

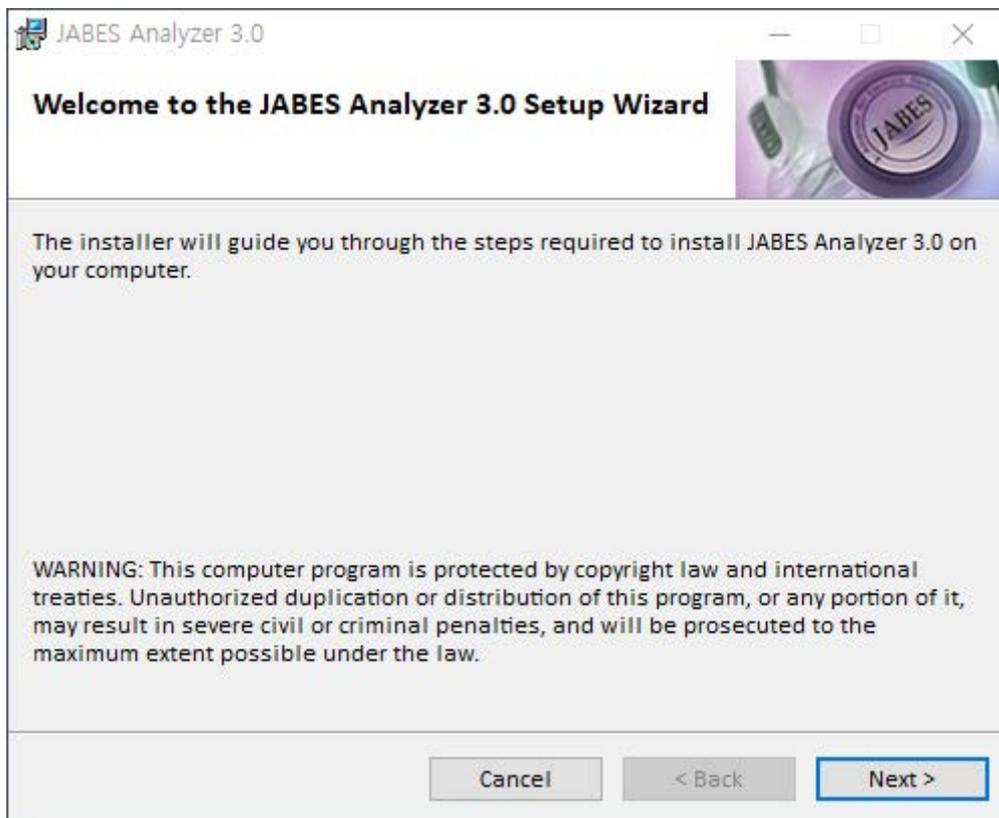
## 1.0 How to install JABES Analyzer 3.0

### 1.1 Recommended Installation Environment

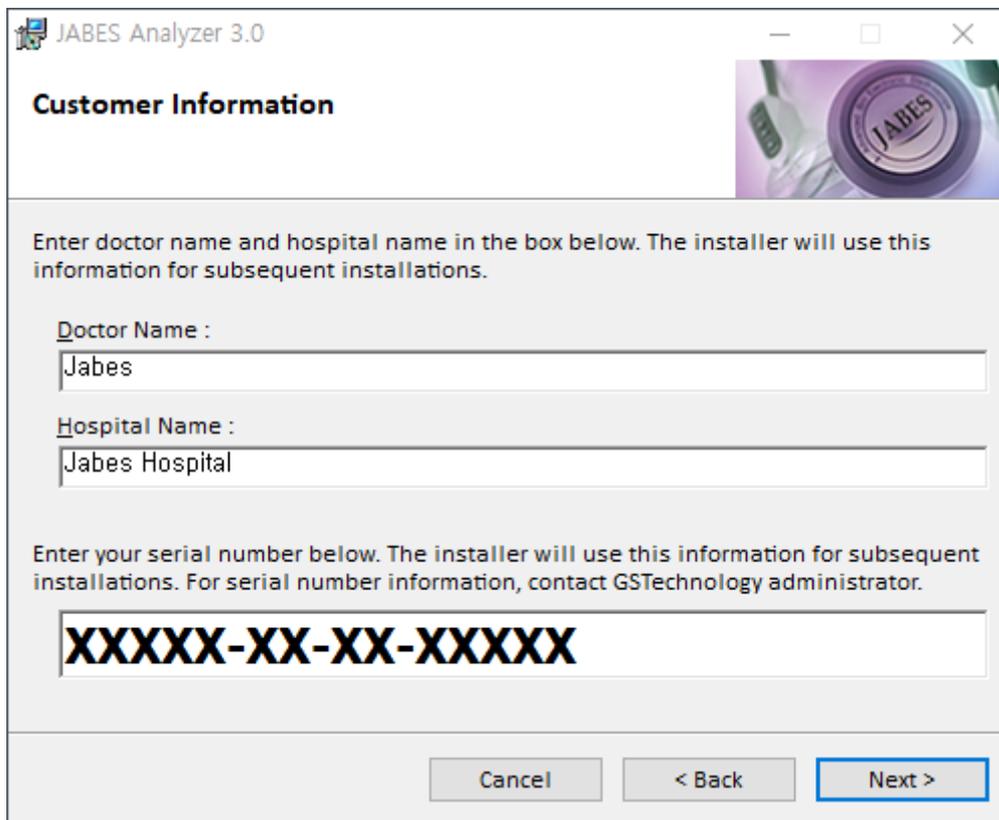
- CPU: 2.0 GHz or higher
- Operating System: Window 7, Windows 10, 32- or 64-bit
- Memory: 4GHz or higher
- Hard disk space: 1.0 GB or higher
- Peripheral devices: Sound card, speakers

### 1.2 How to install

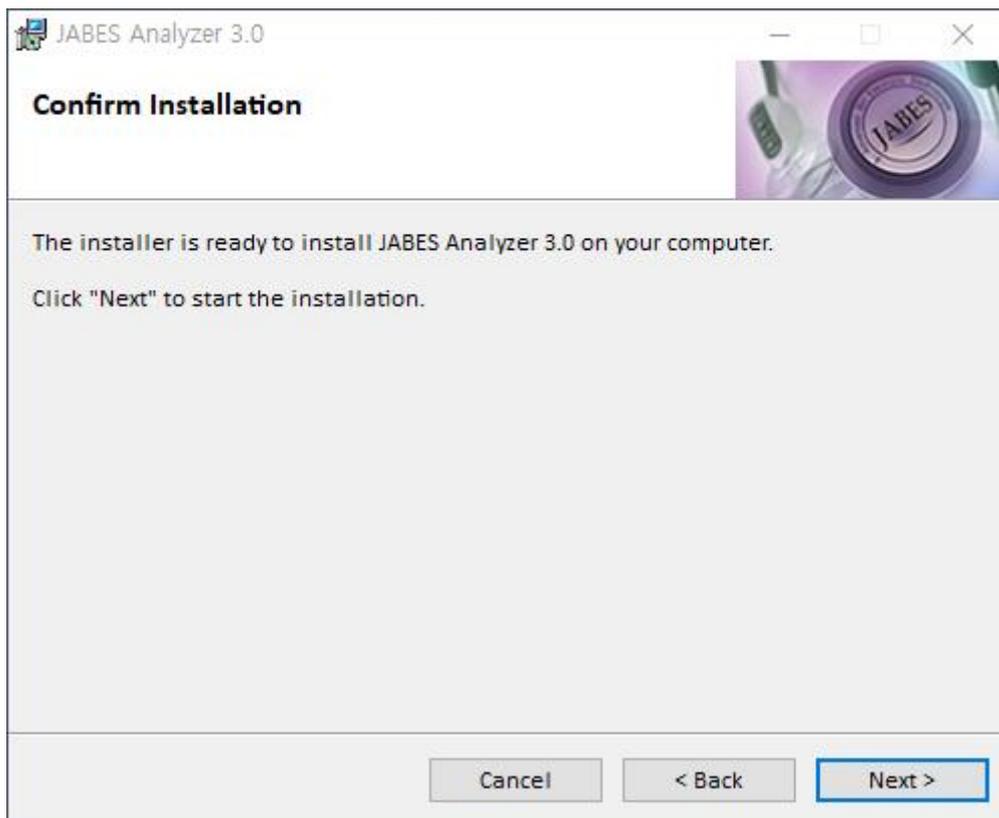
- Download JABES Analyzer 3.0 installer after connecting to <http://ejabes.com>
- Run JABES Analyzer 3.0\_Seup.exe
- JABES Analyzer 3.0 - Install Shield Wizard
  - ✓ Welcome to the JABES Analyzer 3.0 Setup Wizard



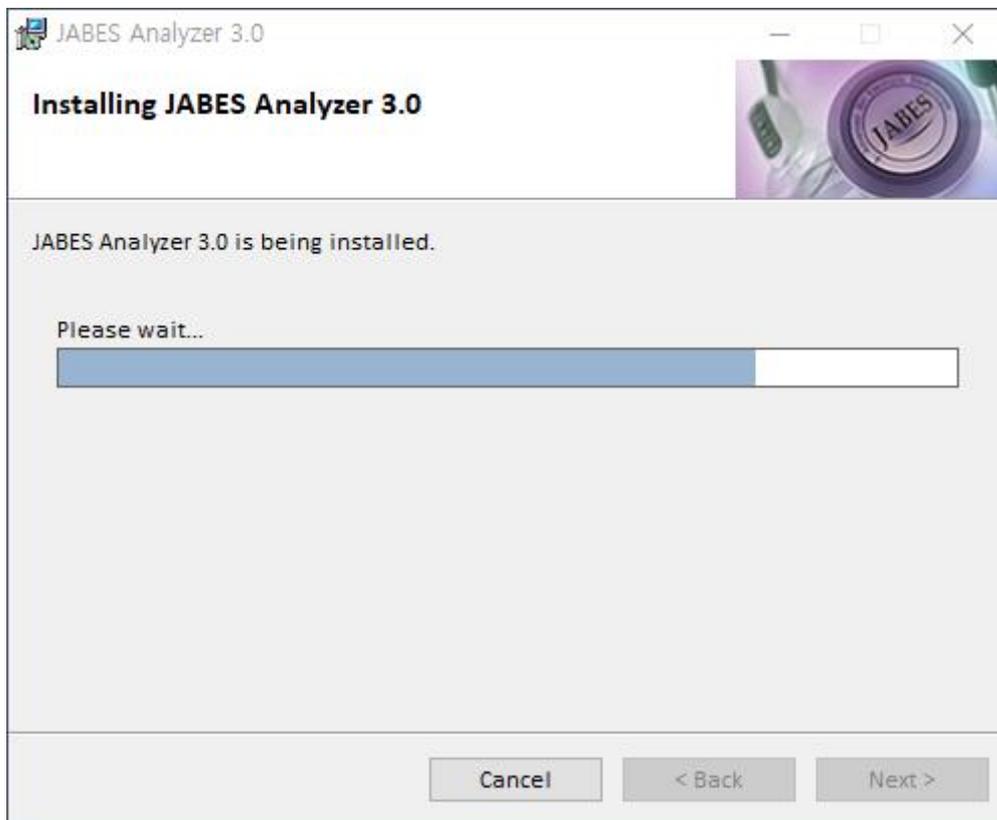
- ✓ Customer Information



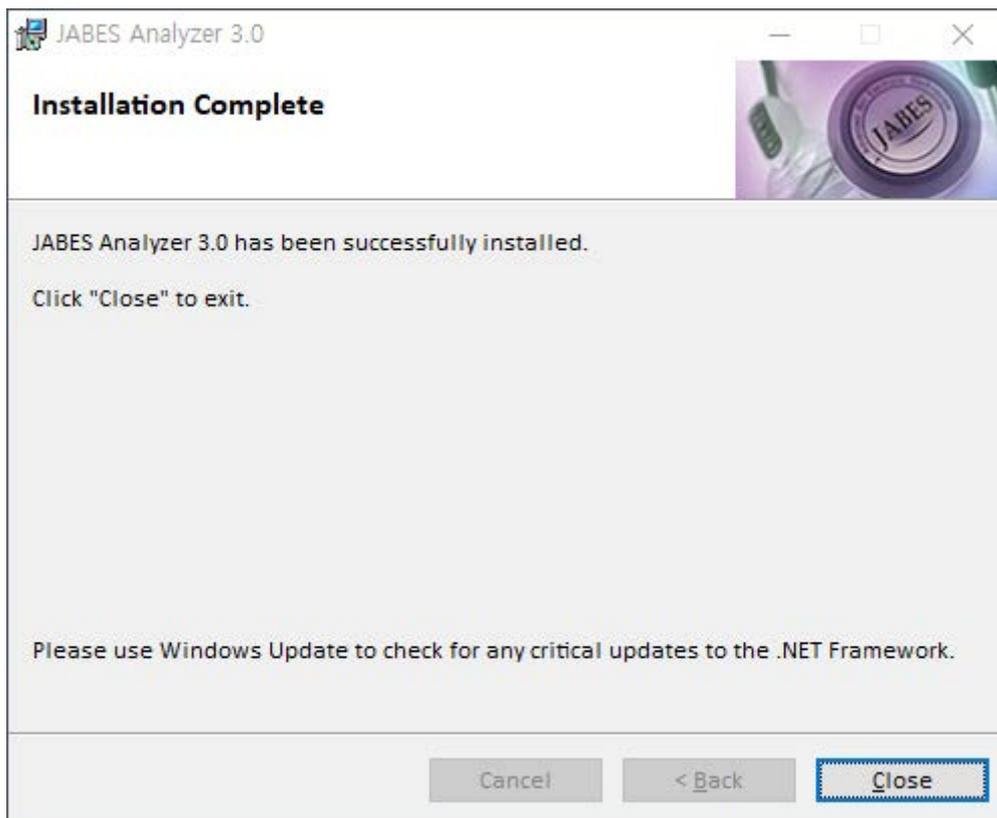
✓ Confirm Installation



✓ Install Progress



✓ Installation Completed



### 1.3 Start-up/Environmental composition and Accept the terms and conditions

□ JABES Analyzer 3.0 – Start Application

✓ Splash Screen



✓ Configuration

JABES Analyzer Config

**Customer Information**

Hospital code :  1

Hospital name :  2

Doctor id :  3

Doctor name :  4

**Server Information**

Server url :  5

port :  6

Data upload :  On  Off 6

**Language**

Language :  Korean  English 7

**Terms & Conditions**

8  Accept the terms and conditions

9  10

1. Hospital code : Automatically generate
2. The name of Hospital: Direct input by user (\*Required item)
3. Doctor's id : Automatically generate
4. Doctor's name : Direct input by user (\*Required item)
5. Server url, port : Information of Jabes Server
6. Data upload on/off : Set up stethoscope's information on JABES server upload
7. Language Korean / English : Set up Language
8. View Terms : View and accept terms and conditions (\*Unable to use without consent)

JABES Analyzer 3.0 Terms & Condition

### JABES Analyzer 3.0 Terms Conditions

JABES

JABES Analyzer 3.0 Software usage terms and conditions.

Read these Terms and Conditions before installing the JABES Analyzer Software (hereinafter referred to as the "Software").

The Terms and Conditions of Use of JABES Analyzer Software (hereinafter referred to as the "Terms of Use") is a legal agreement between GS Technology Co., Ltd. (hereinafter referred to as the "Company") and users. In addition to being distributed as a CD-ROM, the software includes online services using a wired network, software products included in the service, and all combinations of free, paid versions.

If you press the "accept" button, or if the software is installed, copied or otherwise used, you will be deemed to accept the Terms and Conditions. In addition, agreeing to use this software means agreeing to collect sound from patients such as the heart and respiratory system for data base work for artificial intelligence (AI) diagnosis.

If you do not agree to these terms and conditions, press the "Cancel" button or do not install the software. Installing the Software implies that you have read, understood and agreed to the Terms and Conditions.

1. Using the Software
  - 1) Software is a software created for the service provider of the software vendor and licensee. Users can install and use software on personal computers except for PC at Public place such as home, company, hospital, school, government office (not subject to software restriction). You may not use any part or all of the Software for commercialization or for commercial purposes.
  - 2) You may only use the Software and Documentation in Your use of the Software and Documentation in such a manne

I agree with the terms and condition.  I do not agree with the terms and condition.

Submit Cancel

9. Submit : Save the configuration of environment and start the JABES Analyzer 3.0
10. Cancel : Cancel the configuration of environment (\*Exit the installer)

## 2.0 Screen Configuration of JABES Analyzer 3.0

### 2.1 Main Screen

The screenshot shows the JABES Analyzer 3.0 interface. It features a top toolbar (1), a patient information section (2) with fields for name, age, and gender, and a table of patient records. The main area displays two waveforms: a patient's heart sound (3) and a reference waveform for HSM (4). A bottom toolbar (5) contains icons for registration and sound devices. The interface is titled 'Jabes Hospital' and 'Jabes'.

Date	Origin	Diagnosis	Opinion
2018-11-19	Breathing		Normal
2018-11-25	Heart		Normal

No	Origin	Diagnosis	Explain
1	Heart	Normal H...	Stethoscope region ...
2	Heart	EDM	EDM(Early Diastolic ...
3	Heart	ESM	ESM(Early Systolic ...
4	Heart	AFM	AFM(Austin Flint M...
5	Heart	HSM	HSM(Holosystolic ...
6	Heart	S3 Rumble	S3 Rumble
7	Heart	Continuo...	Continuous Murmur
8	Heart	MSM	MSM(Mid Systolic ...
9	Heart	LSM	LSM(Late Systolic ...
10	Heart	MDM & ...	MDM(Mid Systolic ...
11	Heart	Apex	Apex: Midsystolic C...

1. Main Toolbar

2. Patient information screen

3. Screen showed the results of the stethoscope and examination, to display of test waveform

4. List screen referencing waveforms

5. Display screen referencing waveforms

6. Tools to set up registration information and sound devices

### 2.2 Toolbars

The image shows a close-up of the toolbars. The left toolbar (1-4) contains icons for patient management: 1. Register New Patient / Cancel, 2. Save Patient Information, 3. Delete Patient Information, 4. Search Patient Information. The right toolbar (5-8) contains icons for system functions: 5. Registration, 6. Sound devices, 7. Information, 8. Help.

1. Register New Patient / Cancel

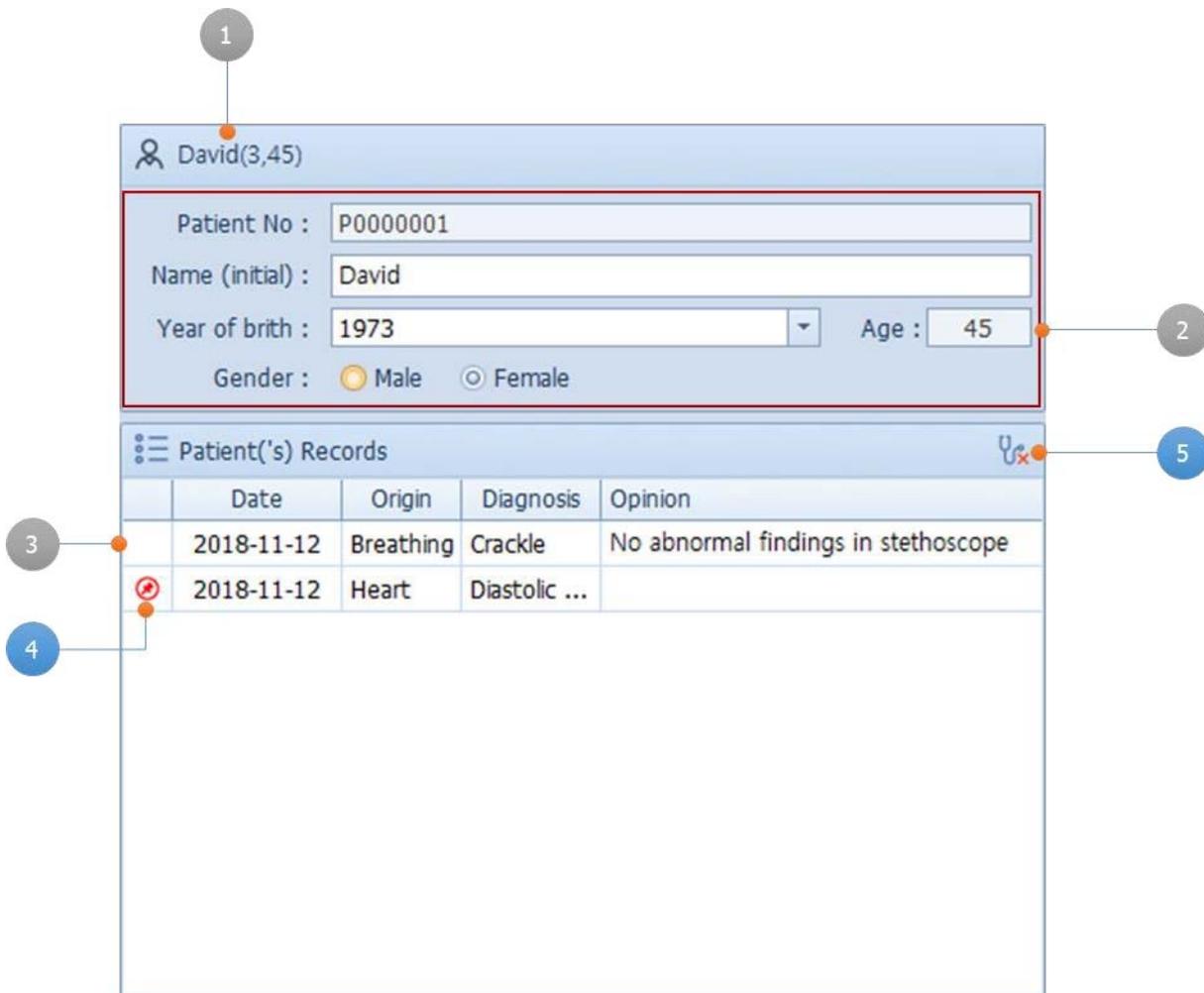
2. Save Patient Information

3. Delete Patient Information

4. Search Patient Information

- 5. Settings
- 6. Update the JABES Analyzer
- 7. About the JABES Analyzer
- 8. Help

### 2.3 Patient Information Screen



1. Basic information of the patient (name, sex, age)

2. Patient Details

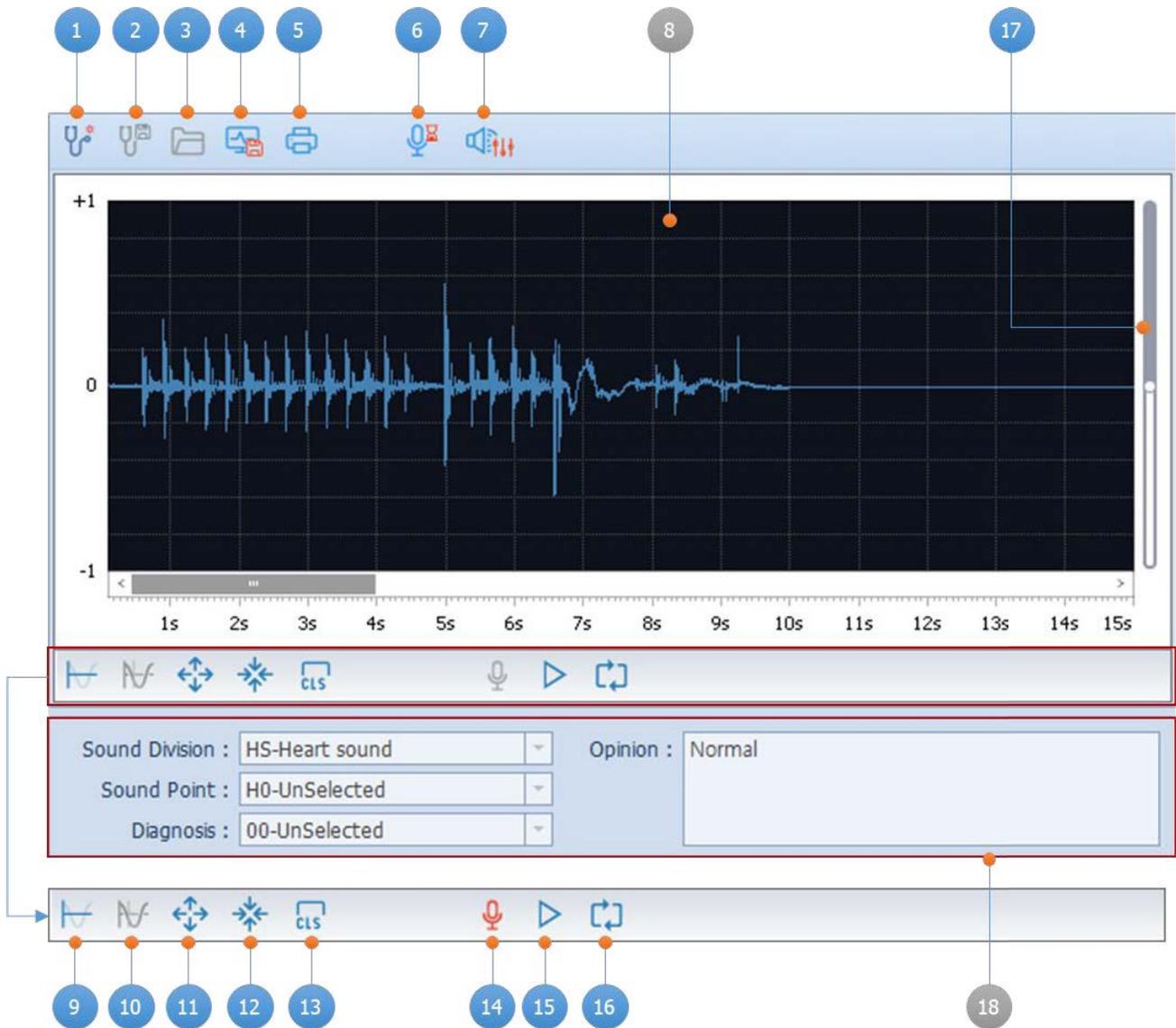
3. List of examination results

4. Current Examination Results

5. Delete Examination Results

\*\* Clicking on a list of examination results, the examination results are displayed in detail on the right

### 2.4 View results of stethoscope and examination/ Screen displaying the examined waveform



1. Creating a new examination result  / Cancel 

2. Save Examination Results 

3. Import recording wave file

4. Register reference waveform

5. Print Examination Waveform

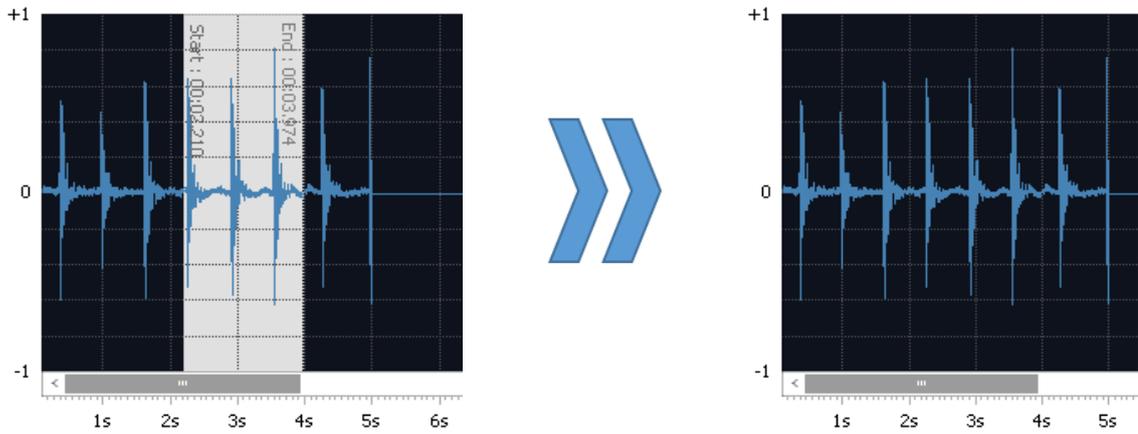
6. Set recording time

7. Set Sounds

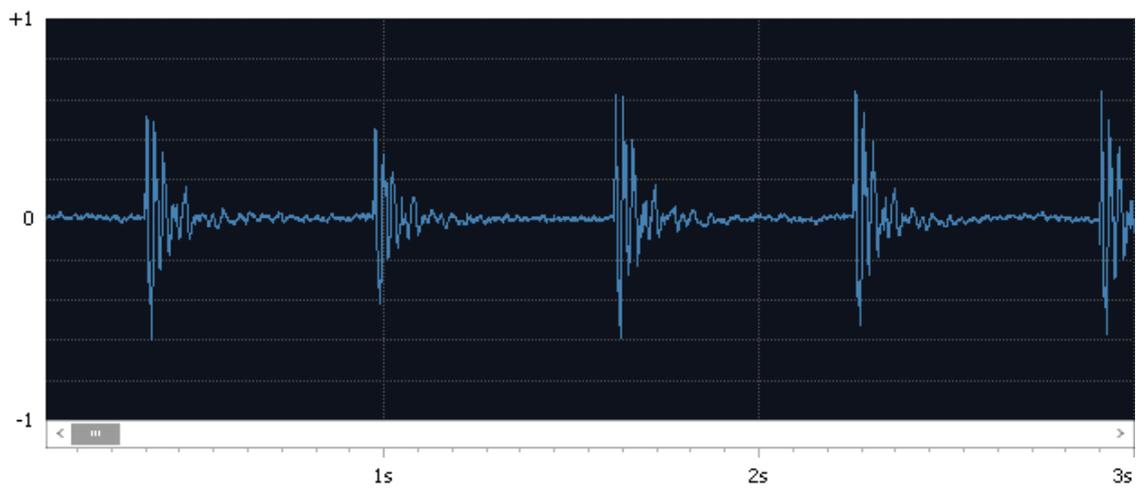
8. Display and Set up waveforms

9. Viewing the audible waveform  / Cancel 

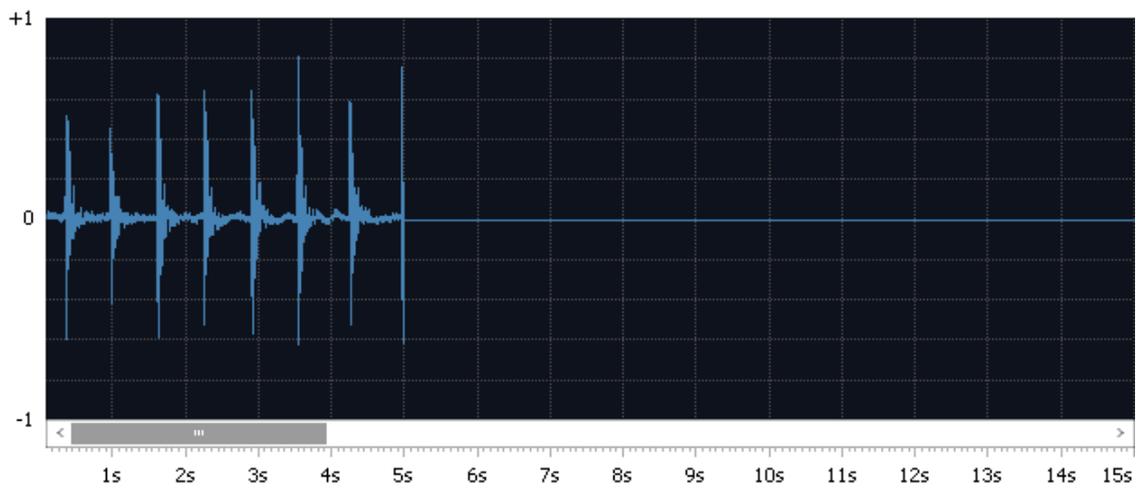
10. Release the selected Intervals



11. Zoom-in waveform horizontally



12. Zoom-out waveform horizontally



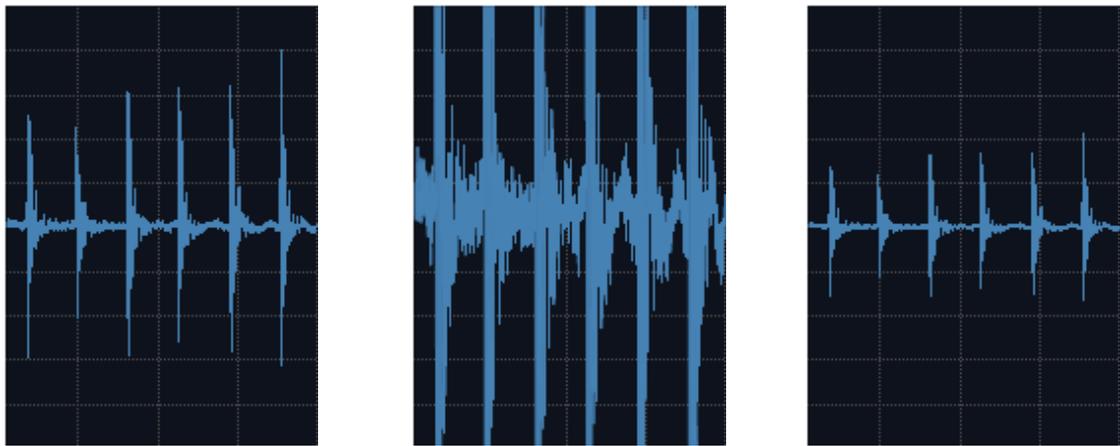
13. Delete and reset waveform display

14. Recording of the hearts and lungs  / stop 

15. Play examination results  / stop 

16. Repeat playback  / Cancel  Repeat

17. Zoom-in waveform vertically / Zoom-out



18. Registration and inquiry of examination results

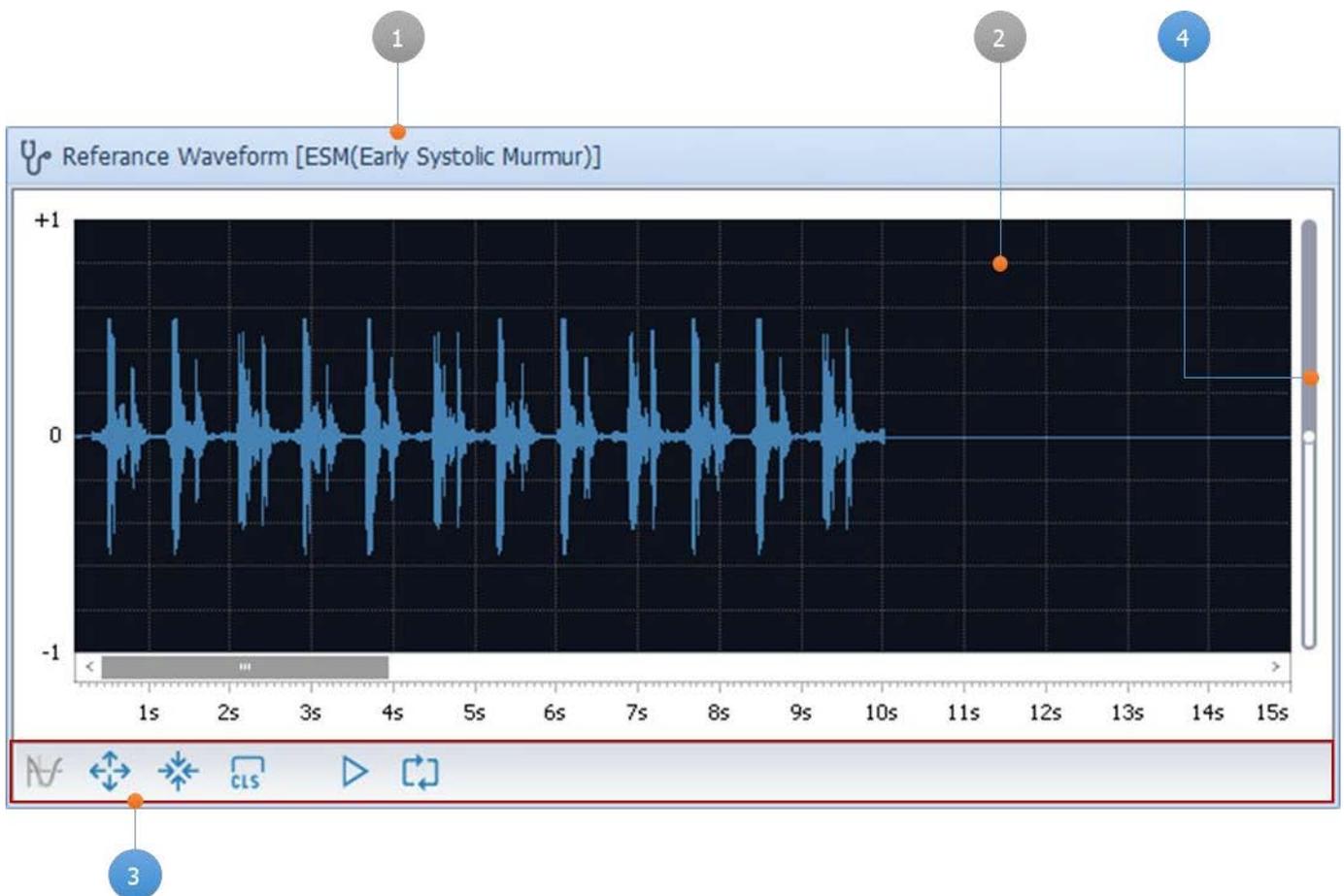
## 2.5 Screen with the list of reference waveforms

No	Origin	Diagnosis	Explain
1	Heart	EDM	EDM(Early Diastolic Murmur)
2	Heart	ESM	ESM(Early Systolic Murmur)
3	Heart	AFM	AFM(Austin Flint Murmur)

1. List of reference waveforms
2. Current Reference Waveform
3. Delete Reference Waveforms (\* Only user-registered waveforms can be deleted)
4. View the description of the reference waveform  
(\*The user registration waveform displays the results of the duration.)

\*\* \*\* Clicking on a list of examination results, the examination results are displayed in detail on the right

## 2.6 Screen with reference waveform displayed



1. Title of reference waveform
2. Displaying and Setting up waveforms
3. Function to control reference waveform (\*Reference to Waveform Control Functions of Examination Results)
4. Shrink Waveform to Vertical / Expansion (\*Reference to Waveform Functions of Examination Results)

## 2.7 Tools to set up properties and sound devices

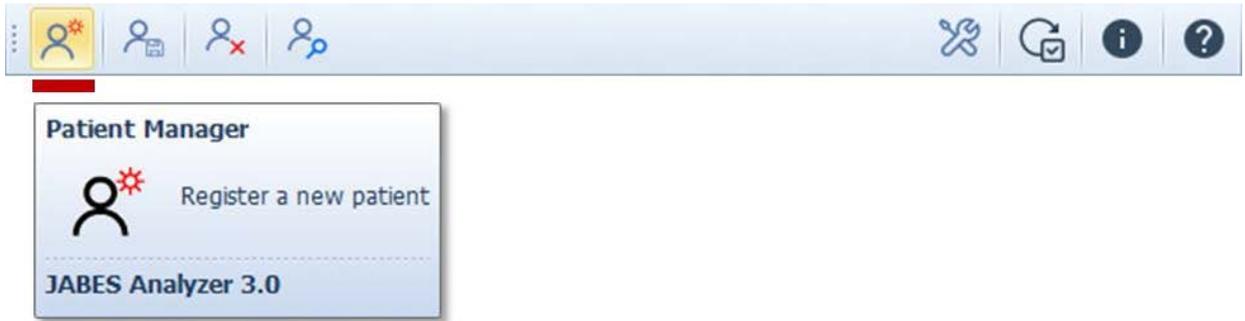


1. Display hospital name
2. Display doctor's name
3. Set up System Sound
4. Adjust audio speaker volume
5. Adjust Sound Recorder Volume

### 3.0 Explanation of JABES Analyzer 3.0 functions

#### 3.1 Management of Patient Information

##### 1. Register New Patient



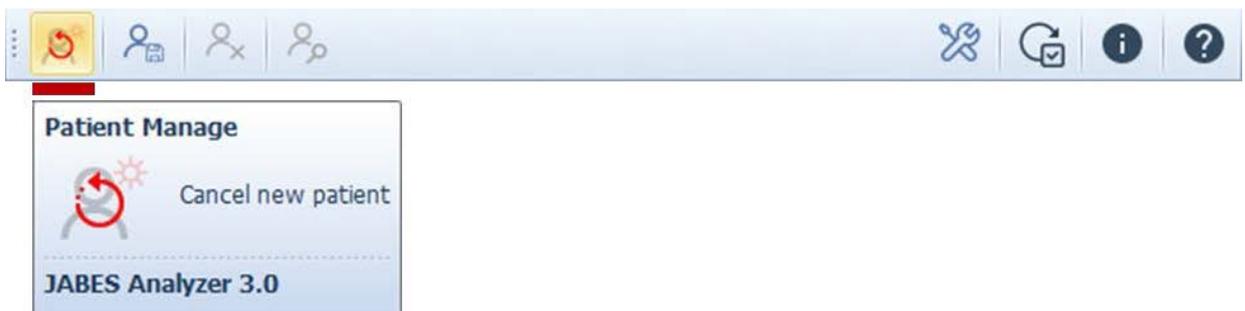
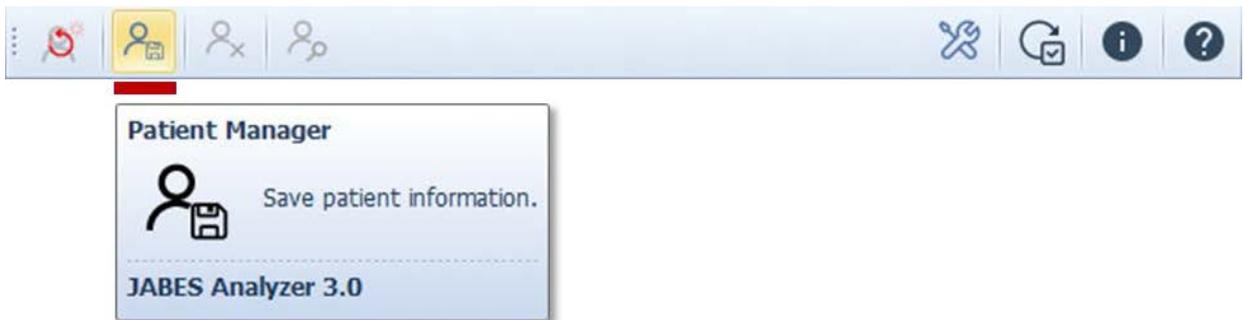
##### 2. Input Patient Information

The screenshot shows a form for entering patient information. It includes the following fields and options:

- Patient No :
- Name (initial) :
- Year of birth :  (dropdown menu)
- Age :
- Gender :  Male  Female

Patient No	Automatically generated
Name (initial)	Input
Year of birth	Select
Age	Automatically generated
Gender	Select

##### 3. Save/Cancel Patient Information



##### 4. Search Patient Information



**Patient Manager**

 Search patient

---

**JABES Analyzer 3.0**

JABES Analyzer 3.0 - Search Patient

Search Patient

Enter text to search... Find Clear

Patient No	Name (initial)	YOB	Age	Gender
P0000001	David	2000	18	M
P0000002	Jabes	1973	45	M

Ok Cancel

David(M,18)

Patient No : P0000001

Name (initial) : David

Year of brith : 2000 Age : 18

Gender :  Male  Female

5. Delete Patient information



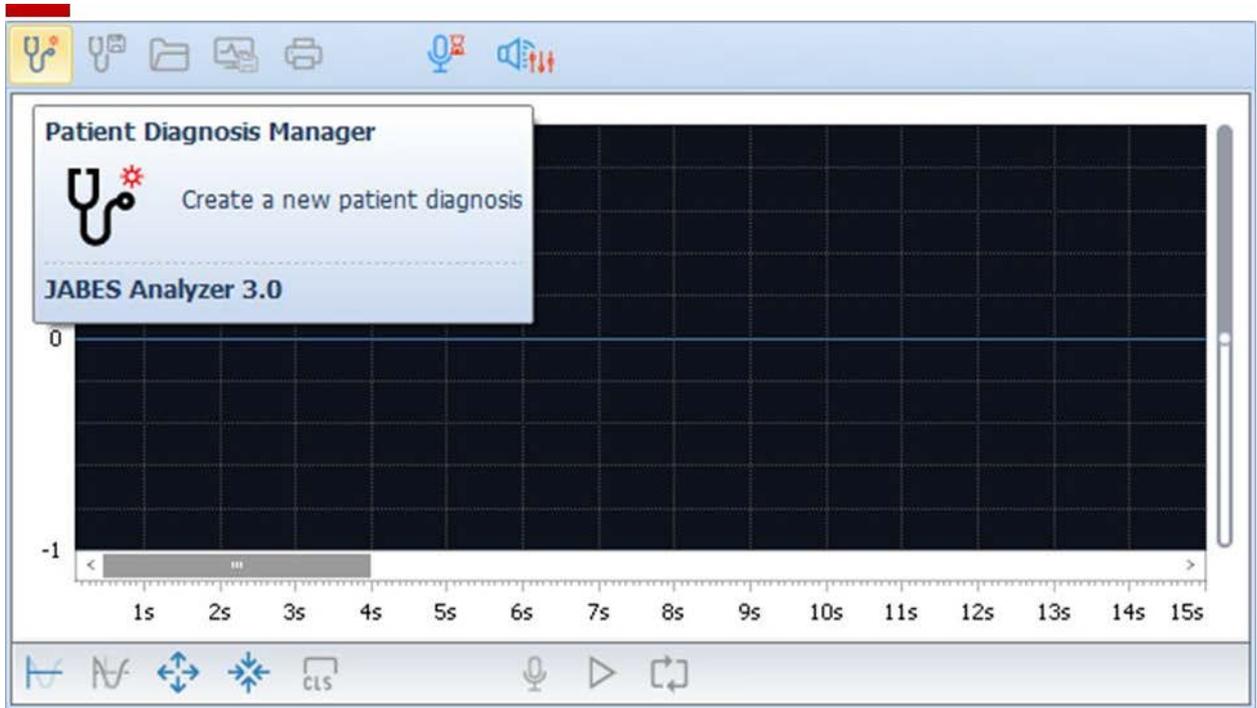
**Patient Manager**

 Delete patient information

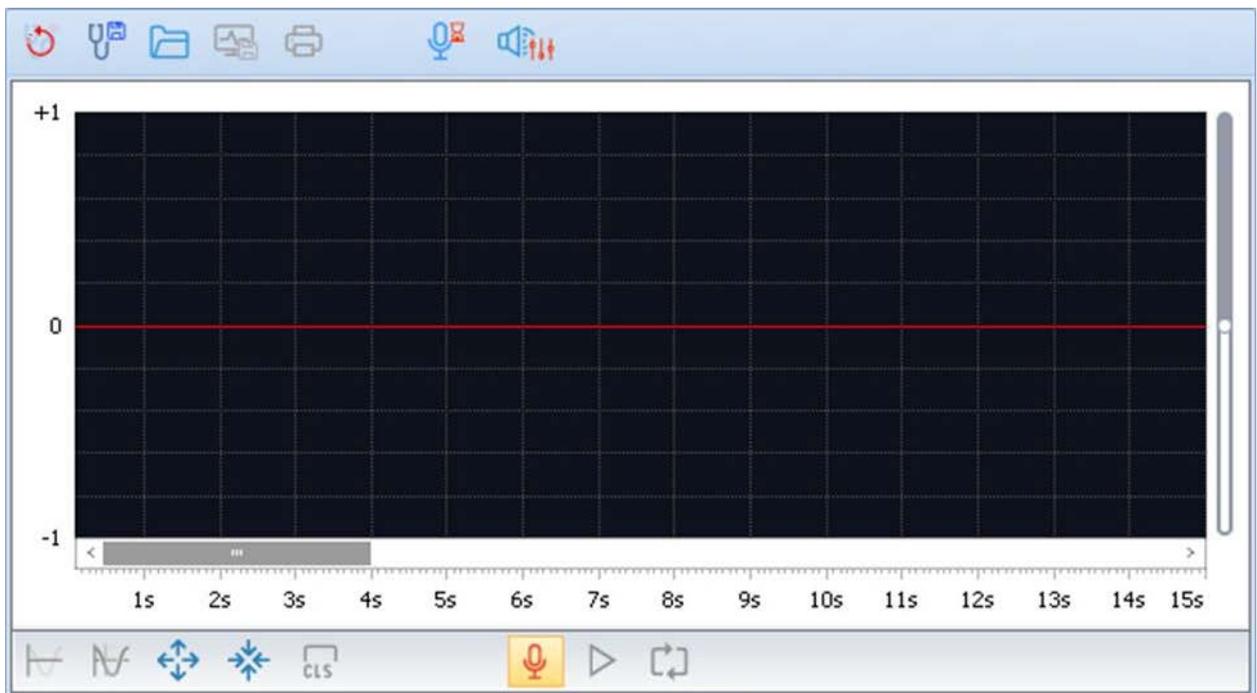
---

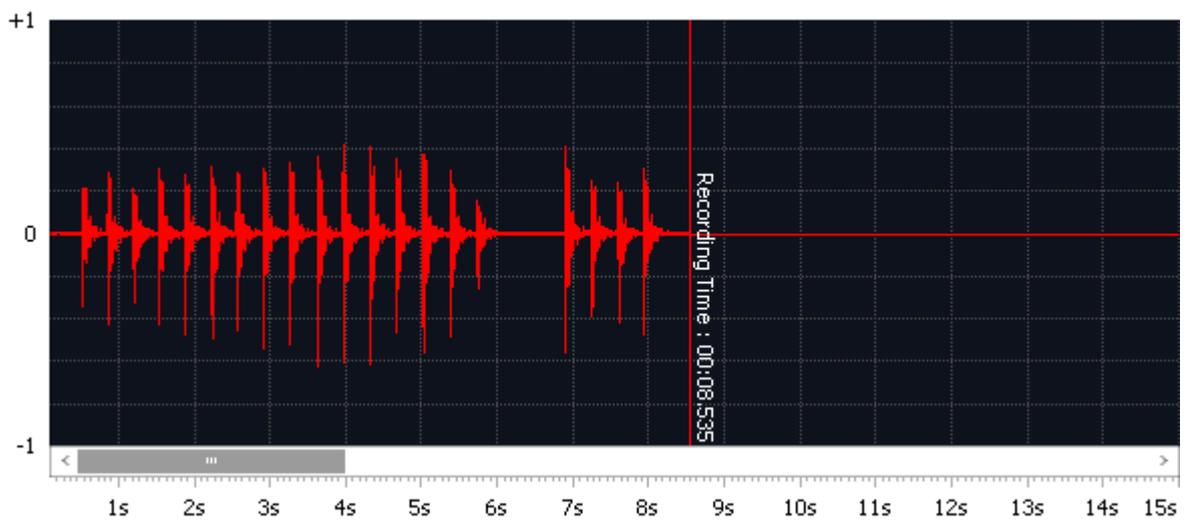
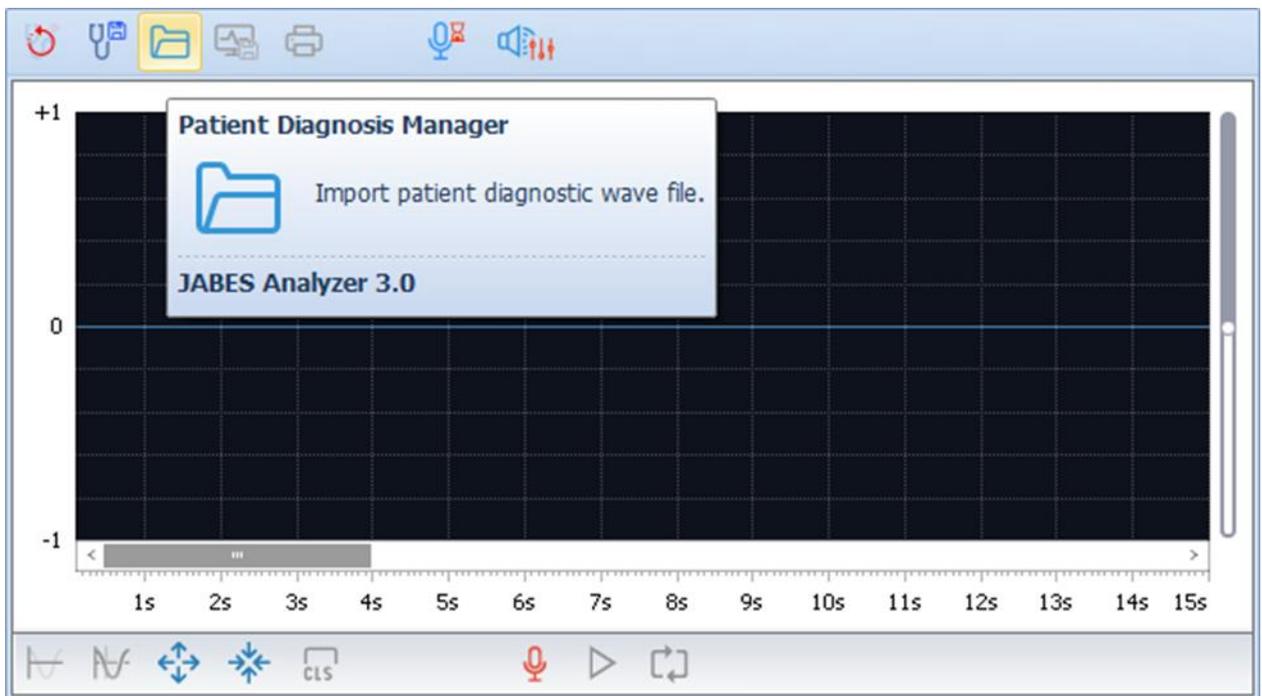
**JABES Analyzer 3.0**

6. Start a new examination



7. Recording the stethoscope sound / Import patient diagnostic wave file

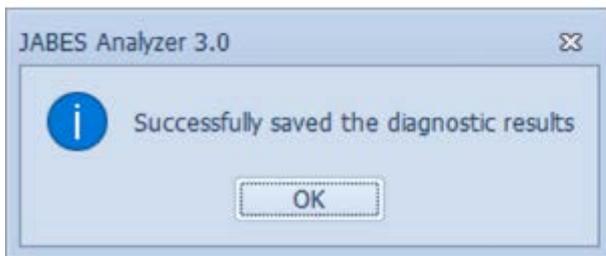
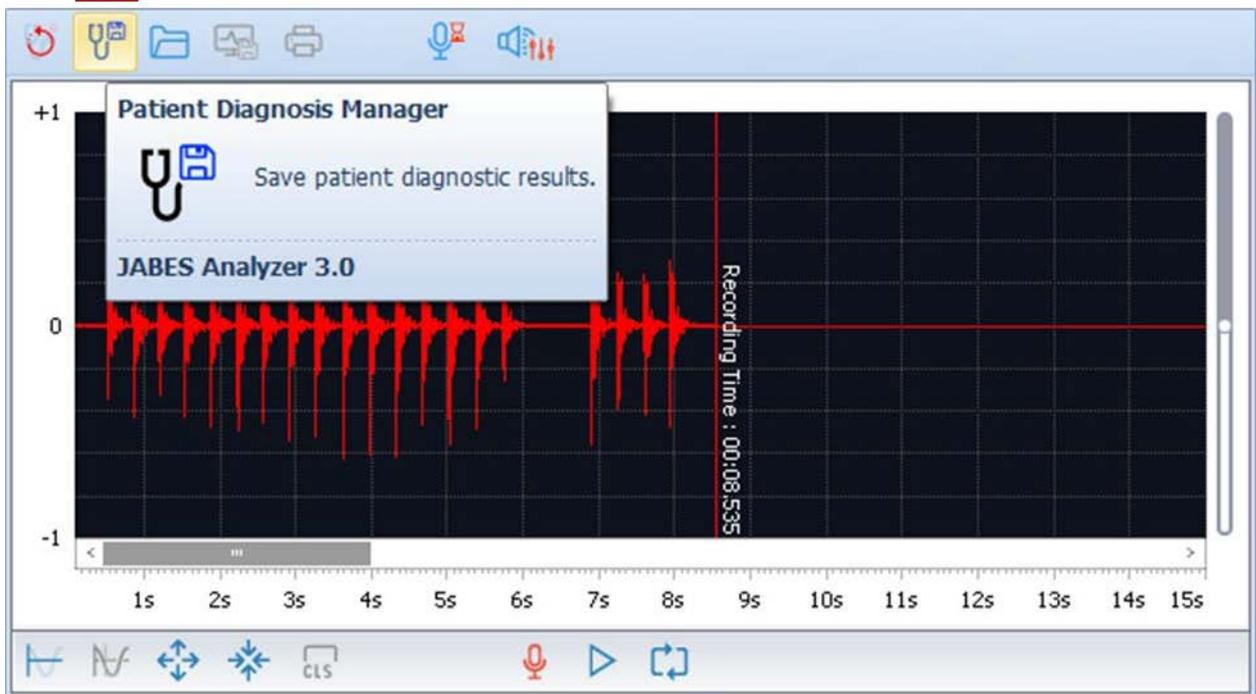




8. Input of examination results

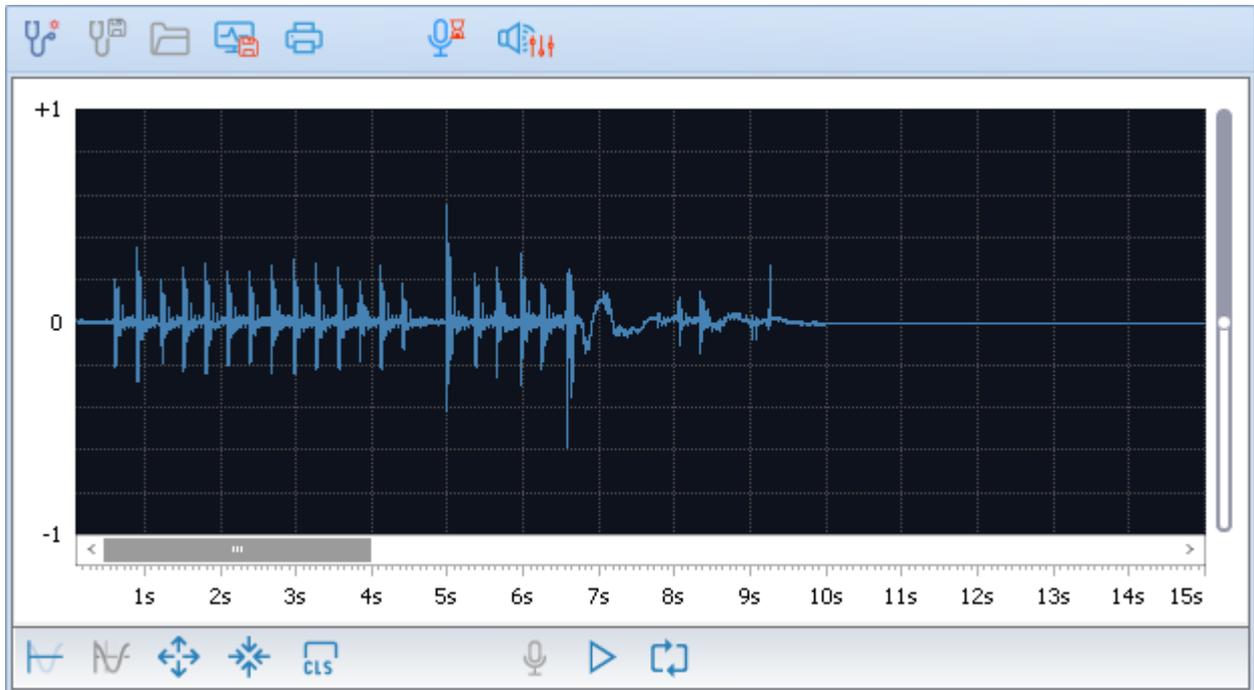
Sound Division :	<input type="text" value="HS-Heart"/>	Opinion :	<input type="text" value="Normal"/>
Sound Point :	<input type="text" value="H1-Aortic"/>		
Diagnosis :	<input type="text" value="01-Normal"/>		

9. Save / Cancel examination results



10. Check-up examination results

Patients Record				
Date	Origin	Diagnosis	Opinion	
2018-10-13	Heart	Normal	No abnormal findings in stethoscope	
2018-10-13	Breathing	Normal	Normal	  Mouse Left Button Click
2018-10-13	Heart	Normal	Normal	



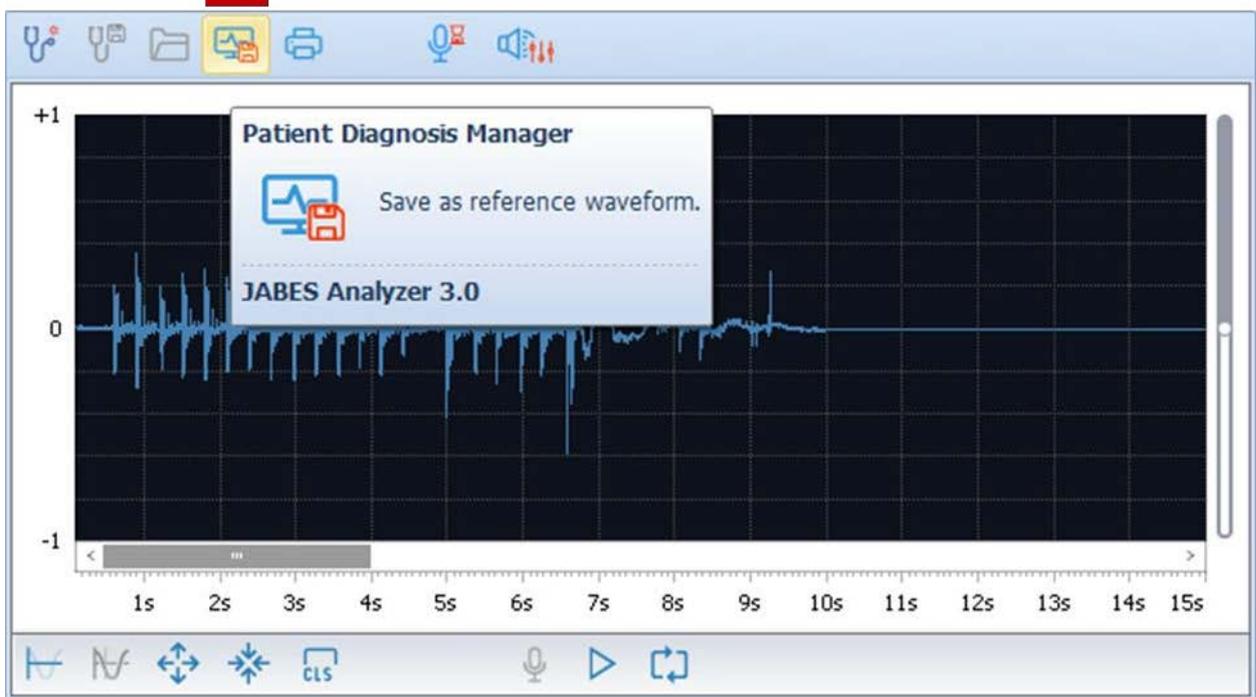
Sound Division :	BS-Breathing	Opinion :	Normal
Sound Point :	B1-RUL anterior thorax		
Diagnosis :	01-Normal		

### 11. Delete Examination Results

Patients Record				
Date	Origin	Diagnosis	Opinion	
2018-10-13	Heart	Normal	No abnormal findings in stethoscope	
2018-10-13	Breathing	Normal	Normal	
2018-10-13	Heart	Normal	Normal	

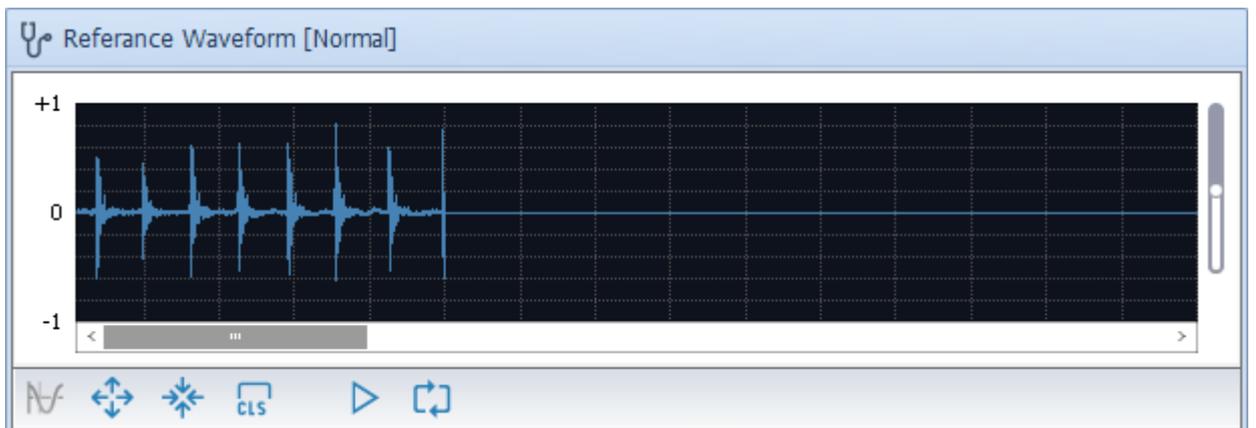
## 3.2 Manage reference waveforms

### 1. Register User's waveform



No	Origin	Diagnosis	Explain
1	Heart	EDM	EDM(Early Diastolic Murmur)
2	Heart	ESM	ESM(Early Systolic Murmur)
3	Heart	AFM	AFM(Austin Flint Murmur)
 4	Breathing	Normal	Normal

Reference Waveform Added



Normal ✕

 **Reference Wave Explain**  **JABES**

- Patient information : arg 18, gender Male
- Date of visit : 2018-11-14 19:17:37
- Sound Division : Heart
- Sound Point : Atrioventricular
- Diagnosis : Systolic murmur
- Opinion : Normal

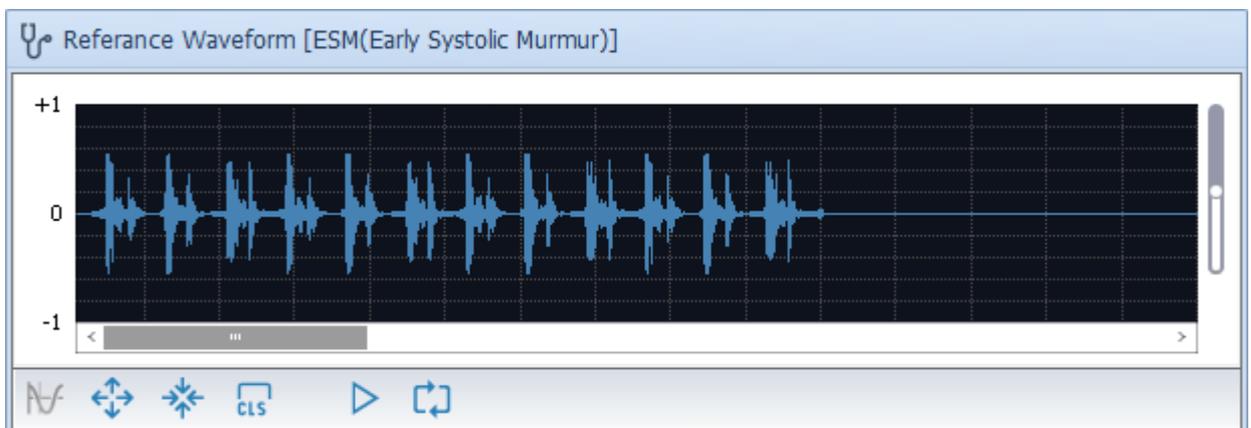
Close

2. View Reference Waveform

No	Origin	Diagnosis	Explain
1	Heart	EDM	EDM(Early Diastolic Murmur)
 2	Heart	ESM	ESM(Early Systolic Murmur)
3	Heart	AFM	AFM(Austin Flint Murmur)
4	Breathing	Normal	Normal

 Mouse Left Button Click



3. View the description of the reference waveform

No	Origin	Diagnosis	Explain
1	Heart	EDM	EDM(Early Diastolic Murmur)
2	Heart	ESM	ESM(Early Systolic Murmur)
3	Heart	AFM	AFM(Austin Flint Murmur)
4	Breathing	Normal	Normal

Continuous Murmur ✖

### Reference Wave Explain

- Type : Continuous Murmur

- Related Disease(s) :

PDA(Patent Ductus Arteriosus) : Child

- Comment : This heart murmur begins with the S1 sound and continues through the S2 sound back to the next S1 sound.

- PDA(Patent Ductus Arteriosus)

Definition :

PDA is the persistence of a normal fetal structure between the left pulmonary artery and the descending aorta. Persistence of this fetal structure beyond 10 days of life is considered abnormal.

Pathophysiology :

This abnormality is variable in its presentation. PDA is the fifth or sixth most common congenital cardiac defect. It often is associated with other intracardiac structural defects.

Stethoscope regin :

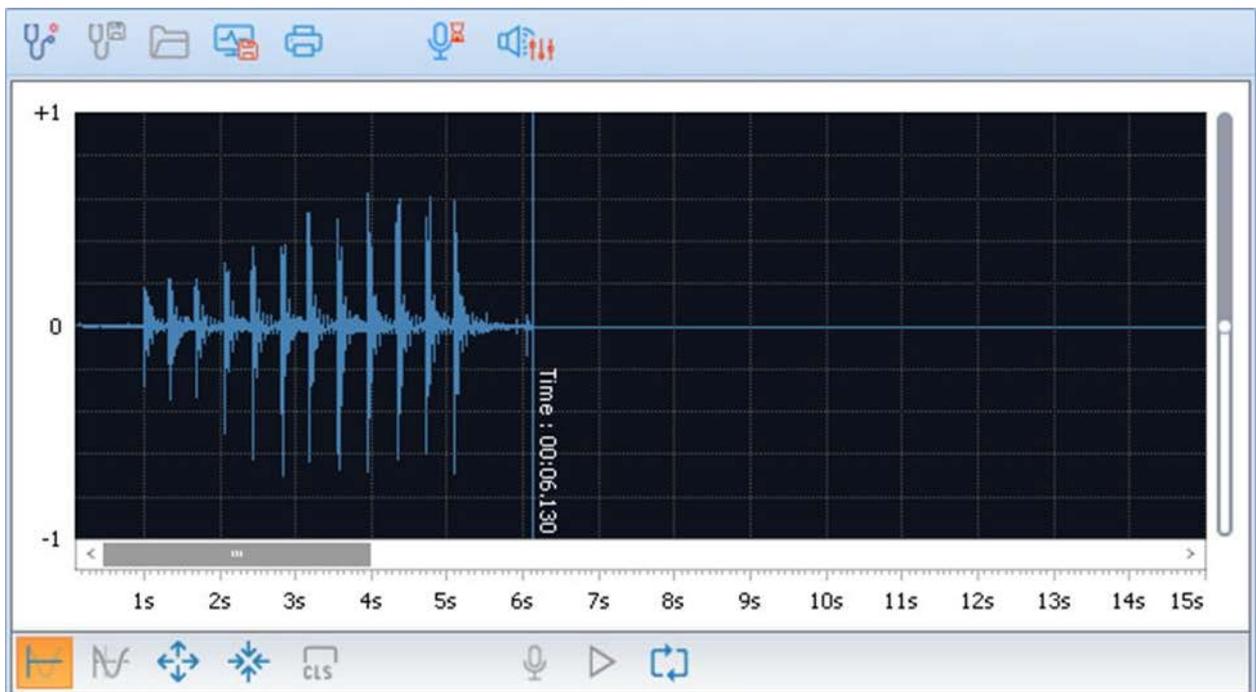
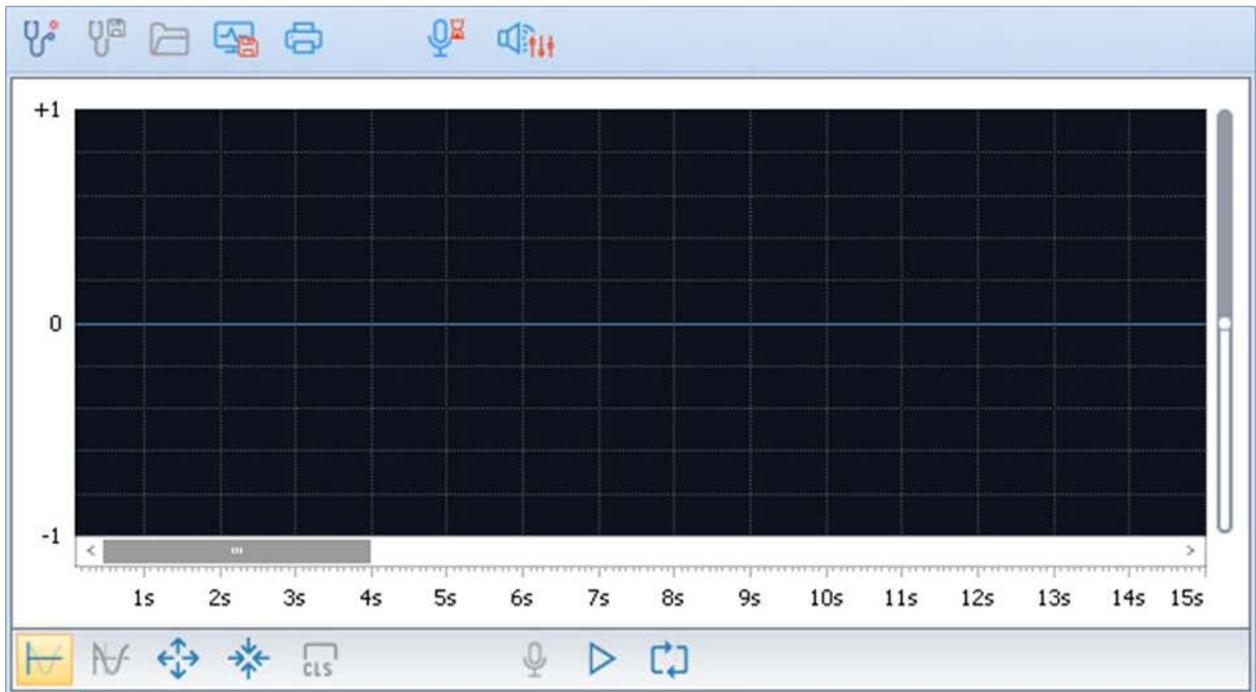
The Pulmonary area is the optimum region for hearing this sound.

#### 4. Delete Reference Waveform

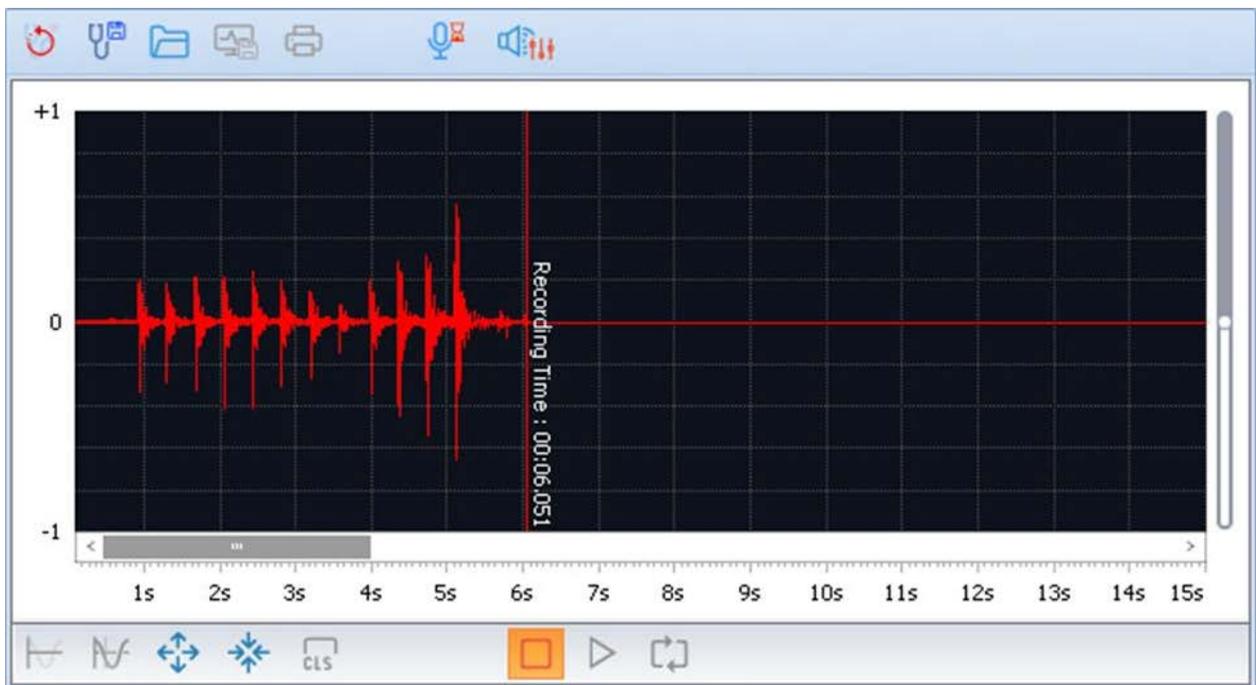
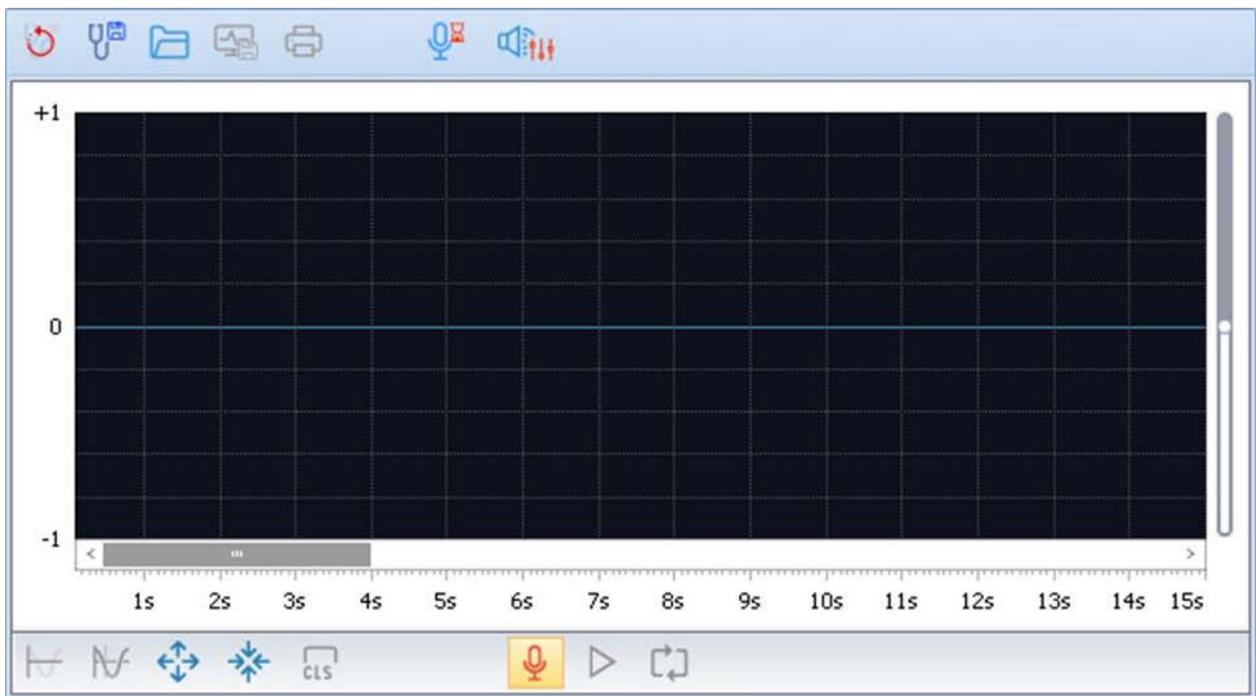
No	Origin	Diagnosis	Explain
1	Heart	EDM	EDM(Early Diastolic Murmur)
2	Heart	ESM	ESM(Early Systolic Murmur)
3	Heart	AFM	AFM(Austin Flint Murmur)
4	Breathing	Normal	Normal

Only delete user Waveform

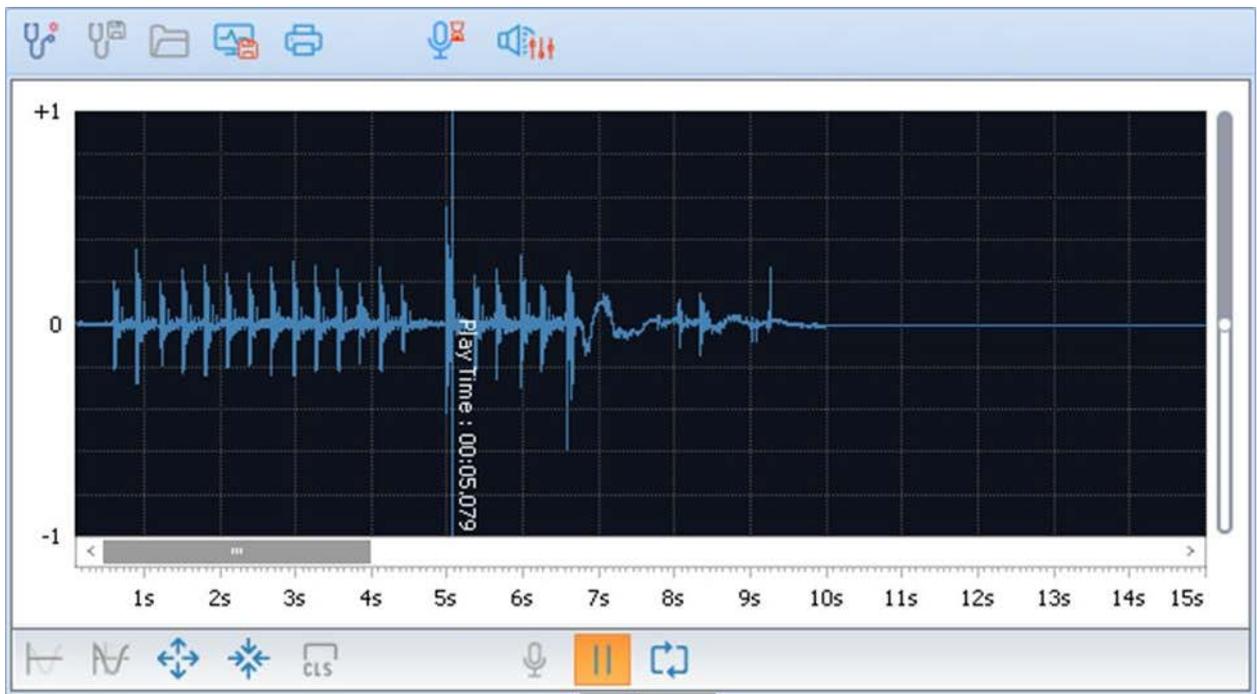
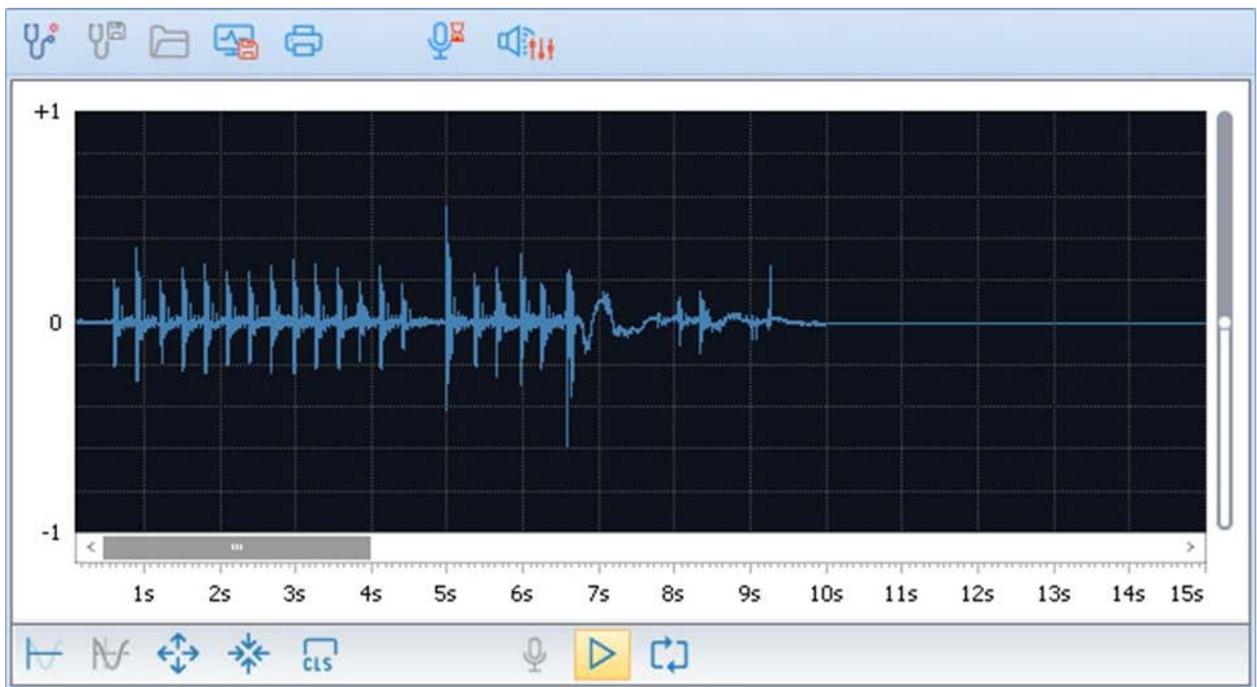
## 1. Monitoring / Stop



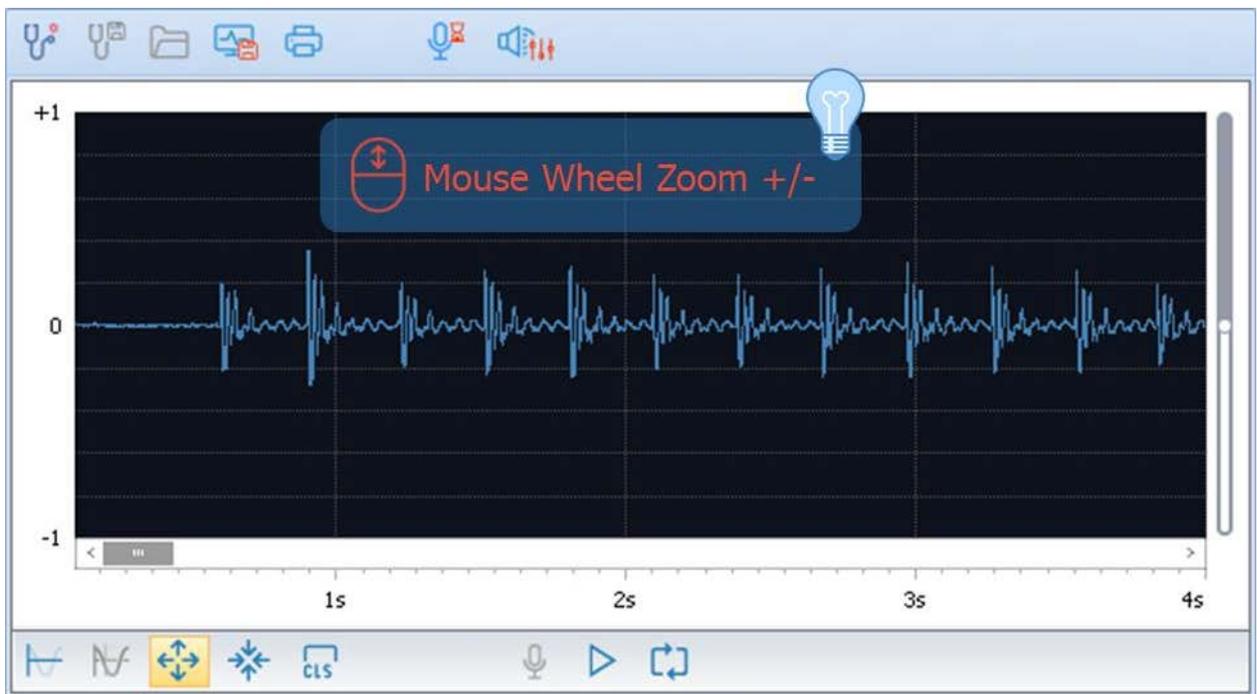
## 2. Record / Stop



3. Play / Pause



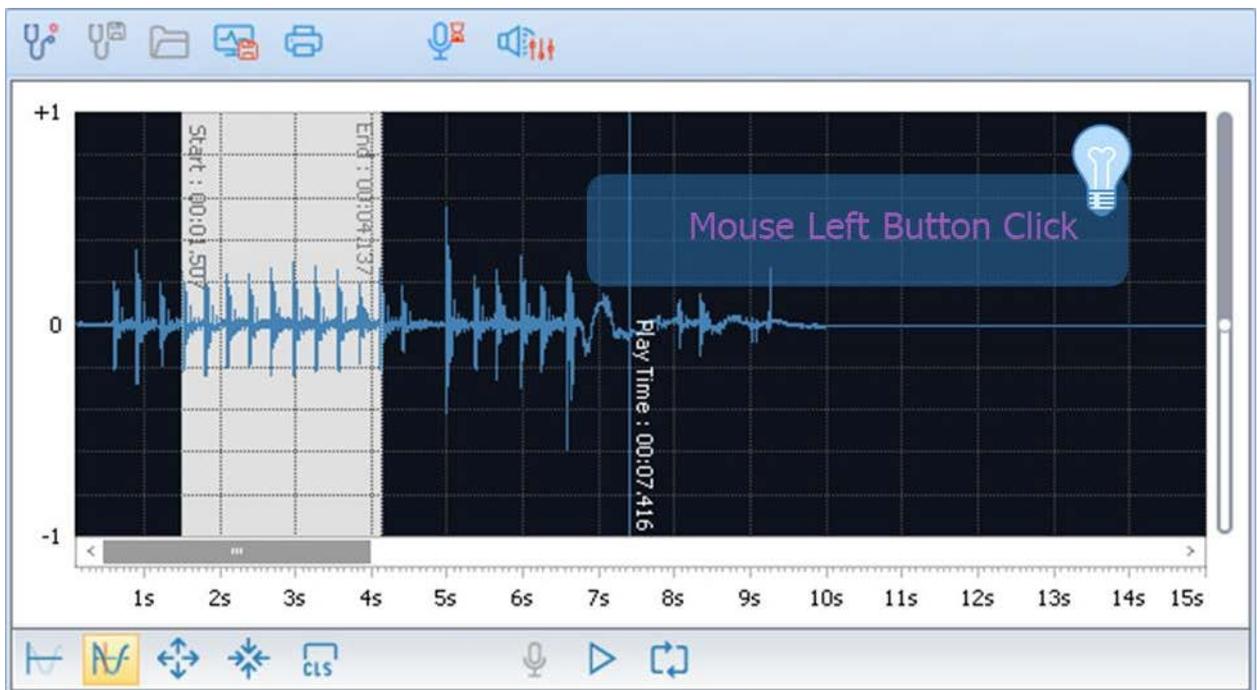
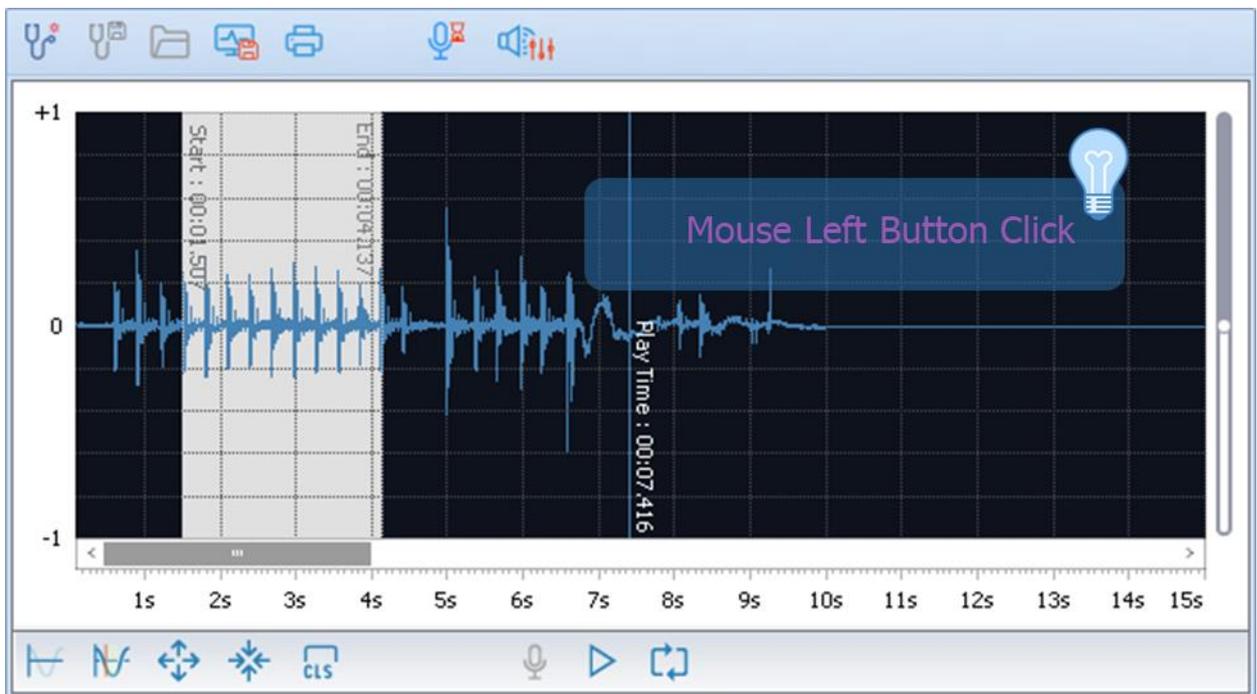
4. Zoom-in waveform (to Time) horizontally / Zoom-out



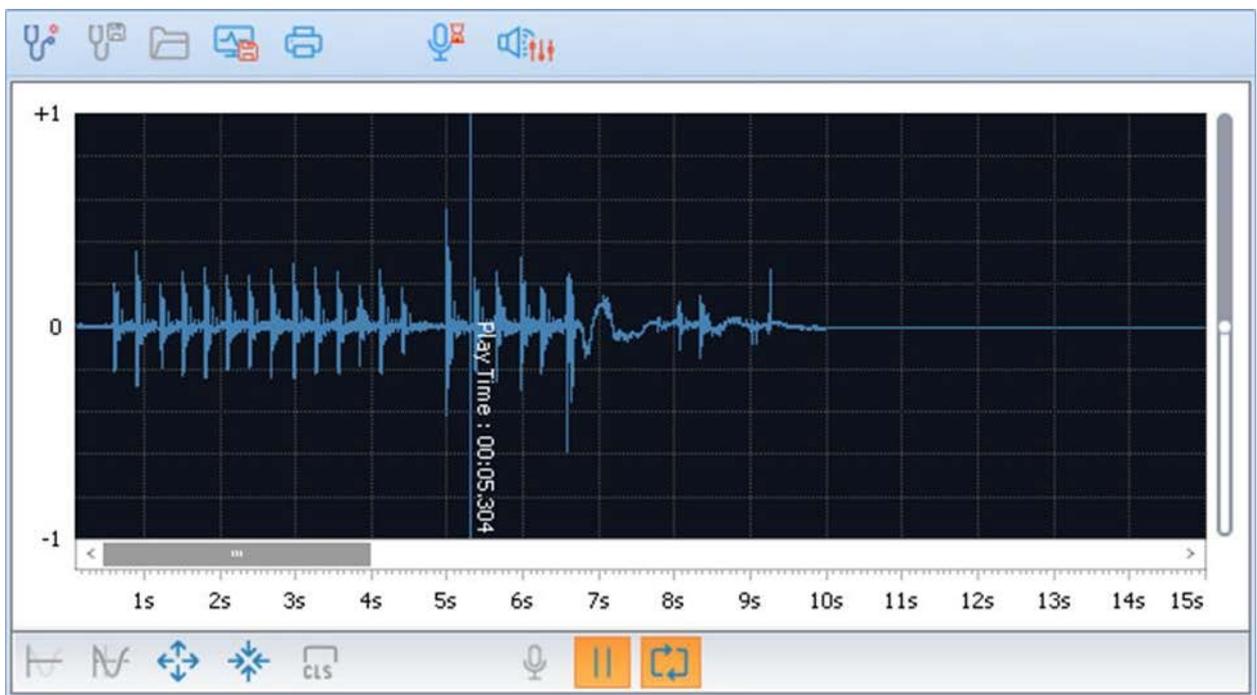
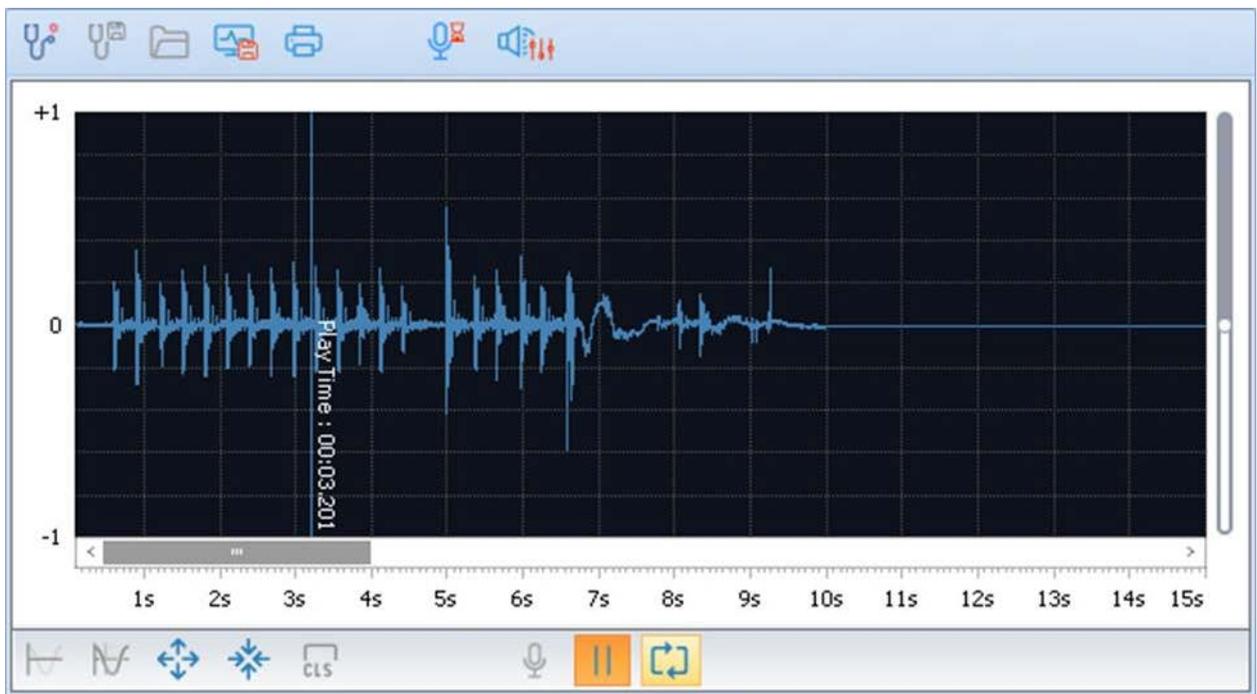
5. Zoom-in Waveform (Amplitude) Vertical / Zoom-out



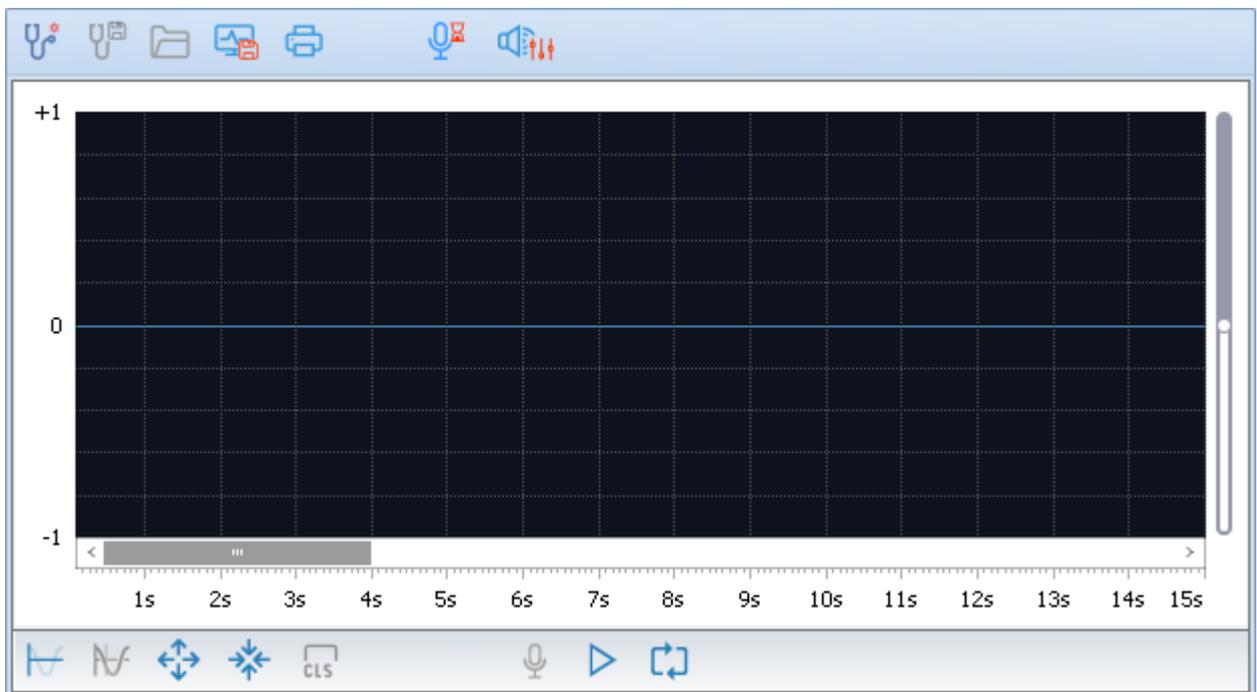
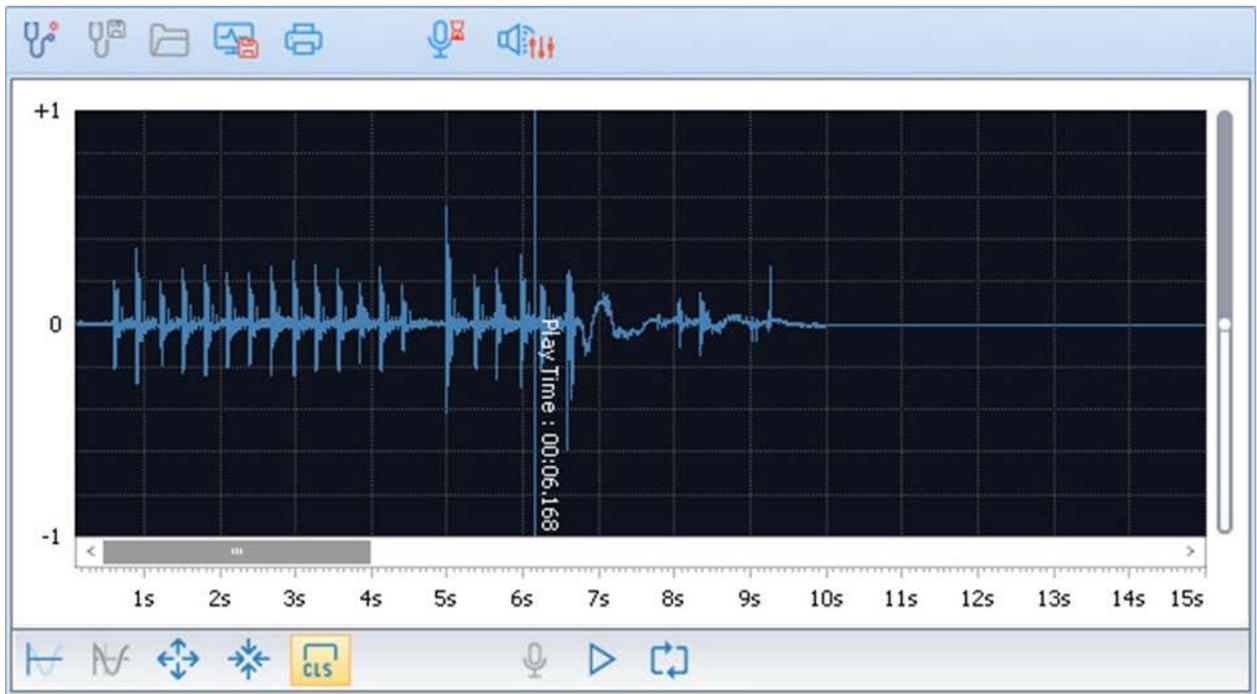
6. Select / cancel playback interval



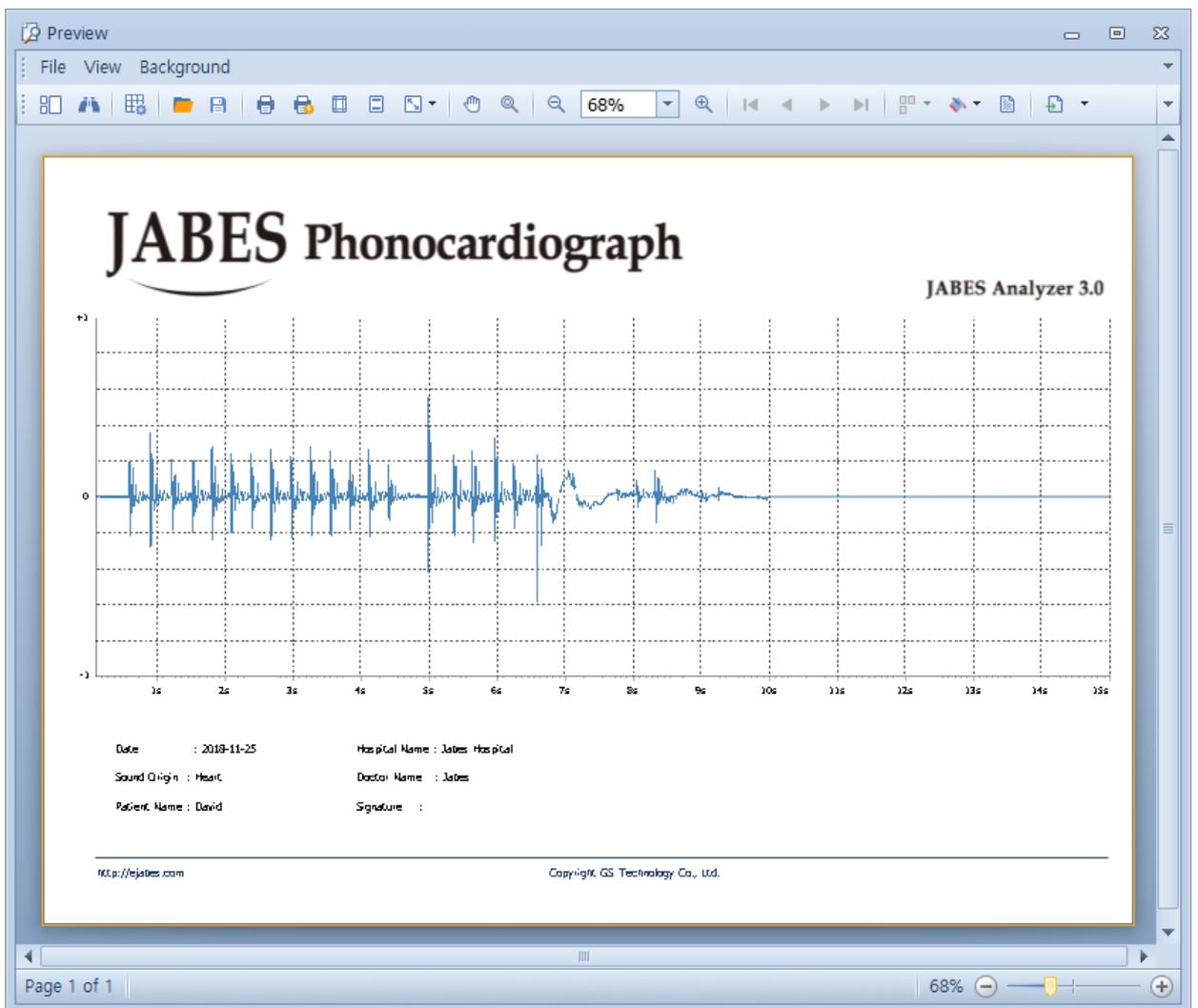
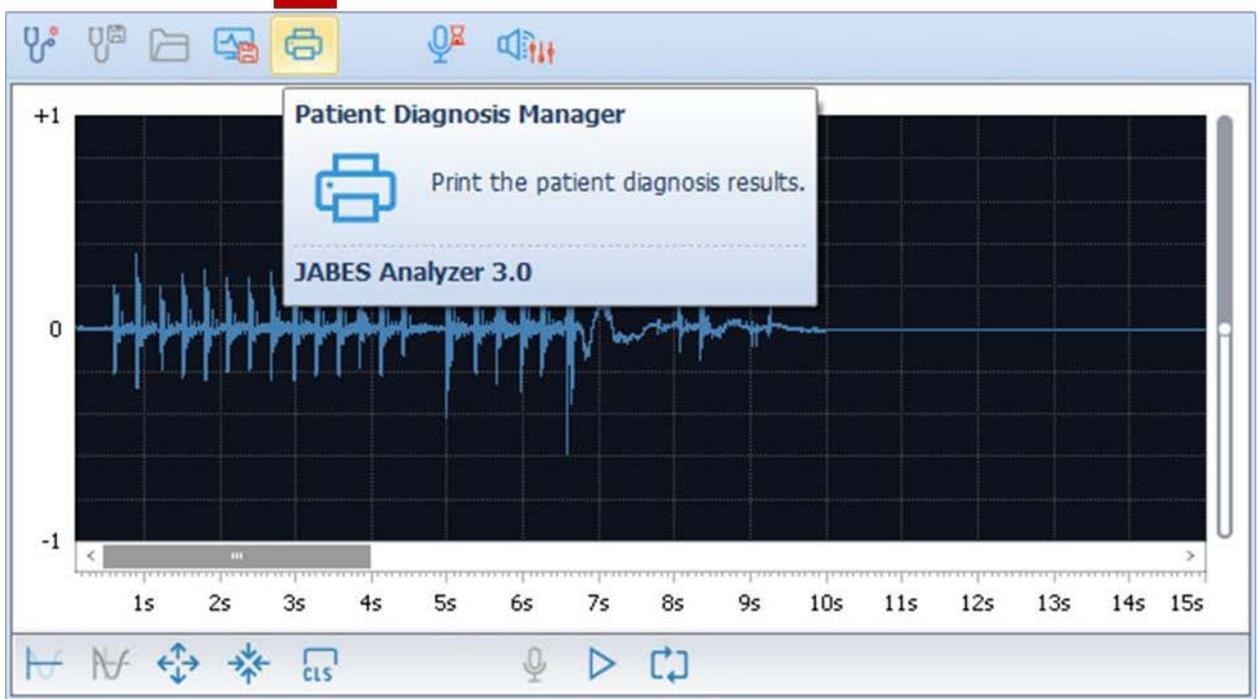
7. Set repeat play on/ off



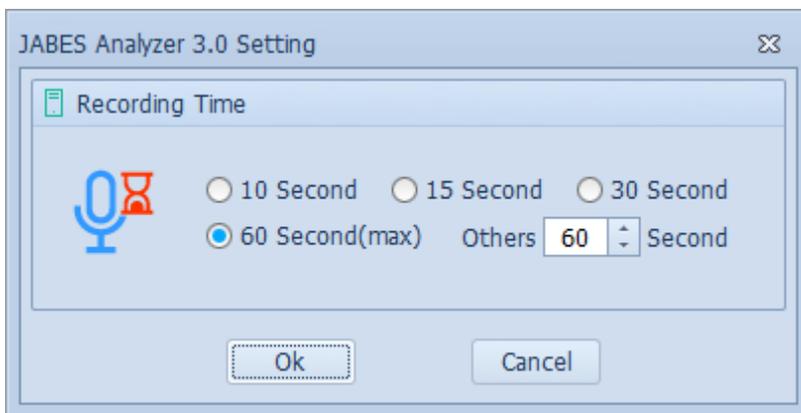
8. Clean up the waveform screen



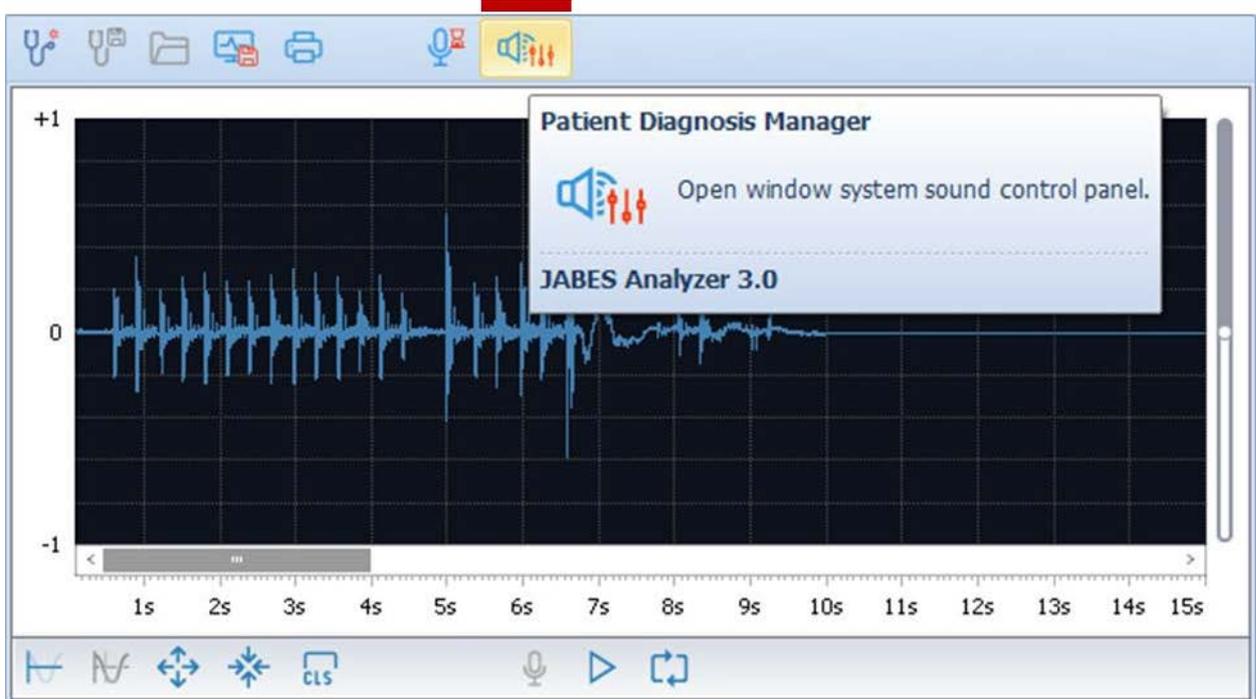
9. Print waveform

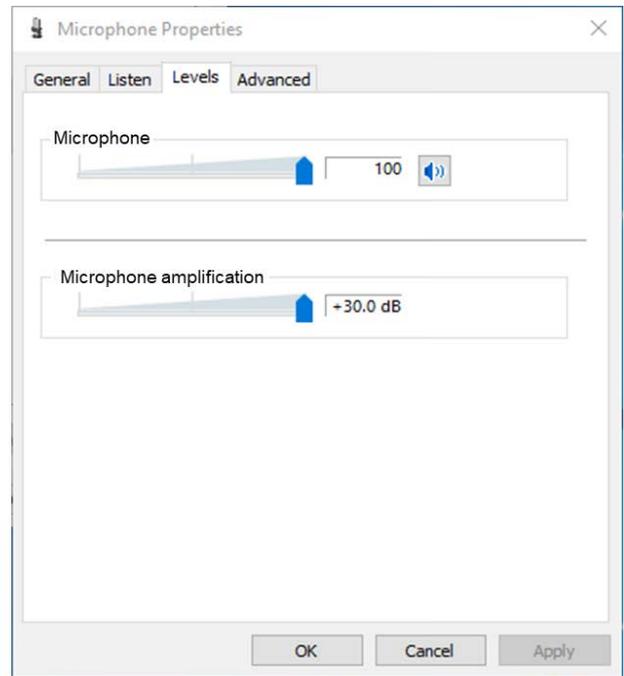
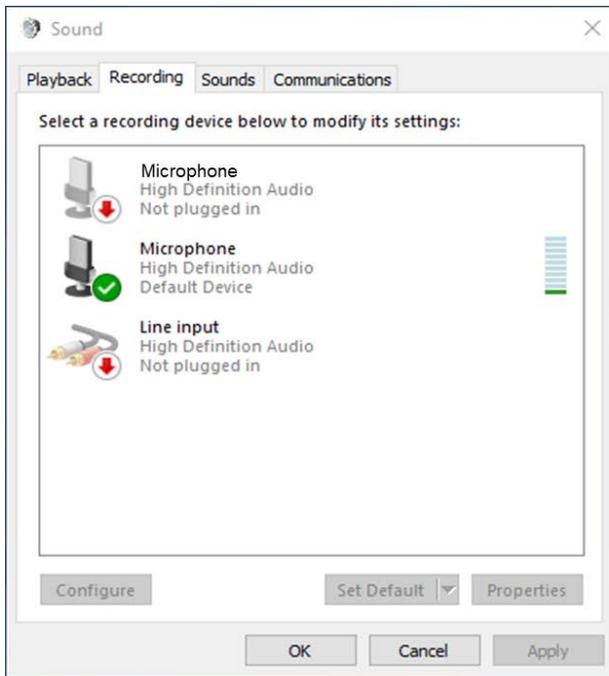


10. Set recording time



11. Set-up the system sound





Please use "Recording → Microphone → Properties → Levels → Microphone amplification" so that the sound waveform is properly displayed.

### 3.4 Other functions

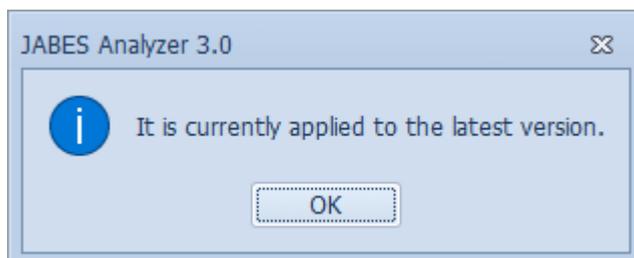
#### 1. Configuring the environment

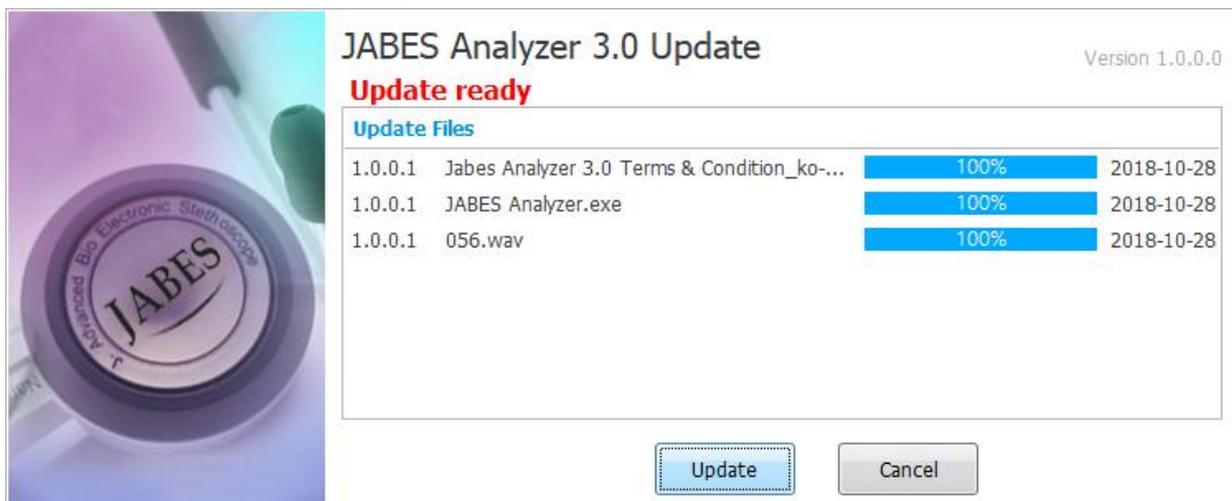
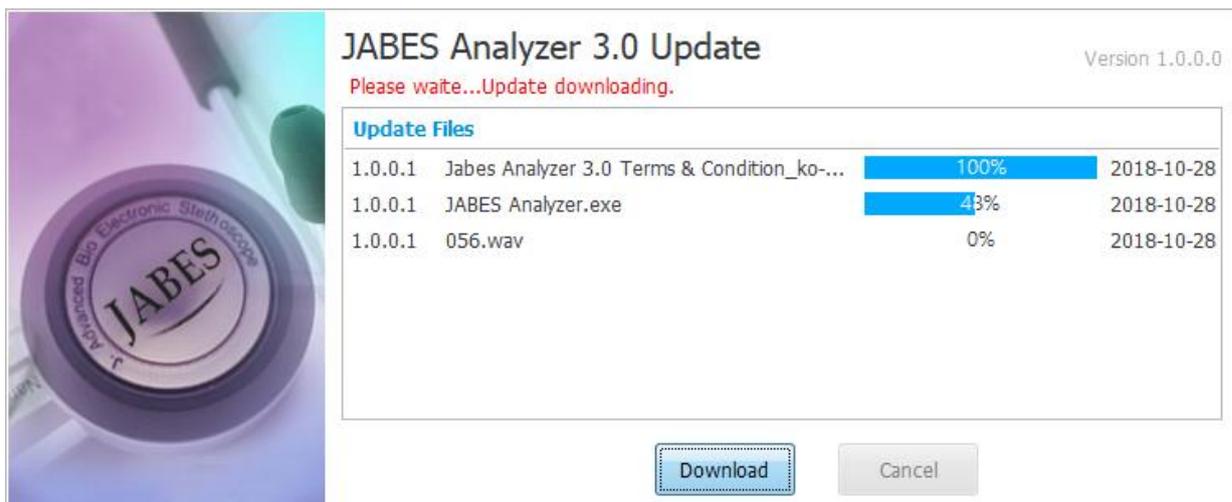
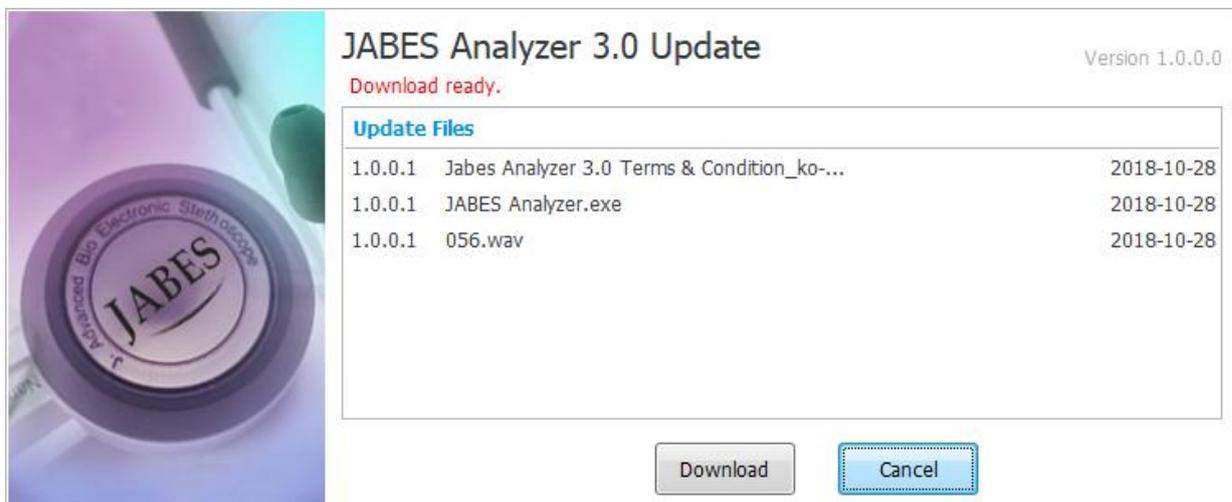
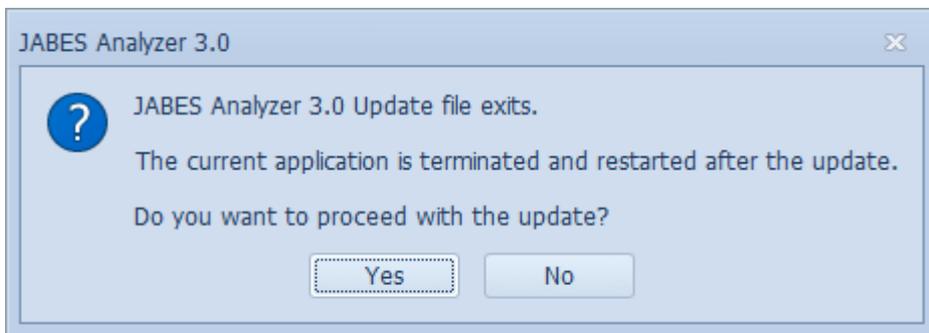




- 1) Hospital name : editable
- 2) Doctor name : editable
- 3) Data upload : on/off
- 4) Language : Korean / English
- 5) View Terms

## 2. Update of JABES Analyzer 3.0





### 3. Information of JABES Analyzer 3.0



**JABES Application**

 Application information

---

**JABES Analyzer 3.0**



4. Help for use JABES Analyzer 3.0



**JABES Application**

 Application help

---

**JABES Analyzer 3.0**

JABES Analyzer 3.0 Help

Table of content

- JABES Analyzer 3.0 Help
  - 1.0 Installing JABES Analyzer
    - 1.1 Recommended installation envir...
    - 1.2 Installation method
    - 1.3 Start-up / Configuring the envir...
  - 2.0 Configuring device screen of JABES...
    - 2.1 Main Screen
    - 2.2 Main Toolbar
    - 2.3 Patient Information Screen
    - 2.4 Screen showed the results of th...
    - 2.5 List screen of reference wavefor...
    - 2.6 Screen with reference waveform...
    - 2.7 Tools to set up registration infor...
  - 3.0 Description of JABES Analyzer func...
    - 3.1 Management of Patient Informa...
    - 3.2 Management of Reference Wave...
    - 3.3 Management of Waveform
    - 3.4 Other functions

JABES Analyzer 3.0 Help

2.0 Configuring device screen of JABES Analyzer

1.0 Installing JABES Analyzer

## JABES Analyzer 3.0 Help

1.0 [Installing JABES Analyzer](#)

- [Recommended installation environment](#)
- [Installation method](#)
- [Start-up / Configuring the environment and Agreement to Terms and Conditions](#)

2.0 [Configuring device screen of JABES Analyzer](#)

- [Main Screen](#)
- [Main Toolbar](#)
- [Patient Information Screen](#)
- [Screen showed the results of the stethoscope and examination, to display of test waveform](#)
- [List screen of reference waveforms](#)
- [Screen with reference waveform displayed](#)
- [Tools to set up registration information and sound devices](#)

3.0 [Description of JABES Analyzer function](#)

- [Management of Patient Information](#)
- [Management of Reference Waveform](#)
- [Management of Waveform](#)
- [Other functions](#)



JABES Analyzer 3.0 Help

Table of content

- JABES Analyzer 3.0 Help
  - 1.0 Installing JABES Analyzer
    - 1.1 Recommended installation envir...
    - 1.2 Installation method
    - 1.3 Start-up / Configuring the envir...
  - 2.0 Configuring device screen of JABES...
    - 2.1 Main Screen
    - 2.2 Main Toolbar
    - 2.3 Patient Information Screen
    - 2.4 Screen showed the results of th...
    - 2.5 List screen of reference wavefor...
    - 2.6 Screen with reference waveform...
    - 2.7 Tools to set up registration infor...
  - 3.0 Description of JABES Analyzer func...
    - 3.1 Management of Patient Informa...
    - 3.2 Management of Reference Wave...
    - 3.3 Management of Waveform
    - 3.4 Other functions

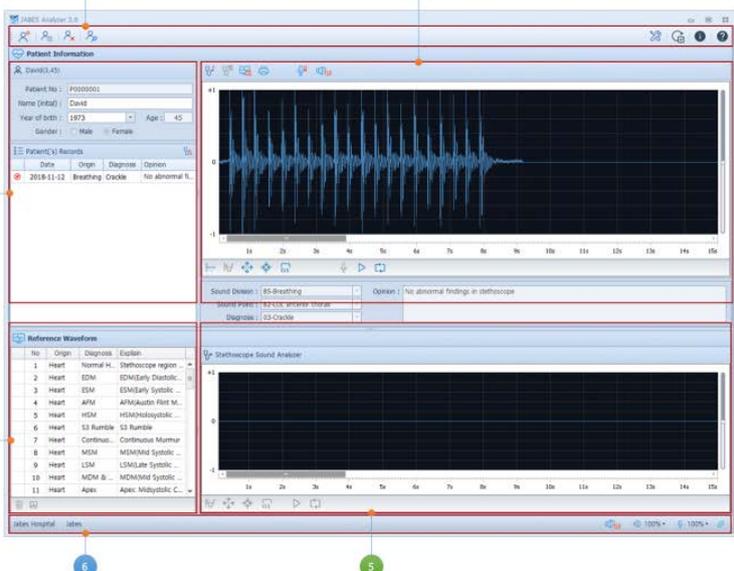
JABES Analyzer 3.0 Help

2.0 Configuring device screen of JABES Analyzer

1.0 Installing JABES Analyzer

## JABES Analyzer 3.0 Help

2.1 [Main Screen](#)



- Main Toolbar
- Patient information screen
- Screen showed the results of the stethoscope and examination, to display of test waveform
- List screen referencing waveforms
- Display screen referencing waveforms
- Tools to set up registration information and sound devices