

## **Acoustic Analysis Instruction Guide**

This is a rough guide to making and analysing simple recordings using a TASCAM recorder and the PRAAT software. For a more detailed guide for both items of equipment please see their websites and user manuals.

**Making Recordings using TASCAM DR-05** 

To turn on sound recorder hold





Press the

you want press the U/I HOME 



when you are ready hit

the record button again and the red light will stay on indicating you are recording. Make sure you stay quiet while the recording is being taken. Once you are happy you have got the sound recording



button again. Red light will flash if you want to record again or press

the



button once, a red light will flash

## In order for the software to quickly analyse your recordings DO NOT create sound files longer than 20sec.

Connect sound recorder to pc, the following screen will appear. Scroll to the storage option by using



button. Use the '

'button to select this option.













Once connected open the folder with your sound files.



Select the folder named 'music'

Compu	ter + DR-05 (E) +	-		+ 4 Search DR	-05 (E.)
Organize 🔹 🎯 Ope				and the Party of the	E • 01 0
* Favorites	Name	Date modified	Туре	Size	
E Desktop	MUSIC	01/01/2000 00:00	File folder		
🔒 Downloads	JUTILITY	01/01/2000 00:00	File folder		
📃 Recent Places	🗟 dr-1.sys	26/01/2000 00:35	System file	3 KB	
Car Libraries					

Your sound files will be in here

Irganize 👻 🛕 Play	<ul> <li>Burn New folder</li> </ul>				811 -	6
Favorites	Name	Date modified	Туре	Size		
E Desktop	🛓 DR0000_0007	26/01/2000 00:22	VLC media file (.w	820 KB		
Downloads	📥 DR0000_0008	26/01/2000 00:29	VLC media file (.w	402 KB		
M Recent Places	📥 meowing bengal cat	19/01/2000 04:49	VLC media file (.w	3,147 KB		
<ul> <li>↓ Libraries</li> <li>↓ Documents</li> <li>↓ Music</li> <li>➡ Pictures</li> <li>➡ Videos</li> </ul>						

Your recording should begin with a DR000, click on the files to listen to them. Once you have determined which file you would like to use in your sound analysis, rename the file with your group name, date and time (for eg. **Group 1 Nov 14 10am).** 

	1-			T		, 0	X
Compute	r ► DR-05 (E:) ► MUSIC			<b>- 4</b> € Se	earch MUSIC		٩
Organize 👻 🛓 Play	<ul> <li>Burn New folder</li> </ul>						?
🔶 Favorites	Name	Date modified	Туре	Size			
🧮 Desktop	A Tigers Nov14 10am	26/01/2000 00:22	VLC media file (.w	820 KB			
🐌 Downloads	📥 DR0000_0008	26/01/2000 00:29	VLC media file (.w	402 KB			
🔛 Recent Places	📥 meowing bengal cat	19/01/2000 04:49	VLC media file (.w	3,147 KB			





University of St Andrews Scotland's first university 600 YEARS 1413 – 2013 Supported by wellcometrust



## **Using PRAAT**

Open PRAAT from the folder on your desktop. Two panels should come up.



Open sound file – Open – Read from file (TASCAM recorder folders should appear when you click)



Select your sound file, by double clicking it

Sound will appear in the left PRAAT pane

Praat Objects	X
Praat New Open Save	Help
Objects:	Sound help
1. Sound Tigers_Nov14_10am	View & Edit
	Play
	Draw -
	Query -
	Modify -
	Annotate -
	Analyse
	Periodicity ·
	Spectrum -
	Formants & LPC -
	Points -
	To Intensity
	Manipulate









I Prest Objects			Post Science and an address of the	
Praat New Open Save	Help	Contraction of the second	File Eale Manging World Select Per Ford	Mastrice
Objects	Tourd help		1 2 3	4 4 4
Ctercin In Sound Incoming, Service and	VeviLEd		•	
	Pag			
	Drave			
	Guey-	teat	- T.	
	Modily -			
1	Annotale -			
	Analyze			
	Periodicity		12	
	Spectrum			
	Formatic & LPC-			
	Point -			
	To knewsky		-3	
	Manipulate			
	To Manipulation.			
	To flatford (omple).			
	Synthesize		-4	
4	Convert -			
	Film -			
	Combine			
			-5	
		4.80 MB		
		15.4 MB Dat	54	
Rename Copy		THE REAL PROPERTY OF		
Inspect Info			4	
Tierave		Contraction of the local division of the		
and the second se		のないたいと言う	P	-
		The Party of the second	4	
		No. and	1 the second	- * et * 4 12/08

Click on view and edit to see the spectrogram



This screen should come up

Click on visible part to hear and the sound recording and watch the line go across the screen as it goes through the sound.





University of St Andrews Scotland's first university 600 YEARS 1413 - 2013 Supported by wellcometrust



If this screen does not appear and you get one that looks like this



Follow the instructions on the screen to increase your analysis length

1. Sound call\_for\_bread\_video 080522 0.0148 3.065693 (0.326 0.4618 -0.4828 Praat Info 0.4618 File Edit Search Convert Font 380.2927537024619 Hz (mean pitch in SELECTION Channel 2 -0.4828 5000 H 500 Hz 380.3 Hz 1 75 Hz 0 F all in out sel bak ( 🕨 🗹 Grou

Once you have your sound you can now determine the pitch of the sound recordings.

To get the pitch of your selected sound, highlight the selection. Select the 'Pitch' tab and first 'show pitch', then 'get pitch'. A pop up screen will appear with the mean pitch of your selected sound file.

A chimpanzee bread call has a high mean frequency of approximately 380 Hz, whereas a call for apples has a lower mean frequency of approximately 237 Hz.



