

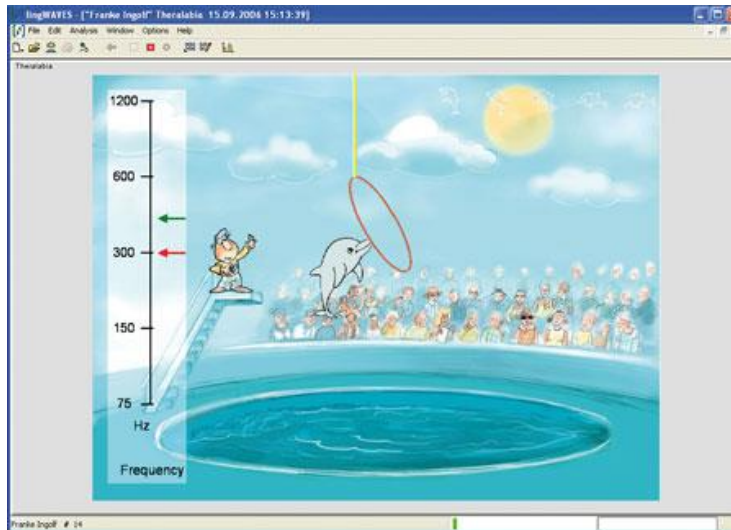


lingWAVES Tutorial

TheraVox

Carol Bishop Multimedia Speech Pathology
Australian Version June 2012

Quickstart tutorial



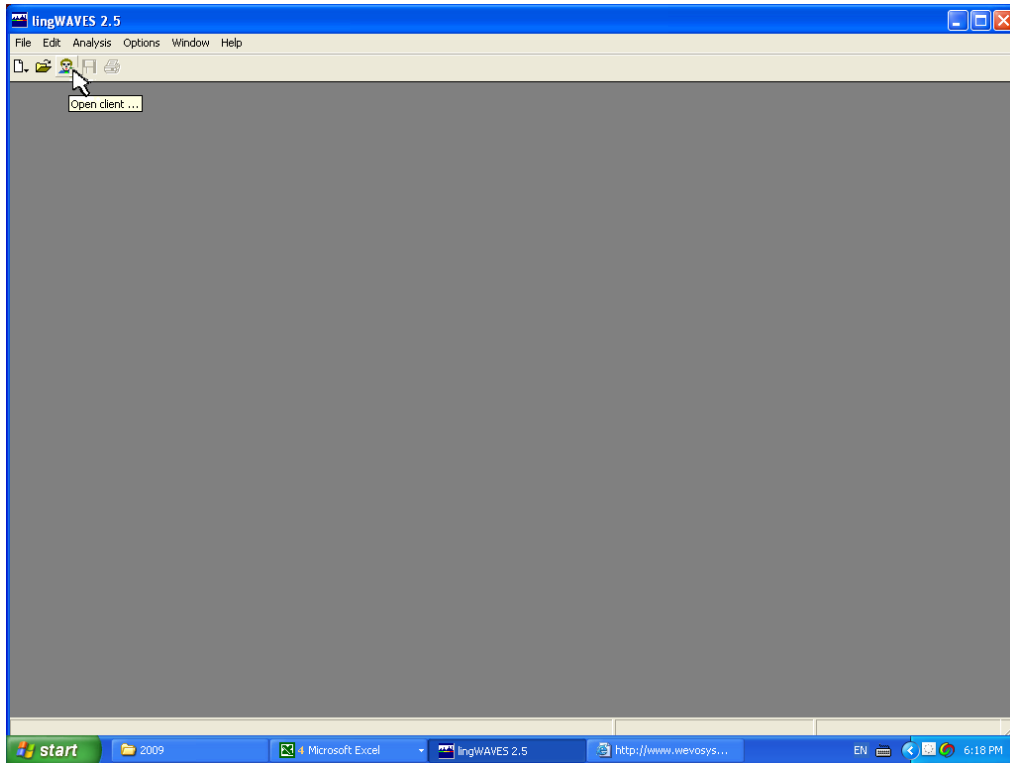
- This tutorial is designed to help you begin to explore some of the features of the TheraVox set.
- This set includes a high quality voice recorder, an easy to use patient/client database, a real time spectrogram, a professional and up-to-date biofeedback system for voice and speech.
- You should also see our website and read the handbook provided at www.wevosys.com/support/support_download.html
- We encourage you to access help from the Help Button on the Menu Bar of lingWAVES.
Click on Help > More Contents to read instructions on each module as you use it.



Contents

1. Client Manager
2. Recording
3. TheraVox Voice and Speech Biofeedback
4. Help and Support

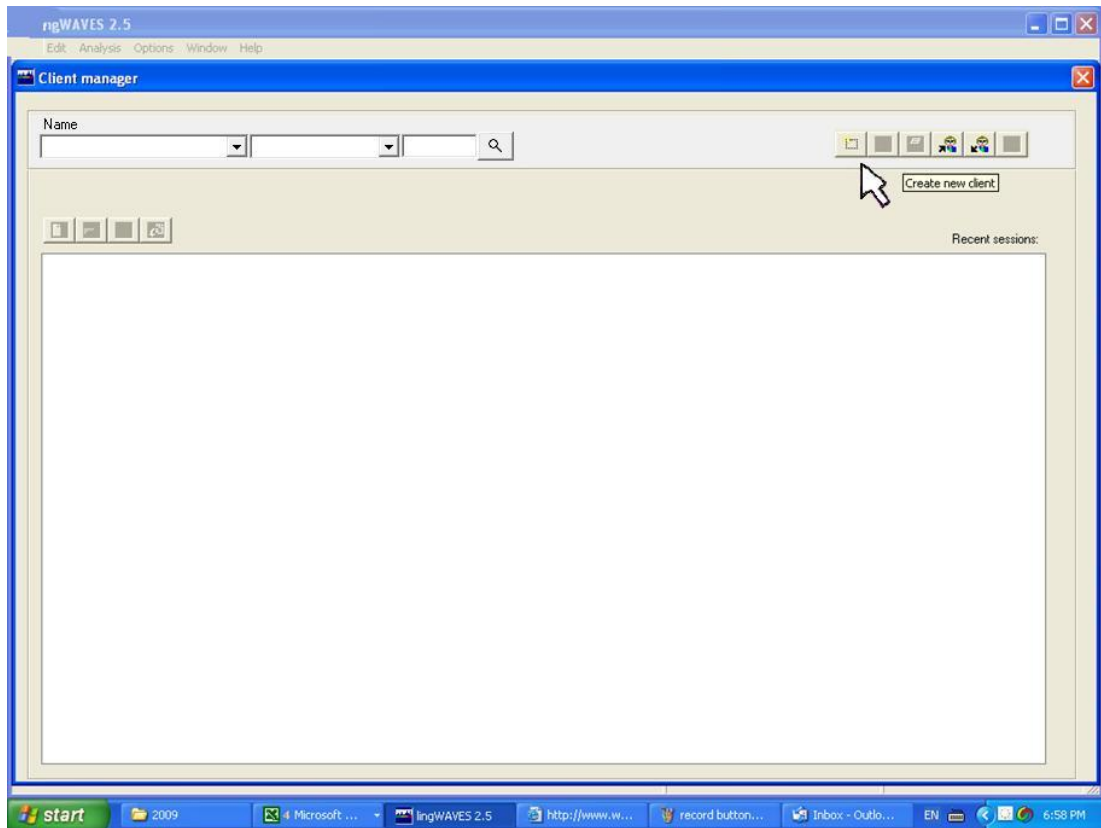
1. Client Manager



- All our work in this tutorial is done in Client manager which organises and saves all your files conveniently.
 - Open lingWAVES from the icon on your desktop or from the START menu.
 - Click on the Client Manager icon on the Task Bar to open the Client Manager.
- It looks like this.




Create a new client



- This is what the Client manager looks like. It will be your starting point for all exercises in this tutorial. (lingWAVES also allows you to work outside Client Manager, but it is not as convenient.)
- Click on the “Create new Client” button (first of the buttons on the top right of the Client Manager window)

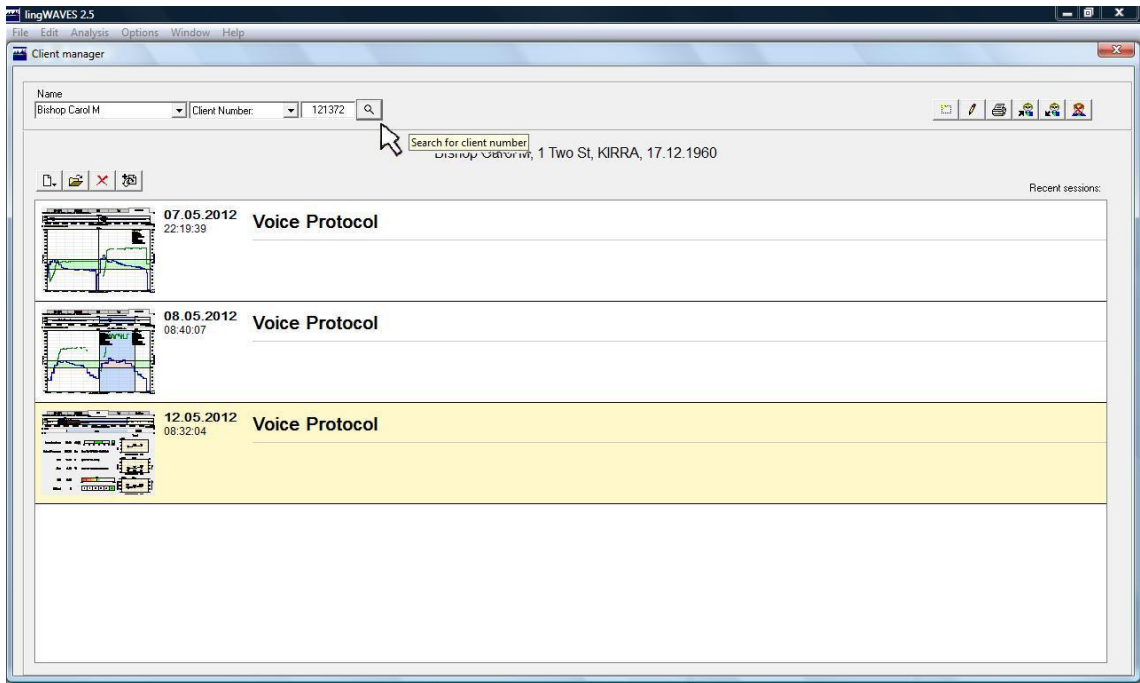
Insert client details



A screenshot of a software dialog box titled "Create new client". The dialog box has a standard Windows-style title bar with a close button (X) in the top right corner. Inside the dialog, there are seven input fields arranged vertically, each with a label to its left: "Number", "Name:", "First name:", "Street:", "Town:", "Date of birth:", and "Gender:". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

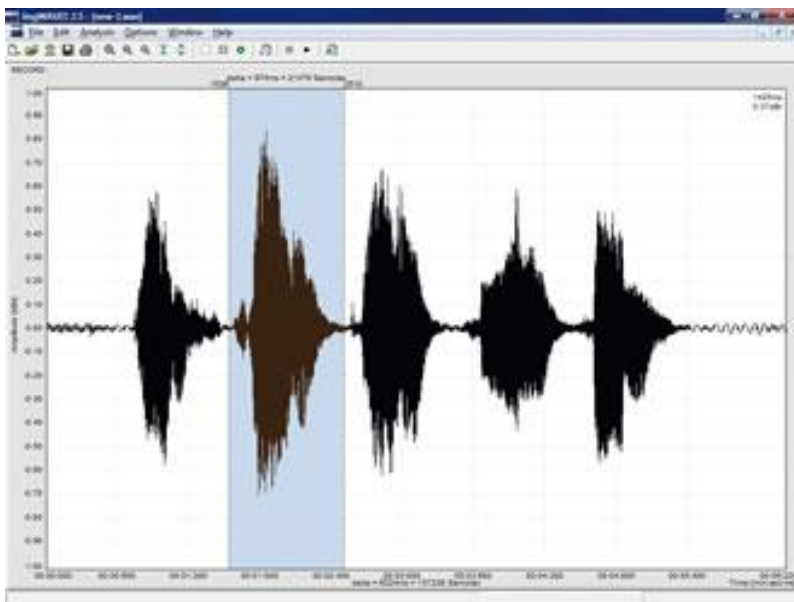
- Insert a file number for your client (use your organisation's medical record number (UR number) for easy searching).
- Fill in your client's last name (surname), then first name, Address, Date of Birth (2 digits for day, 2 digits for month and 4 digits for year) and gender. (gender is important for correct norms)
- Click OK.



How to search for a client



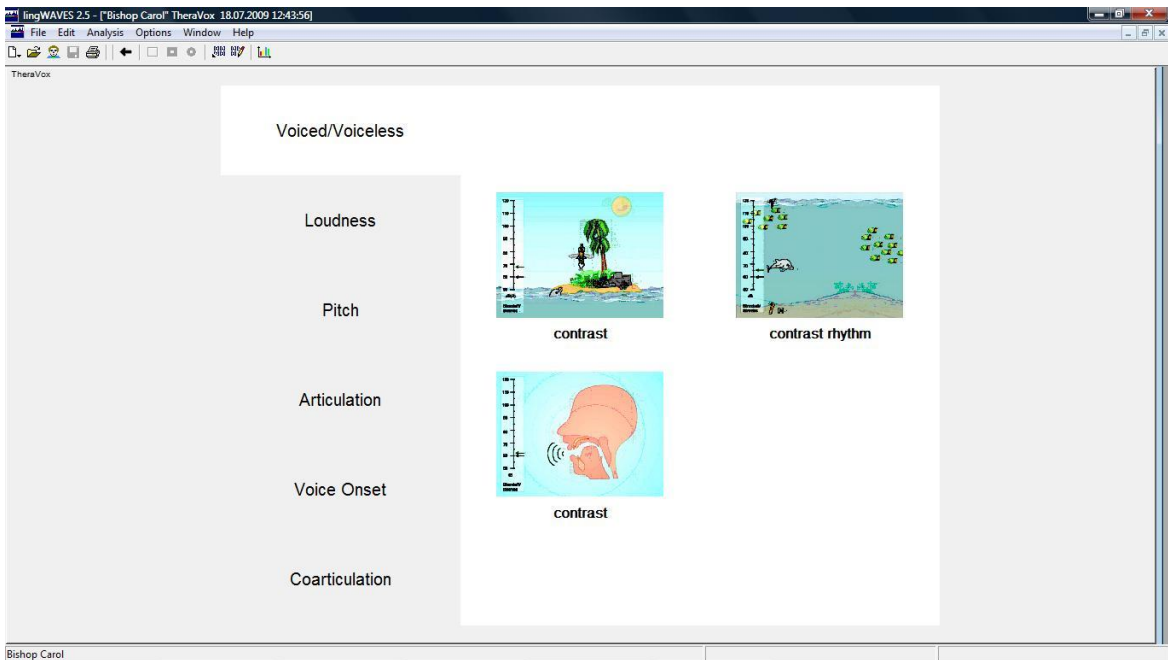
- Now see your Identifying information at the top of the client manager screen.
- If you want to edit the client information, click on the pencil icon.
- To view other clients, or view the sample files you installed earlier using the installation instructions, click on the arrow to the right of the name and select from the drop down list.
- You can search for clients by Name (type in their name) or by Client file number (type in their number and click on the search icon)

2. Recording



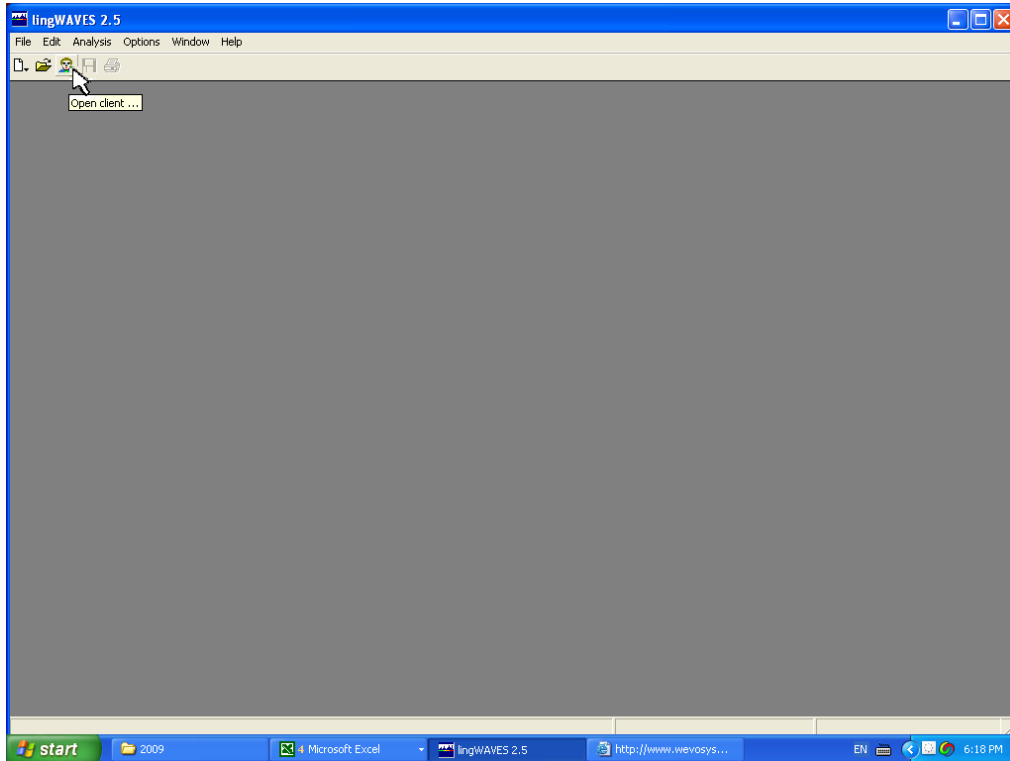
- With lingWAVES, you can either open archived speech recordings (.wav files you have recorded earlier) or record your own data to be saved and analysed.
- Now record some speech – start with the vowels “A E I O U” then try a standard reading passage like The Rainbow Passage. Follow these steps:
 1. Start a recording window in the menu File > New > Record or with a click on the New File icon. A recording window is displayed and additional functions appear on the icon bar.
 2. Open the dialog “Record Properties” with a double click on the recording window. Here, you can adjust the sampling rate (depth) and the sampling frequency (frequency). For speech, select a frequency of 22.050 Hz and a 16-Bit solution. A record in CD-quality requires a frequency of 44.100 Hz and a 16-Bit solution. With a click on “Set as default”, you can permanently save your settings as standard settings.
 3. Press the ENTER key or click on the “Record” icon to start the recording. 
 4. Stop or interrupt your recording session with ESCAPE or with a click on the “Stop Record” .
 5. Click on the Save icon to save in Client manager or Save Wav File icon (far right) to save anywhere in your computer as a .wav file.

3. TheraVox




- The TheraVox exercises are divided into 5 groups of exercises for 5 different voice and speech parameters:
 - Voiced/voiceless: for practicing voiced/voiceless contrast in phonemes
 - Loudness: for practicing loudness at different levels with an increasing degree of difficulty
 - Pitch: for practicing pitch and pitch variation at different levels with an increasing degree of difficulty
 - Articulation/phoneme production: for practicing phonemes in isolation, phoneme contrast and phoneme chains consisting of up to four phonemes
 - Voice onset: for practicing hard and normal voice onset for fluency training
 - Coarticulation: practicing speech in syllable or word context.

Start TheraVox in Client Manager

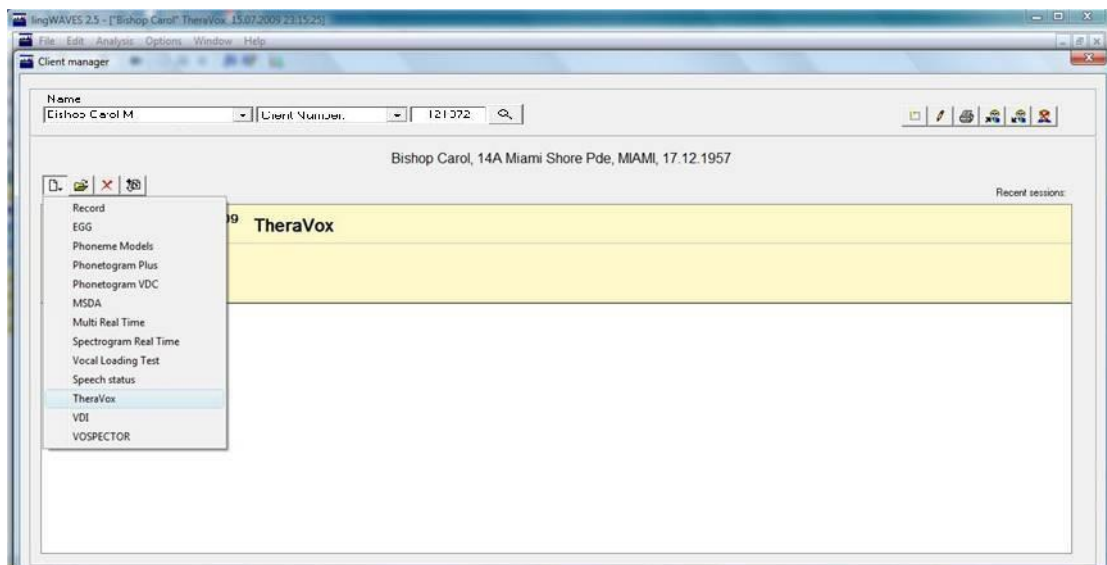
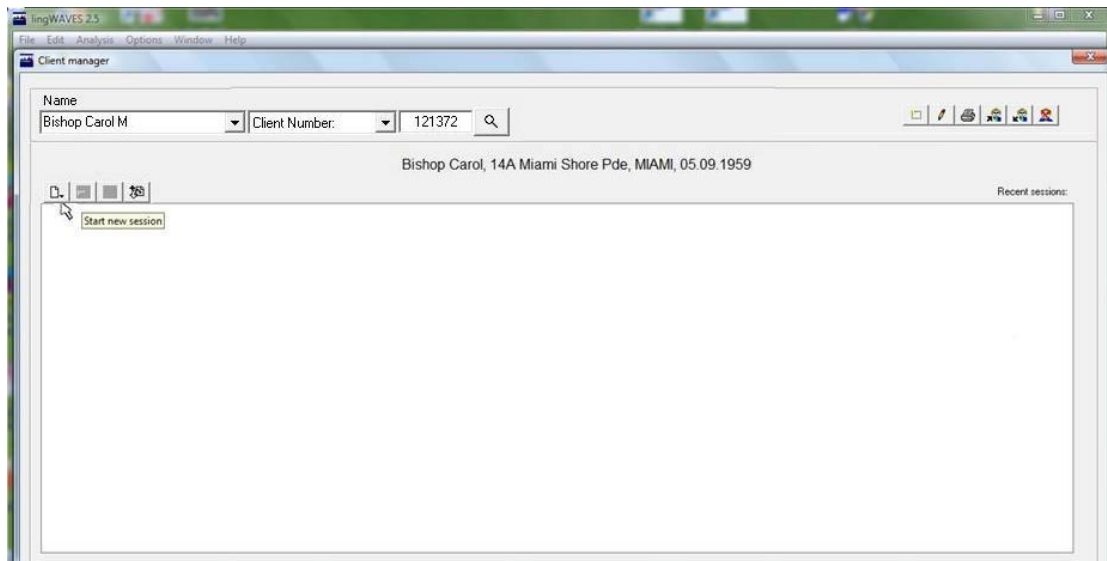


- Before you try out the TheraVox games, it's a good idea to watch the video demonstration on the CD sent with the trial or at

http://www.wevosys.com/products/lingwaves/lingwaves_theravox.html

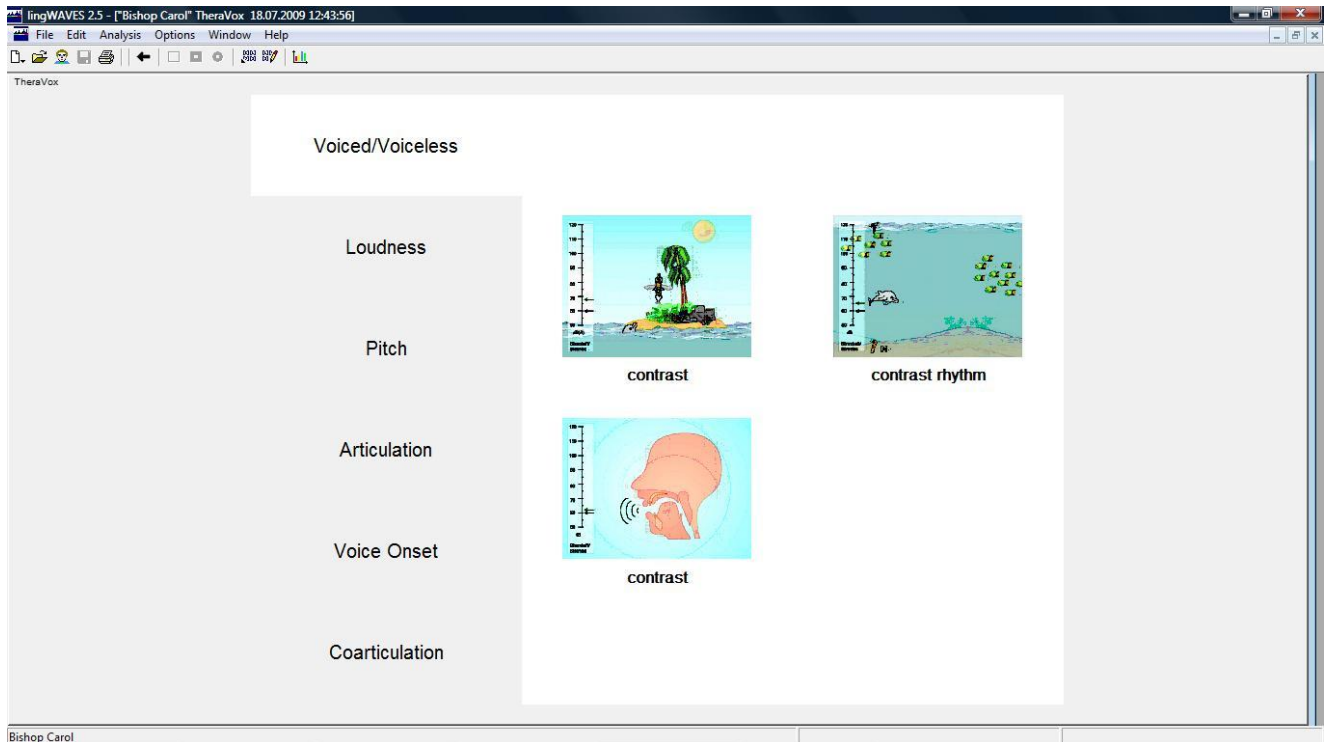
- Open lingWAVES from the icon on your desktop or from the START menu. 
- Click on the Client Manager icon on the Task Bar to open the Client Manager.
- Select your name from the drop -down list in the top left corner.

Open a new TheraVox session



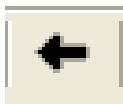
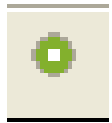
- Click on the “Start new session” icon
- Select TheraVox to open the TheraVox menu screen.

Voiced/voiceless



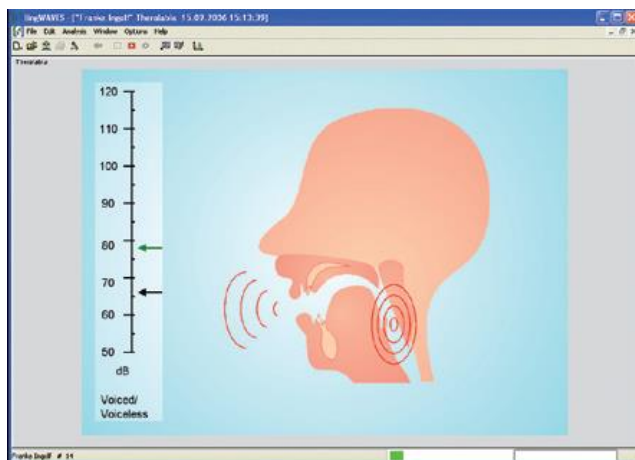
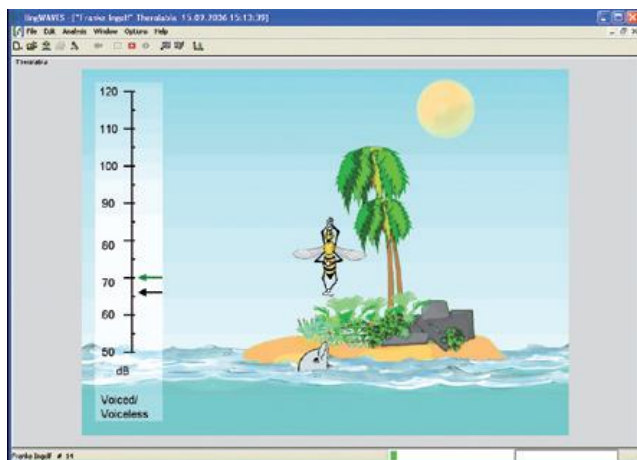
- for practicing voiced/voiceless contrast in phonemes.
- Click on the small screens to open each exercise.




Controlling the Theravox exercises



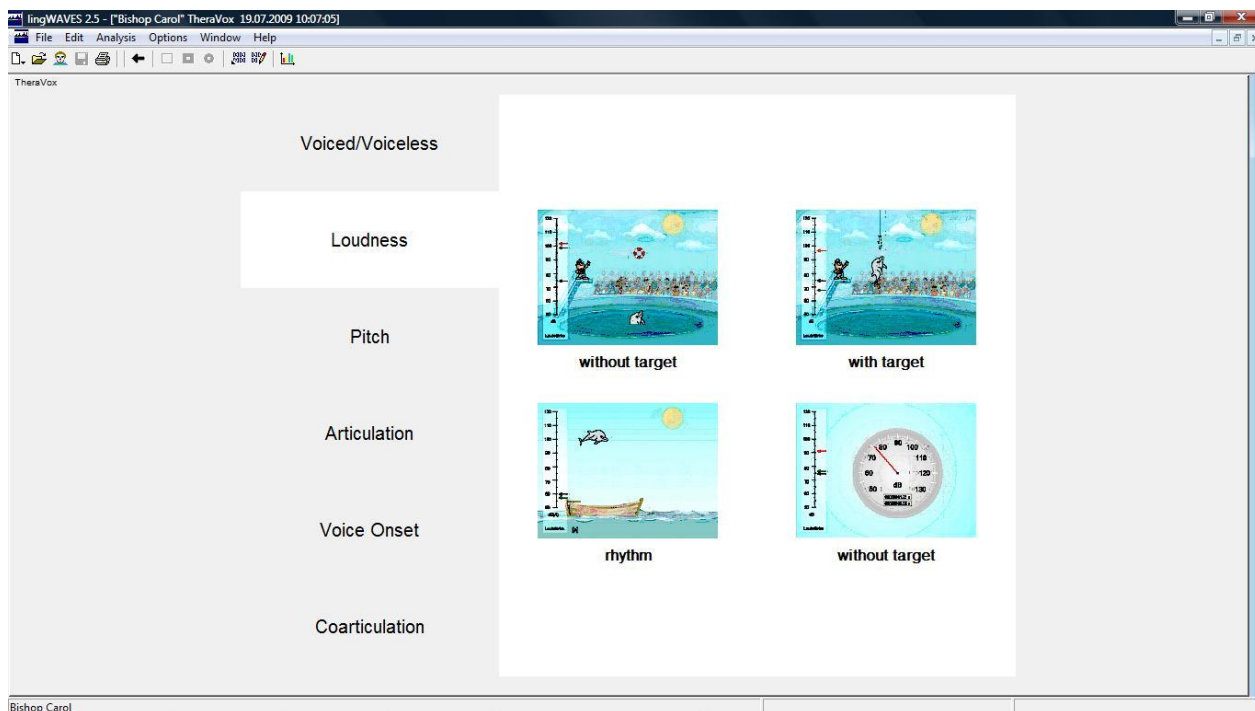
- All the TheraVox exercises use the same taskbar buttons or keyboard keys.
- Start each exercise by pressing the ENTER key or by selecting the green “Start” button.
- When you decide to stop an exercise, press ESC or click on the icon “Stop”.
- A mouse click on the icon “Reset Game” will reset the exercise to the beginning.
- Exit an exercise by closing the current window or by returning to the Exercise Menu screen with the left arrow button.
- To display the statistic report on client progress with a particular exercise, click on the “Statistics” button on the task bar.

Voiced / Voiceless contrast



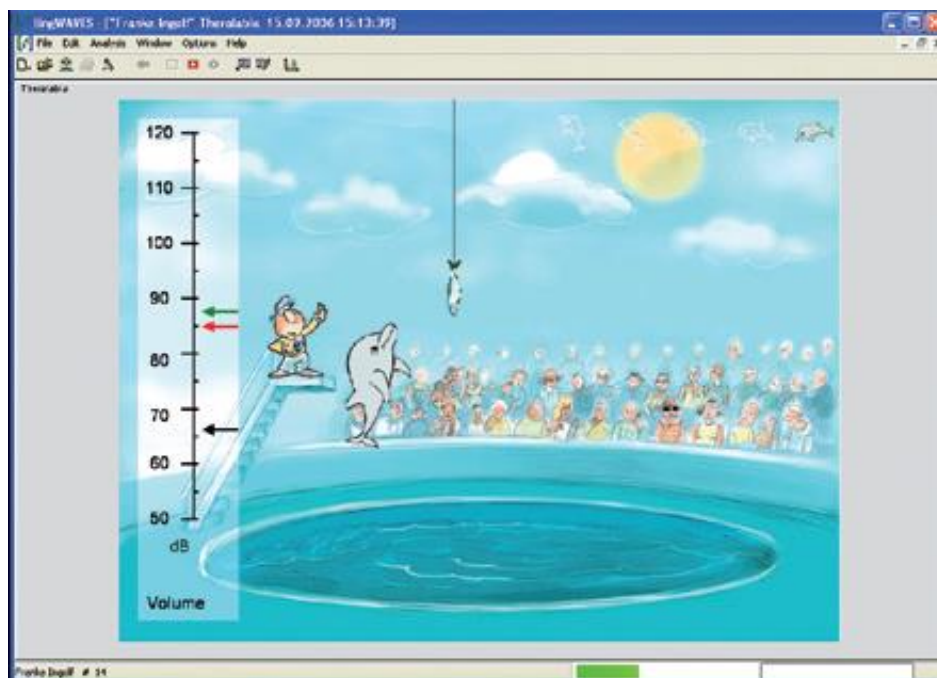
- Try the two Voice/Voiceless contrast exercises. One is a game and the other is the adult feedback presentation.
- Press the ENTER key or click on the green “Start” button. 
- Say some voiced sounds – eg Z, V to make the bee appear or the vibrations show on the larynx.
- Say some voiceless sounds – eg S, F to see the snake.
- To finish, press ESC or click on the “Stop” button. 
- Click on the left arrow button to go back to the TheraVox menu. 




Loudness



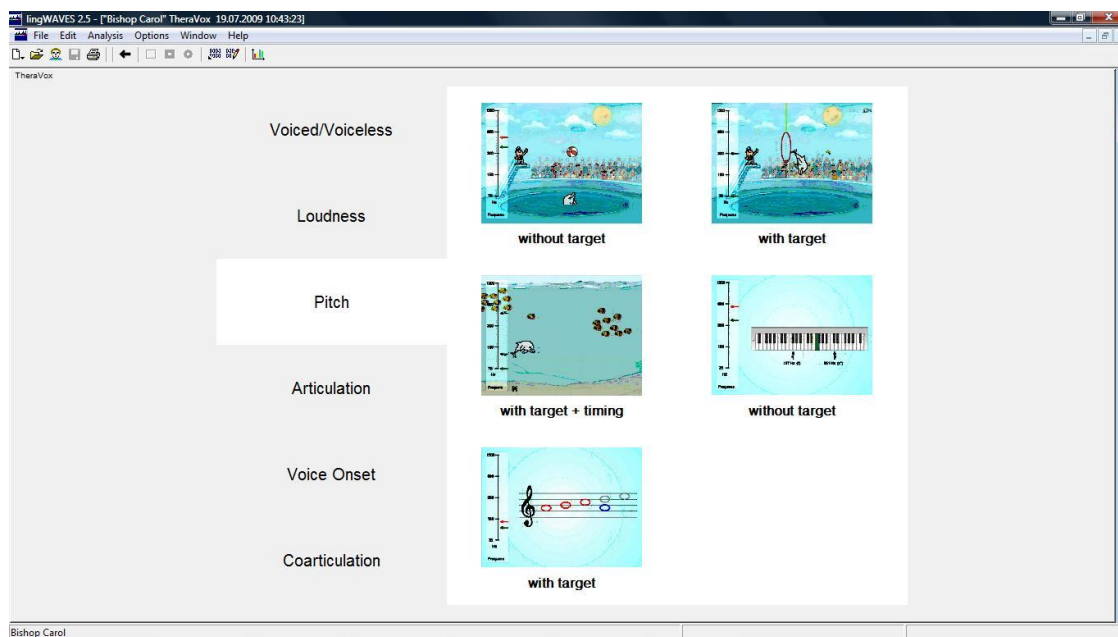
- For practicing loudness at different levels with an increasing degree of difficulty.
- These activities appeal to children but there is also a dB meter/timer for use with adults.
- For this tutorial we will look at a game aimed at reaching a set loudness level target.
- On the TheraVox menu screen click on the small screen labelled “with target”.

Loudness - with target



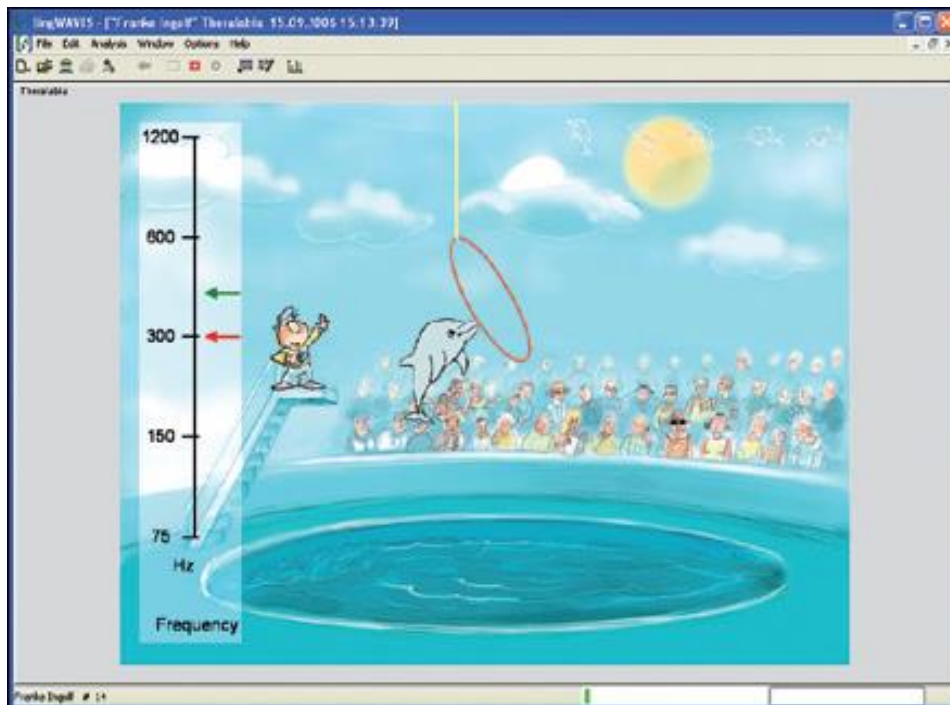
- Set the loudness level you want to achieve by dragging the black arrow up or down the dB scale. 
- Press ENTER or click "Start".
- Say AH as loud as you can. The green arrow shows your loudness changes and the red arrow records your maximum achieved. If you reach your loudness target you catch a fish!
- To finish, press ESC or click on "Stop". 
- Click on the left arrow button to go back to the TheraVox menu. 




Pitch



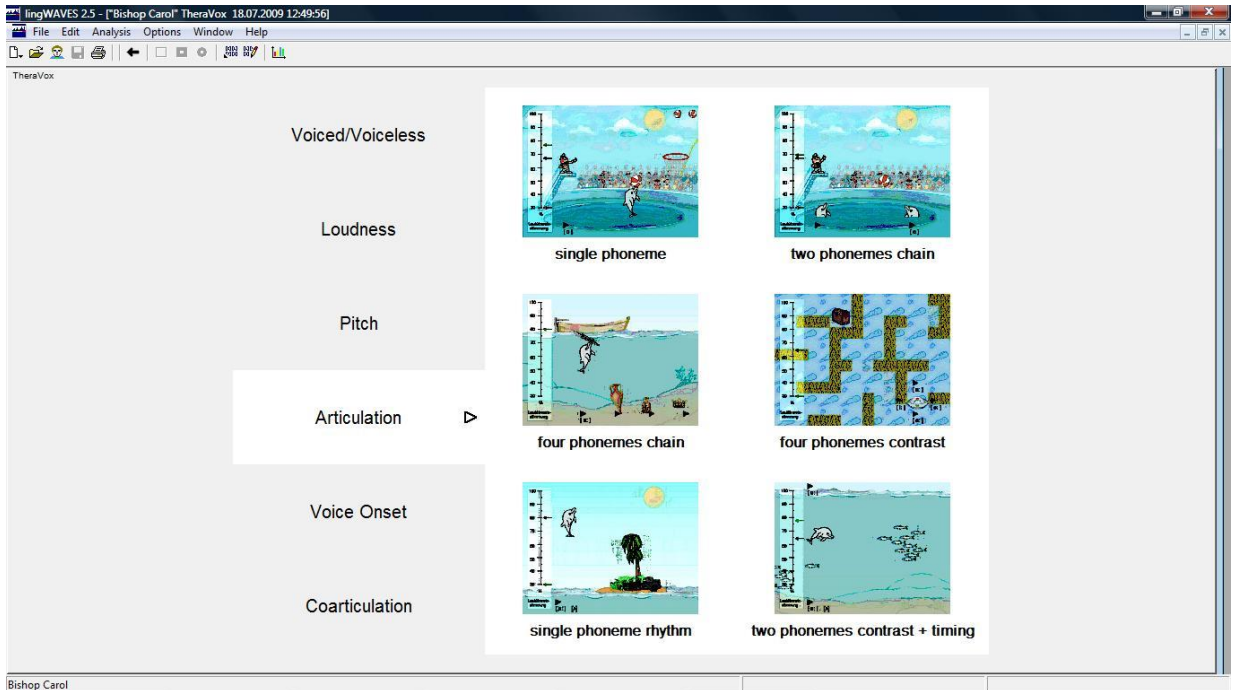
- for practicing pitch and pitch variation at different levels with an increasing degree of difficulty.
- For this tutorial we will look at a game aimed at reaching a set loudness level target.
- On the TheraVox menu screen click on the small screen labelled “with target”.

Pitch - with target



- Set the pitch target you want to achieve by dragging the red arrow up or down the Hz scale. This raises or lowers the hoop.
- Press ENTER or click “Start”. 
- Use your voice to raise the dolphin high enough to go through the hoop by raising your pitch to the required level.
- To finish, press ESC or click on “Stop”. 
- Click on the left arrow button to go back to the Theravox menu. 

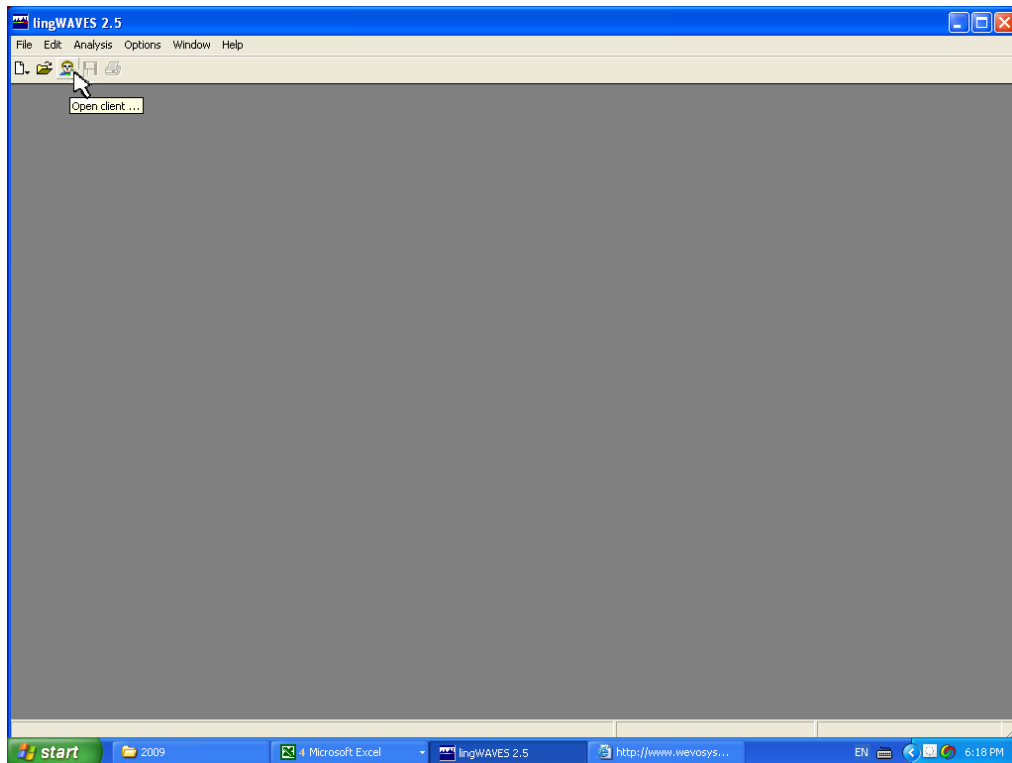
Articulation




- for practicing phonemes in isolation, phoneme contrast and phoneme chains consisting of up to four phonemes.
- Before you start a therapy session in “Articulation” you need to create Phoneme models.
- **You can read an explanation of Phoneme Models on page 49 in the TheraVox Handbook.**

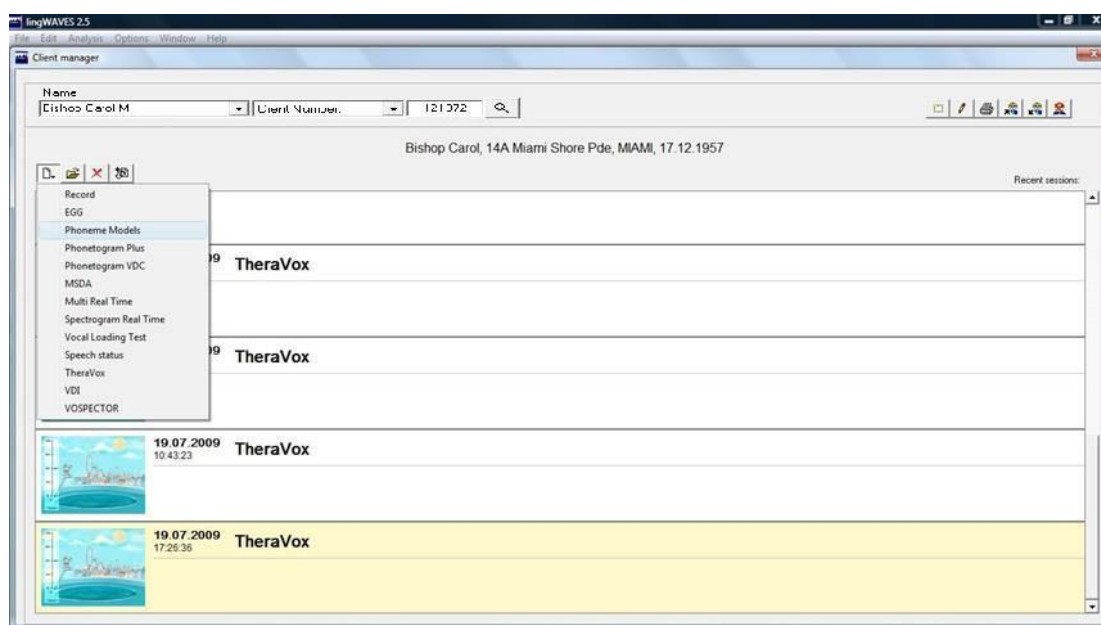
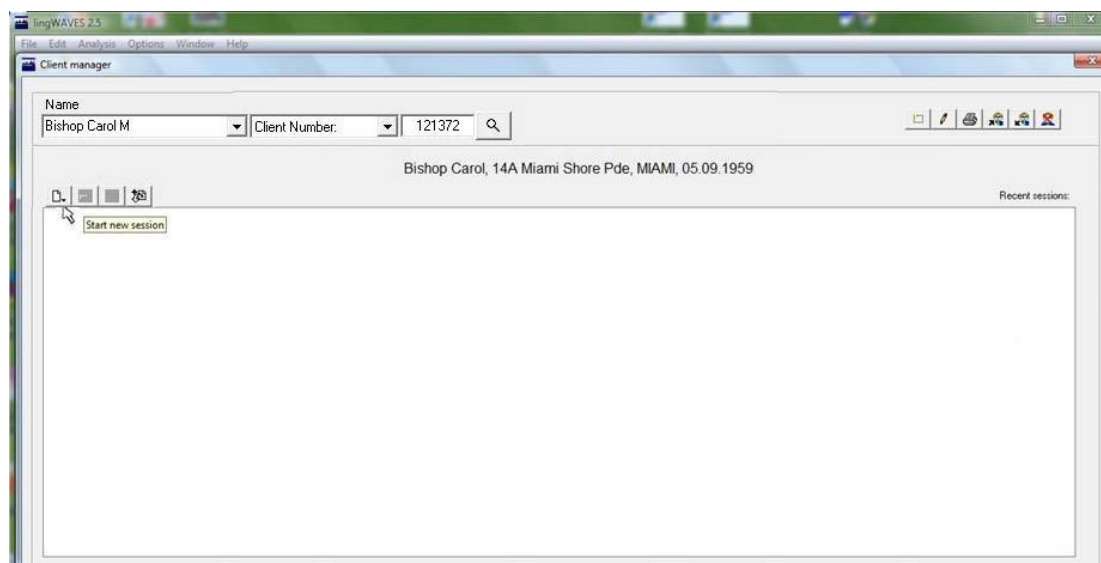
www.wevosys.com/download/handbook_EN_lingWAVES_TheraVox.pdf

Create Phoneme models first in Client Manager



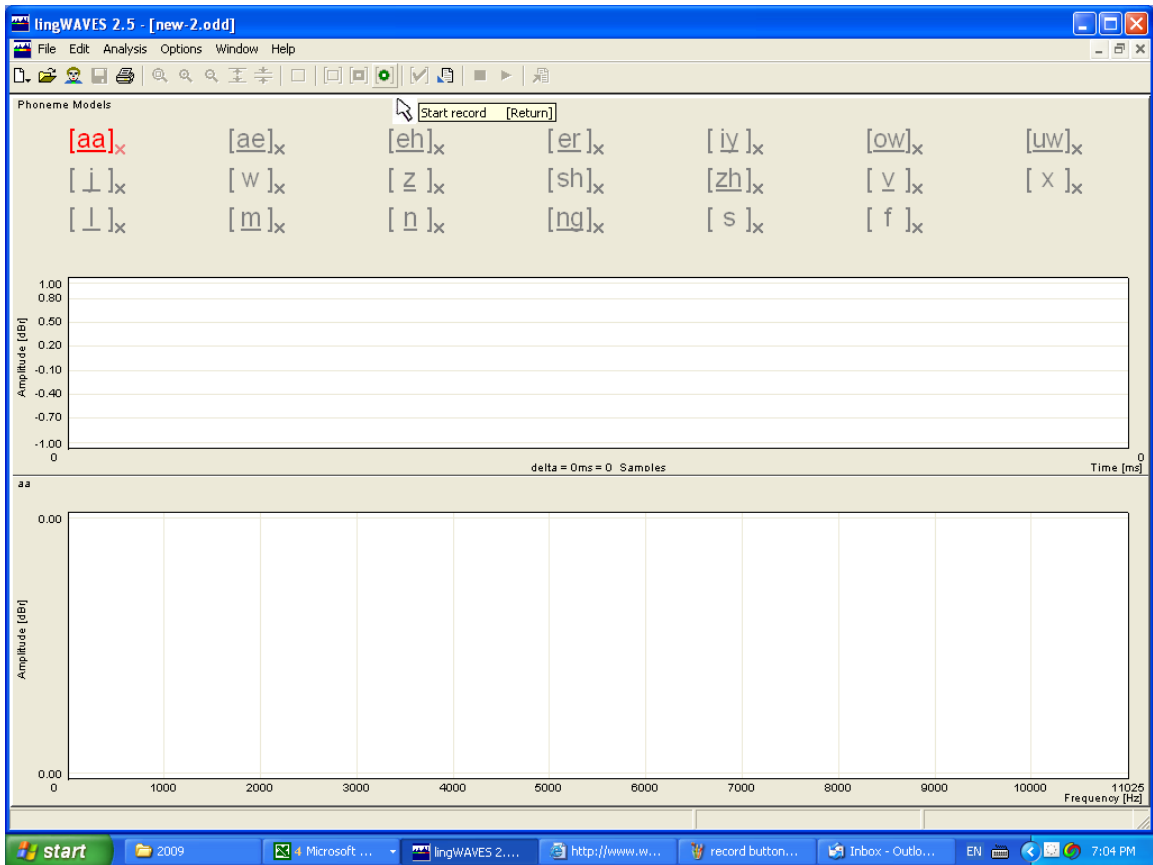
- Open lingWAVES from the icon on your desktop or from the START menu.
- Click on the Client Manager icon on the Task Bar to open the Client Manager. 
- Select your name from the drop - down list in the top left corner.

Create Your Individual Phoneme models



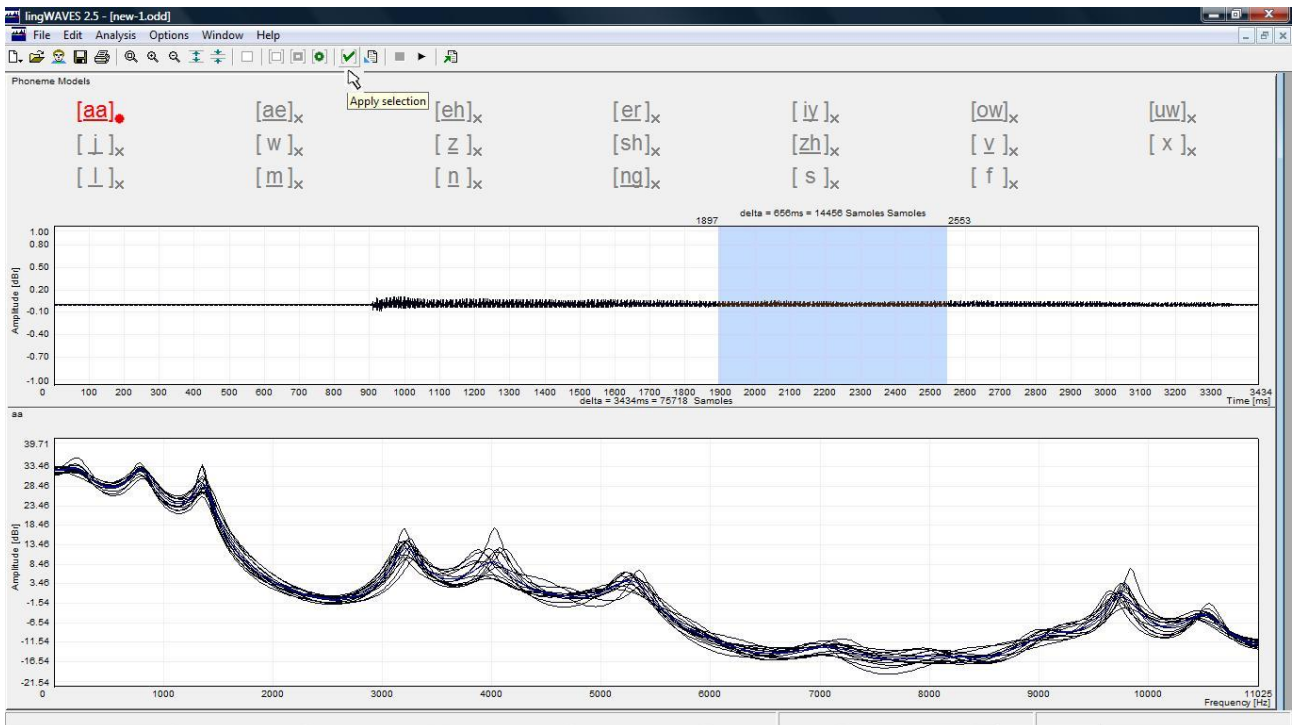
- Click on the “Start new session” icon.
- Select “Phoneme Models” from the list to open the Phoneme Models screen.

Create Phoneme Models



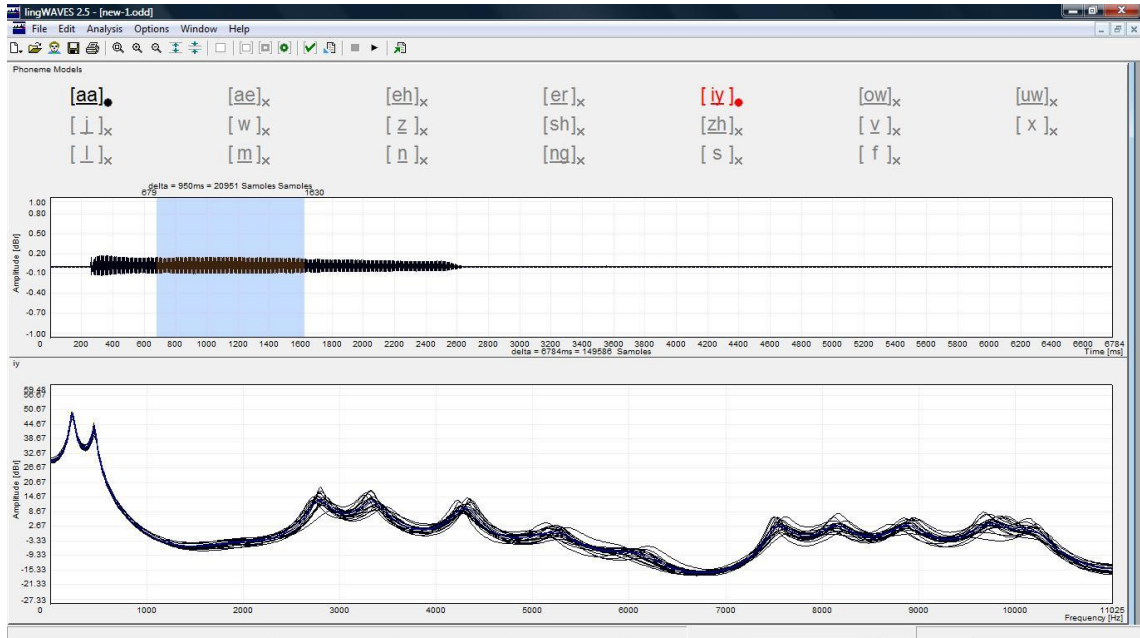
- The Phoneme Model screen opens.
- Click on the Phoneme you want to work on. For this tutorial we will work on AH [aa], EE [iy], OO [uw] and M [m].
- Click on [aa] first.
- It will become red.


Create phoneme model



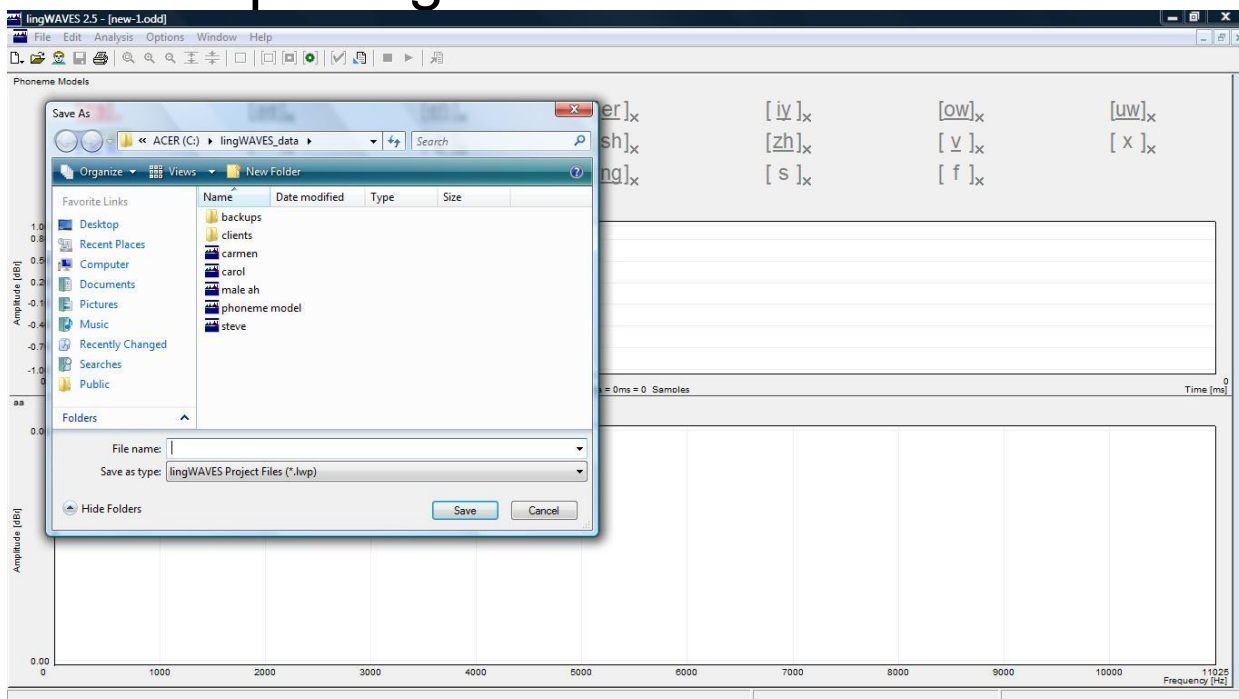
- Click on the green “Start record” button on the taskbar.
- Say AH for 2 - 3 seconds.
- Click on the red “Stop record” button.
- Press the triangle play arrow (or press the Space Bar) to hear your recording.
- Drag across a good section of your recording to select it.
- If your selection is acceptable, the tick icon on the taskbar goes green.
- Click on the green tick “Apply selection” and [aa] will be ticked.

Create phoneme models



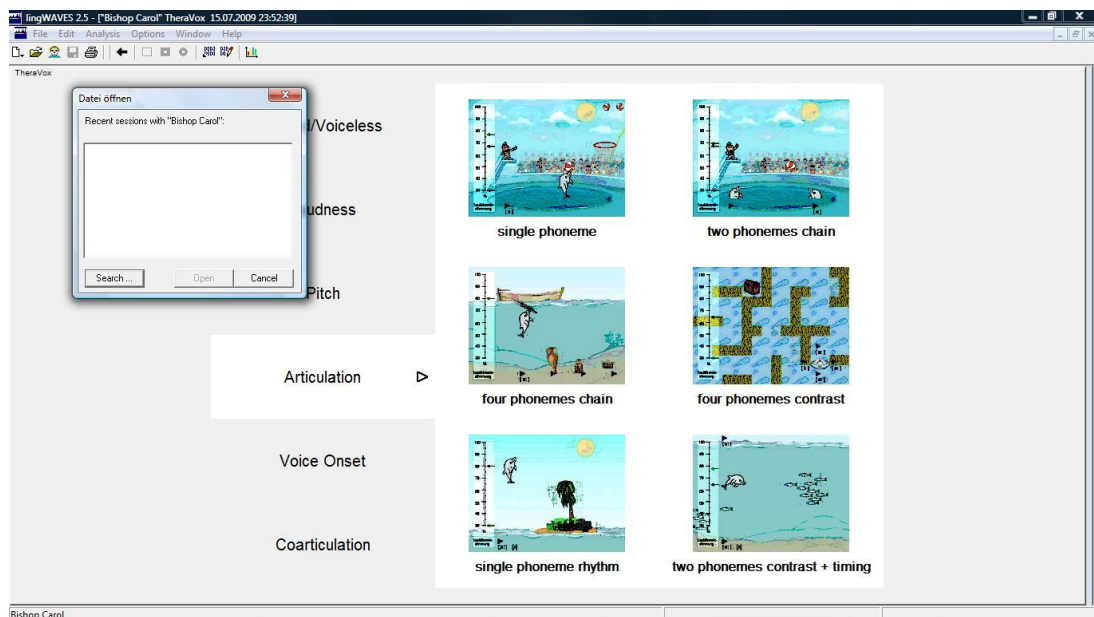
- Create phoneme models for EE [iy], OO [uw] and M [m] in the same way.
- Now click on Save on the taskbar  to save the phoneme models and close the window.
- Now these phoneme models will be saved for use in your session.
- If you want to save models for use in other sessions or to send home with clients see instructions on the next page.

Save Phoneme models for future sessions or for exporting for clients' Home Practice



- The next 3 pages are optional for this tutorial.
- Before you close the Phoneme Model Display, click on “File” and “Save as”
- Save the file in lingWAVES_data.
- Type your name in the “File Name” box and click “Save” (you can save files here for all your clients. You can also save their files on a USB stick they can take their phoneme models home to use on TheraVox Home version).

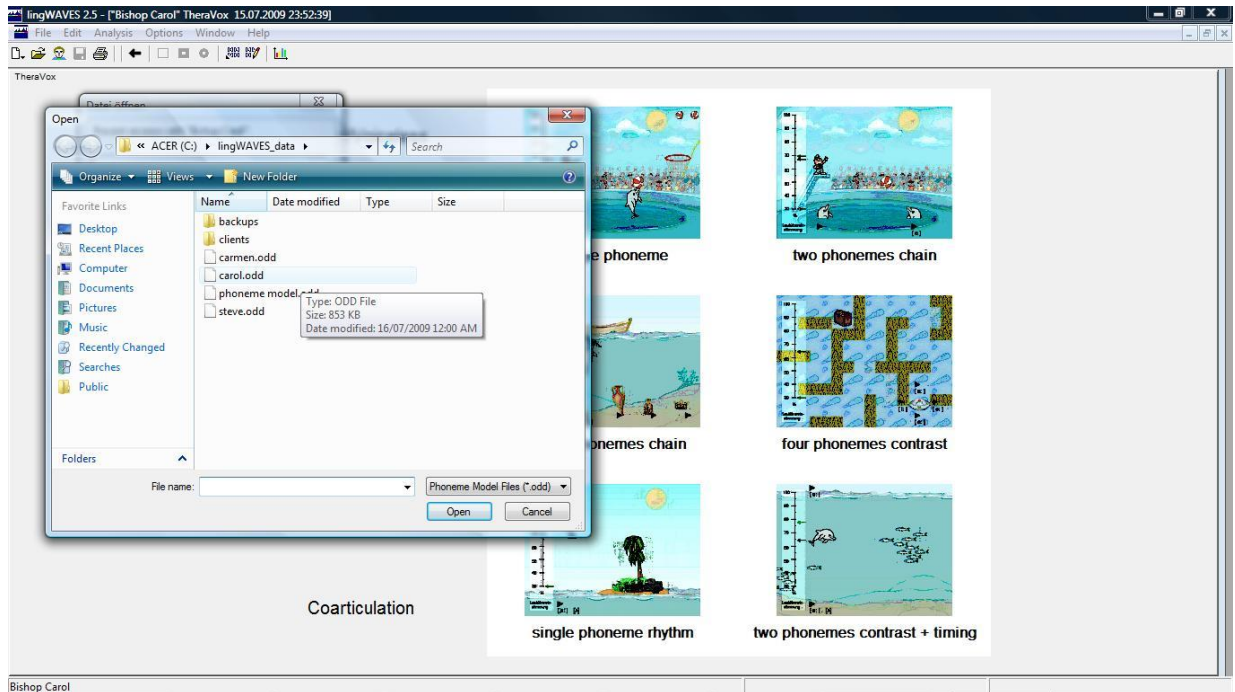
Search for saved Phoneme Models



- When you need to find your Phoneme Model files, click on the “Open Phoneme Models” button on the taskbar.

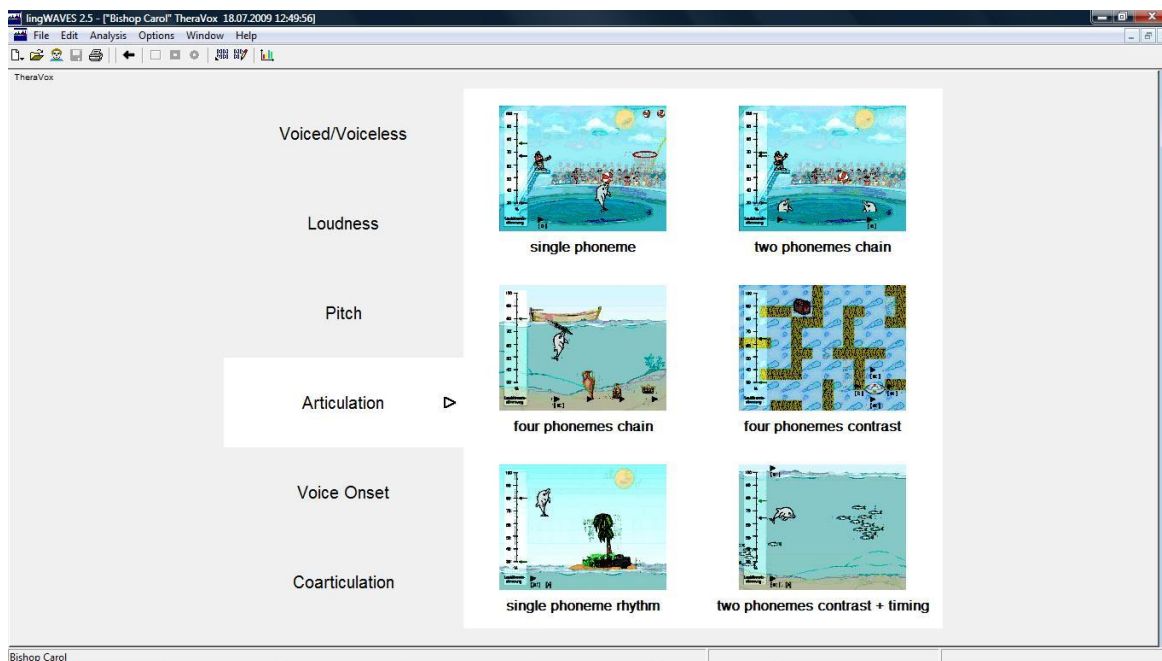


Select saved Phoneme model



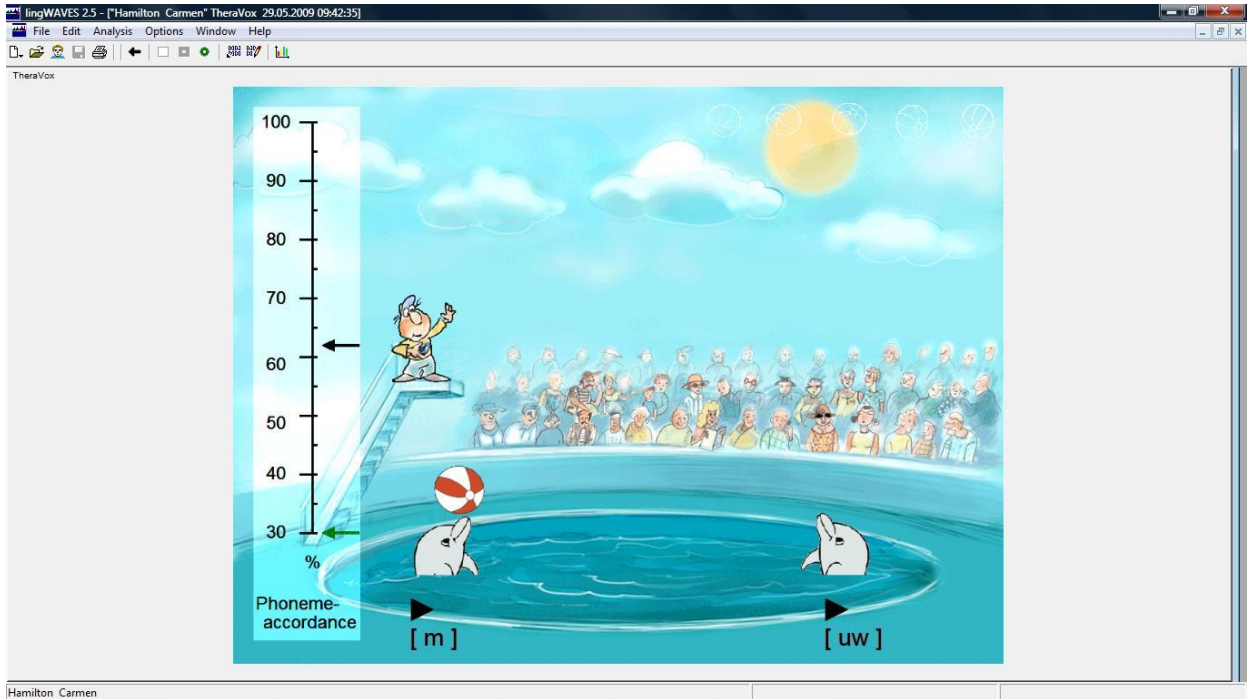
- Click on the “Search” button on the window which appears.
- Select the file with your name in the lingWAVES_data folder and click “Open” (or find the file on your USB stick if you have saved it there).

Articulation



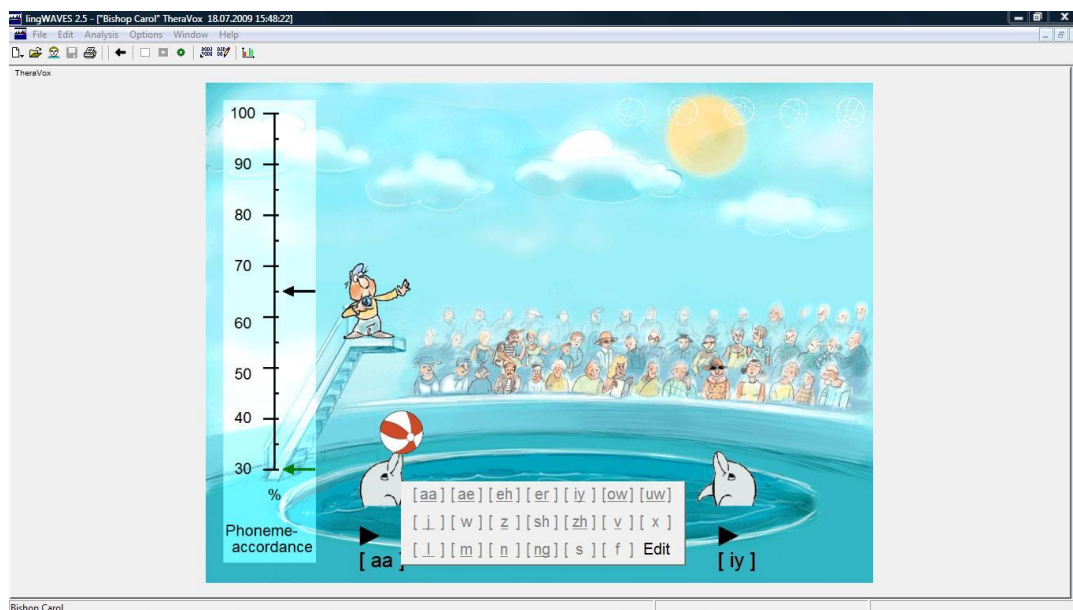
- Now that you have saved some Phoneme Models, close the Phoneme model screen and open TheraVox to play the Articulation exercises.
- In the Client Manager, click on the “Start new session” icon and select “TheraVox” from the list.
- On the TheraVox menu screen click on the small screen labelled “two phonemes chain”.

Two phonemes chain exercise



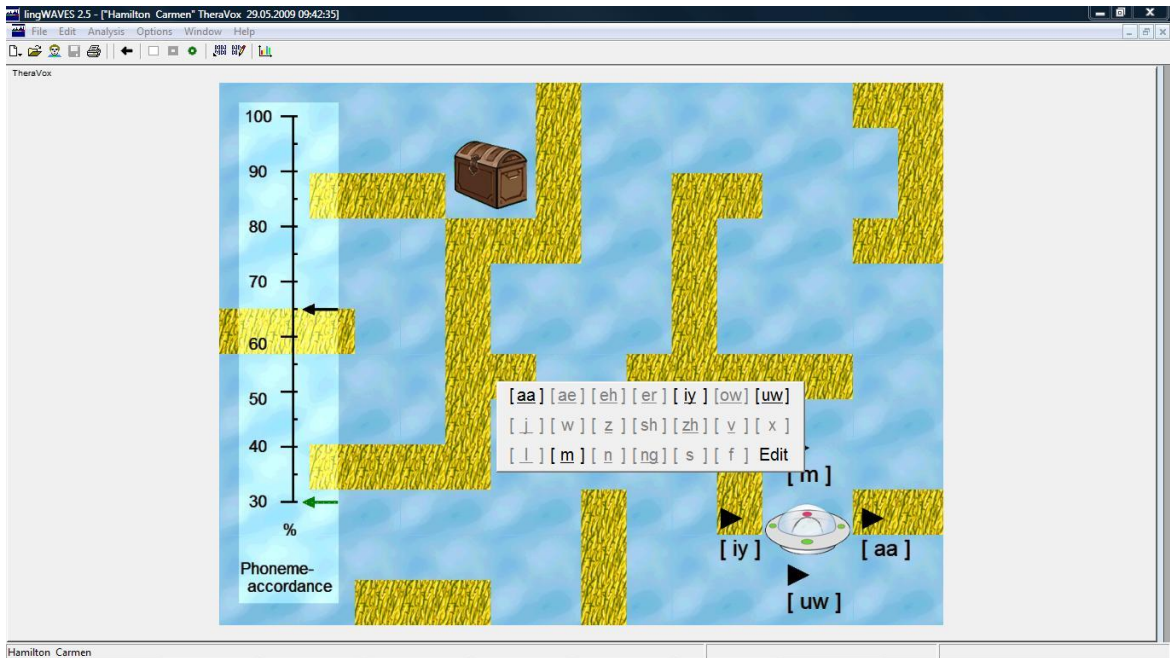
- Now try out the “two phonemes chain” game. (Gives feedback for accurate articulation of single phonemes).
- Click on the “two phonemes chain” game to open the game.
- Now select two phonemes by clicking on the phonemes in the square brackets under each dolphin.

Two phonemes chain – select targets



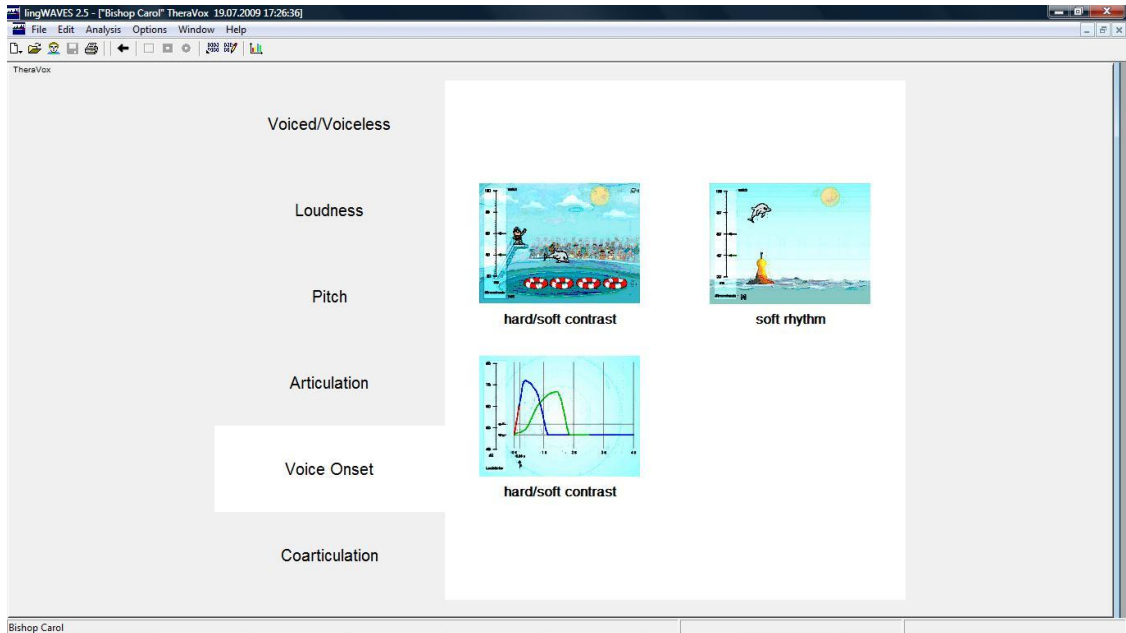
- Select one of the phonemes you have previously saved for each dolphin.
- Now start the game with the green start button on the taskbar and make the dolphins toss the ball to each other by saying the phoneme correctly.
- To accept less accurate attempt, drag the black arrow on the left down.
- For closer approximation to the target sound, drag the black arrow up.
- Click on the red square “Stop recording” button to stop and the left arrow on the taskbar to go back to the TheraVox menu.

Four phonemes contrast game



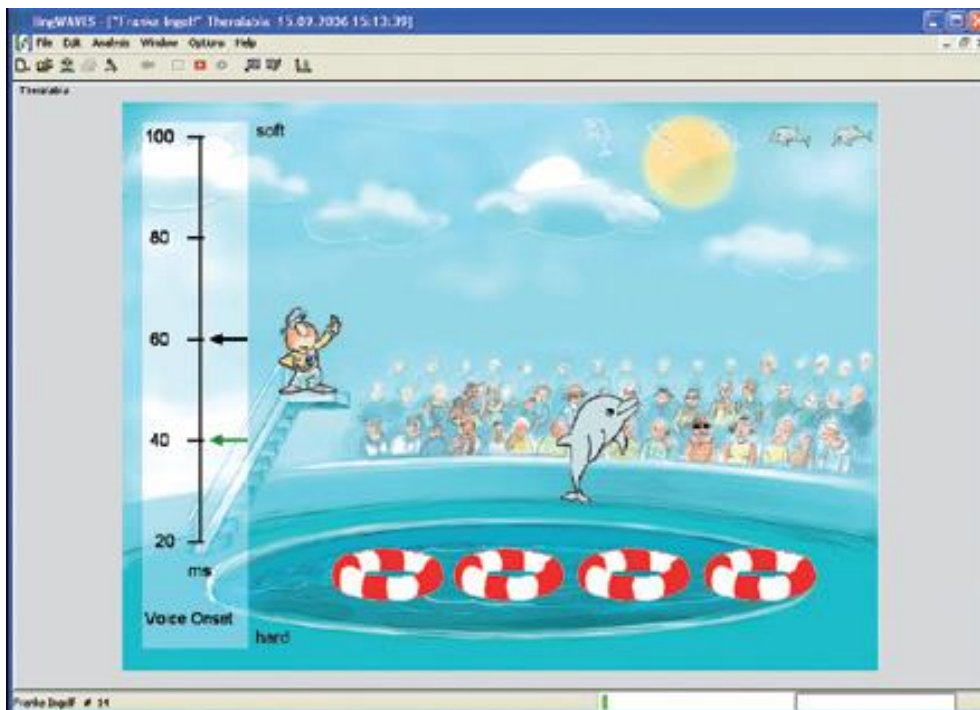
- On the Theravox exercise selection screen, click on “Four phonemes contrast” to open the maze.
- Click on each of the 4 phonemes in square brackets to select the models you have saved. (you may need to create new phoneme models as described earlier if you don’t have enough available).
- Now start the game by clicking on the round green start button on the taskbar.
- Steer the spaceship around the maze to reach the treasure. The direction it moves is controlled by the phoneme you produce. (Press the triangle play icons to hear and imitate the phonemes).
- Click on the square red “Stop” button on the taskbar to finish the game.
- Click on the left arrow button to go back to the menu.




Voice Onset



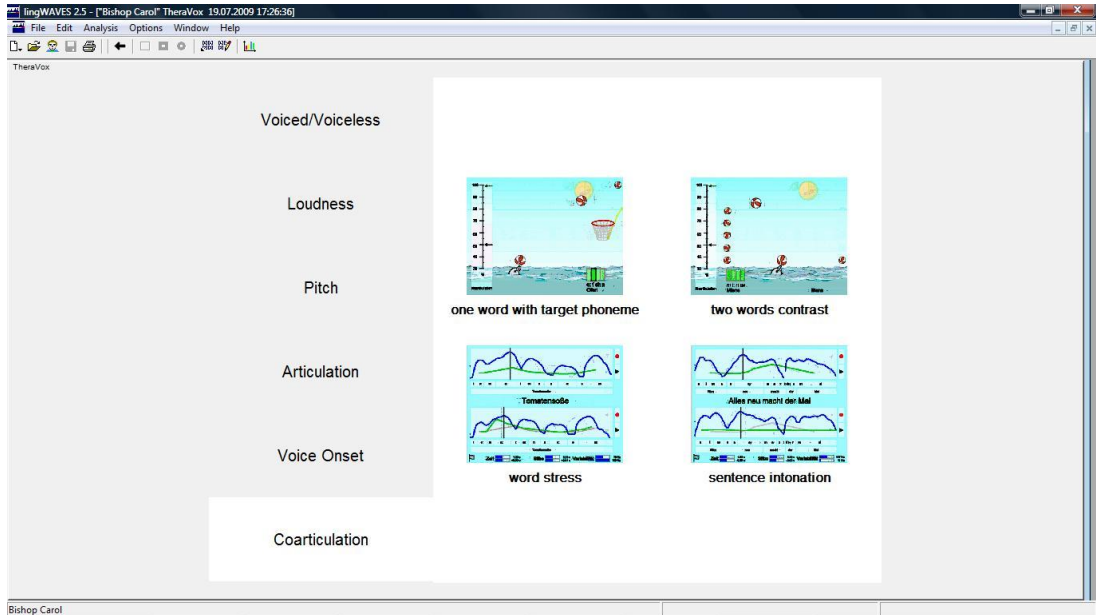
- for practicing hard and normal voice onset.
- For this tutorial we will look at a game which differentiates hard and normal voice onset to give feedback for fluency clients.
- On the TheraVox Voice Onset menu screen click on the small screen labelled “with target”.

Voice onset - Hard/Soft Contrast



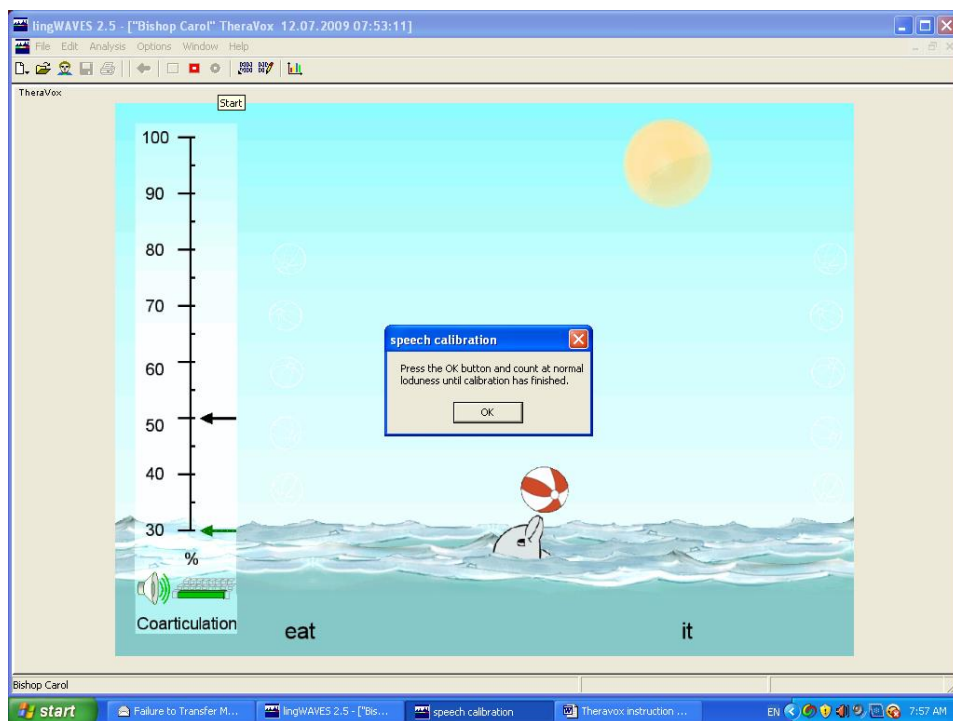
- Press ENTER or click “Start”. 
- Count or say a sentence using smooth speech, with gentle voice onsets and syllable prolongation.
- This should make the dolphin jump high and move smoothly to the next ring.
- Normal voice onsets are recorded by dolphins in the top right corner.
- Hard voice onsets result in jerky movements.
- To finish, press ESC or click on “Stop”. 
- Click on the left arrow button to go back to the Theravox menu. 



Coarticulation



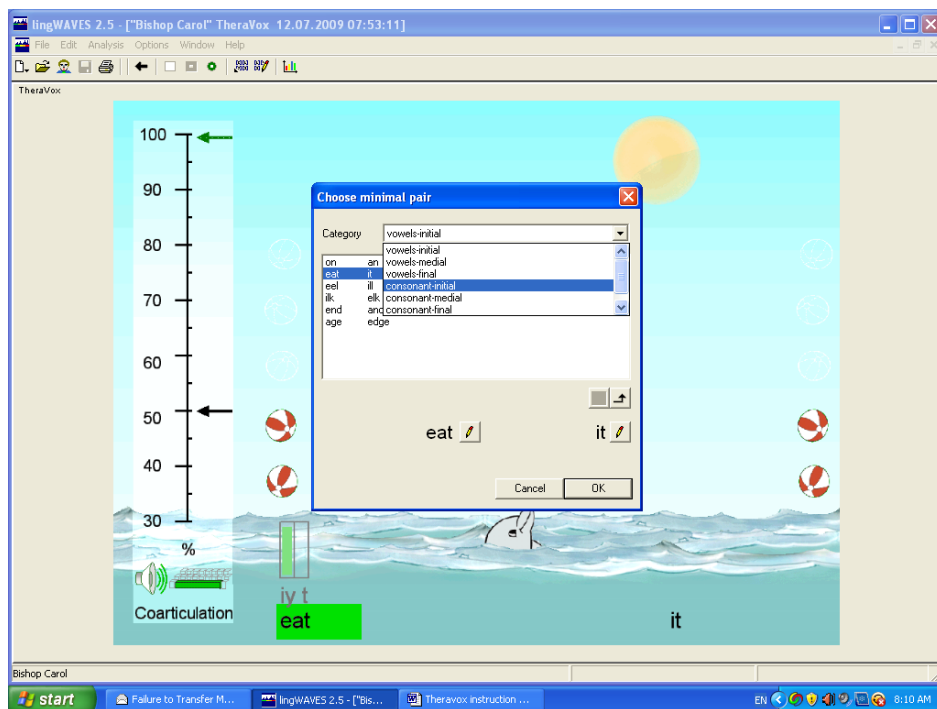
- For practicing speech in syllable or word context.
- These exercises use the latest Speech Discrimination technology to provide feedback on the accuracy of articulation at a word level.
- For this tutorial we will look at minimal pair speech production.
- On the TheraVox Coarticulation menu screen click on the small screen labelled “two words contrast”.



Coarticulation - two words contrast



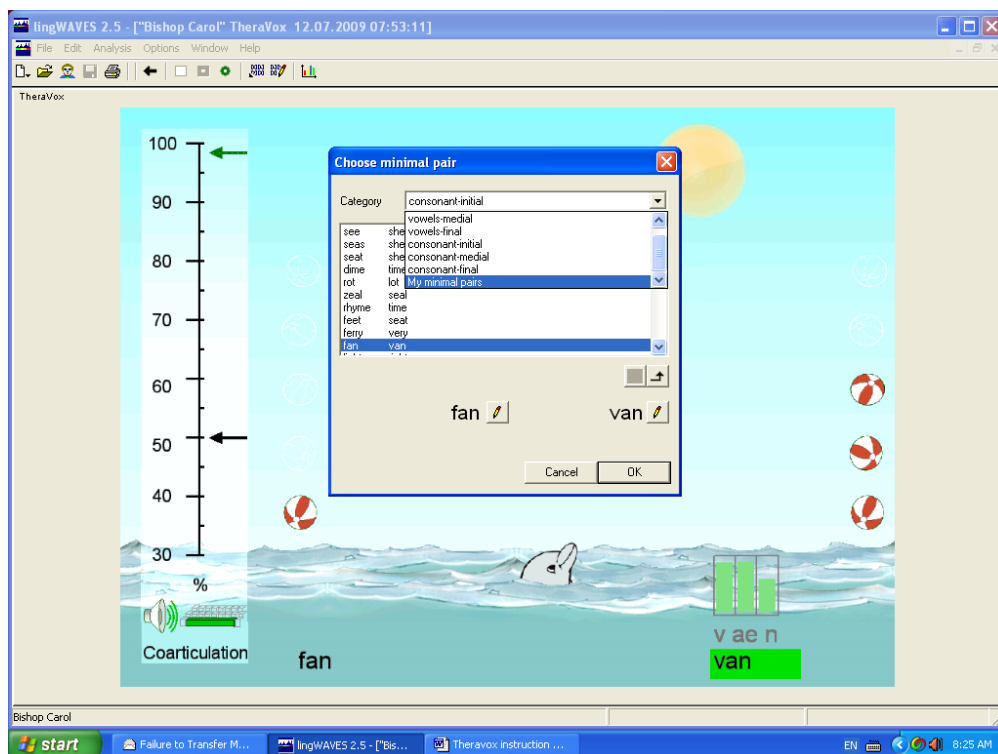
- You will see two target words at the bottom, “eat” and “it”.
- Click on the green start button on the taskbar  or press on the Enter key.
- A calibration instruction will appear.
- Count at normal loudness until it says calibration is finished.
- Now press your space bar to set the ball rolling.
- Say “eat” and you will hear your recording and see the ball go to the left.
- Press the space bar again and say “it” and you will hear your recording and watch the ball go to the right.
- To finish, press ESC or click on “Stop”. .

Select word pairs for Minimal Pair practice.



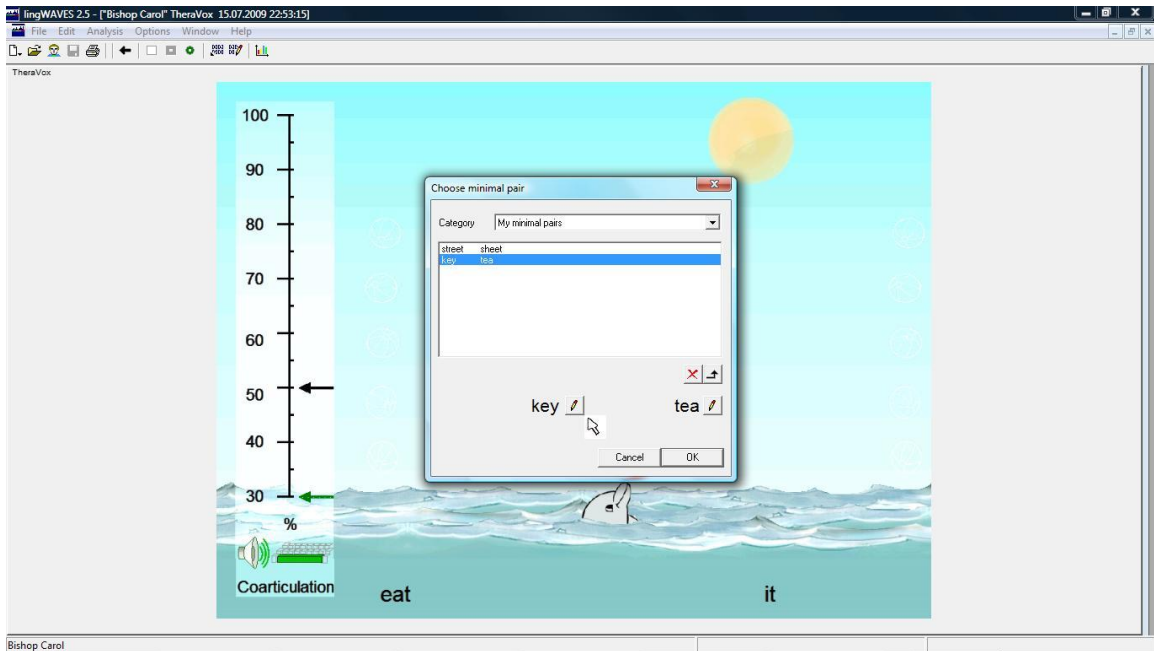
- Click in the word at the lower left – in this example “eat”.
- A screen appears which allows you to select word pairs grouped according to place of articulation.
- Select “Initial consonants” and any pair (eg “fan” and “van”).
- Start the game with the green start button on the taskbar. 
- Press the space bar and say each word to toss the ball to the appropriate side.
- When you have finished press the Stop button on the taskbar. 

Create your own minimal pairs



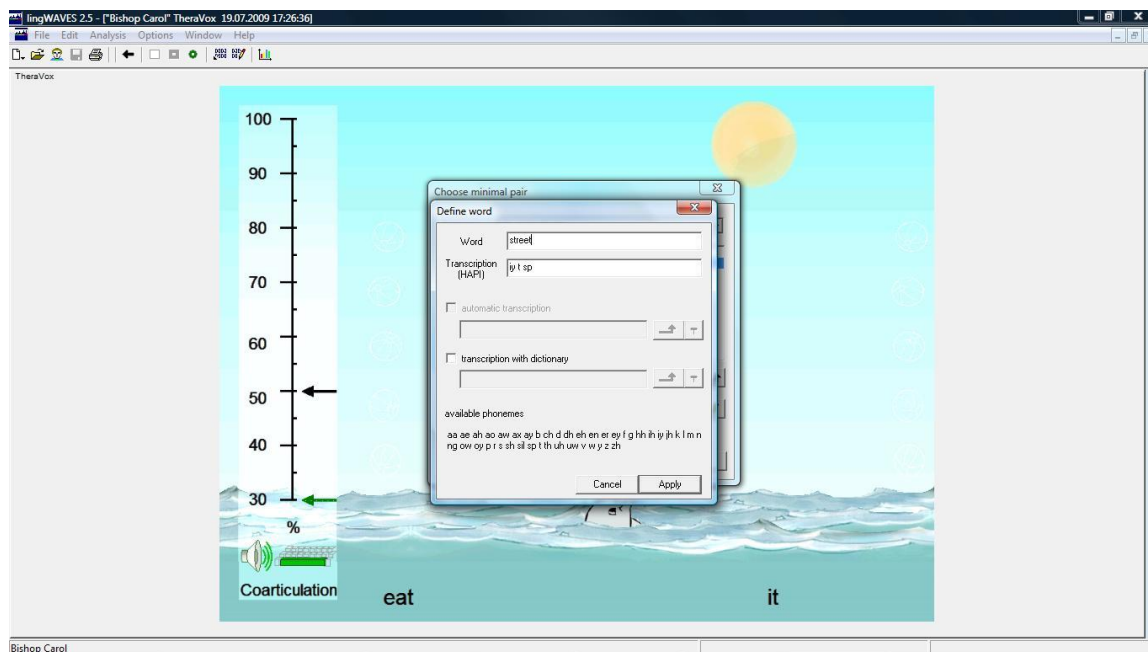
- You can create your own minimal pairs.
- Click in the word at the lower left – in this example “fan”.
- This opens the Word Selection screen.
- Scroll down next to “Category” and select “My Minimal Pairs”.

Creating a minimal pair



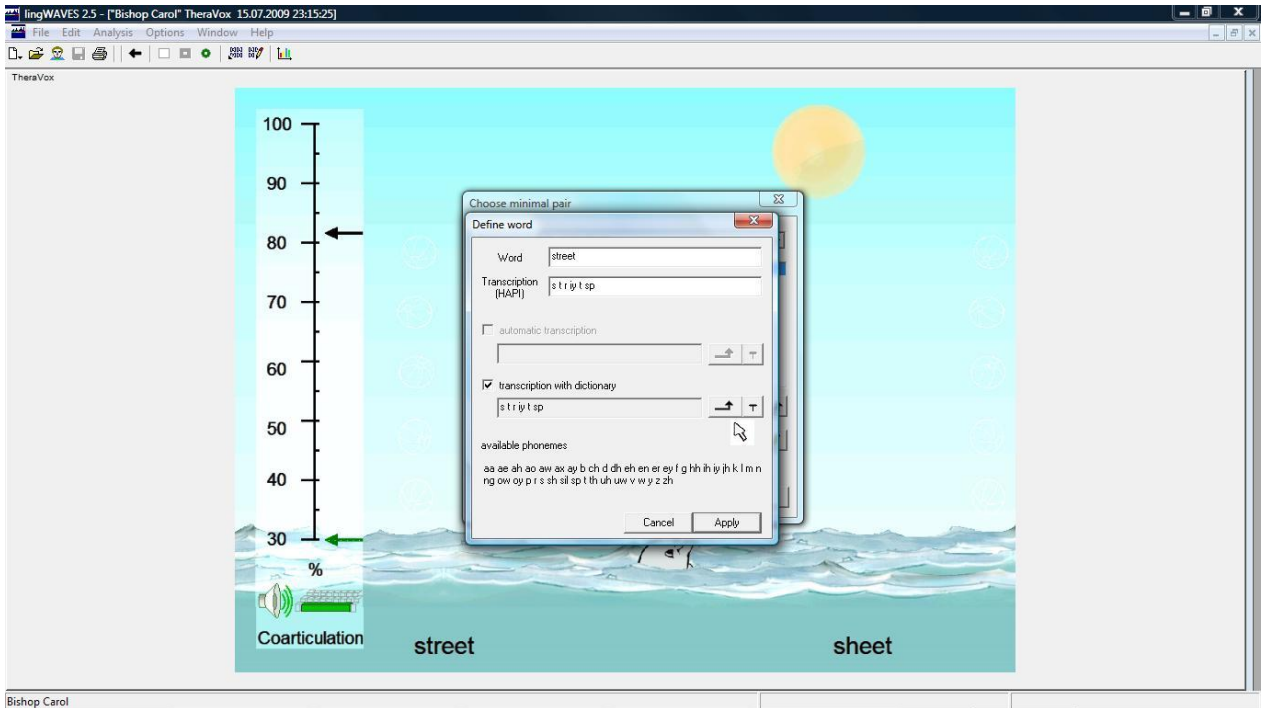
- Click on the pen icon beside the word at lower left in the “Choose Minimal Pair” window which appears.


Add a new word to the dictionary



- A transcription window opens.
- Type a word – eg “street”- in the “word” box in this window.

Phonetic Transcription



- Tick the available transcription dictionaries and a suggested transcription will appear.
- Check the transcription using the Phonetic symbol table on page 184 of the handbook (copied on next page).
- If you agree, apply this transcription with 
- You can add or change the transcription manually - just type the transcription in the field. Note that the phonemes should have a space between and end with a “sp” (end of a word).
- Click Apply to add to the dictionary.

UK English

Symbol	Example	Symbol	Example
Vowels		Plosives	
aɪ	bal <u>m</u>	b	be <u>t</u>
ɑː	ba <u>r</u> n	d	de <u>b</u> t
æ	ba <u>t</u>	g	ge <u>t</u>
ʌ	bu <u>t</u>	k	ca <u>t</u>
ɔː	bo <u>u</u> ght	p	pe <u>t</u>
ɔʊ	bo <u>u</u> t	t	ta <u>t</u>
ə	ab <u>o</u> ut	Fricatives	
aɪ	bi <u>t</u> e	ð	th <u>a</u> t
eh	be <u>t</u>	θ	th <u>i</u> n
er	bi <u>r</u> d	f	fa <u>n</u>
ey	ba <u>i</u> t	v	va <u>n</u>
ɪ	bi <u>t</u>	s	sue
ly	be <u>e</u> t	ʃ	sh <u>o</u> e
oh	bo <u>x</u>	z	zo <u>o</u>
ow	bo <u>o</u> t	ʒ	mea <u>s</u> ure
oy	bo <u>y</u>	Affricates	
uh	bo <u>o</u> k	tʃ	chea <u>p</u>
uw	bo <u>o</u> t	dʒ	Je <u>e</u> p
Semi-Vowels		Nasals	
ɪ	le <u>d</u>	m	me <u>t</u>
r	re <u>d</u>	n	ne <u>t</u>
w	w <u>e</u> d	ŋ	th <u>i</u> ng
y	ye <u>t</u>	Silence	
h	ha <u>t</u>	sp	end of word

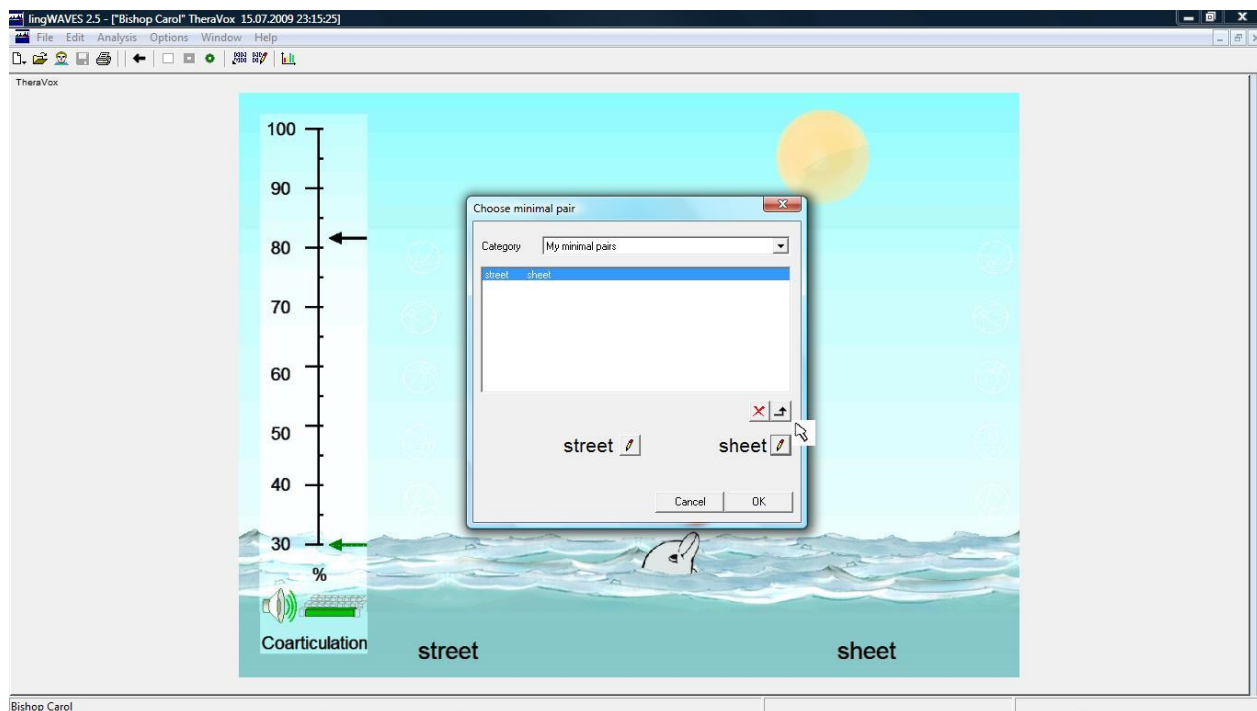
Coarticulation


THR|

US English

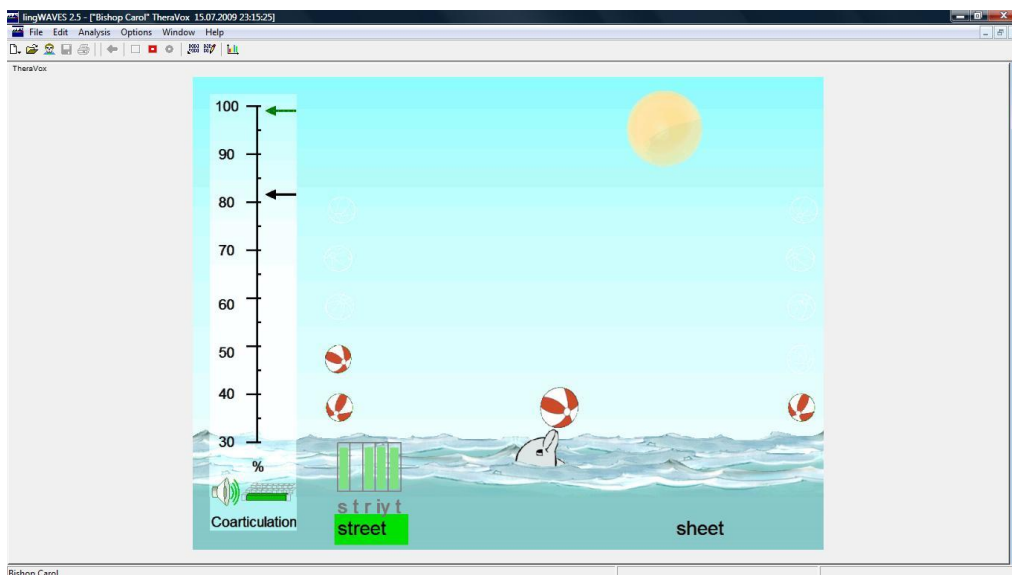
Symbol	Example	Symbol	Example
Vowels		Plosives	
aa	bal m	b	be t
aa	bo x	d	de bt
ae	ba t	g	ge t
ah	bu t	k	ca t
ao	bo u ght	p	pe t
aw	bo u t	t	ta t
ax	a bo ut	Fricatives	
ay	bi t e	dh	tha t
eh	be t	th	thi n
er	bi r d	f	fa n
ey	ba i t	v	va n
ih	bi t	s	sue
iy	be e t	sh	sho e
		z	zoo
ow	bo a t	zh	mea s ure
oy	bo y	Affricates	
uh	bo o k	ch	chea p
uw	bo o t	jh	jeep
Semi-Vowels		Nasals	
l	le d	m	me t
r	re d	n	ne t
w	we d	ng	thi ng
y	ye t	Silence	
hh	ha t	sp	end of word




Saving the new Minimal Pair



- Now click on the pen Icon next to the word at lower right, type “sheet” into the Transcription window and Apply a transcription as before.
- On returning to the “Choose Minimal Pairs” window you should see the new minimal pair at the bottom of the window.
- Click the “Apply Selection” button. 
- Now select the new pair to play the exercise and click OK.

Working with your new minimal pair



- You will see two target words at the bottom, “street” and “eat” (If not, click on the lower left word and search for your new pair in My Minimal Pairs.)
- Click on the green start button on the taskbar  or press on the Enter key.
- Now press your space bar to set the ball rolling.
- Say “street” and you will hear your recording and see the ball go to the left.
- Press the space bar again and say “sheet” and you will hear your recording and watch the ball go to the right.
- To finish the game, press ESC or click on “Stop”. 
- To choose other TheraVox exercises, click on 

Where to find more help

- First go to the Help button on your top menu bar and select “More Options”.
- More information is available on our Website www.mmsp.com.au or at www.wevosys.com
Select the Support button to download Handbooks.
- View How-to videos on You Tube or at http://www.wevosys.com/support/lingWAVES_how_to/supprt_how_to.html
- We now offer International Remote Support:
With our remote control technology WEVOSYS can assist a customer while using WEVOSYS programs on any computer around the world. You just have to start up a little application which does not even require an installation. We can establish instant connections to a customer's computer over the internet within a minute, see what needs adjusting and give you instructions using a telephone.
Go to: www.wevosys.com/support/support_remote.html
- Your local support is:
Multimedia Speech Pathology
Email: info@mmsp.com.au
Phone: 0407293579
Website: www.mmsp.com.au