

How to run Praat script (remember this only works for monophthongs):

. put the file `vowelextact` (the Praat script) in the same folder as your sound and textGrid files. I suggest putting monophthong sound and TextGrid files in a separate folder... just to reduce chance of the program getting confused with irrelevant files.

. get the directory to this file (the directory is the path your computer uses to find a file)

. on mac:

- hold down `control` and select the file `vowelextact`
- select `get info`
- highlight and copy the path in the `where` field

. on windows (I think... this is based on what I found online after a *quick* search)

- hold `Shift` and right click on the file `vowelextact`
- at the bottom of the menu that comes up, select `Copy as path`

. make sure the vowel sound (.wav) files and corresponding textGrid files have the exact same name; they should only differ in extension (.wav vs .TextGrid)

. make sure you annotated using ARPABET codes... if you didn't, see them below

. in Praat, click on `Praat` on the top of your screen, then select `Open Praat script`

. navigate to the folder with the Praat script and your sound files and select the script `vowelextact`

. a window with the script should appear, and in this window, you should see a bar at the top that says `Run` -- select this and then select `Run`

. a window with a whole bunch of fields should appear

. paste your directory (what you copied before) into the first two fields `Soundfile directory` and `Textgrid directory`

- **Note: your directory should end with the folder name and either a backslash “\” (for mac) or forward slash “/” (for windows)... you will probably have to add it yourself**

- o E.g. for me since I have a mac, it would be something like
/Users/BrandonRhodes/... / ... / ... / LING20101/test/

for windows,

\\Users\\BrandonRhodes\\... \\ ... \\ ... \\ LING20101\\test\\

- **Check to make sure that when you copied the directory to `vowelextact` it didn't also copy `vowelextact`. If it did, simply remove it after you paste it, so that the last name before the final back/forward slash is the name of the folder the files are in**

- o E.g. if it is

/Users/BrandonRhodes/... / ... / ... / LING20101/test/vowelextact/

change it to

/Users/BrandonRhodes/... / ... / ... / LING20101/test/

and change the slashes accordingly if you have windows

- **FOR WINDOWS USERS: I doubt this will happen, but if you have done everything as I have said here and the script still doesn't run, maybe try**

changing your forward slashes to the backslashes... maybe the program only takes directories in this form.... Again, I doubt it will happen, but it also wouldn't surprise me if this did happen.

- . you can name your results file whatever you want (just make sure it ends with .txt extension)
- . the following should be default settings, but just check anyways
 - . `use targets file' should be `no'
 - . `phone tier' = phone, `word tier' = word
 - make sure your tiers are named this in your .TextGrid files; I also think the ordering of phone and word matters as well, but I'm not entirely sure, so if you have a problem check this
 - . `use notes tier' = no
 - . `analyze unstressed vowels' = no
- . `Measurement points' = Midpoint
- . **Finally**, let it rip.... Hit `okay' ... it should work. Look for the results file in the same directory as your files.

ARPABET codes for the monophthong vowels (once the program `sees' this, it will know to take formant measurements)

AA1 = ɑ
AH1 = ʌ
AO1 = ɔ
AXR1 = ɶ
EH1 = ɛ
IY1 = i
UH1 = u
UW1 = u
AE1 = æ
IH1 = ɪ

Making the measurements for diphthongs and VOT

- . for diphthong formant measurements, you will have to do it the old fashioned way, but note that because there are two parts to the vowel, there will be two measurements (one for first part of vowel and one for second part of vowel)
- . see below about VOT in general; here are some notes on measuring it
 - . the dashed box in the spectrograms below would be the length of the VOT for those stops

- in Praat, select the part of the spectrogram that corresponds to VOT. At the bottom, it will show the length of the selected part (units in seconds)
- you can zoom in to get greater numerical precision

. remember that VOT can be (approximately) zero, especially with voiced stops in English, so don't worry if you feel like you don't see it.... it may not be there.

Voice onset time (VOT): the time in between release of the stop and the onset of voicing.

- . note that this can be positive, negative or zero
 - . negative when vocal folds already vibrating before release of the stop
 - . approximately zero when there is basically no voicing of the consonant and voicing for vowel starts at the time of release
 - . positive when the stop is released and there is a period of time before vocal folds start to vibrate for vowel (think aspiration)
- . voice bar (see below) typically present for voiced, but is not present for voiceless

