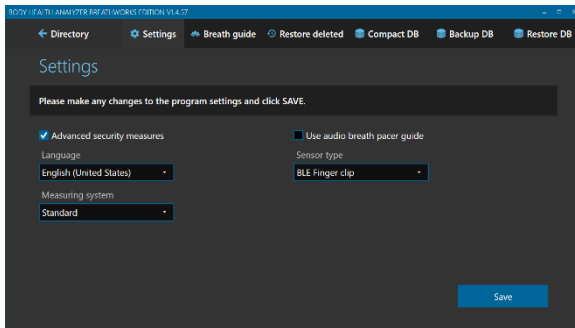
* - Mandatory data entries

Save Don't save

To change the account security question:

1. Click CHANGE SECURITY QUESTION.
2. The security question change screen will open.
3. Enter a new security question.
4. Enter a new security answer.
5. Click SAVE.

2.6. CHANGE THE ACCOUNT SETTINGS

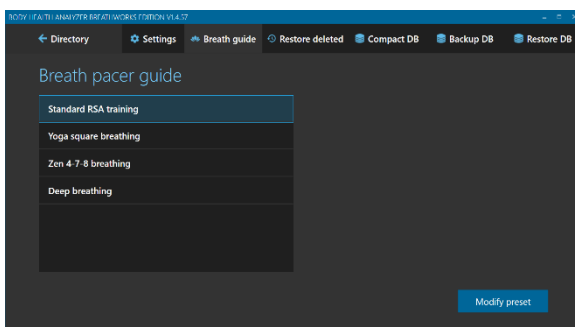


To change the account settings:

1. Open the user directory screen.
2. Click CONFIG.
3. The program configuration screen will open.
4. Set / clear a checkmark to any of the following options:
 - a. ADVANCED SECURITY MEASURES – to make the program working in the HIPAA compliant mode.
 - b. USE AUDIO BREATH PACER GUIDE – to enable playing special musical instrument scale sounds, providing a sense of pace for breathing during training sessions.
5. Use LANGUAGE to select a desired user interface language.
6. Use MEASURING SYSTEM to select either STANDARD or METRIC system of measurements.
7. Use SENSOR TYPE to select either USB EAR SENSOR or BLUETOOTH FINGER SENSOR option.
8. Click SAVE.

2.7. MANAGE BREATH GUIDES

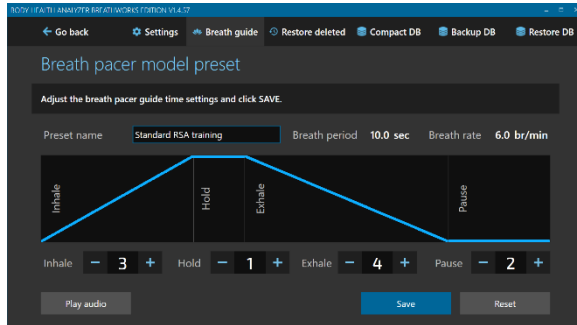
Breath guides are important tools used for de-stress biofeedback training based on paced breathing. The BHA system comes with four preset breath guides.



To modify an existing guide:

1. Open the program configuration screen.
2. Click BREATH GUIDE.
3. The breath guide selection screen will open.
4. Select a guide from the list.
5. Click MODIFY PRESET.

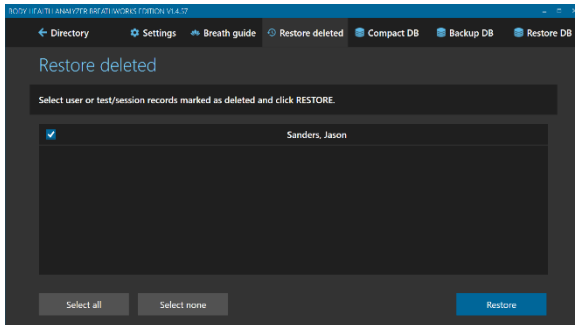
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6. The preset editing screen will open.
7. Update the preset name if needed.
8. Use the “plus” and “minus” buttons to set any of four breath guide phase durations: INHALE, HOLD, EXHALE, and PAUSE.
9. Click PLAY AUDIO to listen to how the musical instrument scale will sound for this guide (optional).
10. Click RESET to reset all durations to their factory values (optional).
11. Click SAVE.
12. The breath guide selection screen will open.

3. DATABASE OPERATIONS

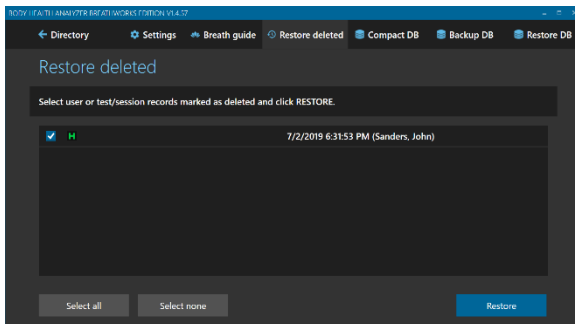
3.1. RESTORE DELETED USER RECORDS



To restore any deleted user records:

1. Open the program configuration screen.
2. Click RESTORE DELETED.
3. The restore deleted selection screen will open.
4. Select one or more user records to restore. Use SELECT ALL or SELECT NONE if needed.
5. Click RESTORE to restore the selected records.

3.2. RESTORE DELETED SESSION RECORDS



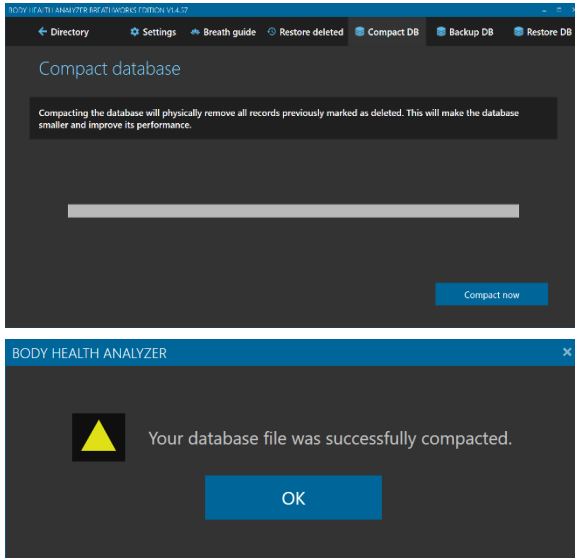
To restore any deleted training session records:

1. Open the program configuration screen.
2. Click RESTORE DELETED.
3. The restore deleted selection screen will open.
4. Select one or more session records to restore. Use SELECT ALL or SELECT NONE if needed.
5. Click RESTORE to restore the selected records.

3.3. COMPACT DATABASE CONTENT

When you delete any user record or training session, the software does not physically delete them. Those records are just marked “to be deleted” and become hidden. To physically remove them from the database and free up the taken space, the database must be compacted.

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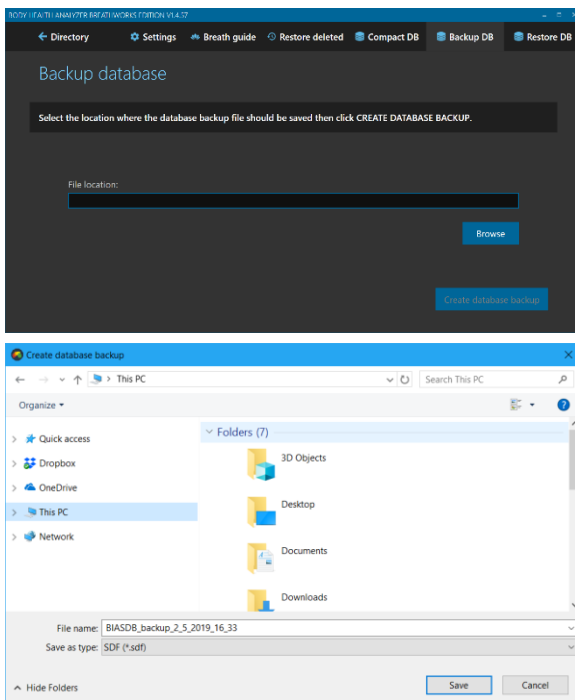


To compact the database:

1. Open the program configuration screen.
2. Click COMPACT DB.
3. The compacting database screen will open.
4. Click COMPACT NOW to commit compacting the database.
5. Once database compacting is done, this message box will open.
6. Click OK to finish.

3.4. BACKUP DATABASE

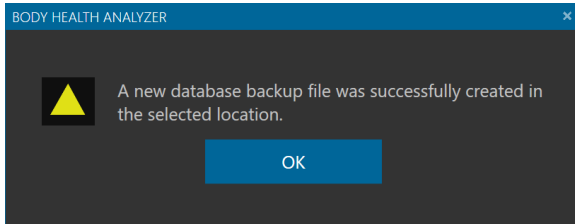
A computer hard disk (where the database is stored) is a reliable device, but it may eventually fail risking to lose your data. Creating backup copies of the database is an important measure to keep the collected data safe in case of disk failures. It is highly recommended to save backup copies on an external hard drive specially dedicated for data backups.



To create a backup copy of the database:

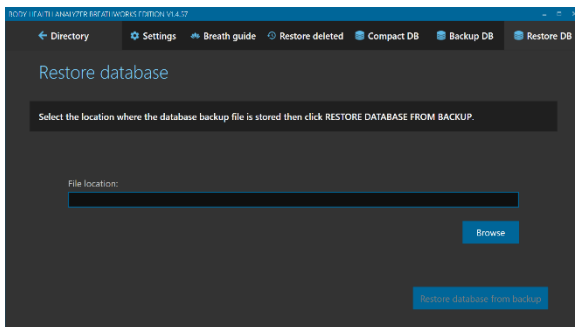
1. Open the program configuration screen.
2. Click BACKUP DB.
3. The database back up screen will open.
4. Click BROWSE.
5. A standard Windows save file dialog box will open.
6. Select an appropriate location for a backup file.
7. The application will automatically generate a name for a backup file (recommended), but it may be changed to any other name.
8. Click SAVE.
9. The dialog box will close, and the application will automatically fill the backup file location path field.
10. Click CREATE DATABASE BACKUP.

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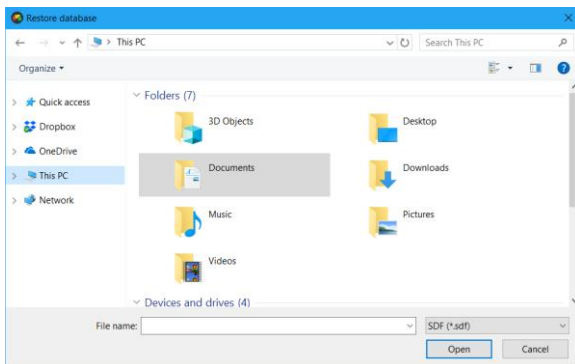
11. Once finished, this message box will open.
12. Click OK to finish.

3.5. RESTORE DATABASE

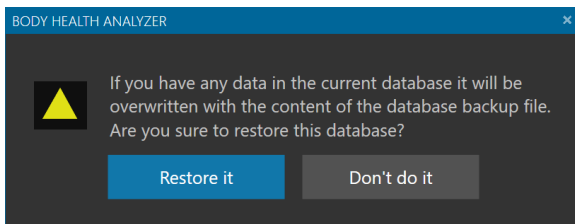


To restore the database from a backup copy:

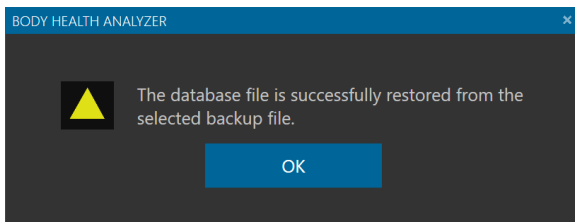
1. Open the program configuration screen.
2. Click RESTORE DB.
3. The database restore screen will open.
4. Click BROWSE.



5. A standard Windows open file dialog box will open.
6. Select an appropriate location of the required backup file.
7. Click OPEN.
8. The dialog box will close, and the application will automatically fill the backup file location path field.
9. Click RESTORE DATABASE FROM BACKUP.



10. A confirmation message box will open.
11. Click RESTORE IT.



12. Once finished, this message box will open.
13. Click OK to finish.
14. The application will open the login screen.

4. USER OPERATIONS

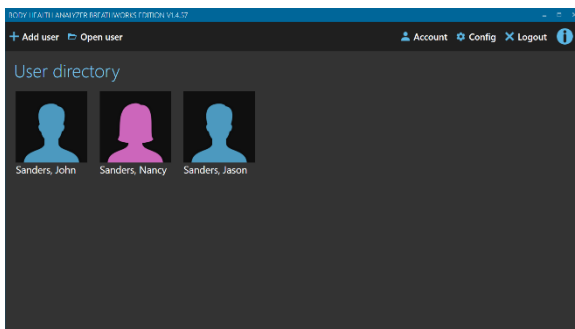
4.1. CREATE A NEW USER RECORD

To create a new user record:

1. Open the user directory screen.
2. Click ADD USER.
3. The new user record screen will open.
4. Fill the form. Make sure that you filled all mandatory data entries.
5. Click CREATE.
6. A newly created user record card will appear on the user directory screen.

Maximum SIX user records are allowed for a group account in the Home Edition.

4.2. OPEN A USER RECORD



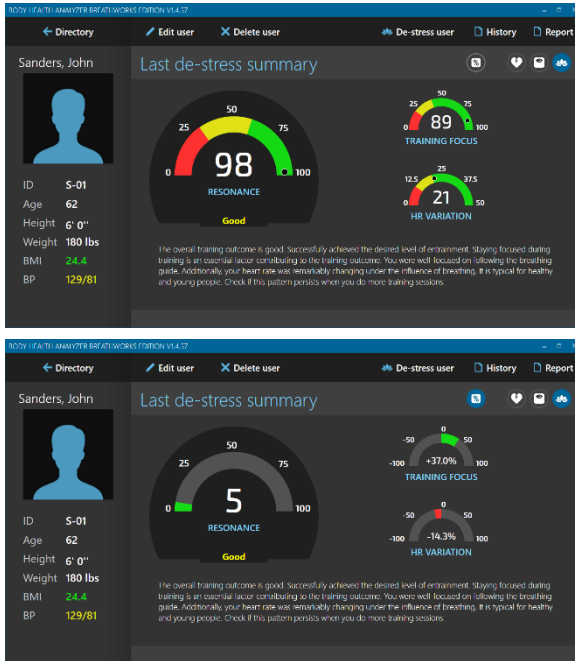
To open a user record:

1. Open the user directory screen.
2. Find a card with a female or male silhouette and the required user name.
3. Open the record with one of these options:
 - a. Double-click the selected card.
 - b. Single-click the card, then click OPEN USER.


4.3. VIEW USER DASHBOARD

A user dashboard shows the user personal information and the most recent training session results.

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To view the user dashboard:

1. Open the user record.
2. The user dashboard screen will open.
3. View the most recent results on the de-stress summary page.
4. Click  icon to switch the dial displays from showing the absolute readings to their percents of change since the previous session. Click it again to toggle back to the absolute readings.

4.4. EDIT USER PROFILE

Follow these steps to edit the selected user profile:

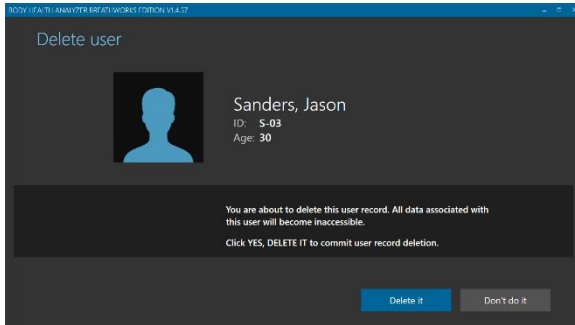
The figure shows a screenshot of the "Edit user" form. At the top, it says "Please make any changes in the form below then click SAVE." The form has several fields: "User ID" (S-01), "First name" (John), "Last name" (Sanders), "Gender" (Male selected), "Date of Birth" (Aug 6, 1956), "Height" (6 ft 0 in), "Weight" (180 lb), "Contact phone" (360-111-2222), "Contact e-mail" (jr@gmail.com), and "Contact address" (123 Main Street, Seattle, WA 98170). There is a "Health notes" text area. At the bottom, there are "Save" and "Don't save" buttons. A note at the bottom left says "* - Mandatory data entries".

To edit a user profile:

1. Open the user dashboard screen.
2. Click EDIT USER.
3. The user record form screen will open.
4. Edit any data in the form. Make sure all mandatory fields are not blank.
5. Click SAVE.
6. The dashboard screen will open again.

4.5. DELETE USER RECORD

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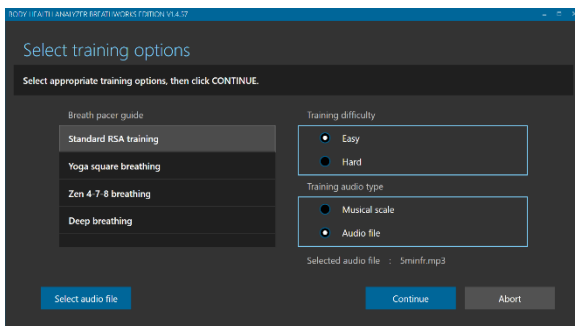


To delete a user record:

1. Open the user dashboard screen.
2. Click DELETE USER.
3. The user deletion screen will open.
4. Click YES, DELETE IT.
5. The updated user directory screen will open.

The deleted user record will not be permanently destroyed. It will be marked as hidden. When the database is compacted, all deleted records will be permanently destroyed.

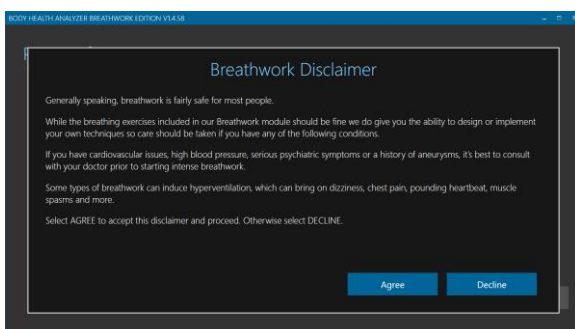
4.6. DE-STRESS SELECTED USER



To run a new de-stress training session:

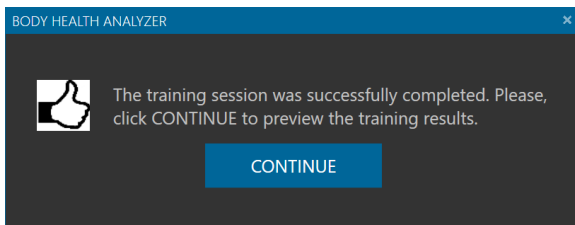
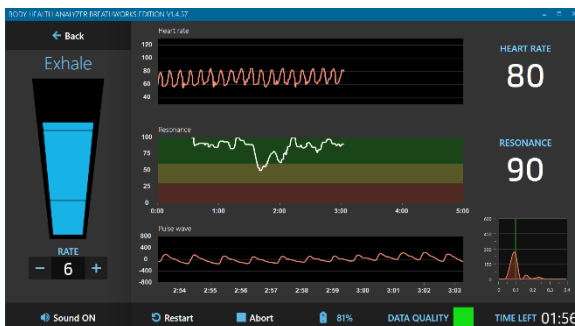
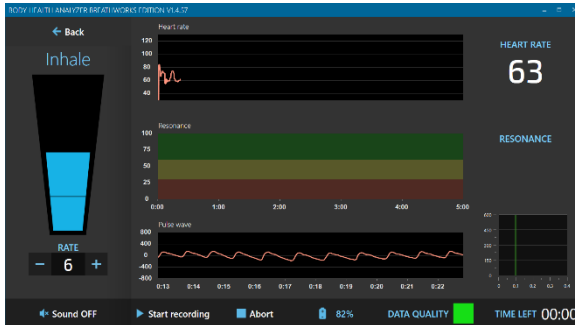
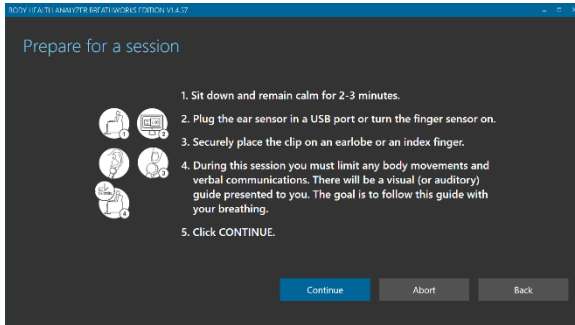
1. Open the user dashboard screen.
2. Click DE-STRESS USER.
3. A training options selection screen will open.
4. Select an appropriate breath pacer guide from the list.
5. Select a training audio type (MUSICAL SCALE or AUDIO FILE) if it is not set to the desired value.
6. Click SELECT AUDIO FILE if the audio file option is selected. Use a standard file open dialog to navigate to the desired location and choose an MP3 file to use for training.
7. Select an appropriate difficulty level (EASY or HARD).
8. Click CONTINUE.

The app will store all these selections for the selected user.



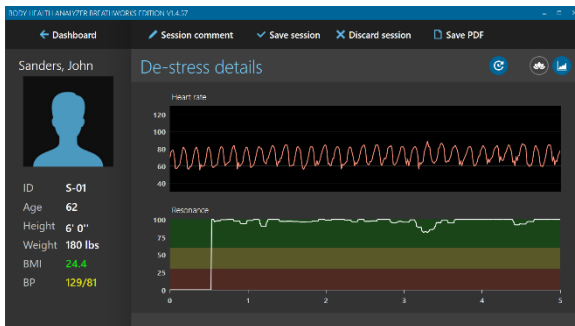
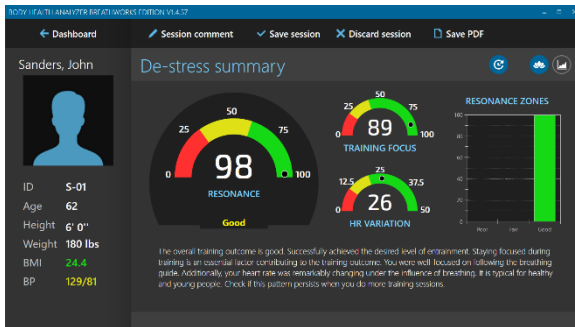
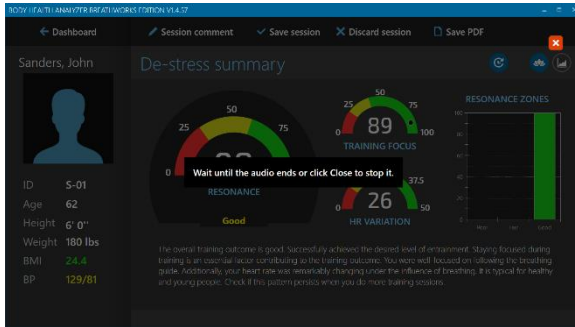
9. If you run a de-stress training session for the first time, the system presents a disclaimer screen to agree with.
10. Click AGREE to continue. Clicking DECLINE will abort the session.



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11. An instruction screen to prepare for a new training session will open.
12. Follow the instructions.
13. Click CONTINUE.
14. A real-time training screen will open.
15. Wait until the pulse wave signal gets stabilized, and normal HR readings start showing on the HR graph.
16. If a Bluetooth finger sensor is used, check the battery display to see if the battery charge is sufficient to run a 5-min session. Running on less than 5% of the battery is not recommended.
17. Click “plus” or “minus” buttons to set an appropriate rate (breaths per minute) for a visual and auditory breathing guide.
18. Click START RECORDING to begin a new 5-min session recording.
19. Toggle SOUND ON/OFF to turn the selected audio training feature on or off.
20. Follow the breathing guide with your actual breathing.
21. During training, periodically check the spectrum display in the bottom right part of the screen. When you follow the breath guide well, a pink peak will appear near the vertical green line.
22. Once the new training session is finished, a message box will open.
23. Click CONTINUE.

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24. If the used audio file is longer than 5 minutes, it will continue playing after the session is over. A semi-transparent mask will be placed on top of the session preview screen until the audio finished.
25. Click the cross icon to stop playing audio and open the session preview screen.
26. A new session results preview screen will open.
 1. Review the training results. The screen has two summary pages: de-stress summary and de-stress graphs.
 2. There are two toggle icons on the right side of the top bar representing two summary pages.
27. By default, the app shows de-stress summary information. If the user switches to the other page, clicking the  icon will open the de-stress summary page.
28. Click the  icon to view the details of the training session data in the form of time graphs.
29. Click SAVE SESSION to save new session results in the user record or DISCARD SESSION to drop the results.

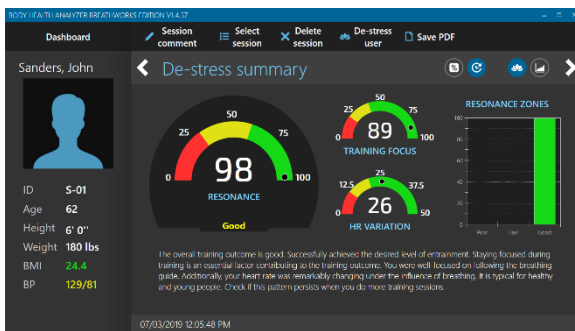
5. USER DATA OPERATIONS

5.1. VIEW SELECTED TRAINING SESSION REPORT




To view a training session report:


1. Open the user dashboard screen.
2. Click REPORT.
3. A session report selection screen will open.
4. Use the calendar selector to find a date when a session of interest was recorded.
5. Click on a "T" icon in the appropriate date grid.
6. If more than one session were recorded on the selected date, a list of session date/times for this day would pop up. Select an appropriate date/time to open.
7. The selected session report screen will open.
8. Review the session results. The screen has two summary pages: de-stress summary and de-stress graphs. There are two toggle icons on the right side of the top bar representing two summary pages.
9. By default, the app shows the de-stress summary information. If the user switches to the other page, clicking the  icon will open the de-stress summary page.
10. Click  to switch the dial displays from showing the absolute readings of the last measured biometrics to the percent of change since the previous session. Click it again to toggle back to the absolute readings.
11. If  is not set to show this session data on the history charts, this means there is another session recorded on the same day, and it was set to be included in the history report. Set this icon by making it blue to include this session in the history (this will exclude the other session previously included for this day).



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12. Click the  icon to view the details of the training session data in the form of time graphs.

13. Click  or  icon to move between the training session reports.

5.2. EDIT SESSION COMMENTS

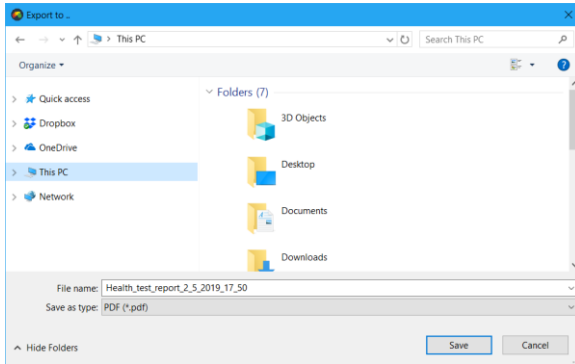
To add, view or modify special comments to the selected session:

1. Open a training session report screen.
2. Click EDIT SESSION COMMENT.
3. A session comment edit window will open.
4. Click BROWSE to show a list of previously saved preset comments. If an appropriate preset comment is on the list, select it to place in the comment field.
5. Enter (or modify the preset) comment in the comment text field.
6. Set SAVE AS PRESET checkbox to add this new comment to the list of preset comments.
7. Click SAVE.
8. The comment edit window will close.

Session comments can be viewed on the printed reports or saved in PDF files.

5.3. SAVE SESSION REPORT IN PDF FILE

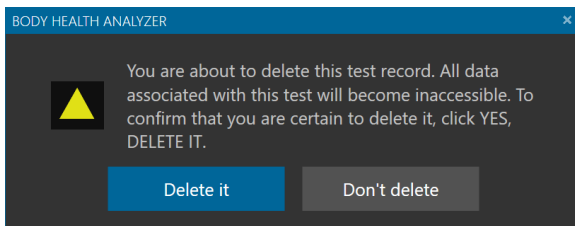
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To save a session report in a PDF file:

1. Open the selected training session report screen.
2. Click SAVE PDF.
3. A standard Windows save file dialog box will open.
4. Use the dialog box to specify an appropriate location for a PDF file to be created.
5. The application will automatically generate a file name for the report, but it may be changed to any other name.
6. Click SAVE.
7. Once the PDF file is created, a task completion message box will open.
8. Click OK to finish the task.

5.4. DELETE SESSION RECORD

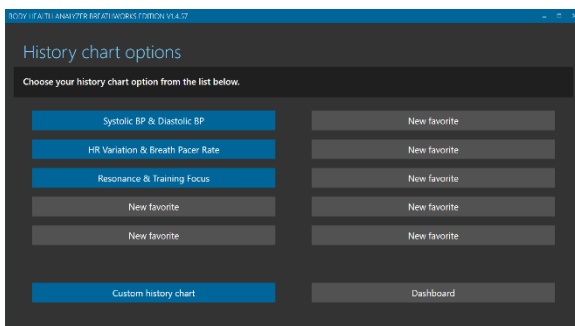


To delete a session record:

1. Open the selected training session report screen.
2. Click DELETE SESSION.
3. The session deletion prompt will open.
4. Click DELETE IT.
5. Once deleted, the user dashboard screen will open.

The deleted session record will not be permanently destroyed. It will be marked as hidden. When the database is compacted, all deleted records will be permanently destroyed.

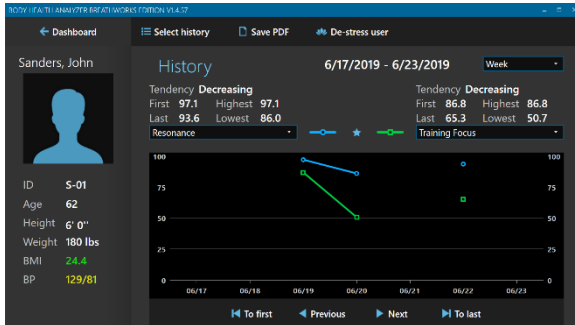
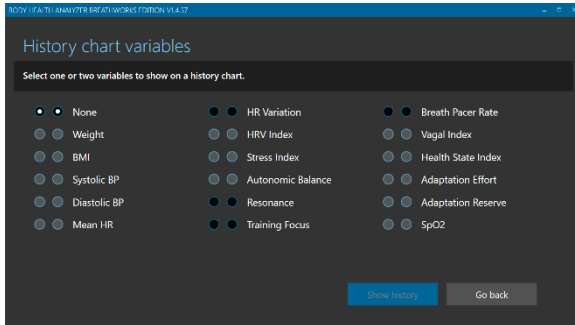
5.7. VIEW HISTORY



To view history reports:

1. Open a user dashboard screen.
2. Click HISTORY.
3. A screen to select the history chart options will open.
4. Click the CUSTOM HISTORY CHART.
5. If there is an appropriate chart on the list of up to 10 favorite charts, click on it to immediately open that chart.

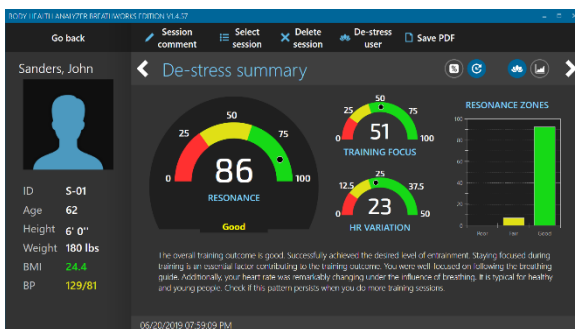
BODY HEALTH ANALYZER OPERATING MANUAL



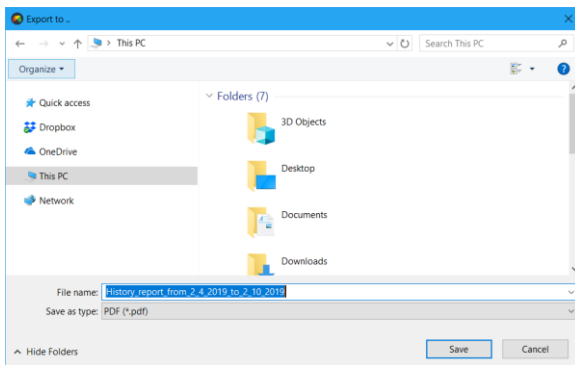
6. A screen to select the history chart variables will open.
7. Select one or two variables to show the history of. The combination of both variables set to NONE is not allowed. The first variable set to NONE is not allowed.
8. Click SHOW HISTORY.

9. A history chart of the selected variables will open on the screen.
10. Set the time of the history chart to one of the following options: WEEK, MONTH, or YEAR.
11. Click a button to scroll the history with a preset period:
 - a. TO FIRST – move to the period containing the first stored results.
 - b. PREVIOUS – move to the previous period.
 - c. NEXT – move to the next period.
 - d. TO LAST – move to the period containing the last stored results.
12. Use the dropdown lists of the variables to the left and right of the legend to change the variables on the current chart.
13. Click SELECT HISTORY to return to the history options selection screen and select another history chart.
14. If the small star between legend symbols is white, the current history chart may be configured as a favorite. Click on the white star to turn it to blue. The current combination of the displayed variables will be added to the next available position of the favorite charts (10 maximum). Click on the blue star to make it white and remove from the list of favorites.

15. Click on any node (blue circle or green rectangle) representing a particular session on the chart to open its detailed report.
16. Click GO BACK to return to the history chart.



5.8. SAVE HISTORY REPORT IN PDF FILE



To save a history report in a PDF file:

1. Open an appropriate history chart.
2. Click SAVE PDF.
3. A standard Windows save file dialog box will open.
4. Use the dialog box to specify an appropriate location for a PDF file to be created.
5. The application will automatically generate a file name for the report, but it may be changed to any other name.
6. Click SAVE.
7. Once the PDF file is created, a task completion message box will open.
8. Click OK to finish the task.